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Report on 2000 Exploration Program

Raleigh Lake Tantalum Property

Raleigh Lake Area G-2557
Balmoral Lake Area G-2530

Kenora Mining Division, Ontario

NTS 52 G/5 NW

Latitude 49°23' N Longitude 91°57' W

Magnetic Declination in 1998: 0°10' E

2.21766

Jens C. Pedersen, Senior Geologist
Avalon Ventures Ltd.

19 December 2000

EXECUTIVE SUMMARY

The Raleigh Lake tantalum property was optioned by Avalon Ventures Ltd. in May 1998 on the basis of known tantalum-bearing pegmatite occurrences. The property consists of 36 claims totalling 18,520 acres, and is located just off the Trans Canada Highway, 23 kilometres west of Ignace and 235 kilometres west of Thunder Bay in northwestern Ontario. A series of logging roads and Raleigh Lake provide excellent access across most parts of the property. The northern portion of the property is known to host tantalum bearing albite-spodumene sub-type of rare metal pegmatites.

Initial exploration by Avalon in 1998 consisted of regional sampling of granitic plutons, pegmatites, and three reconnaissance lines of lithogeochemical bedrock sampling. This was followed up in 1999 by additional claim staking and prospecting which returned assays up to 0.048% Ta_2O_5 in Pegmatite #1 and 0.221% Ta_2O_5 in Pegmatite #3. This was followed by a 5-hole, 602 metre diamond drill program in October, 1999 which tested the strike and dip extensions of Pegmatites #1 and #3. Four vertically stacked pegmatites were intersected in each hole with every pegmatite containing highly anomalous tantalum mineralization. Values ranged from 0.011% Ta_2O_5 over 5.4 metres to 0.027% Ta_2O_5 over 2.0 metres. The best individual assay yielded 0.039% Ta_2O_5 over 0.7 metres. The program also illustrated the lateral continuity of the pegmatite bodies with the Pegmatite #1 being traced down dip for over 450 metres.

In September-October 2000, a $120,000 surface exploration program funded by Global Canada Company ("Global") was completed on the property and consisted of linecutting, lithogeochemcal sampling and pegmatite evaluation. The Raleigh Lake tantalum property is one of three properties being explored under a joint venture agreement (July 2000) between Avalon and Global, under which Global can earn a 50% interest in any one property by spending $5.0 million or completing a feasibility study by December 2002.

A lithogeochemical survey consisting of 966 bedrock samples identified three extensive north-south bedrock trends interpreted to reflect buried or unexposed pegmatite bodies. Trend 1 extends for a total length of 2.9 kilometres, and has been subdivided into three sub-trends. Trend 1A is the northern portion of the trend and is 600 metres in strike length. Trend 1B contains Pegmatites #1 and #3, and suggests that the potential strike length of these dykes extends at least a further 800 metres to the south. This trend also contains several Ta-enriched albitic dykes with values up to 0.021% Ta_2O_5. Trend 1C is sub-parallel to the south and east, and has a strike length of 1.4 kilometres.

Trend 2 occurs several hundred metres west of Trend 1, is comprised of multiple anomalies over a broad area, and extends for 2.6 kilometres in a north-south direction. It has been subdivided into two sub-trends. The northern sub-trend 2A, contains the Johnson Pegmatite and is 1.8 kilometres in length and 500 metres in width. Trend 2B is the southern extension of Trend 1A, and is 800 metres long and 800 metres in width. Both sub-trends contain numerous small albitic dykes not large enough to explain the lithogeochemical response, but with tantalum values up to 0.025% Ta_2O_5.

Trend 3 is two kilometres southeast of Trend 1, and consists of two parallel south-southwest trending anomalies 400 metres apart. Both have an approximate strike length of 1.4 kilometres, and both are open to the north. Several small albitic dykes associated with this trend and assaying up to 0.022% Ta_2O_5 were discovered during the course of the field program. This extends the tantalum mineralization on the property over several kilometers from those occurrences previously known. The bedrock underlying this part of the property shows evidence of complex doming, with the potential to have created very large structural traps for subsequent pegmatite emplacement, making this portion of the property a top priority exploration target area.

Surface pegmatite sampling produced 15 occurrences with tantalum values in excess of 100 ppm, ranging in value from 115 to 216 ppm (0.014 to 0.025% Ta_2O_5). Most of these are from new discoveries of small albitic dykes associated with the major lithogeochemical trends, with the dykes themselves being too small to explain the anomalies. A significant degree of fractionation is apparent as expressed by niobium/tantalum ratios, which range from 0.23 to 1.85.

The 2000 exploration program of lithogechemical and pegmatite sampling on the Raleigh Lake tantalum property has been very successful in identifying three new geochemical trends and related tantalum-bearing pegmatites. In order to follow-up on the trends and prioritize drill targets, a two-phase program is strongly recommended. The surface program would evaluate and prioritize the lithogeochemical anomalies by trenching, structural mapping and geological interpretation. Diamond drilling would then be required to test the top priority targets, with a minimum of 700 metres allotted. The program would begin in early May and be completed by early August 2001, at an estimated cost of $150,000.

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1.0 INTRODUCTION

The Raleigh Lake tantalum property was optioned by Avalon Ventures Ltd. in May 1998 on the basis of known pegmatite-hosted tantalum occurrences. An initial exploration program in 1998 consisted of regional sampling of granitic plutons and lithogeochemical sampling over portions of the property. In 1999, linecutting, prospecting, additional claim staking, and diamond drilling was carried out. Tantalum mineralization was confirmed in several gently dipping to flat-lying pegmatites from both surface grab samples and diamond drilling. Assays as high as 0.221% Ta_2O_5 were obtained from surface sampling at Pegmatite #3, and as high as 0.039% Ta_2O_5 from diamond drilling.

In September 2000, a $120,000 surface exploration program funded by Global Canada Company ("Global") was initiated on the property consisting of linecutting, lithogeochemical sampling and geological mapping. This was one of three properties being explored under a joint venture agreement (July 2000) between Avalon and Global, under which Global can earn a 50% interest in any one property by spending $5.0 million or completing a feasibility study by December 2002.

The purpose of this report is to document and interpret the results of the fall 2000 program and to make recommendations for further work.

2.0 LOCATION AND ACCESS

The Raleigh Lake tantalum property is located approximately 23 kilometres west of Ignace, and 235 kilometres west of Thunder Bay in Northwestern Ontario (Figure 1). The property can be accessed by boat from Raleigh Lake, or via a well-maintained network of Avenor logging roads that branch south from Highway 17 (Trans Canada Highway) approximately 25 kilometres west of Ignace.

Access to the property via the Avenor logging roads is gained by driving 3.8 kilometres west of Raleigh Lake Road and turning south from Highway 17. Travelling 8.7 kilometres south to the "Moose Hide Road" junction, continue to the left and travel another 3.1 kilometres before turning east onto logging road 46-02. Approximately 1.5 kilometres from this junction, an old logging road leads north onto the Raleigh Lake property and provides easy access to claim K 1178331 hosting the main pegmatite occurrences including Pegmatites #1 and #3 (Map 3). Road 46-02 continues to the eastern side of Raleigh Lake and eventually back to Highway 17.

Access to the property via Raleigh Lake is gained by driving approximately 23 kilometres west of Ignace on the Trans Canada Highway (Hwy 17) to the Raleigh Lake Road. This leads southward for one kilometre to the shoreline of the lake, from where excellent access to the northeast portion of the property is achievable by boat. The Raleigh Lake and Cobblestone Lodges are both situated along the shoreline of Raleigh Lake and could accommodate any exploration being carried out on the property.

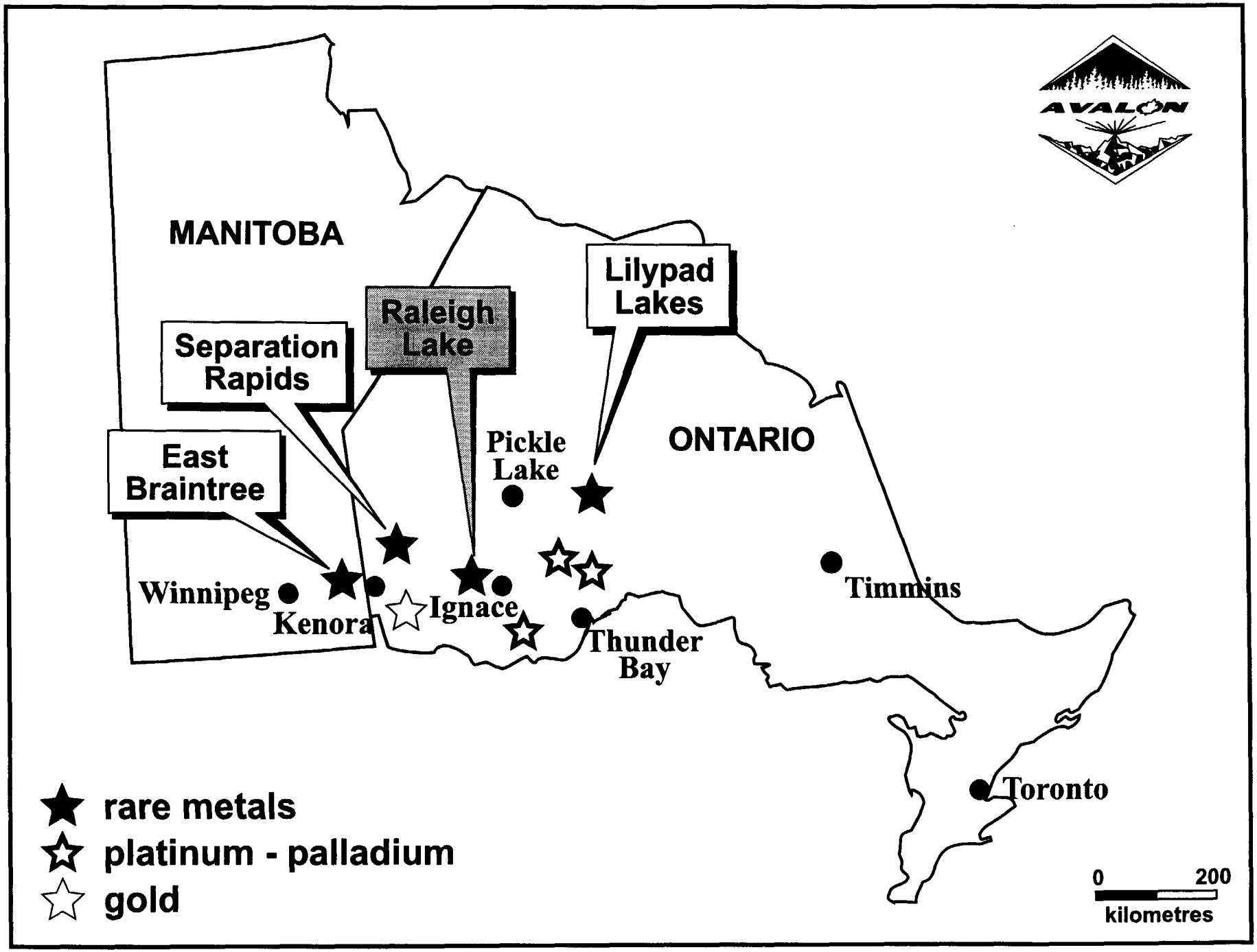

Figure 1: Raleigh Lake Property Location Map

3.0 LAND POSITION

The Raleigh Lake property consists of 36 claims comprising 463 units, for a total land package of 18,520 acres (Figure 2). The claims are located on claim sheets G-2557 Raleigh Lake and G-2530 Balmoral Lake, southwest of Raleigh Lake in the Kenora Mining Division. NTS reference for the property is 52 G/5, with the property being centred on Latitude 49°23' N Longitude 91°57' W. Pertinent claim information is listed in Table 1.

Table 1: Raleigh Lake Property Claims List

Claim	Units	Recorded Holder	Recorded	Assessment Due
K 1178331	4	Fairservice 100%	13 Nov 1997	13 Nov 2001
K 1220601	4	Fairservice 100%	08 Apr 1998	08 Apr 2002
K 1220602	8	Fairservice 100%	08 Apr 1998	08 Apr 2002
K 1133503	8	Bond 75% / Johnson 25%	13 Jun 1997	13 Jun 2002
K 1163296	8	Bond 75% / Johnson 25%	29 Jan 1998	29 Jan 2002
K 1166892	4	Bond 75% / Johnson 25%	12 Feb 1998	12 Feb 2002
K 1166893	4	Bond 75% / Johnson 25%	12 Feb 1998	12 Feb 2002
K 1220923	16	Avalon 100%	14 July 1999	14 July 2001
K 1220924	16	Avalon 100%	14 July 1999	14 July 2001
K 1220925	16	Avalon 100%	14 July 1999	14 July 2001
K 1220926	16	Avalon 100%	14 July 1999	14 July 2001
K 1220927	16	Avalon 100%	14 July 1999	14 July 2001
K 1220928	16	Avalon 100%	14 July 1999	14 July 2001
K 1220929	16	Avalon 100%	14 July 1999	14 July 2001
K 1220930	15	Avalon 100%	14 July 1999	14 July 2001
K 1220931	16	Avalon 100%	14 July 1999	14 July 2001
K 1220932	16	Avalon 100%	14 July 1999	14 July 2001
K 1220933	16	Avalon 100%	14 July 1999	14 July 2001
K 1220934	16	Avalon 100%	14 July 1999	14 July 2001
K 1220935	16	Avalon 100%	14 July 1999	14 July 2001
K 1220936	16	Avalon 100%	14 July 1999	14 July 2001
K 1220981	16	Avalon 100%	18 Aug 1999	18 Aug 2001
K 1220982	16	Avalon 100%	18 Aug 1999	18 Aug 2001
K 1220983	8	Avalon 100%	18 Aug 1999	18 Aug 2001
K 1220984	12	Avalon 100%	18 Aug 1999	18 Aug 2001
K 1220985	12	Avalon 100%	18 Aug 1999	18 Aug 2001
K 1220986	16	Avalon 100%	18 Aug 1999	18 Aug 2001
K 1220987	12	Avalon 100%	18 Aug 1999	18 Aug 2001
K 1178890	8	Avalon 100%	18 Aug 1999	18 Aug 2001
K 1239747	16	Avalon 100%	01 Sept 1999	01 Sept 2001
K 1239748	8	Avalon 100%	01 Sept 1999	01 Sept 2001
K 1239749	12	Avalon 100%	01 Sept 1999	01 Sept 2001
K 1239750	16	Avalon 100%	01 Sept 1999	01 Sept 2001
K 1239751	16	Avalon 100%	01 Sept 1999	01 Sept 2001
K 1239752	16	Avalon 100%	01 Sept 1999	01 Sept 2001
K 1239753	16	Avalon 100%	01 Sept 1999	01 Sept 2001
36 claims	463			

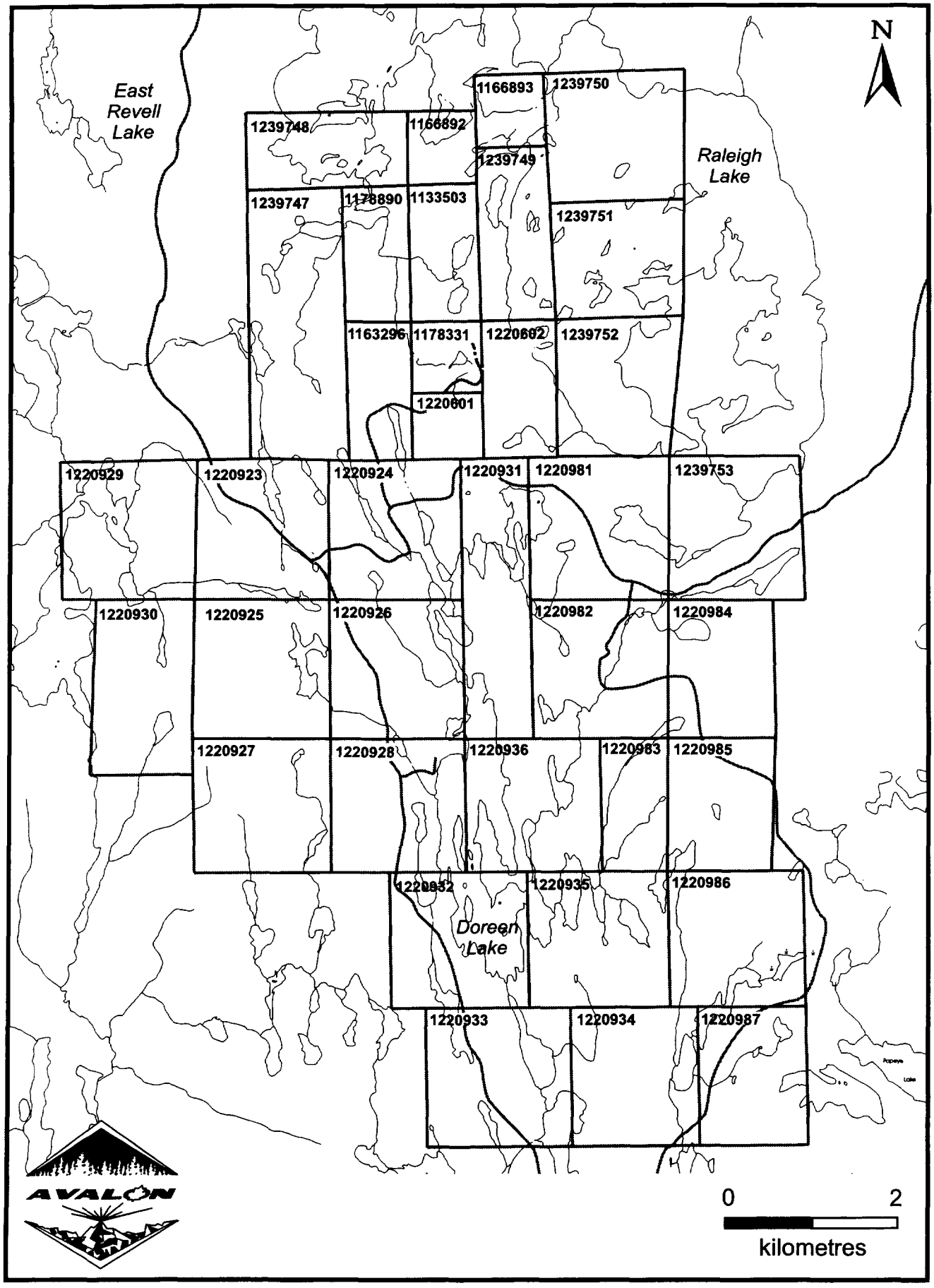

Figure 2: Raleigh Lake Property Claim Map

The claims are held under a four year option agreement, during which time Avalon must make a total of $100,000 in cash payments, issue 20,000 shares and incur a minimum of $400,000 in exploration expenditures on the property to keep the option in good standing. To date, $45,000 in cash payments have been made, all 20,000 shares have been issued, and $265,000 in expenditures have been incurred. At the end of the term, and by meeting these commitments, Avalon will have earned a 100% undivided interest in the property, subject to a 3.0% Net Smelter Returns royalty retained by the vendors, of which 1.5% can be purchased by Avalon at any time for $1.0 million cash.

In July 2000, the property was one of three properties subject to a joint venture agreement between Avalon and Global under which Global can earn a 50% interest in any one property by expending $5.0 million or completing a feasibility study by December 2002.

4.0 PREVIOUS EXPLORATION

Historically, work has been carried out near the Raleigh Lake area for greenstone hosted gold and base metal mineralization. There has been very little exploration for rare metal mineralization. Spodumene-bearing pegmatites were discovered in the area by Stan Johnson in 1966, though the results of his findings were not disclosed until the early 1990's. Since that time, this area and others have become the focus of various studies on granite-related mineralization in the Superior Province by the Ontario Geological Survey (Breaks 1993 and Stone et al. 1998, 1999). Breaks documented the historic spodumene showing and detailed several new rare metal occurrences within the Raleigh Lake Pegmatite Field (Breaks 1993).

Work History:

1966 Stan Johnson: Discovered spodumene-bearing pegmatites in the Raleigh Lake area.

1993-1999 Ontario Geological Survey: Studied the Raleigh Lake pegmatite field as part of a project on granite-related mineralization in the Superior Province. Breaks (1993) included descriptions of the Johnson Pegmatite as part of his studies, and also discovered the Raleigh Lake Pegmatites #1 and #3.

1996-1998 Ontario Geological Survey: Field mapping and geological compilation of the Ignace area including Raleigh Lake (Stone, 1999). Identified and mapped the two-mica granite thought to be related to the Raleigh Lake pegmatite field.

1997-1998 R. Fairservice, S. Johnson, J.Bond: Staked original seven claims of the property. In 1998, Fairservice discovered a mineralized pegmatite boulder train south of Pegmatite #1 that assayed up to 0.097% Ta_2O_5. Ice direction measured from glacial striae indicate that boulder train is related to the drift covered southern extension of Pegmatite #1.

1998-2000 Avalon Ventures Ltd.: Optioned property from vendors in 1998, and carried out limited reconnaissance prospecting. Follow-up prospecting and lithogeochemical sampling was carried out during the summer of 1998 (Pedersen, 1999a). Additional claims were staked in 1999 and in September 1999, a small grid was cut over the area encompassing Pegmatites #1 and #3 to provide control for diamond drilling. This was followed by 602 metres of diamond drilling (Pedersen, 1999b) in five holes on Pegmatites #1 and #3. J. Willoughby carried out petrological and geochemical studies on Archean granitoids related to the Raleigh Lake pegmatites as part of a B.Sc. (Honours) thesis completed at the University of Windsor in Ontario (Willoughby, 1999). Willoughby divided the granitoid rocks in the study area into three main suites, and suggested a continuous fractionation trend relating the entire suite. His studies point to the Ford Lake Pluton and Revell Lake Batholith as potential progenitors of the Raleigh Lake pegmatite field. Conversely, the Crocker Bay Stock, Raleigh Lake Pluton, and Greenhearst Lake Pluton are deemed unlikely sources.

5.0 REGIONAL GEOLOGY

The Raleigh Lake property is located within the Wabigoon Subprovince of the Superior Province of the Canadian Shield. More specifically, it is situated in the western portion of the central Wabigoon region (CWR), which is characterized by ovoid gneissic domes and elliptical batholiths with screens and small belts of supracrustal rocks. Older foliated and gneissic tonalitic bodies are cut and surrounded by younger massive and foliated granitic bodies forming large-scale dome and basin structures. Minor greenstone belts of relatively low metamorphic grade occur within the CWR (Figure 3).

The Indian Lake granitoid batholith is a major feature of the Raleigh Lake area, with smaller bodies, such as the Raleigh Lake Pluton (4 x 6 kilometres in size), and the Crocker Bay Stock (0.5 x 1.5 kilometres in size) occurring in the immediate vicinity. These igneous bodies are surrounded by mafic metavolcanic rocks ranging from foliated to gneissic flows and fragmentals. To the south and west, the mafic volcanics are in contact with intermediate to felsic flows and fragmental units (Stone et al. 1998, 1999).

The Raleigh Lake area is extensively covered by thin to moderate layers of glacial till and sandy soil. Outcrop exposure is generally poor, even along the shorelines of numerous lakes examined in the area, including Raleigh Lake.

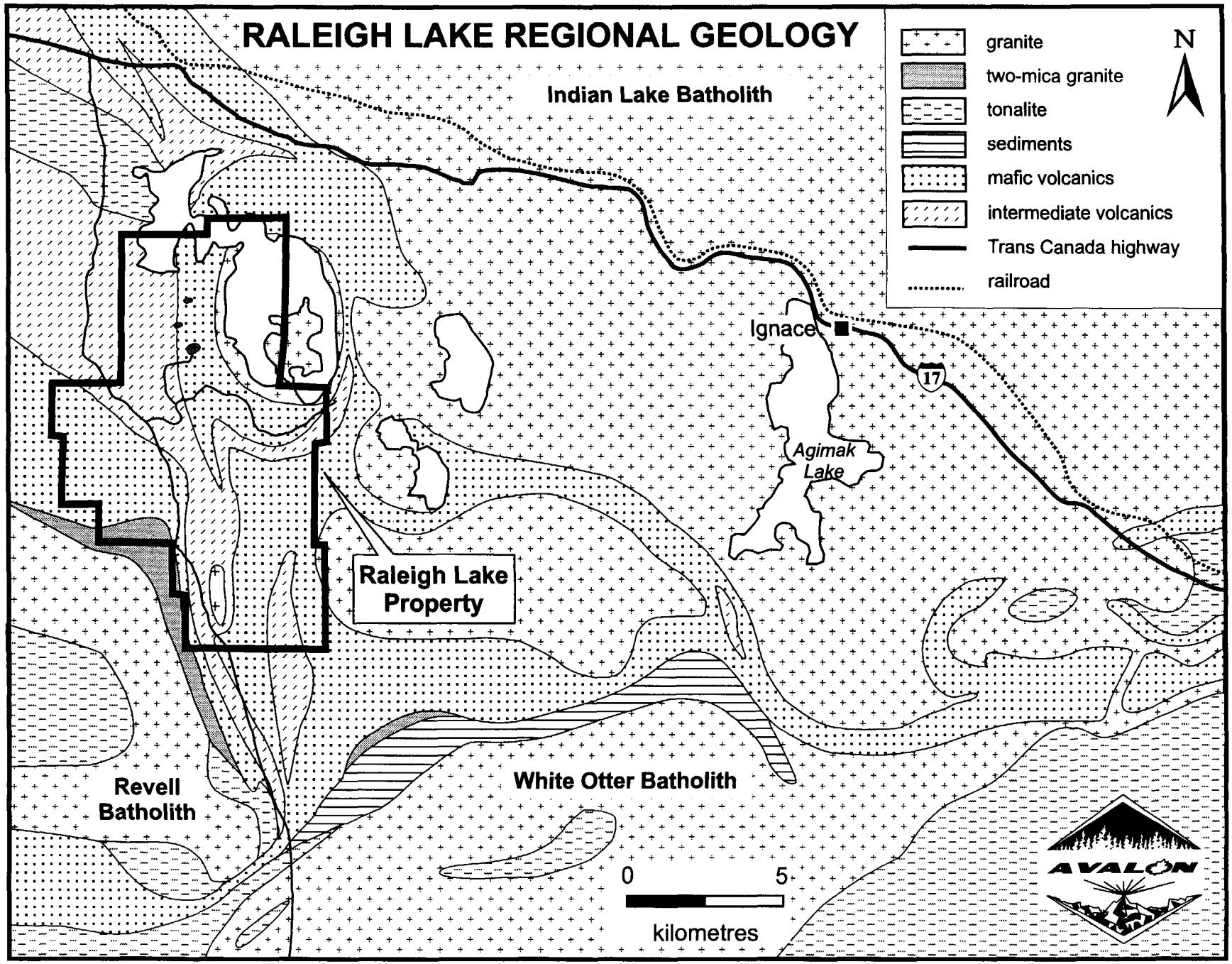

Figure 3: Regional Geology of Raleigh Lake Property

6.0 PROPERTY GEOLOGY AND MINERALIZATION

6.1 Country Rocks

Except for regional work by OGS geologists (Breaks, 1993; Stone et. al., 1998, 1999), and reconnaissance prospecting by Avalon (Pedersen, 1999a; Willoughby, 1999), little is known about structural or lithological details on the Raleigh Lake claims. The property is predominantly underlain by Archean supracrustals (Figure 4) comprised essentially of mafic metavolcanics and their derived metasedimentary equivalents, which both overlie and are intruded by granitic plutons and batholiths of various ages. The metavolcanics comprise the Raleigh Lake greenstone belt (Sage et al. 1974), which is intruded by many of these granitoids, including the peraluminous (S-type) Revell Lake Batholith. The Revell Lake Batholith exhibits an alteration front which has recently been identified and mapped by the OGS as a "two-mica" granite (Stone, 1999), and is believed to be parental to the rare element pegmatites of the Raleigh Lake pegmatite field. Regional folding and doming (Figure 4) outlined by OGS mapping represent potential structural traps for pegmatite emplacement.

