

QUEST INTERNATIONAL RESOURCES CORP.

**STREAM SEDIMENT KIMBERLITE INDICATOR MINERAL
SURVEY IN THE BOIVIN CREEK DRAINAGE**

ICE PROPERTY

Elkford, B.C. Area
Canada

Fort Steele Mining Division

N.T.S. 82G/14E & 15W; 82J/2W & 3E

**UTM Coordinates
5549000N and 644000E**

Report by:

**DAVID L. PIGHIN, P.Geo.
High-Grade Geological Consulting
301 - 8th St. S.,
Cranbrook, B.C. V1C 1P2
Canada**

**GEOLOGICAL SURVEY BRANCH
WATER RESOURCES REPORT**

July, 1998

25,598

TABLE OF CONTENTS

		Page
1.00	SUMMARY	1
2.00	INTRODUCTION	1
	2.10 Objective	2
	2.20 Location and Access	2
	2.30 Physiography	2
	2.40 Claim Status	4
	2.50 Historical Exploration - Ice Property	6
3.00	REGIONAL GEOLOGY	7
4.00	PROPERTY GEOLOGY	8
	4.10 Stratigraphy	8
	4.11 Rundle Group	8
	4.12 Rocky Mountain Supergroup	8
	4.13 Tunnel Mountain Formation	9
	4.14 Kananaskis Formation	9
	4.15 Ishbel Formation	9
	4.16 Spray River Group	10
	4.17 Sulphur Mountain Formation	11
	4.18 Whitehorse Formation	11
	4.20 Structure	11
5.00	1997 KIMBERLITE INDICATOR MINERAL STREAM SEDIMENT SURVEY - BOIVIN CREEK	11
	5.10 Helicopter Supported Stream Sediment Sampling	12
	5.20 Sample Concentration Process	12
	5.30 Chemical Analysis of Kimberlite Indicator Minerals	12
6.00	CONCLUSIONS	13
7.00	RECOMMENDATIONS	13
8.00	REFERENCES	13
	STATEMENT OF EXPENDITURES	14
	AUTHOR'S STATEMENT OF QUALIFICATIONS	15

APPENDIX "A" - Chemical Assessment Work on Kimberlite Indicator Minerals from the Bonus Pipe and Bovin Creek Area	by M.E. McCallum	Attached
--	------------------	----------

LIST OF ILLUSTRATIONS

PLATE 1	PROPERTY LOCATION MAP	3
FIGURE 1	QUEST GARNETS	In Pocket
FIGURE 2	QUEST ECLOGITIC GARNETS	In Pocket
FIGURE 3	QUEST CLINOPYROXENES	In Pocket
FIGURE 4	QUEST CLINOPYROXENES	In Pocket
SCHEDULE A	CLAIM MAP Scale 1:50,000	In Pocket
SCHEDULE B	CLAIM MAP - Showing Location of Kimberlite Indicator Mineral Samples	In Pocket
SCHEDULE C	Kimberlite Indicator Mineral Stream Samples	In Pocket

ICE PROPERTY

STREAM SEDIMENT KIMBERLITE INDICATOR MINERAL SURVEY Boivin Creek Drainage

D.L. Pighin, P.Geo.

July/98

1.00 SUMMARY

This report describes the results of a stream sediment heavy mineral survey done on the Ice Property in the Fall of 1997. The survey was designed to find kimberlite indicator minerals in the Boivin Creek drainage.

The Ice claim group is owned 100% by Quest International Resources Corp. The property is located in S.E. British Columbia near the village of Elkford. The property is partly accessible by highway and four-wheel drive roads. The claims are located over rugged Rocky Mountain terrain.

Kimberlite was first discovered in the area in 1976 by Cominco Ltd. crews. In 1993, Consolidated Ramrod Gold (now Quest International) began an aggressive kimberlite exploration program in the area centered around the original kimberlite discovery (Cross Kimberlite Pipe). This work, to the present, discovered four new kimberlite diatremes named the Ram 5, Ram 6, Ram6.5 and Bonus kimberlite pipes. The Bonus pipe remains untested for diamonds.

The Ice claims are underlain by Paleozoic sediments, mainly limestones, calcareous shales and sandstones. Structure in the area is dominated by thrust faults and folds.

The Boivin Creek heavy mineral stream sampling was designed to follow-up on kimberlitic indicator mineral anomalous streams found in 1993. In the Fall of 1997, twelve samples, each one-half cubic yard in size, were taken from six north flowing tributaries of Boivin Creek. The samples were processed to a heavy mineral concentrate. Kimberlite minerals were hand picked from the concentrate, placed in vials and shipped to M.E. McCallum of H.D.M. Laboratories, Fort Collins, Colorado, for chemical analysis.

Despite the poor quality of the sample material collected, the samples did yield several peridotitic G9's and eclogitic garnets and a grain of chrome diopside suggesting the presence of undiscovered kimberlite in the Boivin Creek drainage. Further follow-up sampling for kimberlite minerals in the Boivin Creek drainage is recommended.

2.00 INTRODUCTION

This report describes the results of a stream sediment heavy mineral sampling program designed to find kimberlite indicator minerals.

2.10 Objective

The 1997 heavy mineral stream sediment sampling program was designed to follow-up anomalous streams found by the 1993 kimberlite indicator heavy mineral survey. The 1997 stream sediment sampling program was restricted to the Boivin Creek drainage.

2.20 Location and Access (see Plate 1)

The property is centered around UTM coordinates 5549000N and 644000E. The property is located in the Fort Steele Mining Division and the claims are plotted on the N.T.S. mapsheets 82G/14E & 15 W and 82J/2W & 3E.

Access to the claims is available to the eastern portion of the claims by logging roads from Elkford, B.C. The western and central portion of the claims are accessible along 4-wheel drive trails and roads or by helicopter.

The nearest major centre is the city of Fernie, B.C., located approximately one hour to the south. Fernie is located one hour (110 km) east of the city of Cranbrook, B.C. from which commercial air transportation is available through Canadian Airlines and Air Canada (as Air B.C.).

2.30 Physiography and Climate

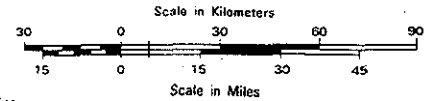
Topography in the area is rugged with local relief in the order of 2600 metres. Cliffs having in excess of 100 m vertical relief are locally common. Cirques and hanging valleys are evident throughout the region, supporting interpretation of glacial modification of the topography and geomorphology of the area. Outcrop is locally abundant at upper elevations with glacial deposits and talus cover present at lower elevations. The drainages on the property are V-shaped (river) valleys.

Forest cover is continuous at lower elevations, becoming thinner and smaller at upper elevations. It has been noted that timber distribution at higher elevations is controlled by rock type in that tree growth preferentially occurs on shaly and argillaceous horizons rather than carbonate formations (Meeks, 1979).

Coniferous trees, including spruce, pine, balsam and larch, are the dominant type of vegetative cover, evident at all elevations where as subordinate deciduous trees, predominantly poplar and cottonwood, are present only at lower elevations. Underbrush consists of willows and alders together with assorted berry-bearing bushes. Commercial logging activity is locally evident as are several burns from past forest fires.

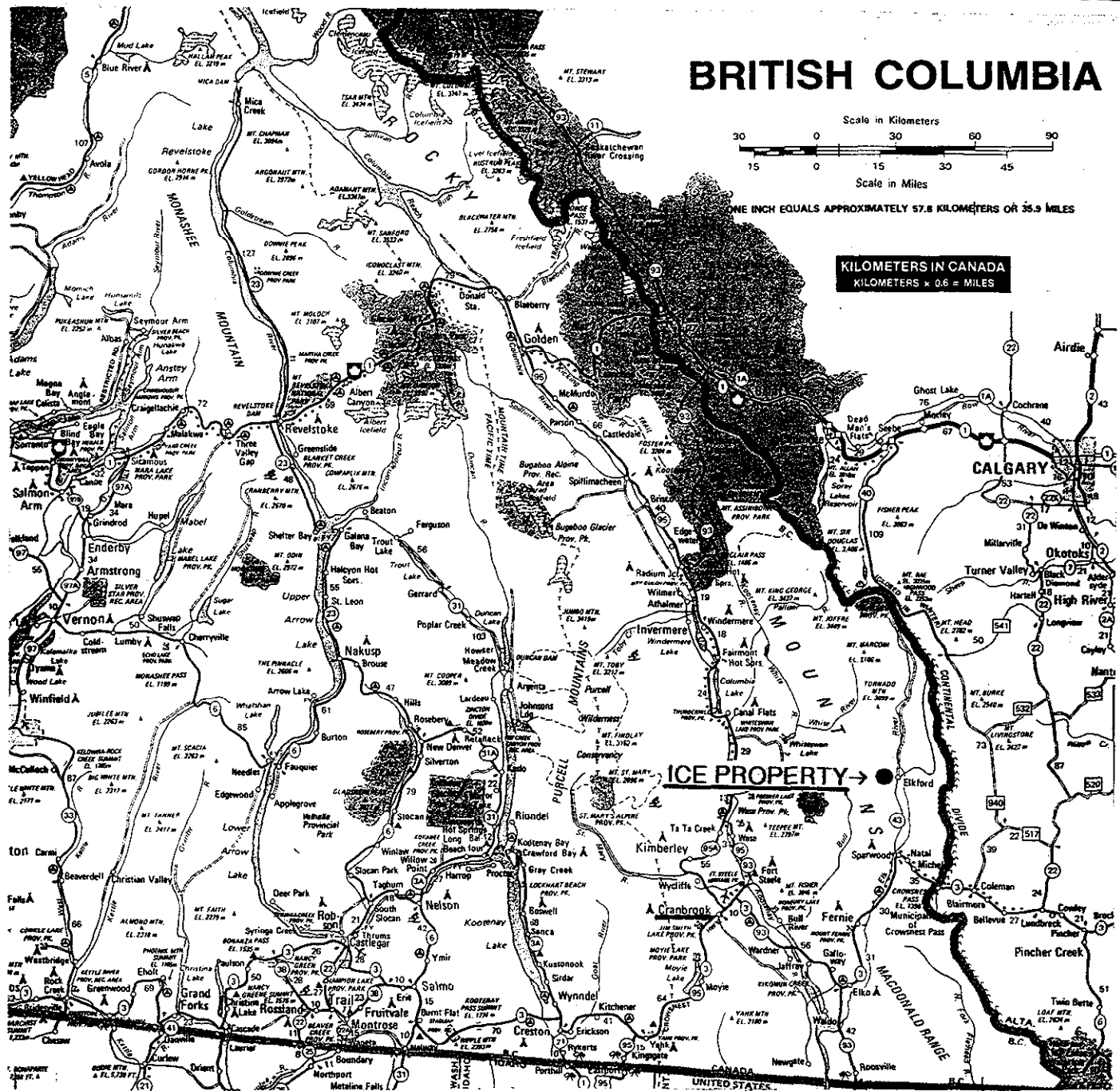
The claims are located in the Main Ranges and are therefore subject to heavy snowfall during the winter months, as supported by the location of two major ski resorts, one north (Sunshine Village) and one south (Fernie) of the property.

BRITISH COLUMBIA



ONE INCH EQUALS APPROXIMATELY 57.8 KILOMETERS OR 35.3 MILES

KILOMETERS IN CANADA
KILOMETERS x 0.6 = MILES



Quest International
RESOURCES CORPORATION

ICE PROPERTY

FORT STEELE M.D.
N.T.S. 82G/15W, 82J/2W&3E

PROPERTY LOCATION MAP

Scale: As Shown

Date: MAR/95

Plate: 1

Average annual precipitation is approximately 90 cm of which 30% is in the form of snow. Snow pack may be present at upper elevations from October to late June. Most of the precipitation during the field season occurs from June to mid-July whereas the property typically is very dry from mid-July through August, and often into September. As such, the property is available for exploration from late May to late October in most years.

2.40 Claim Status (see Schedule A in pocket)

The Ice Property consists of the Ice, Gem, Pipe, Gten and Kimberlite claims totally 581 units, covering an area of 150.75 sq. km. Significant claim data is summarised as follows:

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Anniv. Date</u>
ICE 1	1	311076	June 29/99
ICE 2	1	311077	June 29/99
ICE 3	1	311078	June 29/99
ICE 4	1	311079	June 29/99
ICE 5	1	311080	June 29/99
ICE 6	1	311081	June 29/99
ICE 7	1	311082	June 29/99
ICE 8	1	311083	June 29/99
ICE 9	1	311084	July 07/99
ICE 10	1	311085	July 07/99
ICE 11	1	311086	July 07/99
ICE 12	20	317451	May 5/2000
ICE 13	16	317452	May 3/99
ICE 14	20	317453	May 2/99
ICE 15	20	317454	May 4/2000
ICE 16	20	317455	May 1/2000
ICE 17	20	317456	May 3/2000
ICE 18	20	317457	May 4/99
ICE 19	20	317458	May 5/99
ICE 20	8	317459	May 1/2000
ICE 21	20	317460	April 30/99
ICE 22	20	317461	May 3/99
ICE 23	15	317462	April 30/99
ICE 24	18	317463	April 30/99
ICE 25	18	317464	April 30/2000
ICE 26	1	317443	April 28/2000
ICE 27	1	317444	April 28/2000
ICE 28	1	317445	April 28/2000
ICE 29	1	317446	April 28/2000
<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Anniv. Date</u>

ICE 30	1	317447	April 28/2000
ICE 31	1	317448	April 28/2000
ICE 32	1	317449	April 28/2000
ICE 33	1	317450	April 28/2000
ICE 34	10	317493	April 29/99
ICE 35	18	317494	April 28/99
ICE 36	18	317495	April 28/99
ICE 38	20	317521	May 13/99
ICE 39	20	317522	May 13/99
ICE 40	20	320092	Aug. 13/99
ICE 41	20	320093	Aug. 13/99
ICE 42	18	323237	Jan. 5/99
ICE 43	8	323238	Jan. 7/99
ICE 48	20	323239	Jan. 9/99
ICE 49	8	323240	Jan. 7/99
GEM 1	1	310504	June 18/2002
GEM 2	1	310505	June 18/2002
GEM 3	1	310506	June 18/2002
GEM 4	1	310507	June 18/2002
PIPE 1	1	310508	June 20/2002
PIPE 2	1	310509	June 20/2002
PIPE 3	1	310510	June 20/2002
PIPE 4	1	310511	June 18/2002
PIPE 5	1	310512	June 18/2002
PIPE 6	1	310513	June 18/2002
PIPE 7	1	310514	June 18/2002
PIPE 8	1	310515	June 18/2002
PIPE 9	1	310516	June 18/2002
PIPE 10	1	310517	June 18/2002
PIPE 11	1	310518	June 18/2002
PIPE 12	1	310519	June 18/2002
PIPE 13	1	310520	June 18/2002
PIPE 14	1	310521	June 18/2002
PIPE 15	1	310522	June 18/2002
GTEN 1	1	310523	June 20/2002
GTEN 2	1	310524	June 20/2002
GTEN 3	1	310525	June 20/2002
GTEN 4	1	310526	June 20/2002
GTEN 5	1	310527	June 19/2002
GTEN 6	1	310528	June 19/2002
GTEN 7	1	310529	June 19/2002
GTEN 8	1	310530	June 19/2002
<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Anniv. Date</u>

GTEN 9	1	310531	June 19/2002
GTEN 10	1	310532	June 19/2002
GTEN 11	1	310533	June 19/2002
GTEN 12	1	310534	June 19/2002
GTEN 13	1	310535	June 19/2002
GTEN 14	1	310536	June 19/2002
GTEN 15	1	310537	June 19/2002
GTEN 16	1	310538	June 19/2002
GTEN 17	1	310539	June 19/2002
GTEN 18	1	310540	June 19/2002
GTEN 19	1	310541	June 19/2002
GTEN 20	1	310542	June 19/2002
Kimberlite 1	20	324163	March 12/2000
Kimberlite 2	20	324164	March 12/2000
Kimberlite 3	15	324165	March 12/2000
Kimberlite 4	15	324166	March 12/2000
Kimberlite 5	16	317911	May 18/2000
Kimberlite 7	1	322614	Oct. 31/98
Kimberlite 8	1	322615	Oct. 31/98

2.50 Historical Exploration - Ice Property

"Hovdebo (1957) described the Crossing Creek diatreme found during work with a California Standard field party under the supervision of G.G.L. Henderson ... " (Grieve, 1981). Subsequently, the Crossing Creek kimberlite pipe "... was staked by a prospector in the 1960's but it was not until late 1976 that Cominco recognized the kimberlitic nature of the pipe and Cominco commenced exploration of a number of kimberlitic occurrences at that time. A three hundred (300) lbs. sample was taken from the Cross kimberlite by Cominco and tested for micro-diamonds. The results were not reported.

Beginning in 1993, Quest International Resources Corp. (formerly Consolidated Ramrod Gold Corp.) conducted a program of airborne geophysics and stream sediment kimberlite indicator heavy mineral surveys to assess the area for further kimberlite occurrences. This work discovered 4 new kimberlite diatremes named the Bonus, Ram 5, Ram 6 and Ram 6.5 pipes.

Small bulk sample tests were taken from the Ram 5, Ram 6 and ram 6.5 kimberlite pipes. No work was done on the Bonus pipe until the Fall of 1997.

