# ASSESSMENT REPORT

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VANCOUVER, B.C.

describing

# PROSPECTING, MAPPING AND GEOCHEMICAL SURVEYS

on the

# LORAX MINERAL GROUP

Latitude 50° 11'N; Longitude 124° 18'W

NTS 92K/1

in the

VANCOUVER MINING DIVISION

BRITISH COLUMBIA

ARND BURGERT

OCTOBER 21, 1999

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## FIGURES



## APPENDICES

# INTRODUCTION

The Lorax mineral property was staked during October, 1998, to protect a previously unstaked zinc-copper-silver sulphide lens that was discovered by prospecting during September, 1998. Eleven claims aggregating thirty units were staked. Follow-up work resulted in the discovery of a second, thicker lens which contains ore grade concentrations of copper, lead, zinc, silver and gold. Both showings are hosted by metamorphic rocks of the Gambier Group.

Gambier Group rocks host the Britannia deposit on Howe Sound as well as the Northair deposit near Whistler, BC. In the Powell River region, uneconomic base metals occurrences lying within the Gambier Group include the Mt. Diadem workings overlooking Jervis Inlet and the Hummingbird past producer on Goat Island in Powell Lake. However, no previous work was recorded on ground covered by the Lorax claims, and no evidence of previous prospecting was observed in the field.

Field exploration was conducted from a helicopter-supported fly camp located near the centre of the property. All work was conducted personally by the author, whose Statement of Qualifications appears in Appendix I.

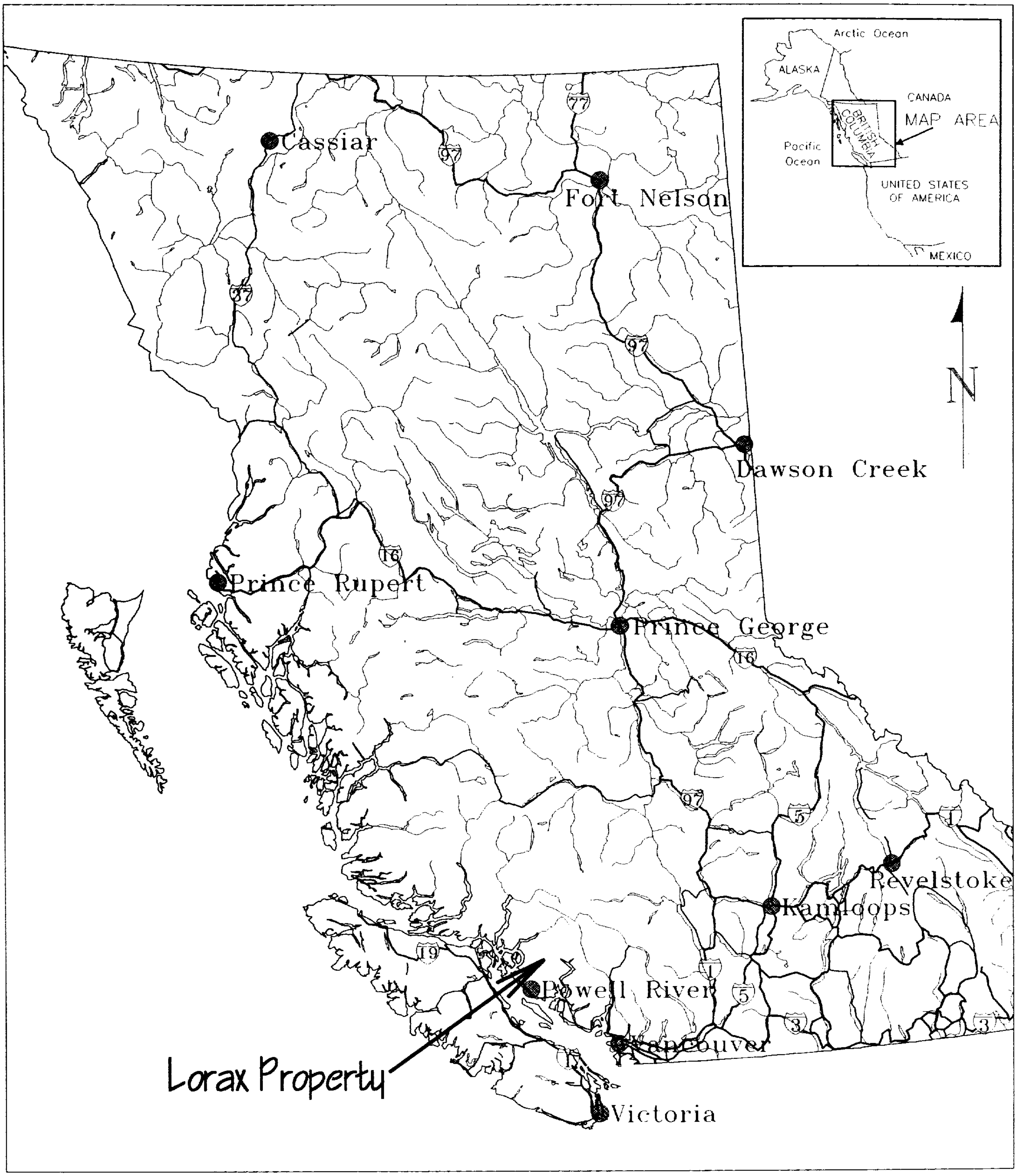
## CLAIMS, LOCATION AND ACCESS

The property is located in southwest British Columbia at latitude 50° 10.9'N and longitude 124° 18.0'W on NTS map sheet 92K/1 (Figure 1). It comprises one four-post and ten contiguous two-post mineral claims (Figure 2) registered with the Vancouver Mining Recorder in the name of Arnd Burgert. All eleven claims are grouped, and claim registration data is listed below.

| Claim Name | Claim Type | Tenure Number | Expiry Date* |
|---|---|---|---|
| Lorax 1 | Four Post | 366446 | Oct. 21, 2001 |
| Lorax 2 | Two Post | 366447 | Oct. 20, 2001 |
| Lorax 3 | Two Post | 366448 | Oct. 20, 2001 |
| Lorax 4 | Two Post | 366449 | Oct. 20, 2001 |
| Lorax 5 | Two Post | 366450 | Oct. 20, 2001 |
| Lorax 6 | Two Post | 366451 | Oct. 20, 2001 |
| Lorax 7 | Two Post | 366452 | Oct. 21, 2001 |
| Lorax 8 | Two Post | 366453 | Oct. 21, 2001 |
| Lorax 9 | Two Post | 366454 | Oct. 21, 2001 |
| Lorax 10 | Two Post | 366455 | Oct. 21, 2001 |
| Lorax 11 | Two Post | 366456 | Oct. 21, 2001 |

*If credit for all work described in this report is granted.

In 1999, work was conducted from a helicopter-supported flycamp, which was located near the centre of the property on the Lorax 1 claim. Work consisted of geologic mapping, prospecting and soil sampling.




HIGHWAY
MAJOR ROAD
LAKE
RIVER
SELECTED CITY

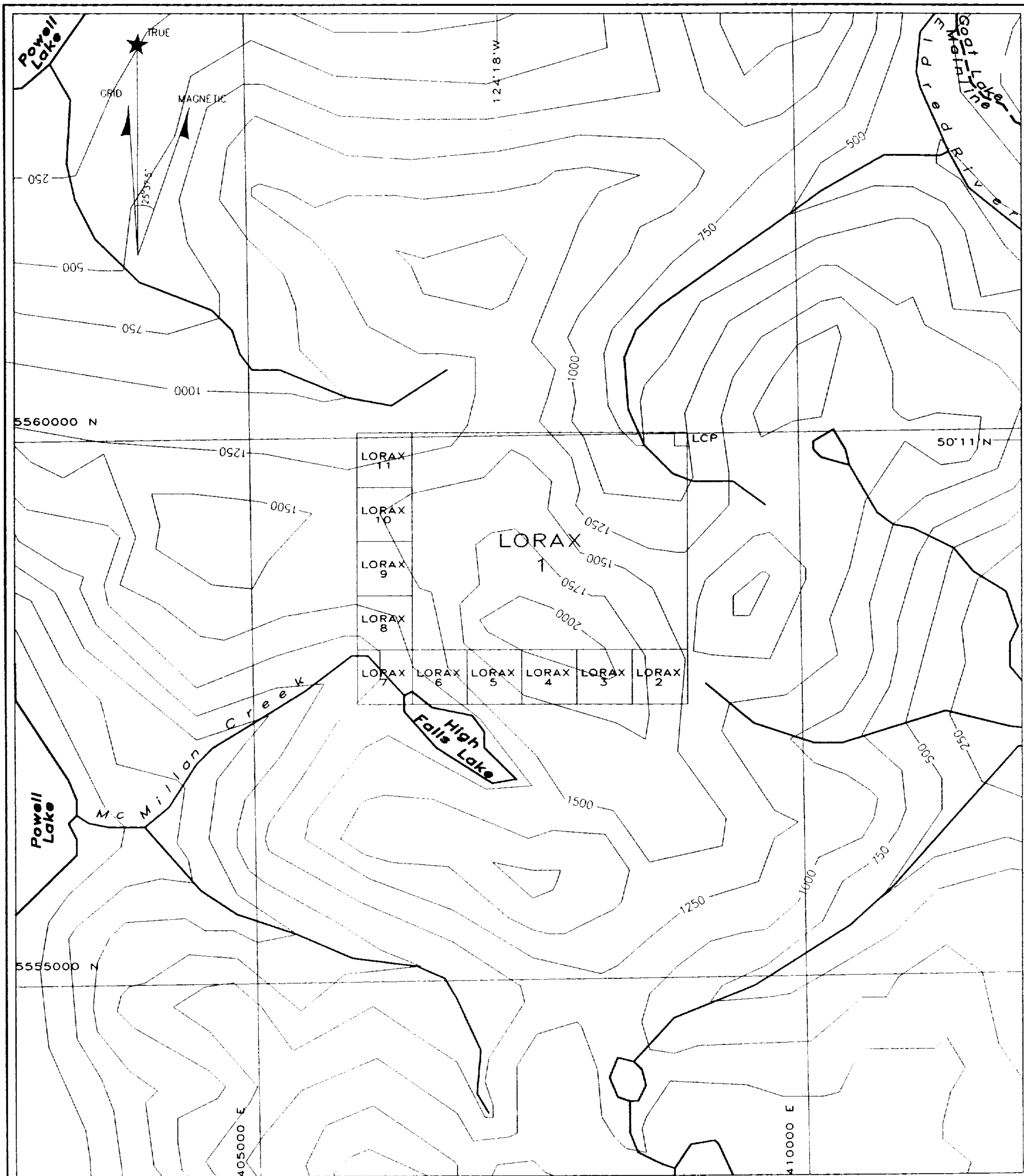
0 50 100 200 300 400 500km

FIGURE 1

# LORAX PROPERTY

## PROPERTY LOCATION

| | |
|---|---|
| DRAWN BY: AB | PRODUCED AT: BAR |
| DATE: OCT 12, 1999 | FILE: GENERAL\BCMAP.DWG |




| | |
|---|---|
| — — | ROAD |
| (lake symbol) | LAKE |
| (line symbol) | RIVER, CREEK |
| (post symbol) | LEGAL CORNER POST |

0 250 500 1000 1500 2000 2500m

FIGURE 2

LORAX PROPERTY

# CLAIM LOCATION

| | |
|---|---|
| DRAWN BY: AB | PRODUCED AT: 1:50000 |
| DATE: FEB 11, 1999 | FILE: LORAX\50CLAIM.DWG |

## GEOMORPHOLOGY

The Lorax property is situated in mountainous terrain of the Coast Ranges. Topography is steep, with slopes of typically 20° to 50°, and elevations ranging from 800m to 2091m. Impassable cliffs are common.

Streams draining the eastern part of the property flow eastward into a tributary of the Eldred River, while those draining the western part flow west into Powell Lake.

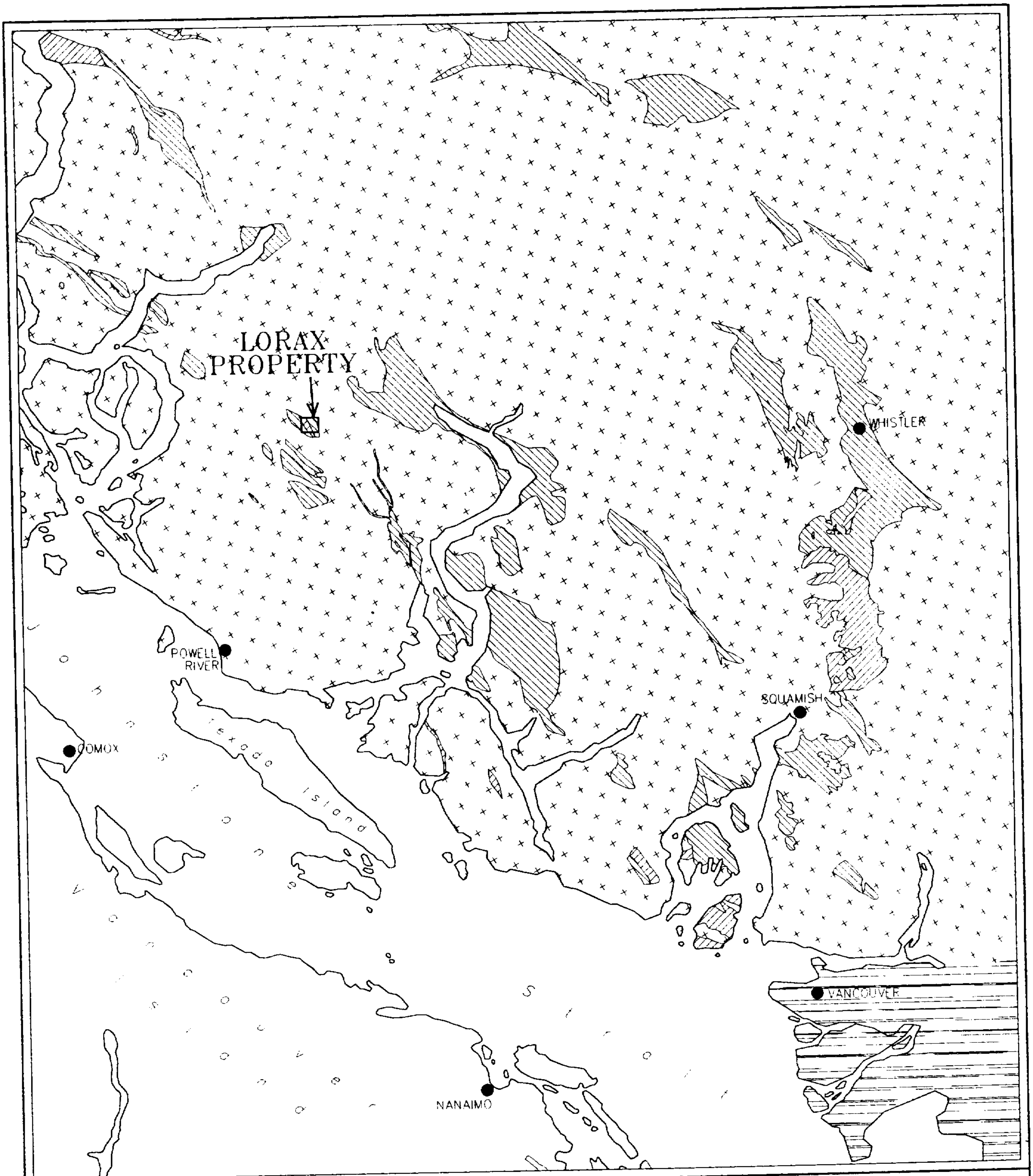
Vegetation on the valley floor consists of very thick growths of alder and salmonberry, and on the lower slopes consists of mature stands of old growth fir, douglas fir, western red cedar and hemlock interspersed with dense patches of alder, willow, buckbrush and salmonberry. These give way to old growth yellow cedar scrub above 1070m. Above 1370m, scattered buckbrush, dwarf balsam, moss and grasses dominate, while steep talus slopes and cliffs are vegetated only by lichen.

## REGIONAL GEOLOGY

The Lorax Property lies within steeply dipping blocks, or pendants, of metasedimentary and metavolcanic rocks that lie engulfed in the main mass of the Coast Plutonic Complex (Figure 3). Pendants of Gambier Group, named for their type locality on Gambier Island in Howe Sound, were the focus of this project's exploration. They extend discontinuously from North Vancouver in the southeast to north of Loughborough Inlet in the northwest.

These pendants are thought to represent fault slices along which plutonic rock was thrust upwards (Roddick, 1976). The bounding shear zones in places still exist, and in many places are flanked by diorite. The dioritic rocks may represent remnants of a primitive granitoid basement upon which sedimentary and volcanic rocks were deposited.

The metamorphic rocks have undergone burial and subsequent deformation, probably in response to compressive forces transmitted through the North America Plate against oceanic crust. With the eventual onset of subduction, plutonic masses, formed during the compressive stage, began their movement upwards bounded by synplutonic faults.




● Major City or Town

Quaternary

Coast Plutonic Complex
diorite, quartz diorite, granodiorite, quartz monzonite, gabbro

Gambier
greenstone, volcanic breccia, argillite, minor conglomerate, limestone and schist

Other layered rocks
Upper Karmutsen; Bowen Island; Garibaldi; other stratified rocks, Triassic to Tertiary

0 5 10 20 30 40 50km

FIGURE 3

**LORAX PROPERTY**

REGIONAL GEOLOGY

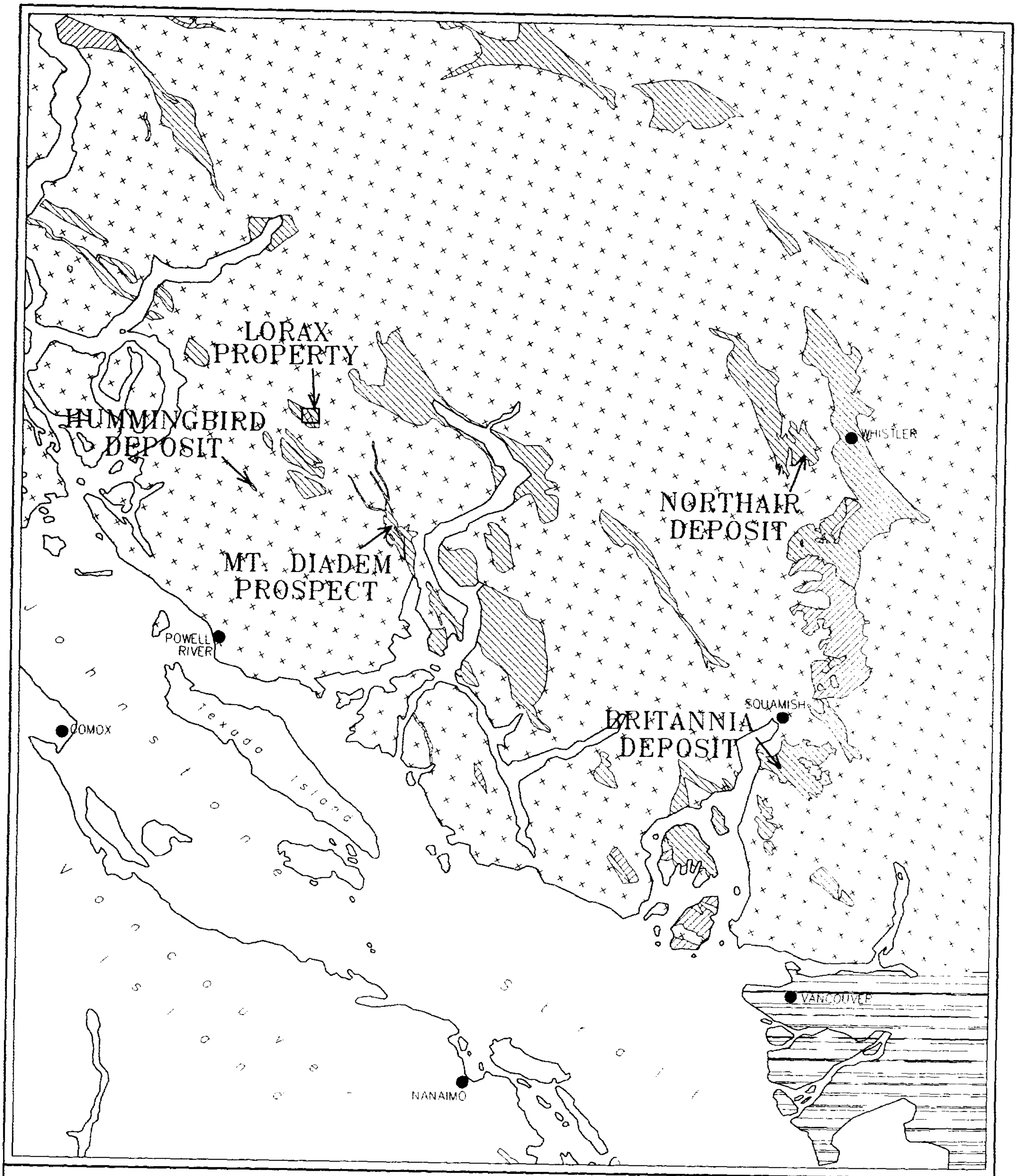
Geology by Roddick et al, 1976; Roddick et al, 1979; Woodsworth, 1977

| | |
|---|---|
| DRAWN BY: AB | PRODUCED AT: 1:1000000 |
| DATE: SEPT 9, 1999 | FILE: GENERAL\REGGEOL.DWG |

## REGIONAL MINERALIZATION

A number of significant base metals deposits occur within pendants of Gambier group (Figure 4). Some of those that are known or suspected to be volcanocenic in origin are described in this section. The descriptions are taken from the British Columbia Ministry of Energy and Mines Minfile database, where references can be found.

The most valuable deposit discovered to date in rocks of the Gambier group is the **Britannia Deposit** at Britannia Beach on Howe Sound. The Britannia district is underlain by a roof pendant of mid- Mesozoic volcanic and sedimentary rocks, within the Cenozoic-Mesozoic Coast Plutonic Complex. A broad, steeply south dipping zone of complex shear deformation and metamorphism, the Britannia shear zone, crosses the pendant in a northwest direction; all orebodies are in the shear zone. A narrow zone of foliated rocks, the Indian River shear zone, is subparallel to the Britannia shear zone and transects the northeast part of the Britannia pendant. The deformed rocks are cut by dacite dykes and several major sets of faults. The Britannia roof pendant is one of many northwest trending bodies within, and in part metamorphosed by, the Coast Plutonic Complex. The pendant is comprised of fresh to weakly metamorphosed rocks with sharp contacts against plutonic rocks,




● Major City or Town

Quaternary

0 5 10 20 30 40 50km

Coast Plutonic Complex
diorite, quartz diorite, granodiorite, quartz monzonite, gabbro

Gambier
greenstone, volcanic breccia, argillite, minor conglomerate, limestone and schist

Other layered rocks
Upper Karmutsen; Bowen Island; Garibaldi; other stratified rocks, Triassic to Tertiary

FIGURE 4

**LORAX PROPERTY**

REGIONAL MINERALIZATION

| | |
|---|---|
| DRAWN BY: AB | PRODUCED AT: 1:1000000 |
| DATE: SEPT 9, 1999 | FILE: GENERAL\REGGEOL.DWG |

and belongs to the Lower Cretaceous Gambier Group. The Coast plutonic rocks consist of older, commonly foliated bodies ranging from diorite to granodiorite and younger quartz diorite to quartz monzonite intrusions (Squamish pluton). The plutonic rocks have produced contact metamorphic aureoles up to a hundred metres wide in the Britannia pendant.