Foliations trend generally north-south, varying from 160°-220° and dipping moderately to the east between 50°-75° to the east of Raleigh Lake, and swinging around to an easterly trend south of Raleigh Lake related the previously mentioned folding and doming in this region. Most pegmatites trend north-northeast with moderate easterly dips ranging from 25°-65°.

6.1.1 Metavolcanics

The metavolcanics in the Raleigh Lake area are comprised predominantly of meta-basalts, likely flows and deformed pillowed horizons. These mafic units are intercalated with lighter coloured, more siliceous intermediate volcanics, which locally are highly felsic. All varieties are generally fine grained, semi-massive with moderate foliation, and dark green-grey to grey-yellow in colour. Chloritic alteration varies from absent to abundant, including zones of intense silica flooding and remobilization, in large part due to metamorphic recrystallization. In these sections, breccia textures are common, as is hematization of disseminated sulphides, as seen in drill core from the 1999 drill program. Quartz veins commonly contain epidote and possible ankerite. Mafic units are locally moderately to strongly magnetic in the presence of locally common disseminated pyrrhotite. Calcareous horizons are also locally common, and in places resemble zones of silica flooding due to their siliceous character. These horizons contain distorted nodules and bands of quartz-epidote-calcite-diopside-grossular. Garnet (grossular) is commonly very coarse, to several centimetres. Pillows are locally common in mafic horizons, and range from exceptionally preserved and undeformed, to highly flattened and recrystallized.

6.1.2 Feldspar Porphyry

Feldspar porphyries are massive, medium grained, medium to dark grey in colour, with common to abundant 1 to 2 mm subhedral feldspar phenocrysts. The matrix is aphanitic to fine grained, commonly with fine grained biotite, and local disseminated sulphides. They are

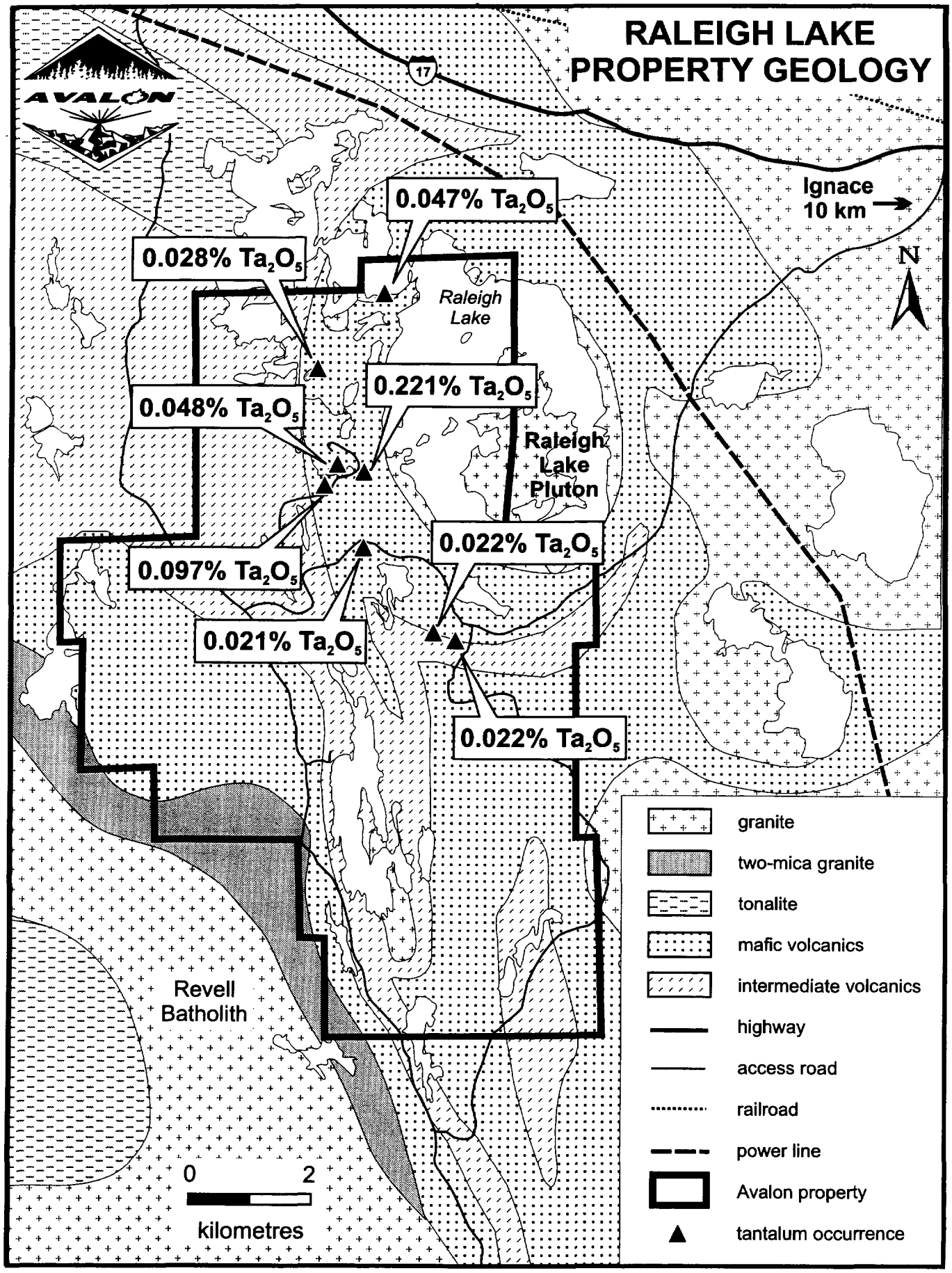

Figure 4: Property Geology of Raleigh Lake Property

generally unaltered with local zones of silica flooding and brecciation. Trace to minor pyrite, pyrrhotite, and chalcopyrite occur in the siliceous zones. The porphyries are granodioritic and may possibly be related to the Raleigh Lake Pluton. They have been noted mainly in the vicinity of the 1999 drilling program near Microlite Pond, but occur randomly as narrow cross-cutting dykes.

6.2 Pegmatites

The tantalum-bearing pegmatite occurrences on the Raleigh Lake property occur in a south-southeast striking zone approximately 1.5 kilometres wide and at least 4 kilometres long (Breaks, 1993). They belong to the albite spodumene sub-type of rare metal pegmatites (Cerny, 1989). Several of these were described by Breaks (1993) as part of a study on granite-related mineralization in northwestern Ontario. The predominant mineralogy of the dykes is K-feldspar, albite including secondary cleavelandite, quartz, and spodumene. Accessory minerals identified in the field and in drilling include microlite, tantalite, and bismuthinite.

The three main pegmatite occurrences on the property are the Pegmatite #1, Pegmatite #3, and the Johnson Pegmatite (Map 1). Pegmatite #1, centred at approximately 50+50N/ 52+50E, has a surface exposure of a minimum 200 metres with an average width of 8 metres. It is crudely zoned with local strong albitization. Heterogeneous intermediate zones consist of light green to tan spodumene and K-feldspar in albitic matrix with local muscovite. These zones are bounded by albitic "wall" zones. Pegmatite #3 is centred at 49+00N/55+70E and is exposed for at least 50 metres and is at least four metres thick at surface. It is crudely zoned with feldspathic wall zones and heterogeneous intermediate and "core" zones comprised of albite-quartz-muscovite, and spodumene-K-feldspar-albite. Pegmatites #1 and #3 are located approximately 1400 metres south of the Johnson Pegmatite, and occur with other narrow albitic dykes (encountered in drilling) as a gently east-dipping swarm. The Johnson Pegmatite is situated at approximately 5+00N/51+00E and is exposed for 83 metres with an 8 metre width at surface. Breaks (1993) identified heterogeneous intermediate or "core" zones similar to those seen in Pegmatites #1 and #3. Pegmatites #1 and #3 were drill tested by Avalon in 1999, confirming an average 8 metre width of the #1 Pegmatite, and tracing it continuously down-dip for a minimum 450 metres (Figure 5). Highly anomalous Ta values were encountered ranging from 0.01% Ta_2O_5 over 5.4 metres to 0.027% Ta_2O_5 over 2.0 metres, with the best individual sample assaying 0.039% Ta_2O_5 over 0.7 metres. Local enrichment in Cs and Rb was also encountered with individual samples assaying up to 1.16% Rb_2O and 0.53% Cs_2O. Up to five individual "stacked" pegmatites were encountered in drilling.

Numerous albitic dykes occur over various parts of the property, particularly west of Raleigh Lake, with several albitic dykes encountered south of Raleigh Lake. All are generally feldspathic, albitic, narrow and discontinuous dykes and dykelets, ranging in width from 0.1 to 3 metres. Trace oxides are noted in several of the dykes.

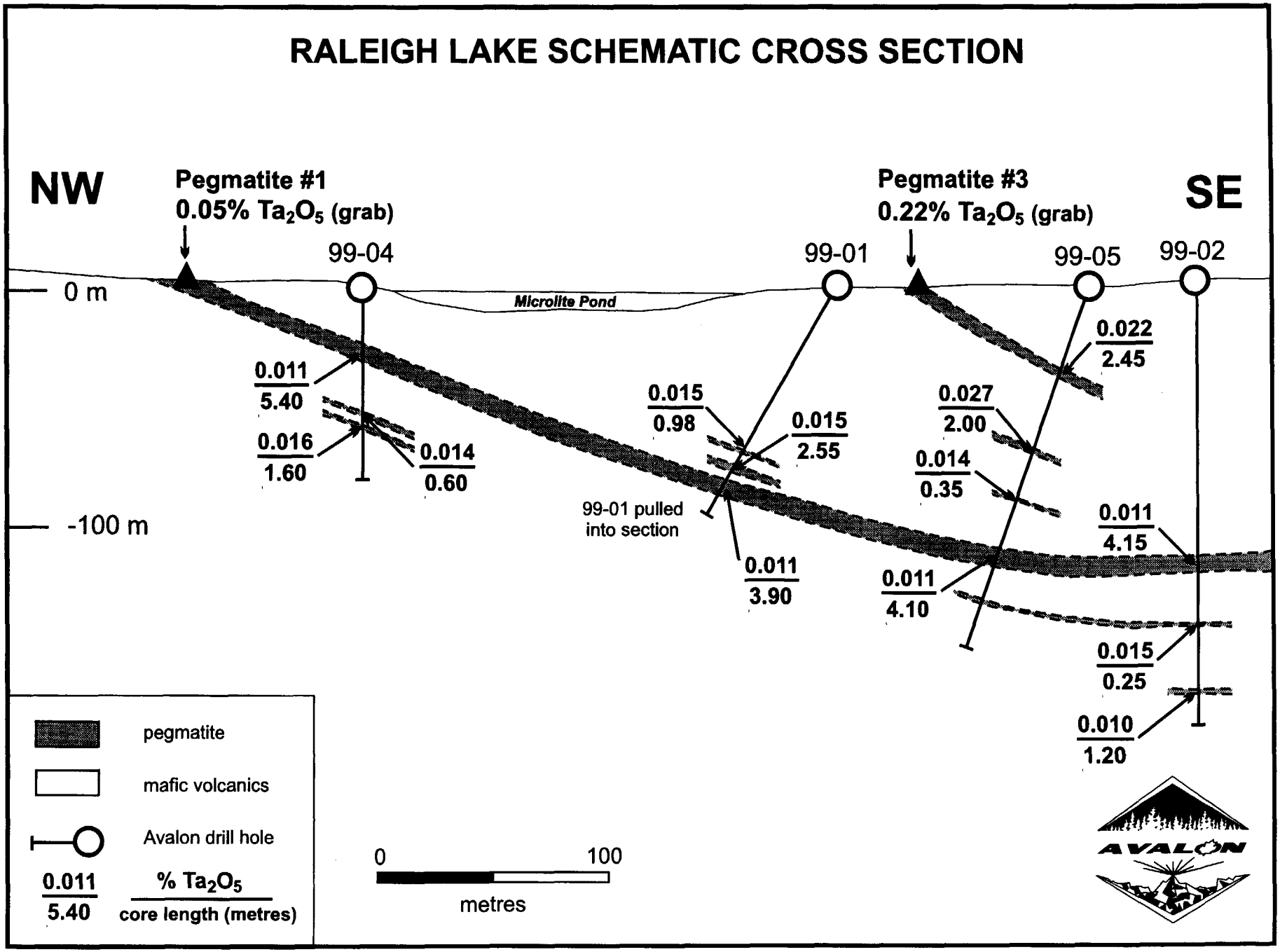

Figure 5: Schematic Cross Section of Pegmatite #1 and #3

7.0 2000 EXPLORATION PROGRAM

The current program was designed to define lithium, cesium, and rubidium dispersion haloes in country rock associated with "blind" or buried tantalum-enriched pegmatites and to identify new tantalum-bearing pegmatite occurrences.

7.1 Linecutting

Linecutting was carried out in September and October by Brent MacKay Enterprises Ltd. of Thunder Bay. A total of 80.3 line kilometres were cut. The original baseline (50E), cut for the 1999 drill program was extended, running from 32N to 74N for a total of 4.2 kilometres. East-west grid lines were cut at 200 metre line spacing, except in the area of Pegmatite #1 and #3, where 13 lines (42N-66N) were cut at 100 metre spacing, and at the Johnson Pegmatite where 7 lines (60N-66N) were cut at 100 metre spacing, to provide better sampling and mapping control in these areas. A second north-south baseline was cut extending from the south shore of Raleigh Lake where it is tied in to L38N/71E of the north baseline grid, and cut to L40S for a total of 7.8 kilometres. No winglines were cut off this line except at L40S between 68E and 93E to intersect road access at the south end of the baseline. Grid lines were picketed every 25 metres. Field staff used a Garmin, 12-channel GPS to collect UTM co-ordinates for grid line and baseline/tieline intersections on the property. This information was used to accurately plot the actual ground position of the control grid on 1:10,000 scale base maps.

7.2 Lithogeochemical Survey

A lithogeochemical survey was completed in two stages on the property between September to October 2000. Sampling was carried out on both the north and south grids, with the entire north grid sampled, and the south grid from L2+00N northward. Control for sampling on the south grid was by topofil and compass with UTM readings measured by GPS at sample stations, and on the north grid along grid lines. Non-pegmatitic country rock samples were collected, generally over a $3m^2$ area, with approximately 0.5 kg samples collected. Care was taken not to include any type of vein material which could potentially contaminate the sample. Pegmatitic or vein material was sampled separately with a minimum 0.5 kg sample collected where possible. If more than one phase was encountered in a dyke, both phases were sampled, as at the Johnson pegmatite. All sample stations were given a grid location in addition to a field measured UTM location. Samples were sent to XRAL Laboratories of Toronto for analysis.

A total of 996 samples were analyzed for lithium (Li), rubidium (Rb), and cesium (Cs). A total of 32 pegmatitic and granitic samples were also collected and separately analyzed for the three elements above as well as tantalum (Ta), niobium (Nb), and tin (Sn). Samples were analyzed for Ta, Cs, Rb, Nb, and Sn by X-ray fluorescence (XRF-7) and for Li by atomic absorption (AA90). Samples were crushed to -10 mesh, with 250 gram splits milled to -200 mesh and analyzed as follows:

Sodium peroxide fusion / AA:	Li:	10 ppm lower detection limit
Pressed Pellet / XRF:	Ta:	5 ppm lower detection limit
	Cs:	5 ppm lower detection limit
	Rb:	2 ppm lower detection limit
	Nb:	2 ppm lower detection limit
	Sn:	5 ppm lower detection limit

Three additional samples, two granite and one pegmatite, were sent for major oxide analysis by XRF.

Lithogeochemical values were contoured and plotted from MapInfo at a scale of 1:10,000 (Maps 4a-4c, back pocket). Sample locations, along with tantalum and cesium assays, for the pegmatite and granite samples are provided on Map 2 (back pocket). Assay certificates for the lithogeochemical and pegmatite samples are provided in Appendices 1 and 2, respectively, and major oxide analyses in Appendix 3.

Lithogechemical sampling was carried out by Scott McCrindle, Cal Debnam, Wanda Carter and Richard Brett under the daily direction of Jarrod Brown, Project Geologist. Logistical, technical and supervisory support was provided by Karen Rees, General Manager, Avalon Ventures Ltd. in Thunder Bay, ON. On-site field supervision was provided by Chris Pedersen, Senior Geologist for Avalon Ventures Ltd., East Selkirk, MB.

8.0 RESULTS

8.1 Lithogeochemical Survey

The lithogeochemical survey was very successful in delineating bedrock anomalies over most parts of the grid for all three elements Li, Rb, and Cs. Based specifically on the Li plot, three broad trends can be defined, two parallel, roughly north-south trends (010°-015°) west of Raleigh Lake, and a third trend south of Raleigh Lake. Trends 1 and 2 are quite broad and divided somewhat arbitrarily into an eastern and western trend (Figure 6). Trend 3 is comprised of two parallel sub-trends 500 metres apart. These trends are outlined on the Li-lithogeochemical plot (Map 4a). The Rb and Cs plots coincide exceedingly well with Li and each other. Their occurrence underscores the fractionated nature of the volatile fluids producing them, further strengthening the confidence of the lithium anomalies being the result of proximal or sub-surface pegmatites.

Background levels for each element were established, with the lower threshold for Li at 75 ppm, Cs at 20 ppm, and Rb at 100 ppm. There were 132 anomalous Li samples, averaging between 100-300 ppm, with three samples returning 726, 1030, and 1210 ppm Li respectively. Rubidium was anomalous in 64 samples, with 12 in excess of 200 ppm, and a high of 1400 ppm. Cesium was anomalous in 65 samples, with 9 in excess of 100 ppm, and a high of 1500 ppm.

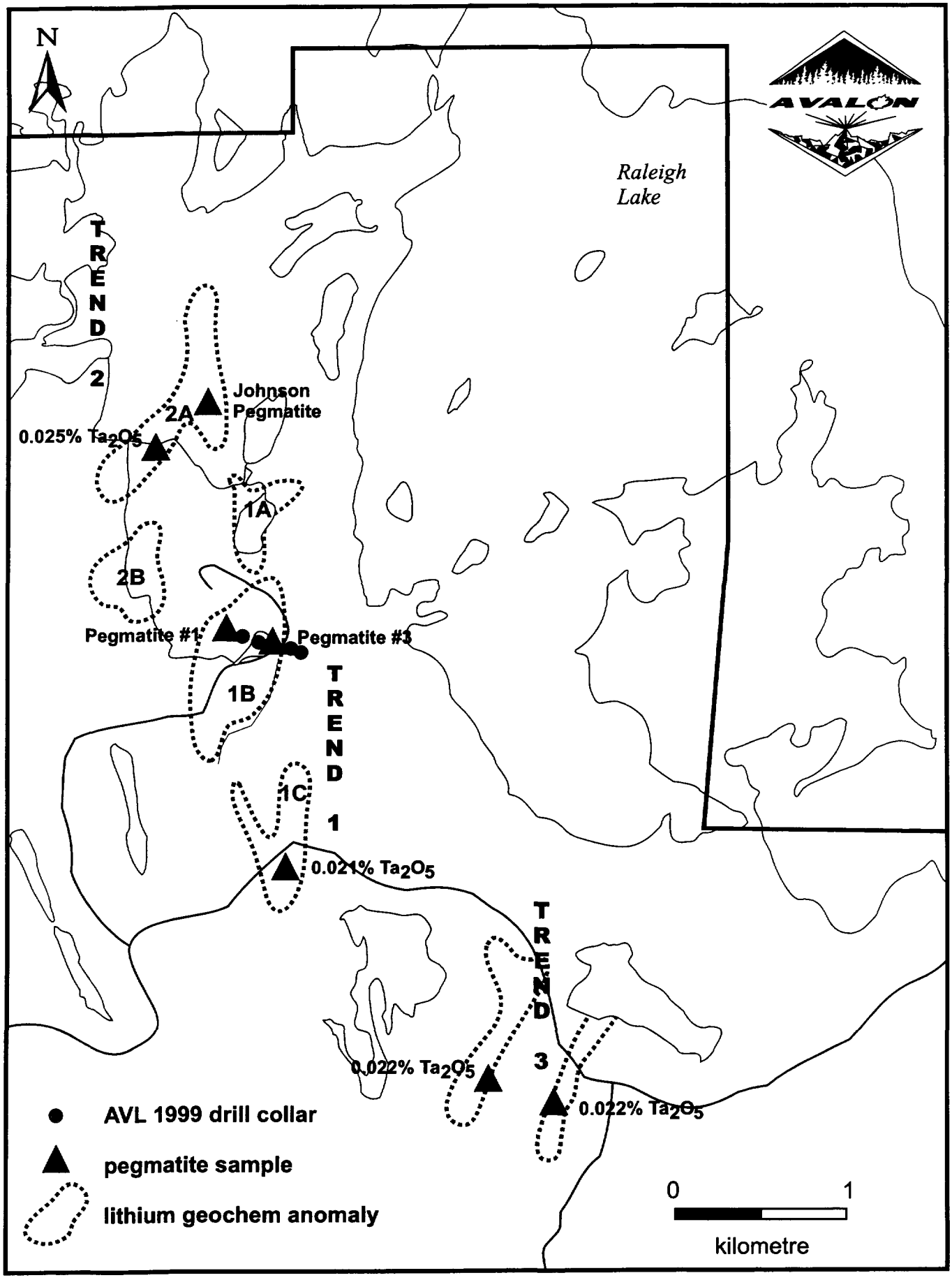

Figure 6: Lithium Lithogeochemical Trends

Anomaly trends are best defined from the lithium anomalies, and are based on these trends. There is good correlation with Cs on all trends, including Trend 3. Rubidium shows good correlation with Li as well, but not as pronounced as on the Cs plot. Rubidium seems to be somewhat less dispersive than Li in particular. There is no Rb correlation with Li at Trend 1A, discussed below, and only weakly anomalous Cs. All Rb and Cs anomalies show good correlation with Li anomalies.

Bedrock shows elevated Li when sampled in proximity to pegmatitic and albitic dykes and veinlets. Four new pegmatite dykelets were discovered from follow-up of initial lithogeochemical results during the course of field work, three in Trend 3 and one in Trend 1. However, the great majority of anomalous bedrock samples do not have proximal pegmatites and are interpreted to be derived from drift covered or sub-cropping pegmatites.

8.1.1 Trend 1

Trend 1 contains Pegmatites #1 and #3, in addition to numerous other bedrock anomalies. It is 2.9 kilometres long and up to 600 metres wide. It is situated between L31N and L60N and can be subdivided into three sub-trends as follows:

Trend 1A The northernmost sub-trend, it is 600 metres long, arcuate, and hosts one pegmatite dyke sampled in the current program, a 20 cm albitic dykelet assaying 79 ppm Ta. It is defined by nine anomalous bedrock samples ranging from 100 to 190 ppm Li.

Trend 1B The central sub-trend, which includes Pegmatites #1 and #3, it is 800-1000 metres long and 600 metres wide. It is defined by 34 anomalous bedrock samples ranging from 83 to 1210 ppm Li. This zone also contains the highest Cs value from bedrock, at 1500 ppm, with 1400 ppm Rb, and 1210 ppm Li. These values come from a rusty mafic volcanic 200 metres along strike to the southwest from Pegmatite #1, at L48+00N/51+35E. There are no outcropping pegmatites in this vicinity, and it is highly likely that the anomalous values are derived from a proximal drift covered or sub-cropping fractionated pegmatite, possibly the on-strike extension of Pegmatite #1.

Trend 1C This southernmost sub-trend is 800 metres long by 200 metres wide. It is defined by 15 anomalous bedrock samples ranging from 95 to 254 ppm Li. It is situated 800 metres south of Pegmatite #1, and could represent the on-strike continuation of it. One associated pegmatite was sampled on this sub-trend, a 0.15 metre wide dykelet with silver mica and assaying 175 ppm Ta (0.021% Ta_2O_5) at L35+50N/54+20E.