3.00 REGIONAL GEOLOGY

The Ice Property lies on the northwest margin of the Crowsnest Coal Basin, comprised of Jurassic age coal-bearing strata. The strata of the region are comprised of sedimentary lithologies, however, relatively small but significant igneous occurrences are locally present. These include the Crowsnest Volcanics, small alkaline granitoid intrusions (i.e. Wild Horse River area and the Howell Creek occurrences) and peralkaline to ultrapotassic diatremes (i.e. Cross Creek Kimberlite).

Feldspathoids (including nepheline, melilite, leucite and sodalite) and spinels (chromite). Kimberlite indicator minerals have been found throughout the RMAB in many occurrences. One widely recognized kimberlite (Crossing Creek) has been identified and documented while another (Joff-Shatch Mountain) has been identified as both a kimberlite and as an alkaline lamprophyre (olivine melilitite). Possible emplacement ages interpreted for diatreme occurrences in the RMAB, based on intrusive relationships, are as follows: Ordovician-Silurian, Devonian-Mississippian and Permian-Triassic. Partial geochronological evidence determined to date support these proposed periods of alkaline, ultrapotassic intrusive activity.

Diatremes in the southern Rocky Mountains were intruded predominantly in the early Paleozoic yet contain zircon xenocrysts of Archean to early Paleozoic age. Crustal-type xenoliths are documented from several of the occurrences as well as mantle-derived xenoliths such as pyroxenite, peridotites and eclogites. In addition to abundant indicator minerals, micro-diamonds have been recovered from the Jack and Mark lamprophric diatremes located near the Columbia Ice Fields. Eight macro-diamonds have recently been recovered from Quest's ELKFORD Kimberlite diatremes (Ice Property).

The basement of the Alberta Basin has been correlated to exposures of the Canadian Shield using U-Pb age determinations of basement material from drill core and aeromagnetic signatures. Canadian Shield exposures have been correlated from Saskatchewan and northwestern Alberta to aeromagnetic, southwest trending anomalies in the sub-surface of Alberta. Furthermore, these anomalies can be correlated with confidence to the basement underlying the Eastern Cordillera. Therefore, the Ice Property is very likely underlain by Archean basement rocks.

Diamonds have been recovered from at least four alkalic diatremes located in a Paleozoic mobile belts, tectonically emplaced onto Archean and Proterozoic basement. The Rocky Mountains are underlain in this area by Archean Basement for which an age of 2.6 to 3.2 billion years has been determined, consistent with the ages of peridotitic diamonds documented world-wide (3.3 billion years). Diatremes of the southern Cordillera appear to have intruded this composite Archean Cratonic Block, correlated to the Hearn Province. It is therefore reasonable to expect the presence of diamonds with mantle-derived peridotitic/eclogitic nodules and zircons of Archean age.

Furthermore, ultramafic nodules (pyroxenitic and eclogitic) and abundant kimberlitic indicator minerals have been reported from several of the occurrences. At present, it is not clear where these intrusives originated relative to the diamond stability field. However, it is particularly significant that the diamond-bearing lamprophyres north of the Golden, B.C. restore palinspastically outboard of the Crossing Creek and Elkford kimberlite occurrences, from which diamonds have also been recovered.

4.00 PROPERTY GEOLOGY

4.10 Stratigraphy

Mississippian

4.11 Rundle Group

The Rundle Group has been sub-divided into the basal Livingstone, Mt. Head, and uppermost Etherington formations, comprising over 760 m (2,500 ft.) of predominantly carbonate lithologies. Leech (1958) described the Rundle Group as follows (note: prior to recognition and subsequent sub-division of the Rundle Group into the Livingston, Mt. Head and Etherington formations):

"The Rundle formation is characterized by crystalline grey limestone and weathers white or grey and which is commonly crinoidal and coralline, and mostly fetid. the beds generally lack internal layering. Light-coloured "chert" is conspicuous in parts of the sequence. Thin-bedded dark "cherty" limestone of Banff type occurs here and there, particularly in the lower part of the formation ...". The top of the formation occurs where there are at least two beds of sandstone a foot thick in crystalline limestone overlain by quartzite of the Rocky Mountain Group.

Carboniferous and Permian

4.12 Rocky Mountain Supergroup

The Rocky Mountain Supergroup underlies shales and siltstones of lowermost Triassic age and has been sub-divided into three formations: the Ishbel Formation of Permian age, the Kananaskis Formation of Middle Pennsylvanian age and the Tunnel Mountain Formation, separated by significant stratigraphic breaks or paraconformities. The Rocky Mountain Group is between 240 and 300 m in thickness and is separated from the underlying Mississippian Formation by an unconformity. A description of the Rocky Mountain Supergroup is summarized below.

Carboniferous

4.13 Tunnel Mountain Formation

"The Tunnel Mountain formation consists of cliff-forming, brown-weathering dolomitic siltstones and sandstones which usually contain much less bedded and nodular chert than the Kananaskis formation. Parts of the formation approach a true orthoquartzite with little or no dolomite. Silica vugs possibly replacing algal material are common at various levels and may be used for local correlation; white beds of novaculitic silicestone are also fairly common. The uppermost 400 ft. of the formation is commonly a coarse cross-bedded sandstone, while there is a tendency for the carbonate content to increase downwards. Low in the formation a jagged ridge is typically formed by a series of alternating highly resistant and less resistant beds of grey, green, and pink weathering quartzitic dolomites, siltstones, sandy limestones and thin shales ...

West of the Elk Valley, the Tunnel Mountain formation forms 1,500 ft. or so of the high cliffs there capped by the Ishbel formation ..." (McGugan and Rapson, 1962).

Middle Pennsylvanian

4.14 Kananaskis Formation

The Kananaskis Formation consists of light gray silty dolomites with chert breccias together with nodular and bedded cherts. This formation is absent in western localities, including Crossing Creek, and the Lower Ishbel formation rests directly on Tunnel Mountain clastics (McGugan and Rapson, 1962).

Permian

4.15 Ishbel Formation

The Ishbel Formation consists of a possible regolithic chert member (Upper Ishbel) overlying dark cherty phosphatic, thin bedded siltstones with rhythmically interbedded shaly siltstones (Lower Ishbel). A phosphatic conglomerate separates the overlying cherty member from underlying siltstones. In the Crossing Creek area, the Upper and Lower Ishbel are separated by an erosional surface representing a minimum of 718.5 ft. of Middle Ishbel carbonate strata.

The Lower Ishbel Formation is a recessive weathering unit consisting of up to 45 m (150 ft.) of thin bedded siltstones. The contact between the Upper and Lower Ishbel may be marked by several cm of irregularly developed phosphatic

conglomerate, interpreted to represent a period of non-deposition (a hiatus) and erosion.

"The Lower Ishbel formation consists of dark grey to black, argillaceous, poorly sorted, thin bedded, quartzitic siltstones which alternate rhythmically with black, platy, silty shales and occasional dolomite ... Intraformational siltstone conglomerates recur through the rhythmic sequence usually at bedding surfaces. The elements of these conglomerates consist of siltstone pellets and curled splinters similar to desiccation debris. Intraformational residual breccia-conglomerates containing derived older rocks also occur ... Thin beds of silica vugs of probable algal affinity recur regularly, and a number of thin beds rich in phosphate are found in several sections" (McGugan and Rapson, 1962).

The Upper Ishbel Formation is composed predominantly of chert and underlies a paraconformity. The upper surface may be gently undulating and may exhibit scattered low cherty mounds with intervening hollows infilled by Triassic shales.

"The Upper Ishbel formation consists mainly of massive black, blue-grey or white chert with subordinate patches and lenses of sandstone and silicified carbonate ... Chert breccias and quartz veins are common" (McGugan and Rapson, 1962). In the Cross Creek area, the Upper Ishbel Formation is 3 to 37 m (10 to 120 ft.) thick.

"The section of the Ishbel formation at Crossing Creek ... is of particular importance. The bedding in the Lower Ishbel is strongly lensed and exhibits conspicuous depositional dips. The upper surface has been bevelled by erosion before deposition of the overlying Upper Ishbel chert, resulting in a striking unconformity between the Upper and Lower Ishbel formations. A patchy conglomerate of clack siltstone is developed in the basal few inches of the Upper Ishbel ... " (McGugan and Rapson, 1962).

Triassic

4.16 Spray River Group

Undivided porions of the Spray River Group are described as consisting of dark grey, silty shale, dolomitic or sideritic, argillaceous limestone. Where recognized, the Spray River Group is sub-divided into the Whitehorse Formation and underlying Sulphur Mountain Formation. The Spray River Group is between 360 and 450 m in thickness. The Spray River Group is separated from the underlying Upper Carboniferous and Permian Rocky Mountain Group by an unconformity.

4.17 Sulphur Mountain Formation

The Sulphur Mountain Formation consists of calcareous and dolomitic siltstone and sandstone; silty limestone and dolomite, with lesser marine shale.

4.18 Whitehorse Formation

The Whitehorse Formation has been briefly described as consisting of calcareous and dolomitic sandstone and siltstone with minor sandy, quartzose dolomite and limestone intervals. Marine solution collapse breccia were also noted.

4.20 Structure

Reconnaissance mapping suggests that the area is structurally complex, containing both folds and faults. The folds which occur throughout the area are generally asymmetrical and variable in magnitude. Many faults are also present with the dominant type being dip slip thrust faults. Structures in the area are generally north trending and are interpreted to have resulted from local east-west compression, rather than southwest-northeast directed compression interpreted for the Rocky Mountains regionally.

The property is contained in the hangingwall of the east verging Bourgeau Thrust. At least three small splay thrusts and numerous overturned anticlines and synclines were mapped in the hangingwall. Several of the small splay thrusts undergo transition into east verging, overturned anticlines or synclines. both folds and splay thrusts appear to have an en echelon relationship to one another as variations in the amount of deformation are accommodated by folding or, in mor extreme cases, faults. There is a change in the structural expression of the folds in the hangingwall of the uppermost splay thrust, from overturned folds to the east in the immediate hangingwall of the Bourgeau Thrust to an upright fold style farther west.

Preliminary mapping in the area immediately adjacent to the diamondiferous Ram 5 and Ram 6.5 kimberlite pipes found no evidence of any major folds or thrust faults. The nearest major thrust fault (Bourgeau) comes to surface 1.5 km east of the kimberlite pipes. The Bourgeau thrust fault dips west and should cut the kimberlite pipes below surface at a depth of between 3,000 ft. and 4,300 ft.

5.00 1997 KIMBERLITE INDICATOR MINERAL STREAM SEDIMENT SURVEY - BOIVIN CREEK

The Boivin Creek stream sediment heavy mineral survey can be subdivided into three phases:

- 1) Helicopter supported stream sampling;

- 2) Sample processing to produce a kimberlite indicator mineral concentrate;
- 3) Chemical analyses of diamond indicator minerals.

5.10 Helicopter Supported Stream Sediment Sampling (See Schedule C)

On the Ice property all stream sediment samples were one-half cubic yard in size. The sample size was established by completing an orientation study on the Crossing Creek drainage. Crossing Creek was selected for the test study because the drainage hosts a known kimberlite pipe. The one-half yard sample consistently found one or more pyrope garnet(s) from a site 8 km down stream from the known kimberlite pipe.

The Boivin Creek stream sediment sampling program was completed in the late fall of 1997. The samplers were unable to find the small dry creek beds due to 6 to 12" of new snow, therefore, most of the samples consisted of glacial till and talus.

The Boivin Creek sampling consisted of six men and one helicopter. The crew produced twelve, one-half cubic yard, samples, #'s I97-1 to I97-12, from six north flowing tributaries of Boivin Creek. The samples were flown by helicopter to the nearest suitable road and hauled by truck to Cranbrook, B.C. for processing.

5.20 Sample Concentration Process - Vine Property, Cranbrook, B.C.

Twelve, one-half cubic yard, samples were processed through a 12 foot sluice box. The heavy material captured by the sluice box riffles was concentrated further by hand panning. The end product was 5 to 10 grams of heavy mineral concentrate from each one-half cubic yard sample. The heavy mineral concentrates consisted mainly of pyrite, limonite, barite and rare garnets. The panned concentrate was examined by binocular microscope and all possible kimberlite indicator minerals were picked by hand, placed in numbered vials and sent to the laboratory for chemical analysis.

5.30 Chemical Analysis of Kimberlite Indicator Minerals (See attached Figures 1 to 4)

The Boivin Creek kimberlite indicator samples were sent to M.E. McCallum of H.D.M. Laboratories, Fort Collins, Colorado, U.S.A. Results are as follows:

"Nineteen garnet grains from Boivin Creek samples were analyzed; 3 from sample I97-2, 13 from sample I97-4, 1 from sample I97-7 and 2 from sample I97-8. Six of these garnet grains plot in the garnet Iherzolite field (G9), whereas the remainder appear to be eclogitic (Fig. 1). None of the eclogitic garnets contain in excess of 0.07% Na₂O, a composition that is characteristic of eclogitic garnets found as inclusions in diamonds (Fig. 2). The single chrome diopside grain found in I97-4 concentrate has chemistry in part characterisitic of eclogitic

clinopyroxene found as inclusions in diamond (Figs. 3 and 4). However, there is a substantial overlap with pyroxenes of non-diamondiferous sources, thus grains that plot in the fields on Figures 3 and 4 designated as eclogitic diamond inclusion field are not necessarily definitive.

6.00 CONCLUSIONS

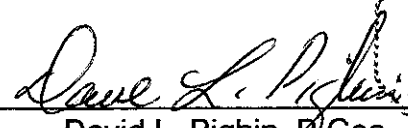
Despite the apparent poor quality of the samples collected in the Boivin Creek area, the presence of several peridotitic G9's and eclogitic garnets and a grain of chrome diopside suggests the presence of kimberlite in that drainage.

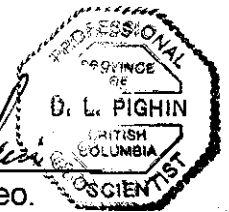
7.00 RECOMMENDATIONS

Further follow-up sampling for kimberlite indicator minerals is recommended for the Boivin Creek drainage. A special effort should be made to collect samples from sites where more heavy minerals are likely to be concentrated.

8.00 REFERENCES

- Price, R.A. (1981) The Cordilleran foreland thrust and fold belt in the southern Rocky Mountains, In: McClay, K.R. and Price, J.J. eds., Thrust and Nappe Tectonics, Geological Society of London Special Publication 9, pp. 427-448.
- Price, R.A. and Mountjoy, E.W. (1970) Geological structure of the Canadian Rocky Mountains between Bow and Athabaska Rivers - a progress report. Geological Assoc. Of Canada, Special Paper 6, pp. 7-26.
- Pighin, D.L. (1997) Technical Report for the Ice Property, unpublished.
- McCallum, M.E. (1998) Technical Report on Chemical Assessment of Kimberlite Indicator Minerals from the Bonus Pipe, unpublished.


David L. Pighin, P. Geo.
High-Grade Geological Consulting



The seal is an octagonal stamp. The outer border contains the text 'PROFESSIONAL' at the top, 'BRITISH COLUMBIA' at the bottom, and 'GEOLOGICAL' on the right. Inside the border, the text 'PROVINCE OF' is at the top, 'D. L. PIGHIN' is in the center, and 'SCIENTIST' is at the bottom.

QUEST INTERNATIONAL RESOURCES CORP.

STATEMENT OF EXPENDITURES

ICE PROPERTY
Boivin Creek Drainage

Kimberlite Indicator Heavy Mineral Sampling Program

CONTRACTOR WAGES

Bestech Services, Cranbrook, B.C.	
Supervisor - 5.5 days @ \$250/day	\$ 1,375.00
Sampling Crew - 24 man days @ \$200/mday (all inclus.)	4,800.00
EK Expediting Contractor, Cranbrook, B.C.	
Clean & Sluice samples, transport ATV's to Elkford	
6.5 days (includes transportation costs)	2,725.00
High-Grade Geological Consulting, Cranbrook, B.C.	
Compile data, interpretation, report writing	
3 days @ \$300/day	900.00

SALARIES

J. Heibein - Pan and pick samples	695.75
-----------------------------------	--------

ASSAY CHARGES

M.E. McCallum, HDM Laboratories, Fort Collins, Colorado	590.00
---	--------


TRANSPORTATION - Helicopter

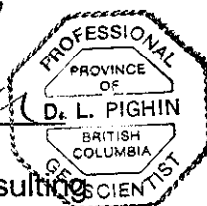
Big Horn Helicopter, Cranbrook, B.C.	8,413.35
8.5 hrs. @ \$695/hr + 1.9 hrs. @ \$895/hr + \$802.25 fuel	

<u>EQUIPMENT RENTAL</u>	300.00
-------------------------	--------

<u>SUPPLIES AND FIELD EQUIPMENT</u>	<u>2,333.00</u>
-------------------------------------	-----------------

PROGRAM COST = \$22,132.10


David L. Pighin
High-Grade Geological Consulting
July, 1998

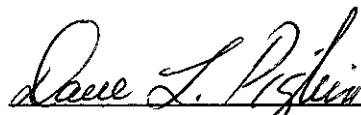


AUTHOR'S QUALIFICATIONS

As author of this report I, David L. Pighin, certify that:

4. I am a self employed consulting geologist whose office is at Hidden Valley Road, Cranbrook, B.C., mailing address is P.O. Box 728, Cranbrook, B.C. V1C 4J5
5. I am a Member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
6. I have been actively involved in mining and exploration geology, primarily in the Province of British Columbia, for the past 32 years.
7. I was employed by Cominco Ltd. as a prospector, exploration technician and geologist for 24 years and later by numerous junior exploration companies.