The Britannia mine area within the Britannia shear zone is dominated by strongly foliated pyroclastic rocks of dacitic to andesitic volcanism intercalated near the top and overlain by dark marine shales and siltstones. Extensive units of fine-grained andesitic rocks were formed in the mine area during hiatuses in dacitic volcanism; one hiatus occurred during the period of formation of massive sulphides and related deposits after extrusion of a dacite tuff breccia. The lower pyroclastic sequence and the upper shale-siltstone sequence are cut by many dacitic and andesitic dykes. The lower sequence is composed of pyroclastic dacite tuff breccia (locally called the Bluff tuff breccia) that commonly grades to dacitic crystal and lithic tuffs. This unit contains prominent dark, wispy fragments and grades at the top into distinctive beds which consist of intercalated black argillite and plagioclase crystal tuffs. These may be regularly interbedded, convoluted or disaggregated by soft rock deformation. Within the pyroclastic sequence there are also minor intercalations of black or green argillite or volcanic sandstone; fragments of argillite also form a normal component of the pyroclastic flow rocks. Overlying the dacite tuff breccias are a sequence of andesitic tuffaceous sediments, andesitic tuffs and cherty andesitic sedimentary rocks. The overlying black argillite and siltstone are relatively featureless, poorly bedded, but commonly displays cleavage. Intercalations of greywacke may show graded bedding, shale sharpstones and minor slump structures. Although gross stratigraphic units can be defined over much of the area, numerous lateral lithologic variations, the scarcity of marker units in the mine area, and complex deformation hampers detailed stratigraphic and structural interpretation.

Intruding this package are two major dyke sequences and a group of small mafic dykes. The early dyke intrusions are composed of dark grey-green andesites that commonly have a slightly mottled texture that reflects a fragmental nature; they may also contain abundant quartz and chlorite amygdules. They are clearly almost contemporaneous with the pyroclastic flow rocks and may be highly deformed and mineralized. The second group are massive grey-green porphyritic dacites, which show no deformation or slight deformation on their margins. Their emplacement postdates major mineralization but they have a close spatial and structural relationship to orebodies. Late dykes are common but volumetrically insignificant and include lamprophyre, basalt and andesite.

Sulphide and genetically related deposits of anhydrite, quartz, silicified rock, cherty andesitic sedimentary rocks, bedded chert, and minor barite formed from volcanogenic hydrothermal solutions after formation of the dacite tuff breccia and during deposition of the overlying andesitic sedimentary and tuffaceous rocks. Sulphides occur as massive and stringer deposits and as disseminations and bedding plane concentrations. Massive deposits are mainly along and slightly above the upper contact of the dacite tuff breccia and commonly in or near cherty andesitic rocks. Stringer deposits are mainly in silicified dacite tuff breccia below the massive sulphide deposits. The ratio of stringer (80 per cent of ore) to massive deposits is much greater at Britannia than in most volcanogenic sulphide deposits. Original deposits and alteration halos are modified by shear deformation and segmented by faults. The massive sulphide-type orebodies mined were: Jane, Fairview Zinc (1.5 per cent of total ore mined); No. 8 (top), Beta, 040, Bluff (4.5 per cent of total ore mined); and No. 8 (bottom), No. 10, Empress, Victoria, West Victoria (15 per cent of total ore mined). Stringer-type orebodies mined were the Bluff, East Bluff, Jane, No. 4 (Bluff), No. 5, No. 10 and Fairview Veins (79 per cent of total ore mined). Other zones within and near the mine area include the Daisy, Homestake, Robinson, Furry Creek, Fairwest and 074.

The sulphide orebodies of Britannia are highly heterogeneous mixtures of sulphides, remnant altered host rocks, and discrete veins. The main mineralogy of orebodies is simple and fairly constant. Pyrite is by far the most abundant mineral, with less chalcopyrite and sphalerite and minor erratically distributed galena, tennanite, tetrahedrite and pyrrhotite. The main nonmetallic minerals include quartz and muscovite (chlorite), anhydrite and siderite. The main massive orebodies, the Bluff, East Bluff, No. 5, No. 8 and 040 all show a marked zonal structure in which they have one or more high-grade chalcopyrite cores enveloped successively by a lower-grade zone and overlapping pyrite and siliceous zones. Zinc-rich ore tends to occur in the upper central parts of massive bodies and as almost sheet-like masses, like the Fairview Zinc vein. In section, the main orebodies have a crude lens-like shape oriented within the schistosity and are commonly connected to a steeply plunging root which may or may not be of ore grade. The other orebodies such as the Fairview Veins are stringer lodes and veins composed of thin sheet-like masses of chalcopyrite and pyrite with some quartz that appear generally parallel to the schistosity but actually cut across schistosity in plan at a small angle. Trace realgar, orpiment, scheelite, fluorite and pyrolusite occur in post-dacite, northeast trending gash quartz-carbonate veins in the No. 10 orebody.

The ore contains thin layers of sphalerite, pyrite and barite parallel to the bedding planes (So). Galena forms irregular intergrowths in sphalerite and is abundant in a few thin layers in zinc and zinc-copper ore. Gold is abundant in scattered narrow veins in the Homestake showing, in high-grade quartz veinlets in the No. 8 orebody and throughout the No. 5 and East Bluff orebodies. Massive ore in the No. 10 mine contains pyrrhotite and argentite inclusions within the chalcopyrite-rich massive orebody. Many of the orebodies contain several types of sulphide concentrations; the No. 8 massive orebodies grade from zinc-copper to copper. The No. 8 and No. 8A ore zones contain more zinc than the No. 8B. In the Bluff deposit, sphalerite is abundant only above the 1800 level; locally in this region siliceous copper-zinc stringer ore grades into massive zinc-copper ore toward the structural footwall (stratigraphic top).

A broad zone of pervasively silicified rock surrounds all stringer orebodies in the dacite tuff breccia except the Fairview veins. Quartz and quartz-pyrite veins occur throughout the silicified halos and increase in abundance and sulphide content toward an orebody. Pyrite is abundant as beds and nodules in andesitic sedimentary rocks above the Fairview Zinc orebody and locally pyritic layers show slumping features characteristic of soft sediment deformation. Anhydrite is abundant in pyritic andesitic sedimentary rocks and less abundant in the dacite tuff breccia in a broad elongate tabular halo around ore centres. Locally anhydrite forms massive deposits in tuffaceous sedimentary rocks, flanking and above orebodies, and is also found as distinct crosscutting veins in tensional zones. Locally the anhydrite has been converted to gypsum, especially near permeable zones where the gypsum occurs as narrow replacement veinlets. Within 60 to 90 metres of surface the conversion of anhydrite to gypsum is complete. James (1929) reports the presence of native sulphur in the mine. While the native sulphur may have gypsum or anhydrite associated with it none is present in the large gypsum masses (Open File 1991-15, page 35). Barite is disseminated and/or well bedded in zinc ore and nearby zinc-rich sedimentary rocks. Cherty andesitic sedimentary rocks and tuffs, locally with abundant pyrite, occur in and near massive sulphide bodies and host most of the No. 8 ore lenses.

Structure at the Britannia mine is complex; the earliest deformation (Do) produced widespread, open, concentric, flexural-slip folds (Fo) with subhorizontal to gently plunging, west-northwest trending axes. A major anticline was formed in the dacitic pyroclastic rocks and a major syncline was formed in argillite to the north. Further flexural-slip deformation was localized along the Britannia anticline, which became overturned to the north. Under continued stress, deformation consisting of several episodes of inhomogeneous strain produced the Britannia and other shear zones. Rocks were crystallized to S-tectonites with phase assemblages the same as those of lower greenschist facies regional metamorphism. East of the Jane basin, the axis of the Britannia shear zone follows the axis of the Britannia anticline; from the Jane basin to the west, the shear zone cuts across the south limb of the Britannia anticline. On the surface, the shear zone narrows to a single fault west of the Jane basin, whereas at depth and to the east it widens.

The first episode of shear deformation (D1) was the most intense. Parallel orientation of recrystallized chlorite and sericite plates and flattened lithic fragments define a foliation (S1). Numerous isoclinal folds (F1) were formed with S1 as an axial plane cleavage. In the second episode of shear deformation (D2), some sericite which had formed parallel to S1 during D1 was recrystallized to define S2 into steeply dipping west plunging mesoscopic and microscopic folds (F2). A critical factor regarding the origin of the Britannia sulphide deposits is whether they are pre- or post- D1 (and D2). Recent observations support the hypothesis that sulphide and related deposits at Britannia were deformed during D1 (see Economic Geology, Payne, et. al. 1980, for extensive discussion). The existence of stratabound ore lenses within a felsic volcanic sequence, including pyroclastic breccias, suggests that the Britannia area was a structural locus for all initial and subsequent geological processes. Volcanism, hydrothermal activity, shear deformation, faulting, and metamorphism were all dynamic forces centred along the axis presently known as the Britannia shear zone.

Rocks were altered by volcanogenic hydrothermal solutions during sulphide deposition and by metasomatic hydrothermal solutions during shear deformation. Near orebodies, alteration during deformation was superimposed on ore-stage alteration such that the two are indistinguishable. Alteration is more pronounced in andesitic than in dacitic rocks. Andesitic rocks were altered to an assemblage of quartz-chlorite-sericite (epidote-albite-potassium feldspar-calcite). Some strongly altered andesitic rocks are distinguished from strongly altered dacitic rocks by the andesite's much higher $TiO_2$ content. Studies of rocks near several of the orebodies show that much of the variation in chemical composition in all rock types is produced by ore-stage introduction of quartz, sulphides and sulphates.

A major compressional event (ending with D2) was followed by a period of relaxation of stress during which dacitic magma was intruded into dilated zones within the shear zone and surrounding rocks. In the shear zone, dacite formed dykes subparallel to S1 mainly in or near the dacite tuff breccia. Near the axis of the Britannia anticline, dykes coalesce upward and to the west and appear to cap some of the orebodies. Thin continuous andesite dykes are subparallel to S1 and cut the dacite dykes. Outside the shear zones, sills, dykes and irregular bodies of several varieties of dacite cut the Gambier Group rocks. The evidence suggests that most of the dykes at Britannia were intruded in the late stages of D2 deformation.

A third metamorphic foliation (S3) was formed locally, possibly following the dacite intrusion. It is parallel to northeast trending gash fractures in and near the dacites and to a set of northeast trending faults. The faults cut the dacite dykes and late andesite dykes and commonly contain vuggy quartz-carbonate veins. They have siderite-kaolinite alteration halos that are most intensely developed in rocks with abundant chlorite. A fourth metamorphic foliation (S4) is a widespread strain-slip cleavage and may have formed from a release of compression perpendicular to the shear zone.

A major set of post-dacite dyke faults cuts the Britannia shear zone subparallel to its margins and to S1. The faults converge upward and to the west to form one major fault. To the east, successive faults branch off a major footwall zone and cut diagonally across the shear zone subparallel to S1. These faults are characterized by a few centimetres to metres of gouge and/or strongly sheared rock. Many are braided and coalesce. In the major fault blocks, minor faults of a similar nature are abundant. Some show more than one age of movement. All the orebodies are cut by the minor faults and many are bounded by, or are near, one or more major faults.

Because many orebodies have contacts at or near major east striking faults and because most appear to be parts of a typical volcanogenic sulphide deposit, the present orebodies may represent faulted segments of a few original major sulphide deposits. A predeformation reconstruction suggests that the orebodies are segments of two original massive sulphide deposits; this requires a near vertical displacement along one fault zone followed by sub-horizontal offset with a cumulative right-lateral displacement of a couple of thousand of metres (Economic Geology, Payne et. al., 1980).

In summary, the Britannia ore deposits were formed from hydrothermal solutions genetically related to dacitic volcanism. Massive zinc, zinc-copper and copper deposits were formed near the contact of dacite tuff breccia and overlying fine andesitic tuff and sedimentary rocks. Siliceous stringer zones were formed in the dacitic tuff breccia and grade upward into massive deposits. Massive to disseminated bodies of anhydrite, pyrite, and minor barite were formed near the orebodies from exhalite solutions. Cherty andesitic sedimentary rocks are common near the orebodies. A northeast trending compressive stress couple produced the following events: a) Broad concentric folds, under continued stress, became tighter and slightly overturned at Britannia. The early part of deformation overlapped the late stages of dacitic volcanism and hydrothermal activity, and produced a series of subparallel fractures which acted as channelways for hydrothermal solutions. b) With continuing stress, several episodes of inhomogeneous strain produced the schistose rocks which define the Britannia shear zone. Rocks were recrystallized into S-tectonites and sulphide deposits were deformed in part by fracture and in part by plastic flow, and were segmented into a series of en echelon stringers parallel to S1. Sulphides and quartz in the orebodies show typical deformation textures similar to those of the enclosing rock. c) Ore-stage hydrothermal solutions and deformation stage solutions caused chemical alteration. Andesitic rocks were effected more than dacitic rocks and show increases in $Al_2O_3$, $K_2O$, $SiO_2$ and $H_2O$ and decreases in CaO, FeO and MnO. $TiO_2$ remains relatively constant and its content can be used to distinguish some strongly altered andesitic rocks from similarly altered dacitic rocks. d) Orebodies were deformed during several periods of faulting. Following an early period of right-lateral movement, dacite dyke swarms were intruded into the shear zone generally parallel to S1 and concentrated in the dacitic tuff breccia. Dykes were cut by northeast trending quartz-carbonate gash fractures, which near orebodies contain sulphides, mainly chalcopyrite and pyrrhotite, remobilized from the orebodies. e) A major set of late east faults displaces the rock and orebodies with a cumulative right-lateral horizontal component of motion to a maximum of 2438 metres (Economic Geology, Payne, J.G. et. al., 1980).

Measured and drill indicated reserves in the No. 10 mine at the time of closure were 1,424,147 tonnes grading 1.9 per cent copper (Property File -- Northcote, K.). Past work consisted of extensive underground and surface development. Between 1905 and 1977, the Britannia orebodies yielded approximately 52.7 million tonnes of ore grading 1.1 per cent copper, 0.65 per cent zinc, 6.8 grams per tonne silver and 0.6 grams per tonne gold. The mine site became the B.C. Museum of Mining, a National Historic Site in 1975.

The **Northair Deposit** is located in a Lower Cretaceous roof pendant of Gambier Group volcanic and sedimentary rocks within the southern Coast Plutonic Complex. This particular pendant, known as the Callaghan Creek pendant, is comprised of variably metamorphosed northwest trending volcanic and volcanically-derived sedimentary rocks, commonly characterized by a strong northwest foliation. The pendant rocks exhibit regional lower greenschist facies metamorphism, except near their contact with intrusive bodies, where they have locally undergone contact metamorphism.

The plutonic rocks in the area have a compositional range which varies from quartz monzonite to diorite. The plutonic rocks vary in age from Early Tertiary to Late Jurassic. Pendant contacts with adjacent plutonic rocks are often sharp and commonly marked by narrow shear zones which are parallel to the foliation within the pendant rocks.

Previous mapping in the Northair mine area has divided the geology of the 5000-metre thick Gambier Group into two major units. Unit 1 is a lower, volcanic-derived, sediment-rich unit characterized by well-sorted wacke with low fragment (clast) variation and minor volcanic tuffs, indicating a relatively long depositional history. Sedimentary features such as graded bedding and crossbedding are present with indicated tops to the northeast. Thin magnetite beds are locally present in wacke sediments. The stratigraphy appears to have a north to northwest strike and a steep dip to the northeast.

Unit 2 is comprised of a volcanic tuff of predominantly andesitic composition which stratigraphically overlies unit 1. Most of the southern contact between these two units is a fault which locally is occupied by a Tertiary felsic dyke. The upper 2500 metres of unit 2 is characterized by a high variability of clast size (ash tuff to block breccia) representing a rapid depositional environment. Depositional cycles are evident by the northeastward and southward fining of these fragmentals. Locally emergent conditions are indicated by features such as hematitic clasts which are well-rounded and similar in size. This is found particularly in the upper portion of the stratigraphy (northwest part of the property).

A proximal environment is indicated for the lower 1000 metres of unit 2, which is characterized by the absence of sediments, almost chaotic and locally clast-supported angular block and ash tuffs, volcanic breccias and lapilli tuffs which represent a brief, rapid depositional history. The significance of the lower unit lies in the fact that it hosts more of the ore.

Recent workers have interpreted the Gambier Group rocks on the property as a homoclinal succession (Assessment Report 18402). No minor fold structures have been observed. The bedding varies in strike from 160 to 200 degrees and dips from 45 to 89 degrees east. A pervasive cleavage is moderately well-developed and is common in the volcanic rocks; it has a strike of 160 to 180 degrees and is steeply inclined. Rock analyses show that the volcanics are calc-alkaline basalt to dacite in composition, with the majority of the samples falling into the andesite to dacite fields (Assessment Report 18402). Host rocks to the ore deposits at the Northair mine are andesitic pyroclastic breccia and lapilli tuffs. The ore deposits are comprised of 3 or 4 steeply dipping, fault-dismembered tabular zones, 1 to 7 metres wide and approximately 1200 metres long. They dip steeply southwest and are known to extend downdip at least 300 metres. The four mineralized segments are separated by north trending faults and are named from south to north as: Manifold, Warman, C and Discovery.

The mineralized segments are generally small bodies. The sulphides comprise pyrite, galena, sphalerite and minor chalcopyrite disseminations, veins and locally discontinuous, banded segregations in quartz-calcite gangue. Anastomosing veins of pyrite, galena and sphalerite are common; often they are irregular sulphide pods and lenses, separated by barren, brecciated country rock (horses). Locally, spectacular ribbon-banded, quartz-chlorite-pyrite veins (with minor lead-zinc sulphides) are present in the ore zone. The vein zone which comprises most of the ore, as a whole has a steep southwest dip which is broadly discordant to the perceived northeast dip of the volcanic stratigraphy. A general pattern of sulphide mineralogy indicates silver-rich, base metal-poor mineralization in the Manifold zone, progressing to more base metals and less silver toward the northwest (through Warman, C and Discovery zones). The width of the mineralization increases from the south to the northwest. Local banded, massive sphalerite and galena were reported at the Discovery zone. Other minerals reported at the mine are tetrahedrite, argentite, bornite, pyrargyrite and electrum with trace amounts of gold and stromeyerite (Geology in British Columbia 1977-1981, page 100).

At the northwest end of the "Northair horizon" (C and Discovery zones), where highest base metal values are indicated, the tested extent of mineralization is essentially less than 150 metres below surface. This locality was considered to have the best chance for massive sulphides discovery because of reported local occurrences of banded sulphides and shallow testing by previous exploration (Assessment Report 18402).

A consistent black, biotite/chlorite hydrothermal alteration zone is closely associated with the mineralization. This alteration forms an envelope to the sulphide vein zone, and is in some cases asymmetrical; more often it appears to be broadest in the structural hanging wall. The biotite content increases toward the sulphide vein system; it is a pervasive, fine-grained overprint of dark green chlorite. A gradation exists from a dark green, pervasive chlorite-altered tuff to a black, biotite-dominant tuff, most strongly altered nearest the mineralization. The biotite forms 6 to 7-millimetre clumps or aggregates in the altered host rock very close to, and within the mineralized vein system. Pervasive sericite alteration is also evident, but it appears to be an earlier event, and much more extensive; it is not directly related to the mineralization. Near the sulphide vein system within the alteration is a quartz-calcite stockwork which contains weak metal sulphides.

A long standing controversy has existed regarding the origin of the Northair mineralization. Two views are that the sulphides represent (1) volcanogenic massive sulphide mineralization or (2) that it is vein-type mineralization, related either to a synvolcanic hydrothermal system, or to nearby intrusions of the Coast Plutonic Complex; the latter genesis is proposed (Assessment Report 18402).

Production at the Northair mine began in 1974 and was suspended in mid-July, 1982 due mainly to low grades and low gold prices. Indicated reserves are 59,071 tonne grading 26.73 grams per tonne silver, 9.08 per tonne gold and 2 per cent combined lead-zinc (Canadian Mines 1986-87, page 285).

The **Hummingbird**-Romana Copper showing is located on the north side of Goat Island on Powell Lake.

The showing was extensively worked in the late 1920s including numerous opencuts, a gloryhole and 2 tunnels exceeding a total of 183 metres. Romana Copper Mines Ltd. acquired Hummingbird and nine other claims in 1928. The Hummingbird claim was Crown granted in 1929. A tramway was constructed in 1928. Tunnels were driven in 1929 and 1930. The property lay dormant until 1983 when explored by Corinth Resources. In 1988, Ashworth Explorations Ltd. conducted a geochemical exploration program on the Humming Bird (Lot 4815a) Reverted Crown grant and Clover claims covering the property. The property was owned by J. Fleishman.

The area of interest consists of a roof pendant which forms a 100-metre wide belt of highly altered volcanic and sedimentary rocks unconformably overlying diorite, quartz diorite and granodiorite of the Cretaceous Coast Plutonic Complex. The apparent strike of the belt, thought to be part of the Lower Cretaceous Gambier Group, is about 220 degrees.

Within this roof pendant is a contact metamorphosed zone containing garnetite, epidote and mineralization. The mineralization, manifested by rusty zones and malachite stain, consists of pods, streaks, veins and lenses of massive sulphides composed of varying proportions of pyrite and chalcopyrite. Most samples were moderately magnetic, and magnetite was identified in some specimens.

The best silver values occur in the opencut from which previous ore shipments were made. In 1983, a chip sample over unknown length assayed 17.40 per cent copper and 320.17 grams per tonne silver (Assessment Report 11884). Eight rock chip samples were taken during property exploration in 1988. Sample CL88-R2 yielded 3.08 per cent copper, 52.80 grams per tonne silver and 0.27 gram per tonne gold (Assessment Report 18531). The sample was a 100-centimetre chip sample across malachite stained, heavily altered metavolcanics striking 160 degrees and dipping vertical.

One hundred and forty tonnes of ore are quoted as being mined and shipped several years before 1928 assaying 8 to 11 per cent copper, 240 to 685 grams per tonne silver and minor gold (Minister of Mines Annual Report 1928).