8.1.2 Trend 2

Trend 2 is west of Trend 1 and trends for 2.6 kilometres from L48+00N to Crocker Bay on Raleigh Lake. It is situated between L48N and L74N, and contains the Johnson Pegmatite and multiple Li-Cs-Rb anomalies. It contains numerous small albitic and pegmatitic dykes

first described by Breaks (op.cit.) and later sampled by Avalon. It is sub-divided into two sub-trends as follows:

Trend 2A The northernmost trend, within which the Johnson pegmatite occurs, is defined by 44 anomalous bedrock samples ranging from 78 to 1030 ppm Li. It is 1800 metres long and 500 metres wide. Two 0.3metre dykes located 600 and 700 metres southwest of the Johnson pegmatite assayed 115 and 204 ppm Ta (0.014% and 0.025% Ta_2O_5) respectively. Two 0.4 metre and 5.0 metre wide dykes occurring 250 metres north-northwest of the Johnson pegmatite assayed 67 and 133 ppm Ta (0.008% and 0.016% Ta_2O_5) respectively, at L66N/49E. Two other 0.15 and 0.3 metre wide albitic dykes returned 122 ppm and 116ppm Ta (0.015% and 0.014% Ta_2O_5).

Trend 2B The south half of Trend 2, and located 150 to 200 metres due west of Pegmatite #1, it is a broad zone of sporadic anomalies roughly 800 x 800 metres. It is defined by 21 anomalous bedrock samples ranging from 82 to 559 ppm Li. Several newly discovered 0.3 metre to 1 metre wide albitic dykes between L50-52 on the west boundary of the anomaly assay from 61-148 ppm Ta (0.007%-0.018% Ta_2O_5) The west boundary of the anomaly is at the western limit of the lithogeochemical sampling survey.

8.1.3 Trend 3

Trend 3, situated south of Raleigh Lake between L15N and L31N, is comprised of two parallel north-northeast sub-trends 500 metres apart. It is defined by 10 anomalous bedrock samples ranging from 73 to 255 ppm Li. The westernmost is 1500 metres long, the easternmost 1100 metres long. The west trend varies from 150-500 metres in width, the easternmost averages 150 metres in width. Both trends have associated narrow albitic dykelets from 6 cm to 1 metre in width, with high Ta values of 161 and 181 ppm Ta (0.020% and 0.022% Ta_2O_5) on the east trend, and 182 ppm Ta (0.022% Ta_2O_5) on the west trend. Trend 3 is located in a zone of inferred doming, with the stratigraphy warping in an easterly direction around the south end of Raleigh Lake.

8.2 Pegmatite Sampling

A total of 32 pegmatite samples (plotted on Map1) were collected in the present survey (Table 2). The majority were collected on the west side of Raleigh Lake, from Trends 1 and 2, with several collected on the south grid, particularly associated with Trend 3. Of high significance is the discovery of several new pegmatites during the present sampling program. These include a K-feldspar-muscovite pegmatite 1100 metres west of Trend 2 at approximately 55+00N assaying 140 ppm Ta, three albitic dykelets south of Raleigh Lake related to Trend 3, with Ta values of 161, 181 and 182 ppm respectively (0.020% and 0.022% Ta_2O_5), and a micaceous pegmatite assaying 175 ppm Ta (0.021% Ta_2O_5) related to Trend 1C at 35+50N/54+20E. These newly discovered dykes underscore the potential of finding new Ta-bearing surface and subsurface dykes on the property.

The Johnson pegmatite was also sampled during the present program, with three composite grabs taken from discrete assemblages. Tantalum values from these three samples were 62, 125, and 216 ppm respectively (0.008%, 0.015%, and 0.026% Ta_2O_5 respectively). Pegmatites #1 and #3 were sampled systematically by Avalon in the summers of 1998 and 1999 (Pedersen, 1999a), both on surface and through diamond drill testing in October 1999 (Pedersen, 1999b).

Most pegmatites encountered consist of albite-K-feldspar-quartz assemblages with local accessory minerals such as spodumene, oxides (likely in part microlite), muscovite, and garnet, often with albitic and aplitic sections. Only two narrow dykelets are interpreted to be older tonalitic dykelets (samples 2334 and 2411). Most are less than one metre in width, ranging from 0.2 metres to 5.0 metres in width, with the exception of the Johnson Pegmatite and Pegmatite #1 described previously. Where dips could be measured, they are commonly moderately to shallow dipping to the east. Pegmatites cannot be traced for appreciable distances along strike, generally trending into overburden cover. Two samples (samples 2437 and 2438) collected from separate pegmatites along the south shore of Crocker Bay were analyzed with all other pegmatite samples collected on the property. Analyses indicate elevated Rb (1630 and 1480 ppm Rb), Cs (79 and 46 ppm Cs) and anomalous Ta (92 and 59 ppm Ta). These two pegmatites are likely related to the pegmatites over the main part of the property, but exhibit more primary textures and mineralogy and exhibit moderate south to southwesterly dips.

Fifteen samples have Ta values in excess of 100 ppm, ranging from 115-216 ppm Ta (0.014% to 0.026% Ta_2O_5). All others contain elevated Ta values ranging from 40-89 ppm Ta (0.005% to 0.011% Ta_2O_5), with two exceptions returning <5 ppm. These two are likely unrelated, older tonalitic dykes. Most dykes contain highly elevated Rb values, with 25 samples assaying >400 ppm Rb, and up to 1820 ppm Rb, and a high in the Johnson Pegmatite of 5340 ppm Rb. Cesium values are elevated for all samples with just two exceptions, ranging from13-238 ppm Cs, averaging 69 ppm. Most dykes exhibit surprisingly low Li values, with only five returning values >100 ppm Li. Of these, the Johnson Pegmatite returned a 5770 ppm Li assay from a spodumene-rich sample.

Niobium values are quite consistent in their values and in their ratios with Ta. Values range from 36-111 ppm Nb, with Nb/Ta ratios ranging from 0.23 to 1.85, averaging 0.75 (Table 2), and indicating a significant degree of fractionation. Niobium is likely reporting in microlite or columbite-tantalite. The complete absence of tin (Sn) precludes the presence of wodginite, and of cassiterite.

Three samples from the north end of Raleigh Lake were submitted for major oxide analysis. Two samples were obtained from biotite granite, one from an island in Raleigh Lake and representative of the Raleigh Lake Pluton, the second in contact with a K-feldspar granite pegmatite at Crocker Bay. The third sample was the pegmatite associated with the granite sample. These units were sampled to compare the chemistry of the two granite samples to determine if they are related, and to see if the pegmatite was related to either granite. The

pegmatite sample is significantly different from the granite samples, with much lower CaO, MgO, Fe_2O_3, and TiO_2, and correspondingly higher K2O and Rb.

Table 2: Pegmatite assays and Nb/Ta ratios

Trend	Sample number	Rb ppm	Cs ppm	Ta ppm	Nb ppm	Sn ppm	Li ppm	Nb/Ta
1	31713	1500	87	79	88	nd	57	1.11
1 (east)	2334	140	20	nd	13	5	nd	-
1	2364	909	83	79	46	nd	11	0.58
1	2451	380	66	175	40	5	103	0.23
2 (west)	31670	1210	88	140	57	nd	19	0.41
2	2105	908	68	61	61	nd	52	1.00
2	2112	822	31	82	58	nd	35	0.71
2	2113	552	41	76	36	nd	22	0.47
2	2115	480	27	148	50	nd	42	0.34
2	2139	983	29	122	83	5	16	1.01
2	2149	115	13	68	60	5	17	0.88
2	2164	78	26	116	72	nd	18	0.62
2 (JP)	2183	982	83	125	95	nd	5770	0.76
2	2229	445	52	89	52	nd	107	0.58
2	2230	560	31	79	64	nd	71	0.81
2	2291	1080	68	67	107	nd	104	1.60
2	2293	1160	27	133	81	nd	57	0.61
2 (JP)	2311	5340	239	62	99	6	197	1.60
2 (JP)	2314	729	56	216	71	nd	49	0.33
2	2351	120	26	204	76	nd	nd	0.37
2	2401	1080	55	141	52	nd	18	0.37
2	2408	99	31	122	41	5	32	0.34
2	2411	10	nd	nd	6	nd	32	-
2	2458	1060	80	115	111	nd	nd	0.97
N of 2	2437	1630	79	92	53	5	nd	0.58
N of 2	2438	1480	46	59	57	nd	13	0.97
3	30890	1040	54	55	48	nd	nd	0.87
3	30950	1820	167	182	69	nd	nd	0.38
3	2465	468	nd	52	69	5	nd	1.33
3	2469	912	106	161	60	nd	nd	0.37
3	2470	1100	238	181	67	5	61	0.37
E of 3	2464	862	46	40	74	nd	nd	1.85
JP = Johnson Pegmatite nd = not detected								

9.0 DISCUSSION

The lithogeochemistry survey has succeeded in defining numerous strong bedrock anomalies. Many of these anomalies host associated albitic pegmatites, generally with elevated Ta values. The three main pegmatites, Pegmatite #1, #3, and Johnson, all have strong and pronounced Li-Rb-Cs anomalies extending beyond their bedrock exposures, clearly implying that they continue in the subsurface. This has already been shown in the 1999 drill program where Pegmatite #1 was traced downdip for 450 metres, and several new unexposed dykes occurred "stacked" both above and below the #1.

Trend 1 is highly significant in that all three of the sub-trends line up with the Li-Rb-Cs-anomaly associated with Pegmatite #1 (Figure 7). Trend 1A to the north could be an extension of this trend from the pegmatite, which is a series of shallow dipping dykes as already seen in drilling. Trend 1A is as much as 900 metres north of Pegmatite #1. The anomaly associated with the pegmatite itself, 1B, is in of itself 800 metres long, and contains the high Cs-Rb-Li value in bedrock 200 metres to the south of the #1. The strong and pronounced Trend 1C is also trending on strike, slightly to the east, of the #1. These anomalies are almost certainly associated with dykes related to the swarm encountered in drilling Pegmatite #1, and represent high priority drill targets.

Trend 2, hosting the Johnson Pegmatite, has multiple anomalies over a broad area. It also contains most of the albitic dykes, many of which are enriched in Ta. For this reason, these trends must be considered highly prospective for Ta-rich pegmatites in the subsurface. A number of anomalies are defined by two or three widely separated sample points and are not as well defined as others. Some of these could be the expression of the narrow dykes seen at surface, although the possibility exists for other sub-surface pegmatites in these vicinities as well. Because of this uncertainty, however, focus should probably be in the areas of strong continuous anomalous sample density, particularly in the vicinity of the Johnson Pegmatite. The Johnson Pegmatite is also situated more in line with Pegmatite #1 to the south, and likely lies within the same fractionated "corridor. In this respect, the Johnson Pegmatite and its lithogeochemical trend, along with Trend 1, can be considered the priority targets for drilling. They occur in this "corridor", and they have strong, multi-line continuity.

Trend 3 represents a highly significant new discovery which occurs over one kilometre outside of the known area of tantalum-bearing pegmatites. Further, it occurs in an area of complex doming structure, making it an ideal location for large structural traps for pegmatitic fluids. The follow-up discovery of small, albitic, Ta-bearing dykes, two of which returned assays of 181 and 182 ppm Ta (0.022% Ta_2O_5) underscores the significant potential of this new region in terms of defining larger dykes associated with structural dilation related to doming.

The two granite samples submitted for major oxide analysis have similar chemistry and are likely related and part of the Raleigh Lake Pluton. The pegmatite sample is significantly different from the granite samples, with much lower CaO, MgO, Fe_2O_3, and TiO_2, and correspondingly higher K_2O and Rb. This indicates that the pegmatite and related dykes are

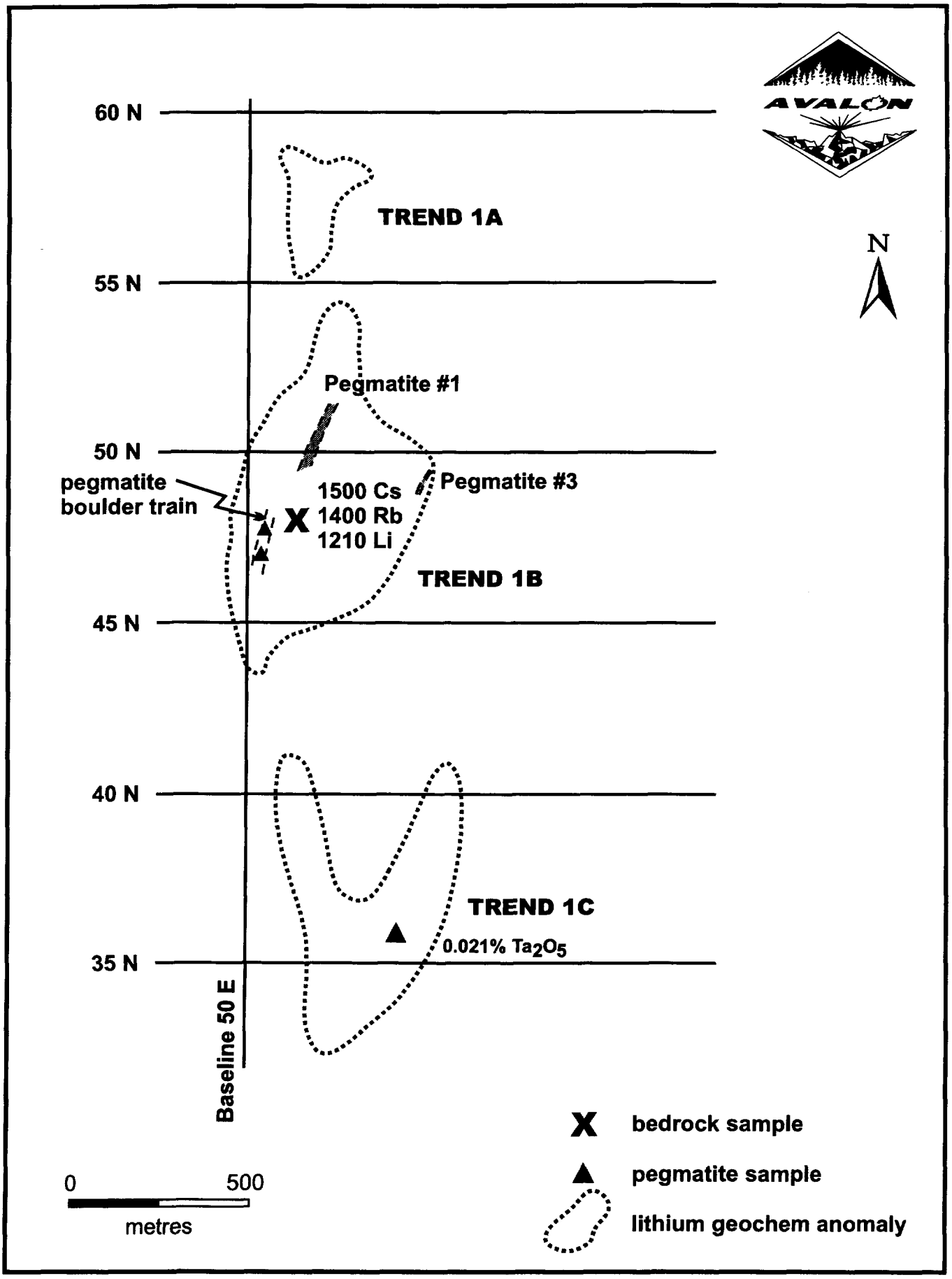

Figure 7: Lithium Trend 1

not related to the biotite granites and have a later intrusive relationship, in agreement with the observations of Willoughby (1999).

10.0 CONCLUSIONS

The present lithogeochemical sampling program has successfully identified three new lithogeochemical trends and related tantalum-bearing pegmatites. The close association of Cs and Rb anomalies with Li underscores the potential for these anomalies reflecting fractionated proximal pegmatites. These trends almost certainly reflect sub-cropping, shallow to moderately dipping pegmatites. This is particularly evident in the anomaly associated with Pegmatite #1, which of itself is 800 metres long. Drilling has already confirmed the remarkably strong down-dip continuation of this pegmatite to at least 450 metres, suggesting that it will be very extensive laterally as well. It can be reasonably assumed that this 800 metre long Li-Rb-Cs anomaly is associated with the lateral extension of this dyke. When this trend is combined with sub-trends to the north and south (1A, 1C), a combined linear anomaly length of 2.9 kilometres is produced. The southern most (1C) is particularly strong and could be a slightly offset southern continuation of the dyke. Multiple pegmatites were encountered in drilling, and these three sub-trends likely reflect the continuation, at least in part, of Pegmatite #1, and multiple dyke development associated with it. Even if Pegmatite #1 was reflected only by the single 800 metre anomaly (1B) associated with it, there is ample potential to generate very large tonnages.

Trend 2, immediately west of Trend 1, hosts the Johnson Pegmatite and numerous albitic dykes. Many of the albitic dykes are enriched in Ta and could reflect satellite dykes of larger pegmatites, as seen at Pegmatite #1. A number of anomalies within the trend are defined by widely separated sample points, indicating focus should be on the much stronger anomaly associated with the Johnson Pegmatite, which may be coincident with Pegmatite #1 to the south and part of a much broader "tantalum corridor".

Trend 3 lies outside the previously defined area of tantalum-bearing pegmatites in an area of complexly folded rocks associated with a broad dome structure. The discovery of Ta-bearing dykes associated with lithogeochemical anomalies in this area south of Raleigh Lake and Pegmatite #1 makes this trend a prime exploration target for large structurally controlled pegmatites.

Taken individually or as a whole, the lithogeochemical trends defined by the current sampling program underscore the tremendous potential of discovering new, large, Ta-bearing dykes at Raleigh Lake. Drilling has already shown that dykes (e.g., Pegmatite #1) can be continuous and extensive with excellent potential for economic tantalum grades. A two-phase follow-up program is warranted for the spring and summer of 2000. A surface program to add onto the present survey coverage and discriminate between the lithogeochemical anomalies would be followed-up with a diamond drill program to test priority targets.

11.0 RECOMMENDATIONS

Follow-up lithogeochemical sampling, surface stripping and trenching, structural and geological mapping, and diamond drilling is recommended for the Raleigh Lake tantalum property to follow-up the 2000 field program. This program can be divided into two concurrent phases: follow-up ground work, and diamond drilling of lithogeochemical anomalies.

Surface stripping and trenching should be carried out over the most predominant lithogeochemical anomalies to define any potential sub-cropping pegmatites hidden by overburden. Follow-up lithogeochemical sampling should be carried out over those lithogeochemical anomalies which have wide line-spacing in order to better define their extent, particularly in the vicinity of Trend 3. Structural mapping should be carried out to determine structures controlling pegmatite emplacement, particularly south of Raleigh Lake where complex doming structures are apparent.

A 700 metre diamond drilling program is recommended to test several of the lithogeochemical anomalies for buried pegmatites. Because of the strength and sample point density of several of these anomalies, further ground follow-up is not required prior to drilling. Drilling should focus particularly on Trend 1, which would include on-strike step-out holes from previous drilling of Pegmatite #1, and testing the anomalies (Trend 1B and 1C in particular) along strike. The Johnson Pegmatite, which has never been drilled, should be tested along with its associated lithogeochemical anomaly on strike. Trend 3 should initially be tested in the vicinity of known outcropping Ta-bearing albitic dykelets.

Because of the ease of access to the Raleigh Lake property, and good logging road access to anomalies, drilling can be easily carried out in the summer months. This would allow for concurrent follow-up field work including follow-up lithogeochemical sampling, as described previously, with diamond drilling of established targets.

11.0 BUDGET

A $150,000 budget is recommended to complete follow-up field work and 700 metres of diamond drilling, as outlined in Table 3, as follows:

Table 3: Proposed Budget

Diamond Drilling	Units/Rate	Sub-Total
Diamond drilling	700 m @ $80/metre	$ 56,000
Drill supervision	12 days @ $360/day	4,320
Core splitting and sample prep	12 days @ $260/day	3,120
Assay analyses and shipping	150 samples @ $20	3.000
Room and board	12 days @ $250	3,000
Truck rental and gas	1 month @ $2500	2,500
Field supplies		2,500
Surface Program		
Trenching, lithogeochem, structural mapping		58,060
Office, Supervision		
Drafting and report		10,000
Office support, computer, comm., travel, accommodation		7,500
	TOTAL	**$ 150,000**

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STATEMENT OF QUALIFICATIONS

I, Jens C. Pedersen of Box 1, Group 5 RR#1, East Selkirk, Manitoba R0E 0M0, do hereby certify that:

1) I am a graduate of the University of Manitoba with a Bachelor of Science degree (Geology), 1976-1979.

2) I am a registered professional geoscientist with the Association of Professional Engineers and Geoscientists of the Province of Manitoba.

3) I am presently employed by Avalon Ventures Ltd. of 851 Field Street, Thunder Bay, Ontario P7B 6B6 in the capacity of Senior Geologist.

4) I have been practicing my profession as exploration geologist for the past 20 years with various Canadian mining companies in Canada, the United States, and Greenland, and as an independent geological consultant. Much of that time has been spent exploring for and evaluating rare metal pegmatites and related deposits while in the employ of Tantalum Mining Corp. of Canada and Highwood Resources Ltd.

5) This report on the Raleigh Lake property is based on my personal examination of, and supervision of, the work on the property.

Dated in Thunder Bay, Ontario this 19th day of December, 2000.

Jens C. Pedersen

Appendix 1

Sample Locations and Assay Certificates (XRAL Laboratories) Lithogeochemistry Samples

RALEIGH LAKE LITHOGEOCHEM SAMPLES - 2000 PROGRAM

Version 2		RALEIGH LAKE			XRAL	Rb	Cs	Li
Datum:	NAD 83					XRF7	XRF7	ICP90
ZoneOffset:						ppm	ppm	ppm
						2	5	10
Sample	Zone	Easting	Northing	Comment				
30651	15 U	578318.6	5469783.9	12/09/00 15:20	30651	60	-5	15
30652	15 U	578360.6	5469762.4	12/09/00 15:44	30652	61	-5	29
30653	15 U	578412.4	5469757.2	12/09/00 15:48	30653	44	-5	24
30654	15 U	578464.2	5469759.1	12/09/00 15:55	30654	35	-5	-10
30655	15 U	578510.5	5469761.6	12/09/00 16:00	30655	77	-5	-10
30656	15 U	578562.0	5469760.5	12/09/00 16:03	30656	38	-5	18
30657	15 U	578607.2	5469757.6	12/09/00 16:09	30657	61	-5	20
30658	15 U	578703.3	5469761.4	12/09/00 16:14	30658	32	-5	-10
30659	15 U	579089.0	5469783.0	12/09/00 16:32	30659	15	-5	-10
30660	15 U	579160.5	5469791.8	12/09/00 16:40	30660	33	11	11
30661	15 U	579218.5	5469796.8	12/09/00 16:50	30661	22	-5	-10
30662	15 U	579353.8	5469810.1	12/09/00 17:26	30662	30	-5	-10
30663	15 U	579458.9	5469812.2	12/09/00 17:36	30663	4	-5	-10
30664	15 U	579553.2	5469813.0	12/09/00 17:41	30664	42	-5	-10
30665	15 U	579620.5	5469813.4	12/09/00 17:47	30665	64	9	19
30666	15 U	579729.1	5469818.5	12/09/00 17:51	30666	8	16	-10
30667	15 U	579827.9	5469857.0	12/09/00 17:59	30667	40	-5	-10
30668	15 U	579678.0	5469720.0	12/09/00 18:35	30668	55	-5	10
30669	15 U	579624.9	5469727.6	12/09/00 18:41	30669	55	-5	15
30670	15 U	579549.5	5469743.8	12/09/00 18:46	30670	59	-5	20
30671	15 U	579493.2	5469732.2	12/09/00 18:50	30671	100	-5	27
30672	15 U	579305.1	5469728.9	12/09/00 19:00	30672	21	-5	-10
30673					30673	31	-5	-10
30674	15 U	579181.8	5469716.4	12/09/00 19:13	30674	48	-5	-10
30675	15 U	579112.4	5469699.9	12/09/00 19:19	30675	50	-5	-10
30676	15 U	579063.2	5469703.3	12/09/00 19:25	30676	58	-5	10
30677	15 U	579014.5	5469708.6	12/09/00 19:32	30677	31	-5	-10
30678	15 U	578943.9	5469690.3	12/09/00 19:39	30678	48	-5	10
30679	15 U	578857.8	5469689.6	12/09/00 19:49	30679	31	-5	12
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30684	15 U	578183.5	5469777.8	13/09/00 14:29	30684	119	5	-10
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30707	15 U	576873.4	5469641.1	13/09/00 17:26	30707	55	7	-10
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30734	15 U	578966.9	5469466.3	14/09/00 15:10	30734	10	15	25
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30817	15 U	578727.6	5470050.4	15/09/00 18:34	30817	47	-5	15
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30836	15 U	577126.2	5469860.0	16/09/00 15:44	30836	56	-5	31
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30864	15 U	578078.1	5470042.9	16/09/00 19:56	30864	43	14	15
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30867	15 U	576155.8	5472142.4	18/09/00 15:30	30867	15	-5	38
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30870	15 U	576558.2	5472149.2	18/09/00 16:04	30870	14	-5	254
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30899	15 U	577156.6	5470295.4	20/09/00 15:13	30899	73	-5	13
30900	15 U	576997.6	5470277.7	20/09/00 15:20	30900	8	-5	20
30901	15 U	576962.8	5470284.3	20/09/00 15:50	30901	6	-5	11
30902	15 U	576862.1	5470245.4	20/09/00 15:55	30902	37	5	36
30903	15 U	576772.3	5470260.8	20/09/00 16:00	30903	19	-5	43
30904	15 U	576703.4	5470318.3	20/09/00 16:06	30904	45	-5	15
30905	15 U	576523.1	5470458.3	20/09/00 16:31	30905	41	11	26
30906	15 U	576597.3	5470473.1	20/09/00 16:36	30906	14	-5	44
30907	15 U	576674.1	5470463.4	20/09/00 16:46	30907	16	-5	-10
30908	15 U	576747.2	5470474.0	20/09/00 16:51	30908	13	-5	30
30909	15 U	576952.4	5470470.9	20/09/00 17:00	30909	21	-5	16
30910	15 U	577047.4	5470498.5	20/09/00 17:08	30910	21	5	28
30911	15 U	577149.3	5470485.0	20/09/00 17:15	30911	51	-5	33
30912	15 U	577197.6	5470480.9	20/09/00 17:22	30912	25	-5	-10
30913	15 U	577155.2	5470670.6	20/09/00 18:23	30913	55	-5	22
30914	15 U	577080.0	5470677.9	20/09/00 18:27	30914	54	-5	16
30915	15 U	576992.5	5470665.3	20/09/00 18:31	30915	34	-5	31
30916	15 U	576914.7	5470660.1	20/09/00 18:37	30916	113	55	107
30917	15 U	576832.0	5470669.0	20/09/00 18:43	30917	10	-5	-10
30918	15 U	576761.6	5470666.3	20/09/00 18:47	30918	7	-5	30
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30920	15 U	576629.8	5470625.0	20/09/00 18:59	30920	67	-5	19
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30922	15 U	576516.2	5470618.7	20/09/00 19:11	30922	18	-5	-10
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30937	15 U	577928.5	5470562.2	21/09/00 15:00	30937	58	-5	20
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30943	15 U	577403.2	5470510.7	21/09/00 15:46	30943	21	-5	16
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30945	15 U	577357.1	5470711.6	21/09/00 16:20	30945	34	-5	35
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30947	15 U	577485.0	5470702.1	21/09/00 16:35	30947	56	9	26
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30955	15 U	578118.9	5470674.7	21/09/00 17:44	30955	77	-5	27
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30990	15 U	577966.8	5471760.5	12/10/00 19:00	30990	50	35	58
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31666	15 U	577408.0	5471353.5	13/10/00 18:34	31666	30	-5	11
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31715	15 U	576192.5	5471746.9	15/10/00 15:13	31715	21	-5	43
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31718	15 U	576983.0	5471955.4	15/10/00 16:13	31718	67	-5	-10
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31720	15 U	576472.6	5471956.0	15/10/00 16:27	31720	46	-5	131
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31723	15 U	576250.4	5471949.9	15/10/00 16:44	31723	23	-5	19
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31733	15 U	575630.6	5471893.6	15/10/00 17:26	31733	48	-5	17
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31767	15 U	575260.5	5473132.7	16/10/00 16:07	31767	60	-5	16
31768	15 U	575249.2	5473241.7	16/10/00 16:19	31768	27	-5	12
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31770	15 U	575364.9	5473236.8	16/10/00 16:48	31770	73	13	33
31771	15 U	575419.8	5473238.1	16/10/00 16:55	31771	38	-5	13
31772	15 U	575492.7	5473254.6	16/10/00 17:06	31772	31	-5	-10