Dated at Cranbrook, British Columbia, this 29th day of July, 1998.


David L. Pighin, P. Geo.



SCHEDULE "A"

**Chemical Assessment Work on Kimberlite Indicator Minerals
From the Bonus Pipe and Bovin Creek Area,
Ice Prospect
S.E.B.C.**

CHEMICAL ASSESSMENT WORK ON KIMBERLITE INDICATOR MINERALS FROM THE BONUS PIPE AND BOVIN CREEK AREA, ICE PROSPECT, SOUTHEASTERN BRITISH COLUMBIA

Introduction

Representative kimberlite indicator minerals recovered from heavy mineral concentrates obtained from the Bonus pipe and from colluvial samples from the Bovin Creek area were analyzed chemically by electron microprobe. Bonus pipe concentrate is characterized by abundant chromite and both peridotitic and eclogitic garnets; chrome pyroxene grains were limited in available sample material and no picroilmenite was recognized. Indicator minerals were quite sparse in the Bovin Creek samples, a situation that probably reflects poor quality of the samples. Indicators were recovered only from samples I 97-2, I 97-4, I 97-7 and I 97-8, and these were predominantly garnet. Other than garnet, only a single grain of chrome diopside was recovered (from sample I 97-4).

Bovin Creek Samples

Nineteen garnet grains from Bovin Creek samples were analyzed; 3 from sample I 97-2, 13 from sample I 97-4, 1 from sample I 97-7 and 2 from sample I 97-8. Six of these garnet grains plot in the garnet lherzolite field (G9), whereas the remainder appear to be eclogitic (Fig. 1). None of the eclogitic garnets contain in excess of 0.07% Na₂O, a composition that is characteristic of eclogitic garnets found as inclusions in diamonds (Fig. 2). The single chrome diopside grain found in I 97-4 concentrate has chemistry in part characteristic of eclogitic clinopyroxene found as inclusions in diamond (Figs. 3 and 4). However, there is a substantial overlap with pyroxenes of non-diamondiferous sources, thus grains that plot in the fields on Figures 3 and 4 designated as eclogitic diamond inclusion field are not necessarily definitive.

Bonus Pipe Concentrate

A population of 157 garnets was selected for analysis from the thousands available in concentrate from the Bonus Pipe. Eight of these proved to be from metamorphic host rocks; 7 of almandine composition and 1 grossularitic. The main population is comprised of 106 peridotitic and 43 eclogitic garnets (Fig. 5). The majority of the peridotitic garnets are G9's (characteristic of garnet lherzolite), but 4 (3.77%) are G10's reflecting a probable diamondiferous harzburgite source. Eight of the eclogitic garnets (18.6%) contain greater than 0.07% Na₂O and plot in the probable diamond inclusion field (Fig.

6). Three other grains contain ~ 0.07% Na₂O and also may reflect a diamond stability field source (possibly 25+% of total analyzed eclogite grains in diamond inclusion field). Although the compositions of some of these grains overlap with those of megacrystal garnets, MgO and FeO contents can be utilized for distinction.

A representative suite of 180 chromite grains was analyzed. These exhibit characteristic kimberlitic trends (Fig. 7), and 10 (5.55%) plot in the diamond inclusion field (Fig. 8).

Only eight chrome diopside grains were recovered from the Bonus Pipe heavy mineral concentrate. Most of these plot within or close to the eclogitic diamond inclusion field (Figs. 3 and 4) but as previously indicated, this may not be a significant determinant in establishing a diamond source affinity.

Conclusions

Despite the apparent poor quality of samples collected in the Bovin Creek area, the presence of several peridotitic G9's and eclogitic garnets and a grain of chrome diopside suggests the presence of kimberlite in that drainage. Follow-up sampling should be conducted and every effort should be made to collect samples from sites where more heavy minerals are likely to be concentrated.

Chemistry of selected kimberlite indicator minerals recovered from heavy mineral concentrate from the Bonus pipe strongly suggest that diamonds are present in that system. G10 garnets comprise 3.77% of the peridotitic pyrope population whereas about 25% of the analyzed eclogitic garnets plot in the diamond inclusion field. Furthermore, more than 5% of the analyzed chromites are of diamond inclusion field composition. These combined results are sufficiently positive to warrant a mini-bulk sample (several tens of tonnes) being collected and processed for diamond content.

Quest Chromites

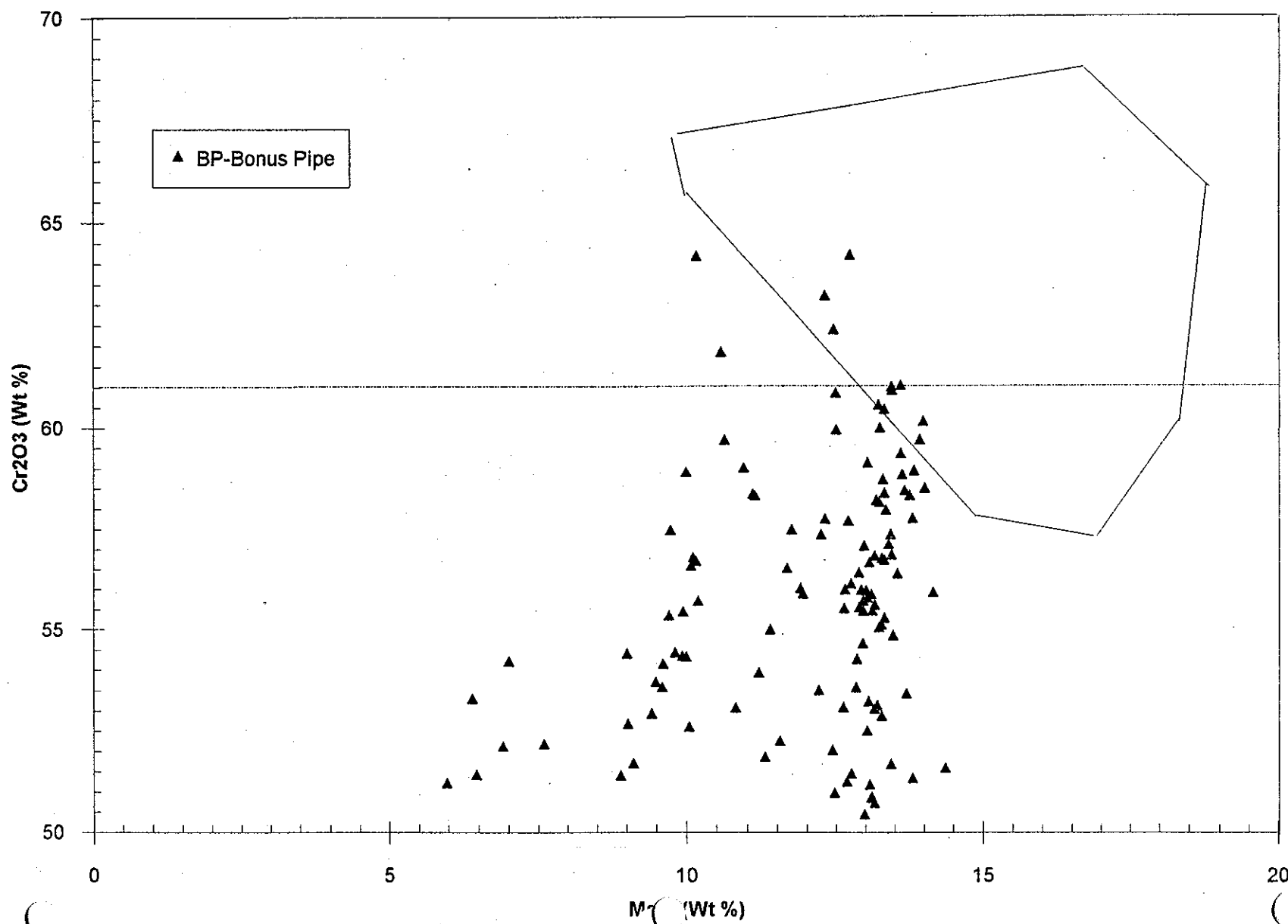


Figure 8. Cr₂O₃:MgO plot (wt %) of chromites (enclosed area is peridotitic diamond inclusion field).

Quest Chromites

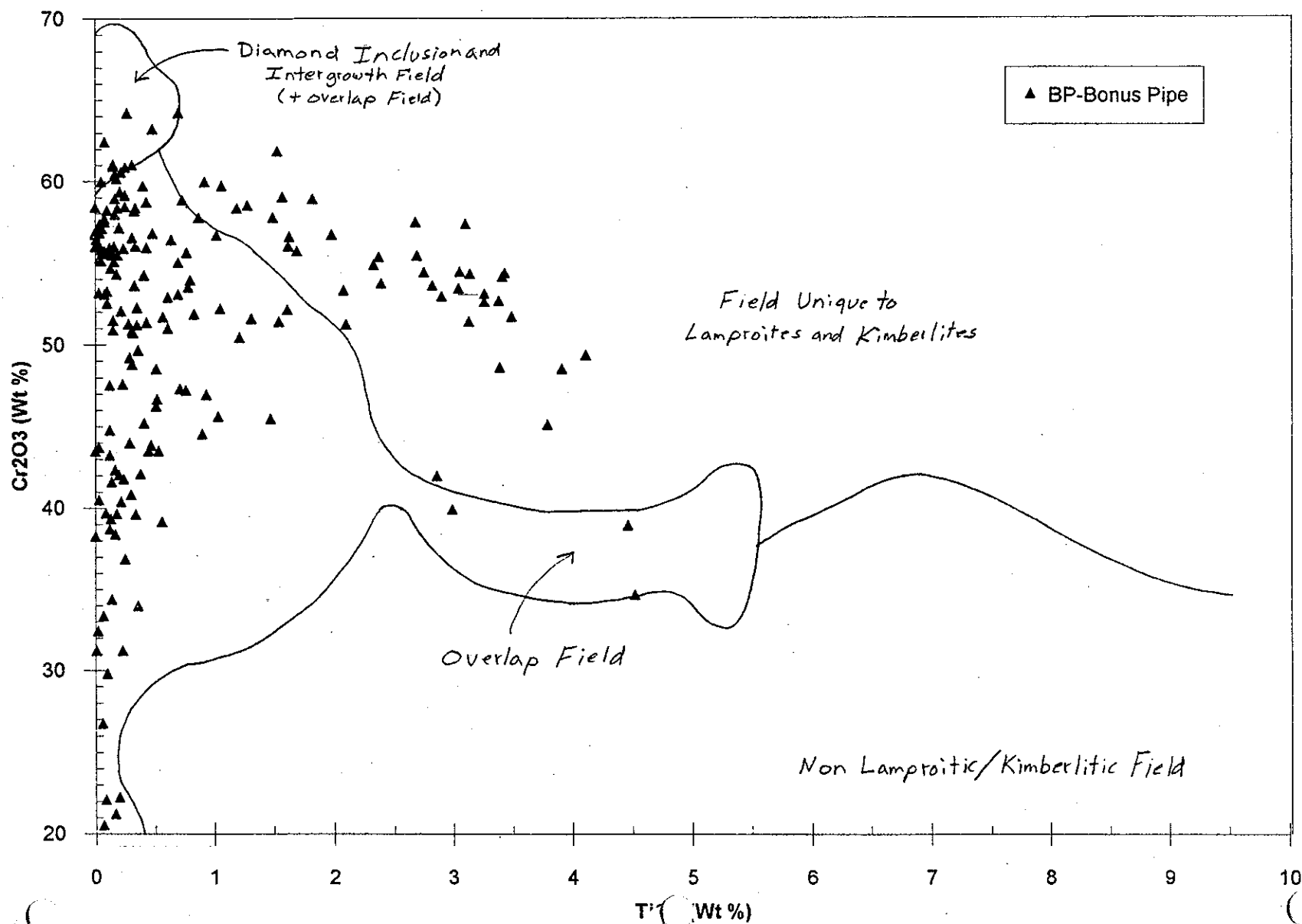


Figure 7. $\text{Cr}_2\text{O}_3:\text{TiO}_2$ (wt%) plot of chromites.

Quest Eclogitic Garnets

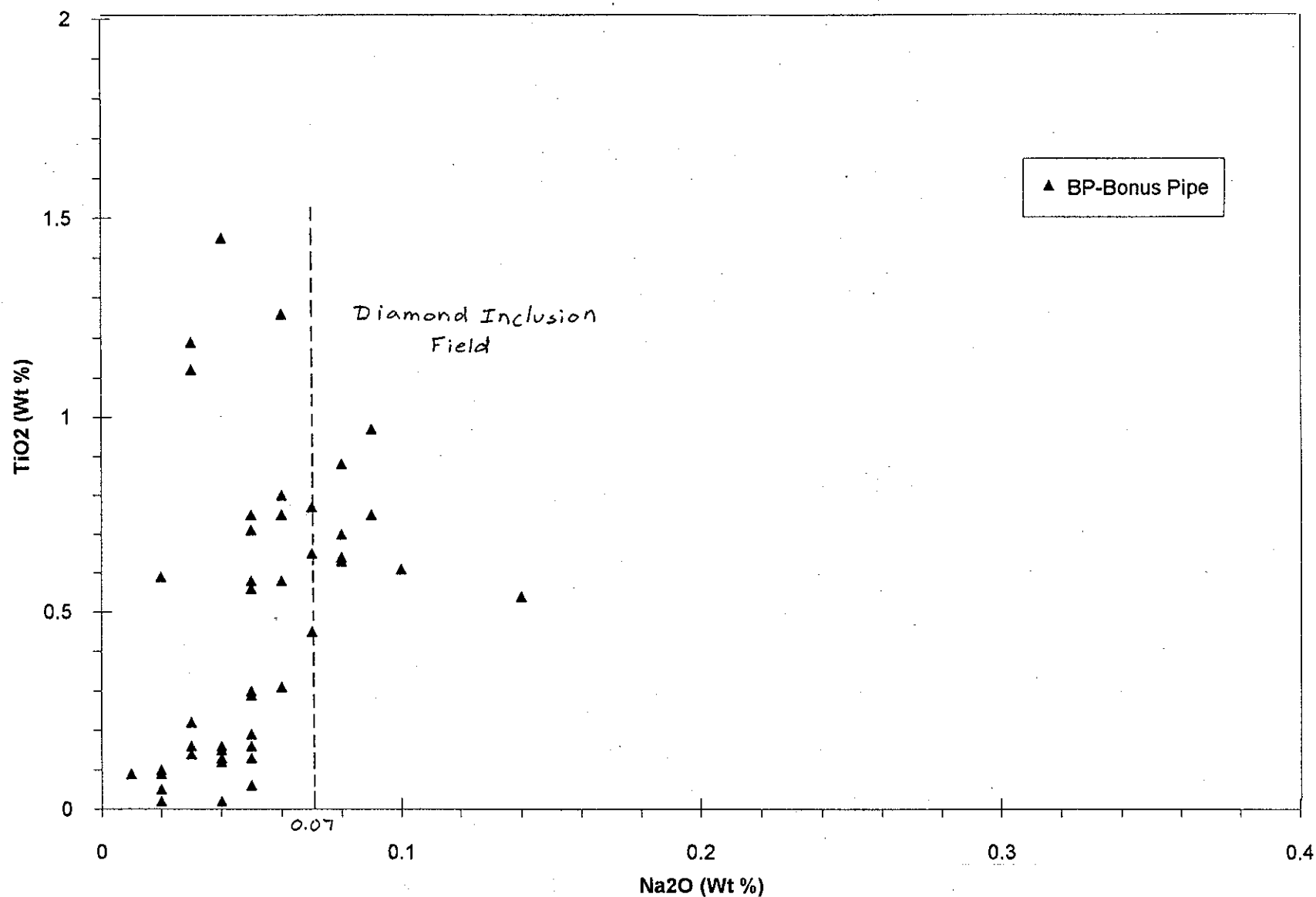


Figure 6. TiO₂:Na₂O (wt %) plot of garnets recovered from Quest Bonus Pipe samples.