Mineralization in the **Mount Diadem** area became known in 1928, when several massive sulphide showings containing pyrite, pyrrhotite, chalcopyrite and sphalerite were discovered near the headwaters of No Man's Creek. Both Britain River Mining Co. Ltd. and Mount Diadem Mines Ltd. staked claims west and north of Mount Diadem. Numerous trenches were excavated where sulphide showings occurred in altered limestone and other sedimentary rocks. Some adits were driven and work continued sporadically over the years. The original claims lapsed and were restaked in 1947 by Nickel Mining Company of Canada Ltd. The new claims were optioned to Bralorne Mines Ltd. in 1949. Considerable work has been carried out since 1949 by various operators. Geological mapping, limited diamond drilling and sampling of old adits and trenches were performed by Sphere Development Corp. in 1967. In 1970, Tiger Silver Mines Ltd. performed geophysical magnetic and geochemical soil surveys. Britain River Syndicate performed geological, geophysical and geochemical surveys in 1971. Some new anomalies were discovered. Minor rock sampling was conducted by Fury

Explorations in 1980. The claims were transferred to Fury Explorations Ltd. in the early 1980s. In 1983, Anaconda Ltd. optioned these claims and conducted a drilling program, consisting of nine holes and 899 metres. In the late 1980s, Covenant Resources staked the Diadem claims, surrounding the claim owned by Fury Exploration and the Fox claim owned by R. Schmidt.

Immediately above the head of No Man's Creek on the northern slopes of Mount Diadem an old adit is located at an elevation of 900 metres. The adit lies within the Cretaceous Coast Plutonic Complex near its western boundary with the Insular Belt. The complex consists mainly of diorites, granodiorites, gneisses and migmatites enclosing a northwest trending belt (pendant) of Lower Cretaceous Gambier volcanic and sedimentary rocks. Only in the eastern and possibly basal part of the belt are mafic flows and interbedded tuff evident. These rocks have been metamorphosed to greenschist and less commonly amphibolite grade. Structural deformation has been intense with the early development of tight, moderate to steep, north plunging folds characterized by an axial planar cleavage. This has been overprinted with later, open style folds. Two shear orientations predominate, both of which appear to locally control massive sulphide mineralization. One is subparallel to regional banding and parallel to the penetrative foliation. The other set strikes 060 to 100 degrees and is steeply dipping.

Seven rock units have been defined locally. These are: (1) tuffaceous sandstone, siltstone and argillite; andesitic flows, lapilli tuff and chloritic schist and massive diorite, (2) green-grey, chlorite-rich tuff, tuffaceous sandstone; felsic lapilli and vesicular flows and breccias and massive diorite, (3) rusty to black weathering, thinly bedded argillite, (4) well banded, grey-green interbedded argillite, siltstone, sandstone, black chert and lapilli tuffs, (5) siliceous argillite, tuffaceous siltstone, chert and lapilli tuff, (6) andesitic breccia and (7) feldspar-rich diorite, quartz diorite and granite. The adit is collared at the contact of the volcanic rocks with the intrusive rocks. The adit penetrates the silicified, recrystallized volcanics for 12 metres, at which distance a 0.61-metre shear is intersected. Pods consisting of galena, sphalerite, pyrite and small amounts of chalcopyrite are exposed in the shear.

A 0.25-metre wide sample of the shear southeast of the adit assayed 0.017 per cent copper, greater than 1 per cent lead, greater than 1 per cent zinc, greater than 200 grams per tonne silver and 0.18 gram per tonne gold (Assessment Report 11641). A grab sample from the adit assayed 4.9 grams per tonne gold, 264 grams per tonne silver, 8.89 per cent lead, 8.62 per cent zinc and 0.02 per cent copper (Assessment Report 11641).

Diamond drilling completed under option to Anaconda has tested up to 175 metres along strike, the contact between sheared argillite - chloritized volcanics. Three zones were believed intersected; the North, Central and South. The best drilling results were obtained from the Central zone. Diamond-drill hole 84-3 intersected 0.79 per cent copper, 2.74 per cent lead, 1.61 per cent zinc and 148.80 grams per tonne silver over 12.0 metres (Assessment Report 18207). The Central zone was also intersected by drillholes 84-1, 84-5, 84-6, and 84-8. The South zone was intersected in drillhole 84-9, approximately 60 metres below the surface. A 7.7-metre section yielded 0.1 per cent copper, 1.48 per cent lead, 1.53 per cent zinc and 44.91 grams per tonne silver (Assessment Report 18207). Mineralization in all intersections is hosted in intensely deformed argillite.

## REGIONAL GEOCHEMISTRY

A regional stream sediment survey published by the Geological Survey in 1988 indicates geochemical anomalies in streams that drain the Lorax property. The anomalies are summarized in the following table.

| stream(s) weakly anomalous for | stream(s) moderately anomalous for |
|---|---|
| As | Cu, Zn, Pb, Ba, Co, Mo |

## REGIONAL GEOPHYSICS

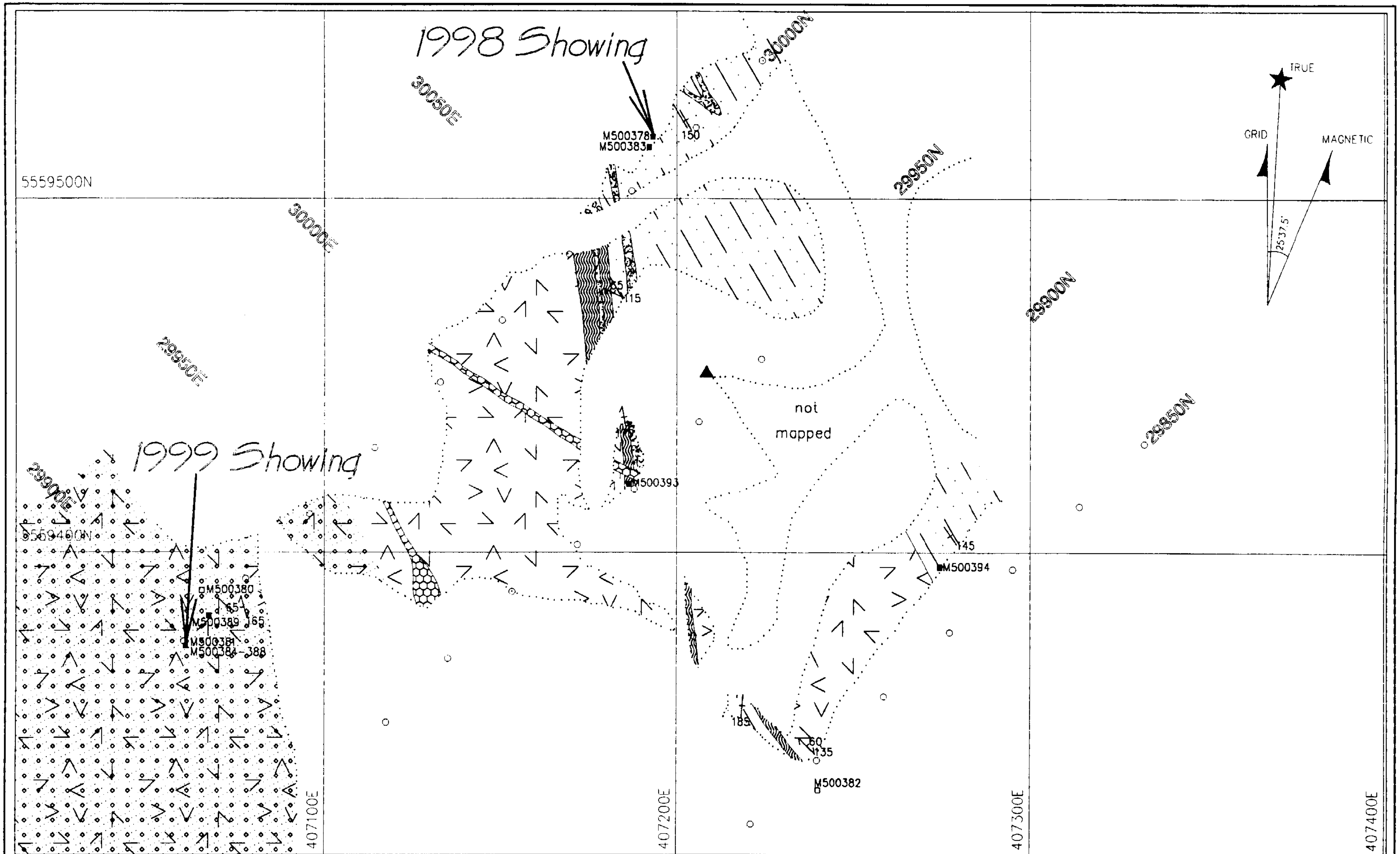
In 1988, the Geological Survey published an airborne magnetometer survey as a series of 1:250,000 and 1:50,000 scale maps.

The Lorax property is located in a zone of relatively low magnetic gradient, increasing to the south. The magnetic signature in the area appears to be largely controlled by topography.

## PROPERTY GEOLOGY

The Lorax property covers a large part of a pendant of metamorphic rocks of upper Triassic Karmutsen Group and lower Cretaceous Gambier Group (Figure 3). The area appears on a regional scale geology map published by the Geological Survey in 1976. Rocks mapped include low grade metamorphic rocks derived from volcanic and sedimentary sources.

The area on the ridge top near the sulphide showings was mapped in detail during 1999 (Figure 5). The easternmost rock mapped is **bedded quartzite** with interbeds of argillaceous quartzite. The beds, which vary in thickness from 0.5cm to 5cm, are discrete and give the rock a distinctive striped appearance. The purer beds are white or light brown, sometimes with an orange tinge, and very fine grained. The argillaceous beds are dark grey, sometimes with a purplish tinge, and also very fine grained. They weather slightly recessive. An approximately equal proportion of light to dark beds was observed. The quartzite contains small (to 10cm) lensoid pockets of sulphides and commonly weathers rusty. It is moderately foliated, particularly in the argillaceous beds. The quartzite unit hosts the 1998 sulphide showing.




Control grid station

Rock outcrop boundary

Fly camp location

Fine grey dyke

0 5 10 20 30 40 50m

M500381 Rock outcrop sample with sample number

75 090 Bedding attitude

090 Vertical

Bedded quartzite

Porphyry

Dark grey volcanic

M500380 Rock float sample with sample number

80 090 Foliation attitude

090 Vertical

Banded amphibolite + felsite

Mafic dyke

Altered volcanic

FIGURE 5

# LORAX PROPERTY

## Detail Geology

| | |
|---|---|
| DRAWN BY: AB | PRODUCED AT: 1:1500 |
| DATE: OCT 12, 1999 | FILE: LORAX\GEOL.DWG |

To the west of the quartzite is a unit of metamorphosed and **banded amphibolite + felsite** which represents volcanics of varying compositions. The quartzite contact with this unit appears conformable. This unit has an irregular thickness and is moderately to strongly foliated. It commonly weathers rusty.

Both the quartzite and the banded amphibolite + felsite units are intruded by **mafic dykes**. The dykes are composed of 65% fine grained black groundmass in which 30% medium-grained (to 0.4cm long) amphibole laths and 5% fine-grained feldspar phenocrysts are suspended. The dykes exhibit a weak lineation, best seen on weathered surfaces, which may represent the intersection of syngenetic mineral alignment and overprinted regional foliaton. The dykes weather medium grey.

Also contacting the quartzite unit at its western margin is a felsic **porphyry** body. During 1999, only a small outcrop of this unit was protruding from the thick snow pack, but it appears to be a mappable unit. The rock is composed of 60% fine-grained grey groundmass which, upon close examination, exhibits a speckled "salt and pepper" coloring. 40% of the rock is coarse (to 0.4cm) anhedral white feldspar phenocrysts. Both fresh and weathered surfaces are light grey. Because of the limited outcrop exposure, the type of contact with the quartzite unit could not be determined.

The next rock type mapped to the west is a black to very **dark grey volcanic** rock that is fine grained. It is composed of 80% fine dark groundmass and 20% fine white feldspar phenocrysts. It contains <1% very fine grained pyrrhotite as sporadic disseminations, resulting in an irregularly magnetic rock. Freshly broken surfaces exhibit a fine sparkle, presumably from cleavage faces of fine olivine or amphibole phenocrysts in the groundmass. Feldspar weathers slightly recessively in this rock, resulting in a gently pitted surface. Overall, the rock weathers dark grey. The unit is the most extensive mapped, and is host to the 1999 sulphide showing. In the western portion of the area mapped, approaching the sulphide showing, this rock exhibits pervasive low grade chlorite or clay alteration, resulting in a slightly lighter coloured rock. Small (to 2cm) veins of quartz, calcite or epidote are common in the altered zone.

The volcanic rock and others are cut by a **fine grained dark grey dyke** that weathers light grey. The dyke rock is slightly magnetic and bears very fine grained pyrrhotite disseminations.

## PROPERTY MINERALIZATION

Prospecting and hand trenching in 1999 resulted in the discovery of a 0.7m thick bed of massive sulphides on the ridge top near the centre of the property. 1998 work had located a 0.2m thick sulphide lens 175m further north.

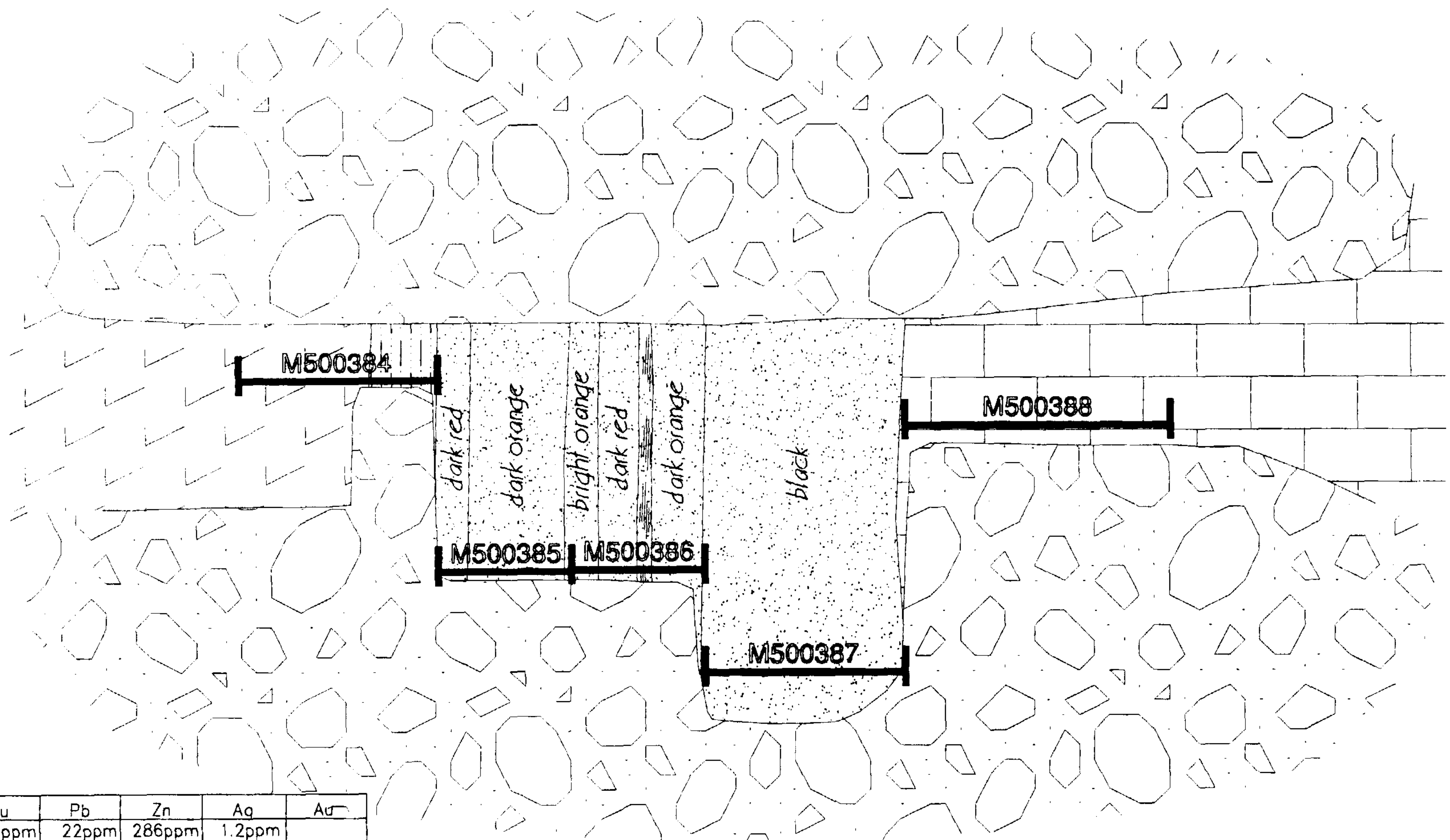
Specimens of the sulphides were submitted to Chemex Labs in North Vancouver, BC, where they were crushed and pulverized to 150 mesh, split, digested in a nitric aqua regia solution and analyzed for 32 elements using an induced coupled plasma (ICP) technique. Selected samples were further analysed for any of copper, zinc, lead, silver, gold or a combination of these elements by direct assay. Certificates of Analysis appear in Appendix II.

The two lenses differ from one another in that the 1999 sulphide lens is zoned and contains pyrite, chalcopyrite, sphalerite and galena, while the 1998 lens is devoid of galena, and exhibits no zoning. The 1999 showing contains 1844ppb gold across the 0.7m width of the sulphide lens, including 2590ppb gold across 0.3m, while the 1998 showing contains 25ppb gold.

Specimens collected from subcrop beside the 1999 showing returned values of up to 7110ppm copper, 211 g/t silver, 7.38%

zinc and 1.90% lead. Chip samples taken across the 1999 showing are shown in Figure 6. It is significant to note that hand trenching over the sulphide lens did not attain fresh sulphides, and that as a result nearly all of the material in the chip samples is strongly weathered rock that has been leached in situ. It is likely that metals grades in the underlying fresh sulphides are considerably higher than those obtained from the leached material. The specimen from the 1998 showing returned values of 1.43% zinc, 0.45% copper, 19ppm silver, 139ppm cobalt and 120ppm cadmium.

The sulphide beds are fine to coarse grained and weathered black, orange or red. The 1998 showing is hosted by quartzite, while the 1999 showing is hosted, with a coarse grained calcite lens, by massive to weakly foliated mafic volcanic rock.




| Sample | Cu | Pb | Zn | Ag | Au |
|---|---|---|---|---|---|
| M500384 | 152ppm | 22ppm | 286ppm | 1.2ppm | |
| M500385 | 2590ppm | 870ppm | 6130ppm | 59.2ppm | 480ppb |
| M500386 | 4050ppm | 1835ppm | 1.71% | 46.2ppm | 245ppb |
| M500387 | 5930ppm | 1.90% | 3310ppm | 211g/t | 2590ppb |
| M500388 | 546ppm | 338ppm | 2350ppm | 12.0ppm | |

NB: weathered sulphides

M500386 Rock chip sample with sample number

0 5 10 20 30 40 50cm

Foliated volcanics

Massive sulphide

Marble

Baritic quartzite

Weathered massive sulphide

Overburden

FIGURE 6

# LORAX PROPERTY

## 1999 Showing
## View East

| | |
|---|---|
| DRAWN BY: AB | PRODUCED AT: 1:10 |
| DATE: OCT 6, 1999 | FILE: LORAX\SHOWING.DWG |

## PROPERTY GEOCHEMISTRY

On the east side of the ridge, 110 soil samples were collected from a grid with a sample density of 50 by 25 metres. That portion of the grid that had been planned for the west side of the ridge was abandoned due this winter's record snow pack. It was replaced by a single reconnaissance soil line along which six soil samples are irregularly spaced. All soil samples were submitted to Chemex Labs Ltd. in North Vancouver, BC where they were screened to 150 mesh, split, digested in a nitric aqua regia solution and analyzed for 32 elements by an induced coupled plasma (ICP) technique. Certificates of Analysis appear in Appendix II.

A statistical analysis was performed on a population of soil samples collected during a regional exploration program conducted in the Powell River region during 1998 and 1999. A total of 522 soil samples are included in the analysis, all of which were collected over roof pendants of metamorphic Gambier Group rocks. The resulting data were used to establish thresholds for geochemical anomalies. A summary of the data and histogram plots for elements of primary interest are shown in Figure 7, while the threshold values are summarized in the following table.