31773	15 U	575672.6	5473248.2	16/10/00 17:18	31773	8	-5	16
31774	15 U	575715.9	5473241.0	16/10/00 17:26	31774	171	32	316
31775	15 U	575785.6	5473240.2	16/10/00 17:35	31775	56	-5	25
31776	15 U	575887.3	5473201.0	16/10/00 17:42	31776	66	18	-10
31777	15 U	576002.4	5473237.8	16/10/00 17:55	31777	66	-5	26
31778	15 U	576083.2	5473252.7	16/10/00 18:02	31778	24	7	16
31779	15 U	576076.6	5473139.2	16/10/00 18:11	31779	8	-5	15
31780	15 U	576025.9	5473145.7	16/10/00 18:44	31780	7	-5	75
31781	15 U	575937.6	5473142.1	16/10/00 18:53	31781	57	21	66
31782	15 U	575864.2	5473128.5	16/10/00 19:01	31782	11	-5	-10
31783	15 U	575813.1	5473139.7	16/10/00 19:07	31783	10	-5	-10
31784	15 U	575745.1	5473156.7	16/10/00 19:13	31784	31	24	32
31785	15 U	575688.6	5473132.7	16/10/00 19:22	31785	20	-5	-10
31786	15 U	575630.0	5473122.3	16/10/00 19:28	31786	63	-5	22
31787	15 U	575562.6	5473124.4	16/10/00 19:36	31787	64	-5	19
31788	15 U	575512.1	5473146.9	16/10/00 19:47	31788	64	-5	31
31789	15 U	576135.5	5472538.2	17/10/00 15:19	31789	8	-5	29
31790	15 U	576184.2	5472535.3	17/10/00 15:26	31790	8	-5	120
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31792	15 U	576357.3	5472548.4	17/10/00 15:35	31792	27	-5	-10
31793	15 U	576923.2	5472579.0	17/10/00 16:04	31793	57	-5	133
31794	15 U	576995.2	5472550.8	17/10/00 16:10	31794	8	-5	31
31795	15 U	577012.6	5472363.8	17/10/00 17:01	31795	37	14	22
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31797	15 U	576884.7	5472357.2	17/10/00 17:30	31797	63	16	31
31798	15 U	576762.4	5472362.6	17/10/00 17:45	31798	70	15	96
31799	15 U	576707.4	5472370.2	17/10/00 17:50	31799	16	27	70
31800	15 U	576662.6	5472366.6	17/10/00 17:57	31800	9	-5	118
31801	15 U	575202.3	5472836.1	16/10/00 15:34	31801	54	-5	11
31802	15 U	575248.7	5472858.8	16/10/00 15:48	31802	58	13	13
31803	15 U	575335.7	5472842.1	16/10/00 15:52	31803	62	-5	15
31804	15 U	575404.4	5472828.7	16/10/00 15:58	31804	7	-5	43
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31806	15 U	575517.7	5472829.1	16/10/00 16:20	31806	42	12	51
31807	15 U	575558.2	5472849.3	16/10/00 16:29	31807	37	-5	19
31808	15 U	575640.4	5472845.7	16/10/00 16:35	31808	38	13	21
31809	15 U	575640.7	5472941.7	16/10/00 16:41	31809	55	-5	20
31810	15 U	575576.4	5472947.4	16/10/00 16:46	31810	34	-5	23
31811	15 U	575513.1	5472931.0	16/10/00 16:51	31811	58	10	16
31812	15 U	575455.6	5472929.0	16/10/00 17:36	31812	43	-5	28
31813	15 U	575406.9	5472929.5	16/10/00 17:39	31813	47	-5	27
31814	15 U	575356.8	5472918.7	16/10/00 17:43	31814	54	-5	34
31815	15 U	575240.1	5473002.4	16/10/00 17:56	31815	47	-5	16
31816	15 U	575359.8	5473015.4	16/10/00 18:01	31816	22	-5	20
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31818	15 U	575470.9	5472999.6	16/10/00 18:16	31818	34	7	25
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31821	15 U	575644.9	5473026.5	16/10/00 18:29	31821	40	-5	20
31822	15 U	575715.2	5473035.8	16/10/00 18:32	31822	14	-5	28
31823	15 U	575765.5	5473029.3	16/10/00 18:36	31823	50	-5	29
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31830	15 U	576018.2	5472939.2	16/10/00 19:22	31830	54	-5	25
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31832	15 U	575859.0	5472943.0	16/10/00 19:32	31832	8	8	22
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31858	15 U	578072.0	5472353.1	17/10/00 16:24	31858	9	10	-10
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31865	15 U	576193.1	5472736.4	17/10/00 20:15	31865	39	-5	42
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31867	15 U	576194.3	5472848.0	17/10/00 20:31	31867	8	-5	91
31868	15 U	576234.5	5472838.4	17/10/00 20:35	31868	8	-5	98
31869	15 U	576347.1	5472829.2	17/10/00 20:42	31869	10	-5	20
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31871	15 U	576756.0	5472843.9	17/10/00 21:07	31871	10	8	62
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31882	15 U	576178.1	5472945.0	18/10/00 15:43	31882	5	-5	62
31883	15 U	576146.0	5473044.8	18/10/00 15:52	31883	132	27	253
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31886	15 U	576333.7	5473037.8	18/10/00 16:30	31886	43	-5	84
31887	15 U	576588.1	5473048.5	18/10/00 16:42	31887	85	-5	133
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31889	15 U	576711.3	5473059.2	18/10/00 17:05	31889	22	9	112
31890	15 U	576754.1	5473065.2	18/10/00 17:12	31890	81	16	58

31891	15 U	576805.9	5473087.4	18/10/00 17:16	31891	16	-5	29
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31899	15 U	577071.5	5473242.0	18/10/00 19:17	31899	27	-5	-10
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2001	15 U	576399.7	5473325.1	20/10/00 14:56	2001	50	19	53
2002	15 U	576335.0	5473333.1	20/10/00 15:00	2002	9	-5	40
2003	15 U	576283.6	5473333.6	20/10/00 15:05	2003	9	-5	65
2004	15 U	576238.5	5473333.5	20/10/00 15:16	2004	1400	1500	1210
2005	15 U	576160.5	5473343.2	20/10/00 15:20	2005	12	-5	34
2006	15 U	576063.7	5473338.9	20/10/00 15:28	2006	11	-5	29
2007	15 U	576018.2	5473335.9	20/10/00 15:33	2007	6	-5	14
2008	15 U	575925.3	5473328.0	20/10/00 15:39	2008	7	-5	11
2009	15 U	575857.9	5473333.6	20/10/00 15:43	2009	66	-5	64
2010	15 U	575773.0	5473334.8	20/10/00 15:48	2010	11	17	20
2011	15 U	575713.9	5473329.8	20/10/00 15:58	2011	134	26	247
2012	15 U	575464.5	5473327.6	20/10/00 16:05	2012	29	-5	17
2013	15 U	575421.1	5473338.3	20/10/00 16:12	2013	62	-5	29
2014	15 U	575364.9	5473325.0	20/10/00 16:16	2014	34	-5	16
2015	15 U	575311.1	5473329.7	20/10/00 16:31	2015	56	-5	29
2016	15 U	575256.1	5473339.6	20/10/00 16:36	2016	65	-5	20
2017	15 U	575211.8	5473331.3	20/10/00 16:40	2017	50	-5	25
2018	15 U	575177.1	5473420.9	20/10/00 17:18	2018	49	8	37
2019	15 U	575240.1	5473427.7	20/10/00 17:22	2019	25	-5	-10
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2021	15 U	575389.1	5473428.6	20/10/00 17:32	2021	99	-5	22
2022	15 U	575446.1	5473419.8	20/10/00 17:41	2022	70	5	30
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2026	15 U	575740.1	5473433.4	20/10/00 18:23	2026	39	15	270
2027	15 U	575776.7	5473430.3	20/10/00 18:26	2027	116	9	163
2028	15 U	575885.7	5473431.8	20/10/00 18:35	2028	114	24	86
2029	15 U	575931.7	5473427.7	20/10/00 18:40	2029	25	-5	17
2030	15 U	576030.2	5473448.2	20/10/00 18:49	2030	4	-5	-10
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2032	15 U	576117.5	5473441.6	20/10/00 19:10	2032	77	14	57
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2034	15 U	576225.7	5473441.3	20/10/00 19:27	2034	74	-5	62
2035	15 U	576333.1	5473441.0	20/10/00 19:38	2035	27	-5	91
2036	15 U	576502.7	5473367.7	20/10/00 19:51	2036	11	-5	81
2037	15 U	576664.9	5473431.4	20/10/00 20:07	2037	30	9	234
2038	15 U	576727.1	5473432.8	20/10/00 20:38	2038	14	-5	27
2039	15 U	576670.8	5473476.2	20/10/00 20:51	2039	47	-5	203
2040	15 U	576427.1	5473543.2	21/10/00 14:28	2040	5	-5	18
2041	15 U	575350.1	5473550.3	21/10/00 14:59	2041	14	-5	807
2042	15 U	575989.7	5473540.0	21/10/00 14:59	2042	28	25	15
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2047	15 U	575528.4	5473543.2	21/10/00 15:41	2047	50	-5	20
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2050	15 U	575339.7	5473540.6	21/10/00 16:06	2050	47	-5	12
2051	15 U	576615.7	5472358.2	17/10/00 18:06	2051	6	-5	220
2052	15 U	576447.8	5472361.2	17/10/00 18:34	2052	-2	-5	19
2053	15 U	576338.3	5472346.0	17/10/00 18:44	2053	42	-5	71
2054	15 U	576236.3	5472343.4	17/10/00 18:52	2054	17	-5	95
2055	15 U	576151.9	5472311.8	17/10/00 19:13	2055	55	-5	53
2056	15 U	575846.0	5472139.9	17/10/00 19:37	2056	112	21	23
2057	15 U	575883.4	5472133.3	17/10/00 19:44	2057	62	9	-10
2058	15 U	576019.9	5472177.5	17/10/00 19:54	2058	37	-5	21
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2060	15 U	576855.7	5473224.7	18/10/00 19:30	2060	35	6	38
2061	15 U	576831.0	5473238.6	18/10/00 19:41	2061	25	-5	52
2062	15 U	576595.5	5473239.5	18/10/00 19:48	2062	7	-5	42
2063	15 U	576553.0	5473235.0	18/10/00 19:55	2063	141	12	131
2064	15 U	576510.8	5473234.8	18/10/00 19:57	2064	6	-5	32
2065	15 U	576389.6	5473246.8	18/10/00 20:05	2065	17	-5	301
2066	15 U	576331.5	5473253.7	18/10/00 20:15	2066	3	-5	12
2067	15 U	576216.9	5473232.4	18/10/00 20:20	2067	6	10	92
2068	15 U	576158.3	5473137.4	18/10/00 20:30	2068	375	244	501
2069	15 U	576295.3	5473140.5	18/10/00 20:36	2069	11	-5	191
2070	15 U	576462.7	5473139.2	18/10/00 20:42	2070	232	38	105
2071	15 U	576522.7	5473163.3	18/10/00 20:47	2071	205	97	292
2072	15 U	576644.8	5473138.8	18/10/00 20:55	2072	6	-5	96
2073	15 U	576697.3	5473141.9	18/10/00 21:00	2073	152	44	144
2074	15 U	576741.1	5473159.2	18/10/00 21:03	2074	30	-5	139
2075	15 U	576784.6	5473166.4	18/10/00 21:12	2075	65	-5	25
2076	15 U	576973.8	5473159.5	18/10/00 21:18	2076	7	-5	16
2077	15 U	577053.7	5473154.1	18/10/00 21:24	2077	18	7	47
2078	15 U	577296.5	5473187.3	18/10/00 21:36	2078	6	-5	31
2079	15 U	577346.4	5473177.3	18/10/00 21:40	2079	12	-5	-10
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2081	15 U	577224.7	5473527.5	19/10/00 16:00	2081	7	-5	-10
2082	15 U	577175.2	5473537.0	19/10/00 16:08	2082	11	-5	-10
2083	15 U	577117.7	5473530.2	19/10/00 16:36	2083	7	-5	-10
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2086	15 U	576842.7	5473540.6	19/10/00 17:13	2086	14	-5	15
2087	15 U	576746.8	5473528.5	19/10/00 17:25	2087	14	-5	20
2088	15 U	576658.2	5473544.0	19/10/00 17:42	2088	14	-5	13
2089	15 U	576744.8	5473337.0	19/10/00 17:59	2089	26	6	66
2090	15 U	576827.9	5473347.2	19/10/00 18:51	2090	9	-5	35
2091	15 U	576864.1	5473352.4	19/10/00 19:02	2091	37	-5	-10
2092	15 U	576926.6	5473333.0	19/10/00 19:14	2092	39	-5	32
2093	15 U	577015.9	5473346.2	19/10/00 19:25	2093	15	-5	33
2094	15 U	577058.5	5473335.5	19/10/00 19:34	2094	20	-5	17
2095	15 U	577101.1	5473351.6	19/10/00 19:50	2095	10	7	-10
2096	15 U	577153.1	5473332.6	19/10/00 19:58	2096	10	-5	-10
2097	15 U	576699.6	5473339.4	20/10/00 14:32	2097	27	-5	31
2098	15 U	576616.6	5473349.0	20/10/00 14:36	2098	83	28	132
2099	15 U	576543.5	5473344.4	20/10/00 14:42	2099	33	-5	177
2100	15 U	576468.4	5473343.9	20/10/00 14:48	2100	8	-5	70
2101	15 U	575298.3	5473548.4	21/10/00 16:11	2101	90	-5	17
2102	15 U	575228.7	5473547.4	21/10/00 16:14	2102	48	11	50
2103	15 U	575117.0	5473715.3	21/10/00 16:41	2103	36	-5	45
2104	15 U	575179.6	5473723.3	21/10/00 16:53	2104	365	29	438
2106	15 U	575226.7	5473718.6	21/10/00 17:17	2106	66	46	355
2107	15 U	575275.0	5473715.1	21/10/00 18:09	2107	56	-5	92
2108	15 U	575332.5	5473723.0	21/10/00 18:13	2108	5	-5	34
2109	15 U	575387.5	5473716.6	21/10/00 18:16	2109	46	10	26

2110	15 U	575446.1	5473756.2	21/10/00 18:21	2110	80	8	39
2111	15 U	575616.1	5473734.7	21/10/00 18:28	2111	254	33	445
2114	15 U	575627.5	5473752.1	21/10/00 19:29	2114	16	-5	95
2116	15 U	575698.0	5473717.3	21/10/00 20:11	2116	26	13	-10
2117	15 U	575751.9	5473734.8	21/10/00 20:15	2117	34	-5	63
2118	15 U	575848.0	5473738.5	21/10/00 20:23	2118	27	-5	55
2119	15 U	575903.8	5473838.9	21/10/00 20:44	2119	21	-5	36
2120	15 U	575953.9	5473846.7	21/10/00 20:50	2120	33	-5	26
2121	15 U	576004.4	5473848.0	21/10/00 20:54	2121	18	21	27
2122	15 U	576053.3	5473861.8	21/10/00 20:57	2122	7	7	21
2123	15 U	576101.8	5473844.6	21/10/00 21:04	2123	29	-5	20
2124	15 U	576179.5	5473851.7	21/10/00 21:11	2124	28	5	13
2125	15 U	576224.3	5473846.3	21/10/00 21:22	2125	4	-5	37
2126	15 U	576293.8	5473835.4	21/10/00 21:27	2126	5	-5	24
2127	15 U	576370.9	5473833.5	21/10/00 21:31	2127	9	-5	10
2128	15 U	576455.0	5473824.5	21/10/00 21:38	2128	15	-5	142
2129	15 U	576592.1	5473849.7	21/10/00 21:51	2129	6	-5	29
2130	15 U	576697.1	5473855.3	22/10/00 16:50	2130	57	12	120
2131	15 U	576774.6	5473956.0	22/10/00 18:15	2131	17	21	43
2132	15 U	576743.9	5473956.2	22/10/00 18:19	2132	7	-5	-10
2133	15 U	576647.9	5473944.1	22/10/00 18:40	2133	16	-5	51
2134	15 U	576609.9	5473936.4	22/10/00 18:41	2134	48	18	54
2135	15 U	575611.1	5475786.5	23/10/00 14:09	2135	35	-5	36
2136	15 U	575702.8	5475789.0	23/10/00 14:24	2136	44	-5	23
2137	15 U	575737.6	5475748.3	23/10/00 14:57	2137	50	7	66
2138	15 U	576008.7	5475756.8	23/10/00 15:10	2138	212	41	220
2140	15 U	576067.2	5475775.5	23/10/00 15:25	2140	29	16	32
2141	15 U	576116.6	5475773.2	23/10/00 15:31	2141	142	39	292
2142	15 U	576164.0	5475773.9	23/10/00 15:36	2142	21	8	31
2143	15 U	576315.3	5475776.0	23/10/00 15:47	2143	6	-5	17
2144	15 U	576343.8	5475773.4	23/10/00 15:52	2144	6	-5	-10
2145	15 U	576428.0	5475787.7	23/10/00 16:13	2145	6	-5	-10
2146	15 U	576471.3	5475780.0	23/10/00 16:19	2146	4	-5	25
2147	15 U	576539.9	5475772.0	23/10/00 16:34	2147	5	-5	51
2148	15 U	576560.0	5475780.0	23/10/00 16:35	2148	13	-5	102
2150	15 U	576513.3	5475670.2	23/10/00 16:57	2150	33	-5	73
2151	15 U	576734.9	5475787.2	23/10/00 17:18	2151	6	-5	21
2152	15 U	576794.5	5475783.3	23/10/00 17:29	2152	8	-5	-10
2153	15 U	576915.0	5475817.2	23/10/00 17:37	2153	7	-5	-10
2154	15 U	576992.6	5475804.6	23/10/00 17:43	2154	10	-5	20
2155	15 U	577138.4	5475815.6	23/10/00 17:50	2155	29	-5	19
2156	15 U	576583.8	5475967.1	23/10/00 19:03	2156	63	25	137
2157	15 U	576537.4	5475973.0	23/10/00 19:07	2157	8	-5	46
2158	15 U	576452.8	5475989.1	23/10/00 19:15	2158	19	19	-10
2159	15 U	576373.0	5475964.1	23/10/00 19:19	2159	11	-5	37
2160	15 U	576330.9	5475969.5	23/10/00 19:26	2160	6	-5	-10
2161	15 U	576261.5	5475954.2	23/10/00 19:32	2161	80	-5	56
2162	15 U	576201.4	5475970.7	23/10/00 19:38	2162	21	-5	44
2163	15 U	576089.4	5476019.8	23/10/00 19:51	2163	9	-5	32
2165	15 U	575864.5	5475971.3	23/10/00 20:25	2165	31	-5	42
2166	15 U	575798.0	5475969.8	23/10/00 20:29	2166	100	16	114
2167	15 U	575741.7	5475963.1	23/10/00 20:33	2167	39	-5	33
2168	15 U	575689.7	5475977.3	23/10/00 20:40	2168	37	64	54
2169	15 U	575591.4	5475970.5	23/10/00 20:48	2169	62	16	43
2170	15 U	575353.4	5474950.3	24/10/00 14:38	2170	69	6	19
2171	15 U	575401.6	5474949.7	24/10/00 14:44	2171	38	-5	14
2172	15 U	575792.6	5474953.4	24/10/00 14:58	2172	24	8	78
2173	15 U	575857.0	5474942.9	24/10/00 15:09	2173	90	-5	88
2174	15 U	575907.2	5474940.6	24/10/00 15:13	2174	28	-5	37

2175	15 U	576009.5	5474943.2	24/10/00 15:19	2175	94	8	243
2176	15 U	576095.4	5474951.0	24/10/00 15:26	2176	38	-5	50
2177	15 U	576205.6	5474939.4	24/10/00 15:52	2177	457	217	726
2178	15 U	576287.4	5474933.4	24/10/00 16:06	2178	5	15	20
2179	15 U	576364.1	5474928.5	24/10/00 16:16	2179	4	-5	25
2180	15 U	576423.9	5474938.3	24/10/00 16:25	2180	6	-5	19
2181	15 U	576494.6	5474948.2	24/10/00 16:35	2181	5	-5	21
2182	15 U	576547.4	5474928.1	24/10/00 16:50	2182	6	-5	21
2184	15 U	576396.8	5474848.4	24/10/00 19:50	2184	28	11	105
2185	15 U	576303.6	5474832.2	24/10/00 20:00	2185	130	8	385
2186	15 U	576268.4	5474844.2	24/10/00 20:06	2186	97	42	149
2187	15 U	576211.3	5474838.7	24/10/00 20:18	2187	412	131	762
2188	15 U	576108.6	5474808.6	24/10/00 20:27	2188	7	-5	20
2189	15 U	575889.3	5474853.9	24/10/00 20:46	2189	89	18	101
2190	15 U	575822.2	5474837.4	24/10/00 20:50	2190	67	-5	124
2191	15 U	576499.7	5473942.0	27/10/00 15:20	2191	9	-5	186
2192	15 U	576392.8	5473936.9	27/10/00 15:28	2192	15	-5	117
2193	15 U	576307.6	5473931.6	27/10/00 15:35	2193	11	-5	18
2194	15 U	576126.4	5473949.9	27/10/00 15:41	2194	13	-5	-10
2195	15 U	576033.9	5473940.9	27/10/00 15:48	2195	61	14	54
2196	15 U	575963.8	5473942.3	27/10/00 15:53	2196	27	-5	40
2197	15 U	575899.1	5473955.1	27/10/00 16:04	2197	31	5	60
2198	15 U	575845.1	5473947.8	27/10/00 16:10	2198	82	81	559
2199	15 U	575780.9	5473943.4	27/10/00 16:32	2199	24	-5	33
2200	15 U	575604.2	5473947.5	27/10/00 16:47	2200	62	-5	15
2201	15 U	576656.3	5473765.9	26/10/00 16:45	2201	10	-5	51
2202	15 U	576511.2	5473735.8	26/10/00 16:56	2202	9	-5	90
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2204	15 U	576093.0	5473721.0	26/10/00 17:38	2204	8	-5	19
2205	15 U	576022.2	5473776.7	26/10/00 17:44	2205	6	-5	21
2206	15 U	575963.7	5473725.2	26/10/00 17:48	2206	26	-5	13
2207	15 U	575905.7	5473726.8	26/10/00 18:00	2207	20	-5	14
2208	15 U	576045.6	5473632.7	26/10/00 18:26	2208	5	-5	12
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2210	15 U	576183.2	5473615.5	26/10/00 18:39	2210	4	-5	23
2211	15 U	576292.4	5473629.0	26/10/00 18:47	2211	4	-5	14
2212	15 U	576358.8	5473634.7	26/10/00 18:57	2212	44	-5	96
2213	15 U	576425.0	5473635.0	26/10/00 19:07	2213	48	9	582
2214	15 U	576453.3	5473615.7	26/10/00 19:13	2214	23	12	202
2215	15 U	576643.9	5473590.9	26/10/00 19:31	2215	12	-5	21
2216	15 U	575563.2	5473958.8	27/10/00 16:54	2216	62	17	40
2217	15 U	575469.2	5473940.8	27/10/00 17:02	2217	52	22	26
2218	15 U	575391.0	5473939.2	27/10/00 17:12	2218	24	13	58
2219	15 U	575291.0	5473997.4	27/10/00 17:44	2219	37	-5	30
2220	15 U	575199.7	5473957.4	27/10/00 18:09	2220	29	-5	15
2221	15 U	575199.9	5473860.8	27/10/00 18:28	2221	10	-5	21
2222	15 U	575317.9	5473854.1	27/10/00 18:39	2222	39	10	108
2223	15 U	575400.8	5473850.4	27/10/00 18:46	2223	75	38	444
2224	15 U	575443.2	5473854.6	27/10/00 18:54	2224	58	-5	45
2225	15 U	575519.6	5473847.9	27/10/00 19:03	2225	32	-5	16
2226	15 U	575600.5	5473845.4	27/10/00 19:10	2226	91	25	54
2227	15 U	575785.0	5473842.6	27/10/00 19:33	2227	22	-5	82
2228	15 U	575812.2	5473845.4	27/10/00 19:39	2228	12	-5	165
2251	15 U	575483.3	5475546.1	23/10/00 13:57	2251	30	-5	19
2252	15 U	575663.2	5475589.2	23/10/00 14:21	2252	40	-5	27
2253	15 U	575790.1	5475498.5	23/10/00 14:28	2253	45	-5	52
2254	15 U	575880.1	5475542.7	23/10/00 14:33	2254	77	20	53
2255	15 U	575954.1	5475540.1	23/10/00 14:39	2255	36	-5	109
2256	15 U	576049.7	5475523.0	23/10/00 14:46	2256	20	8	58