QUEST GARNETS

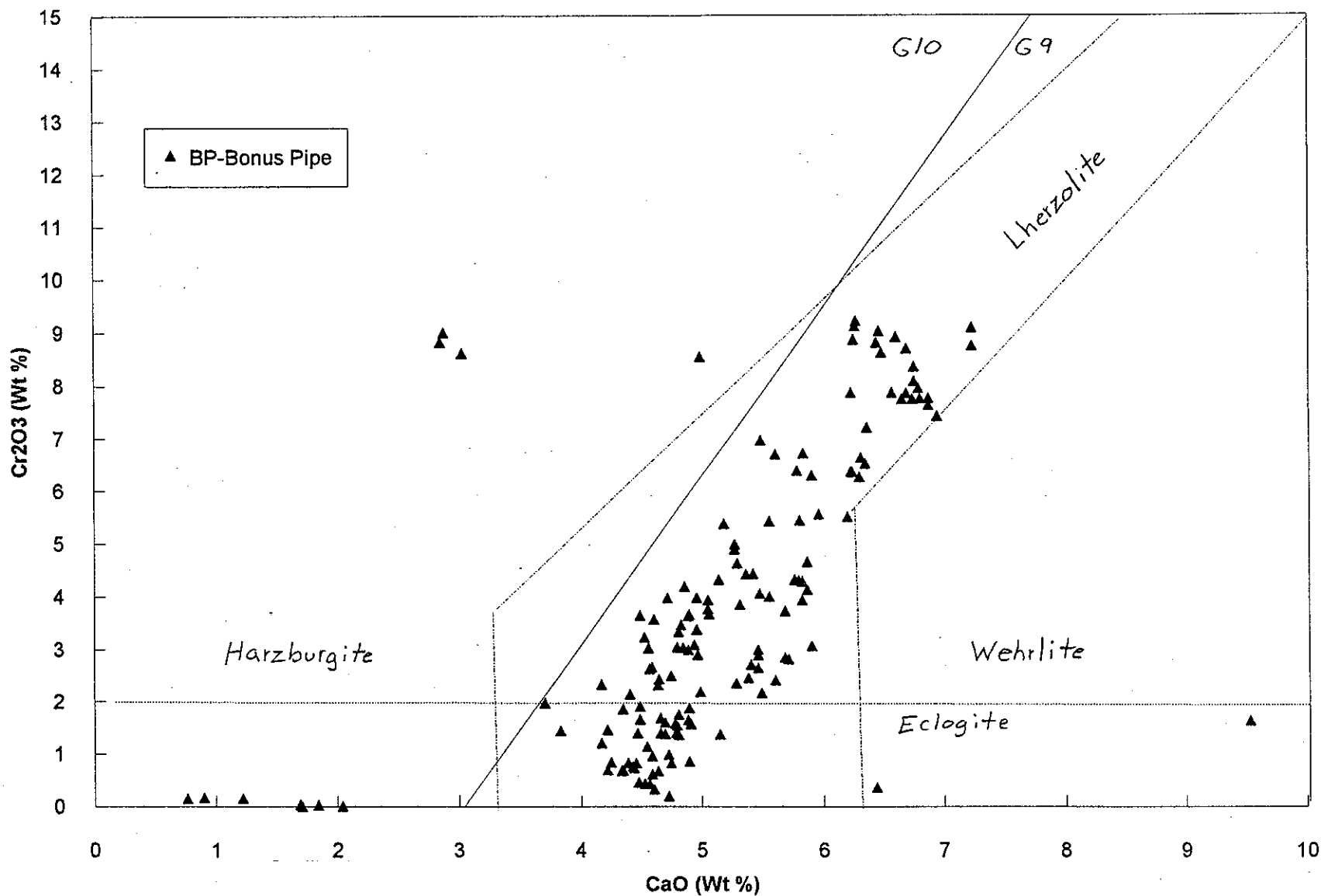
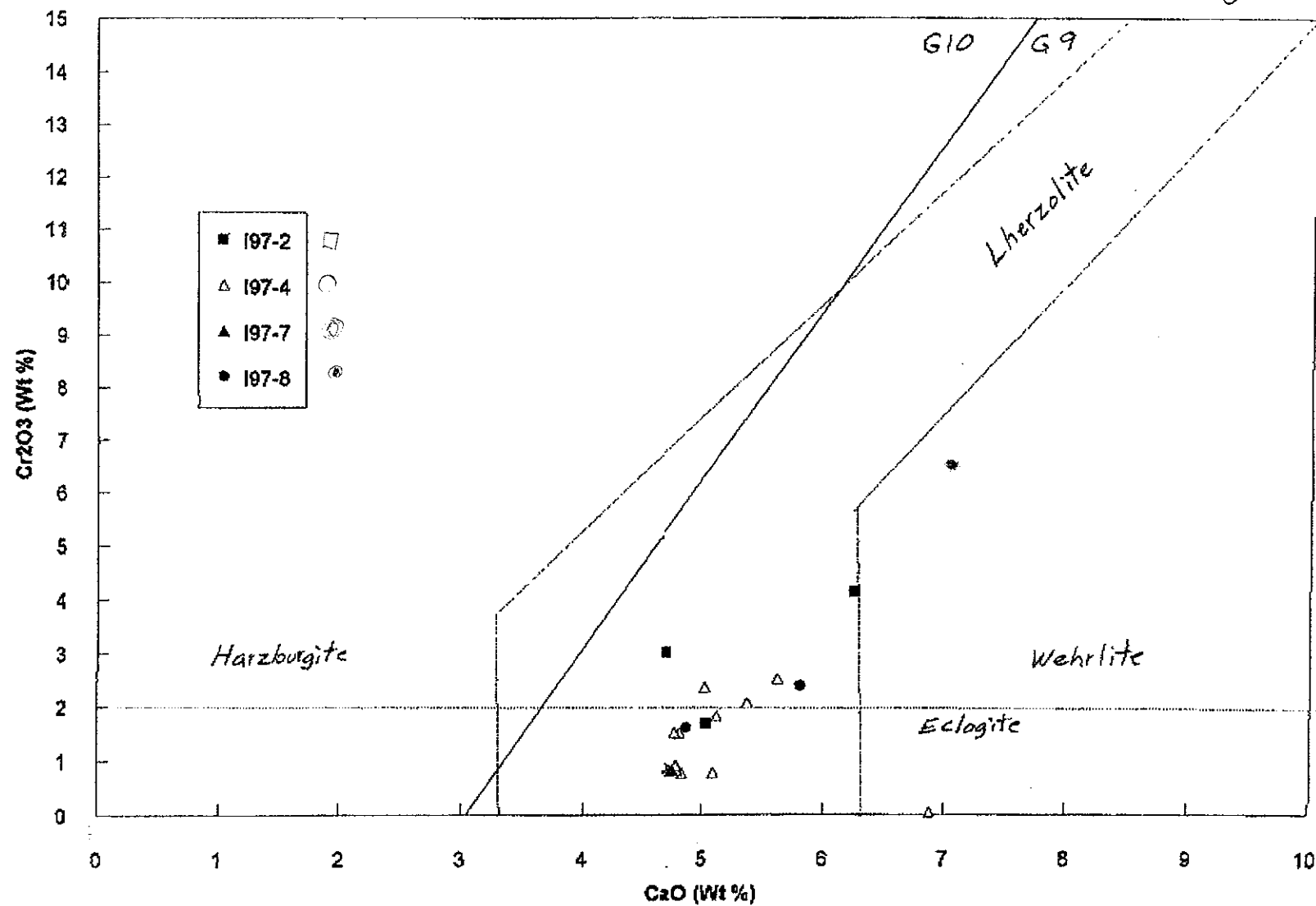


Figure 5. Cr_2O_3 :CaO (wt %) plot of garnets recovered from Quest Bonus Pipe samples.

March 7, 1998

QUEST GARNETS

Figure 1



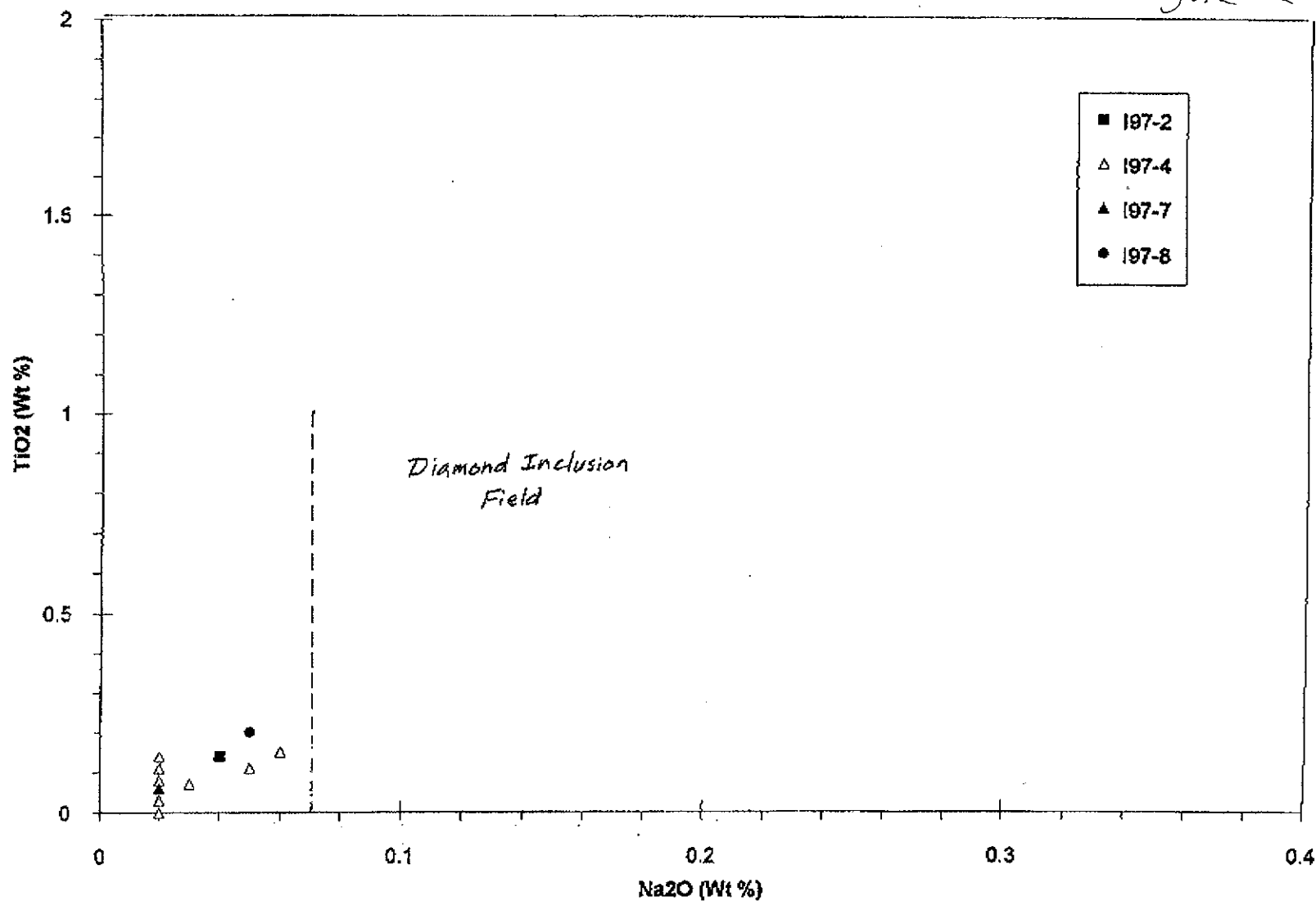
Cr₂O₃:CaO (wt %) plot of garnets recovered from Quest samples.

ETB

March 7, 1998

Quest Eclogitic Garnets

Figure 2



TiO₂:Na₂O (wt %) plot of garnets recovered from Quest samples.

March 7, 1998

QUEST Clinopyroxenes

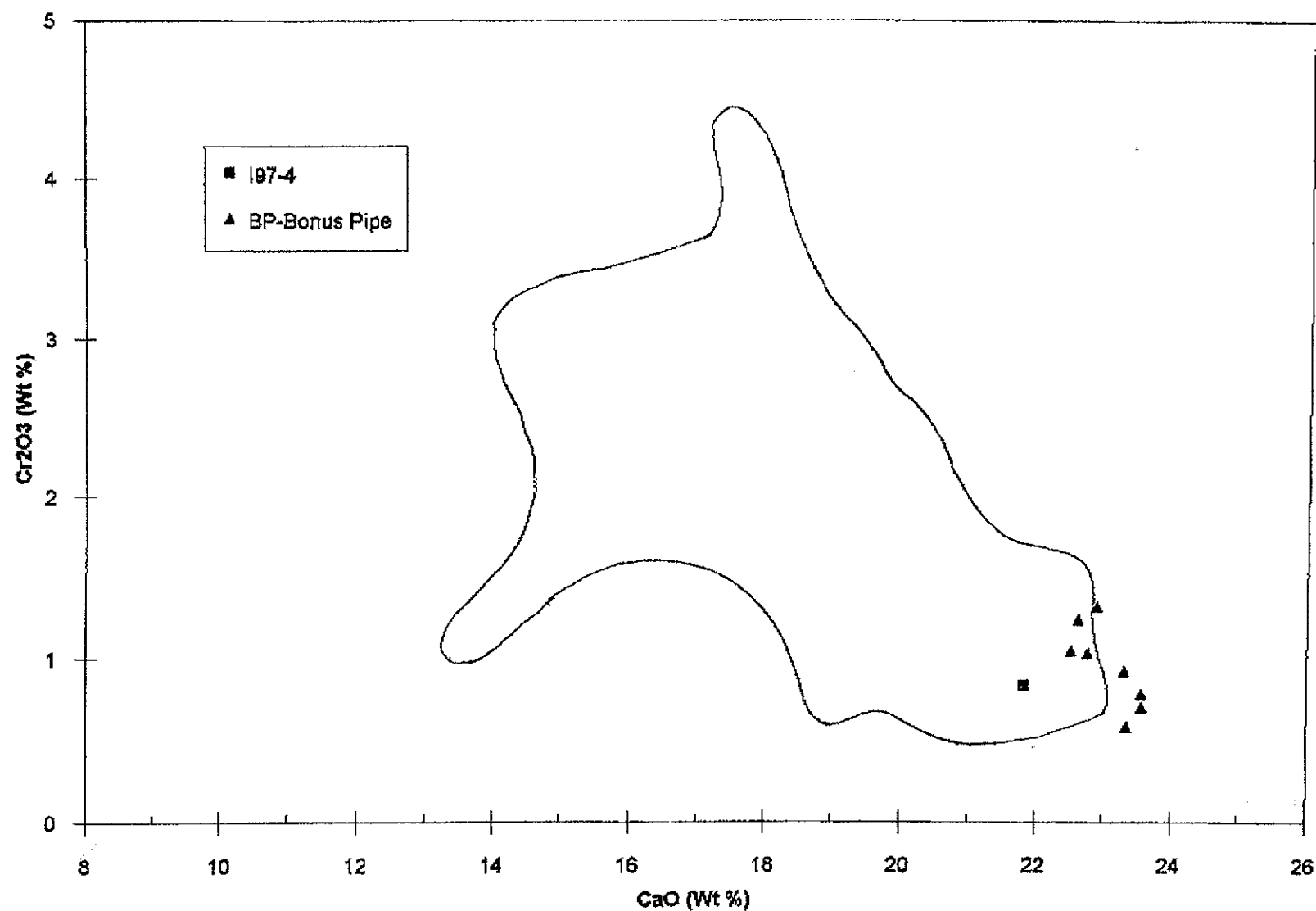


Fig 3

Figure 1. Cr_2O_3 : CaO plot (wt %) of Quest Bovin Creek and Bonus Pipe clinopyroxenes (enclosed area is eclogitic diamond inclusion field).