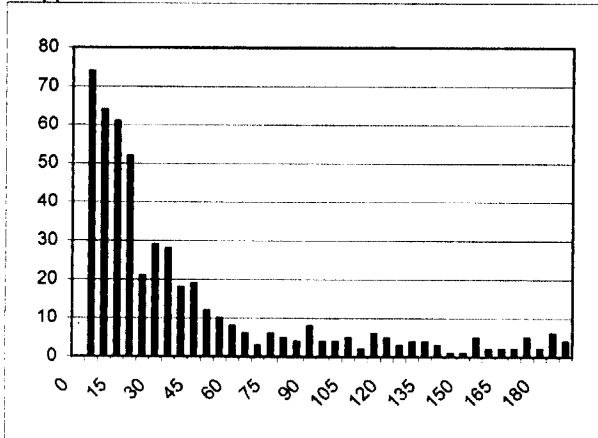
## Figure 7: Regional Soil Geochemistry Histograms

Horizontal Axes: geochemical value range; Vertical Axes: number of values in range

Number of samples n=522

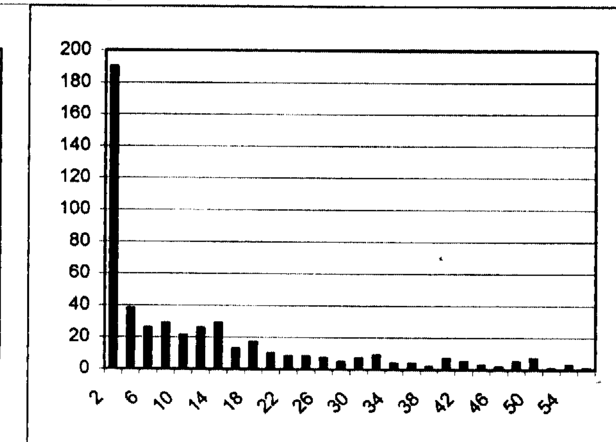
NB: outliers trimmed from histograms but included in calculations

### Copper



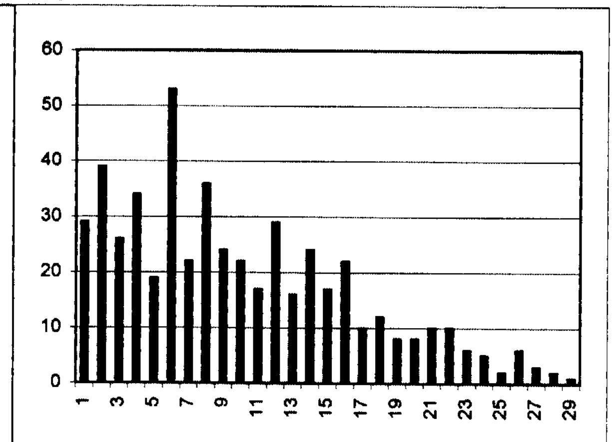

| | | | |
|---|---|---|---|
| mean | 52 | peak | 1775 |
| median | 24 | 95th percentile | 187 |
| sandard deviation | 99 | 90th percentile | 149 |

### Arsenic



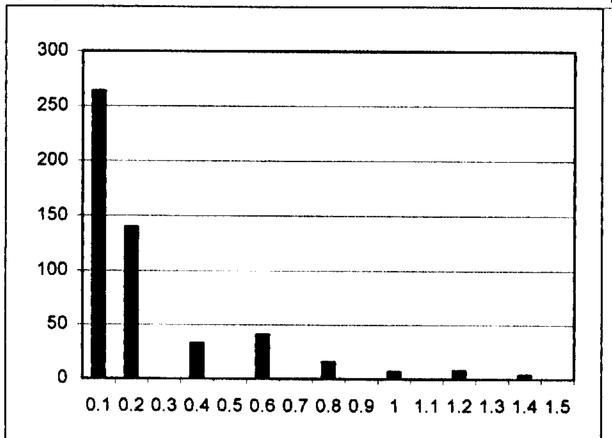

| | | | |
|---|---|---|---|
| mean | 19 | peak | 750 |
| median | 8 | 95th percentile | 66 |
| sandard deviation | 46 | 90th percentile | 46 |

### Zinc



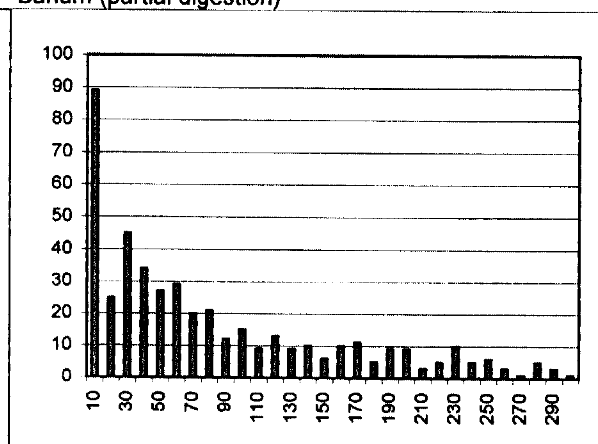

| | | | |
|---|---|---|---|
| mean | 57 | peak | 3650 |
| median | 42 | 95th percentile | 118 |
| sandard deviation | 162 | 90th percentile | 102 |

### Silver



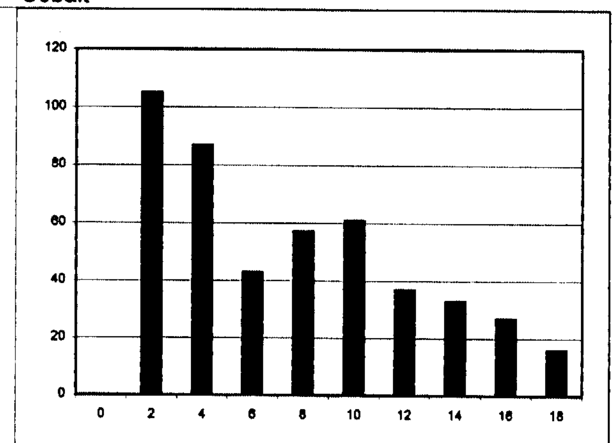

| | | | |
|---|---|---|---|
| mean | 0.32 | peak | 48.8 |
| median | 0.00 | 95th percentile | 1.00 |
| sandard deviation | 2.16 | 90th percentile | 0.60 |

### Barium (partial digestion)




| | | | |
|---|---|---|---|
| mean | 163 | peak | 1510 |
| median | 70 | 95th percentile | 650 |
| sandard deviation | 248 | 90th percentile | 429 |

### Cobalt




| | | | |
|---|---|---|---|
| mean | 9.2 | peak | 83 |
| median | 7.0 | 95th percentile | 25 |
| sandard deviation | 9.4 | 90th percentile | 19 |

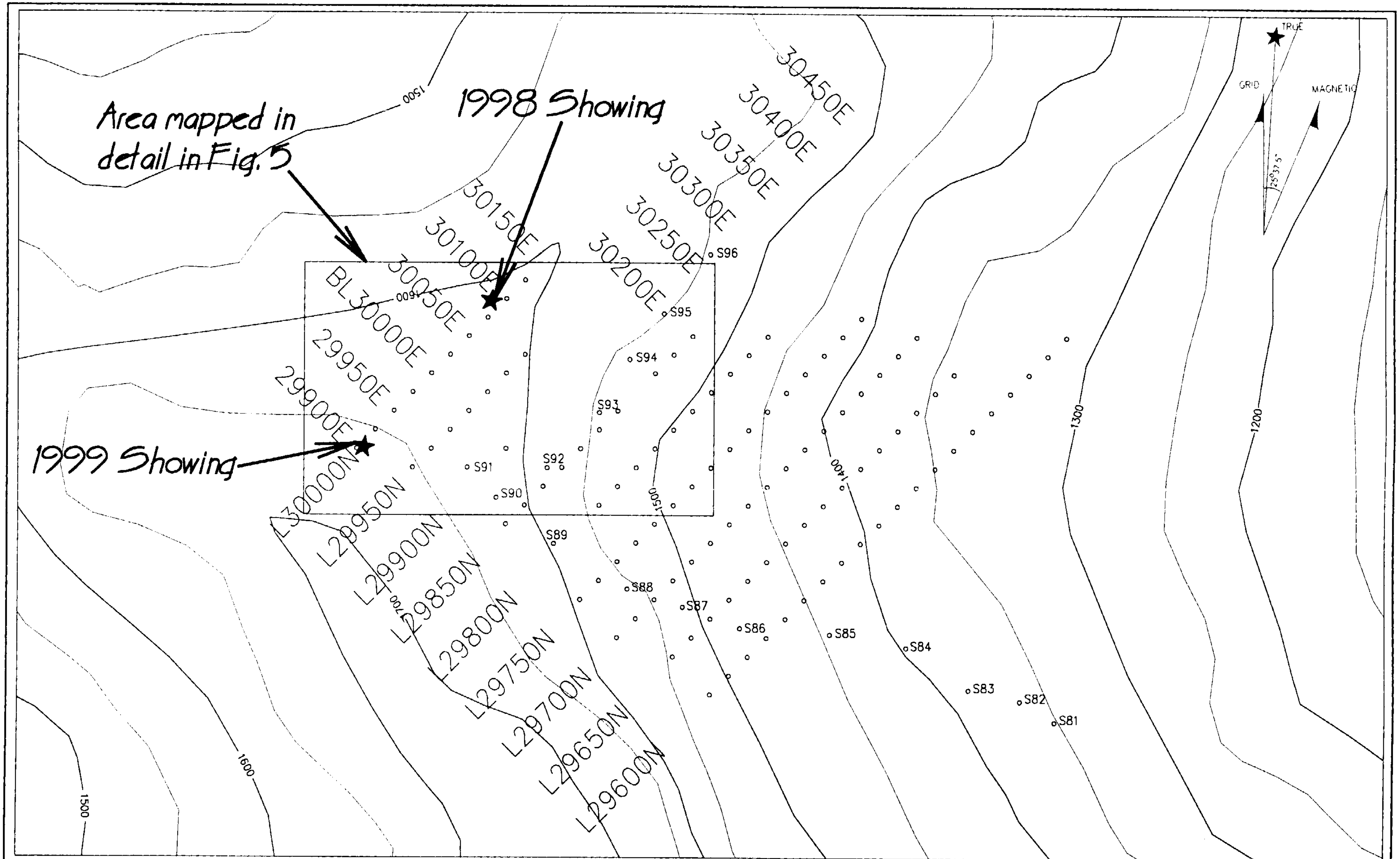
ANOMALOUS THRESHOLDS FOR 522 SOIL SAMPLES

| Element | | Anomalous threshold (ppm) | | | |
|---|---|---|---|---|---|
| | Background | Weak | Moderate | Strong | Peak |
| Cu | 25 | 45 | 90 | 180 | 1775 |
| Zn | 15 | 30 | 60 | 120 | 3650 |
| Ag | <0.2 | 0.3 | 0.6 | 1.0 | 48.8 |
| Co | 4 | 6 | 12 | 25 | 83 |
| Ba* | 75 | 150 | 300 | 600 | 1510 |
| As | 7 | 15 | 30 | 60 | 750 |
| Pb | 2 | 5 | 10 | 20 | 584 |

*partial digestion

The grid soil samples indicate anomalous zones for a number of base metals and silver (Figures 8-15). The geochemical patterns for some elements cannot be explained by downhill dispersion from a point source, suggesting that the mineralization observed in outcrop at the ridgetop extends beneath overburden. For instance, anomalous copper and lead values near the southern corner of the grid are not a result of downhill dispersion from the ridgetop, nor are anomalous zinc values near the northeastern ends of lines 29700N, 29750N, 29800N, 29850N.

Arsenic values are extremely anomalous on lines 20700N and 20750N at 30050E. This location is directly on strike with the 1998 showing. The sulphides in that showing contain considerable arsenic (260ppm), while the sulphides in the 1999 showing contain very little arsenic. This suggests continuity of the 1998 lens. Arsenic is an indicator mineral in numerous sulphide occurrences.




° Soil sample location

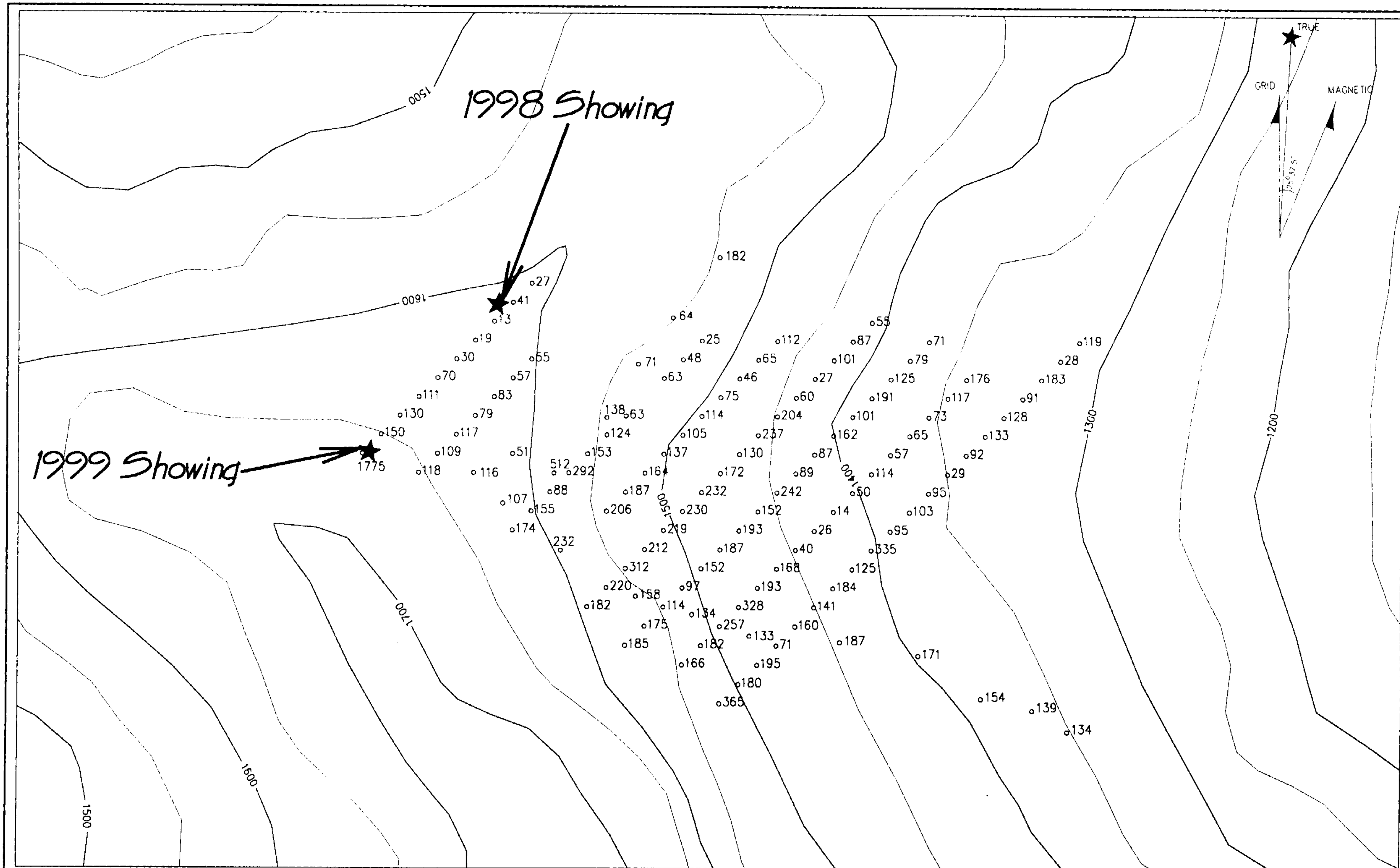
0 25 50 100 150 200 250m
Contour Interval 50m

FIGURE 8

**LORAX PROPERTY**

SAMPLE LOCATIONS

| | |
|---|---|
| DRAWN BY: AB | PRODUCED AT: 1:5000 |
| DATE: OCT 12, 1999 | FILE: LORAX\5SAM.DWG |




∘22 Soil sample location with copper value in ppm

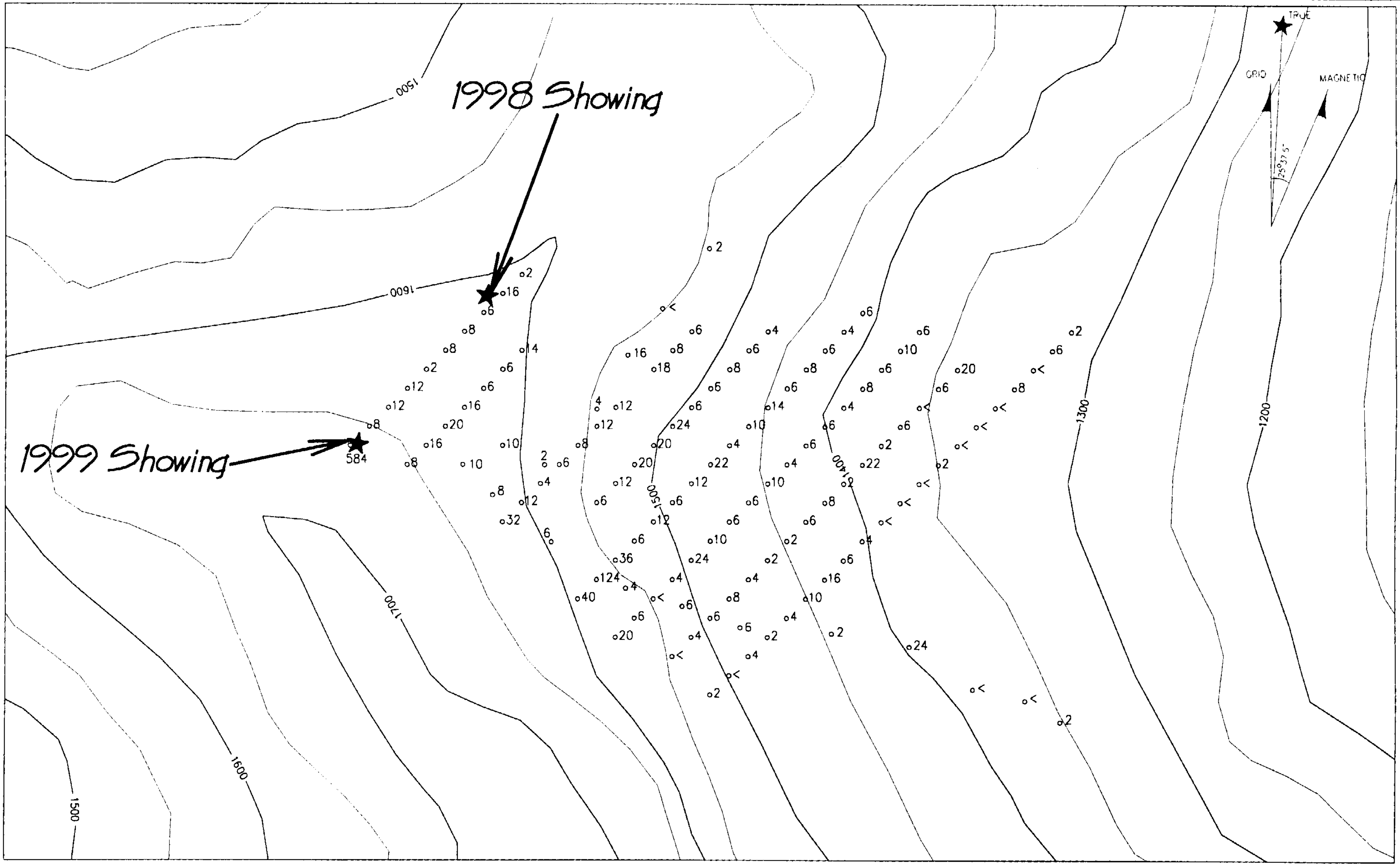
0 25 50 100 150 200 250m
Contour Interval 50m

FIGURE 9

# LORAX PROPERTY

COPPER
SOIL GEOCHEMISTRY

| | |
|---|---|
| DRAWN BY: AB | PRODUCED AT: 1:5000 |
| DATE: OCT 12, 1999 | FILE: LORAX\5SAM.DWG |




o36 Soil sample location with lead value in ppm

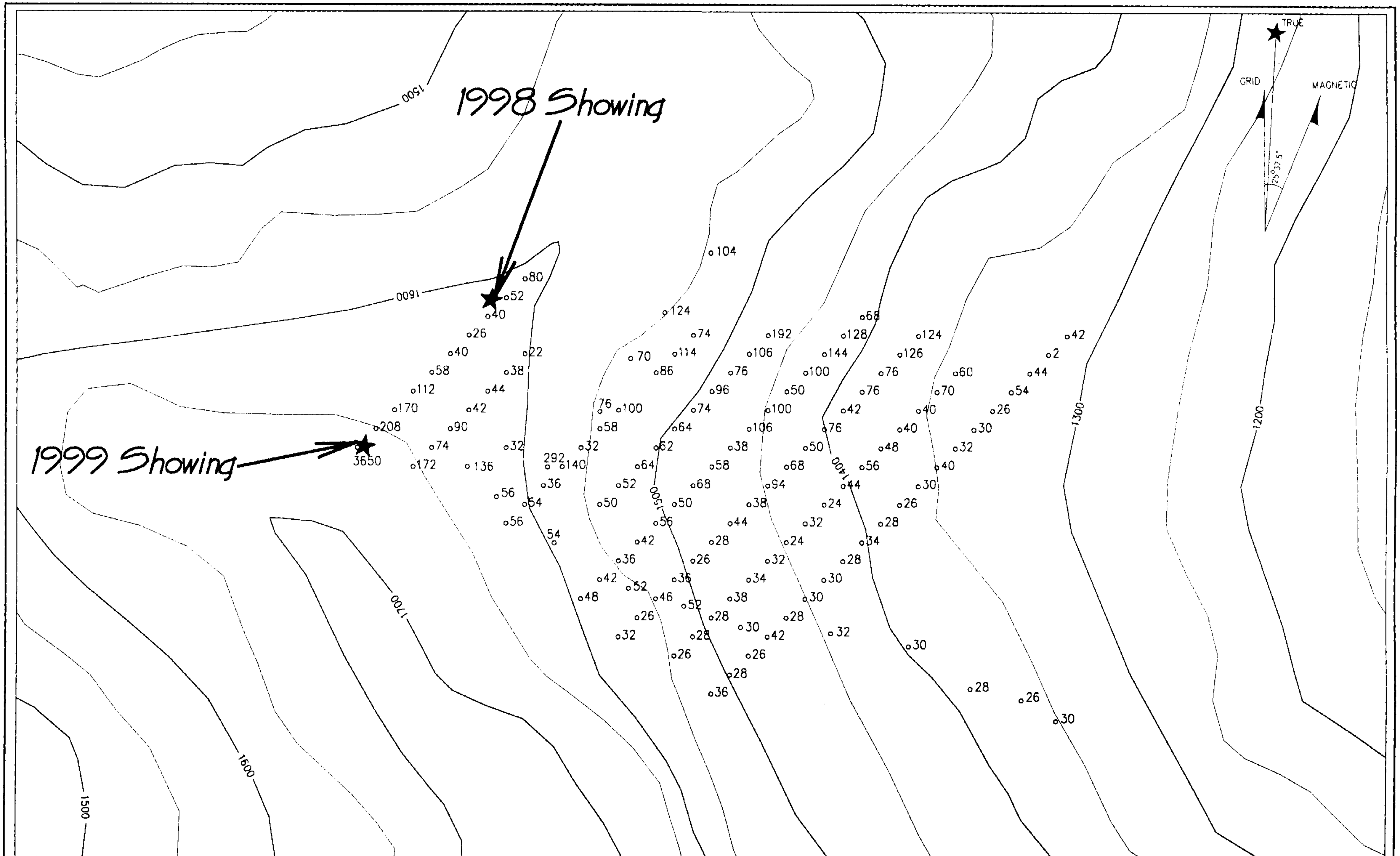
Contour Interval 50m

FIGURE 10

# LORAX PROPERTY

LEAD
SOIL GEOCHEMISTRY

| | |
|---|---|
| DRAWN BY: AB | PRODUCED AT: 1:5000 |
| DATE: OCT 12, 1999 | FILE: LORAX\5SAM.DWG |




o120 Soil sample location with zinc value in ppm

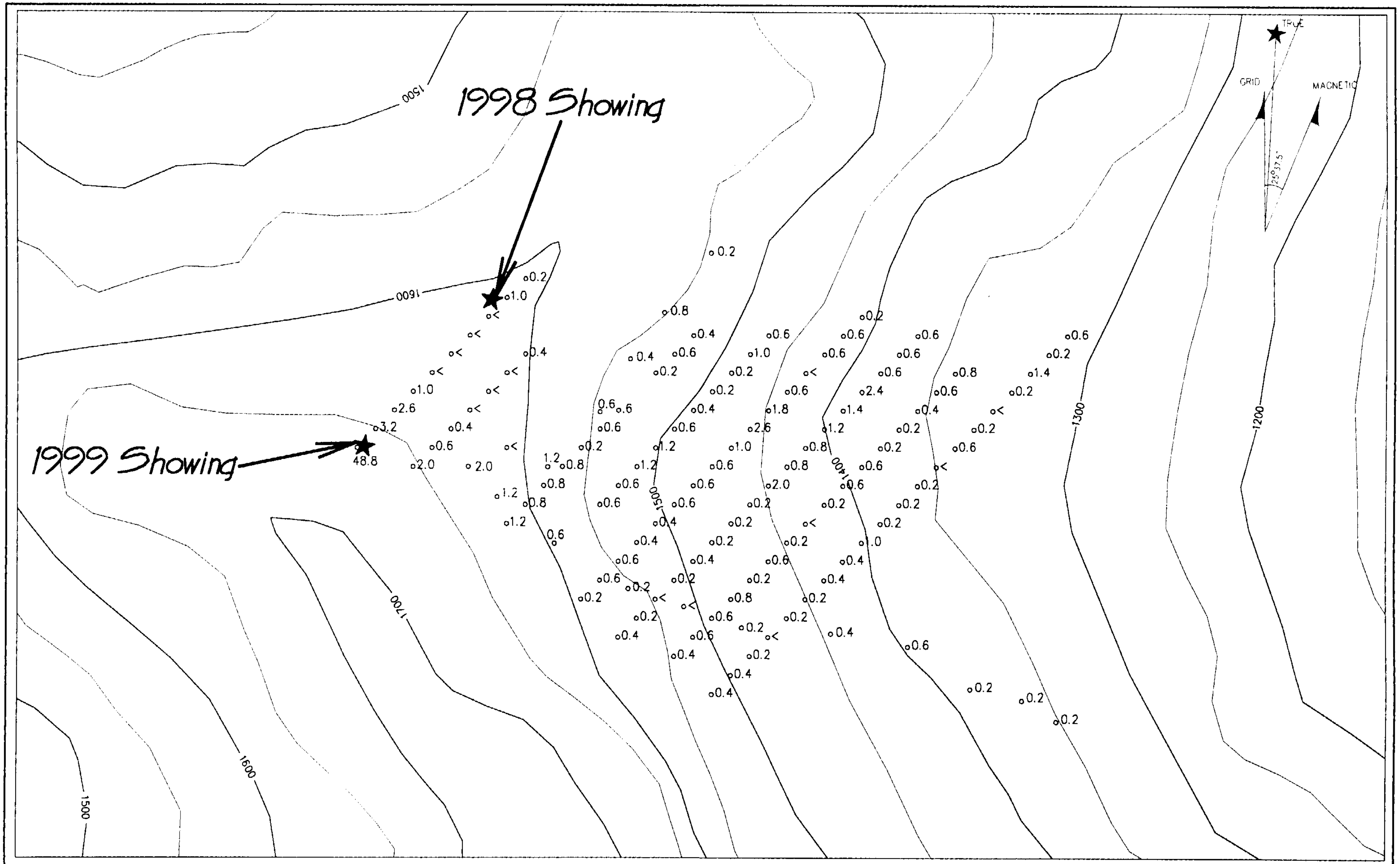
0 25 50 100 150 200 250m
Contour Interval 50m