2257	15 U	576106.9	5475548.8	23/10/00 14:53	2257	9	-5	222
2258	15 U	576168.1	5475535.4	23/10/00 15:11	2258	7	-5	38
2259	15 U	576215.2	5475540.2	23/10/00 15:21	2259	18	-5	59
2260	15 U	576268.0	5475542.7	23/10/00 15:27	2260	8	-5	86
2261	15 U	576308.2	5475534.9	23/10/00 15:32	2261	6	6	104
2262	15 U	576394.5	5475567.7	23/10/00 15:38	2262	17	-5	42
2263	15 U	576446.1	5475548.2	23/10/00 15:44	2263	10	-5	27
2264	15 U	576517.3	5475548.0	23/10/00 15:49	2264	11	-5	13
2265	15 U	576554.0	5475543.7	23/10/00 15:54	2265	16	-5	12
2266	15 U	576631.6	5475555.0	23/10/00 15:56	2266	16	-5	-10
2267	15 U	576728.2	5475545.0	23/10/00 16:07	2267	11	-5	13
2268	15 U	576817.4	5475542.1	23/10/00 16:20	2268	10	-5	11
2269	15 U	576736.0	5475326.2	23/10/00 17:14	2269	9	-5	-10
2270	15 U	576677.0	5475340.3	23/10/00 17:22	2270	12	-5	16
2271	15 U	576597.1	5475326.6	23/10/00 17:31	2271	22	-5	18
2272	15 U	576531.8	5475350.2	23/10/00 17:38	2272	21	-5	23
2273	15 U	576490.3	5475337.7	23/10/00 17:41	2273	6	-5	28
2274	15 U	576442.5	5475363.2	23/10/00 17:45	2274	44	-5	31
2275	15 U	576270.9	5475338.2	23/10/00 17:52	2275	6	-5	26
2276	15 U	576194.2	5475343.1	23/10/00 18:04	2276	44	15	138
2277	15 U	576104.9	5475353.7	23/10/00 18:06	2277	24	6	99
2278	15 U	576032.2	5475380.2	23/10/00 18:10	2278	101	27	264
2279	15 U	575908.8	5475355.8	23/10/00 18:29	2279	64	7	43
2280	15 U	575850.2	5475344.8	23/10/00 18:31	2280	78	-5	106
2281	15 U	575773.7	5475337.2	23/10/00 18:39	2281	20	11	32
2282	15 U	575581.3	5475350.7	23/10/00 18:50	2282	81	12	30
2283	15 U	575516.1	5475340.2	23/10/00 18:54	2283	53	7	23
2284	15 U	575485.1	5475326.7	23/10/00 19:03	2284	54	-5	26
2285	15 U	575711.4	5475143.7	24/10/00 14:43	2285	48	-5	23
2286	15 U	575772.1	5475143.3	24/10/00 14:50	2286	31	-5	-10
2287	15 U	575836.7	5475140.1	24/10/00 14:53	2287	58	16	69
2288	15 U	575854.5	5475121.8	24/10/00 15:00	2288	31	-5	94
2289	15 U	575923.5	5475135.3	24/10/00 15:03	2289	57	-5	49
2290	15 U	575965.5	5475140.7	24/10/00 15:14	2290	38	17	67
2292	15 U	576996.9	5475143.1	24/10/00 15:56	2292	46	-5	107
2294	15 U	576056.5	5475143.1	24/10/00 16:24	2294	7	6	45
2295	15 U	576198.4	5475150.5	24/10/00 16:28	2295	54	17	115
2296	15 U	576270.3	5475159.8	24/10/00 16:34	2296	128	-5	106
2297	15 U	576562.6	5475146.6	24/10/00 16:46	2297	54	7	21
2298	15 U	576616.7	5475149.7	24/10/00 16:59	2298	6	12	17
2299	15 U	576665.4	5475167.7	24/10/00 17:03	2299	5	-5	10
2300	15 U	576729.0	5475159.7	24/10/00 17:10	2300	24	-5	27
2301	15 U	576782.1	5475146.1	24/10/00 17:19	2301	7	-5	-10
2302	15 U	576962.7	5475083.6	24/10/00 18:21	2302	28	-5	21
2303	15 U	576935.4	5475061.8	24/10/00 18:24	2303	9	14	-10
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2305	15 U	576806.8	5475049.8	24/10/00 18:35	2305	12	-5	25
2306	15 U	576675.0	5475040.8	24/10/00 18:42	2306	5	-5	-10
2307	15 U	576595.5	5475047.4	24/10/00 18:48	2307	7	-5	-10
2308	15 U	576566.8	5475044.7	24/10/00 18:52	2308	2	9	11
2309	15 U	576502.9	5475049.1	24/10/00 18:58	2309	10	-5	15
2310	15 U	576344.3	5475041.5	24/10/00 19:04	2310	3	-5	22
2312	15 U	576255.3	5475058.2	24/10/00 19:19	2312	4	-5	289
2313	15 U	576182.2	5475032.1	24/10/00 19:37	2313	136	5	174
2315	15 U	576093.4	5475032.7	24/10/00 19:57	2315	53	-5	14
2316	15 U	576035.2	5475051.6	24/10/00 20:05	2316	204	114	1030
2317	15 U	575992.9	5475043.8	24/10/00 20:16	2317	80	-5	283
2318	15 U	575953.7	5475037.3	24/10/00 20:18	2318	30	-5	118
2319	15 U	575895.3	5475037.7	24/10/00 20:23	2319	74	17	179

2320	15 U	575852.6	5475035.9	24/10/00 20:29	2320	97	31	85
2321	15 U	575793.8	5475037.5	24/10/00 20:33	2321	79	30	109
2322	15 U	575472.2	5475050.3	24/10/00 20:50	2322	82	-5	36
2323	15 U	575474.3	5475051.0	24/10/00 20:55	2323	23	-5	-10
2324	15 U	577290.8	5473452.1	26/10/00 16:40	2324	7	-5	28
2325	15 U	577219.7	5473472.0	26/10/00 16:52	2325	9	9	-10
2326	15 U	577173.8	5473442.7	26/10/00 16:57	2326	6	-5	14
2327	15 U	577130.7	5473458.8	26/10/00 17:04	2327	4	12	10
2328	15 U	577083.2	5473434.8	26/10/00 17:18	2328	8	-5	14
2329	15 U	576908.4	5473441.3	26/10/00 17:29	2329	8	-5	33
2330	15 U	576890.2	5473456.6	26/10/00 17:38	2330	5	-5	20
2331	15 U	576813.7	5473446.6	26/10/00 17:46	2331	4	-5	21
2332	15 U	576773.2	5473451.4	26/10/00 17:52	2332	9	-5	24
2333	15 U	577429.9	5473661.6	26/10/00 19:20	2333	88	25	39
2335	15 U	575281.2	5474736.9	27/10/00 14:48	2335	6	-5	-10
2336	15 U	575225.2	5474737.9	27/10/00 14:52	2336	21	-5	-10
2337	15 U	575357.5	5474739.2	27/10/00 15:00	2337	25	-5	-10
2338	15 U	576088.9	5474745.7	27/10/00 15:21	2338	16	-5	14
2339	15 U	576159.1	5474734.8	27/10/00 15:50	2339	83	-5	65
2340	15 U	576206.1	5474736.0	27/10/00 15:51	2340	94	-5	46
2341	15 U	576248.5	5474740.8	27/10/00 15:57	2341	29	-5	25
2342	15 U	576302.2	5474769.0	27/10/00 16:01	2342	28	-5	28
2343	15 U	576351.0	5474757.1	27/10/00 16:05	2343	26	-5	40
2344	15 U	576352.1	5474536.4	27/10/00 16:31	2344	21	-5	41
2345	15 U	576206.0	5474521.3	27/10/00 16:41	2345	7	-5	18
2346	15 U	576147.0	5474540.1	27/10/00 16:42	2346	7	-5	11
2347	15 U	576083.8	5474525.5	27/10/00 17:07	2347	56	-5	21
2348	15 U	576039.6	5474539.2	27/10/00 17:16	2348	39	12	11
2349	15 U	575986.6	5474518.8	27/10/00 17:33	2349	53	-5	18
2350	15 U	575797.7	5474530.5	27/10/00 18:23	2350	104	19	194
2352	15 U	575536.8	5474547.2	27/10/00 18:47	2352	43	-5	83
2353	15 U	575444.9	5474547.1	27/10/00 18:59	2353	125	29	159
2354	15 U	575407.6	5474544.2	27/10/00 19:11	2354	40	-5	38
2355	15 U	575311.5	5474544.1	27/10/00 19:21	2355	67	-5	45
2356	15 U	575211.8	5474549.9	27/10/00 19:29	2356	49	-5	42
2357	15 U	576589.5	5474141.9	28/10/00 14:53	2357	7	11	16
2358	15 U	576771.6	5474145.6	28/10/00 15:02	2358	8	-5	12
2359	15 U	576854.6	5474136.1	28/10/00 15:06	2359	6	-5	25
2360	15 U	576912.9	5474141.1	28/10/00 15:10	2360	40	-5	17
2361	15 U	576958.0	5474142.9	28/10/00 15:17	2361	39	-5	15
2362	15 U	576705.8	5474317.7	28/10/00 15:40	2362	26	-5	111
2363	15 U	576643.1	5474347.8	28/10/00 15:49	2363	33	-5	148
2365	15 U	576538.3	5474357.7	28/10/00 16:04	2365	24	-5	100
2366	15 U	576363.7	5474346.3	28/10/00 16:20	2366	16	-5	141
2367	15 U	576304.9	5474348.5	28/10/00 16:25	2367	15	-5	16
2368	15 U	576206.2	5474341.1	28/10/00 16:34	2368	8	-5	13
2369	15 U	576131.0	5474344.9	28/10/00 16:41	2369	26	-5	-10
2370	15 U	576069.1	5474348.8	28/10/00 17:30	2370	11	-5	-10
2371	15 U	575996.3	5474349.6	28/10/00 17:33	2371	41	-5	12
2372	15 U	575899.4	5474348.8	28/10/00 17:46	2372	27	15	77
2373	15 U	575825.0	5474359.7	28/10/00 17:53	2373	58	-5	24
2374	15 U	575720.1	5474344.5	28/10/00 17:59	2374	20	-5	44
2375	15 U	575622.5	5474339.6	28/10/00 18:11	2375	37	34	73
2376	15 U	575572.6	5474344.3	28/10/00 18:17	2376	7	5	40
2377	15 U	575511.1	5474345.2	28/10/00 18:26	2377	90	-5	104
2378	15 U	575456.6	5474352.2	28/10/00 18:30	2378	60	-5	96
2379	15 U	575321.2	5474345.6	28/10/00 18:41	2379	222	340	172
2380	15 U	575254.0	5474336.3	28/10/00 18:47	2380	42	-5	26
2381	15 U	575310.1	5474165.9	28/10/00 19:23	2381	73	22	126

2382	15 U	575350.9	5474137.8	28/10/00 19:29	2382	6	20	28
2383	15 U	575444.9	5474150.5	28/10/00 19:36	2383	67	13	128
2384	15 U	575491.8	5474139.8	28/10/00 19:42	2384	38	-5	92
2385	15 U	575548.7	5474135.8	28/10/00 19:45	2385	57	-5	117
2386	15 U	575650.0	5474154.5	28/10/00 19:53	2386	53	5	28
2387	15 U	575896.0	5474121.5	28/10/00 20:04	2387	57	-5	19
2388	15 U	575961.5	5474138.5	28/10/00 20:08	2388	28	-5	16
2389	15 U	576052.9	5474145.2	28/10/00 20:13	2389	5	5	15
2390	15 U	576100.2	5474155.4	28/10/00 20:20	2390	8	5	55
2391	15 U	576208.8	5474122.9	28/10/00 20:29	2391	27	-5	190
2392	15 U	576259.8	5474149.8	28/10/00 20:38	2392	6	-5	42
2393	15 U	576328.0	5474146.0	28/10/00 20:43	2393	43	-5	132
2402	15 U	575212.6	5473613.4	27/10/00 19:20	2402	19	-5	100
2403	15 U	575316.6	5473608.9	27/10/00 19:29	2403	32	12	30
2404	15 U	575377.9	5473622.8	27/10/00 19:35	2404	68	-5	11
2405	15 U	575442.0	5473631.5	27/10/00 19:41	2405	42	-5	20
2406	15 U	575624.6	5473651.3	27/10/00 19:56	2406	72	-5	114
2407	15 U	575663.1	5473652.4	27/10/00 20:03	2407	21	11	146
2409	15 U	575728.0	5473662.3	27/10/00 20:23	2409	628	497	321
2410	15 U	575769.9	5473672.4	27/10/00 20:30	2410	71	38	106
2412	15 U	575832.9	5473672.7	27/10/00 20:49	2412	37	9	118
2413	15 U	576697.3	5474643.3	28/10/00 15:07	2413	21	-5	38
2414	15 U	576636.5	5474648.4	28/10/00 15:17	2414	5	16	11
2415	15 U	576581.7	5474645.8	28/10/00 15:25	2415	8	-5	-10
2416	15 U	576430.4	5474531.6	28/10/00 15:36	2416	6	-5	-10
2417	15 U	576512.6	5474522.0	28/10/00 15:49	2417	69	18	30
2418	15 U	576591.9	5474554.7	28/10/00 15:55	2418	12	7	-10
2419	15 U	576654.8	5474541.3	28/10/00 16:00	2419	20	-5	22
2420	15 U	576789.3	5474546.7	28/10/00 16:12	2420	12	-5	-10
2421	15 U	576961.8	5474540.2	28/10/00 16:18	2421	73	117	28
2422	15 U	576980.7	5474631.1	28/10/00 16:31	2422	57	-5	31
2423	15 U	576919.7	5474685.2	28/10/00 16:45	2423	27	-5	-10
2424	15 U	576826.4	5474650.4	28/10/00 16:53	2424	5	-5	13
2425	15 U	576765.9	5474659.7	28/10/00 17:05	2425	7	-5	-10
2426	15 U	576709.4	5474753.2	28/10/00 17:43	2426	47	-5	31
2427	15 U	576651.9	5474746.4	28/10/00 17:48	2427	10	-5	21
2428	15 U	576653.9	5474849.6	28/10/00 18:03	2428	125	14	-10
2429	15 U	576649.3	5474956.9	28/10/00 18:11	2429	69	-5	43
2430	15 U	576787.6	5474947.5	28/10/00 18:22	2430	7	-5	11
2431	15 U	576864.9	5474928.3	28/10/00 18:30	2431	10	-5	13
2432	15 U	576952.1	5474949.9	28/10/00 18:38	2432	6	-5	-10
2433	15 U	576929.1	5474841.6	28/10/00 18:52	2433	9	-5	-10
2434	15 U	576869.9	5474850.3	28/10/00 18:58	2434	17	-5	33
2435	15 U	576922.5	5474760.4	28/10/00 19:08	2435	8	-5	21
2436	15 U	576806.6	5474754.0	28/10/00 19:18	2436	53	8	13
2452	15 U	576216.1	5474633.6	27/10/00 16:36	2452	5	-5	16
2453	15 U	576164.7	5474640.0	27/10/00 16:44	2453	55	-5	19
2454	15 U	576120.3	5474641.8	27/10/00 16:55	2454	51	16	14
2455	15 U	575981.4	5474663.7	27/10/00 17:10	2455	29	28	28
2456	15 U	575942.8	5474645.3	27/10/00 17:18	2456	41	-5	18
2457	15 U	575882.6	5474637.3	27/10/00 17:39	2457	41	-5	62
2459		no sat.		60+80N/47+25E	2459	55	10	115
2460	15 U	575477.1	5474638.2	27/10/00 18:36	2460	83	-5	166
2461	15 U	575321.9	5474662.3	27/10/00 18:50	2461	42	-5	22
2462	15 U	575228.4	5474644.9	27/10/00 19:03	2462	43	10	10
2463	15 U	576045.2	5472455.2	28/10/00 17:27	2463	46	-5	-10
2466		576787.0	5471165.0		2466	13	-5	-10
2467	15 U	576951.8	5471155.1	29/10/00 15:39	2467	7	-5	12
2468	15 U	576986.4	5470908.6	29/10/00 15:52	2468	8	-5	-10

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ontario
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS

Work Order: 061245

To: **Avalon Ventures Ltd**
Attn: **Chris Pedersen**

851 Field Street
THUNDER BAY
ONTARIO, CANADA P7B 6B6

Date : 13/10/00

Copy 1 to :

Copy 2 to :

P.O. No.	:	
Project No.	:	533
No. of Samples	:	100 Rock
Date Submitted	:	25/09/00
Report Comprises	:	Cover Sheet plus Pages 1 to 3

Distribution of unused material:
Pulps: No instructions.
Rejects: No instructions.

Certified By :

Dr. Hugh de Souza, General Manager
XRAL Laboratories

ISO 9002 REGISTERED

Report Footer:

L.N.R.	= Listed not received	I.S.	= Insufficient Sample
n.a.	= Not applicable	--	= No result
*INF	= Composition of this sample makes detection impossible by this method		

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Work Order: 061245 **Date:** 13/10/00 **FINAL**

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
30651	60	<5	15
30652	61	<5	29
30653	44	<5	24
30654	35	<5	<10
30655	77	<5	<10
30656	38	<5	18
30657	61	<5	20
30658	32	<5	<10
30659	15	<5	<10
30660	33	11	11
30661	22	<5	<10
30662	30	<5	<10
30663	4	<5	<10
30664	42	<5	<10
30665	64	9	19
30666	8	16	<10
30667	40	<5	<10
30668	55	<5	10
30669	55	<5	15
30670	59	<5	20
30671	100	<5	27
30672	21	<5	<10
30673	31	<5	<10
30674	48	<5	<10
30675	50	<5	<10
30676	58	<5	10
30677	31	<5	<10
30678	48	<5	10
30679	31	<5	12
30680	38	<5	<10
30681	31	<5	18
30682	25	<5	17
30683	94	<5	34
30684	119	5	<10
30685	19	<5	<10
30686	31	<5	21
30687	23	<5	<10
30688	49	8	26
30689	45	9	21
30690	88	<5	22
30691	72	<5	41
30692	44	<5	18
30693	59	<5	24
30694	53	<5	22
30695	29	<5	<10

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
30696	30	<5	<10
30697	74	<5	53
30698	72	<5	52
30699	45	<5	18
30700	28	<5	22
30701	14	<5	20
30702	21	<5	46
30703	66	<5	56
30704	30	<5	36
30705	58	12	25
30706	78	14	44
30707	55	7	<10
30708	33	13	28
30709	43	<5	14
30710	67	<5	35
30711	29	5	21
30712	10	<5	15
30713	20	<5	47
30714	94	9	31
30715	64	<5	<10
30716	31	<5	12
30717	45	7	12
30718	44	<5	<10
30719	46	<5	18
30720	37	<5	<10
30721	22	<5	19
30722	11	<5	<10
30723	82	<5	40
30724	176	<5	11
30725	31	<5	17
30726	22	<5	<10
30727	12	<5	<10
30728	9	<5	<10
30729	31	<5	13
30730	25	<5	<10
30731	9	<5	<10
30732	14	8	<10
30733	19	7	13
30734	10	15	25
30735	31	<5	14
30736	89	6	74
30737	12	<5	<10
30738	41	<5	40
30739	7	<5	<10
30740	23	<5	16

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
30741	55	10	29
30742	19	<5	<10
30743	68	<5	<10
30744	61	<5	<10
30745	90	5	11
30746	34	13	<10
30747	24	<5	13
30748	12	<5	11
30749	38	<5	14
30750	12	<5	<10
*Dup 30651	60	<5	16
*Dup 30663	4	<5	<10
*Dup 30675	49	<5	<10
*Dup 30687	23	<5	<10
*Dup 30699	44	<5	16
*Dup 30711	29	5	21
*Dup 30723	83	<5	42
*Dup 30735	31	<5	12
*Dup 30747	24	<5	11

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ontario
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS

Work Order: 061246

To: **Avalon Ventures Ltd**
Attn: **Chris Pedersen**

851 Field Street
THUNDER BAY
ONTARIO, CANADA P7B 6B6

Date : 13/10/00

Copy 1 to :

Copy 2 to :

P.O. No.	:	
Project No.	:	533
No. of Samples	:	100 Rock
Date Submitted	:	25/09/00
Report Comprises	:	Cover Sheet plus Pages 1 to 3

Distribution of unused material:
Pulps: No instructions.
Rejects: No instructions.

Certified By :

Dr. Hugh de Souza, General Manager
XRAL Laboratories

ISO 9002 REGISTERED

Report Footer:

L.N.R.	= Listed not received	I.S.	= Insufficient Sample
n.a.	= Not applicable	--	= No result
*INF	= Composition of this sample makes detection impossible by this method		

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Work Order: 061246 **Date:** 13/10/00 **FINAL**

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
30751	35	<5	16
30752	73	<5	51
30753	5	<5	12
30754	8	<5	11
30755	55	<5	11
30756	26	<5	<10
30757	3	<5	<10
30758	27	<5	<10
30759	9	<5	<10
30760	45	<5	31
30761	15	<5	<10
30762	18	<5	<10
30763	19	<5	10
30764	22	<5	30
30765	34	<5	22
30766	38	<5	15
30767	8	<5	<10
30768	6	<5	<10
30769	10	<5	10
30770	20	<5	<10
30771	4	<5	<10
30772	76	<5	24
30773	20	<5	16
30774	20	<5	<10
30775	8	<5	<10
30776	46	<5	12
30777	7	<5	<10
30778	8	<5	<10
30779	6	<5	<10
30780	25	21	13
30781	7	<5	<10
30782	12	<5	<10
30783	9	<5	<10
30784	91	<5	28
30785	22	<5	<10
30786	33	<5	13
30787	23	<5	16
30788	14	<5	<10
30789	24	11	15
30790	8	<5	20
30791	14	8	16
30792	51	9	<10
30793	32	<5	11
30794	37	<5	<10
30795	159	108	23

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
30796	74	<5	13
30797	57	8	11
30798	86	<5	27
30799	10	<5	<10
30800	30	<5	15
30801	28	<5	<10
30802	81	<5	19
30803	61	<5	14
30804	39	7	11
30805	45	<5	22
30806	77	<5	15
30807	53	7	22
30808	47	<5	12
30809	11	<5	<10
30810	64	15	21
30811	11	<5	<10
30812	41	6	14
30813	33	6	12
30814	94	<5	<10
30815	115	<5	30
30816	166	112	134
30817	47	<5	15
30818	8	<5	<10
30819	11	14	16
30820	83	<5	14
30821	31	8	20
30822	20	5	16
30823	85	<5	10
30824	25	<5	12
30825	24	<5	<10
30826	59	<5	10
30827	61	8	11
30828	64	<5	52
30829	20	<5	<10
30830	26	<5	<10
30831	71	<5	26
30832	44	<5	14
30833	80	<5	34
30834	51	<5	<10
30835	17	<5	55
30836	56	<5	31
30837	15	<5	<10
30838	11	<5	17
30839	59	18	22
30840	84	<5	45

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
30841	71	21	48
30842	46	7	45
30843	22	<5	15
30844	45	9	46
30845	54	<5	23
30846	26	<5	26
30847	6	<5	30
30848	43	18	14
30849	20	<5	23
30850	81	11	17
*Dup 30751	35	<5	17
*Dup 30763	19	<5	11
*Dup 30775	8	<5	<10
*Dup 30787	23	<5	15
*Dup 30799	9	<5	<10
*Dup 30811	12	<5	<10
*Dup 30823	84	<5	11
*Dup 30835	18	<5	53
*Dup 30847	7	<5	27

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ontario
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Fax (416) 445-4152

CERTIFICATE OF ANALYSIS

Work Order: 061247

To: **Avalon Ventures Ltd**
Attn: **Chris Pedersen**

851 Field Street
THUNDER BAY
ONTARIO, CANADA P7B 6B6

Date : 13/10/00

Copy 1 to :

Copy 2 to :

P.O. No.	:	
Project No.	:	533
No. of Samples	:	102 Rock
Date Submitted	:	25/09/00
Report Comprises	:	Cover Sheet plus Pages 1 to 3

Distribution of unused material:
Pulps: No instructions.
Rejects: No instructions.