March 7, 1998

Quest Clinopyroxenes

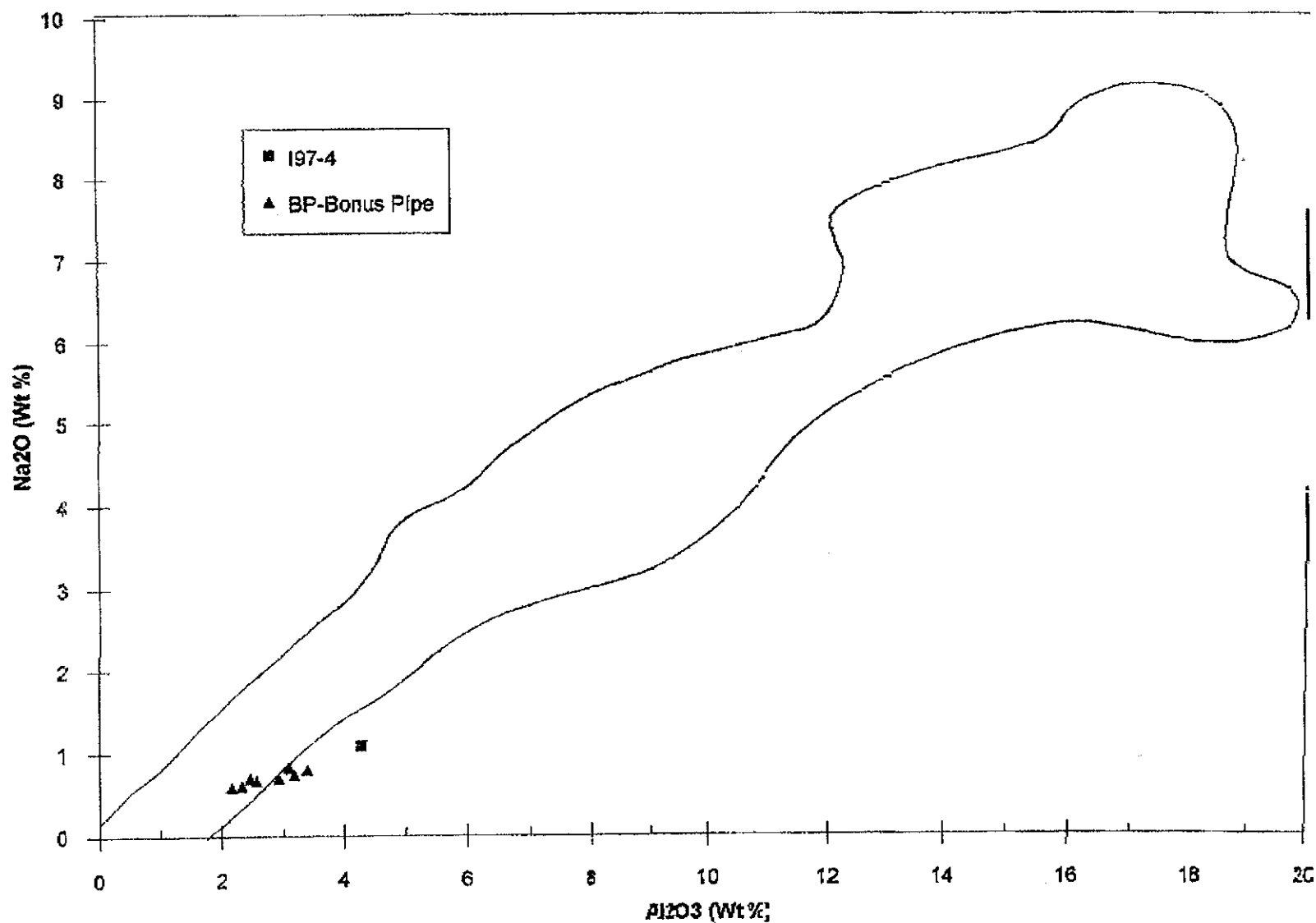
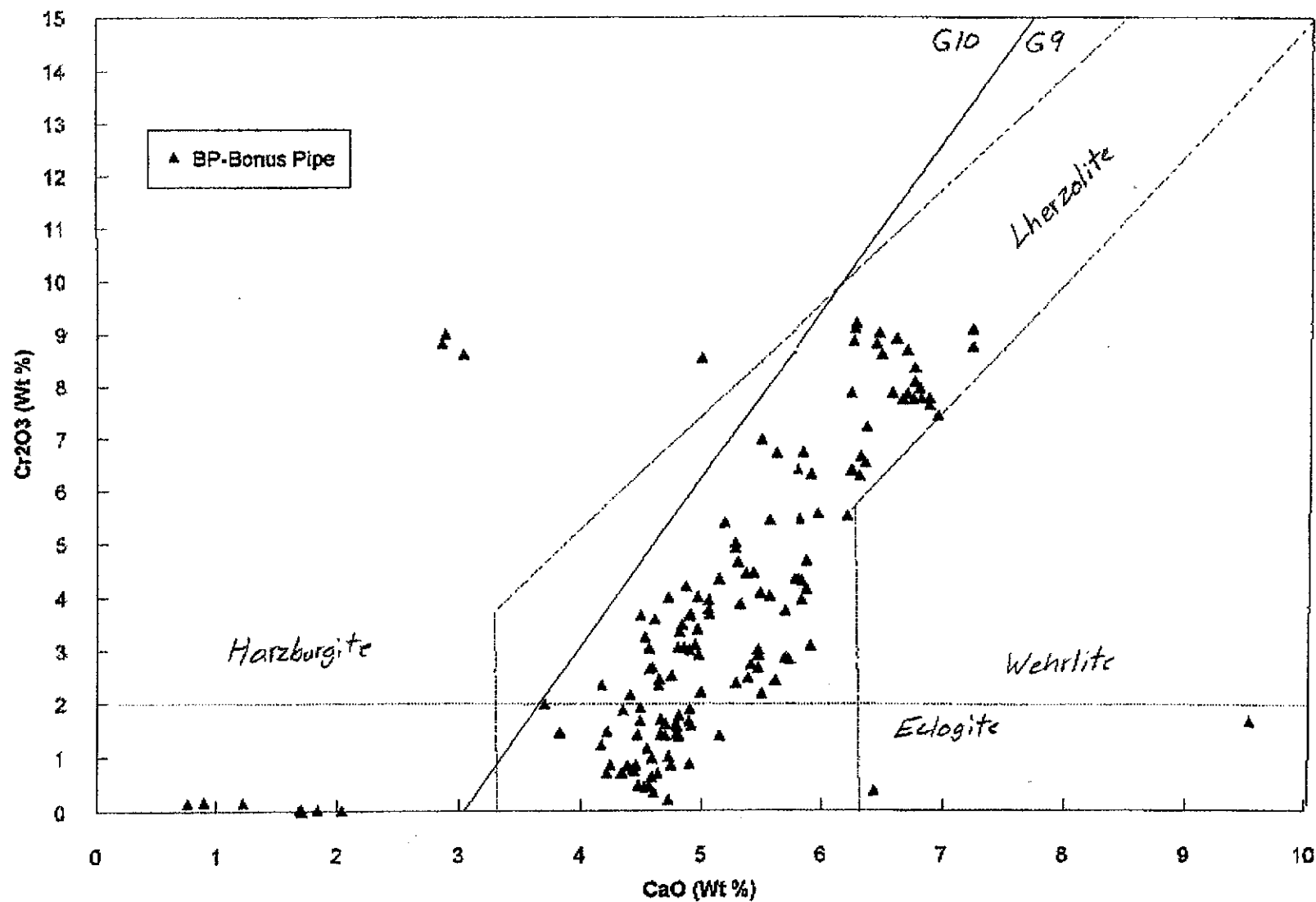


Fig 4

Figure 2. Na₂O:Al₂O₃ plot (wt %) of Quest Bovin Creek and Bonus Pipe clinopyroxenes (enclosed area is eclogitic diamond inclusion field).

QUEST GARNETS

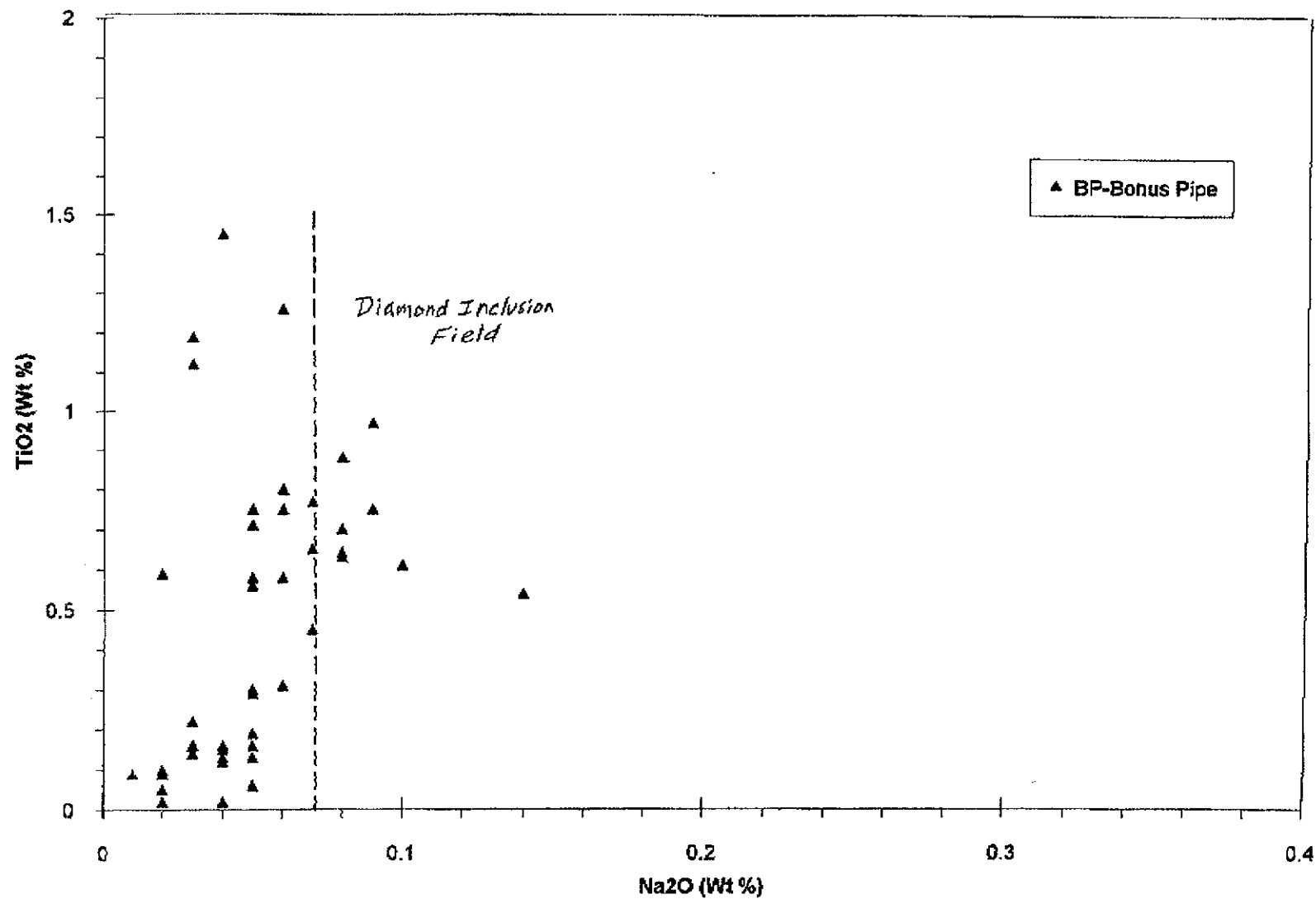


Cr₂O₃:CaO (wt %) plot of garnets recovered from Quest Bonus Pipe samples.

Fig 5

March 7, 1998

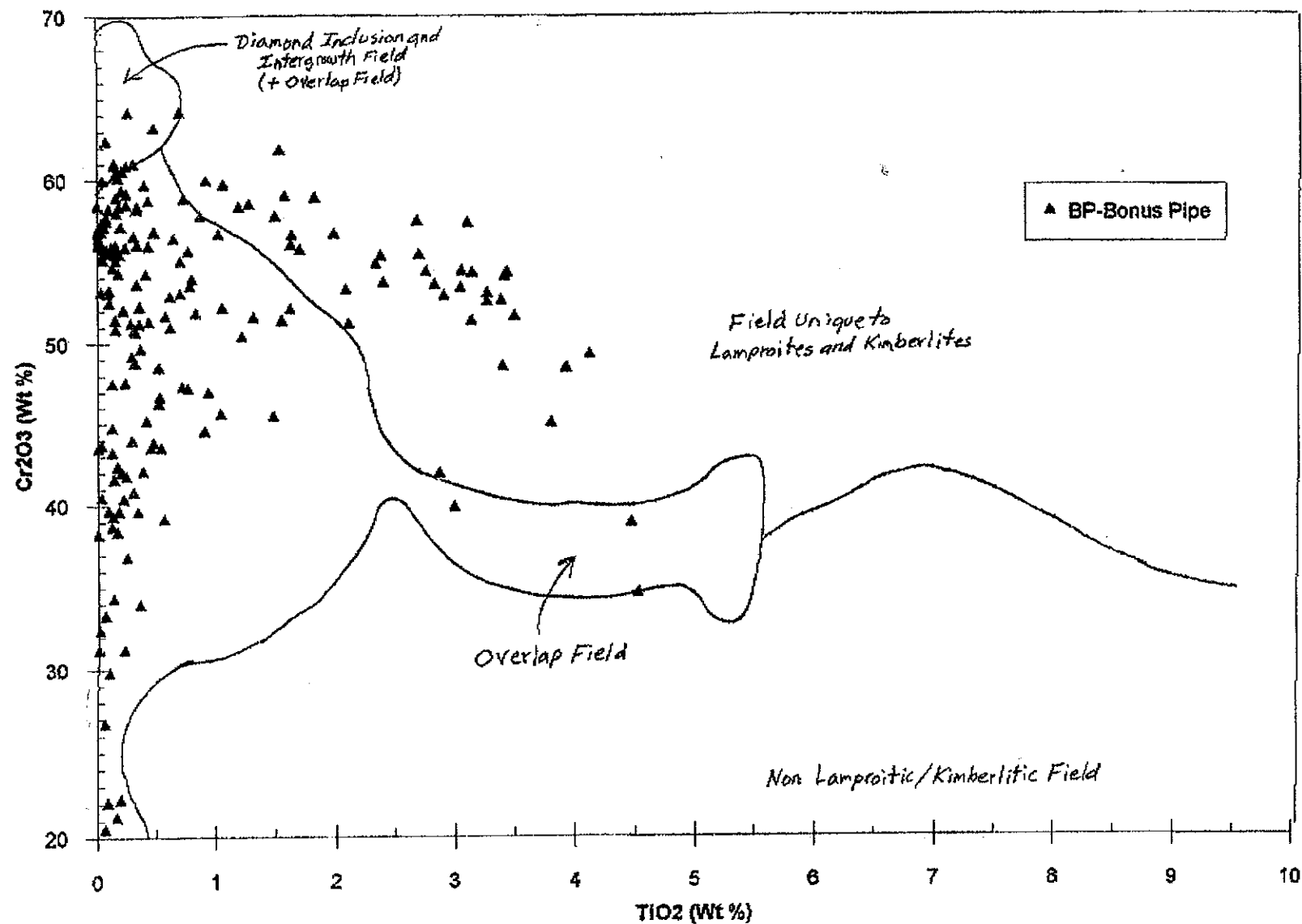
Quest Eclogitic Garnets



TiO₂:Na₂O (wt %) plot of garnets recovered from Quest Bonus Pipe samples.

Fig 6

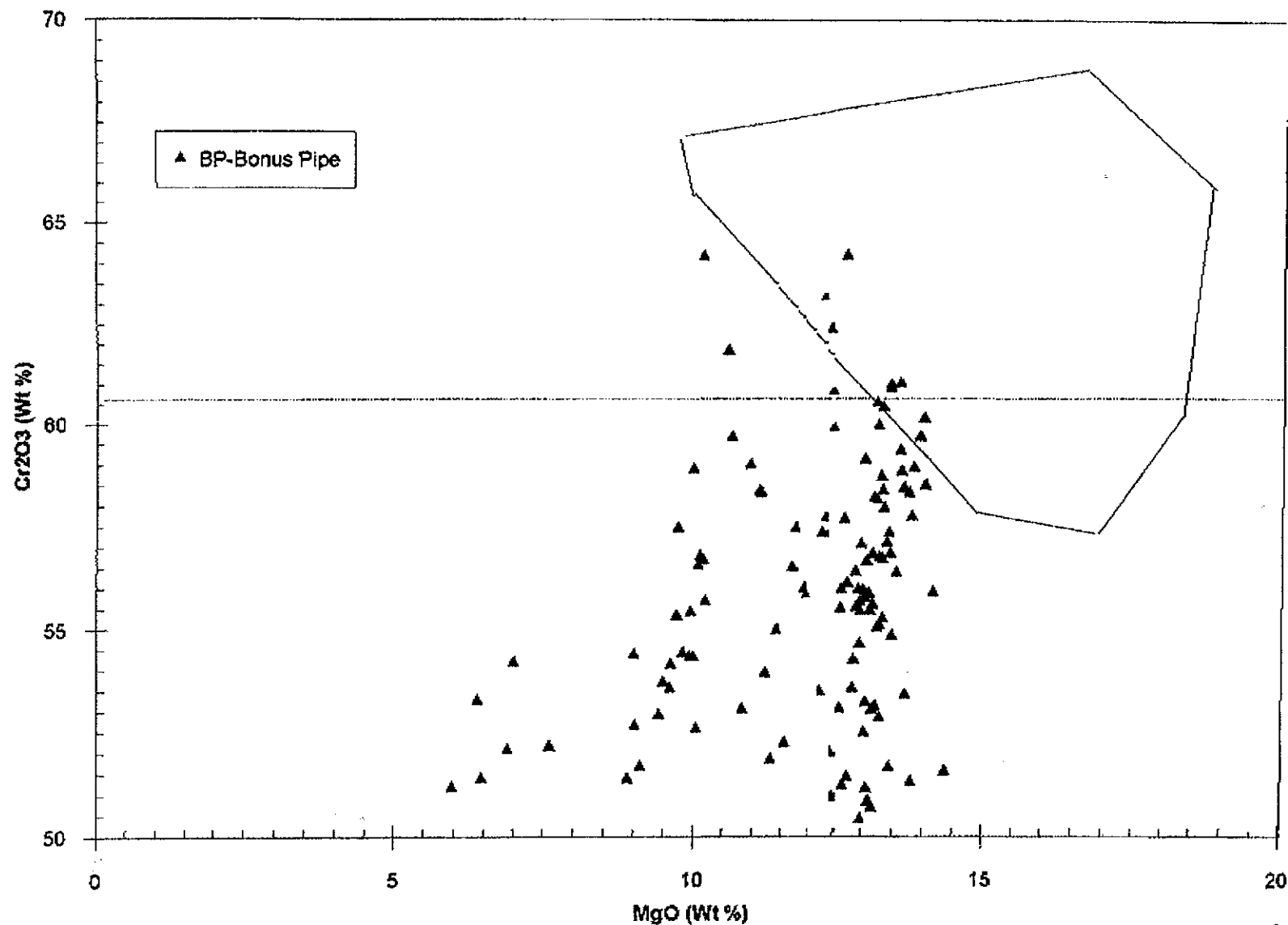
Quest Chromites



Cr₂O₃:TiO₂ (wt%) plot of chromites.