FIGURE 11

# LORAX PROPERTY

ZINC
SOIL GEOCHEMISTRY

| | |
|---|---|
| DRAWN BY: AB | PRODUCED AT: 1:5000 |
| DATE: OCT 12, 1999 | FILE: LORAX\5SAM.DWG |




o1.2 Soil sample location with silver value in ppm
o< Soil sample location with silver value below detection limit

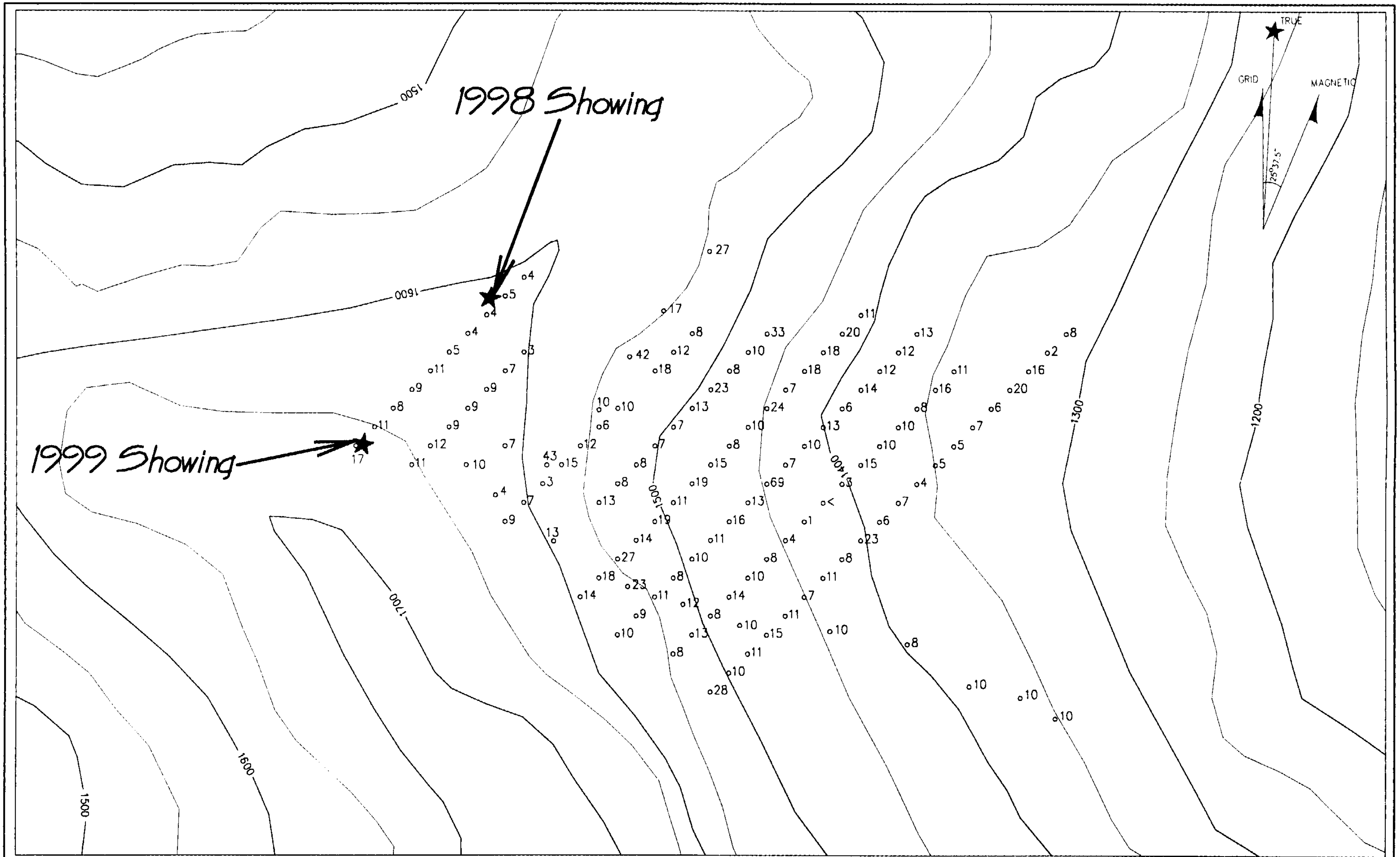
0 25 50 100 150 200 250m
Contour interval 50m

FIGURE 12

# LORAX PROPERTY

SILVER
SOIL GEOCHEMISTRY

| | |
|---|---|
| DRAWN BY: AB | PRODUCED AT: 1:5000 |
| DATE: OCT 12, 1999 | FILE: LORAX\5SAM.DWG |




∘25 Soil sample location with cobalt value in ppm

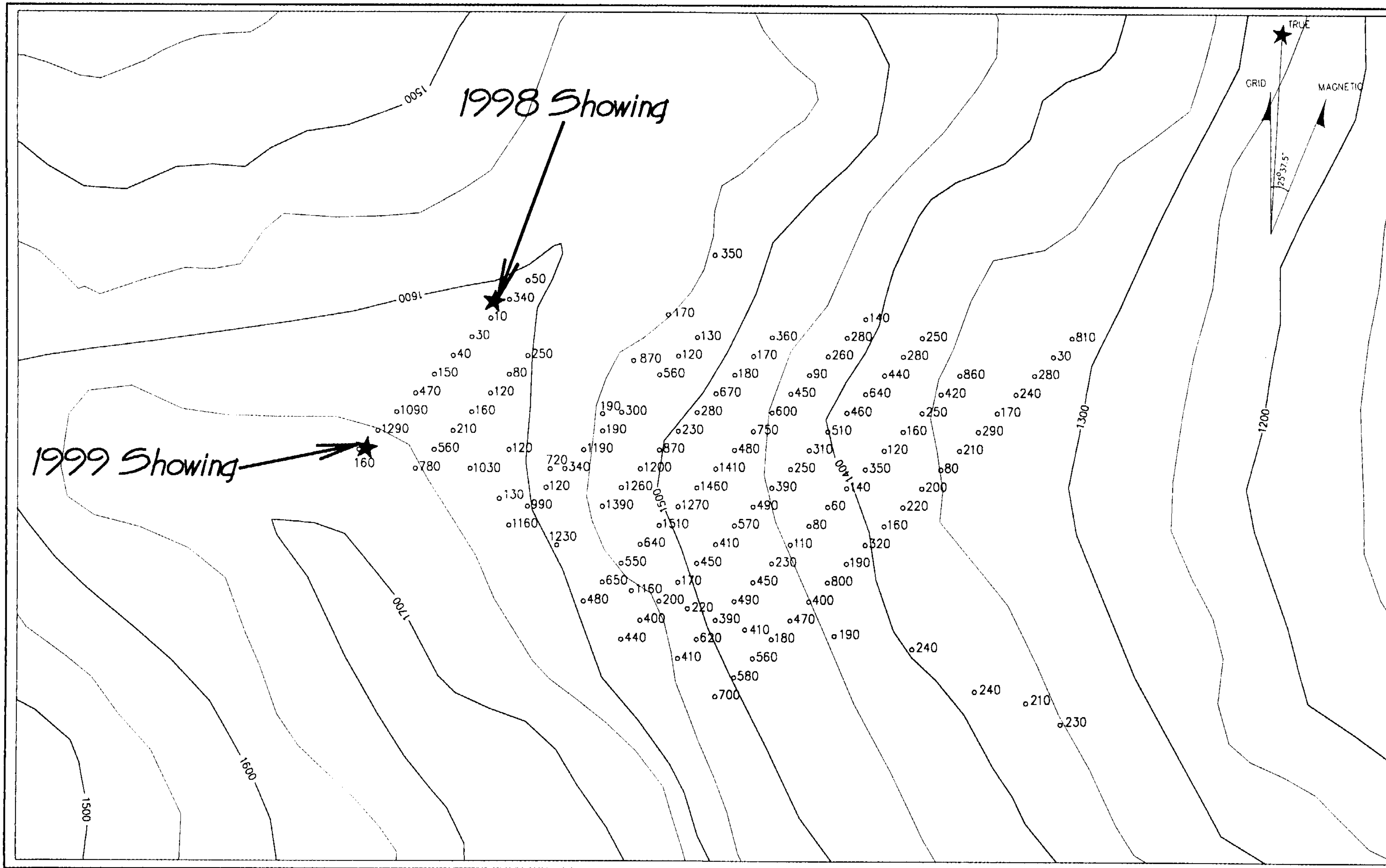
0 25 50 100 150 200 250m
Contour interval 50m

FIGURE 13

# LORAX PROPERTY

COBALT
SOIL GEOCHEMISTRY

| | |
|---|---|
| DRAWN BY: AB | PRODUCED AT: 1:5000 |
| DATE: OCT 12, 1999 | FILE: LORAX\5SAM.DWG |




∘120 Soil sample location with barium value in ppm

NB: Partial digestion only

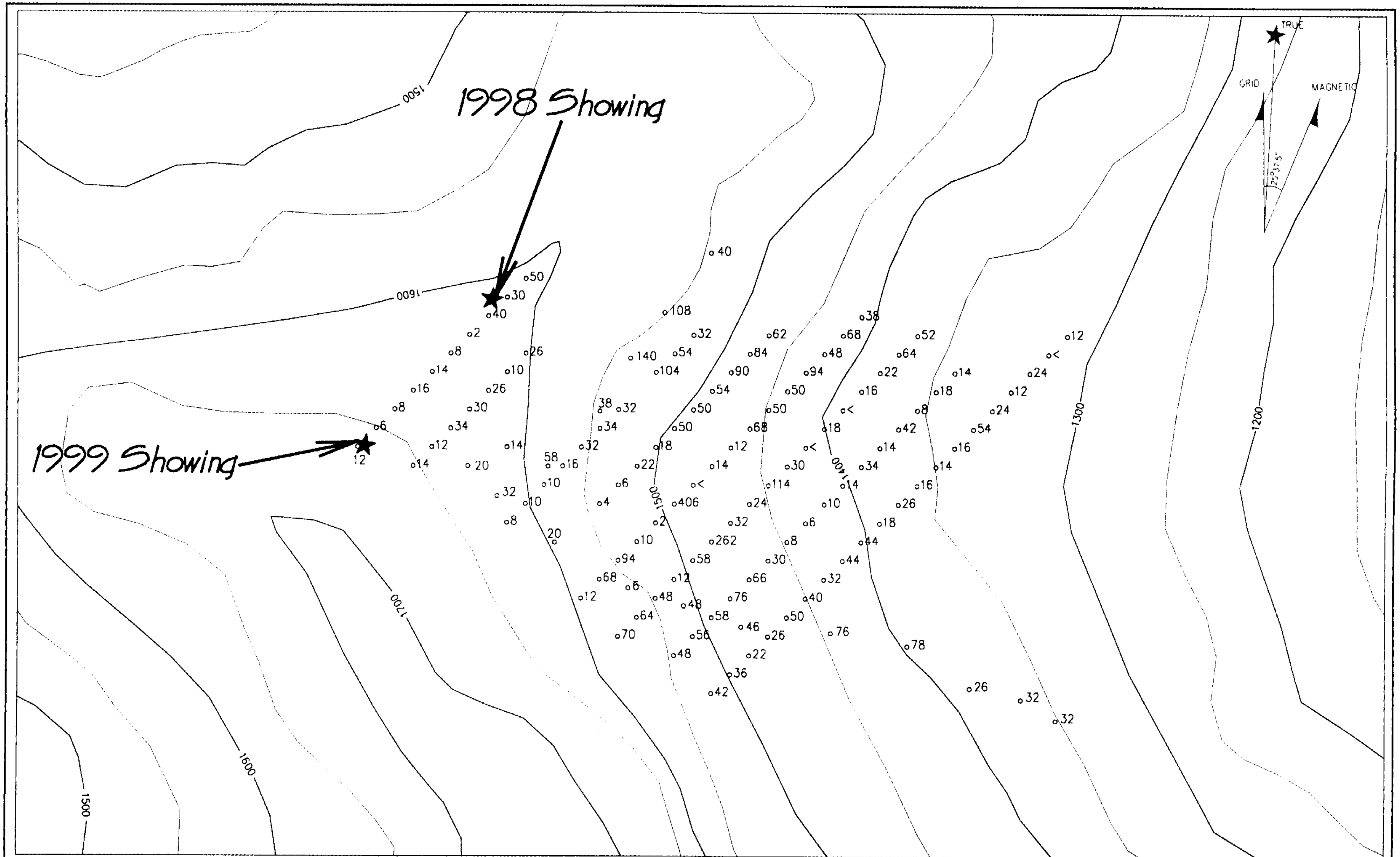
0 25 50 100 150 200 250m
Contour interval 50m

FIGURE 14

# LORAX PROPERTY

BARIUM
SOIL GEOCHEMISTRY
NB: Partial digestion only

| | |
|---|---|
| DRAWN BY: AB | PRODUCED AT: 1:5000 |
| DATE: OCT 12, 1999 | FILE: LORAX\5SAM.DWG |




₀50 Soil sample location with arsenic value in ppm

0 25 50 100 150 200 250m
Contour Interval 50m

FIGURE 15

# LORAX PROPERTY

ARSENIC
SOIL GEOCHEMISTRY

| | |
|---|---|
| DRAWN BY: AB | PRODUCED AT: 1:5000 |
| DATE: OCT 12, 1999 | FILE: LORAX\5SAM.DWG |

The barium soil geochemistry pattern near the 1999 showing supports the possibility of existence of a barite-rich zone adjacent to the sulphides. Barite is an accessory mineral at the Britannia Deposit (Payne et al, 1980), the Red Dog Deposit in Alaska (Koehler et al, 1991) and other VMS occurrences (Hoffman, 1986). The barium values are likely understated due to incomplete digestion of barite by the nitric aqua regia.

## CONCLUSIONS AND RECOMMENDATIONS

The sulphide showings and adjacent soil geochemical anomalies represent a significant VMS target which has been protected by the Lorax 1 through Lorax 11 mineral claims. Due to poor access, it is suggested that a helicopter-supported flycamp again be employed for future work.

Additional mapping and prospecting are recommended for the west side of the ridge, where work could not be conducted during 1999 due to an extreme snow pack. During normal years, the ridge is free of snow by mid to late August. The soil geochemistry grid should also be extended down the west side of the ridge.

Once the soil grid has been extended, a ground geophysical survey is recommended. Due to their massive nature, the sulphides will likely respond to electromagnetic susceptibility, induced polarization and possibly magnetic field surveys.

Respectfully submitted,

Arnd Burgert
BSc. Geology

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# APPENDIX I

## AUTHOR'S STATEMENT OF QUALIFICATIONS

**AUTHOR'S STATEMENT OF QUALIFICATIONS**

I, Arnd Burgert, geologist, with business and residential address in Port McNeill, British Columbia, do hereby certify that:

1. I graduated from the University of British Columbia in 1995 with a B.Sc. in Geology.

2. From 1989 to present, I have been actively engaged in mineral exploration in British Columbia, the Northwest Territories and the Yukon Territory.