Certified By :

Dr. Hugh de Souza, General Manager
XRAL Laboratories

ISO 9002 REGISTERED

Report Footer:

L.N.R.	= Listed not received	I.S.	= Insufficient Sample
n.a.	= Not applicable	--	= No result
*INF	= Composition of this sample makes detection impossible by this method		

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Work Order: 061247 **Date:** 13/10/00 **FINAL**

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
30854	67	<5	24
30855	70	<5	20
30856	37	<5	<10
30857	29	<5	15
30858	45	<5	22
30859	62	<5	35
30860	46	<5	24
30861	66	<5	11
30862	26	34	<10
30863	7	<5	<10
30864	43	14	15
30865	77	20	19
30866	82	<5	39
30867	15	<5	38
30868	51	<5	72
30869	7	13	157
30870	14	<5	254
30871	41	<5	69
30872	69	<5	37
30873	54	<5	25
30874	73	7	19
30875	40	<5	25
30876	4	<5	15
30877	5	<5	14
30878	8	<5	<10
30879	12	5	24
30880	8	<5	20
30881	10	<5	<10
30882	8	<5	<10
30883	35	<5	15
30884	43	<5	21
30885	8	<5	18
30886	78	<5	30
30887	40	15	364
30888	20	<5	21
30889	64	6	11
30891	36	<5	13
30892	70	<5	33
30893	69	5	84
30894	17	<5	<10
30895	49	<5	<10
30896	19	<5	<10
30897	11	<5	<10
30898	11	<5	<10
30899	73	<5	13

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
30900	8	<5	20
30901	6	<5	11
30902	37	5	36
30903	19	<5	43
30904	45	<5	15
30905	41	11	26
30906	14	<5	44
30907	16	<5	<10
30908	13	<5	30
30909	21	<5	16
30910	21	5	28
30911	51	<5	33
30912	25	<5	<10
30913	55	<5	22
30914	54	<5	16
30915	34	<5	31
30916	113	55	107
30917	10	<5	<10
30918	7	<5	30
30919	10	12	22
30920	67	<5	19
30921	35	<5	24
30922	18	<5	<10
30923	48	<5	28
30924	31	<5	17
30925	51	<5	12
30926	42	9	25
30927	64	<5	28
30928	12	<5	<10
30929	10	<5	31
30930	98	9	44
30931	28	<5	<10
30932	65	<5	34
30933	66	<5	28
30934	24	<5	<10
30935	54	27	21
30936	104	50	73
30937	58	<5	20
30938	75	<5	19
30939	68	12	15
30940	43	<5	19
30941	24	<5	<10
30942	57	8	41
30943	21	<5	16
30944	37	21	43

Work Order: 061247 **Date:** 13/10/00 **FINAL**

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
30945	34	<5	35
30946	51	<5	65
30947	56	9	26
30948	53	<5	47
30949	91	<5	30
30951	57	39	18
30952	41	<5	<10
30953	88	<5	16
30954	75	19	56
30955	77	<5	27
30956	25	21	<10
30957	55	14	<10
*Dup 30854	65	<5	23
*Dup 30866	81	<5	37
*Dup 30878	8	<5	<10
*Dup 30891	37	<5	14
*Dup 30903	19	<5	44
*Dup 30915	34	<5	31
*Dup 30927	63	<5	28
*Dup 30939	67	10	13
*Dup 30952	41	<5	<10

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ontario
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS

Work Order: 061596

To: **Avalon Ventures Ltd**
Attn: **Chris Pedersen**

851 Field Street
THUNDER BAY
ONTARIO, CANADA P7B 6B6

Date : 09/11/00

Copy 1 to :

Copy 2 to :

P.O. No.	:	
Project No.	:	533
No. of Samples	:	143 Rock
Date Submitted	:	20/10/00
Report Comprises	:	Cover Sheet plus Pages 1 to 4

Distribution of unused material:
Pulps: Store
Rejects: Store

Certified By :

Dr. Hugh de Souza, General Manager
XRAL Laboratories

ISO 9002 REGISTERED

Report Footer:

L.N.R.	= Listed not received	I.S.	= Insufficient Sample
n.a.	= Not applicable	--	= No result
*INF	= Composition of this sample makes detection impossible by this method		

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Work Order: 061596 **Date:** 09/11/00 **FINAL**

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
31671	25	<5	95
31672	71	<5	129
31673	20	<5	70
31674	42	<5	42
31675	62	13	61
31676	61	<5	30
31677	23	<5	37
31678	31	<5	19
31679	37	<5	22
31680	35	<5	15
31681	6	<5	<10
31682	11	<5	<10
31683	29	<5	<10
31684	18	6	<10
31685	34	<5	<10
31686	25	<5	<10
31687	10	<5	<10
31688	56	<5	21
31689	7	<5	<10
31690	29	<5	<10
31691	9	<5	<10
31692	42	<5	35
31693	20	<5	19
31694	12	<5	28
31695	8	<5	36
31696	78	18	15
31697	15	<5	24
31698	14	<5	35
31699	34	<5	30
31700	41	<5	19
31701	11	<5	17
31702	3	<5	11
31703	8	<5	<10
31704	10	<5	11
31705	17	7	<10
31706	32	<5	17
31707	54	<5	<10
31708	123	15	21
31709	66	5	25
31710	39	<5	15
31711	119	<5	<10
31712	106	43	32
31714	39	<5	74
31715	21	<5	43
31716	13	<5	32

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
31717	7	<5	75
31718	67	<5	<10
31719	69	<5	30
31720	46	<5	131
31721	22	<5	147
31722	27	19	136
31723	23	<5	19
31724	16	<5	10
31725	39	<5	17
31726	17	8	42
31727	43	<5	16
31728	111	21	33
31729	66	<5	<10
31730	77	<5	22
31731	120	17	<10
31732	77	<5	27
31733	48	<5	17
31734	63	<5	21
31735	41	<5	42
31736	43	<5	31
31737	58	<5	35
31738	35	<5	24
31739	53	<5	22
31740	32	<5	21
31741	34	8	14
31742	40	<5	16
31743	64	9	30
31744	14	12	<10
31745	53	7	24
31746	54	<5	28
31747	33	<5	17
31748	29	<5	16
31749	52	<5	23
31750	41	6	28
31751	49	<5	18
31752	46	<5	20
30979	10	<5	<10
30980	37	<5	16
30981	5	<5	13
30982	42	<5	45
30983	12	<5	<10
30984	14	<5	<10
30985	10	<5	11
30986	85	<5	21
30987	71	<5	12

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
30988	32	<5	25
30989	208	<5	73
30990	50	35	58
30991	7	<5	34
30992	15	<5	14
30993	130	<5	83
30994	6	<5	12
30995	31	<5	17
30996	62	<5	38
30997	16	<5	11
30958	98	<5	107
30959	93	<5	36
30960	29	<5	<10
30961	35	<5	30
30962	105	<5	84
30963	98	47	52
30964	31	<5	11
30965	13	<5	<10
30966	19	<5	<10
30967	16	<5	<10
30968	28	<5	<10
30969	55	<5	10
30970	12	<5	21
30971	67	<5	<10
30972	23	<5	<10
30973	40	22	64
30974	134	<5	132
30975	42	16	10
30976	19	7	<10
30977	23	5	<10
30978	110	56	105
30998	7	<5	<10
30999	9	<5	<10
31000	28	<5	28
31651	35	<5	38
31652	65	11	12
31653	97	15	43
31654	78	6	73
31655	5	<5	16
31656	18	<5	20
31657	91	64	255
31658	6	7	21
31659	4	<5	10
31660	7	<5	<10
31661	5	<5	<10

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
31662	5	<5	<10
31663	17	<5	<10
31664	13	<5	<10
31665	54	<5	<10
31666	30	<5	11
31667	58	<5	15
31668	35	9	12
31669	74	<5	18
*Dup 31671	25	<5	103
*Dup 31683	29	<5	<10
*Dup 31695	9	<5	37
*Dup 31707	54	<5	<10
*Dup 31720	46	<5	134
*Dup 31732	79	<5	27
*Dup 31744	14	13	<10
*Dup 30982	42	<5	40
*Dup 30994	6	<5	11
*Dup 30966	19	<5	<10
*Dup 30978	111	55	98
*Dup 31659	4	<5	<10

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ontario
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS

Work Order: 061619

To: **Avalon Ventures Ltd**
Attn: Karen Rees

851 Field Street
THUNDER BAY
ONTARIO, CANADA P7B 6B6

Date : 09/11/00

Copy 1 to :

Copy 2 to :

P.O. No.	:	
Project No.	:	RALEIGH LAKE 533
No. of Samples	:	95 Rock
Date Submitted	:	23/10/00
Report Comprises	:	Cover Sheet plus Pages 1 to 3

Distribution of unused material:
Pulps: Store
Rejects: Store

Certified By :

Dr. Hugh de Souza, General Manager
XRAL Laboratories

ISO 9002 REGISTERED

Report Footer:

L.N.R.	= Listed not received	I.S.	= Insufficient Sample
n.a.	= Not applicable	--	= No result
*INF	= Composition of this sample makes detection impossible by this method		

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Work Order: 061619 **Date:** 09/11/00 **FINAL**

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
31753	115	12	30
31754	51	12	<10
31755	5	<5	15
31756	39	5	10
31757	65	<5	23
31758	63	15	14
31759	14	15	<10
31760	14	<5	12
31761	71	<5	23
31762	6	<5	29
31763	109	35	38
31764	37	<5	11
31765	37	<5	<10
31766	9	<5	34
31767	60	<5	16
31768	27	<5	12
31769	51	14	20
31770	73	13	33
31771	38	<5	13
31772	31	<5	<10
31773	8	<5	16
31848	20	<5	<10
31849	55	<5	15
31850	11	<5	<10
31851	93	10	17
31774	171	32	316
31775	56	<5	25
31776	66	18	<10
31777	66	<5	26
31778	24	7	16
31779	8	<5	15
31780	7	<5	75
31781	57	21	66
31782	11	<5	<10
31783	10	<5	<10
31784	31	24	32
31785	20	<5	<10
31786	63	<5	22
31787	64	<5	19
31788	64	<5	31
31789	8	<5	29
31790	8	<5	120
31791	5	<5	17
31792	27	<5	<10
31793	57	<5	133

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
31794	8	<5	31
31795	37	14	22
31796	9	<5	11
31797	63	16	31
31798	70	15	96
31799	16	27	70
31800	9	<5	118
31852	5	<5	10
31853	8	<5	<10
31854	28	14	18
31855	8	<5	<10
31856	6	<5	<10
31857	16	<5	<10
31858	9	10	<10
31859	144	9	12
31860	68	<5	16
31861	35	14	47
31862	6	<5	19
31863	8	<5	75
31864	7	<5	24
31865	39	<5	42
31866	90	37	125
31867	8	<5	91
31868	8	<5	98
31869	10	<5	20
31870	16	<5	39
31871	10	8	62
31872	10	<5	<10
31873	23	<5	<10
31874	5	<5	<10
31875	23	17	22
31876	32	<5	24
31877	17	8	17
31878	9	<5	22
31879	144	35	151
31880	10	<5	59
31881	8	<5	74
31882	5	<5	62
31883	132	27	253
31884	7	<5	23
31885	26	14	71
31886	43	<5	84
31887	85	<5	133
31888	15	<5	43
31889	22	9	112

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
31890	81	16	58
31891	16	<5	29
31892	16	<5	<10
31893	10	<5	25
31894	8	<5	15
*Dup 31753	114	11	28
*Dup 31765	37	<5	10
*Dup 31851	93	11	17
*Dup 31785	20	<5	<10
*Dup 31797	62	17	28
*Dup 31860	67	<5	16
*Dup 31872	11	<5	<10
*Dup 31884	7	<5	25

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ontario
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS

Work Order: 061733

To: **Avalon Ventures Ltd**
Attn: Chris Pedersen

851 Field Street
THUNDER BAY
ONTARIO, CANADA P7B 6B6

Date : 22/11/00

Copy 1 to :

Copy 2 to :

P.O. No.	:	
Project No.	:	533
No. of Samples	:	153 Rock
Date Submitted	:	01/11/00
Report Comprises	:	Cover Sheet plus Pages 1 to 4

Distribution of unused material:
Pulps: Store
Rejects: Store

Certified By :

Dr. Hugh de Souza, General Manager
XRAL Laboratories

ISO 9002 REGISTERED

Report Footer:

L.N.R.	= Listed not received	I.S.	= Insufficient Sample
n.a.	= Not applicable	--	= No result
*INF	= Composition of this sample makes detection impossible by this method		

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
31846	18	<5	14
31847	16	9	24
31895	17	<5	23
31896	14	<5	23
31897	6	<5	<10
31898	9	<5	13
31899	27	<5	<10
31900	22	<5	17
2001	50	19	53
2002	9	<5	40
2003	9	<5	65
2004	1400	1500	1210
2005	12	<5	34
2006	11	<5	29
2007	6	<5	14
2008	7	<5	11
2009	66	<5	64
2010	11	17	20
2011	134	26	247
2012	29	<5	17
2013	62	<5	29
2014	34	<5	16
2015	56	<5	29
2016	65	<5	20
2017	50	<5	25
2018	49	8	37
2019	25	<5	<10
2020	17	<5	<10
2021	99	<5	22
2022	70	5	30
2023	65	<5	23
2024	60	12	26
2025	37	12	101
2026	39	15	270
2027	116	9	163
2028	114	24	86
2029	25	<5	17
2030	4	<5	<10
2031	5	<5	16
2032	77	14	57
2033	16	<5	15
2034	74	<5	62
2035	27	<5	91
2036	11	<5	81
2037	30	9	234

Work Order: 061733 **Date:** 22/11/00 **FINAL**

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
31801	54	<5	11
31802	58	13	13
31803	62	<5	15
31804	7	<5	43
31805	47	<5	25
31806	42	12	51
31807	37	<5	19
31808	38	13	21
31809	55	<5	20
31810	34	<5	23
31811	58	10	16
31812	43	<5	28
31813	47	<5	27
31814	54	<5	34
31815	47	<5	16
31816	22	<5	20
31817	23	10	21
31818	34	7	25
31819	54	5	27
31820	63	<5	32
31821	40	<5	20
31822	14	<5	28
31823	50	<5	29
31824	4	<5	14
31825	31	12	34
31826	7	<5	13
31827	44	13	28
31828	53	<5	11
31829	19	<5	102
31830	54	<5	25
31831	60	<5	58
31832	8	8	22
31833	41	8	28
31834	17	5	<10
31835	66	<5	30
31836	61	11	35
31837	56	<5	10
31838	38	<5	28
31839	4	<5	29
31840	129	<5	83
31841	12	<5	21
31842	37	<5	34
31843	59	8	12
31844	78	18	27
31845	44	<5	16

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
2038	14	<5	27
2039	47	<5	203
2040	5	<5	18
2041	14	<5	807
2042	28	25	15
2043	5	8	12
2044	31	<5	41
2045	14	<5	<10
2046	74	11	26
2047	50	<5	20
2048	60	10	18
2049	53	<5	22
2050	47	<5	12
2051	6	<5	220
2052	<2	<5	19
2053	42	<5	71
2054	17	<5	95
2055	55	<5	53
2056	112	21	23
2057	62	9	<10
2058	37	<5	21
2059	9	<5	24
2060	35	6	38
2061	25	<5	52
2062	7	<5	42
2063	141	12	131
2064	6	<5	32
2065	17	<5	301
2066	3	<5	12
2067	6	10	92
2068	375	244	501
2069	11	<5	191
2070	232	38	105
2071	205	97	292
2072	6	<5	96
2073	152	44	144
2074	30	<5	139
2075	65	<5	25
2076	7	<5	16
2077	18	7	47
2078	6	<5	31
2079	12	<5	<10
2080	19	6	14
2081	7	<5	<10
2082	11	<5	<10

Work Order: 061733 **Date:** 22/11/00 **FINAL**

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
2083	7	<5	<10
2084	9	<5	21
2085	6	<5	12
2086	14	<5	15
2087	14	<5	20
2088	14	<5	13
2089	26	6	66
2090	9	<5	35
2091	37	<5	<10
2092	39	<5	32
2093	15	<5	33
2094	20	<5	17
2095	10	7	<10
2096	10	<5	<10
2097	27	<5	31
2098	83	28	132
2099	33	<5	177
2100	8	<5	70
*Dup 31801	54	<5	16
*Dup 31813	48	<5	25
*Dup 31825	32	12	27
*Dup 31837	56	<5	<10
*Dup 31896	14	<5	14
*Dup 2008	7	<5	<10
*Dup 2020	17	<5	<10
*Dup 2032	75	15	52
*Dup 2044	31	<5	43
*Dup 2056	110	19	17
*Dup 2068	375	245	477
*Dup 2080	19	8	21
*Dup 2092	39	<5	41

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ontario
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS

Work Order: 061734

To: **Avalon Ventures Ltd**
Attn: Chris Pedersen

851 Field Street
THUNDER BAY
ONTARIO, CANADA P7B 6B6

Date : 15/11/00

Copy 1 to :

Copy 2 to :

P.O. No.	:	
Project No.	:	533
No. of Samples	:	147 Rock
Date Submitted	:	01/11/00
Report Comprises	:	Cover Sheet plus Pages 1 to 4

Distribution of unused material:
Pulps: Store
Rejects: Store

Certified By :

Dr. Hugh de Souza, General Manager
XRAL Laboratories

ISO 9002 REGISTERED

Report Footer:
L.N.R. = Listed not received
I.S. = Insufficient Sample
n.a. = Not applicable
-- = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Work Order: 061734 **Date:** 15/11/00 **FINAL**

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
2108	5	<5	34
2109	46	10	26
2110	80	8	39
2111	254	33	445
2114	16	<5	95
2116	26	13	<10
2117	34	<5	63
2118	27	<5	55
2119	21	<5	36
2120	33	<5	26
2121	18	21	27
2122	7	7	21
2123	29	<5	20
2124	28	5	13
2125	4	<5	37
2126	5	<5	24
2127	9	<5	10
2128	15	<5	142
2129	6	<5	29
2130	57	12	120
2131	17	21	43
2132	7	<5	<10
2133	16	<5	51
2134	48	18	54
2135	35	<5	36
2136	44	<5	23
2137	50	7	66
2138	212	41	220
2140	29	16	32
2141	142	39	292
2142	21	8	31
2143	6	<5	17
2144	6	<5	<10
2145	6	<5	<10
2146	4	<5	25
2147	5	<5	51
2148	13	<5	102
2150	33	<5	73
2151	6	<5	21
2152	8	<5	<10
2153	7	<5	<10
2154	10	<5	20
2155	29	<5	19
2156	63	25	137
2157	8	<5	46

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
2158	19	19	<10
2159	11	<5	37
2160	6	<5	<10
2161	80	<5	56
2162	21	<5	44
2163	9	<5	32
2165	31	<5	42
2166	100	16	114
2167	39	<5	33
2168	37	64	54
2169	62	16	43
2170	69	6	19
2171	38	<5	14
2172	24	8	78
2173	90	<5	88
2174	28	<5	37
2175	94	8	243
2176	38	<5	50
2177	457	217	726
2178	5	15	20
2179	4	<5	25
2180	6	<5	19
2181	5	<5	21
2182	6	<5	21
2184	28	11	105
2185	130	8	385
2186	97	42	149
2187	412	131	762
2188	7	<5	20
2189	89	18	101
2190	67	<5	124
2251	30	<5	19
2252	40	<5	27
2253	45	<5	52
2254	77	20	53
2255	36	<5	109
2256	20	8	58
2257	9	<5	222
2258	7	<5	38
2259	18	<5	59
2260	8	<5	86
2261	6	6	104
2262	17	<5	42
2263	10	<5	27
2264	11	<5	13

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
2265	16	<5	12
2266	16	<5	<10
2267	11	<5	13
2268	10	<5	11
2269	9	<5	<10
2270	12	<5	16
2271	22	<5	18
2272	21	<5	23
2273	6	<5	28
2274	44	<5	31
2275	6	<5	26
2276	44	15	138
2277	24	6	99
2278	101	27	264
2279	64	7	43
2280	78	<5	106
2281	20	11	32
2282	81	12	30
2283	53	7	23
2284	54	<5	26
2285	48	<5	23
2286	31	<5	<10
2287	58	16	69
2288	31	<5	94
2289	57	<5	49
2290	38	17	67
2292	46	<5	107
2294	7	6	45
2295	54	17	115
2296	128	<5	106
2297	54	7	21
2298	6	12	17
2299	5	<5	10
2300	24	<5	27
2301	7	<5	<10
2302	28	<5	21
2303	9	14	<10
2304	5	<5	<10
2305	12	<5	25
2306	5	<5	<10
2307	7	<5	<10
2308	2	9	11
2309	10	<5	15
2310	3	<5	22
2312	4	<5	289

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
2313	136	5	174
2315	53	<5	14
2316	204	114	1030
2317	80	<5	283
2318	30	<5	118
2319	74	17	179
2101	90	<5	17
2102	48	11	50
2103	36	<5	45
2104	365	29	438
2106	66	46	355
2107	56	<5	92
*Dup 2108	5	<5	31
*Dup 2123	31	<5	19
*Dup 2135	35	<5	33
*Dup 2148	14	<5	96
*Dup 2161	80	<5	53
*Dup 2174	29	<5	39
*Dup 2187	412	134	726
*Dup 2259	17	<5	64
*Dup 2271	22	<5	20
*Dup 2283	52	8	25
*Dup 2297	55	6	20
*Dup 2309	10	<5	16
*Dup 2104	365	27	411

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ontario
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS

Work Order: 061744

To: **Avalon Ventures Ltd**
Attn: **Chris Pedersen**

851 Field Street
THUNDER BAY
ONTARIO, CANADA P7B 6B6

Date : 22/11/00

Copy 1 to :

Copy 2 to :

P.O. No.	:	
Project No.	:	533
No. of Samples	:	162 Rock
Date Submitted	:	02/11/00
Report Comprises	:	Cover Sheet plus Pages 1 to 4

Distribution of unused material:
Pulps: Store
Rejects: Store

Certified By :

Dr. Hugh de Souza, General Manager
XRAL Laboratories

ISO 9002 REGISTERED

Report Footer:

L.N.R.	= Listed not received	I.S.	= Insufficient Sample
n.a.	= Not applicable	--	= No result
*INF	= Composition of this sample makes detection impossible by this method		

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Work Order: 061744 **Date:** 22/11/00 **FINAL**

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
2320	97	31	85
2321	79	30	109
2322	82	<5	36
2323	23	<5	<10
2324	7	<5	28
2325	9	9	<10
2326	6	<5	14
2327	4	12	10
2328	8	<5	14
2329	8	<5	33
2330	5	<5	20
2331	4	<5	21
2332	9	<5	24
2333	88	25	39
2334	140	20	<10
2335	6	<5	<10
2336	21	<5	<10
2337	25	<5	<10
2338	16	<5	14
2339	83	<5	65
2340	94	<5	46
2341	29	<5	25
2342	28	<5	28
2343	26	<5	40
2344	21	<5	41
2345	7	<5	18
2346	7	<5	11
2347	56	<5	21
2348	39	12	11
2349	53	<5	18
2350	104	19	194
2351	120	26	<10
2352	43	<5	83
2353	125	29	159
2354	40	<5	38
2355	67	<5	45
2356	49	<5	42
2357	7	11	16
2358	8	<5	12
2359	6	<5	25
2360	40	<5	17
2361	39	<5	15
2362	26	<5	111
2363	33	<5	148
2365	24	<5	100

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
2366	16	<5	141
2367	15	<5	16
2368	8	<5	13
2369	26	<5	<10
2370	11	<5	<10
2371	41	<5	12
2372	27	15	77
2373	58	<5	24
2374	20	<5	44
2375	37	34	73
2376	7	5	40
2377	90	<5	104
2378	60	<5	96
2379	222	340	172
2380	42	<5	26
2381	73	22	126
2382	6	20	28
2383	67	13	128
2384	38	<5	92
2385	57	<5	117
2386	53	5	28
2387	57	<5	19
2388	28	<5	16
2389	5	5	15
2390	8	5	55
2391	27	<5	190
2392	6	<5	42
2393	43	<5	132
2201	10	<5	51
2202	9	<5	90
2203	15	<5	31
2204	8	<5	19
2205	6	<5	21
2206	26	<5	13
2207	20	<5	14
2208	5	<5	12
2209	10	<5	<10
2210	4	<5	23
2211	4	<5	14
2212	44	<5	96
2213	48	9	582
2214	23	12	202
2215	12	<5	21
2216	62	17	40
2217	52	22	26

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
2218	24	13	58
2219	37	<5	30
2220	29	<5	15
2221	10	<5	21
2222	39	10	108
2223	75	38	444
2224	58	<5	45
2225	32	<5	16
2226	91	25	54
2227	22	<5	82
2228	12	<5	165
2191	9	<5	186
2192	15	<5	117
2193	11	<5	18
2194	13	<5	<10
2195	61	14	54
2196	27	<5	40
2197	31	5	60
2198	82	81	559
2199	24	<5	33
2200	62	<5	15
2402	19	<5	100
2403	32	12	30
2404	68	<5	11
2405	42	<5	20
2406	72	<5	114
2407	21	11	146
2409	628	497	321
2410	71	38	106
2412	37	9	118
2413	21	<5	38
2414	5	16	11
2415	8	<5	<10
2416	6	<5	<10
2417	69	18	30
2418	12	7	<10
2419	20	<5	22
2420	12	<5	<10
2421	73	117	28
2422	57	<5	31
2423	27	<5	<10
2424	5	<5	13
2425	7	<5	<10
2426	47	<5	31
2427	10	<5	21

Element.	Rb	Cs	Li
Method.	XRF7	XRF7	ICP90
Det.Lim.	2	5	10
Units.	ppm	ppm	ppm
2428	125	14	<10
2429	69	<5	43
2430	7	<5	11
2431	10	<5	13
2432	6	<5	<10
2433	9	<5	<10
2434	17	<5	33
2435	8	<5	21
2436	53	8	13
2437	1630	79	<10
2438	1480	46	13
2451	380	66	103
2452	5	<5	16
2453	55	<5	19
2454	51	16	14
2455	29	28	28
2456	41	<5	18
2457	41	<5	62
2458	1060	80	<10
2459	55	10	115
2460	83	<5	166
2461	42	<5	22
2462	43	10	10
2463	46	<5	<10
2466	13	<5	<10
2467	7	<5	12
2468	8	<5	<10
*Dup 2320	98	29	73
*Dup 2332	9	<5	16
*Dup 2344	21	<5	35
*Dup 2356	49	<5	37
*Dup 2369	25	<5	11
*Dup 2381	74	22	118
*Dup 2393	43	<5	126
*Dup 2212	44	<5	87
*Dup 2224	59	5	52
*Dup 2198	83	83	512
*Dup 2413	22	<5	32
*Dup 2425	7	<5	12
*Dup 2437	1630	77	<10
*Dup 2461	42	<5	25

Appendix 2

Sample Locations and
Assay Certificates (XRAL Laboratories)
Pegmatite Samples

RALEIGH LAKE PEGMATITE SAMPLES - 2000 PROGRAM

Sample	Easting	Northing	North Line	East Station	Location	Cc	Rb XRF7 ppm	Cs XRF7 ppm	Ta XRF7 ppm	Nb XRF7 ppm	Sn XRF7 ppm	Li ICP90 ppm	Descrip1	Width
30890	578099.1	5470367.8	1810	6985	L18	##	1040	54	55	48	-5	-10	Kspar,qtz,musc?	20cm
30950	577680.3	5470713.8	2200	6545	L22	##	1820	167	182	69	-5	-10	Kspar,musc,qtz,fluorite?	1m
31670	574000.3	5473901.1			far west	##	1210	88	140	57	-5	19	kspar,musc,peg-Gr	3m (min);shal. Dip east
31713	576136.5	5471770	3210	5025	L32	##	1500	87	79	88	-5	57	alb,Kspar,musc,qtz,grt	0.2m
2105	575177.2	5473723.9	5205	4065	L52	##	908	68	61	61	-5	52	kspar,musc,qtz,alb,spod	0.3m
2112	575616.1	5473735.9	5207	4510	L52	##	822	31	82	58	-5	35	alb,kspar,qtz,musc	1m
2113	575618.0	5473733.5	5210	4505	L52	##	552	41	76	36	-5	22	alb,kspar,qtz,musc	.5m
2115	575613.5	5473780	5240	4510	L52+40	##	480	27	148	50	-5	42	alb,musc,Kspar,qtz	.8m
2139	576003.6	5475760.3	7195	4900	L72	##	983	29	122	83	5	16	alb,musc,qtz	.3-.5m
2149	576514.1	5475670.2	7090	5430	L71	##	115	13	68	60	5	17	cleav,qtz,musc,oxides?	.3m;subvert,pod?
2164	576092.1	5476020.4	7450	4980	L74+50	##	78	26	116	72	-5	18	aplite-Gt,qtz,musc,ox?,phos?	.15m
2183	576251.5	5474994.3	6440	5135	Johnson	##	981	83	125	95	-5	5770	alb,kspar,**spod**,qtz,col-tan,grt	9.m(min) shallow dipping pod?
2229	575799.8	5473819.5	5275	4700	52+75N	##	445	52	89	52	-5	107	qtz,Kspar,alb,musc	.2m
2230	575810.0	5473811.3	5260	4715	52+75N	##	560	31	79	64	-5	71	alb,kspar,qtz,spod,musc bould.	boulder?
2291	575998.2	5475140.5	6600	4895	L66	##	1080	68	67	107	-5	104	qtz,mica	.4m
2293	576016.8	5475201.6	6650	4910	L66	##	1160	27	133	81	-5	57	albite	2-5m
2311	576252.2	5475055.8	6510	5155	Johnson	##	5340	239	62	99	6	197	Kspar,musc,alb,qtz	3m (min)
2314	576179.7	5475040.4	6490	5080	Johnson	##	729	56	216	71	-5	49	alb,musc,Kspar	1m(min)
2334	577477.8	5473687.4	5100	6390	L51	##	140	20	-5	13	5	-10	bte,musc Granite	large outcrop
2351	575794.2	5474529.3	5985	4695	L60	##	120	26	204	76	-5	-10	peg dyke, kspars, 010/E	30cm
2364	576650.9	5474347.4	5795	5540	L58	##	909	83	79	46	-5	11	alb,musc,k-spar,qtz	20cm
2401	575233.4	5473799.2	5260	4175	52+60N	##	1080	55	141	52	-5	18	alb,Kspar,**spod**,musc,qtz,ox	.6m
2408	575727.2	5473664.1	5100	4620	L51	##	99	31	122	41	5	32	alb,Kspar,qtz	8 cm
2411	575794.4	5473671.5	5100	4680	L51	##	10	-5	-5	6	-5	32	green aplitic granite dyke	.8m
2437	576216.1	5476282.2	north of Line 74		stop3	##	1630	79	92	53	5	-10	cleav,qtz,kspar,green musc	1m
2438	575621.9	5476744	north of Line 74		stop4	##	1480	46	59	57	-5	13	Kspar,alb,qtz,musc	30 cm
2451	576521.2	5472068.8	3550	5420		##	380	66	175	40	5	103	peg vein, silver mica	5-15cm
2458	575877.6	5474633.6			prospecting	##	1060	80	115	111	-5	-10	peg vein	30cm
2464	578164.6	5469980.5			prospecting	##	862	46	40	74	-5	-10	20cm peg vein in 2 boulders	20cm
2465	577490.0	5469851.6			prospecting	##	468	-5	52	69	5	-10	?peg vein?albite	15cm
2469	577992.6	5470517.2			prospecting	##	912	106	161	60	-5	-10	opaques,mica,alb,spod?	10-15cm
2470	577972.1	5470484.1			prospecting	##	1100	238	181	67	5	61	peg dyke	6cm
2471	578108.4	5469114.2			prospecting	##							aplite?dyke--no sample	

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ontario
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS

Work Order: 061768

To: **Avalon Ventures Ltd**
Attn: **Chris Pedersen**

851 Field Street
THUNDER BAY
ONTARIO, CANADA P7B 6B6

Date : 22/11/00

Copy 1 to :

Copy 2 to :

P.O. No. :
Project No. : 533
No. of Samples : 16 Rock
Date Submitted : 06/11/00
Report Comprises : Cover Sheet plus
Pages 1 to 1

Distribution of unused material:
Pulps: Store
Rejects: Store

Certified By :

Dr. Hugh de Souza, General Manager
XRAL Laboratories

ISO 9002 REGISTERED

Report Footer:
L.N.R. = Listed not received
I.S. = Insufficient Sample
n.a. = Not applicable
-- = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

XRAL Laboratories
A Division of SGS Canada Inc.

Work Order: 061768 **Date:** 22/11/00 **FINAL**

Element.	Rb	Cs	Ta	Nb	Sn	Li
Method.	XRF7	XRF7	XRF7	XRF7	XRF7	ICP90
Det.Lim.	2	5	5	2	5	10
Units.	ppm	ppm	ppm	ppm	ppm	ppm
30890	1040	54	55	48	<5	<10
30950	1820	167	182	69	<5	<10
31670	1210	88	140	57	<5	19
31713	1500	87	79	88	<5	57
2105	908	68	61	61	<5	52
2112	822	31	82	58	<5	35
2113	552	41	76	36	<5	22
2115	480	27	148	50	<5	42
2139	983	29	122	83	5	16
2149	115	13	68	60	5	17
2164	78	26	116	72	<5	18
2183	981	83	125	95	<5	5770
2291	1080	68	67	107	<5	104
2293	1160	27	133	81	<5	57
2314	729	56	216	71	<5	49
2311	5340	239	62	99	6	197
*Dup 30890	1040	52	56	48	<5	<10
*Dup 2291	1080	66	68	107	<5	96

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ontario
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS

Work Order: 061769

To: **Avalon Ventures Ltd**
Attn: Chris Pedersen

851 Field Street
THUNDER BAY
ONTARIO, CANADA P7B 6B6

Date : 22/11/00

Copy 1 to :

Copy 2 to :

P.O. No.	:	
Project No.	:	533
No. of Samples	:	10 Rock
Date Submitted	:	02/11/00
Report Comprises	:	Cover Sheet plus Pages 1 to 1

Distribution of unused material:
Pulps: Store
Rejects: Store

Certified By :

Dr. Hugh de Souza, General Manager
XRAL Laboratories

ISO 9002 REGISTERED

Report Footer:

L.N.R.	= Listed not received	I.S.	= Insufficient Sample
n.a.	= Not applicable	--	= No result
*INF	= Composition of this sample makes detection impossible by this method		

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

XRAL Laboratories
A Division of SGS Canada Inc.

Work Order: 061769 **Date:** 22/11/00 **FINAL**

Element.	Rb	Cs	Ta	Nb	Sn	Li
Method.	XRF7	XRF7	XRF7	XRF7	XRF7	ICP90
Det.Lim.	2	5	5	2	5	10
Units.	ppm	ppm	ppm	ppm	ppm	ppm
2229	445	52	89	52	<5	107
2230	560	31	79	64	<5	71
2401	1080	55	141	52	<5	18
2408	99	31	122	41	5	32
2411	10	<5	<5	6	<5	32
2364	909	83	79	46	<5	11
2464	862	46	40	74	<5	<10
2465	468	<5	52	69	5	<10
2469	912	106	161	60	<5	<10
2470	1100	238	181	67	5	61
*Dup 2229	444	50	90	51	5	99

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ontario
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS

Work Order: 062002

To: **Avalon Ventures Ltd**
Attn: Chris Pedersen

851 Field Street
THUNDER BAY
ONTARIO, CANADA P7B 6B6

Date : 14/12/00

Copy 1 to :

Copy 2 to :

P.O. No.	:	POH#062002
Project No.	:	533
No. of Samples	:	6 Rock
Date Submitted	:	23/11/00
Report Comprises	:	Cover Sheet plus Pages 1 to 1

Distribution of unused material:
Pulps: Store
Rejects: Store

Certified By :

per Dr. Hugh de Souza, General Manager
XRAL Laboratories

ISO 9002 REGISTERED

Report Footer:

L.N.R.	= Listed not received	I.S.	= Insufficient Sample
n.a.	= Not applicable	--	= No result
*INF	= Composition of this sample makes detection impossible by this method		

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

XRAL Laboratories
A Division of SGS Canada Inc.

Work Order: 062002 **Date:** 14/12/00 **FINAL**

Element.	Ta	Nb	Sn
Method.	XRF7	XRF7	XRF7
Det.Lim.	5	2	5
Units.	ppm	ppm	ppm
2334	<5	13	5
2351	204	76	<5
2437	92	53	5
2438	59	57	<5
2451	175	40	5
2458	115	111	<5
*Dup 2334	<5	13	5

Appendix 3

Sample Locations and Assay Certificates (XRAL Laboratories) Whole Rock Samples

RALEIGH LAKE WHOLE ROCK SAMPLES - 2000 PROGRAM

Sample	Name	ZoneNum	ZoneChar	Easting	Northing	Comment
30851	30851			577100.0	5475400.0	
30852	30852	15	U	577291.1	5476433.9	15/09/00 18:53
30853	30853	15	U	577291.1	5476433.9	15/09/00 18:53

Work Order 061742

Sample Ider	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	Sum
Scheme Co	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102
Analysis Uni	%	%	%	%	%	%	%	%	%	%	%	%	%
Detection Li	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.01	0.01	0.0	0.01
30851	69.1	15.5	2.47	1.08	5.22	2.78	2.42	0.03	0.347	0.14	0.01	0.65	100.1
30852	63.4	15.4	0.22	0.05	4.21	5.39	0.54	0.05	0.034	-0.01	0.02	0.5	90.1
30853	66.7	15.7	3.96	2.17	4	2.25	3.79	0.07	0.396	0.17	0.02	1.05	100.5
DUP-30851	69.2	15.5	2.48	1.08	5.24	2.78	2.43	0.03	0.345	0.14	0.01	0.7	100.2

Rb	Sr	Y	Nb	Ba	Zr	Cs	Li
XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF7	ICP90
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
2	2	2	2	20	2	5	10
70	842	9	10	1160	142	-5	32
3150	69	152	182	151	-2	386	333
164	685	14	11	991	120	167	1210
70	842	9	9	1160	140	-5	29

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ontario
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS

Work Order: 061742

To: **Avalon Ventures Ltd**
Attn: **Ian Campbell**

851 Field Street
THUNDER BAY
ONTARIO, CANADA P7B 6B6

Date : 15/11/00

Copy 1 to :

Copy 2 to :

P.O. No.	:	
Project No.	:	533
No. of Samples	:	3 Rock
Date Submitted	:	02/11/00
Report Comprises	:	Cover Sheet plus Pages 1 to 2

Distribution of unused material:
Pulps: Store
Rejects: Store

Certified By :

per Dr. Hugh de Souza, General Manager
XRAL Laboratories

ISO 9002 REGISTERED

Report Footer:

L.N.R.	= Listed not received	I.S.	= Insufficient Sample
n.a.	= Not applicable	--	= No result
*INF	= Composition of this sample makes detection impossible by this method		

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

XRAL Laboratories
A Division of SGS Canada Inc.

Work Order: 061742 **Date:** 15/11/00 **FINAL**

Element.	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	Sum	Rb	Sr	Y
Method.	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102	XRF102
Det.Lim.	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.01	0.01	0.01A	0.01	2	2	2
Units.	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm
30851	69.1	15.5	2.47	1.08	5.22	2.78	2.42	0.03	0.347	0.14	0.01	0.65	100.1	70	842	9
30852	63.4	15.4	0.22	0.05	4.21	5.39	0.54	0.05	0.034	<0.01	0.02	0.50	90.1	3150	69	152
30853	66.7	15.7	3.96	2.17	4.00	2.25	3.79	0.07	0.396	0.17	0.02	1.05	100.5	164	685	14
*Dup 30851	69.2	15.5	2.48	1.08	5.24	2.78	2.43	0.03	0.345	0.14	0.01	0.70	100.2	70	842	9

Work Order: 061742 **Date:** 15/11/00 **FINAL**

Element.	Nb	Ba	Zr	Cs	Li
Method.	XRF102	XRF102	XRF102	XRF7	ICP90
Det.Lim.	2	20	2	5	10
Units.	ppm	ppm	ppm	ppm	ppm
30851	10	1160	142	<5	32
30852	182	151	<2	386	333
30853	11	991	120	167	1210
*Dup 30851	9	1160	140	<5	29

Work Report Summary

Transaction No: W0110.30448 **Status:** APPROVED
Recording Date: 2001-JUL-12 **Work Done from:** 2000-SEP-01
Approval Date: 2001-NOV-02 **to:** 2000-DEC-19

Client(s):

109716	BOND, JAMES EDWARD
130646	FAIRSERVICE, ROBERT JOHN
149509	JOHNSON, SHERRIDON PATRICK
301086	AVALON VENTURES LTD.

Survey Type(s):

ASSAY GCHEM LC

Work Report Details:

Claim#	Perform	Perform Approve	Applied	Applied Approve	Assign	Assign Approve	Reserve	Reserve Approve	Due Date
K 1133503	$9,265	$8,693	$3,200	$3,200	$3,065	5,493	$3,000	$0	2003-JUN-13
K 1163296	$12,275	$11,518	$3,200	$3,200	$3,460	3,460	$5,615	$4,858	2003-JAN-29
K 1166892	$2,760	$2,590	$1,600	$1,600	$1,160	990	$0	$0	2003-FEB-12
K 1166893	$0	$0	$1,600	$1,600	$0	0	$0	$0	2003-FEB-12
K 1178331	$8,290	$7,779	$1,600	$1,600	$2,000	2,000	$4,690	$4,179	2002-NOV-13
K 1178890	$6,980	$6,549	$3,200	$3,200	$1,780	2,073	$2,000	$1,276	2002-AUG-18
K 1220601	$6,005	$5,635	$1,600	$1,600	$0	0	$4,405	$4,035	2003-APR-08
K 1220602	$5,060	$4,748	$3,200	$3,200	$0	0	$1,860	$1,548	2003-APR-08
K 1220924	$5,105	$4,790	$6,400	$6,400	$0	0	$0	$0	2002-JUL-14
K 1220926	$390	$366	$6,400	$6,400	$0	0	$0	$0	2002-JUL-14
K 1220931	$7,115	$6,676	$6,400	$6,400	$715	276	$0	$0	2002-JUL-14
K 1220934	$995	$934	$0	$0	$995	934	$0	$0	2001-JUL-14
K 1220935	$550	$516	$0	$0	$550	516	$0	$0	2001-JUL-14
K 1220936	$0	$0	$6,400	$6,400	$0	0	$0	$0	2002-JUL-14
K 1220981	$7,275	$6,826	$6,400	$6,400	$875	426	$0	$0	2002-AUG-18
K 1220982	$7,920	$7,431	$6,400	$6,400	$1,520	1,031	$0	$0	2002-AUG-18
K 1220983	$1,420	$1,332	$3,200	$3,200	$0	0	$0	$0	2002-AUG-18
K 1220984	$4,500	$4,222	$0	$0	$4,500	4,222	$0	$0	2001-AUG-18
K 1220987	$415	$389	$0	$0	$415	389	$0	$0	2001-AUG-18
K 1239747	$0	$0	$6,400	$6,400	$0	0	$0	$0	2002-SEP-01
K 1239748	$1,195	$1,121	$3,200	$3,200	$0	0	$0	$0	2002-SEP-01
K 1239749	$2,970	$2,787	$0	$0	$2,970	2,787	$0	$0	2001-SEP-10
K 1239752	$705	$662	$0	$0	$705	662	$0	$0	2001-SEP-10
K 1239753	$780	$732	$0	$0	$780	732	$0	$0	2001-SEP-10
	$91,970	$86,296	$70,400	$70,400	$25,490	$25,991	$21,570	$15,896	

Status of claim is based on information currently on record.

52G05NW2004 2.21766 RALEIGH LAKE 900

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

GEOSCIENCE ASSESSMENT OFFICE
933 RAMSEY LAKE ROAD, 6th FLOOR
SUDBURY, ONTARIO
P3E 6B5

Tel: (888) 415-9845
Fax:(877) 670-1555

Date: 2001-NOV-14

AVALON VENTURES LTD.
851 FIELD STREET
THUNDER BAY, ONTARIO
P7B 6B6 CANADA

Submission Number: 2.21766
Transaction Number(s): W0110.30448

Dear Sir or Madam

Subject: Approval of Assessment Work

We have approved your Assessment Work Submission with the above noted Transaction Number(s). The attached Work Report Summary indicates the results of the approval.

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

We received your expenditure verification on October 31, 2001. Please note only a detailed breakdown of expenditures for the $7,450 in field equipment and supplies was requested. It remains difficult to determine the field supplies used. Eligible expenses are listed in section 3(1) of the Assessment Work Regulation. Food and lodging, and transportation costs have been allowed as originally reported. The invoices were referred to for expenses relating to 3(1)(c) supplies used and equipment rental. Costs should be eligible under section 3(1) and directly related to the field work performed in September and October 2000. Office supplies associated with the maintenance of a permanent office, auto insurance, purchase of assets such as filing cabinets, GPS units, Geotuls, etc. are not eligible.

The invoice for Rees of September $2,700 only contained detailed page 2 of 2 for $125.

From the information provided $1,839 is eligible as supplies and field equipment. This includes $521 listed as hardware only, telephone for Oct/Nov/Dec., $200 in copying charges, $670 in field supplies.

This is a reduction of $5,701.00. The TOTAL VALUE of assessment credit that will be allowed, based on the information provided in this submission, is $86,269.00.

If you have any question regarding this correspondence, please contact BRUCE GATES by email at bruce.gates@ndm.gov.on.ca or by phone at (705) 670-5856.

Yours Sincerely,

Ron Gashinski
Supervisor, Geoscience Assessment Office

Cc: Resident Geologist Assessment File Library

James Edward Bond
(Claim Holder)

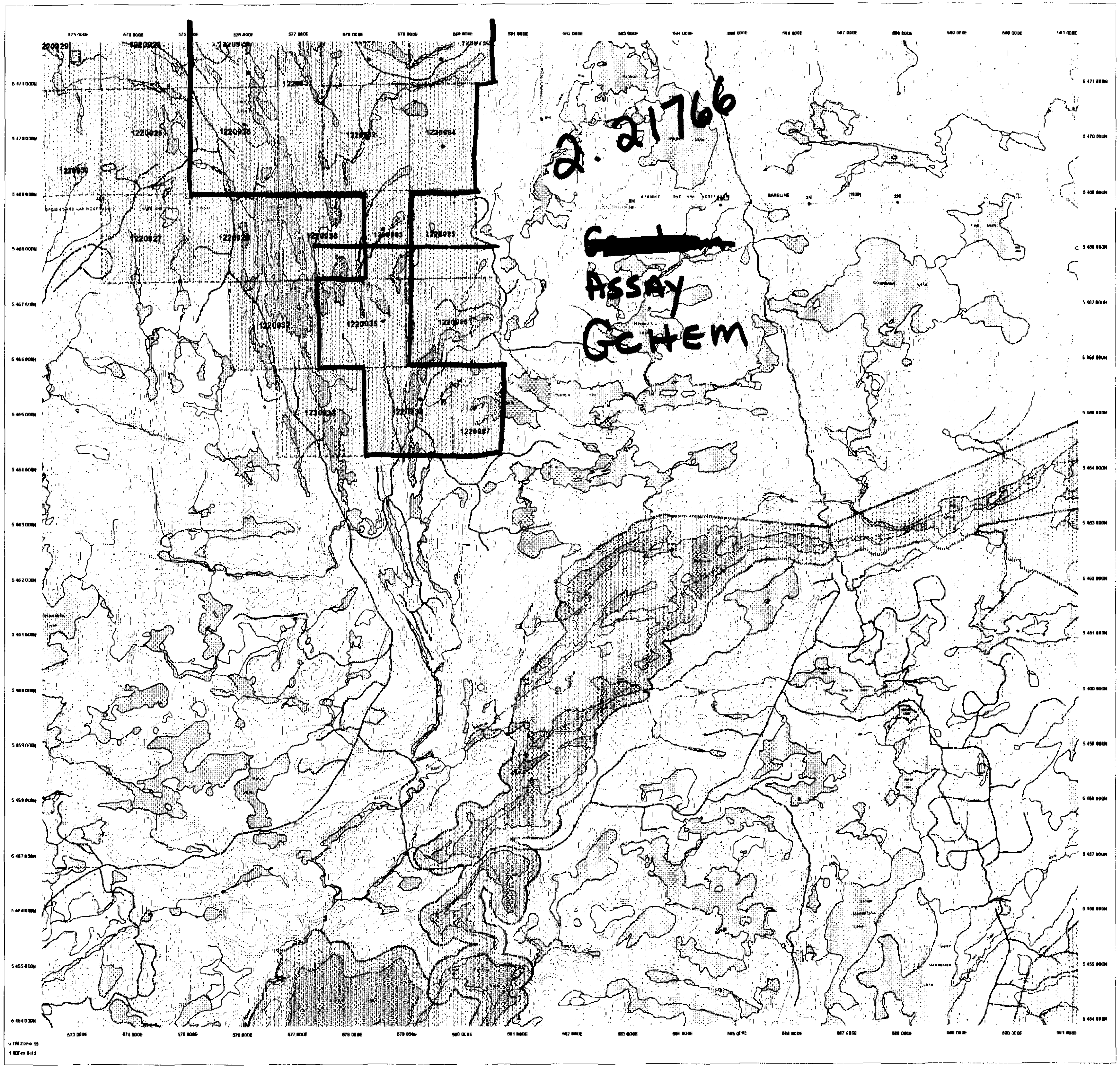
Sherridon Patrick Johnson
(Claim Holder)

Avalon Ventures Ltd.
(Assessment Office)

Robert John Fairservice
(Claim Holder)

Avalon Ventures Ltd.
(Claim Holder)

52G05NW2004 2.21766 RALEIGH LAKE 200



MINISTRY OF NORTHERN DEVELOPMENT AND MINES
PROVINCIAL MINING RECORDER'S OFFICE

MINING LAND TENURE MAP

Date / Time of Issue	Jul 13 2001	09:43h Eastern
TOWNSHIP / AREA		PLAN
BALMORAL LAKE A		G-2530

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division	Kenora
Land Titles/Registry Division	KENORA
Ministry of Natural Resources District	DRYDEN

TOPOGRAPHIC

- Administrative Boundaries
- Township
- Concession, Lot
- Provincial Park
- Indian Reserve
- Cliff, Pit and Pile
- Contour
- Contour - Approx. auxiliary, Depression
- Shaft
- Mine Headframe
- Railway
- Road
- Trail
- Natural Gas Pipeline
- Hydro Line
- Communication Line
- Wooded Area
- Monument - Cadastral, Historical, Horiz. Control

LAND TENURE

Freehold Patent
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only

Leasehold Patent
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only

Licence of Occupation
- Use not Specified
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only

- Land Use Permit
- Order In Council
- Water Power Lease Agreement
- Mining Claim

LAND TENURE WITHDRAWALS

Areas Withdrawn from Disposition
Mining Act Withdrawal Types
- Wsm Surface and Mining Rights Withdrawn
- Ws Surface Rights Only Withdrawn
- Wm Mining Rights Only Withdrawn

Order In Council Withdrawal Types
- W*sm Surface and Mining Rights Withdrawn
- W*s Surface Rights Only Withdrawn
- W*m Mining Rights Only Withdrawn

IMPORTANT NOTICES

0 Km 5.0 Km

LAND TENURE WITHDRAWAL DESCRIPTIONS

Identifier	Type	Date	Description
2863	Wsm	Jan 1 2001	LONG TERM AGGREGATE PERMIT
W-LL-P2304	Wsm	May 17 1999	Sec. 35 W-LL-P2304/99 ONT MAY 17/99 M.& S
W-LL-P2304	Wsm	May 17 1999	SEC.35 W-LL-P2304/99 ONT MAY 17/99 M+S
W-LL-C2298	Wsm	May 13 1999	SEC.35 W-LL-C2298/99 ONT MAY 13/99 M+S
W-73/93	Wsm	Feb 13 1993	PARK RESERVE W-73/93 M.R.&S.R. 2/13/93 108521

IMPORTANT NOTICES

Areas under which special regulations, limitations or conditions exist that affect normal prospecting, staking and mineral development activities.

Those wishing to stake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown hereon. This map is not intended for navigational, survey, or land title determination purposes as the information shown on this map is compiled from various sources. Completeness and accuracy are not guaranteed. Additional information may also be obtained through the local Lands Titles or Registry Office, or the Ministry of Natural Resources.

The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Northern Development and Mines web site.

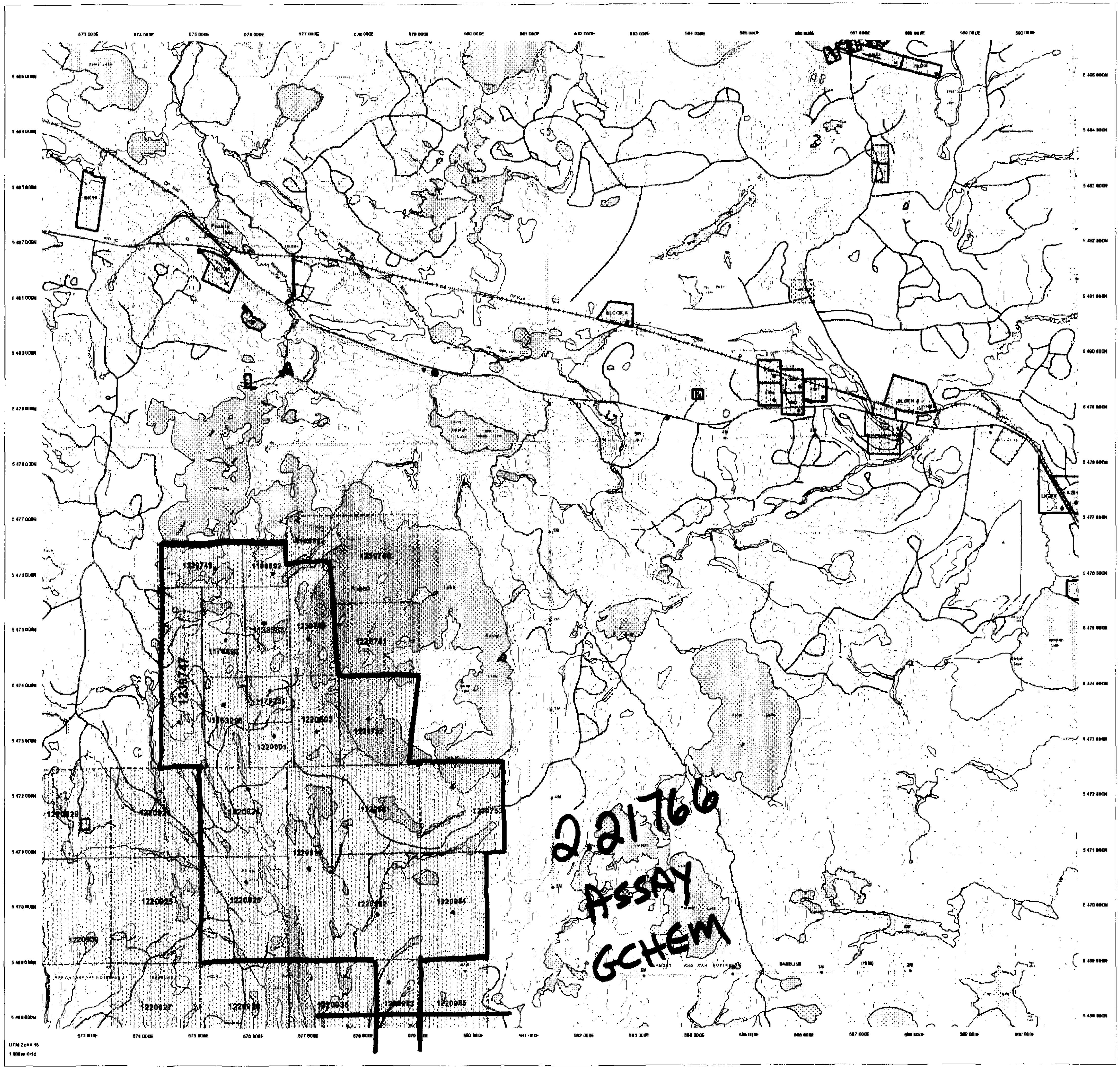
General Information and Limitations

Contact Information:
Provincial Mining Recorders' Office
Willet Green Miller Centre
933 Ramsey Lake Road
Sudbury, ON P3E 6B5
Home Page: www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

Toll Free
Tel: 1 (888) 415-9845
Fax: 1 (877) 670-1444

Map Datum: NAD 83
Projection: UTM (6 degree)
Topographic Data Source: Land Information Ontario
Mining Land Tenure Source: Provincial Mining Recorders' Office

This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licences, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.



MINISTRY OF NORTHERN DEVELOPMENT AND MINES
PROVINCIAL MINING RECORDER'S OFFICE

MINING LAND TENURE MAP

Date / Time of Issue Jul 13 2001 09:04h Eastern

TOWNSHIP / AREA: OSAQUAN
PLAN: G-1320

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division	Kenora
Land Titles/Registry Division	KENORA
Ministry of Natural Resources District	DRYDEN

TOPOGRAPHIC

- Administrative Boundaries
- Township
- Concession, Lot
- Provincial Park
- Indian Reserve
- Cliff, Pit and Pile
- Contour
- Contour - Approx., Auxiliary, Depression
- Shaft
- Mine Headframe
- Railway
- Road
- Trail
- Natural Gas Pipeline
- Hydro Line
- Communication Line
- Wooded Area
- Monument - Cadastral, Historical, Horiz. Control

LAND TENURE

Freehold Patent
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only

Leasehold Patent
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only

Licence of Occupation
- Land Not Specified
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only

- Land Use Permit
- Order In Council
- Water Power Lease Agreement
- Mining Claim

LAND TENURE WITHDRAWALS

Areas Withdrawn from Disposition
Mining Act Withdrawal Types
- Wsm Surface and Mining Rights Withdrawn
- Ws Surface Rights Only Withdrawn
- Wm Mining Rights Only Withdrawn

Order In Council Withdrawal Types
- W'sm Surface and Mining Rights Withdrawn
- W's Surface Rights Only Withdrawn
- W'm Mining Rights Only Withdrawn

IMPORTANT NOTICES

0 Km — 3.0 Km

LAND TENURE WITHDRAWAL DESCRIPTIONS

Identifier	Type	Date	Description
1996	Wsm	Jan 1 2001	SECT.36 WS 6/00 17/07/00 S&MR 189566
2043	Wsm	Jan 1 2001	LONG TERM AGGREGATE PERMIT
WK82/94	Wsm	Jun 14 1994	SECT.36 WK82/94 JUNE 14/94 M+S 195150
W.K. 15.89	Wsm	Nov 3 1989	SEC.36/80 W.K-15.89 NOV.3/89 S+MR
W.3/87	Wsm	Jan 9 1987	ORDER NO.3/87 87/01/09 189555 S.&M.R.
WK82/94	Wsm	Jun 14 1994	SECT 36 WK82/94 JUNE 14/94 M+S 195150
W.60.82	Wsm	Nov 23 1982	SEC.36/80 W.60/82 23/11/82 S.R.&M.R.
W.75.83	Wsm	Feb 13 1983	PARK RESERVE W.75/83 M.R.&S.R. 2/13/83 188521

IMPORTANT NOTICES

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Home Page: www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

Toll Free
Tel: 1 (888) 415-9845
Fax: 1 (877) 670-1444

Map Datum: NAD 83
Projection: UTM (6 degree)
Topographic Data Source: Land Information Ontario
Mining Land Tenure Source: Provincial Mining Recorders' Office

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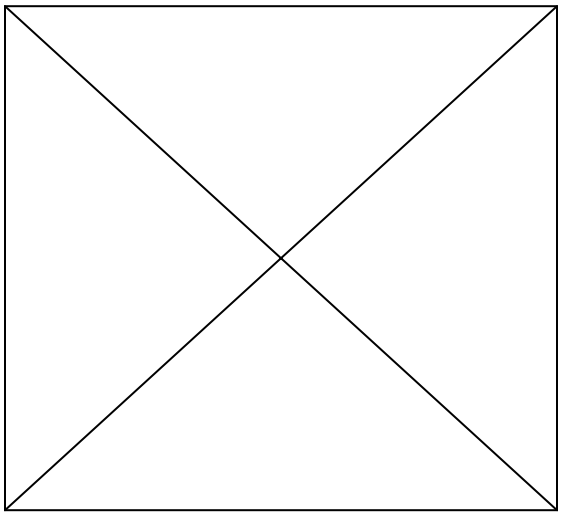
52G05NW2004 2.21766 RALEIGH LAKE 210

Problem Page
The original page in this document had a problem when scanned and as a result was unable to convert to Portable Document Format (PDF).

We apologize for the inconvenience.

Problème de conversion de page
Un problème est survenu au moment de balayer la page originale dans ce document. La page n'a donc pu être convertie en format PDF.

Nous regrettons tout inconvénient occasionné par ce problème.



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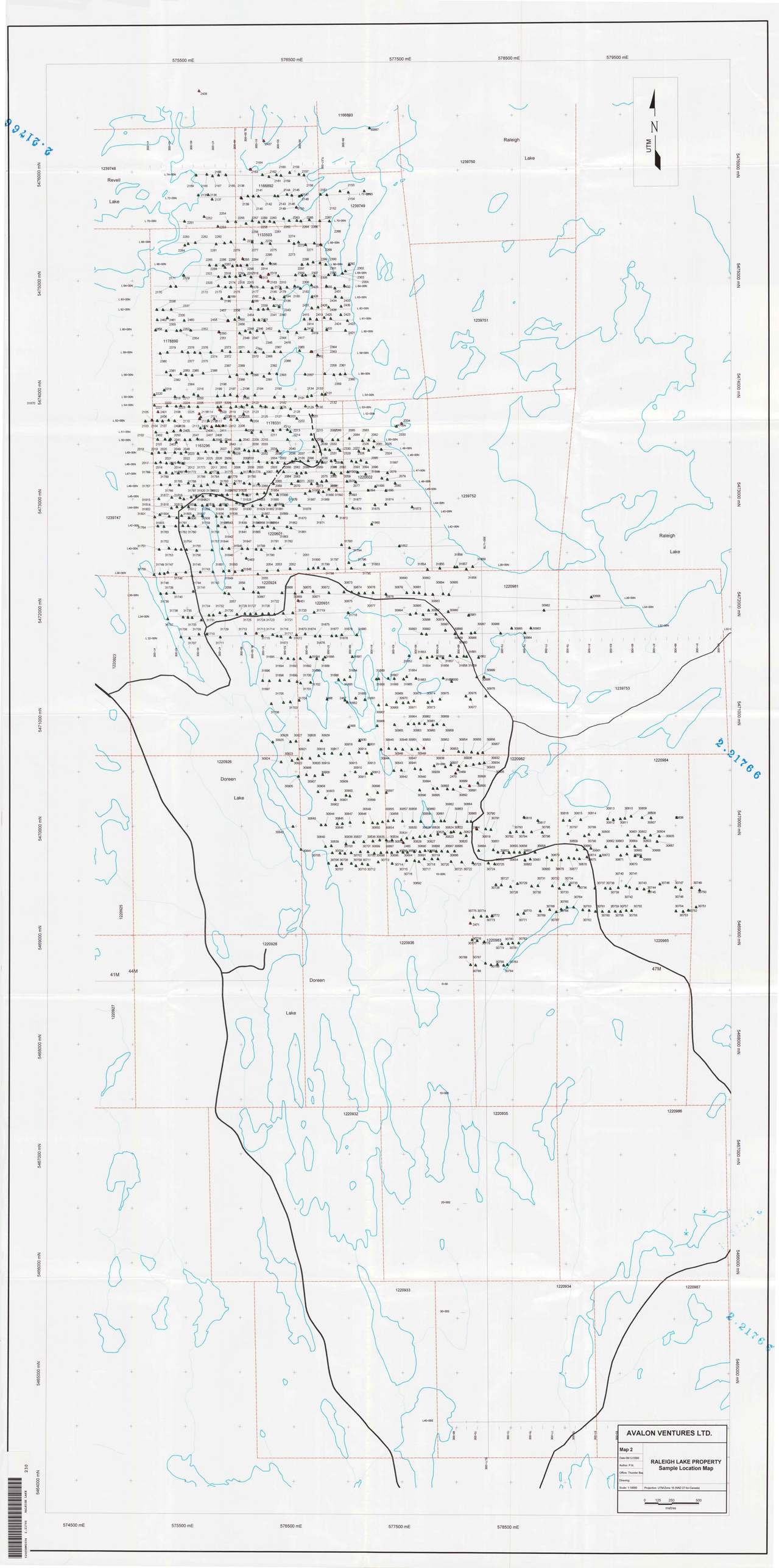


AVALON VENTURES LTD.

Map 2	RALEIGH LAKE PROPERTY Sample Location Map
Date: 08/12/2005	
Author: P.N.	
Office: Thunder Bay	
Drawing:	
Scale: 1:16000	Projection: UTM Zone 15 (NAD 27 for Canada)

0 125 250 500
metres

BRADSHAW TWP

OSAQUAN TWP

SPEIGHT AND VAN NOSTRAND'S BASELINE (1928)

41M 42M 43M 44M 45M 47M

0+00

Doreen Lake

East Revell Lake

Revell Lake

Raleigh Lake

Ford Lake

Valjean Lake

Greenheart Lake

Horseshoe Lake

Popeye Lake

Balmoral Lake

Kinmoapiku Lake

Doreen Lake

1166893 1239748 1239750 1166892 1133503 1239749 178890 1239751 1239747 1178331 1220602 1163296 1239752 1220601 1220924 1220981 $220931 1239753 1220929 1220923 1220930 1220925 1220926 1220982 1220984 1220927 1220928 1220936 1220983 1220985 1220932 1220935 1220986 1220933 1220934 1220987

5479000mN 5478000mN 5477000mN 5476000mN 5475000mN 5474000mN 5473000mN 5472000mN 5471000mN 5470000mN 5469000mN 5468000mN 5467000mN 5466000mN 5465000mN 5464000mN 5463000mN 5462000mN 5461000mN

571000mE 572000mE 573000mE 574000mE 575000mE 576000mE 577000mE 578000mE 579000mE 580000mE 581000mE 582000mE 583000mE 584000mE

Geological Legend

16 Hornblende Tonalite
15 Biotite Granodiorite
13 Two-Mica Granite
12 Biotite Tonalite
10 Mafic to Ultramafic Intrusives
7 Metasediments
6 Intermediate to Felsic Volcanics
5 Mafic Volcanics

–After Stone, D. et al, 1999

SCALE 1:20,000

250 0 250 500 750 (meters)

AVALON VENTURES LTD

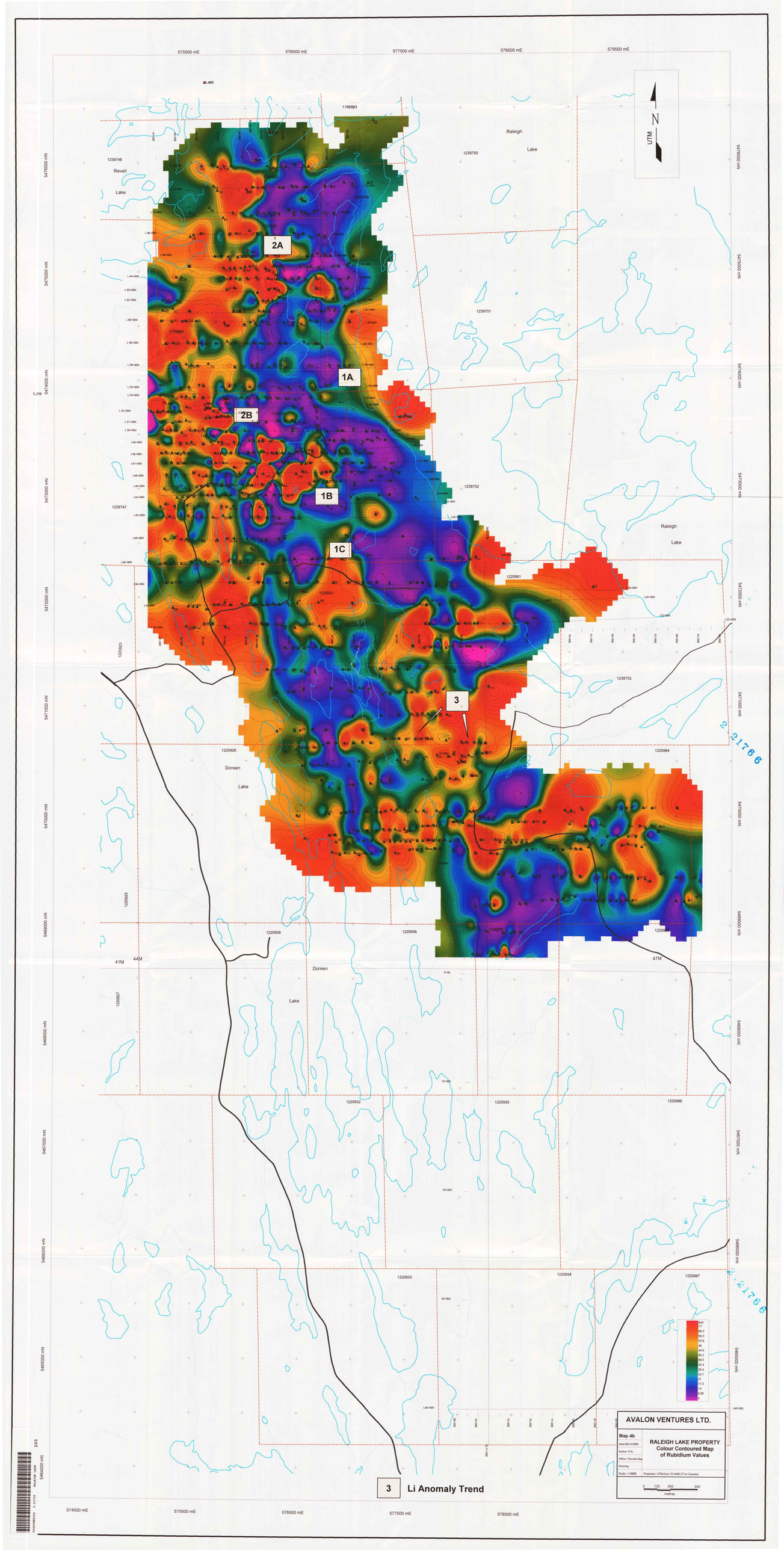
VSE–AVL

RALEIGH LAKE PROPERTY

PROPERTY MAP

DATE: 00/12/10 | MAP 3 | SCALE: 1/20000

2.21766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577500 mE
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579500 mE
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5475000 mN
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5473000 mN
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5471000 mN
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5467000 mN
5466000 mN
5465000 mN
5464000 mN
574500 mE
N
UTM
Raleigh
Lake
Revell
Lake
Doreen
Lake
Doreen
Lake
2A
1A
2B
1B
1C
3
1239748
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1239750
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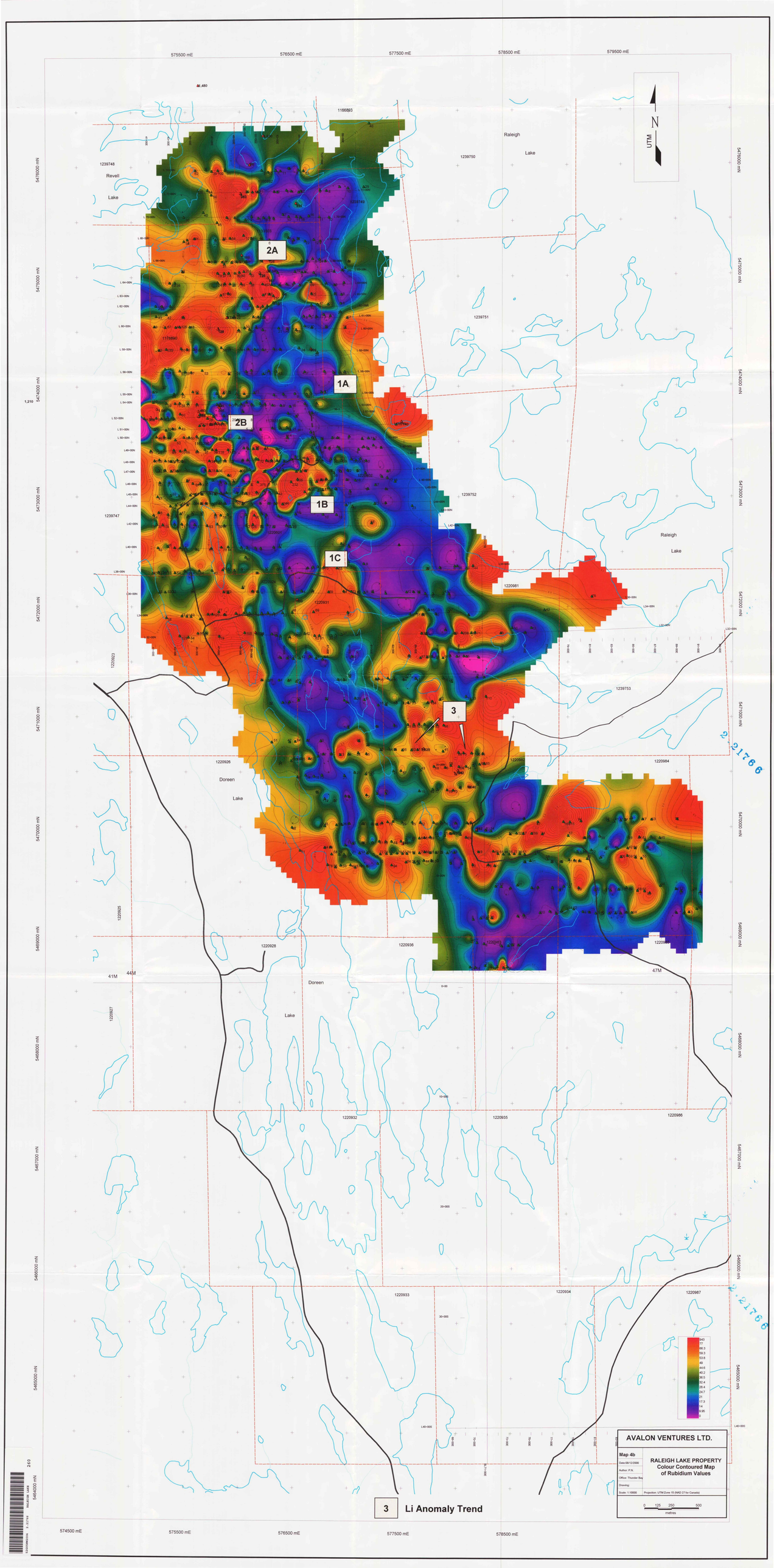
1220983
1220985
1220932
1220935
1220986
1220933
1220934
1220987
41M
44M
47M
1,210
2.21766
3 Li Anomaly Trend
AVALON VENTURES LTD.
Map 4b
RALEIGH LAKE PROPERTY
Colour Contoured Map
of Rubidium Values
Date: 06/12/2000
Author: P.N.
Office: Thunder Bay
Drawing:
Scale: 1:10000
Projection: UTM Zone 15 (NAD 27 for Canada)
0 125 250 500
metres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576500 mE
577500 mE
578500 mE
579500 mE
5476000 mN
5475000 mN
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5471000 mN
5470000 mN
5469000 mN
5468000 mN
5467000 mN
5466000 mN
5465000 mN
5464000 mN
574500 mE
N
UTM
Raleigh
Lake
Revell
Lake
Doreen
Lake
Doreen
Lake
2A
1A
2B
1B
1C
3
41M
44M
47M
1239748
1239750
1239751
1239752
1239753
1239747
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1220936
1220927
1220932
1220935
1220986
1220933
1220934
1220987
1220923
1210
AVALON VENTURES LTD.
Map 4b
RALEIGH LAKE PROPERTY
Colour Contoured Map
of Rubidium Values
Date: 08/12/2006
Author: P.N.
Office: Thunder Bay
Drawing:
Scale: 1:10000
Projection: UTM Zone 15 (NAD 27 for Canada)
0 125 250 500
metres
943
77
66.3
59.3
53.8
49
44.6
40.2
36.5
32.4
28.4
24.7
21
17.3
14
9.95
0
3
Li Anomaly Trend
2.21766
260
MAGNETIC DATA


AVALON VENTURES LTD.
Map 4c
Date:08/12/2000
Author: P.N.
Office: Thunder Bay
Drawing:
Scale: 1:10000
RALEIGH LAKE PROPERTY
Colour Contoured
Map of Cesium Values
Projection: UTM Zone 15 (NAD 27 for Canada)
0 125 250 500
metres
3 Li Anomaly Trend
1000
20.4
13.7
10.6
8.23
6.66
5.09
4.31
3.53
2.74
1.96
1.57
1.18
0.783
0.392
0.392
0
UTM
N
2A
2B
1A
1B
1C
3
Raleigh
Lake
Revell
Lake
Doreen
Lake
41M
44M
47M
1166893
1166892
1239748
1239749
1239750
1239751
1239752
1239753
1239747
1133503
1178890
1178331
1163296
1220601
1220602
1220924
1220931
1220981
1220982
1220984
1220923
1220926
1220925
1220928
1220936
1220927
1220932
1220935
1220986
1220933
1220934
1220987
574500 mE
575500 mE
576500 mE
577500 mE
578500 mE
579500 mE
5476000 mN
5475000 mN
5474000 mN
5473000 mN
5472000 mN
5471000 mN
5470000 mN
5469000 mN
5468000 mN
5467000 mN
5466000 mN
5465000 mN
5464000 mN
2.21766
52G05NW2004 2.21766 RALEIGH LAKE 270