March 7, 1998

Quest Chromites



Cr₂O₃:MgO plot (wt %) of chromites (enclosed area is peridotitic diamond inclusion field).

Fig 9

Quest Clinopyroxenes

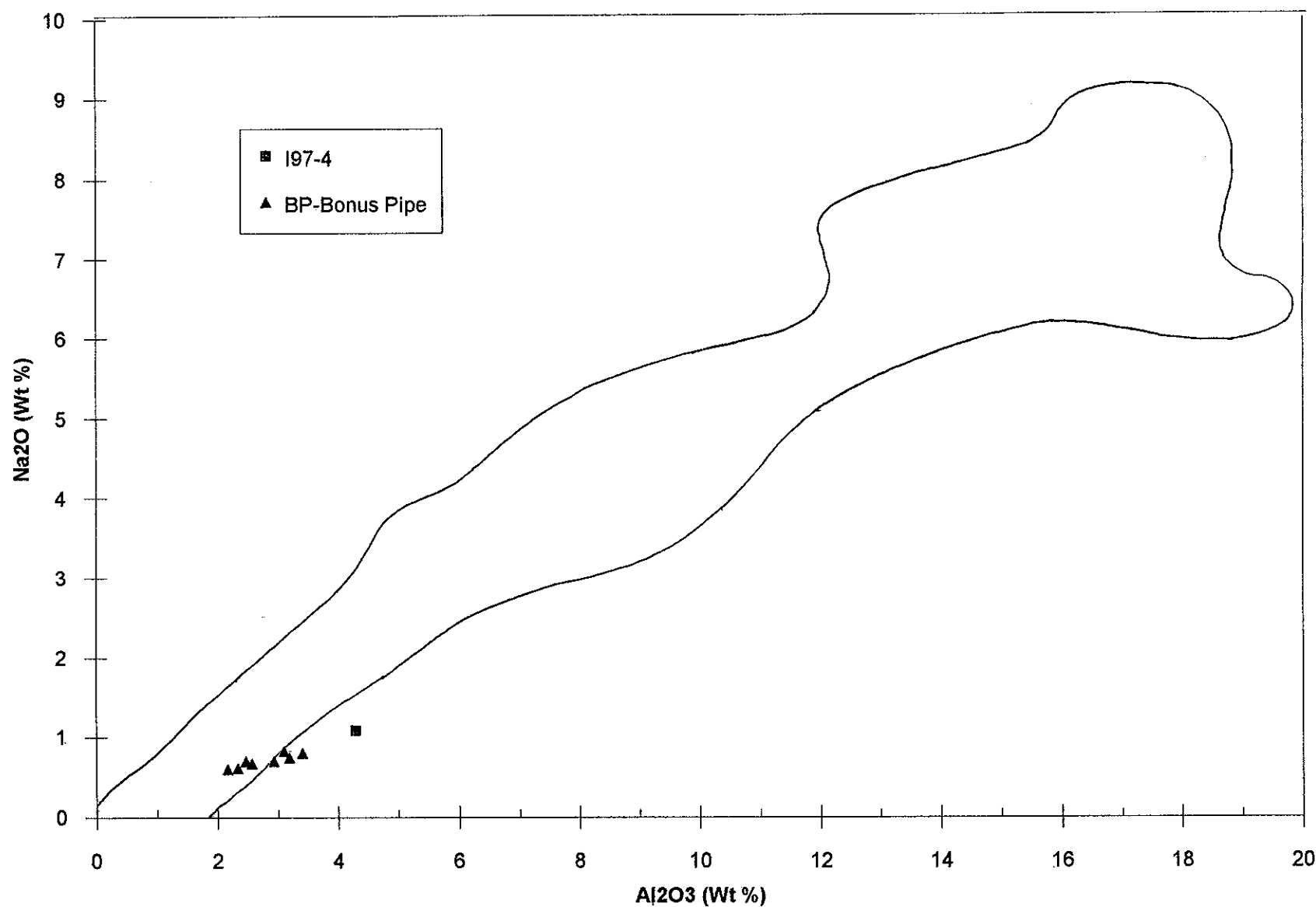


Figure 4. Na₂O:Al₂O₃ plot (wt %) of Quest Bovin Creek and Boni Pipe clinopyroxenes (enclosed area is eclogitic diamond inclusion field).

QUEST Clinopyroxenes

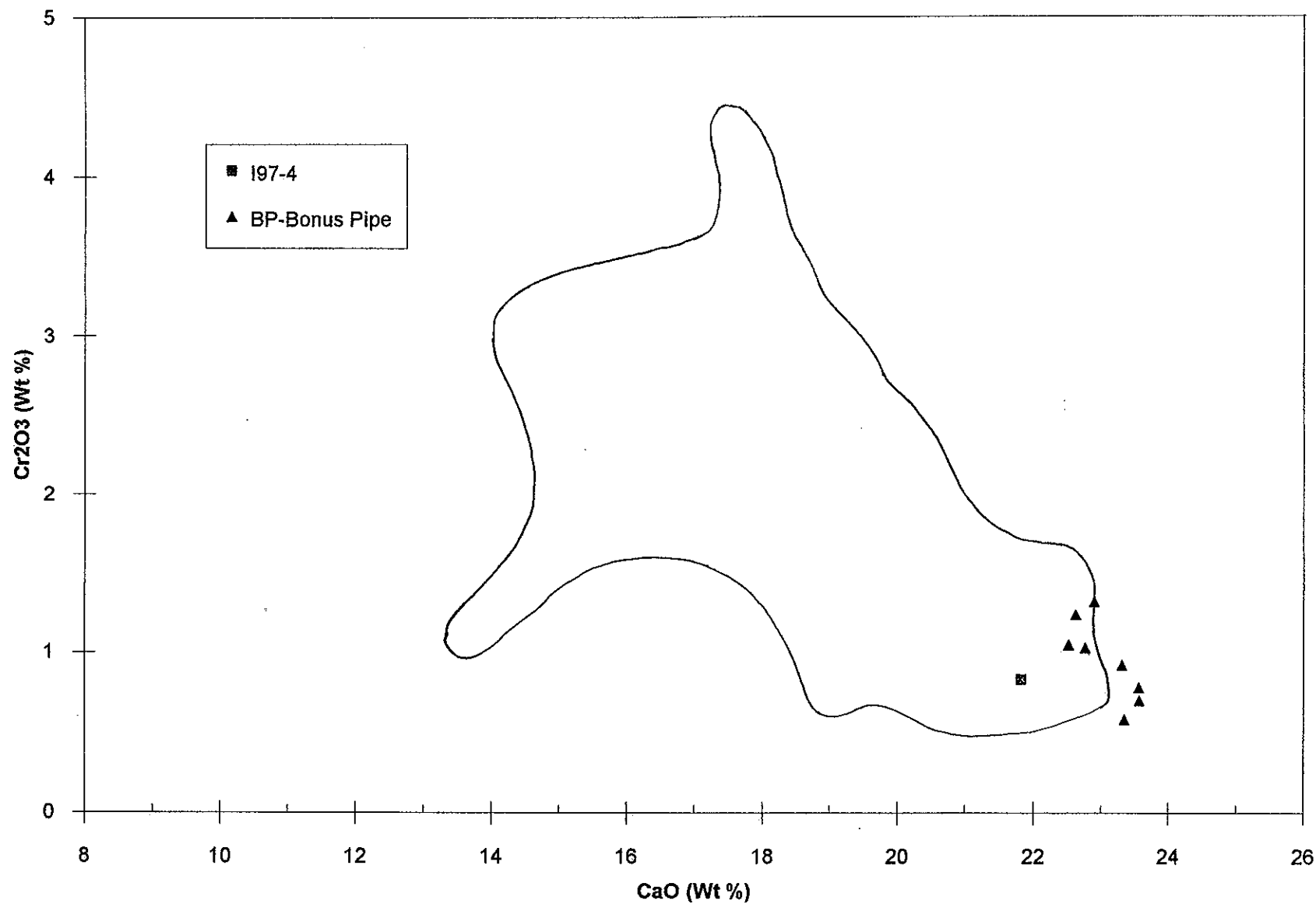


Figure 3. Cr₂O₃:CaO plot (wt %) of Quest Bovin Creek and Bonus clinopyroxenes (enclosed area is eclogitic diamond inclusion field)

Quest Eclogitic Garnets

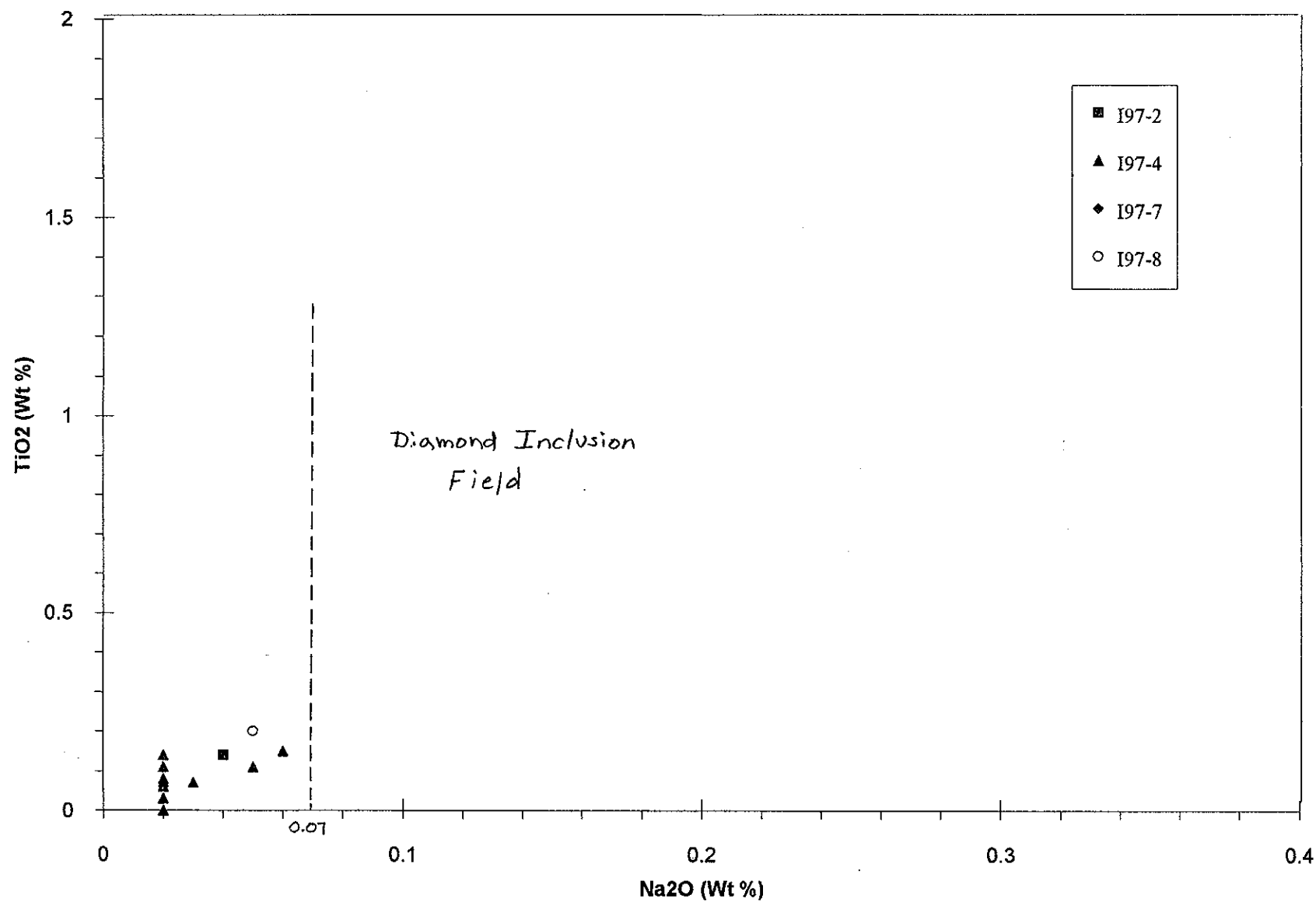


Figure 1 TiO₂:Na₂O (wt %) plot of garnets recovered from Quest Bovin Cr samples.

QUEST GARNETS

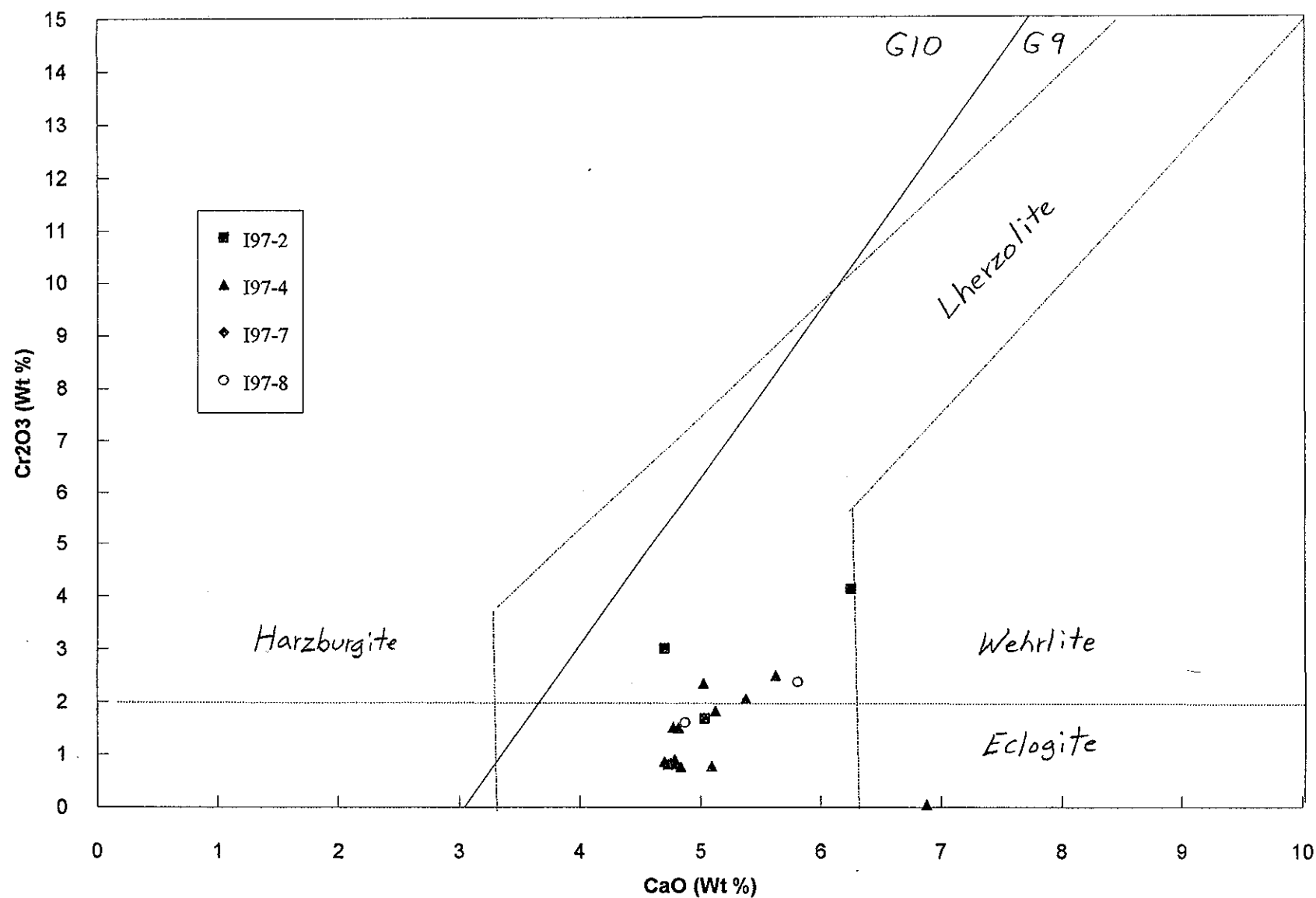
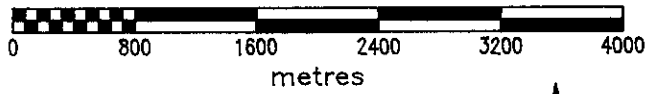
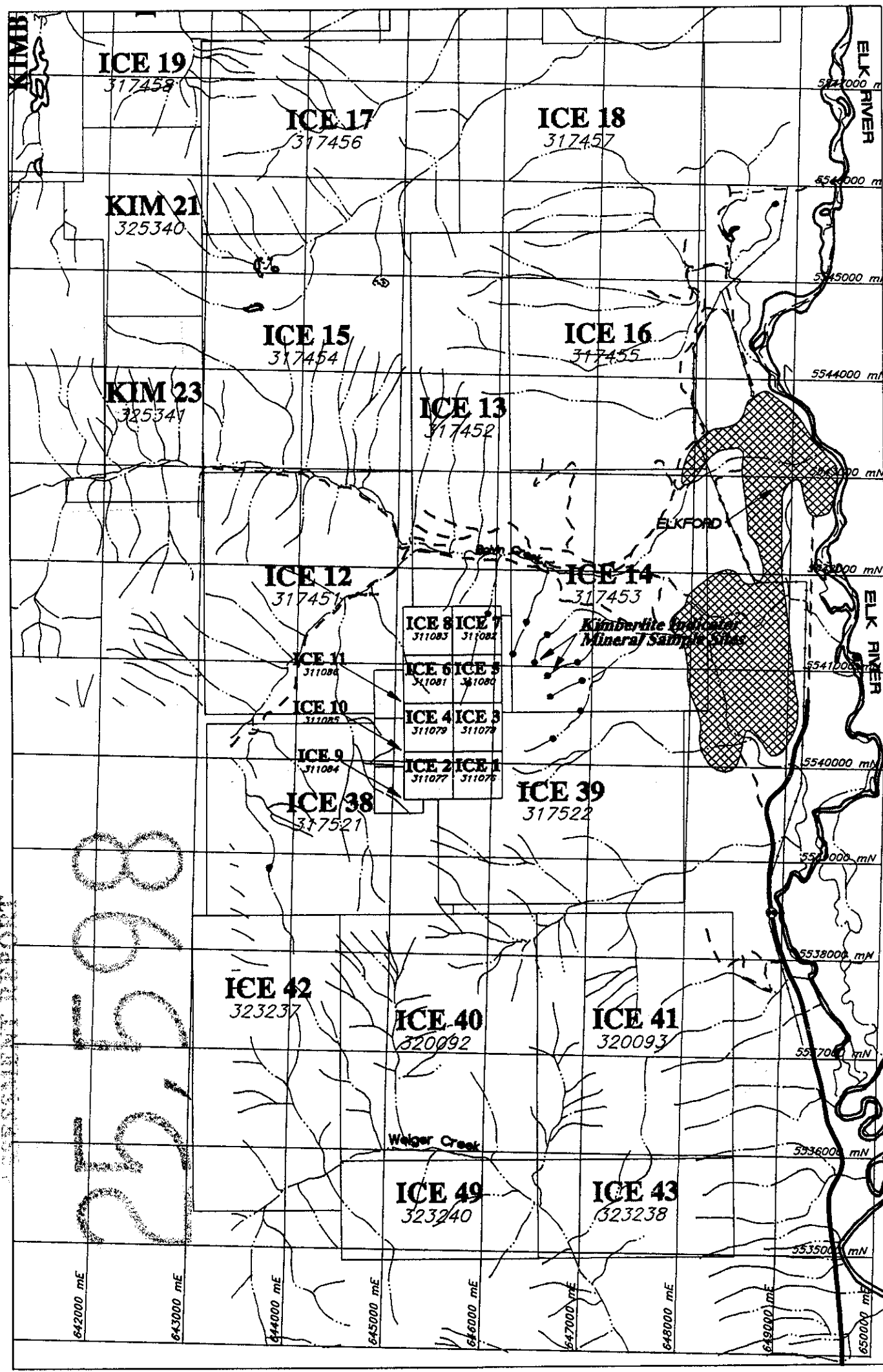