3. I have personally performed the work reported herein.

A. Burgert, B.Sc.
Dated this 21$^{st}$ day of October, 1999

# APPENDIX II

# CERTIFICATES OF ASSAY

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218


To: BURGERT, ARND

P.O. BOX 1208
PORT MCNEILL, BC
V0N 2R0

Project : LORAX
Comments: ATTN: ARND BURGERT CC: ARND BURGERT


Certificate Date: 14-OCT-1999
Invoice No. : I9930451
P.O. Number :
Account : QHB

## CERTIFICATE OF ANALYSIS A9930451

| SAMPLE | PREP CODE | | Ag ppm | Al % | As ppm | B ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | Ga ppm | Hg ppm | K % | La ppm | Mg % | Mn ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L29600N 29975E | 201 | 229 | 0.4 | 2.64 | 42 | < 10 | 700 | < 0.5 | < 2 | 0.68 | < 0.5 | 28 | 61 | 365 | 3.19 | < 10 | < 1 | 0.27 | < 10 | 1.12 | 275 |
| L29600N 30000E | 201 | 229 | 0.4 | 2.35 | 36 | < 10 | 580 | < 0.5 | < 2 | 0.35 | < 0.5 | 10 | 43 | 180 | 2.76 | < 10 | < 1 | 0.21 | < 10 | 0.80 | 150 |
| L29600N 30025E | 201 | 229 | 0.2 | 2.48 | 22 | < 10 | 560 | < 0.5 | < 2 | 0.21 | < 0.5 | 11 | 38 | 195 | 3.41 | < 10 | < 1 | 0.22 | < 10 | 0.82 | 110 |
| L29600N 30050E | 201 | 229 | < 0.2 | 2.50 | 26 | < 10 | 180 | < 0.5 | < 2 | 0.29 | 0.5 | 15 | 33 | 71 | 3.94 | < 10 | < 1 | 0.17 | < 10 | 0.90 | 385 |
| L29600N 30075E | 201 | 229 | 0.2 | 2.22 | 50 | < 10 | 470 | < 0.5 | < 2 | 0.28 | 0.5 | 11 | 54 | 160 | 3.03 | < 10 | < 1 | 0.25 | < 10 | 0.90 | 175 |
| L29600N 30100E | 201 | 229 | 0.2 | 2.38 | 40 | < 10 | 400 | < 0.5 | < 2 | 0.20 | < 0.5 | 7 | 46 | 141 | 3.53 | < 10 | < 1 | 0.17 | < 10 | 0.86 | 135 |
| L29600N 30125E | 201 | 229 | 0.4 | 2.22 | 32 | < 10 | 800 | < 0.5 | < 2 | 0.18 | < 0.5 | 11 | 45 | 184 | 5.01 | < 10 | < 1 | 0.29 | < 10 | 0.91 | 160 |
| L29600N 30150E | 201 | 229 | 0.4 | 2.38 | 44 | < 10 | 190 | < 0.5 | < 2 | 0.09 | 0.5 | 8 | 34 | 125 | 3.84 | < 10 | 1 | 0.10 | < 10 | 0.64 | 175 |
| L29600N 30175E | 201 | 229 | 1.0 | 3.03 | 44 | < 10 | 320 | < 0.5 | < 2 | 0.24 | < 0.5 | 23 | 38 | 335 | 3.66 | < 10 | < 1 | 0.11 | < 10 | 0.68 | 250 |
| L29600N 30200E | 201 | 229 | 0.2 | 2.23 | 18 | < 10 | 160 | < 0.5 | < 2 | 0.22 | < 0.5 | 6 | 28 | 95 | 2.70 | < 10 | < 1 | 0.11 | < 10 | 0.65 | 150 |
| L29600N 30225E | 201 | 229 | 0.2 | 3.35 | 26 | < 10 | 220 | < 0.5 | < 2 | 0.12 | 0.5 | 7 | 37 | 103 | 2.90 | < 10 | < 1 | 0.12 | < 10 | 0.61 | 125 |
| L29600N 30250E | 201 | 229 | 0.2 | 3.03 | 16 | < 10 | 200 | < 0.5 | < 2 | 0.14 | < 0.5 | 4 | 44 | 95 | 2.22 | < 10 | 1 | 0.08 | < 10 | 0.69 | 130 |
| L29600N 30275E | 201 | 229 | < 0.2 | 2.35 | 14 | < 10 | 80 | < 0.5 | < 2 | 0.12 | < 0.5 | 5 | 42 | 29 | 2.47 | < 10 | < 1 | 0.22 | < 10 | 0.82 | 195 |
| L29600N 30300E | 201 | 229 | 0.6 | 3.09 | 16 | < 10 | 210 | < 0.5 | < 2 | 0.23 | < 0.5 | 5 | 41 | 92 | 1.83 | < 10 | < 1 | 0.10 | < 10 | 0.68 | 135 |
| L29600N 30325E | 201 | 229 | 0.2 | 2.58 | 54 | < 10 | 290 | < 0.5 | < 2 | 0.35 | 0.5 | 7 | 36 | 133 | 2.49 | < 10 | < 1 | 0.15 | < 10 | 0.63 | 145 |
| L29600N 30350E | 201 | 229 | < 0.2 | 3.51 | 24 | < 10 | 170 | < 0.5 | < 2 | 0.24 | 0.5 | 6 | 39 | 128 | 2.33 | < 10 | < 1 | 0.09 | < 10 | 0.57 | 145 |
| L29600N 30375E | 201 | 229 | 0.2 | 2.80 | 12 | < 10 | 240 | < 0.5 | < 2 | 0.36 | 1.0 | 20 | 37 | 91 | 3.47 | < 10 | 1 | 0.28 | < 10 | 1.07 | 345 |
| L29600N 30400E | 201 | 229 | 1.4 | 5.89 | 24 | < 10 | 280 | < 0.5 | < 2 | 0.12 | < 0.5 | 16 | 39 | 183 | 3.16 | < 10 | < 1 | 0.11 | < 10 | 0.63 | 230 |
| L29600N 30425E | 201 | 229 | 0.2 | 2.20 | < 2 | < 10 | 30 | < 0.5 | < 2 | 0.02 | 1.0 | 2 | 21 | 28 | 14.70 | 10 | < 1 | < 0.01 | < 10 | 0.07 | 30 |
| L29600N 30450E | 201 | 229 | 0.6 | 4.14 | 12 | < 10 | 810 | < 0.5 | < 2 | 0.13 | 1.0 | 8 | 73 | 119 | 4.27 | 10 | < 1 | 0.24 | < 10 | 1.50 | 175 |
| L29650N 29975E | 201 | 229 | 0.4 | 2.76 | 48 | < 10 | 410 | < 0.5 | < 2 | 0.19 | 0.5 | 8 | 61 | 166 | 4.09 | < 10 | 1 | 0.12 | < 10 | 0.96 | 135 |
| L29650N 30000E | 201 | 229 | 0.6 | 2.35 | 56 | < 10 | 620 | < 0.5 | < 2 | 0.35 | < 0.5 | 13 | 44 | 182 | 4.03 | < 10 | < 1 | 0.23 | < 10 | 0.93 | 170 |
| L29650N 30025E | 201 | 229 | 0.6 | 2.91 | 58 | < 10 | 390 | < 0.5 | < 2 | 0.21 | 0.5 | 8 | 47 | 257 | 4.12 | < 10 | < 1 | 0.11 | < 10 | 0.89 | 135 |
| L29650N 30050E | 201 | 229 | 0.8 | 3.15 | 76 | < 10 | 490 | < 0.5 | < 2 | 0.31 | 0.5 | 14 | 47 | 328 | 4.15 | < 10 | 4 | 0.19 | < 10 | 0.92 | 190 |
| L29650N 30075E | 201 | 229 | 0.2 | 2.73 | 66 | < 10 | 450 | < 0.5 | < 2 | 0.17 | 0.5 | 10 | 48 | 193 | 3.77 | < 10 | < 1 | 0.20 | < 10 | 0.89 | 175 |
| L29650N 30100E | 201 | 229 | 0.6 | 2.93 | 30 | < 10 | 230 | < 0.5 | < 2 | 0.17 | 0.5 | 8 | 23 | 168 | 2.45 | < 10 | < 1 | 0.15 | < 10 | 0.58 | 175 |
| L29650N 30125E | 201 | 229 | 0.2 | 2.70 | 8 | < 10 | 110 | < 0.5 | < 2 | 0.06 | < 0.5 | 4 | 42 | 40 | 2.56 | < 10 | < 1 | 0.03 | < 10 | 0.70 | 130 |
| L29650N 30150E | 201 | 229 | < 0.2 | 2.33 | 6 | < 10 | 80 | < 0.5 | < 2 | 0.15 | 0.5 | 1 | 49 | 26 | 3.10 | < 10 | 1 | 0.08 | < 10 | 0.78 | 55 |
| L29650N 30175E | 201 | 229 | 0.2 | 2.02 | 10 | < 10 | 60 | < 0.5 | < 2 | 0.05 | 1.0 | < 1 | 22 | 14 | 5.95 | 10 | 3 | 0.09 | < 10 | 0.29 | 50 |
| L29650N 30200E | 201 | 229 | 0.6 | 3.27 | 14 | < 10 | 140 | < 0.5 | < 2 | 0.05 | 0.5 | 3 | 40 | 50 | 3.84 | 10 | 1 | 0.16 | < 10 | 0.81 | 150 |
| L29650N 30225E | 201 | 229 | 0.6 | 3.10 | 34 | < 10 | 350 | < 0.5 | < 2 | 0.20 | 0.5 | 15 | 39 | 114 | 2.50 | < 10 | < 1 | 0.19 | < 10 | 0.79 | 175 |
| L29650N 30250E | 201 | 229 | 0.2 | 3.02 | 14 | < 10 | 120 | < 0.5 | < 2 | 0.16 | < 0.5 | 10 | 31 | 57 | 3.34 | < 10 | < 1 | 0.31 | < 10 | 0.91 | 250 |
| L29650N 30275E | 201 | 229 | 0.2 | 2.39 | 42 | < 10 | 160 | < 0.5 | < 2 | 0.13 | 1.5 | 10 | 31 | 65 | 3.32 | < 10 | 1 | 0.20 | < 10 | 0.79 | 180 |
| L29650N 30300E | 201 | 229 | 0.4 | 2.27 | 8 | < 10 | 250 | < 0.5 | < 2 | 0.14 | 0.5 | 8 | 42 | 73 | 3.37 | < 10 | < 1 | 0.16 | < 10 | 0.85 | 155 |
| L29650N 30325E | 201 | 229 | 0.6 | 2.82 | 18 | < 10 | 420 | < 0.5 | < 2 | 0.24 | < 0.5 | 16 | 51 | 117 | 3.60 | < 10 | < 1 | 0.21 | < 10 | 1.04 | 220 |
| L29650N 30350E | 201 | 229 | 0.8 | 2.91 | 14 | < 10 | 860 | < 0.5 | < 2 | 0.23 | 0.5 | 11 | 63 | 176 | 5.61 | < 10 | < 1 | 0.33 | < 10 | 1.29 | 215 |
| L29700N 29950E | 201 | 229 | 0.4 | 2.29 | 70 | < 10 | 440 | < 0.5 | < 2 | 0.45 | 0.5 | 10 | 34 | 185 | 2.79 | < 10 | < 1 | 0.20 | < 10 | 0.78 | 120 |
| L29700N 29975E | 201 | 229 | 0.2 | 1.86 | 64 | < 10 | 400 | < 0.5 | < 2 | 0.29 | < 0.5 | 9 | 29 | 175 | 2.32 | < 10 | < 1 | 0.15 | < 10 | 0.63 | 110 |
| L29700N 30000E | 201 | 229 | < 0.2 | 1.90 | 48 | < 10 | 200 | < 0.5 | < 2 | 0.27 | < 0.5 | 11 | 24 | 114 | 2.69 | < 10 | < 1 | 0.18 | < 10 | 0.71 | 215 |
| L29700N 30025E | 201 | 229 | 0.2 | 1.95 | 12 | < 10 | 170 | < 0.5 | < 2 | 0.15 | 0.5 | 8 | 22 | 97 | 2.35 | < 10 | < 1 | 0.14 | < 10 | 0.56 | 210 |

CERTIFICATION: ______

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: BURGERT, ARND

P.O. BOX 1208
PORT MCNEILL, BC
V0N 2R0

Project : LORAX
Comments: ATTN: ARND BURGERT CC: ARND BURGERT


Certificate Date: 14-OCT-199
Invoice No. : I9930451
P.O. Number :
Account :QHB

## CERTIFICATE OF ANALYSIS A9930451

| SAMPLE | PREP CODE | | Mo ppm | Na % | Ni ppm | P ppm | Pb ppm | S % | Sb ppm | Sc ppm | Sr ppm | Ti % | Tl ppm | U ppm | V ppm | W ppm | Zn ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L29600N 29975E | 201 | 229 | 1 | 0.06 | 45 | 730 | 2 | 0.03 | 2 | 4 | 46 | 0.15 | < 10 | < 10 | 72 | < 10 | 36 |
| L29600N 30000E | 201 | 229 | < 1 | 0.03 | 23 | 870 | < 2 | 0.04 | < 2 | 3 | 24 | 0.13 | < 10 | < 10 | 60 | < 10 | 28 |
| L29600N 30025E | 201 | 229 | 3 | 0.03 | 21 | 820 | 4 | 0.07 | 2 | 1 | 15 | 0.11 | < 10 | < 10 | 58 | < 10 | 26 |
| L29600N 30050E | 201 | 229 | 5 | 0.01 | 15 | 690 | 2 | 0.07 | < 2 | 3 | 18 | 0.27 | < 10 | < 10 | 103 | < 10 | 42 |
| L29600N 30075E | 201 | 229 | < 1 | 0.03 | 20 | 730 | 4 | 0.04 | < 2 | 4 | 14 | 0.15 | < 10 | < 10 | 69 | < 10 | 28 |
| L29600N 30100E | 201 | 229 | 3 | 0.03 | 15 | 890 | 10 | 0.05 | < 2 | 4 | 15 | 0.13 | < 10 | < 10 | 67 | < 10 | 30 |
| L29600N 30125E | 201 | 229 | < 1 | 0.03 | 23 | 840 | 16 | 0.08 | 2 | 3 | 22 | 0.16 | < 10 | < 10 | 69 | < 10 | 30 |
| L29600N 30150E | 201 | 229 | 3 | 0.01 | 11 | 460 | 6 | 0.06 | < 2 | 2 | 6 | 0.14 | < 10 | < 10 | 70 | < 10 | 28 |
| L29600N 30175E | 201 | 229 | 5 | 0.02 | 21 | 700 | 4 | 0.09 | < 2 | 2 | 11 | 0.13 | < 10 | < 10 | 72 | < 10 | 34 |
| L29600N 30200E | 201 | 229 | < 1 | 0.03 | 11 | 470 | < 2 | 0.09 | < 2 | 3 | 9 | 0.16 | < 10 | < 10 | 70 | < 10 | 28 |
| L29600N 30225E | 201 | 229 | < 1 | 0.01 | 14 | 410 | < 2 | 0.08 | < 2 | 2 | 5 | 0.16 | < 10 | < 10 | 70 | < 10 | 26 |
| L29600N 30250E | 201 | 229 | 3 | 0.01 | 16 | 410 | < 2 | 0.11 | < 2 | 3 | 10 | 0.14 | < 10 | < 10 | 66 | < 10 | 30 |
| L29600N 30275E | 201 | 229 | < 1 | 0.01 | 11 | 370 | 2 | 0.05 | 2 | 5 | 7 | 0.21 | < 10 | < 10 | 92 | < 10 | 40 |
| L29600N 30300E | 201 | 229 | < 1 | 0.02 | 15 | 460 | < 2 | 0.04 | 2 | 3 | 10 | 0.17 | < 10 | < 10 | 61 | < 10 | 32 |
| L29600N 30325E | 201 | 229 | 2 | 0.04 | 17 | 690 | < 2 | 0.03 | < 2 | 3 | 13 | 0.14 | < 10 | < 10 | 64 | < 10 | 30 |
| L29600N 30350E | 201 | 229 | 1 | 0.03 | 13 | 530 | < 2 | 0.04 | < 2 | 3 | 9 | 0.14 | < 10 | < 10 | 64 | < 10 | 26 |
| L29600N 30375E | 201 | 229 | 4 | 0.04 | 14 | 640 | 8 | 0.08 | < 2 | 4 | 12 | 0.18 | < 10 | < 10 | 106 | < 10 | 54 |
| L29600N 30400E | 201 | 229 | 8 | 0.01 | 16 | 840 | < 2 | 0.14 | < 2 | 2 | 10 | 0.10 | < 10 | < 10 | 72 | < 10 | 44 |
| L29600N 30425E | 201 | 229 | 3 | < 0.01 | 3 | 340 | 6 | 0.06 | < 2 | 1 | 2 | 0.17 | < 10 | < 10 | 98 | < 10 | 2 |
| L29600N 30450E | 201 | 229 | < 1 | 0.03 | 17 | 510 | 2 | 0.05 | < 2 | 4 | 9 | 0.21 | < 10 | < 10 | 125 | < 10 | 42 |
| L29650N 29975E | 201 | 229 | < 1 | 0.03 | 17 | 670 | < 2 | 0.05 | 4 | 5 | 10 | 0.14 | < 10 | < 10 | 76 | < 10 | 26 |
| L29650N 30000E | 201 | 229 | < 1 | 0.04 | 22 | 610 | 4 | 0.06 | < 2 | 3 | 19 | 0.14 | < 10 | < 10 | 66 | < 10 | 28 |
| L29650N 30025E | 201 | 229 | 1 | 0.03 | 19 | 590 | 6 | 0.06 | 2 | 4 | 13 | 0.14 | < 10 | < 10 | 71 | < 10 | 28 |
| L29650N 30050E | 201 | 229 | 3 | 0.04 | 25 | 680 | 8 | 0.06 | 2 | 4 | 18 | 0.15 | < 10 | < 10 | 78 | < 10 | 38 |
| L29650N 30075E | 201 | 229 | 1 | 0.02 | 22 | 690 | 4 | 0.05 | < 2 | 4 | 11 | 0.15 | < 10 | < 10 | 73 | < 10 | 34 |
| L29650N 30100E | 201 | 229 | 1 | 0.01 | 16 | 600 | 2 | 0.06 | < 2 | 2 | 14 | 0.16 | < 10 | < 10 | 63 | < 10 | 32 |
| L29650N 30125E | 201 | 229 | < 1 | < 0.01 | 13 | 320 | 2 | 0.07 | < 2 | 4 | 6 | 0.18 | < 10 | < 10 | 75 | < 10 | 24 |
| L29650N 30150E | 201 | 229 | < 1 | < 0.01 | 13 | 180 | 6 | 0.04 | < 2 | 5 | 3 | 0.20 | < 10 | < 10 | 85 | < 10 | 32 |
| L29650N 30175E | 201 | 229 | < 1 | < 0.01 | 5 | 650 | 8 | 0.08 | < 2 | 2 | 3 | 0.12 | < 10 | < 10 | 115 | < 10 | 24 |
| L29650N 30200E | 201 | 229 | < 1 | 0.01 | 9 | 520 | 2 | 0.09 | < 2 | 6 | 8 | 0.13 | < 10 | < 10 | 106 | < 10 | 44 |
| L29650N 30225E | 201 | 229 | 3 | 0.01 | 30 | 660 | 22 | 0.13 | < 2 | 3 | 16 | 0.12 | < 10 | < 10 | 69 | < 10 | 56 |
| L29650N 30250E | 201 | 229 | 1 | 0.03 | 17 | 410 | 2 | 0.10 | < 2 | 4 | 9 | 0.26 | < 10 | < 10 | 118 | < 10 | 48 |
| L29650N 30275E | 201 | 229 | < 1 | 0.01 | 20 | 600 | 6 | 0.11 | 2 | 2 | 12 | 0.20 | < 10 | < 10 | 105 | < 10 | 40 |
| L29650N 30300E | 201 | 229 | 5 | 0.01 | 20 | 440 | < 2 | 0.07 | < 2 | 2 | 9 | 0.21 | < 10 | < 10 | 95 | < 10 | 40 |
| L29650N 30325E | 201 | 229 | 8 | 0.02 | 29 | 600 | 6 | 0.10 | 4 | 3 | 17 | 0.19 | < 10 | < 10 | 106 | < 10 | 70 |
| L29650N 30350E | 201 | 229 | 2 | 0.03 | 32 | 1250 | 20 | 0.13 | < 2 | 5 | 25 | 0.20 | < 10 | < 10 | 115 | < 10 | 60 |
| L29700N 29950E | 201 | 229 | < 1 | 0.04 | 30 | 610 | 20 | 0.04 | < 2 | 2 | 29 | 0.14 | < 10 | < 10 | 58 | < 10 | 32 |
| L29700N 29975E | 201 | 229 | < 1 | 0.03 | 26 | 720 | 6 | 0.03 | < 2 | 2 | 20 | 0.12 | < 10 | < 10 | 49 | < 10 | 26 |
| L29700N 30000E | 201 | 229 | < 1 | 0.01 | 16 | 740 | < 2 | 0.03 | < 2 | 2 | 11 | 0.18 | < 10 | < 10 | 74 | < 10 | 46 |
| L29700N 30025E | 201 | 229 | < 1 | 0.01 | 16 | 650 | 4 | 0.05 | < 2 | 1 | 7 | 0.14 | < 10 | < 10 | 64 | < 10 | 36 |

CERTIFICATION: ______________

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218


To: BURGERT, ARND

P.O. BOX 1208
PORT MCNEILL, BC
V0N 2R0

Project : LORAX
Comments: ATTN: ARND BURGERT CC: ARND BURGERT


Certificate Date: 14-OCT-1999
Invoice No. : I9930451
P.O. Number :
Account :QHB

## CERTIFICATE OF ANALYSIS A9930451

| SAMPLE | PREP CODE | | Ag ppm | Al % | As ppm | B ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | Ga ppm | Hg ppm | K % | La ppm | Mg % | Mn ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L29700N 30050E | 201 | 229 | 0.4 | 2.46 | 58 | < 10 | 450 | < 0.5 | < 2 | 0.51 | < 0.5 | 10 | 31 | 152 | 2.25 | < 10 | < 1 | 0.11 | < 10 | 0.56 | 130 |
| L29700N 30075E | 201 | 229 | 0.2 | 3.01 | 262 | < 10 | 410 | < 0.5 | < 2 | 0.45 | < 0.5 | 11 | 27 | 187 | 2.78 | < 10 | < 1 | 0.12 | < 10 | 0.52 | 160 |
| L29700N 30100E | 201 | 229 | 0.2 | 3.22 | 32 | < 10 | 570 | < 0.5 | < 2 | 0.32 | < 0.5 | 16 | 55 | 193 | 3.15 | < 10 | < 1 | 0.25 | < 10 | 1.09 | 230 |
| L29700N 30125E | 201 | 229 | 0.2 | 3.45 | 24 | < 10 | 490 | < 0.5 | < 2 | 0.23 | < 0.5 | 13 | 51 | 152 | 3.17 | < 10 | 1 | 0.19 | < 10 | 1.13 | 170 |
| L29700N 30150E | 201 | 229 | 2.0 | 6.02 | 114 | < 10 | 390 | 0.5 | < 2 | 0.28 | < 0.5 | 69 | 40 | 242 | 2.02 | < 10 | < 1 | 0.15 | 10 | 0.61 | 590 |
| L29700N 30175E | 201 | 229 | 0.8 | 3.05 | 30 | < 10 | 250 | < 0.5 | < 2 | 0.14 | < 0.5 | 7 | 43 | 89 | 3.74 | < 10 | < 1 | 0.21 | < 10 | 0.91 | 140 |
| L29700N 30200E | 201 | 229 | 0.8 | 2.62 | < 2 | < 10 | 310 | < 0.5 | < 2 | 0.17 | < 0.5 | 10 | 43 | 87 | 2.99 | < 10 | < 1 | 0.11 | < 10 | 0.87 | 130 |
| L29700N 30225E | 201 | 229 | 1.2 | 3.06 | 18 | < 10 | 510 | < 0.5 | < 2 | 0.21 | < 0.5 | 13 | 62 | 162 | 3.94 | < 10 | < 1 | 0.17 | < 10 | 1.09 | 180 |
| L29700N 30250E | 201 | 229 | 1.4 | 3.20 | < 2 | < 10 | 460 | < 0.5 | < 2 | 0.12 | < 0.5 | 6 | 51 | 101 | 3.95 | < 10 | < 1 | 0.12 | < 10 | 0.77 | 130 |
| L29700N 30275E | 201 | 229 | 2.4 | 3.58 | 16 | < 10 | 640 | < 0.5 | < 2 | 0.28 | < 0.5 | 14 | 57 | 191 | 4.12 | < 10 | < 1 | 0.28 | < 10 | 1.24 | 215 |
| L29700N 30300E | 201 | 229 | 0.6 | 3.65 | 22 | < 10 | 440 | < 0.5 | < 2 | 0.28 | < 0.5 | 12 | 53 | 125 | 4.75 | < 10 | < 1 | 0.34 | < 10 | 1.27 | 295 |
| L29700N 30325E | 201 | 229 | 0.6 | 3.43 | 64 | < 10 | 280 | < 0.5 | < 2 | 0.23 | < 0.5 | 12 | 45 | 79 | 5.01 | 10 | < 1 | 0.72 | < 10 | 1.09 | 325 |
| L29700N 30350E | 201 | 229 | 0.6 | 3.63 | 52 | < 10 | 250 | < 0.5 | < 2 | 0.22 | < 0.5 | 13 | 41 | 71 | 5.02 | < 10 | < 1 | 0.54 | < 10 | 1.00 | 295 |
| L29750N 29950E | 201 | 229 | 0.2 | 2.15 | 12 | < 10 | 480 | < 0.5 | < 2 | 0.48 | < 0.5 | 14 | 21 | 182 | 2.88 | < 10 | < 1 | 0.41 | < 10 | 0.75 | 270 |
| L29750N 29975E | 201 | 229 | 0.6 | 2.96 | 68 | < 10 | 650 | < 0.5 | < 2 | 1.19 | < 0.5 | 18 | 39 | 220 | 2.36 | < 10 | < 1 | 0.18 | < 10 | 0.68 | 215 |
| L29750N 30000E | 201 | 229 | 0.6 | 3.56 | 94 | < 10 | 550 | < 0.5 | < 2 | 1.27 | < 0.5 | 27 | 41 | 312 | 2.13 | < 10 | < 1 | 0.12 | < 10 | 0.64 | 210 |
| L29750N 30025E | 201 | 229 | 0.4 | 3.15 | 10 | < 10 | 640 | < 0.5 | < 2 | 0.27 | < 0.5 | 14 | 52 | 212 | 3.35 | < 10 | < 1 | 0.30 | < 10 | 1.16 | 195 |
| L29750N 30050E | 201 | 229 | 0.4 | 3.00 | 2 | < 10 | 1510 | < 0.5 | < 2 | 0.28 | < 0.5 | 19 | 63 | 219 | 5.59 | < 10 | < 1 | 0.78 | < 10 | 1.67 | 245 |
| L29750N 30075E | 201 | 229 | 0.6 | 4.14 | 406 | < 10 | 1270 | < 0.5 | < 2 | 0.62 | < 0.5 | 11 | 47 | 230 | 5.10 | < 10 | < 1 | 0.29 | < 10 | 0.91 | 150 |
| L29750N 30125E | 201 | 229 | 0.6 | 3.18 | < 2 | < 10 | 1460 | < 0.5 | < 2 | 0.36 | < 0.5 | 19 | 66 | 232 | 5.85 | < 10 | < 1 | 0.63 | < 10 | 1.51 | 230 |
| L29750N 30150E | 201 | 229 | 0.6 | 2.87 | 14 | < 10 | 1410 | < 0.5 | < 2 | 0.32 | < 0.5 | 15 | 69 | 172 | 4.95 | < 10 | 1 | 0.62 | < 10 | 1.41 | 255 |
| L29750N 30175E | 201 | 229 | 1.0 | 3.21 | 12 | < 10 | 480 | < 0.5 | < 2 | 0.22 | 0.5 | 8 | 60 | 130 | 4.40 | 10 | < 1 | 0.15 | < 10 | 1.07 | 135 |
| L29750N 30200E | 201 | 229 | 2.6 | 4.95 | 68 | < 10 | 750 | < 0.5 | < 2 | 0.36 | 0.5 | 10 | 67 | 237 | 4.09 | 10 | < 1 | 0.22 | 10 | 1.09 | 205 |
| L29750N 30225E | 201 | 229 | 1.8 | 4.88 | 50 | < 10 | 600 | < 0.5 | < 2 | 0.37 | 0.5 | 24 | 58 | 204 | 3.94 | < 10 | 3 | 0.21 | < 10 | 0.94 | 430 |
| L29750N 30250E | 201 | 229 | 0.6 | 3.78 | 50 | < 10 | 450 | < 0.5 | < 2 | 0.22 | < 0.5 | 7 | 58 | 60 | 2.75 | < 10 | < 1 | 0.19 | 10 | 0.87 | 190 |
| L29750N 30275E | 201 | 229 | < 0.2 | 3.23 | 94 | < 10 | 90 | < 0.5 | < 2 | 0.16 | < 0.5 | 18 | 38 | 27 | 5.21 | 10 | 2 | 0.18 | < 10 | 0.69 | 735 |
| L29750N 30300E | 201 | 229 | 0.6 | 4.23 | 48 | < 10 | 260 | 0.5 | < 2 | 0.19 | < 0.5 | 18 | 41 | 101 | 5.18 | 10 | < 1 | 0.62 | < 10 | 1.05 | 350 |
| L29750N 30325E | 201 | 229 | 0.6 | 3.75 | 68 | < 10 | 280 | < 0.5 | < 2 | 0.25 | < 0.5 | 20 | 42 | 87 | 5.12 | < 10 | < 1 | 0.64 | < 10 | 1.08 | 405 |
| L29750N 30350E | 201 | 229 | 0.2 | 2.98 | 38 | < 10 | 140 | < 0.5 | < 2 | 0.06 | < 0.5 | 11 | 50 | 55 | 5.56 | 10 | 1 | 0.38 | < 10 | 1.12 | 365 |
| L29800N 30025E | 201 | 229 | 0.6 | 3.18 | 4 | < 10 | 1390 | < 0.5 | < 2 | 0.23 | < 0.5 | 13 | 70 | 206 | 4.72 | < 10 | < 1 | 0.42 | < 10 | 1.44 | 180 |
| L29800N 30050E | 201 | 229 | 0.6 | 2.83 | 6 | < 10 | 1260 | < 0.5 | < 2 | 0.27 | < 0.5 | 8 | 78 | 187 | 5.19 | < 10 | < 1 | 0.40 | < 10 | 1.45 | 185 |
| L29800N 30075E | 201 | 229 | 1.2 | 2.88 | 22 | < 10 | 1200 | < 0.5 | < 2 | 0.31 | < 0.5 | 8 | 77 | 164 | 5.14 | < 10 | < 1 | 0.40 | < 10 | 1.39 | 200 |
| L29800N 30100E | 201 | 229 | 1.2 | 2.90 | 18 | < 10 | 870 | < 0.5 | < 2 | 0.32 | < 0.5 | 7 | 62 | 137 | 5.19 | < 10 | < 1 | 0.31 | < 10 | 1.41 | 180 |
| L29800N 30125E | 201 | 229 | 0.6 | 3.01 | 50 | < 10 | 230 | < 0.5 | < 2 | 0.36 | < 0.5 | 7 | 51 | 105 | 4.27 | < 10 | < 1 | 0.16 | < 10 | 0.76 | 160 |
| L29800N 30150E | 201 | 229 | 0.4 | 3.06 | 50 | < 10 | 280 | < 0.5 | < 2 | 0.34 | < 0.5 | 13 | 39 | 114 | 2.56 | < 10 | < 1 | 0.12 | < 10 | 0.66 | 205 |
| L29800N 30175E | 201 | 229 | 0.2 | 3.98 | 54 | < 10 | 670 | < 0.5 | < 2 | 0.31 | < 0.5 | 23 | 68 | 75 | 3.89 | < 10 | < 1 | 0.30 | < 10 | 1.18 | 620 |
| L29800N 30200E | 201 | 229 | 0.2 | 4.07 | 90 | < 10 | 180 | 0.5 | < 2 | 0.30 | < 0.5 | 8 | 40 | 46 | 2.90 | < 10 | 3 | 0.10 | < 10 | 0.52 | 255 |
| L29800N 30225E | 201 | 229 | 1.0 | 4.46 | 84 | < 10 | 170 | < 0.5 | < 2 | 0.12 | < 0.5 | 10 | 40 | 65 | 4.91 | < 10 | < 1 | 0.51 | < 10 | 0.86 | 270 |
| L29800N 30250E | 201 | 229 | 0.6 | 4.69 | 62 | < 10 | 360 | 0.5 | < 2 | 0.25 | < 0.5 | 33 | 47 | 112 | 5.88 | 10 | < 1 | 0.87 | < 10 | 1.19 | 480 |
| L29850N 29950E | 201 | 229 | 1.2 | 2.97 | 8 | < 10 | 1160 | < 0.5 | < 2 | 0.35 | < 0.5 | 9 | 78 | 174 | 5.47 | 10 | 1 | 0.38 | < 10 | 1.42 | 185 |

CERTIFICATION:

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218


To: BURGERT, ARND

P.O. BOX 1208
PORT MCNEILL, BC
V0N 2R0

Project : LORAX
Comments: ATTN: ARND BURGERT CC: ARND BURGERT


Certificate Date: 14-OCT-1999
Invoice No. : I9930451
P.O. Number :
Account :QHB

## CERTIFICATE OF ANALYSIS A9930451

| SAMPLE | PREP CODE | | Mo ppm | Na % | Ni ppm | P ppm | Pb ppm | S % | Sb ppm | Sc ppm | Sr ppm | Ti % | Tl ppm | U ppm | V ppm | W ppm | Zn ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L29700N 30050E | 201 | 229 | 3 | 0.06 | 24 | 460 | 24 | 0.09 | < 2 | 3 | 35 | 0.13 | < 10 | < 10 | 54 | < 10 | 26 |
| L29700N 30075E | 201 | 229 | 2 | 0.05 | 22 | 680 | 10 | 0.13 | < 2 | 2 | 42 | 0.13 | < 10 | < 10 | 56 | < 10 | 28 |
| L29700N 30100E | 201 | 229 | < 1 | 0.04 | 39 | 870 | 6 | 0.05 | < 2 | 4 | 27 | 0.22 | < 10 | < 10 | 79 | < 10 | 44 |
| L29700N 30125E | 201 | 229 | 1 | 0.03 | 33 | 610 | 6 | 0.09 | < 2 | 3 | 17 | 0.21 | < 10 | < 10 | 85 | < 10 | 38 |
| L29700N 30150E | 201 | 229 | < 1 | 0.02 | 53 | 1840 | 10 | 0.08 | < 2 | 2 | 22 | 0.12 | < 10 | < 10 | 53 | < 10 | 94 |
| L29700N 30175E | 201 | 229 | 6 | 0.02 | 17 | 410 | 4 | 0.15 | < 2 | 6 | 11 | 0.17 | < 10 | < 10 | 91 | < 10 | 68 |
| L29700N 30200E | 201 | 229 | 8 | 0.01 | 20 | 490 | 6 | 0.13 | < 2 | 3 | 13 | 0.16 | < 10 | < 10 | 88 | < 10 | 50 |
| L29700N 30225E | 201 | 229 | 12 | 0.03 | 29 | 500 | 6 | 0.11 | < 2 | 5 | 12 | 0.20 | < 10 | < 10 | 115 | < 10 | 76 |
| L29700N 30250E | 201 | 229 | 5 | 0.01 | 12 | 590 | 4 | 0.11 | < 2 | 4 | 8 | 0.21 | < 10 | < 10 | 110 | < 10 | 42 |
| L29700N 30275E | 201 | 229 | 7 | 0.03 | 31 | 810 | 8 | 0.11 | < 2 | 5 | 18 | 0.22 | < 10 | < 10 | 119 | < 10 | 76 |
| L29700N 30300E | 201 | 229 | 5 | 0.03 | 20 | 1080 | 6 | 0.08 | < 2 | 6 | 13 | 0.25 | < 10 | < 10 | 125 | < 10 | 76 |
| L29700N 30325E | 201 | 229 | < 1 | 0.03 | 26 | 810 | 10 | 0.08 | < 2 | 11 | 20 | 0.24 | < 10 | < 10 | 128 | < 10 | 126 |
| L29700N 30350E | 201 | 229 | 1 | 0.02 | 25 | 770 | 6 | 0.07 | < 2 | 9 | 18 | 0.20 | < 10 | < 10 | 117 | < 10 | 124 |
| L29750N 29950E | 201 | 229 | < 1 | 0.05 | 20 | 1020 | 40 | 0.04 | < 2 | 3 | 49 | 0.23 | < 10 | < 10 | 79 | < 10 | 48 |
| L29750N 29975E | 201 | 229 | < 1 | 0.14 | 39 | 680 | 124 | 0.04 | < 2 | 4 | 143 | 0.14 | < 10 | < 10 | 57 | < 10 | 42 |
| L29750N 30000E | 201 | 229 | < 1 | 0.11 | 58 | 650 | 36 | 0.03 | < 2 | 4 | 295 | 0.10 | < 10 | < 10 | 48 | < 10 | 36 |
| L29750N 30025E | 201 | 229 | < 1 | 0.03 | 38 | 900 | 6 | 0.06 | < 2 | 4 | 19 | 0.22 | < 10 | < 10 | 86 | < 10 | 42 |
| L29750N 30050E | 201 | 229 | < 1 | 0.04 | 43 | 1130 | 22 | 0.10 | < 2 | 5 | 36 | 0.31 | < 10 | < 10 | 117 | < 10 | 56 |
| L29750N 30075E | 201 | 229 | 6 | 0.03 | 33 | 1000 | 6 | 0.15 | < 2 | 4 | 179 | 0.20 | < 10 | < 10 | 91 | < 10 | 50 |
| L29750N 30125E | 201 | 229 | 1 | 0.04 | 47 | 1020 | 12 | 0.11 | < 2 | 5 | 51 | 0.28 | < 10 | < 10 | 115 | < 10 | 68 |
| L29750N 30150E | 201 | 229 | 3 | 0.04 | 33 | 1240 | 22 | 0.11 | < 2 | 5 | 28 | 0.29 | < 10 | < 10 | 125 | < 10 | 58 |
| L29750N 30175E | 201 | 229 | 8 | 0.04 | 17 | 780 | 4 | 0.13 | < 2 | 4 | 14 | 0.21 | < 10 | < 10 | 133 | < 10 | 38 |
| L29750N 30200E | 201 | 229 | 7 | 0.03 | 30 | 1210 | 10 | 0.11 | < 2 | 6 | 18 | 0.18 | < 10 | < 10 | 137 | < 10 | 106 |
| L29750N 30225E | 201 | 229 | 8 | 0.03 | 28 | 1280 | 14 | 0.11 | < 2 | 6 | 17 | 0.16 | < 10 | < 10 | 121 | < 10 | 100 |
| L29750N 30250E | 201 | 229 | 1 | 0.03 | 21 | 750 | 6 | 0.16 | < 2 | 6 | 12 | 0.21 | < 10 | < 10 | 96 | < 10 | 50 |
| L29750N 30275E | 201 | 229 | 3 | 0.01 | 17 | 910 | 8 | 0.10 | < 2 | 6 | 11 | 0.15 | < 10 | < 10 | 111 | < 10 | 100 |
| L29750N 30300E | 201 | 229 | 1 | 0.02 | 33 | 730 | 6 | 0.06 | < 2 | 10 | 15 | 0.21 | < 10 | < 10 | 123 | < 10 | 144 |
| L29750N 30325E | 201 | 229 | 2 | 0.03 | 29 | 800 | 4 | 0.06 | < 2 | 10 | 22 | 0.22 | < 10 | < 10 | 122 | < 10 | 128 |
| L29750N 30350E | 201 | 229 | 1 | 0.01 | 16 | 640 | 6 | 0.08 | < 2 | 10 | 8 | 0.31 | < 10 | < 10 | 167 | < 10 | 68 |
| L29800N 30025E | 201 | 229 | 2 | 0.04 | 36 | 970 | 6 | 0.07 | < 2 | 5 | 22 | 0.27 | < 10 | < 10 | 115 | < 10 | 50 |
| L29800N 30050E | 201 | 229 | 5 | 0.04 | 23 | 1150 | 12 | 0.12 | < 2 | 8 | 21 | 0.26 | < 10 | < 10 | 144 | < 10 | 52 |
| L29800N 30075E | 201 | 229 | 3 | 0.04 | 25 | 1090 | 20 | 0.11 | < 2 | 8 | 19 | 0.27 | < 10 | < 10 | 144 | < 10 | 64 |
| L29800N 30100E | 201 | 229 | 5 | 0.04 | 22 | 1060 | 20 | 0.11 | < 2 | 8 | 20 | 0.24 | < 10 | < 10 | 131 | < 10 | 62 |
| L29800N 30125E | 201 | 229 | 8 | 0.03 | 20 | 1760 | 24 | 0.07 | < 2 | 5 | 20 | 0.16 | < 10 | < 10 | 125 | < 10 | 64 |
| L29800N 30150E | 201 | 229 | < 1 | 0.04 | 36 | 650 | 6 | 0.03 | < 2 | 4 | 11 | 0.16 | < 10 | < 10 | 68 | < 10 | 74 |
| L29800N 30175E | 201 | 229 | 3 | 0.03 | 33 | 1130 | 6 | 0.05 | < 2 | 8 | 19 | 0.25 | < 10 | < 10 | 113 | < 10 | 96 |
| L29800N 30200E | 201 | 229 | < 1 | 0.02 | 35 | 960 | 8 | 0.08 | < 2 | 5 | 22 | 0.13 | < 10 | < 10 | 62 | < 10 | 76 |
| L29800N 30225E | 201 | 229 | < 1 | 0.02 | 16 | 860 | 6 | 0.08 | < 2 | 9 | 11 | 0.18 | < 10 | < 10 | 108 | < 10 | 106 |
| L29800N 30250E | 201 | 229 | < 1 | 0.03 | 55 | 810 | 4 | 0.07 | < 2 | 12 | 24 | 0.24 | < 10 | < 10 | 132 | < 10 | 192 |
| L29850N 29950E | 201 | 229 | 5 | 0.05 | 25 | 1370 | 32 | 0.12 | < 2 | 7 | 25 | 0.24 | < 10 | < 10 | 142 | < 10 | 56 |

CERTIFICATION:

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218


To: BURGERT, ARND

P.O. BOX 1208
PORT MCNEILL, BC
V0N 2R0

Project : LORAX
Comments: ATTN: ARND BURGERT CC: ARND BURGERT


Certificate Date: 14-OCT-1999
Invoice No. : I9930451
P.O. Number :
Account : QHB

## CERTIFICATE OF ANALYSIS A9930451

| SAMPLE | PREP CODE | | Ag ppm | Al % | As ppm | B ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | Ga ppm | Hg ppm | K % | La ppm | Mg % | Mn ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L29850N 29975E | 201 | 229 | 0.8 | 2.91 | 10 | < 10 | 990 | < 0.5 | < 2 | 0.34 | < 0.5 | 7 | 65 | 155 | 5.20 | < 10 | < 1 | 0.31 | < 10 | 1.30 | 175 |
| L29850N 30000E | 201 | 229 | 0.8 | 1.97 | 10 | < 10 | 120 | < 0.5 | < 2 | 0.05 | < 0.5 | 3 | 83 | 88 | 3.27 | < 10 | 1 | 0.04 | < 10 | 1.10 | 70 |
| L29850N 30025E | 201 | 229 | 0.8 | 3.08 | 16 | < 10 | 340 | < 0.5 | < 2 | 0.25 | < 0.5 | 15 | 48 | 292 | 6.55 | < 10 | < 1 | 0.11 | < 10 | 1.04 | 225 |
| L29850N 30050E | 201 | 229 | 0.2 | 3.19 | 32 | < 10 | 1190 | < 0.5 | < 2 | 0.57 | < 0.5 | 12 | 65 | 153 | 3.33 | < 10 | 3 | 0.17 | < 10 | 1.04 | 165 |
| L29850N 30075E | 201 | 229 | 0.6 | 3.17 | 34 | < 10 | 190 | < 0.5 | < 2 | 0.76 | < 0.5 | 6 | 47 | 124 | 4.41 | < 10 | < 1 | 0.13 | < 10 | 0.68 | 150 |
| L29850N 30100E | 201 | 229 | 0.6 | 4.23 | 32 | < 10 | 300 | < 0.5 | < 2 | 0.44 | < 0.5 | 10 | 70 | 63 | 4.74 | 10 | 1 | 0.34 | < 10 | 1.41 | 390 |
| L29850N 30150E | 201 | 229 | 0.2 | 2.98 | 104 | < 10 | 560 | < 0.5 | < 2 | 0.56 | < 0.5 | 18 | 50 | 63 | 3.05 | < 10 | < 1 | 0.28 | < 10 | 0.86 | 560 |
| L29850N 30175E | 201 | 229 | 0.6 | 4.17 | 54 | < 10 | 120 | < 0.5 | < 2 | 0.16 | < 0.5 | 12 | 42 | 48 | 3.76 | < 10 | 1 | 0.21 | < 10 | 0.61 | 435 |
| L29850N 30200E | 201 | 229 | 0.4 | 2.30 | 32 | < 10 | 130 | < 0.5 | < 2 | 0.09 | < 0.5 | 8 | 32 | 25 | 3.99 | < 10 | 3 | 0.28 | < 10 | 0.60 | 380 |
| L29900N 30000E | 201 | 229 | < 0.2 | 1.15 | 14 | < 10 | 120 | < 0.5 | < 2 | 0.30 | < 0.5 | 7 | 25 | 51 | 2.01 | < 10 | < 1 | 0.14 | < 10 | 0.38 | 150 |
| L29950N 29925E | 201 | 229 | 2.0 | 3.13 | 14 | < 10 | 780 | < 0.5 | < 2 | 0.65 | 1.5 | 11 | 65 | 118 | 4.66 | < 10 | < 1 | 0.32 | < 10 | 0.85 | 405 |
| L29950N 29950E | 201 | 229 | 0.6 | 3.01 | 12 | < 10 | 560 | < 0.5 | < 2 | 0.42 | 0.5 | 12 | 87 | 109 | 3.65 | < 10 | < 1 | 0.26 | < 10 | 1.08 | 205 |
| L29950N 29975E | 201 | 229 | 0.4 | 3.32 | 34 | < 10 | 210 | < 0.5 | < 2 | 0.29 | < 0.5 | 9 | 75 | 117 | 3.75 | 10 | < 1 | 0.15 | < 10 | 1.13 | 230 |
| L29950N 30000E | 201 | 229 | < 0.2 | 2.52 | 30 | < 10 | 160 | < 0.5 | < 2 | 0.23 | < 0.5 | 9 | 38 | 79 | 3.18 | < 10 | < 1 | 0.14 | < 10 | 0.67 | 175 |
| L29950N 30025E | 201 | 229 | < 0.2 | 2.41 | 26 | < 10 | 120 | < 0.5 | 12 | 0.26 | < 0.5 | 9 | 44 | 83 | 3.34 | < 10 | 2 | 0.16 | < 10 | 0.75 | 265 |
| L29950N 30050E | 201 | 229 | < 0.2 | 2.40 | 10 | < 10 | 80 | < 0.5 | < 2 | 0.09 | < 0.5 | 7 | 31 | 57 | 3.12 | < 10 | < 1 | 0.10 | < 10 | 0.80 | 220 |
| L29950N 30075E | 201 | 229 | 0.4 | 2.10 | 26 | < 10 | 250 | < 0.5 | < 2 | 0.27 | < 0.5 | 3 | 25 | 55 | 6.37 | < 10 | < 1 | 0.26 | < 10 | 0.96 | 180 |
| L30000N 29875E | 201 | 229 | 48.8 | 1.00 | 12 | < 10 | 160 | < 0.5 | < 2 | 1.87 | 10.5 | 17 | 10 | 1775 | >15.00 | < 10 | 19 | 0.08 | < 10 | 0.17 | 1735 |
| L30000N 29900E | 201 | 229 | 3.2 | 3.86 | 6 | < 10 | 1290 | < 0.5 | < 2 | 0.36 | 1.5 | 11 | 112 | 150 | 4.94 | 10 | < 1 | 0.51 | < 10 | 1.38 | 410 |
| L30000N 29925E | 201 | 229 | 2.6 | 3.55 | 8 | < 10 | 1090 | < 0.5 | < 2 | 0.23 | 0.5 | 8 | 94 | 130 | 4.53 | 10 | < 1 | 0.41 | < 10 | 1.21 | 305 |
| L30000N 29950E | 201 | 229 | 1.0 | 3.67 | 16 | < 10 | 470 | < 0.5 | < 2 | 0.70 | < 0.5 | 9 | 58 | 111 | 2.75 | < 10 | < 1 | 0.25 | < 10 | 0.97 | 205 |
| L30000N 30000E | 201 | 229 | < 0.2 | 2.51 | 14 | < 10 | 150 | < 0.5 | < 2 | 0.39 | < 0.5 | 11 | 36 | 70 | 3.36 | < 10 | < 1 | 0.39 | 10 | 0.95 | 320 |
| L30000N 30025E | 201 | 229 | < 0.2 | 2.61 | 8 | < 10 | 40 | < 0.5 | < 2 | 0.09 | < 0.5 | 5 | 35 | 30 | 3.30 | 10 | 1 | 0.09 | 10 | 0.54 | 160 |
| L30000N 30050E | 201 | 229 | < 0.2 | 2.00 | 2 | < 10 | 30 | < 0.5 | < 2 | 0.08 | < 0.5 | 4 | 26 | 19 | 2.83 | 10 | < 1 | 0.10 | < 10 | 0.46 | 130 |
| L30000N 30075E | 201 | 229 | < 0.2 | 1.47 | 40 | < 10 | 10 | < 0.5 | < 2 | 0.10 | < 0.5 | 4 | 35 | 13 | 5.20 | < 10 | < 1 | 0.03 | < 10 | 0.25 | 75 |
| L30000N 30100E | 201 | 229 | 1.0 | 2.26 | 30 | < 10 | 340 | < 0.5 | < 2 | 0.20 | < 0.5 | 5 | 90 | 41 | 8.37 | < 10 | 3 | 0.26 | 10 | 0.90 | 170 |
| L30000N 30125E | 201 | 229 | 0.2 | 2.22 | 50 | < 10 | 50 | < 0.5 | < 2 | 0.30 | < 0.5 | 4 | 48 | 27 | 2.35 | < 10 | 1 | 0.07 | < 10 | 0.48 | 120 |
| S230 | 201 | 229 | 1.4 | 2.42 | < 2 | < 10 | 450 | < 0.5 | < 2 | 0.28 | < 0.5 | 4 | 104 | 56 | 5.55 | < 10 | < 1 | 0.72 | < 10 | 2.00 | 240 |
| S231 | 201 | 229 | 0.6 | 2.58 | 50 | < 10 | 290 | < 0.5 | < 2 | 0.61 | < 0.5 | 7 | 51 | 64 | 3.29 | < 10 | < 1 | 0.34 | < 10 | 1.02 | 270 |
| S232 | 201 | 229 | 0.2 | 1.96 | 6 | < 10 | 340 | < 0.5 | < 2 | 0.59 | < 0.5 | 8 | 21 | 38 | 3.57 | < 10 | < 1 | 0.24 | < 10 | 0.73 | 290 |
| S233 | 201 | 229 | 0.2 | 2.82 | 102 | < 10 | 250 | < 0.5 | < 2 | 0.78 | < 0.5 | 15 | 24 | 42 | 2.83 | < 10 | < 1 | 0.45 | < 10 | 0.80 | 370 |
| S234 | 201 | 229 | 0.6 | 2.82 | 44 | < 10 | 230 | < 0.5 | < 2 | 0.66 | < 0.5 | 7 | 36 | 48 | 3.73 | < 10 | < 1 | 0.55 | < 10 | 0.85 | 275 |
| S235 | 201 | 229 | < 0.2 | 2.93 | 30 | < 10 | 310 | < 0.5 | < 2 | 0.55 | < 0.5 | 18 | 69 | 82 | 3.82 | < 10 | < 1 | 0.81 | < 10 | 1.32 | 390 |
| S236 | 201 | 229 | 0.4 | 2.64 | 8 | < 10 | 430 | < 0.5 | < 2 | 0.77 | < 0.5 | 11 | 45 | 128 | 3.58 | < 10 | 1 | 0.31 | < 10 | 0.99 | 295 |
| S237 | 201 | 229 | 0.2 | 2.37 | < 2 | < 10 | 620 | < 0.5 | < 2 | 1.10 | < 0.5 | 9 | 30 | 186 | 3.06 | < 10 | 1 | 0.09 | < 10 | 0.49 | 165 |
| S238 | 201 | 229 | 0.2 | 2.43 | < 2 | < 10 | 690 | < 0.5 | < 2 | 1.08 | < 0.5 | 11 | 30 | 193 | 2.93 | < 10 | < 1 | 0.09 | < 10 | 0.48 | 160 |

CERTIFICATION: ____________

**Chemex Labs Ltd.**
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: BURGERT, ARND

P.O. BOX 1208
PORT MCNEILL, BC
V0N 2R0

Project : LORAX
Comments: ATTN: ARND BURGERT CC: ARND BURGERT


Certificate Date: 14-OCT-1999
Invoice No. : I9930451
P.O. Number :
Account :QHB

# CERTIFICATE OF ANALYSIS A9930451

| SAMPLE | PREP CODE | Mo ppm | Na % | Ni ppm | P ppm | Pb ppm | S % | Sb ppm | Sc ppm | Sr ppm | Ti % | Tl ppm | U ppm | V ppm | W ppm | Zn ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L29850N 29975E | 201 229 | 6 | 0.04 | 21 | 1190 | 12 | 0.11 | < 2 | 7 | 24 | 0.22 | < 10 | < 10 | 128 | < 10 | 54 |
| L29850N 30000E | 201 229 | 2 | 0.01 | 6 | 650 | 4 | 0.06 | < 2 | 10 | 5 | 0.09 | < 10 | < 10 | 101 | < 10 | 36 |
| L29850N 30025E | 201 229 | 4 | 0.03 | 28 | 1030 | 6 | 0.09 | < 2 | 3 | 11 | 0.16 | < 10 | < 10 | 83 | < 10 | 140 |
| L29850N 30050E | 201 229 | < 1 | 0.05 | 36 | 560 | 8 | 0.05 | < 2 | 5 | 20 | 0.22 | < 10 | < 10 | 90 | < 10 | 32 |
| L29850N 30075E | 201 229 | 8 | 0.03 | 16 | 1430 | 12 | 0.08 | < 2 | 4 | 28 | 0.19 | < 10 | < 10 | 131 | < 10 | 58 |
| L29850N 30100E | 201 229 | 39 | 0.06 | 21 | 1370 | 12 | 0.06 | < 2 | 8 | 37 | 0.24 | < 10 | < 10 | 195 | < 10 | 100 |
| L29850N 30150E | 201 229 | < 1 | 0.04 | 67 | 910 | 18 | 0.03 | < 2 | 6 | 46 | 0.19 | < 10 | < 10 | 77 | < 10 | 86 |
| L29850N 30175E | 201 229 | < 1 | 0.01 | 25 | 1010 | 8 | 0.10 | 2 | 6 | 10 | 0.13 | < 10 | < 10 | 82 | < 10 | 114 |
| L29850N 30200E | 201 229 | 4 | 0.01 | 14 | 1090 | 6 | 0.13 | < 2 | 4 | 10 | 0.11 | < 10 | < 10 | 96 | < 10 | 74 |
| L29900N 30000E | 201 229 | < 1 | 0.02 | 12 | 1000 | 10 | < 0.01 | < 2 | 2 | 10 | 0.09 | < 10 | < 10 | 61 | < 10 | 32 |
| L29950N 29925E | 201 229 | 13 | 0.04 | 36 | 1410 | 8 | 0.20 | < 2 | 6 | 29 | 0.18 | < 10 | < 10 | 141 | < 10 | 172 |
| L29950N 29950E | 201 229 | 1 | 0.04 | 31 | 1080 | 16 | 0.05 | < 2 | 5 | 13 | 0.22 | < 10 | < 10 | 109 | < 10 | 74 |
| L29950N 29975E | 201 229 | 1 | 0.03 | 24 | 1440 | 20 | 0.05 | < 2 | 7 | 12 | 0.17 | < 10 | < 10 | 122 | < 10 | 90 |
| L29950N 30000E | 201 229 | < 1 | 0.03 | 18 | 1010 | 16 | 0.06 | < 2 | 3 | 13 | 0.15 | < 10 | < 10 | 81 | < 10 | 42 |
| L29950N 30025E | 201 229 | < 1 | 0.02 | 18 | 810 | 6 | 0.03 | < 2 | 4 | 9 | 0.16 | < 10 | < 10 | 84 | 340 | 44 |
| L29950N 30050E | 201 229 | < 1 | 0.01 | 11 | 490 | 6 | 0.06 | < 2 | 4 | 8 | 0.22 | < 10 | < 10 | 90 | < 10 | 38 |
| L29950N 30075E | 201 229 | 1 | 0.02 | 7 | 740 | 14 | 0.22 | 2 | 7 | 27 | 0.09 | < 10 | < 10 | 55 | < 10 | 22 |
| L30000N 29875E | 201 229 | < 1 | < 0.01 | 36 | 360 | 584 | 0.82 | 2 | 1 | < 1 | 0.05 | < 10 | 30 | 17 | < 10 | 3650 |
| L30000N 29900E | 201 229 | 20 | 0.02 | 45 | 1530 | 8 | 0.21 | < 2 | 11 | 16 | 0.28 | < 10 | < 10 | 287 | < 10 | 208 |
| L30000N 29925E | 201 229 | 14 | 0.01 | 33 | 1310 | 12 | 0.13 | < 2 | 8 | 13 | 0.25 | < 10 | < 10 | 220 | < 10 | 170 |
| L30000N 29950E | 201 229 | 3 | 0.03 | 25 | 1190 | 12 | 0.05 | < 2 | 7 | 20 | 0.17 | < 10 | < 10 | 102 | < 10 | 112 |
| L30000N 30000E | 201 229 | < 1 | 0.03 | 18 | 1630 | 2 | 0.01 | < 2 | 4 | 19 | 0.18 | < 10 | < 10 | 105 | < 10 | 58 |
| L30000N 30025E | 201 229 | < 1 | 0.01 | 12 | 740 | 8 | 0.08 | < 2 | 4 | 7 | 0.23 | < 10 | < 10 | 85 | < 10 | 40 |
| L30000N 30050E | 201 229 | < 1 | 0.01 | 8 | 590 | 8 | 0.06 | < 2 | 3 | 9 | 0.21 | < 10 | < 10 | 79 | < 10 | 26 |
| L30000N 30075E | 201 229 | 6 | < 0.01 | 12 | 1280 | 6 | 0.03 | < 2 | 3 | 4 | 0.22 | < 10 | < 10 | 137 | < 10 | 40 |
| L30000N 30100E | 201 229 | < 1 | 0.01 | 17 | 2020 | 16 | 0.19 | < 2 | 4 | 27 | 0.21 | < 10 | < 10 | 83 | < 10 | 52 |
| L30000N 30125E | 201 229 | < 1 | < 0.01 | 16 | 530 | 2 | 0.06 | < 2 | 5 | 9 | 0.18 | < 10 | < 10 | 67 | < 10 | 80 |
| S230 | 201 229 | < 1 | 0.09 | 10 | 580 | 8 | 0.64 | 2 | 10 | 20 | 0.27 | < 10 | < 10 | 167 | < 10 | 68 |
| S231 | 201 229 | 3 | 0.08 | 16 | 890 | 6 | 0.09 | < 2 | 7 | 29 | 0.19 | < 10 | < 10 | 81 | < 10 | 60 |
| S232 | 201 229 | < 1 | 0.04 | 11 | 730 | 6 | 0.06 | < 2 | 5 | 21 | 0.16 | < 10 | < 10 | 58 | < 10 | 42 |
| S233 | 201 229 | < 1 | 0.07 | 23 | 650 | 6 | 0.01 | 2 | 8 | 59 | 0.18 | < 10 | < 10 | 80 | < 10 | 76 |
| S234 | 201 229 | < 1 | 0.07 | 14 | 600 | 14 | 0.05 | < 2 | 8 | 46 | 0.19 | < 10 | < 10 | 98 | < 10 | 60 |
| S235 | 201 229 | < 1 | 0.06 | 21 | 1260 | 2 | 0.03 | < 2 | 7 | 30 | 0.30 | < 10 | < 10 | 132 | < 10 | 64 |
| S236 | 201 229 | 3 | 0.09 | 25 | 1110 | 12 | 0.04 | < 2 | 7 | 29 | 0.25 | < 10 | < 10 | 99 | < 10 | 76 |
| S237 | 201 229 | < 1 | 0.12 | 31 | 910 | < 2 | 0.03 | < 2 | 5 | 58 | 0.27 | < 10 | < 10 | 71 | < 10 | 26 |
| S238 | 201 229 | < 1 | 0.11 | 36 | 900 | 2 | 0.03 | < 2 | 5 | 62 | 0.25 | < 10 | < 10 | 69 | < 10 | 24 |

CERTIFICATION:

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218


To: BURGERT, ARND

P.O. BOX 1208
PORT MCNEILL, BC
V0N 2R0

Project : LORAX
Comments: ATTN: ARND BURGERT CC: ARND BURGERT

Page Number : 1-A
Total Pages : 1
Certificate Date: 14-OCT-1999
Invoice No. : I9930426
P.O. Number :
Account : QHB

## CERTIFICATE OF ANALYSIS A9930426

| SAMPLE | PREP CODE | | Ag ppm | Al % | As ppm | B ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | Ga ppm | Hg ppm | K % | La ppm | Mg % | Mn ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M500380 | 205 | 226 | 26.6 | 0.07 | < 2 | < 10 | 10 | < 0.5 | < 2 | 1.98 | 397 | 82 | < 1 | 3810 | >15.00 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 970 |
| M500381 | 205 | 226 | 48.8 | 0.04 | < 2 | < 10 | 10 | < 0.5 | < 2 | 2.69 | >500 | 55 | < 1 | 7110 | >15.00 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 1435 |
| M500382 | 205 | 226 | 1.0 | 0.86 | 130 | < 10 | 10 | < 0.5 | 2 | 13.75 | 31.0 | 3 | 51 | 84 | 0.57 | < 10 | < 1 | < 0.01 | < 10 | 0.03 | 175 |
| M500383 | 205 | 226 | 0.2 | 2.37 | 96 | 10 | 10 | < 0.5 | < 2 | 3.10 | 1.5 | 8 | 112 | 28 | 0.59 | < 10 | < 1 | 0.01 | < 10 | 0.03 | 125 |
| M500384 | 205 | 226 | 1.2 | 3.05 | 22 | < 10 | 2500 | < 0.5 | < 2 | 1.12 | 1.5 | 15 | 132 | 152 | 3.99 | 10 | < 1 | 1.28 | < 10 | 1.85 | 400 |
| M500385 | 205 | 226 | 59.2 | 0.67 | < 2 | < 10 | 120 | < 0.5 | < 2 | 0.24 | 24.0 | 21 | 5 | 2590 | >15.00 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 850 |
| M500386 | 205 | 226 | 46.2 | 0.43 | < 2 | < 10 | 40 | < 0.5 | < 2 | 1.17 | 139.5 | 45 | < 1 | 4050 | >15.00 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 1985 |
| M500387 | 205 | 226 | >100.0 | 4.34 | 12 | < 10 | 130 | < 0.5 | < 2 | 0.27 | 24.0 | 184 | 66 | 5930 | 13.00 | < 10 | < 1 | 0.01 | < 10 | 0.83 | >10000 |
| M500388 | 205 | 226 | 12.0 | 0.05 | < 2 | < 10 | 180 | < 0.5 | 8 | >15.00 | 23.0 | < 1 | 4 | 546 | 1.25 | < 10 | < 1 | < 0.01 | < 10 | 0.12 | 2580 |
| M500389 | 205 | 226 | 9.2 | 2.02 | 6 | < 10 | 100 | < 0.5 | < 2 | 1.03 | 2.5 | 13 | 113 | 308 | 5.10 | < 10 | < 1 | 0.27 | < 10 | 0.65 | 1235 |
| M500390 | 205 | 226 | 6.8 | 2.97 | < 2 | < 10 | 30 | < 0.5 | < 2 | 0.73 | 0.5 | 63 | 118 | 327 | 6.82 | < 10 | < 1 | 0.91 | < 10 | 2.43 | 320 |
| M500391 | 205 | 226 | 5.0 | 4.64 | < 2 | < 10 | 40 | < 0.5 | < 2 | 2.60 | 0.5 | 53 | 61 | 256 | 6.60 | < 10 | < 1 | 0.34 | < 10 | 0.87 | 220 |
| M500392 | 205 | 226 | 2.4 | 0.20 | 2 | < 10 | 110 | < 0.5 | < 2 | 0.47 | 14.5 | 14 | 76 | 236 | 3.18 | < 10 | < 1 | 0.05 | < 10 | 0.08 | 80 |
| M500393 | 205 | 226 | 27.0 | 0.88 | < 2 | < 10 | 30 | < 0.5 | 716 | 0.65 | 4.5 | 71 | 28 | 4900 | 9.37 | < 10 | < 1 | 0.06 | < 10 | 0.04 | 130 |
| M500394 | 205 | 226 | 0.8 | 2.10 | 26 | < 10 | 120 | < 0.5 | < 2 | 3.32 | 2.0 | 19 | 96 | 65 | 2.76 | < 10 | < 1 | 0.06 | 10 | 0.38 | 180 |

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To: BURGERT, ARND

P.O. BOX 1208
PORT MCNEILL, BC
V0N 2R0

Project : LORAX
Comments: ATTN: ARND BURGERT CC: ARND BURGERT


Certificate Date: 14-OCT-1999
Invoice No. : I9930426
P.O. Number :
Account : QHB

## CERTIFICATE OF ANALYSIS A9930426

| SAMPLE | PREP CODE | | Mo ppm | Na % | Ni ppm | P ppm | Pb ppm | S % | Sb ppm | Sc ppm | Sr ppm | Ti % | Tl ppm | U ppm | V ppm | W ppm | Zn ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M500380 | 205 | 226 | < 1 | < 0.01 | 208 | < 10 | 26 | >5.00 | 20 | < 1 | < 1 | < 0.01 | 10 | < 10 | < 1 | < 10 | >10000 |
| M500381 | 205 | 226 | < 1 | < 0.01 | 150 | < 10 | 38 | >5.00 | 10 | < 1 | < 1 | < 0.01 | < 10 | < 10 | < 1 | < 10 | >10000 |
| M500382 | 205 | 226 | 7 | 0.01 | 40 | 220 | 6 | 0.36 | 2 | < 1 | 88 | 0.03 | < 10 | < 10 | 216 | < 10 | 1365 |
| M500383 | 205 | 226 | 23 | 0.06 | 22 | 580 | 6 | 0.18 | < 2 | < 1 | 137 | 0.06 | < 10 | < 10 | 29 | < 10 | 72 |
| M500384 | 205 | 226 | 5 | 0.06 | 44 | 930 | 22 | 0.14 | 2 | 5 | 27 | 0.45 | < 10 | < 10 | 188 | < 10 | 286 |
| M500385 | 205 | 226 | < 1 | < 0.01 | 31 | 120 | 870 | 0.64 | 22 | < 1 | < 1 | 0.01 | < 10 | < 10 | < 1 | < 10 | 6130 |
| M500386 | 205 | 226 | < 1 | < 0.01 | 69 | 10 | 1835 | 4.04 | 2 | < 1 | 1 | < 0.01 | < 10 | < 10 | < 1 | < 10 | >10000 |
| M500387 | 205 | 226 | < 1 | 0.01 | 80 | 360 | >10000 | 0.38 | 6 | 1 | 3 | 0.03 | < 10 | < 10 | 9 | < 10 | 3310 |
| M500388 | 205 | 226 | < 1 | < 0.01 | 5 | 50 | 338 | 0.89 | < 2 | < 1 | 236 | < 0.01 | < 10 | < 10 | < 1 | < 10 | 2350 |
| M500389 | 205 | 226 | 12 | 0.09 | 14 | 930 | 586 | 0.73 | < 2 | 6 | 37 | 0.17 | < 10 | < 10 | 138 | < 10 | 284 |
| M500390 | 205 | 226 | < 1 | 0.14 | 94 | 400 | 46 | 4.42 | 2 | 11 | 23 | 0.17 | < 10 | < 10 | 173 | < 10 | 88 |
| M500391 | 205 | 226 | < 1 | 0.33 | 83 | 420 | 38 | 4.68 | < 2 | 2 | 81 | 0.09 | < 10 | < 10 | 65 | < 10 | 96 |
| M500392 | 205 | 226 | 25 | 0.05 | 75 | 1320 | 46 | 2.02 | < 2 | 1 | 5 | 0.11 | < 10 | < 10 | 26 | < 10 | 664 |
| M500393 | 205 | 226 | < 1 | 0.01 | 24 | 170 | < 2 | 4.72 | 10 | 2 | 36 | 0.06 | < 10 | < 10 | 17 | < 10 | 194 |
| M500394 | 205 | 226 | 17 | 0.14 | 45 | 7690 | 14 | 0.79 | < 2 | 3 | 98 | 0.06 | < 10 | 10 | 84 | < 10 | 130 |

CERTIFICATION: [signature]

Chemex Labs Ltd.
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PHONE: 604-984-0221 FAX: 604-984-0218

To: BURGERT, ARND

P.O. BOX 1208
PORT MCNEILL, BC
V0N 2R0

Project : LORAX
Comments: ATTN: ARND BURGERT CC: ARND BURGERT


Certificate Date: 14-OCT-1999
Invoice No. : I9931130
P.O. Number :
Account : QHB

# CERTIFICATE OF ANALYSIS A9931130

| SAMPLE | PREP CODE | | Ag FA g/t | Pb % | Zn % |
|---|---|---|---|---|---|
| M500380 | 212 | -- | ------ | ------ | 4.91 |
| M500381 | 212 | -- | ------ | ------ | 7.38 |
| M500386 | 212 | -- | ------ | ------ | 1.71 |
| M500387 | 212 | -- | 211 | 1.90 | ------ |

CERTIFICATION: [signature]

OVEP' 'ITS from A9930426

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
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To: BURGERT, ARND

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PORT MCNEILL, BC
V0N 2R0

Project : LORAX
Comments: ATTN: ARND BURGERT CC: ARND BURGERT

Page Number : 1
Total Pages : 1
Certificate Date: 27-OCT-1999
Invoice No. : I9931794
P.O. Number :
Account : QHB

# CERTIFICATE OF ANALYSIS A9931794

| SAMPLE | PREP CODE | | Au ppb FA+AA | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M500380 | 244 | -- | 165 | | | | | | | | | |
| M500381 | 244 | -- | 290 | | | | | | | | | |
| M500385 | 244 | -- | 480 | | | | | | | | | |
| M500386 | 244 | -- | 245 | | | | | | | | | |
| M500387 | 244 | -- | 2590 | | | | | | | | | |

CERTIFICATION: Laurence Ng

RERUN from A9930426

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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To: BURGERT, ARND

P.O. BOX 1208
PORT MCNEILL, BC
V0N 2R0

Project : LORAX
Comments: ATTN: ARND BURGERT CC: ARND BURGERT

Page Number : 1-A
Total Pages : 1
Certificate Date: 01-NOV-1999
Invoice No. : I9932104
P.O. Number :
Account : QHB

## CERTIFICATE OF ANALYSIS A9932104

| SAMPLE | PREP CODE | | Ag ppm AAS | Al % (ICP) | Ba ppm (ICP) | Be ppm (ICP) | Bi ppm (ICP) | Ca % (ICP) | Cd ppm (ICP) | Co ppm (ICP) | Cr ppm (ICP) | Cu ppm (ICP) | Fe % (ICP) | K % (ICP) | Mg % (ICP) | Mn ppm (ICP) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M500384 | 244 | 285 | 1.0 | 6.58 | 5100 | 0.5 | < 2 | 4.61 | 2.0 | 19 | 221 | 135 | 5.10 | 1.58 | 4.19 | 1195 |

CERTIFICATION: [signature]

RERUN' ʹom A9930426

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V0N 2R0

Project : LORAX
Comments: ATTN: ARND BURGERT CC: ARND BURGERT

Page Number : 1-B
Total Pages : 1
Certificate Date: 01-NOV-1999
Invoice No. : I9932104
P.O. Number :
Account : QHB

# CERTIFICATE OF ANALYSIS A9932104

| SAMPLE | PREP CODE | | Mo ppm (ICP) | Na % (ICP) | Ni ppm (ICP) | P ppm (ICP) | Pb ppm AAS | Sr ppm (ICP) | Ti % (ICP) | V ppm (ICP) | W ppm (ICP) | Zn ppm (ICP) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M500384 | 244 | 285 | 5 | 1.91 | 58 | 970 | 32 | 124 | 0.69 | 301 | < 10 | 382 | | | | |

CERTIFICATION: ____________

RERUNS from A9930426

# APPENDIX III

## STATEMENT OF EXPENDITURES

Lorax Mineral Claim
1999 Statement of Expenditures

| | | | |
|---|---|---|---|
| Prospecting | | | |
| Prospector | | | |
| 4 days | @ | $ 225 /day | $ 900 |
| Camp costs | | | |
| 4 days | @ | 45 /day | 180 |
| Laboratory | | | |
| 15 rock samples | @ | 13 /sample | 195 |
| Mapping | | | |
| Geologist | | | |
| 4 days | @ | 275 /day | 1,100 |
| Camp costs | | | |
| 4 days | @ | 45 /day | 180 |
| Soil Sampling | | | |
| Soil Sampler | | | |
| 4 days | @ | 180 /day | 720 |
| Camp costs | | | |
| 4 days | @ | 45 /day | 180 |
| Laboratory | | | |
| 116 soil samples | @ | 8 /sample | 928 |
| Freight | | | |
| shipping, Powell River - Vancouver | | | 112 |
| Supplies | | | |
| flagging tape, soil bags, pickets, etc. | | | 160 |
| General | | | |
| 4 wheel drive truck | | | |
| 12 days | @ | 70 /day | 840 |
| fuel and oil | | | 68 |
| drafting | | | 900 |
| report preparation; photocopying | | | 840 |
| helicopter charter | | | 2,223 |
| Total | | | $ 9,526 |