Figure 1 Cr₂O₃:CaO (wt %) plot of garnets recovered from Quest Bovin Cr samples.

GEOLOGICAL SURVEY BRANCH

MINERAL INDICATOR REPORT

25, 1998

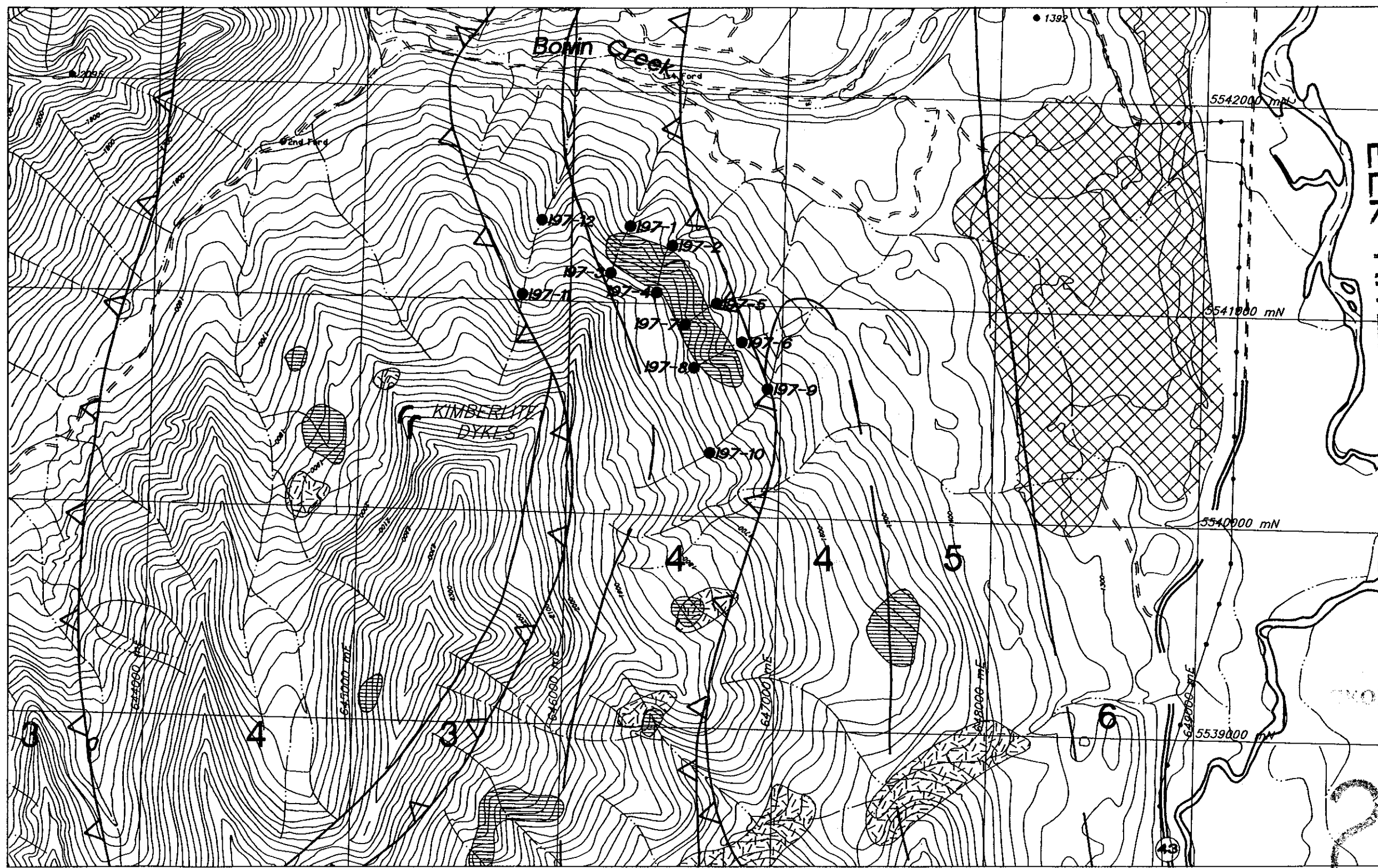


Quest International
RESOURCES CORPORATION



ICE PROPERTY		
CLAIM MAP		
Showing Location of Kimberlite Indicator Mineral Samples		
SCHEDULE B	Scale: 1:50000	Drawn by R. Pighin (98)
Map Reference: NTS 82G14E, 82G15W, 82J02W, 82J03E		

Last Update (Y/M/D): CAD Filename:



LEGEND

- 6** Jurassic Fernie Group: grey, brownish grey, and black shale, siltstone and sandstone; limestone; glauconitic sandstone and shale.
 - 5** Triassic Spray River Formation: dark grey silty shale, siltstone, and shale; light grey dolomitic or sideritic argillaceous siltstone
 - 4** Pennsylvanian and Permian Rocky Mountain Formation: light grey quartzitic, dolomitic, and calcareous sandstone; dark grey sandstone; dolomite; cherty dolomite; chert
 - 3** Mississippian Rundle Group (15-17) Etherington Formation: light grey limestone; cherty limestone; and calcarenitic limestone; dolomite; cherty dolomite; green and red shale; siltstone; breccia; anhydrite.
- THRUST FAULT
 - GEOLOGICAL CONTACT
 - RESISTIVITY ANOMALIES
 - ELECTROMAGNETIC ANOMALIES
 - KIMBERLITE INDICATOR SAMPLE SITE (1997)

GEOLOGICAL SURVEY BRANCH
SUCCESSFUL REPORT

25,598



Quest International
RESOURCES CORPORATION



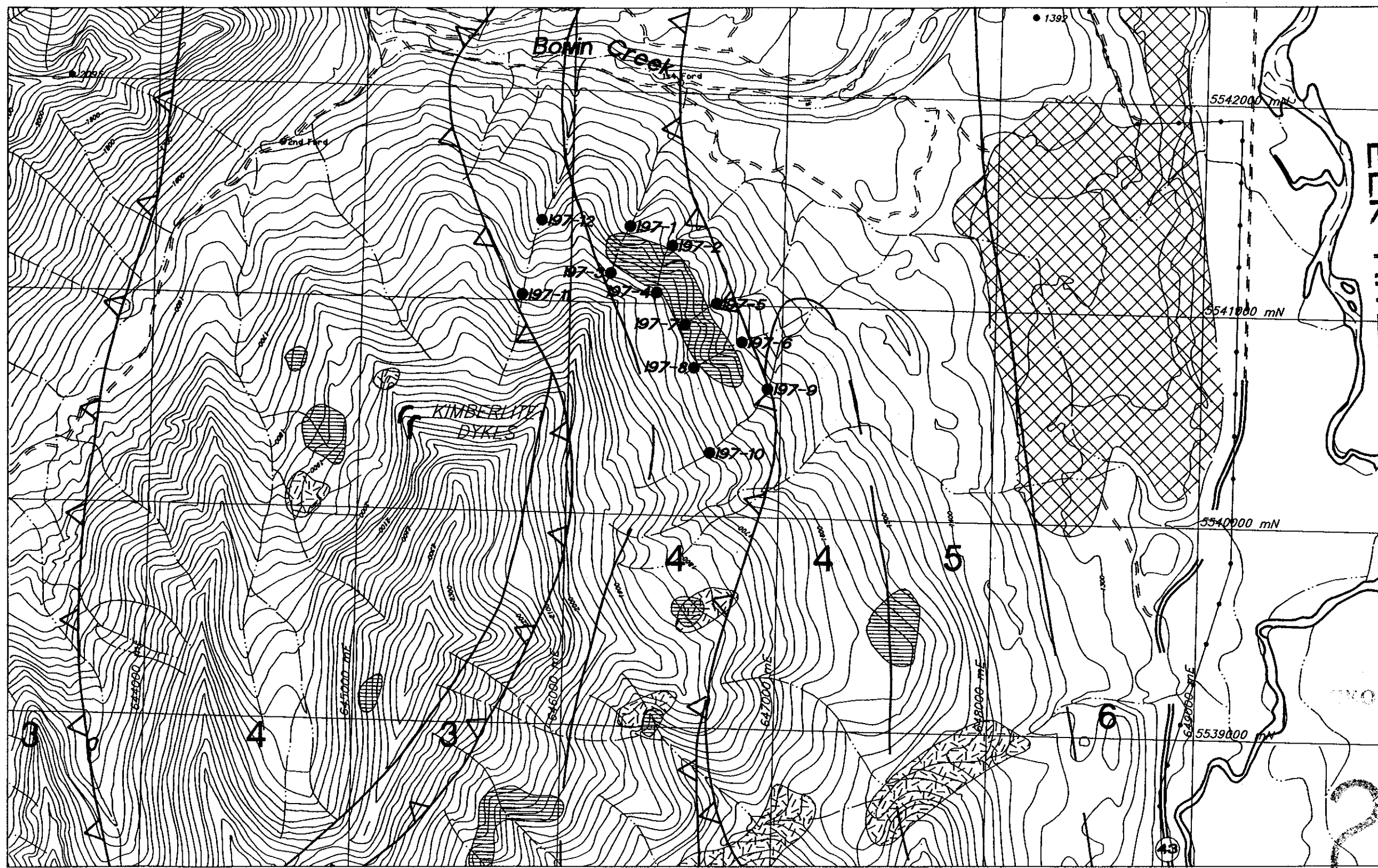
ICE PROPERTY

Boivin Creek 1997
Kimberlite Indicator Mineral
Stream Samples

Created by: Rene Pighin 07/14/1998	Scale: 1:20000
Map Reference: TRIM 82J006 & 82G096	SCHEDULE C

Last Update (Y/M/D):

CAD Filename:



LEGEND

- 6** Jurassic Fernie Group: grey, brownish grey, and black shale, siltstone and sandstone; limestone; glauconitic sandstone and shale.
 - 5** Triassic Spray River Formation: dark grey silty shale, siltstone, and shale; light grey dolomitic or sideritic argillaceous siltstone
 - 4** Pennsylvanian and Permian Rocky Mountain Formation: light grey quartzitic, dolomitic, and calcareous sandstone; dark grey sandstone; dolomite; cherty dolomite; chert
 - 3** Mississippian Rundle Group (15-17) Etherington Formation: light grey limestone; cherty limestone; and calcarenitic limestone; dolomite; cherty dolomite; green and red shale; siltstone; breccia; anhydrite.
- THRUST FAULT
 - GEOLOGICAL CONTACT
 - RESISTIVITY ANOMALIES
 - ELECTROMAGNETIC ANOMALIES
 - KIMBERLITE INDICATOR SAMPLE SITE (1997)

GEOLOGICAL SURVEY BRANCH
CURRENT REPORT

25,598



Quest International
RESOURCES CORPORATION



ICE PROPERTY

Boivin Creek 1997
Kimberlite Indicator Mineral
Stream Samples

Created by: Rene Pighin 07/14/1998	Scale: 1:20000
Map Reference: TRIM 82JD06 & 82G096	SCHEDULE C

Last Update (Y/M/D):

CAD Filename:

Quest Garnets

GEOLOGICAL SURVEY BRANCH
CURRENT REPORT

25,598

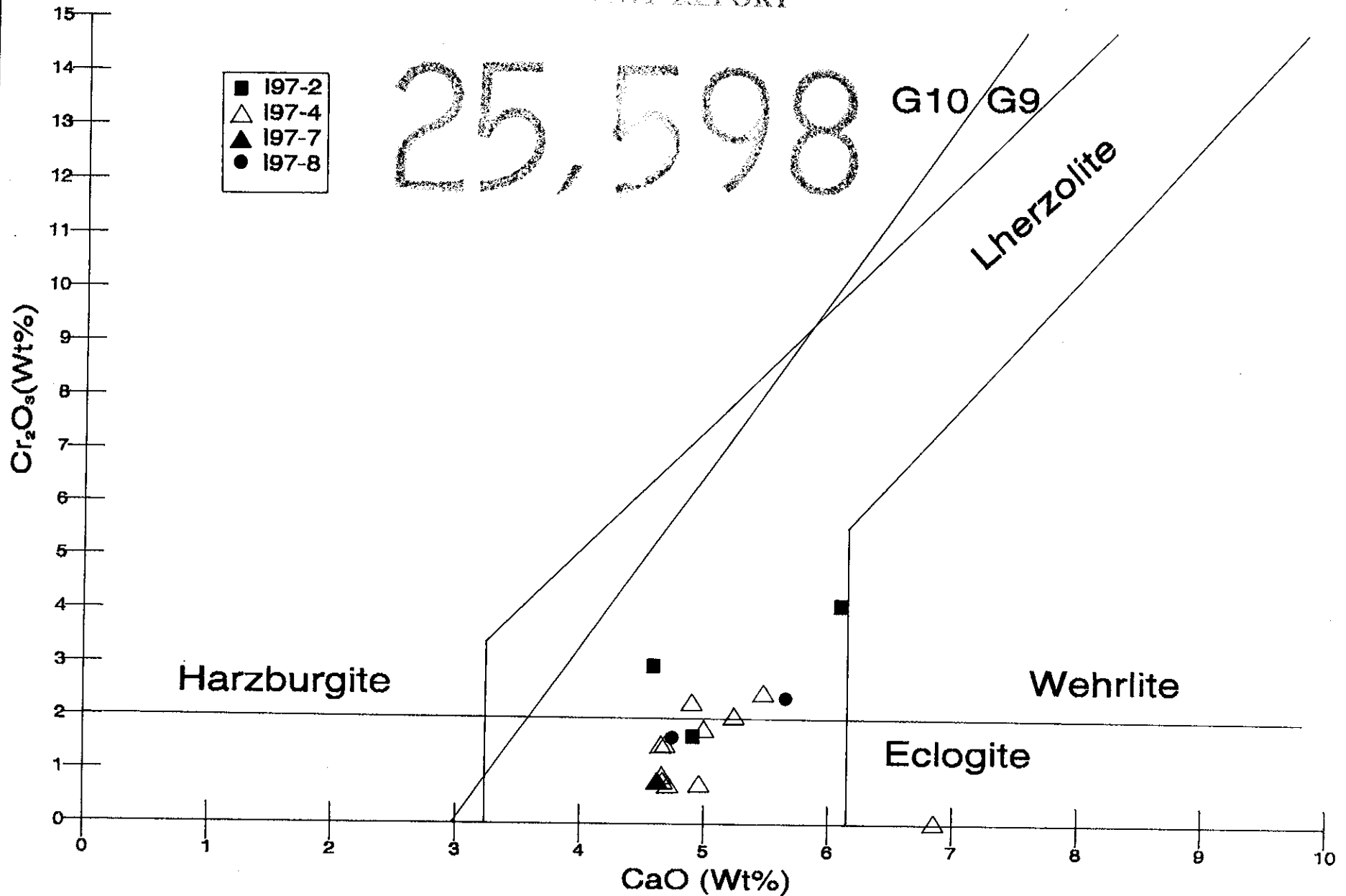


Figure 1

Cr₂O₃: CaO (wt %) plot of garnets recovered from Quest samples

Quest Eclogitic Garnets

GEOLOGICAL SURVEY BRANCH
MINI REPORT

25,598

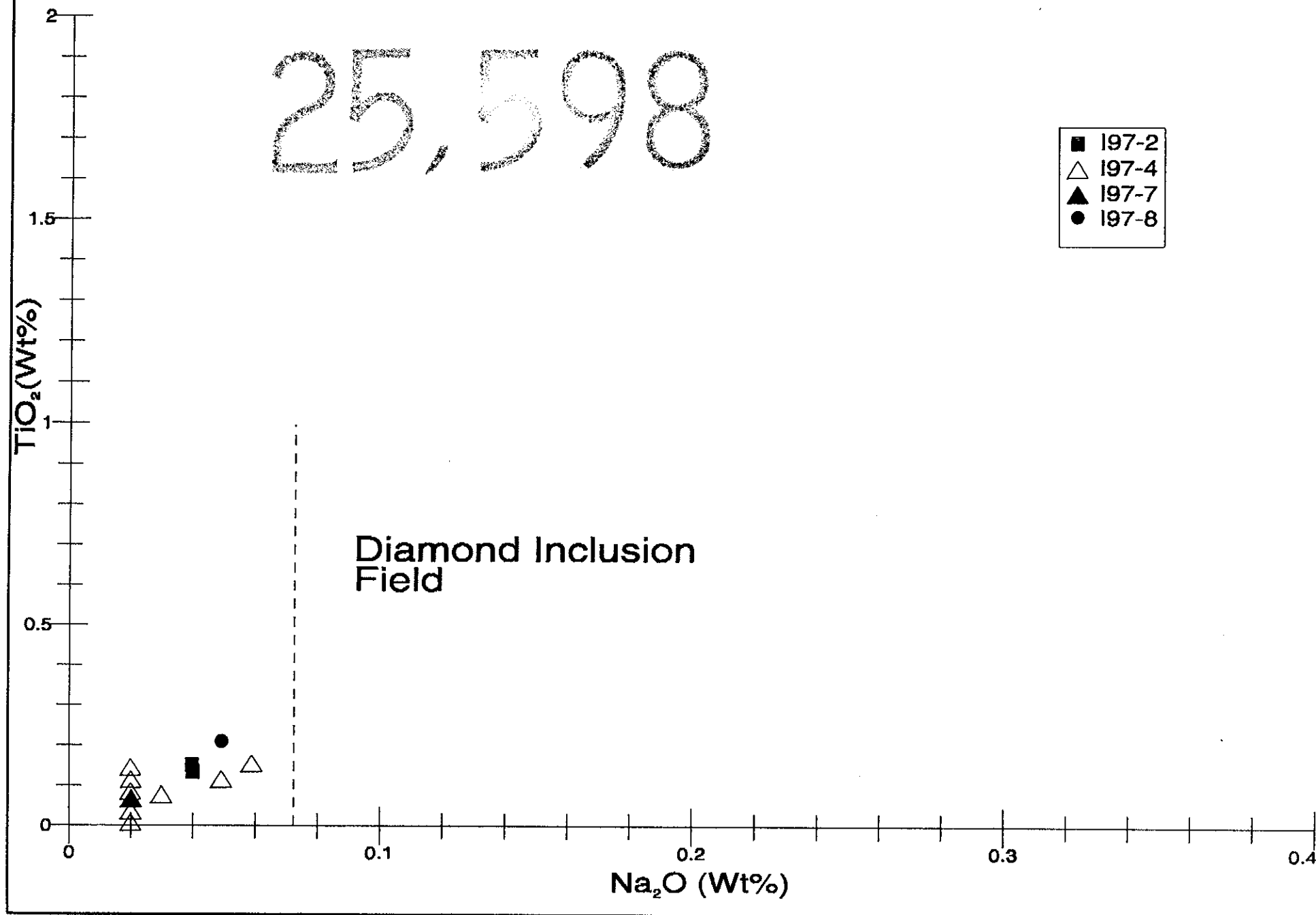


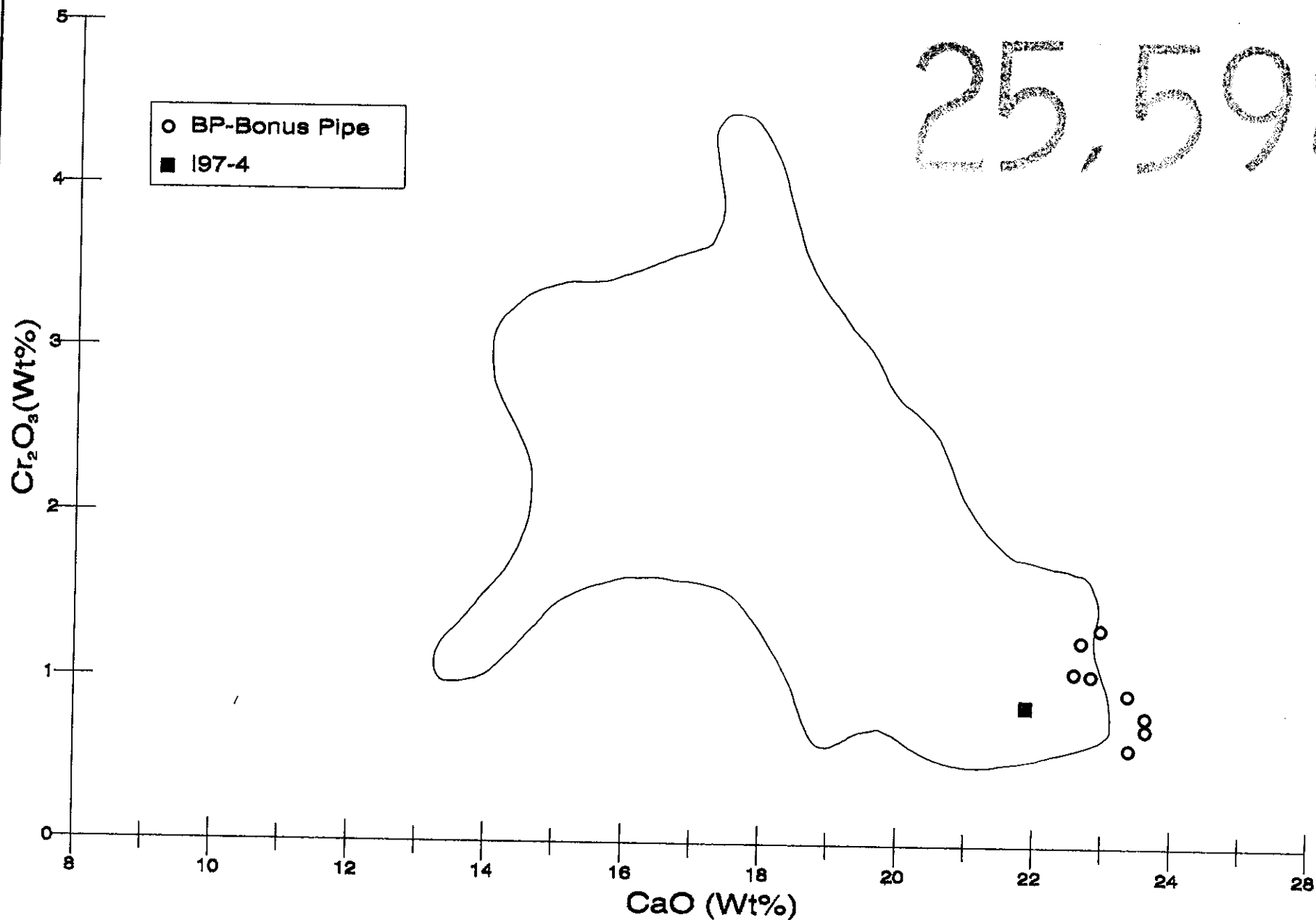
Figure 2

TiO_2 : Na_2O (wt %) plot of garnets recovered from Quest samples

Quest Clinopyroxenes

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

25,598



Cr_2O_3 :CaO (wt %) plot of Quest Bovin Creek and Bonus Pipe clinopyroxenes (enclosed area is eclogitic diamond inclusion field)

Quest Clinopyroxenes

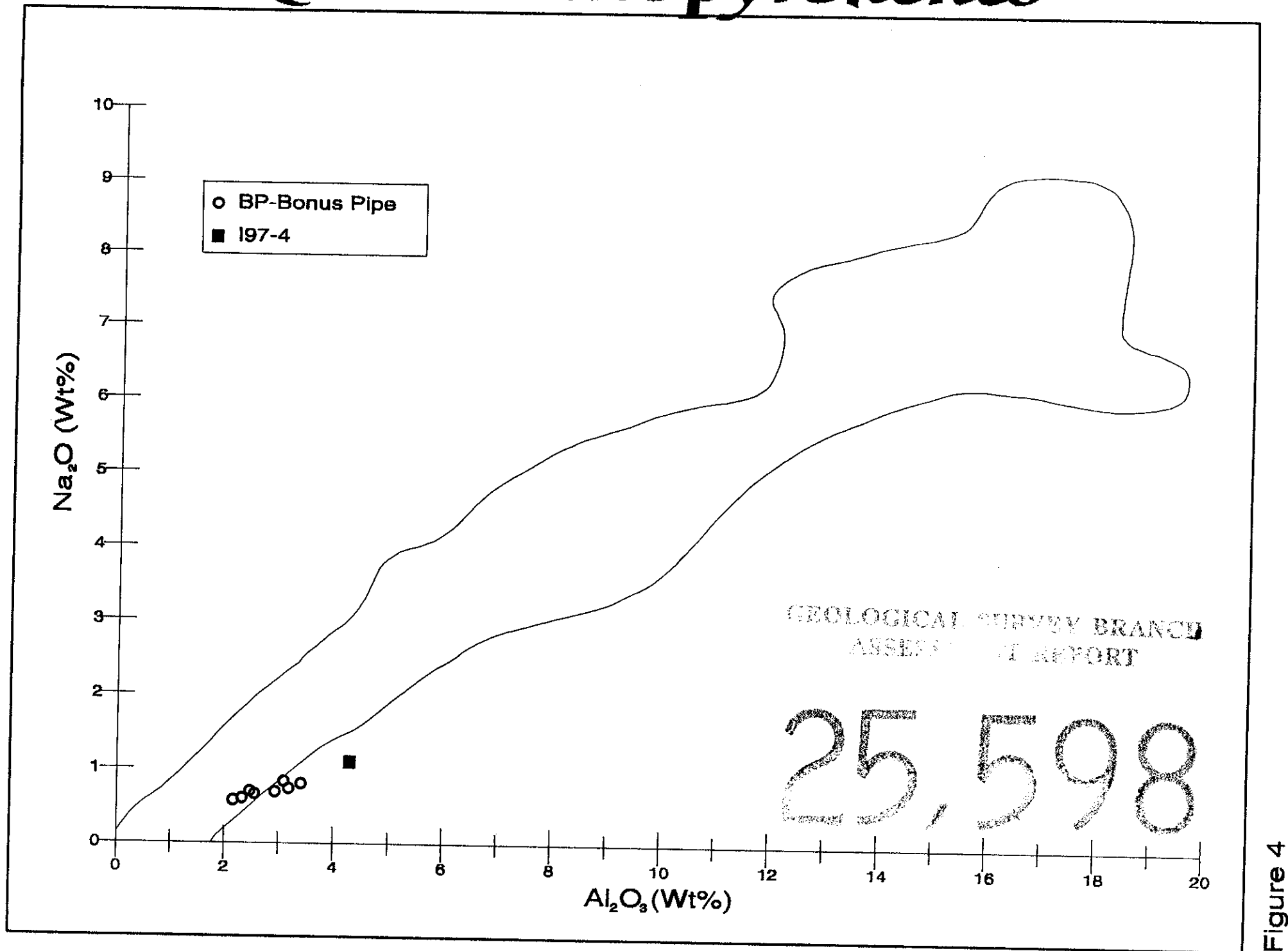
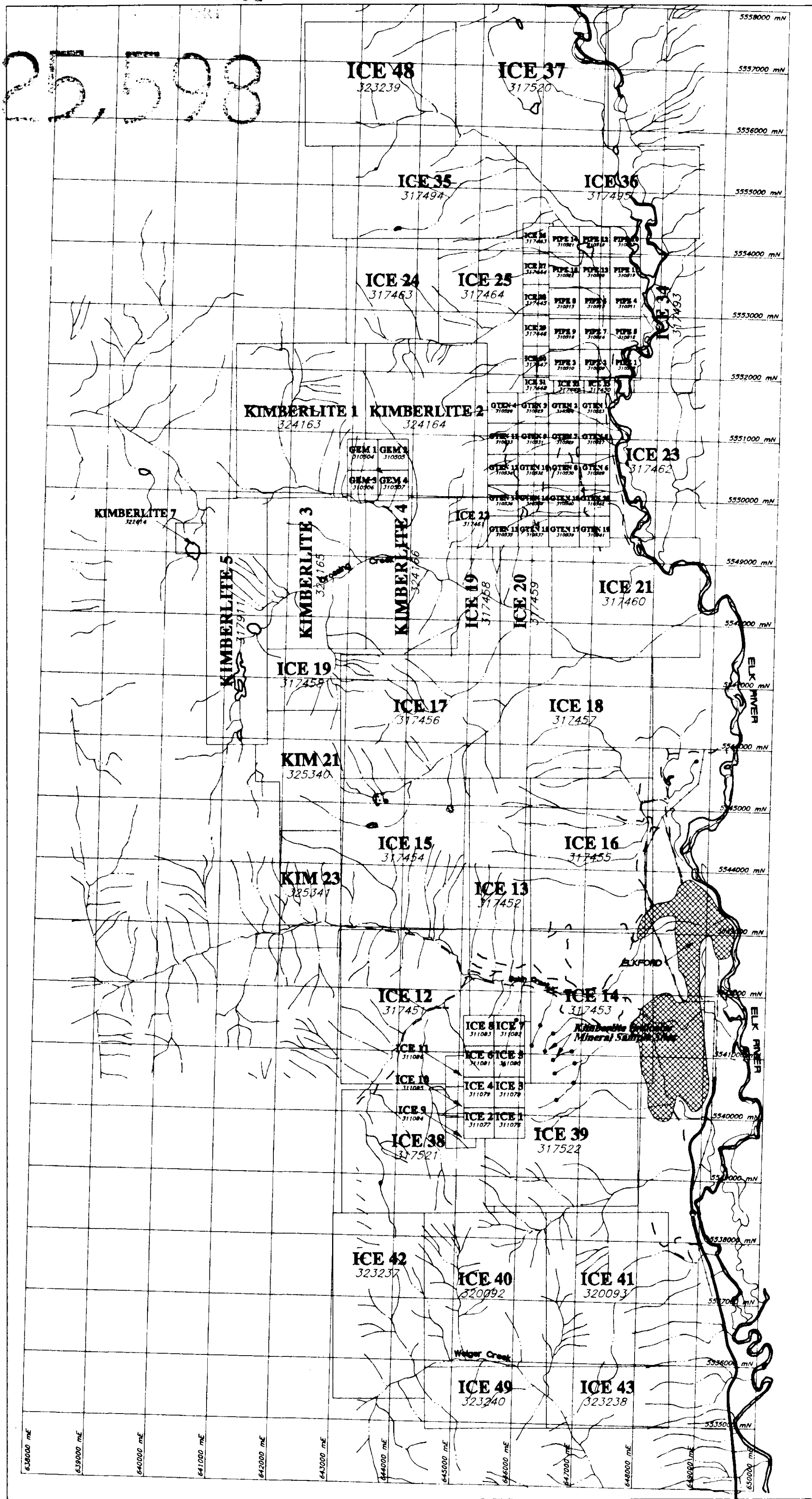


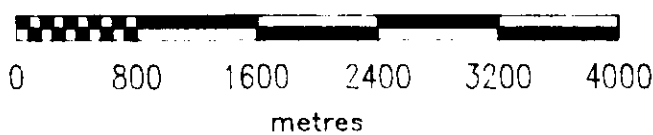
Figure 4

$\text{Na}_2\text{O} : \text{Al}_2\text{O}_3$ (wt %) plot of Quest Bovin Creek and Bonus Pipe clinopyroxenes (enclosed area is eclogitic diamond inclusion field)

25,598



Quest International
RESOURCES CORPORATION



ICE PROPERTY

CLAIM MAP

SCHEDULE A Scale: 1:50000 Drawn by R. Pighin (98)
Map Reference: NTS 82G14E, 82G15W, 82J02W, 82J03E

Last Update (Y/M/D): 05/21/1997

C:\ICE PROPERTY\ICEJASS.DWG CAD Filename: