



## ASSESSMENT REPORT TITLE PAGE AND SUMMARY

**TITLE OF REPORT:** Geochemical Report on the Wicheeda South Property

**TOTAL COST:** \$8,813.36

**AUTHOR(S):** Bob Lane

**SIGNATURE(S):**

A handwritten signature in blue ink, appearing to read "Bob Lane", written over a horizontal line.

**NOTICE OF WORK PERMIT NUMBER/DATE:** N/A

**STATEMENT OF WORK EVENT NUMBER/DATE:** 4455428 / January 14, 2010

**YEAR OF WORK:** 2009

**PROPERTY NAME:** Wicheeda South

**CLAIM NAMES (on which work was done):** 598206 and 598207

**COMMODITIES SOUGHT:** Rare Earth Elements

**MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:**

**MINING DIVISION:** Cariboo

**NTS / BCGS:** 093I.041 & 093J.050

**LATITUDE:** \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "

**LONGITUDE:** \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " (at centre of work)

**UTM Zone:** \_\_\_\_\_ **EASTING:** 567700 **NORTHING:** 6037400

**OWNER:** Spectrum Mining Corporation

**MAILING ADDRESS:**

Box 20

Wardner, BC

V0B 2J0

**OPERATOR(S) [who paid for the work]:** Spectrum Mining Corporation

**MAILING ADDRESS:** same as above

**REPORT KEYWORDS:**

Foreland Belt, Rocky Mountain Trench, sedimentary strata, upper Cambrian to lower Ordovician Kechika Group, rare earth elements, niobium, fluorine.

**REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:**

15944, 16246

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)	12 ha	598206 & 598207	613.36
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric reconnaissance only	12 ha	598206 & 598207	2000
Seismic			
Airborne			
GEOCHEMICAL (number of samples analysed for ...)			
Soil			
Silt 23		598206 & 598207	2000
Rock 4		598206 & 598207	500
Other			
DRILLING (total metres, number of holes, size, storage location)			
Core			
Non-core			
RELATED TECHNICAL	27	598206 & 598207	700
Sampling / Assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale/area)	12 ha	598206 & 598207	1000
PREPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)	12 ha		2000
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (metres)			
Other			
		<b>TOTAL COST</b>	<b>\$8,813.36</b>

**GEOCHEMICAL REPORT  
ON THE  
WICHEEDA SOUTH PROPERTY**

**CARIBOO MINING DIVISION  
BRITISH COLUMBIA**

**BCGS MAPS: 093I.041 & 093J.050**

**LATITUDE 54.482465° N LONGITUDE 121.965323° W**

**STATEMENT OF WORK#: 4455428**

Prepared For: Spectrum Mining Corporation  
Box 20  
Wardner, BC Canada V0B 2J0

Prepared By: Bob Lane, PGeo

**BC Geological Survey  
Assessment Report  
31477**

Date: April 22, 2010

## TABLE OF CONTENTS

<b>1 EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>2 INTRODUCTION .....</b>	<b>1</b>
2.1 LOCATION AND ACCESS .....	2
2.2 PHYSIOGRAPHY AND CLIMATE .....	2
2.3 PROPERTY STATUS & OWNERSHIP .....	2
<b>3 EXPLORATION HISTORY .....</b>	<b>4</b>
<b>4 REGIONAL GEOLOGY.....</b>	<b>4</b>
<b>5 PROPERTY GEOLOGY .....</b>	<b>8</b>
5.1 MINERALIZATION AND GEOLOGICAL MODEL .....	9
<b>6 2009 EXPLORATION PROGRAM.....</b>	<b>10</b>
<b>7 RESULTS.....</b>	<b>11</b>
<b>8 DISCUSSION .....</b>	<b>15</b>
<b>9 CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>15</b>
<b>10 ITEMIZED COST STATEMENT .....</b>	<b>16</b>
<b>11 REFERENCES .....</b>	<b>17</b>
<b>12 STATEMENT OF QUALIFICATIONS .....</b>	<b>18</b>

## LIST OF FIGURES

FIGURE 1: WICHEEDA SOUTH PROPERTY LOCATION .....	3
FIGURE 2: WICHEEDA SOUTH PROPERTY CLAIM MAP .....	6
FIGURE 3: WICHEEDA SOUTH PROPERTY REGIONAL GEOLOGY .....	7
FIGURE 4: FLUORITE GRID AREA – ROCK, SILT & SCINTILLOMETER SAMPLES .....	14

## LIST OF TABLES

TABLE 1: LIST OF WICHEEDA SOUTH MINERAL CLAIMS .....	2
TABLE 2: ROCK GEOCHEMICAL RESULTS – WICHEEDA SOUTH.....	12
TABLE 3: SILT GEOCHEMICAL RESULTS – WICHEEDA SOUTH.....	13

**LIST OF APPENDICES**

Appendix A. Rock Sample and Scintillometer Reading Locations

Silt Geochemical Sample Locations and Site Descriptions

Appendix B. Laboratory Certificates

Appendix C. Fluorite Grid Soil Geochemical Maps for Fluorite, Lanthanum and Niobium

## 1 EXECUTIVE SUMMARY

The Wicheeda South property consists of 5 mineral claims that cover 2311.46 hectares of prospective stratigraphy in central British Columbia. The Wicheeda South property is centered approximately 80 kilometres northeast of the town of Prince George. At present the Wicheeda South property is not accessible by road, but it is situated close to major infrastructure including power transmission lines, railway and major highways.

The intent of the 2009 program was to locate and evaluate an area encompassed by an old flagged grid, labelled the 'Fluorite' grid, previously identified as being anomalous in fluorine, niobium and lanthanum, and with high background to anomalous scintillometer readings.

While short in duration and area covered, the reconnaissance program was successful in identifying a very promising bedrock showing. This showing consists of narrow calcite-fluorite veinlets and quartz-carbonate veinlets cutting limestone. A grab sample of bedrock from this location (sample WI09-KM02) assayed 7064 ppm Ce, 4461 ppm La and 1387 ppm Nd (or approximately 1.29% combined Ce+La+Nd). Two other samples, WI09-04 collected 30 m upstream and WI09-03 collected more than 150 m upslope, returned highly anomalous light rare earth element values. Scintillometer readings as high as 1425 cps were coincident with the elevated REE values.

The presence of widespread, elevated levels of fluorine, fracture-controlled fluorite and encouraging values of cerium, lanthanum and neodymium, may be evidence of a buried REE-bearing carbonatite complex.

It is recommended that Spectrum Mining continue to explore the Wicheeda South property. Detailed prospecting, bedrock mapping, soil geochemical sampling, and magnetometer and scintillometer surveying is proposed as a Phase One program for the property.

## 2 INTRODUCTION

The Wicheeda South property is comprised of 5 contiguous MTO cell claims centered approximately 80 km northeast of Prince George, in central British Columbia. The property is not presently accessible by road, but is not far from all-season gravel roads, a paved provincial highway, rail service and hydroelectric power.

The property is owned by Spectrum Mining Corporation (Spectrum), a private mineral exploration company based in Wardner, BC. In 2009 Spectrum undertook a one-day assessment of its 100%-owned Wicheeda South property to re-visit one area of the property that had yielded anomalous results in the past by a previous operator.

The author has no ownership in the claims nor any direct interest in Spectrum.

This report summarizes the findings of the field sampling program, briefly discusses the properties exploration potential, and recommends follow-up work.

## 2.1 LOCATION AND ACCESS

The Wicheeda South property is centered approximately 80 kilometres northeast of the town of Prince George and about 46 kilometres due east of the community of Bear Lake and Highway 97 (Figure 1). The property is situated on BCGS mapsheets 93I.041 and 93J.050 and is centered approximately at Latitude 54.482465° N and Longitude 121.965323° W.

All-season gravel roads reach to within several kilometres of the property, but do not gain access to the claims. Helicopter-access to the property can be provided from a number of bases in Prince George. Flying time from Prince George to the property is less than 40 minutes.

## 2.2 PHYSIOGRAPHY AND CLIMATE

The Wicheeda South property is located in the Parsnip River valley area, about 12 kilometres southeast of Wicheeda Lake. Most of the property covers a south facing flank of a steep, north-trending ridge that terminates at Wicheeda Lake. Elevations range from about 900 m to 1500 m. Slopes are covered with stands of alder and pine. Buck brush and devil's club are common at lower elevations.

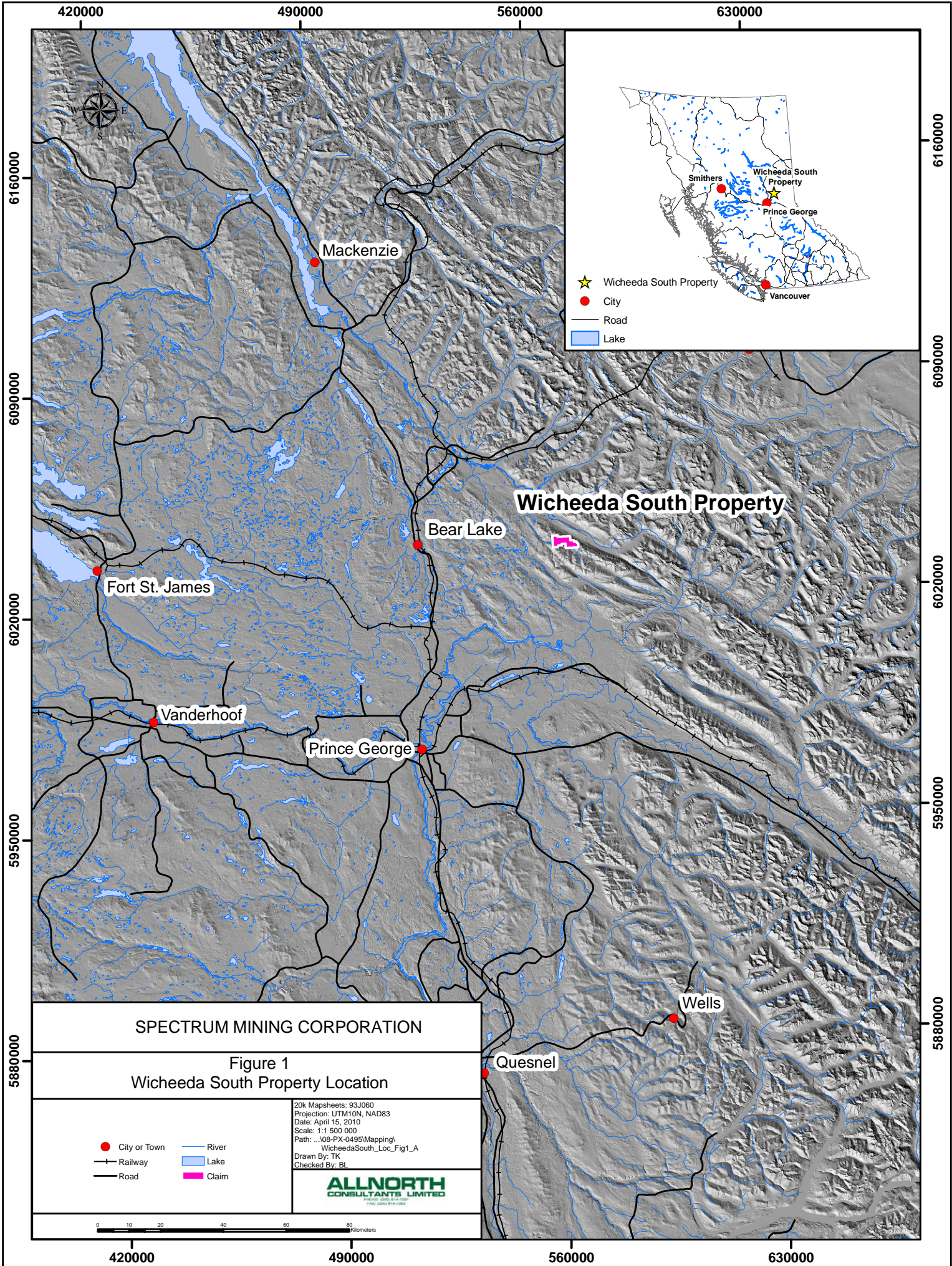
Winters are moderate to cold with typical snow accumulations of approximately one to two metres. The area is generally free from snow between May and October. Summers are moderate to warm.

## 2.3 PROPERTY STATUS & OWNERSHIP

The Wicheeda South property is comprised of 5 contiguous MTO cell claims that cover 2311.46 hectares in the Cariboo Mining Division (Figure 2). The claims are owned 100% by Spectrum Mining Corporation. The individual claims and their respective anniversary dates are listed in Table 1.

Table 1: List of Wicheeda South Mineral Claims

Tenure Number	Tenure Name	Owner	Tenure Type	Map Number	Good To Date	Area (ha)
598206	WICHEEDA 7	216712	Mineral	093I	2011/Jan/30	469.8325
598207	WICHEEDA 8	216712	Mineral	093I	2011/Jan/30	432.1475
598208	WICHEEDA 9	216712	Mineral	093I	2011/Jan/30	469.6815
602257	WICHEEDA 11	216712	Mineral	093I	2011/Apr/07	469.8532
602258	WICHEEDA 12	216712	Mineral	093I	2011/Apr/07	469.9426
TOTAL						2311.4573



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Figure 1  
Wicheeda South Property Location

- City or Town
- River
- +— Railway
- ▭ Lake
- Road
- ▭ Claim

20k Mapsheets: 93J060  
 Projection: UTM10N, NAD83  
 Date: April 15, 2010  
 Scale: 1:1 500 000  
 Path: ...108-PX-0495\Mapping\WicheedaSouth\_Loc\_Fig1\_A  
 Drawn By: TK  
 Checked By: BL





### 3 EXPLORATION HISTORY

A regional aeromagnetic survey of the area, completed by the Geophysics Division of the Geological Survey of Canada in 1961, identified a magnetic high feature in the area of the Wicheeda South property. Prospecting of the area in 1976 and 1977 discovered minor base metal-bearing showings that were anomalous in niobium. Teck Exploration (Teck) later staked claims to cover the anomalous areas and completed field work in 1986 and 1987 consisting of geological mapping, soil, stream and rock geochemical sampling, trenching and ground magnetic surveying. Bedrock mapping and soil geochemical surveying completed over a northwest oriented series of grids (the 'Lake', 'George' and 'Prince' grids outlined a linear carbonatitic intrusion and a small syenite body that was exposed discontinuously over a total strike length of 7 km (Betmanis, 1987).

In 1987, Teck also established the 'Fluorite' grid to cover an area of anomalous fluorine in silt located about 4 km east of the 'Prince' grid. The gridded area was evaluated with a spectrometer survey and soil geochemical survey, but not bedrock mapping. The work identified a small >100 counts per second (cps) total count anomaly that may be indicative of an overburden-covered carbonatite (Betmanis, 1988a). Coincident with the high readings were anomalous levels of niobium, lanthanum, molybdenum and arsenic.

No further recorded assessment of the claims was conducted until the 2009 program.

### 4 REGIONAL GEOLOGY

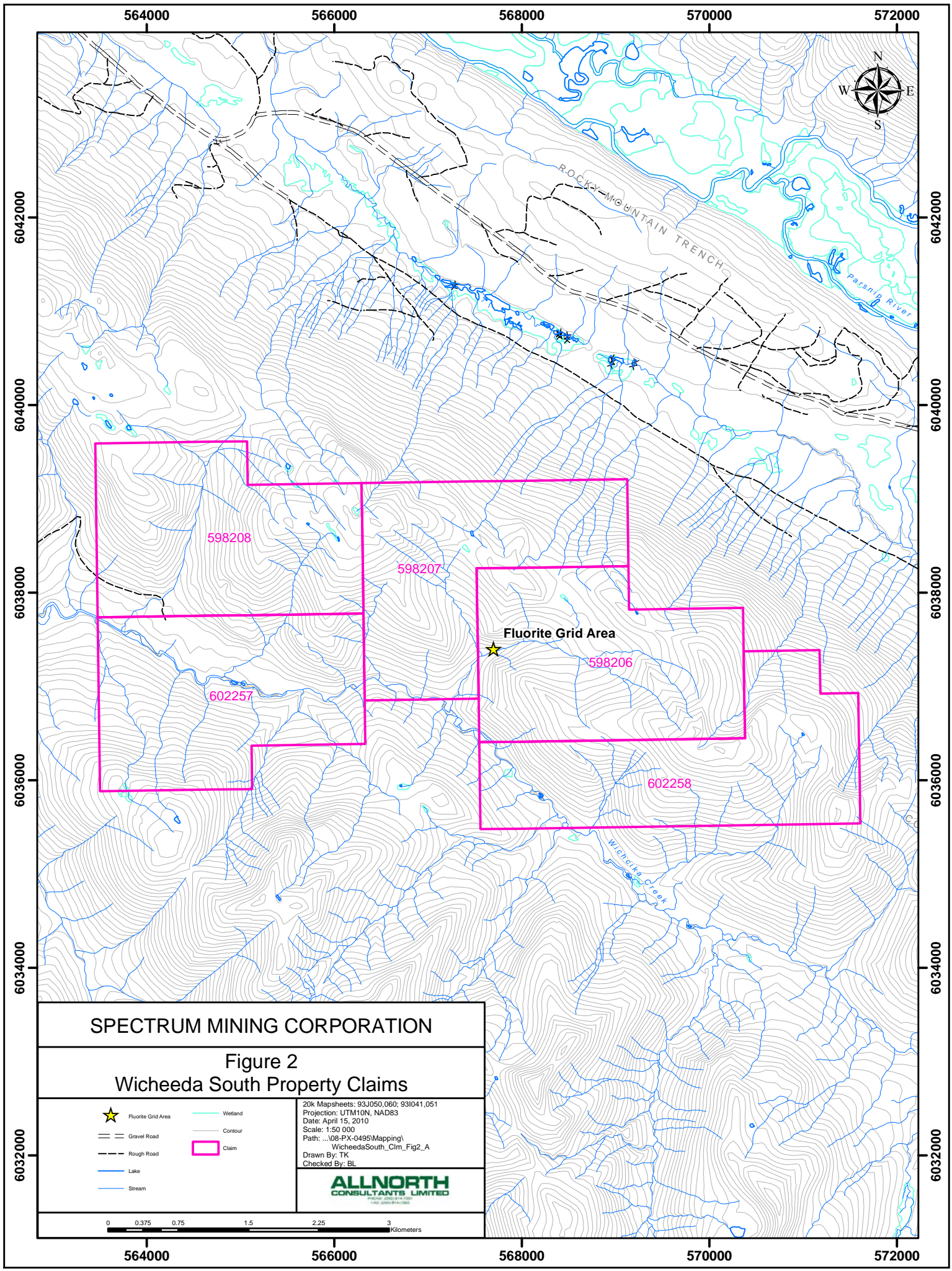
The Wicheeda South property is located in the Foreland belt, a morphogeological belt of imbricated and folded miogeoclinal rocks that forms the eastern mountain ranges and foothills of the Canadian Cordillera (Gabrielse et al., 1991).

The regional geology of the area was mapped by Armstrong et al. (1969, McLeod Lake map sheet) and Taylor and Stott (1979, Monkman Pass map sheet). The regional geology map presented in Figure 3 is from a 1:250,000 scale digital compilation of the area (Digital Geology Map of British Columbia, BCMEMPR, Geofile 2005-2). The bedrock underlying the property and enclosing areas consists mainly of limestone, marble, siltstone, argillite and calcareous sedimentary rocks that have been assigned to the upper Cambrian to lower Ordovician Kechika Group). The strata generally strike from 120 degrees to 140 degrees with steep dips to the northwest or southeast. East of the property, rocks of the Kechika Group are in fault contact with unassigned carbonates, slates and siltstones of Cambrian to Devonian age. West of the property, rocks of the Kechika Group are in fault contact with quartzitic rocks of the Upper Proterozoic to Permian Gog Group and an unassigned felsic volcanic-dominated package of Devonian to Permian age.

The northwest-trending Rocky Mountain Trench, which follows the Parsnip River valley east of the property, is the dominant structural and geographical feature in the area. A number of major northwest trending faults occur in the area. One such structure is









shown to transect the property, and intersects a northeast trending fault near the area of interest.

In British Columbia, a small number of carbonatite-related complexes occur that are typically sub-circular to elongate in plan and commonly have well-developed metasomatic alteration haloes. Many of the intrusions that follow the trend of the Rocky Mountain Trench are Devono-Mississippian in age (Pell, 1987). They were subjected to sub-greenschist facies metamorphism during the Columbian orogeny, but behaved as inflexible and cohesive bodies during orogenesis and were rotated, tilted and/or transported eastwards in thrust panels (Pell, 1987).

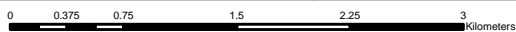


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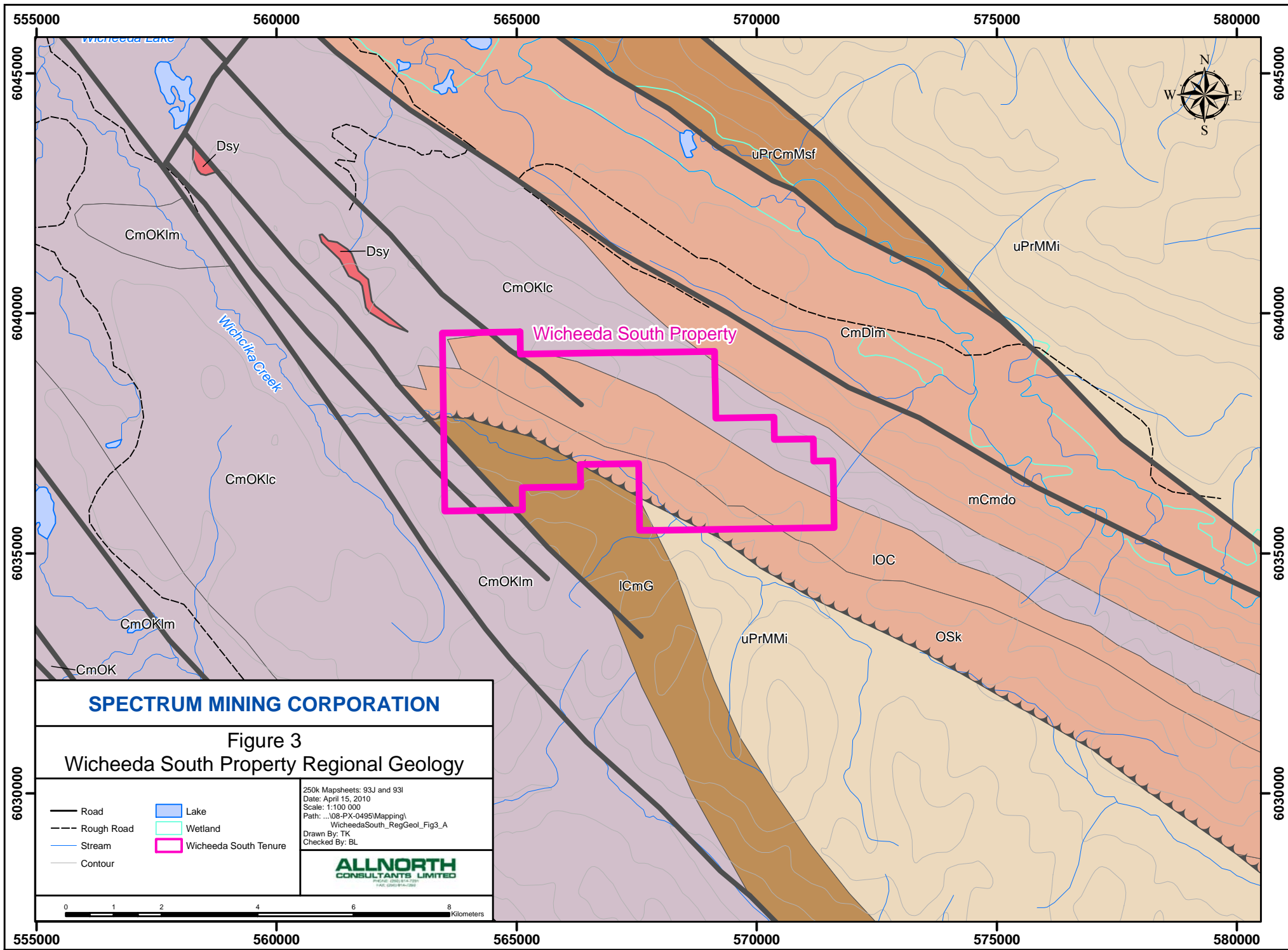
**Figure 2  
Wicheeda South Property Claims**

- |   |                    |   |         |
|---|--------------------|---|---------|
|  | Fluorite Grid Area |  | Wetland |
|  | Gravel Road        |  | Contour |
|  | Rough Road         |  | Claim   |
|  | Lake               |   |         |
|  | Stream             |   |         |

20k Mapsheets: 93J050,060; 93I041,051  
 Projection: UTM10N, NAD83  
 Date: April 15, 2010  
 Scale: 1:50 000  
 Path: ..\08-PX-0495\Mapping\WicheedaSouth\_Clm\_Fig2\_A  
 Drawn By: TK  
 Checked By: BL



564000 566000 568000 570000 572000



Wicheeda South Property

**SPECTRUM MINING CORPORATION**

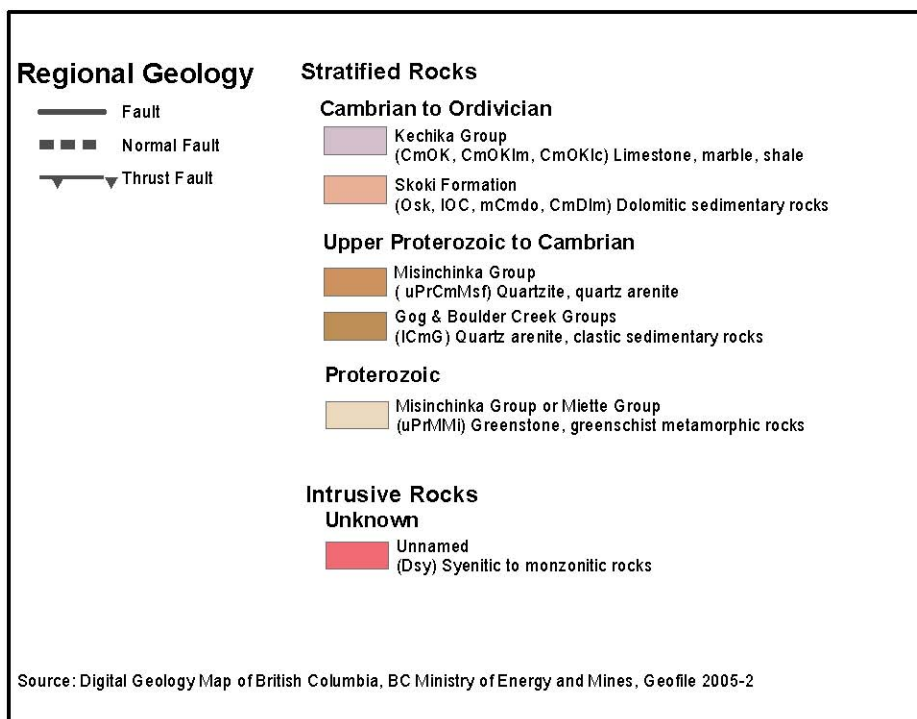
**Figure 3**  
**Wicheeda South Property Regional Geology**

— Road	■ Lake
- - - Rough Road	■ Wetland
— Stream	■ Wicheeda South Tenure
— Contour	

250k Mapsheets: 93J and 93I  
 Date: April 15, 2010  
 Scale: 1:100 000  
 Path: ...08-PX-0495\Mapping\WicheedaSouth\_RegGeol\_Fig3\_A  
 Drawn By: TK  
 Checked By: BL

**ALLNORTH CONSULTANTS LIMITED**  
 REG. (2005) 874-2221  
 REG. (2005) 874-2221

0 1 2 4 6 8 Kilometers



Wicheeda South Property - Regional Geology Legend

## 5 PROPERTY GEOLOGY

The Wicheeda South property is at an early stage of exploration and the claim group has been covered by regional bedrock mapping, but not property-scale bedrock mapping. Exposed bedrock in the region is described as being quite scarce, and a dearth of outcrop may also pertain to the Wicheeda South claim group. However, the main structural and stratigraphic grain in the area is northwest-southeast; and regional maps indicate that the geology of the Wicheeda South claims is similar to areas to the northwest, including Spectrum's Wicheeda property (formerly the George claims) and the former Prince claims.

Previous bedrock mapping on these claims, specifically over a northwest-oriented series of grids (the 'Lake', 'George' and 'Prince' grids) outlined a carbonatite intrusion and a small related(?) syenite body that was exposed discontinuously over a total strike length of 7 km (Betmanis, 1987; Mader and Greenwood, 1988). These intrusions were hosted by a sequence of interbedded limestone, calcareous argillite and argillite with consistent northwest-trending attitudes and sub-vertical dips. The 'Fluorite' grid was established about 4 km east of the 'Prince' grid, to cover an area of anomalous fluorine in silt (Betmanis, 1988a), but mapping of the bedrock was not conducted at that time.

Limited rock geochemical sampling conducted in 2009 identified amorphous limestone, cherty ribbon and nodular limestone with lesser argillite, calcareous argillite, micaceous phyllite and a pebble conglomerate or breccia (MacDonald, 2009). The limestone is locally re-crystallized, and in places is cut by calcite +/- fluorite veinlets.

## 5.1 MINERALIZATION AND GEOLOGICAL MODEL

Carbonatites are igneous rocks dominated by calcite, dolomite and varieties of iron carbonate minerals. They are preserved as intrusions (occurring as sills, dikes, or small stocks) and as extrusive lava flows and pyroclastic rocks, but only intrusive varieties are sufficiently enriched in niobium and/or rare earth elements to be economic. Carbonatite complexes occur mainly in a continental environment and in BC carbonatites are mostly upper Devonian, Mississippian or Eocambrian in age (Pell, 1987). Carbonatites may have pronounced magnetic and/or radiometric geophysical signatures, and they may also be marked by elevated levels of niobium, phosphate, fluorine and barium in soils and stream sediments, and fluorine, thorium and uranium in waters (Birkett and Simandl, 1999).

Outcrop in the Wicheeda and Wicheeda South property area is quite scarce, therefore past soil geochemical surveys, particularly above the valley floor and at higher elevations, has been effective in outlining areas underlain by REE-bearing rocks. Cerium in particular, and to a lesser extent niobium and barium, outlines the carbonatite on the 'George' grid (Betmanis, 1988b). The multi-element soil anomaly is about 500 m across and ovoid in plan. Trenching in 1987 (Lovang and Meyer, 1987) and diamond drilling in 2008 (Lane, 2009) confirmed the presence of the carbonatite at depth. Niobium, barium, and to a lesser extent cerium, zinc and strontium, outline the 'Prince' grid intrusion (Betmanis, 1987). The 'Prince' system located 3.5 km to the southeast of the 'George' carbonatite and appears to be a sinuous carbonatite and syenite sill and/or dyke complex that has been traced for several kilometers along its southeast trend (Mader and Greenwood (1988).

Soil geochemical sampling in 1987 on the 'Fluorite' grid outlined an area with anomalous levels of niobium, lanthanum, molybdenum and arsenic (Betmanis, 1988a). All four elements are also elevated in drillhole assay data from the Wicheeda property and in the Wicheeda/Wicheeda South area may be considered possible pathfinders for carbonatite-syenite complexes (Lane, 2009).

Fluorite has been identified in some carbonatite-related calcareous dykes on the Wicheeda property (Betmanis, 1987) and in stringers that cut the calcareous country rock on the Wicheeda South property. The presence of fluorite may indicate the presence of a carbonatite or related REE-bearing intrusion on the Wicheeda South property. Importantly, fluorite is known to form in the roof zones of carbonatite complexes (Birkett and Simandl, 1999).

## 6 2009 EXPLORATION PROGRAM

The primary intent of the 2009 program was to:

- 1) Locate an area on the old Teck flagged grid between Line 33+00E to Line 37+50E and from about 11+50N to about 15+50N; previously identified as anomalous in Nb, F and with high background to anomalous scintillometer readings;
- 2) Locate and map any outcrops;
- 3) Examine and sample for carbonatite lithologies and related mineralization;
- 4) Conduct close-spaced silt sampling on East and West tributary creeks that form a confluence around 36+15E and 11+25N; using hand-held GPS;
- 5) Conduct reconnaissance-level scintillometer prospecting over Teck's Nb anomaly; using hand-held GPS.

Ken MacDonald (PGeo) and two field assistants, Brian Kornichuk and Justin Findlay, conducted the sampling program on October 24, 2009. The program took place in an area that roughly measures 450 m by 260 m. The area is steep, challenging ground with plus 45 degree slopes at mid-mountain with more gentle slopes toward the top and bottom. The steeper slopes tend to correspond with thin soil cover over talus blocks or sub-crop. Overall the property has poor outcrop exposure which makes for difficult mapping.

Access to the property was via a Jet Ranger 206 helicopter from Pacific Western Helicopter's base in Prince George. Working time on the property was constrained by short daylight hours and time required to hike to the old grid from chopper pad, and amounted to about 4.5 hours. Work completed included:

- location of remnant flagging from three of Teck's cross-lines: one is presumably 36+00 E; cross-lines appear to have been flagged, but apparently not cut. No evidence of other lines could be identified;
- about 600 line-meters of prospecting and scintillometer survey between assumed lines 36+00E and 35+50E: scintillometer values ranged from 216 cps up to a high of 614 cps; relatively higher total cps counts were found to correspond to an area at a certain; elevation on the steep slope; at about 250 m NE of confluence of East and West tributary creeks;
- collection of 22 conventional stream sediment samples from East and West tributaries; at about 25 m spacing;
- collection of 4 lithochemical samples: 1 boulder and 3 outcrop grabs;
- prospecting of the East Tributary creek bed which at low flow reveals nodular and cherty limestone cross-cut by narrow quartz-calcite-ankerite +/- fluorite veinlets and micro-stockworks with scintillometer values in the ~850 cps range; one sample from outcrop in East Tributary creek recorded scintillometer values up to 1425 cps, but a grab sample from same location returned only slightly elevated scintillometer values;

- preliminary mapping identified minimal soil cover on talus blocks or outcropping; where exposed rock types are mainly grey amorphous limestone, cherty ribbon and nodular limestone with lesser argillite, calcareous argillite, micaceous phyllite and a “polymictic pebble conglomerate” which may also be an intra-formational breccia; limestone looks re-crystallized in places, and can be heavily cross-cut by calcite +/- fluorite veinlets and micro-stockworks. Minor cubic pyrite and trace disseminated and blebby pyrite was also noted. Localized ankerite alteration was accompanied by minor chlorite and sericite alteration.

## 7 RESULTS

### Rock and Silt Geochemical Sampling

A total of four litho-geochemical grab samples were collected: one from a boulder in East Tributary Creek, two from outcrop in East Tributary Creek, and one from mid-slope in an area of elevated scintillometer readings and sub-crop or partially buried talus blocks from nearby. Sample locations are shown in Figure 4. Selected results are listed below in tables 2 and 3 and full results are presented in Appendix B. Sample descriptions provided below are from MacDonald (2009).

#### ***Sample WI09-KM01:***

A 0.5m by 0.75m coarse angular boulder in East Fork tributary creek; about 75 m upstream from confluence. Rock is quartz-carbonate micro-stockwork; comprised of pale yellow calcite & quartz with chlorite-altered blocks of biotite. Calcite occurs as masses to subhedral rhombs, but also with tabular and lamellar habit; generally shows perfect cleavage with pearly luster; reacts vigorously to dilute cold HCL. Chlorite occurs as fracture coatings. Limonite occurs as oxide coatings on fracture surfaces. Host rock seems to be breccia with blocks of micaceous schist & calcareous argillite. Minor siderite and ankerite alteration. Much of the bedrock in creek bed appears to be platy limestone, nodular or ribbon chert limestone but difficult to map due to water levels and flow.

Scintillometer reading: 366 cps.

#### ***Sample WI09-KM02:***

Outcrop in creek, partially underwater; at old grid-line intersection; strike 150°/60° NE. Unit is pale grey weathered; white-grey fresh; fine-grained to crystalline limestone; local thin and well-bedded limestone and nodular and ribbon chert limestone; cross-cut by calcite-fluorite and quartz-carbonate veinlets and small micro-stockworks. Dark purple fluorite occurs as subhedral crystals, disseminations and blebs. Minor cubic pyrite. Limestone looks re-crystallized. Intercalated with minor calcareous argillite beds. Earthy, light brown Fe-oxide masses on weathered surfaces, reacts vigorously to dilute HCL. Interval measures up to 20 cm by 30 cm.

Scintillometer readings up to 870 cps.

#### ***Sample WI09-KM03:***

Open clearing; blocky talus or subcrop; blocks of very fine grained, calcareous argillite. One block is pale-grey to black weathered, varicolored fresh, medium grained, poorly



sorted, poorly bedded but weakly imbricated conglomerate comprised of quartz pebbles, calcite fragments, siltstone and lithic fragments (look like laminated rip-up clasts) in polymictic matrix. Some clasts measure up to 6 cm on long axis. Might be intra-formational breccia. Secondary mica alteration. Unit reacts vigorously to dilute HCL. Minor pyrite.

Scintillometer readings erratic, ranging from 137 to 650 cps.

**Sample WI09-KM04:**

Outcrop in East Fork tributary creek; about 15 m upstream and east of sample WI09-KM02. Pale yellow-brown on weathered surface, grey-white on fresh surface, re-crystallized limestone with quartz-ankerite stringers. Cubic pyrite <1%. Clotty purple fluorite <1%. Bright yellow earthy oxide on surface fractures. Unit reacts vigorously to dilute HCL.

Scintillometer readings of bedrock measured as high as 1425 cps, but reading of grab sample did not exceed 125 cps when re-sampled later with same scintillometer; difference remains unexplained.

Table 2: Rock Geochemical Results – Wicheeda South

Sample ID	Ce* (ppm)	La* (ppm)	Nd* (ppm)	Nb* (ppm)	F** (%)	As (ppm)	Ba (ppm)	Mo (ppm)	Sr (ppm)	Y (ppm)	La (ppm)	P (ppm)
WI09-KM01	59	34	25	<3	0.03	2	93	<2	479	7	23	377
WI09-KM02	7064	4461	1387	88	0.47	249	99	23	880	165	7218	1195
WI09-KM03	1282	726	336	154	0.08	149	86	4	836	47	821	158
WI09-KM04	1434	785	448	70	0.22	2	140	<2	216	99	31	511

Analytical Methods:

\* = X-Ray fluorescence / pressed pellet

\*\* = NaOH fusion / analysis by specific ion electrode

others = ICP-AES: 30 element package digested in hot aqua regia (rocks).

Table 3: Silt Geochemical Results – Wicheeda South

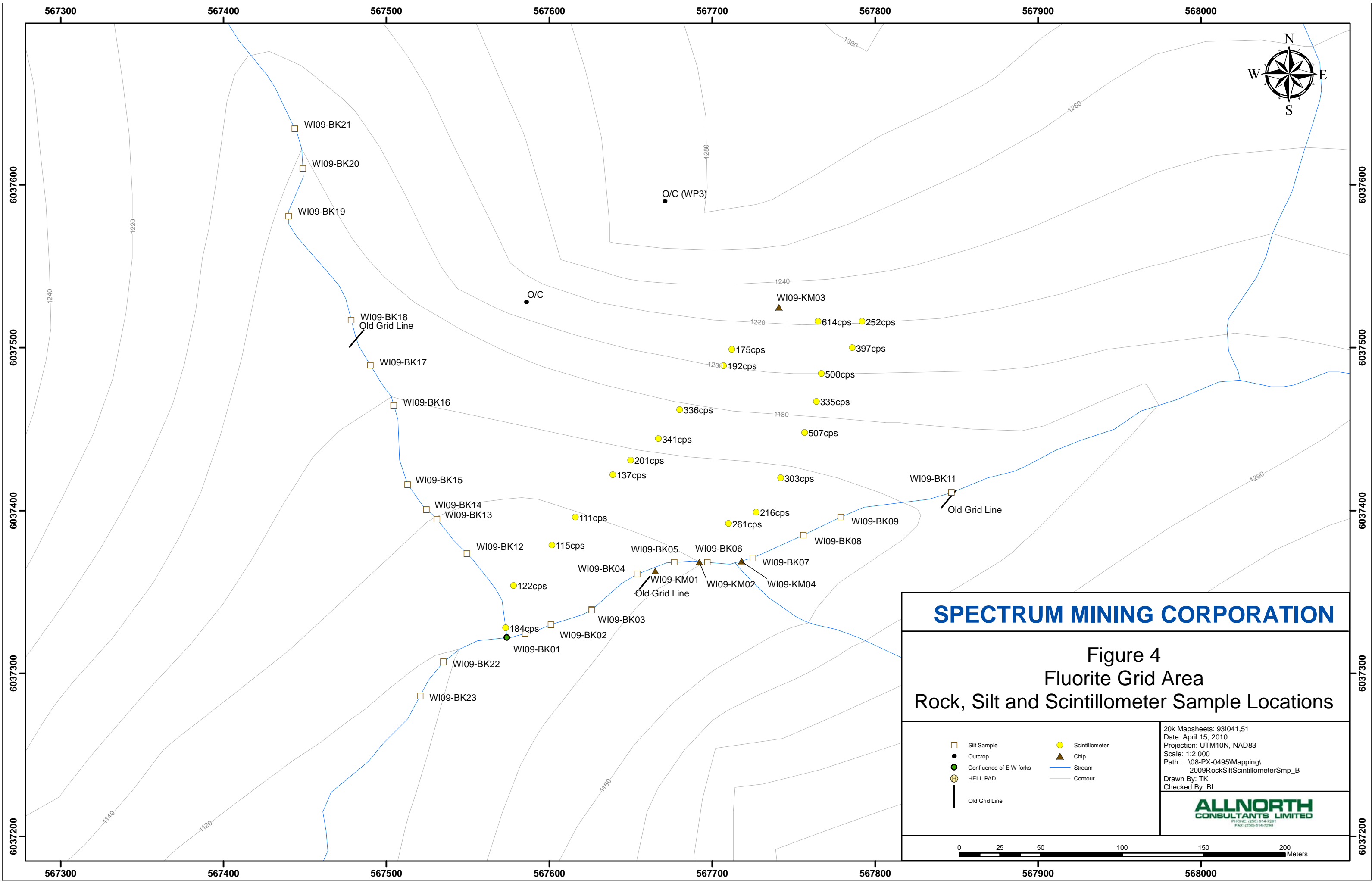
Sample ID	As (ppm)	Ba (ppm)	Mo (ppm)	Sr (ppm)	Y (ppm)	La (ppm)	P (ppm)	F (%)**
WI09-BK01	77	63	2	54	22	62	1488	0.15
WI09-BK02	78	64	2	73	19	79	1456	0.15
WI09-BK03	55	51	<2	56	18	81	1447	0.09
WI09-BK04	92	49	2	81	18	106	1535	0.17
WI09-BK05	98	54	<2	68	18	68	1413	0.12
WI09-BK06	93	61	2	54	23	109	1493	0.09
WI09-BK07	56	61	<2	67	18	59	1296	0.13
WI09-BK08	73	50	2	52	17	63	1345	0.14
WI09-BK09	122	52	<2	58	18	63	1279	0.12
WI09-BK11	79	51	<2	55	17	40	1697	0.11
WI09-BK12	18	43	<2	38	15	47	1295	0.10
WI09-BK13	10	43	<2	57	13	27	1206	0.08
WI09-BK14	11	38	<2	39	13	30	1232	0.10
WI09-BK15	11	36	<2	61	10	30	1113	0.08
WI09-BK16	13	44	<2	40	15	35	1216	0.09
WI09-BK17	17	43	<2	47	13	36	1115	0.10
WI09-BK18	14	45	<2	56	14	30	1265	0.03
WI09-BK19	13	47	<2	49	14	36	1193	0.09
WI09-BK20	25	40	<2	60	13	37	1084	0.02
WI09-BK21	13	49	3	58	13	35	1260	0.11
WI09-BK22	98	50	<2	63	13	47	1247	0.09
WI09-BK23	78	55	2	45	20	72	1430	0.10

Analytical Methods:

\* = X-Ray fluorescence / pressed pellet

\*\* = NaOH fusion / analysis by specific ion electrode

others = ICP-AES: 30 element package digested in hot reverse aqua regia (soil, silt).

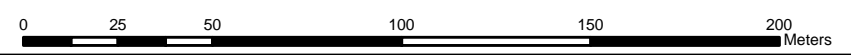


# SPECTRUM MINING CORPORATION

Figure 4  
 Fluorite Grid Area  
 Rock, Silt and Scintillometer Sample Locations

- Silt Sample
- Outcrop
- Confluence of E W forks
- HELI\_PAD
- Old Grid Line
- Scintillometer
- Chip
- Stream
- Contour

20k Mapsheets: 931041,51  
 Date: April 15, 2010  
 Projection: UTM10N, NAD83  
 Scale: 1:2 000  
 Path: ...108-PX-0495\Mapping\  
 2009RockSiltScintillometerSmp\_B  
 Drawn By: TK  
 Checked By: BL



## 8 DISCUSSION

The 2009 exploration program consisted of one-day of reconnaissance-level prospecting and sampling in the 'Fluorite' grid area of Spectrum's Wicheeda South property.

Despite the extremely short duration of the program, rock geochemical sampling identified a very promising bedrock showing. This showing consists of narrow calcite-fluorite veinlets and quartz-carbonate veinlets cutting bedded limestone. A grab sample of bedrock from this location (sample WI09-KM02) assayed 7064 ppm Ce, 4461 ppm La and 1387 ppm Nd (or approximately 1.29% combined Ce+La+Nd). Consistent with the excellent light rare earth element values from this sample were site scintillometer readings as high as 870 cps.

Two other samples returned highly anomalous light rare earth element values and highlight the prospectivity of the property (see Table 2). Sample WI09-04 collected 30 m upstream assayed 1434 ppm Ce, 785 ppm La and 448 ppm Nd (or approximately 0.27% combined Ce+La+Nd) and WI09-03 collected more than 150 m upslope, assayed 1282 ppm Ce, 726 ppm La and 336 ppm Nd (or approximately 0.23% combined Ce+La+Nd).

Scintillometer readings across the area examined in 2009, which range from lows of 111 cps to highs of 1425 cps, are regarded to be moderate to very high and further emphasize the potential of the 'Fluorite' grid area of the Wicheeda South property.

The 2009 data was plotted and overlain with contoured 1987 soil geochemical data. Soil geochemical anomaly maps for each of fluorine, lanthanum and niobium were produced (Appendix C). The high REE-bearing rock samples correlate directly with a lobe of the >30 ppm Nb soil anomaly, and plot immediately south and down-slope of some of the highest soil values for F (up to 2290 ppm) and for La (up to 475 ppm).

## 9 CONCLUSIONS AND RECOMMENDATIONS

Further work should be conducted in the Fluorite Grid area in 2010. An initial Phase One 2-week, 4-person program is recommended and consists of the following elements:

- Re-establish the old Teck grid by flagging and picketing stations at 25 m intervals: from 31+50 to 37+50 and 10N to 15+50N: about 7.2 line-kilometres in total
- Cut intermediate grid lines at 50 m spacing
- Complete a DGPS grid (hand-held GPS accuracy results in tall timber cover was not suitable for careful grid control and accurate sample locations)
- Conduct grid-based conventional soil geochemical sampling
- Conduct a detailed scintillometer and magnetometer survey
- Map and prospect grid, especially East Tributary creek at lower water flow.

The cost of the initial non-mechanized components of the proposed work program is an estimated \$ 83,000.

## 10 ITEMIZED COST STATEMENT

Exploration Work type	Comment	Days			Totals
<b>Personnel (Name)* / Position</b>					
	<b>Field Days</b>	<b>Days</b>	<b>Rate</b>	<b>Subtotal*</b>	
Ken MacDonald	October 24	1	\$650.00	\$650.00	
Brian Kornichuk	October 24	1	\$220.00	\$220.00	
Justin Findlay	October 24	1	\$220.00	\$220.00	
				\$1,090.00	\$1,090.00
<b>Office Studies</b>					
	<b>List Personnel</b>				
Chris Graf	Project & Data Management	2	\$600.00	\$1,200.00	
	Project Preparation & Summary				
Ken MacDonald	Report	1	\$650.00	\$650.00	
	Project Management & Report				
Bob Lane	Writing	2.5	\$650.00	\$1,625.00	
Kevin Frank	Map Preparation	2	425.00	850.00	
				\$4,325.00	\$4,325.00
<b>Geochemical Surveying</b>					
	<b>Number of Samples</b>	<b>No.</b>	<b>Rate</b>		
Acme Labs	26 Samples submitted	26	25.53	\$663.86	
				\$663.86	\$663.86
<b>Other Operations</b>					
	<b>Clarify</b>	<b>Units</b>	<b>Rate</b>		
				\$0.00	\$0.00
<b>Transportation</b>					
		<b>Units</b>	<b>Rate</b>		
Helicopter (PG-property return)	October 24	2.4	\$946.00	\$2,270.40	
Jet Fuel		273.6	\$1.35	\$372.10	
				\$2,642.50	\$2,642.50
<b>Accommodation &amp; Food</b>					
				\$0.00	\$0.00
<b>Miscellaneous</b>					
Field Supplies	Rice Bags, Poly Bags, Zip Ties	1.00	\$54.32	\$54.32	
Shipping		1.00	\$57.58	\$57.58	
				\$111.90	\$111.90
<b>Equipment Rentals</b>					
Scintillometer		1.00	\$577.50	\$577.50	
				\$577.50	\$577.50
<b>TOTAL</b>					<b>\$8,813.36</b>

## 11 REFERENCES

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## 12 STATEMENT OF QUALIFICATIONS

I, Robert (Bob) A. Lane, of 2606 Carlisle Way, Prince George, B.C., do hereby certify that:

I advised the field crew regarding their visit to the Wicheeda South property, but did not visit the site while the project work took place.

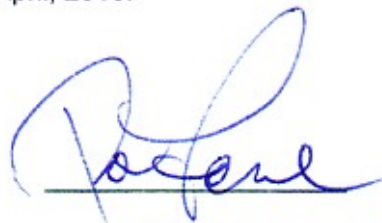
I compiled the information that resulted from the 2009 exploration program, primarily from a summary provided by Ken MacDonald (PGeo), and produced the report entitled "Geochemical Report on the Wicheeda South Property", dated April 22, 2010.

I graduated from the University of British Columbia in 1990 with a M.Sc. in Geology.

I am a Professional Geoscientist (PGeo) registered with the Association of Professional Engineers and Geoscientists of British Columbia, license #18993, and have been a member in good standing since 1992.

From 1990 until present I have been continuously employed as a geologist in mining and mineral exploration sector.

Dated at Prince George, this 22<sup>th</sup> day of April, 2010.



Robert (Bob) A. Lane, PGeo

## **APPENDIX A**

### **ROCK SAMPLE AND SCINTILLOMETER READING LOCATIONS**

### **SILT GEOCHEMICAL SAMPLE LOCATIONS AND SITE DESCRIPTIONS**

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# **ROCK SAMPLE AND SCINTILLOMETER READING LOCATIONS**

## Spectrum Mining Corporation

Waypoint	Sample Type	Sample #	Easting	Northing	Elevation	GPS Accuracy (m)	Description	Scintillometer Reading (cps)
3	n/s	n/s	567671	6037590		10	Small o/c or large angular talus block; reddish orange weathered; vuggy 1st or dolomitized 1st w/ cherty nodules; fines to calcareous argillite; vertical to steeply dipping if in place; strike 100° az; no sample taken	n/s
4	n/s	n/s	567657	6037354		10.8	Old flagged line crossing EAST FORK; probably Line 36+00E & 12+25N	n/s
5	Chip	WI09-KM01	567665	6037363	1145		0.5m by 0.75m coarse angular boulder in EAST FORK creek; about 75m upstream from confluence. Rock is qtz-carbonate micro-stockwork in creek boulder; comprised of pale yellow calcite & qtz w/ chlorite altered books of biotite. Calcite occurs as masses to subhedral rhombs but also with tabular and lamellar habit; generally shows perfect cleavage with pearly luster; reacts vigorously to dilute cold HCL; white streak. Chlorite occurs as fracture coatings; also limonite occurs as oxide coatings on fracture surfaces. Host seems to be breccia with blocks of micaceous schist & calcareous argillite. Minor siderite & ankerite alteration. Much of the bedrock in vicinity appears to be platy limestone, nodular or ribbon chert limestone. Measures 366 cps on scint.	366
6	Chip	WI09-KM02	567692	6037381	1145		O/C in creek, partially underwater; at old line crossing; strike 150°/60° NE. Unit is pale grey weathered; white-grey fresh; f.g. to xstalline impure limestone; local thin & well-bedded 1st & nodular and ribbon chert impure 1st; cross-cut by calcite-fluorite & qtz carbonate veinlets & small microstockworks, minor cubic pyrite; dark purple fluorite occurs as subhedral xstals, disseminations and blebs; 1st looks recrystallized; intercalated minor calcareous argillite beds appear underwater; earthy light brown fe-oxide masses on weathered surfaces, reacts vigorously to dilute HCL; interval measures up to 20cm by 30 cm; measures up to 870 cps with scint.	870
7	Scint		567710	6037392	1141	8.5		261
8	Scint		567727	6037399	1140	9.8		216
9	Scint		567737	6037433	1161	12.5		303
10	Scint		567745	6037429	1194	8.4		507
11	Scint		567764	6037467	1193	7		335
12	Scint		567767	6037484	1180	8.6		500
13	Scint		567786	6037500	1201	9		397
14	Scint		567792	6037516	1223	10.3		252
15	Scint		567765	6037516	1227	10.4		614
16	Chip	WI09-KM03	567741	6037525	1237	17.8	Open clearing; blocky talus or subcrop; blocks of very f.g calcareous argillite; one block is pale-grey to black weathered, varicolored fresh, medium grained, poorly sorted, poorly bedded but weakly imbricated conglomerate comprised of qtz pebbles, calcite fragments, siltstone & lithic frags (look like laminated rip-up clasts) in polymictic mtx. Some clasts measure up to 6 cm on long axis. Might be intraformational breccia. Secondary mica alteration. Unit reacts vigorously to dilute HCL. Minor pyrite. Scintillometer readings erratic; from 137 to 650 cps.	137
17	Scint		567712	6037499	1229	12.3	Lots of blocky ribbon chert 1st & dark black, f.g. calcareous argillite	175
18	Scint		567707	6037489	1217	24.4		192
19	Scint		567680	6037462	1198	10.4		336
20	Scint		567667	6037444	1191	12.9		341
21	Scint		567650	6037431	1189	12.4		201

Spectrum Mining Corporation

22	Scint		567639	6037422	1176	13.9		137
23	Scint		567616	6037396	1160	15.2		111
	Scint		NO GPS	NO GPS			22.3m downslope from waypoint 23 at bearing 220°; less than 75m above confluence of EAST FORK and WEST FORK creeks	115
24	Scint		567578	6037354	1145	20		122
25	Scint		567588	6037294	1145	20	Back at confluence of EAST FORK & WEST FORK creeks	184
26	Chip	WI09-KM04	567720	6037344	1133	31.1	Outcrop in EAST FORK creek; about 15 m upstream and east of sample WI09-KM02; pale-yellow brown weathered, grey-white fresh, recrystallized limestone with qtz-ankerite stringers. Cubic pyrite <1%. Clotty purple fluorite <1%. Bright yellow earthy oxide on surface fractures. Unit reacts vigorously to dilute HCL. Scint in bedrock location measured as high as 1425 cps but actually grab sample did not reach higher than 125 cps later when re-scinted so scintillometer high from o/c remains unexplained. Difficult footing in creek and overhanging bank made this a difficult location to sample.	1425

# **SILT GEOCHEMICAL SAMPLE LOCATIONS AND SITE DESCRIPTIONS**

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## Spectrum Mining Corporation

Waypoint	Location	Sample Type	Sample #	Easting	Northing	Elevation	GPS Accuracy (m)	Description
1	HELI PAD	n/s		567395	6038478	1361		Heli-Pad
2	CONFLUENCE OF EAST FORK & WEST FORK	n/s		567558	6037318	1370		Confluence of east fork & west fork creeks
3	OUTCROP	n/s		567586	6037528	1381		Possible Outcrop
4	EAST FORK	Silt Sample	WI09-BK01	567583	6037299			Coarse sand mixed w/ gravel; secondary organics; 1m to south of stream in small low energy 'pothole'
5	EAST FORK	Silt Sample	WI09-BK02	NO GPS	NO GPS			25m upstream of sample BK01; on stream bank; behind large boulder (low energy); very rocky soil; diff. to obtain fines
6	EAST FORK	Silt Sample	WI09-BK03	NO GPS	NO GPS			25m upstream of sample BK02; small pool on southern bank; fine gravel mixed with sed; stream is braided to 2 narrow channels; roughly 1m wide each
7	EAST FORK	Silt Sample	WI09-BK04	NO GPS	NO GPS			35m upstream of BK03; small pool at edge of outcrop; very rocky, frozen; difficult access to locate any fines for sampling
8	EAST FORK	Silt Sample	WI09-BK05	567722	6037355	1150	33	25m upstream of BK04; from north bank; under fallen log; fine sed; mixed with large pebble gravel
9	EAST FORK	Silt Sample	WI09-BK06	NO GPS	NO GPS			20m upstream of BK05; small pool on south bank; fairly rocky w/ some fine sed
10	EAST FORK	Silt Sample	WI09-BK07	NO GPS	NO GPS	1165		30m upstream of BK06; small bar in middle of stretch; stream roughly 1.5 m wide; stones surrounded by clay/silty sed
11	EAST FORK	Silt Sample	WI09-BK08	567798	6037416	1153	10	35m upstream of BK07; poor sample location in vicinity; no decent spots for fines; stream 1m wide
12	EAST FORK	Silt Sample	WI09-BK09	567819	6037415		9	25m upstream from BK08; larger pool w/ bar in middle; stream + 2m wide @ pool
13	EAST FORK	n/s	WI09-BK10	567845	6037407	1167	8	Old flagging; probable Teck Explorations' line; no signs of flagging on north side
14	EAST FORK	Silt Sample	WI09-BK11	567845	6037420		8.5	Small pool @ bottom of falls on O/C; large O/C on south side; no real streambed; more bedrock than sed; coarse sed/gravel under boulder; stream 2m wide
15	WEST FORK	Silt Sample	WI09-BK12	567567	6037373	1145	13.7	25m upstream of confluence of EAST FORK & WEST FORK aka Waypoint #2; small pool on east side; finer sed than other fork; more organics mixed; stream 2m wide
16	WEST FORK	Silt Sample	WI09-BK13	567556	6037395			Sediment mixed with organics; from west bank of stream; difficult to obtain good sample; very gravelly & organic
17	WEST FORK	Silt Sample	WI09-BK14	567536	6037401	1167	12	Stream braided into 2 narrow channels; sampled western channel; under mossy overhanging bank; fine silt mixed w/ layered clay
18	WEST FORK	Silt Sample	WI09-BK15	NO GPS	NO GPS			25m upstream from sample BK14; sample from under log on west bank of stream; stream width 2.5m; sed are fine w/ mixed organic material; very gravelly
19	WEST FORK	Silt Sample	WI09-BK16	567492	6037464		15	Sampled east side of stream; small 'pothole' w/ silty bottom; little organics material; fairly fine sed; little gravel
20	WEST FORK	Silt Sample	WI09-BK17	NO GPS	NO GPS			25m upstream from sample BK16; sampled east bank; dug under gravel to reach coarse grained sed; streambed rocks are very orange-rusty red; stream is 1m wide

Spectrum Mining Corporation

21	WEST FORK	n/s		NO GPS	NO GPS			20m upstream of BK17; flagging found on west side of stream
22	WEST FORK	Silt Sample	WI09-BK18	NO GPS	NO GPS			30m upstream of BK17; sampled med. sized pool below falls over log; very rich sediment, small coarse pebbles mixed thru-out; rocks still rusty in stream bed
23	WEST FORK	Silt Sample	WI09-BK19	567404	6037580	1167	25	Stream is 1.5m wide; sampled under overhanging rocks on east side of creek; fine silt mixed w/ clay & organics
24	WEST FORK	Silt Sample	WI09-BK20	NO GPS	NO GPS			30m upstream from sample BK19; sampled under overhanging mossy log on west bank; very gravelly; very little organics
25	WEST FORK	Silt Sample	WI09-BK21	NO GPS	NO GPS			25m upstream of sample BK20; sampled small pool behind log dam; stream is 1m wide; fairly coarse sediment mixed with gravel
26	MAINSTEM BELOW CONFLUENCE OF EAST & WEST FORKS	Silt Sample	WI09-BK22	NO GPS	NO GPS			25m south of confluence of 2 creeks on the mainstem; stream roughly 2.5m wide; very coarse bedload
27	MAINSTEM BELOW CONFLUENCE OF EAST & WEST FORKS	Silt Sample	WI09-BK23	NO GPS	NO GPS			50m south of confluence of 2 creeks on the mainstem; sampled small 'pothole' on east side of stream; fine silt mixed w/ clay; some organics

**APPENDIX B**

**LABORATORY  
CERTIFICATES**

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**SPECTRUM MINING-X09**

Ref/I.D.: WICHEEDA: WI09 KM01 - KM04  
 Report date: 6 JAN 2010  
 Acme Job No: V09-0446R



LAB NO	FIELD NUMBER	Ce(P) ppm	La(P) ppm	Nd(P) ppm	Nb(P) ppm	F %
R0921209	ACME PREP BLANK	71	59	14	22	0.10
R0921209 rpt						0.10
R0921666	WI09-KM01	59	34	25	<3	0.03
R0921667	WI09-KM02	7064	4461	1387	88	0.47
R0921668	WI09-KM03	1282	726	336	154	0.08
R0921669	WI09-KM04	1434	785	448	70	0.22
STD: STSD-1						0.10
STD: LIBF						13.06
STD: OKA-1			<3	<3	3672	
STD: SY-3		2307	<3	<3	140	
STD: SY-4				58	15	

I=insufficient sample  
 If requested analyses are not shown, results are to follow

**ANALYTICAL METHODS**

- Ce(P) X-Ray fluorescence / pressed pellet
- La(P) X-Ray fluorescence / pressed pellet
- Nd(P) X-Ray fluorescence / pressed pellet
- Nb(P) X-Ray fluorescence / pressed pellet
- F NaOH fusion / analysis by specific ion electrode



*Fred Lo*  
 Fred Lo, Chemist - Acme Laboratories



**SPECTRUM MINING-X09**

Ref/I.D.: WICHEEDA: WI09 KM01 - KM04  
 Report date: 20 NOV 2009  
 Acme Job No: V09-0446R



LAB NO	FIELD NUMBER	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bi ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Ti %	Al %	Ca %	Na %	K %	P ppm	S %	Se ppm
R0921209	ACME PREP BLANK	4	<4	46	<0.4	2	329	<1	3	4	1.80	<2	59	<5	<5	37	<2	<2	58	4	30	553	0.56	0.10	0.85	0.56	0.15	0.48	854	<.05	<5
R0921666	WI09-KM01	20	25	5	1.0	2	93	<1	1	4	0.41	<2	45	<5	<5	6	21	<2	479	7	23	448	0.20	<.01	0.13	10.47	0.05	0.01	377	<.05	<5
R0921667	WI09-KM02	8	38	24	<0.4	249	99	<1	2	<1	2.56	23	23	<5	<5	65	<2	<2	880	165	7218	4552	2.58	<.01	0.15	15.25	0.11	0.14	1195	0.34	<5
R0921667 rpt		8	36	23	<0.4	249	101	<1	2	<1	2.57	24	22	<5	<5	65	<2	<2	900	166	7263	4563	2.61	<.01	0.15	15.22	0.06	0.14	1188	0.33	<5
R0921668	WI09-KM03	8	15	38	<0.4	149	86	<1	2	6	3.04	4	21	<5	<5	50	<2	<2	836	47	821	3622	1.85	<.01	0.07	12.69	0.05	0.07	158	0.09	<5
R0921669	WI09-KM04	5	<4	40	<0.4	2	140	<1	<1	6	3.27	<2	8	<5	<5	7	3	<2	216	99	31	655	0.20	0.06	1.37	3.08	0.61	0.43	511	0.48	<5
STD: DA		122	199	632	6.7	45	279	3	9	31	2.91	3	31	<5	<5	52	2	<2	34	8	13	609	0.45	0.05	1.25	0.47	0.10	0.10	904	0.18	<5

I=insufficient sample  
 If requested analyses are not shown, results are to follow

**ANALYTICAL METHODS**

GROUP 1AA ICP-AES: 30 element package digested in hot reverse aqua regia (soil, silt) or hot aqua regia (rocks).

*Alice Kwan*  
 Alice Kwan, Chemist - Acme Laboratories

**SPECTRUM MINING-X09**

Ref/I.D.: WICHEEDA: WI09 BK01 - BK23  
Report date: 17 DEC 2009  
Acme Job No: V09-0447S



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LAB NO	FIELD NUMBER	F %
S0902949	WI09-BK01	0.15
S0902950	WI09-BK02	0.15
S0902951	WI09-BK03	0.09
S0902952	WI09-BK04	0.17
S0902952 rpt		0.19
S0902953	WI09-BK05	0.12
S0902954	WI09-BK06	0.09
S0902955	WI09-BK07	0.13
S0902956	WI09-BK08	0.14
S0902957	WI09-BK09	0.12
S0902958	WI09-BK11	0.11
S0902959	WI09-BK12	0.10
S0902960	WI09-BK13	0.08
S0902961	WI09-BK14	0.10
S0902962	WI09-BK15	0.08
S0902963	WI09-BK16	0.09
S0902964	WI09-BK17	0.10
S0902965	WI09-BK18	0.03
S0902966	WI09-BK19	0.09
S0902967	WI09-BK20	0.02
S0902968	WI09-BK21	0.11
S0902969	WI09-BK22	0.09
S0902970	WI09-BK23	0.10
STD: STSD-1		0.08
STD: LIBF		13.28
Blank		<0.01

---

I=insufficient sample

If requested analyses are not shown, results are to follow

**ANALYTICAL METHODS**

F NaOH fusion / analysis by specific ion electrode



SPECTRUM MINING-X09

Ref/I.D.: WICHEEDA: WI09 BK01 - BK23

Report date: 20 NOV 2009

GDL Job No: V09-0447S



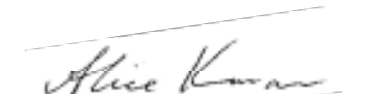
LAB NO	FIELD NUMBER	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bi ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Ti %	Al %	Ca %	Na %	K %	P ppm	S %	Se ppm
S0902949	WI09-BK01	17	22	80	<0.4	77	63	<1	10	22	2.97	2	17	<5	<5	18	2	<2	54	22	62	1268	0.98	<.01	1.22	1.37	0.04	0.06	1488	0.05	<5
S0902950	WI09-BK02	17	22	76	<0.4	78	64	<1	11	24	3.35	2	20	<5	<5	19	3	<2	73	19	79	1291	0.91	<.01	1.12	2.24	0.04	0.05	1456	<.05	<5
S0902951	WI09-BK03	13	20	71	<0.4	55	51	<1	10	21	2.83	<2	19	<5	<5	15	<2	<2	56	18	81	1052	0.90	<.01	1.17	1.78	0.04	0.05	1447	<.05	<5
S0902952	WI09-BK04	15	23	77	<0.4	92	49	<1	10	24	3.21	2	19	<5	<5	18	2	<2	81	18	106	1076	1.17	<.01	1.31	2.84	0.04	0.06	1535	0.06	<5
S0902952 rpt		16	22	78	<0.4	89	46	<1	10	21	3.04	2	17	<5	<5	16	<2	<2	70	17	92	1058	1.01	<.01	1.09	2.84	0.04	0.05	1370	0.05	<5
S0902953	WI09-BK05	14	23	77	<0.4	98	54	<1	10	24	3.34	<2	21	<5	<5	20	<2	<2	68	18	68	1222	1.22	<.01	1.40	2.23	0.04	0.05	1413	<.05	<5
S0902954	WI09-BK06	15	19	79	<0.4	93	61	<1	10	23	3.43	2	20	<5	<5	25	<2	<2	54	23	109	1402	1.06	<.01	1.22	1.81	0.05	0.07	1493	<.05	<5
S0902955	WI09-BK07	15	19	84	<0.4	56	61	<1	11	23	3.29	<2	20	<5	<5	19	<2	<2	67	18	59	1260	1.22	<.01	1.28	2.59	0.05	0.08	1296	<.05	<5
S0902956	WI09-BK08	14	18	81	0.5	73	50	<1	10	26	3.62	2	23	<5	<5	26	<2	<2	52	17	63	1220	1.38	<.01	1.34	1.80	0.05	0.06	1345	<.05	<5
S0902957	WI09-BK09	15	21	82	<0.4	122	52	<1	11	27	3.63	<2	21	<5	<5	23	<2	<2	58	18	63	1220	1.38	<.01	1.35	2.23	0.04	0.06	1279	<.05	<5
S0902958	WI09-BK11	14	20	84	<0.4	79	51	<1	10	22	3.27	<2	20	<5	<5	19	<2	<2	55	17	40	1195	1.20	<.01	1.28	2.30	0.04	0.07	1697	<.05	<5
S0902959	WI09-BK12	18	14	70	<0.4	18	43	<1	9	21	2.81	<2	20	<5	<5	16	<2	<2	38	15	47	833	1.01	<.01	1.20	1.33	0.04	0.05	1295	0.05	<5
S0902959 rpt		17	16	63	0.4	15	41	<1	9	19	2.53	<2	20	<5	<5	12	<2	<2	35	14	34	819	0.83	<.01	1.05	1.22	0.04	0.04	1258	0.05	<5
S0902960	WI09-BK13	17	13	72	0.5	10	43	<1	9	19	2.66	<2	17	<5	<5	13	<2	<2	57	13	27	793	1.00	<.01	1.14	2.42	0.05	0.05	1206	<.05	<5
S0902961	WI09-BK14	14	14	63	<0.4	11	38	<1	9	18	2.63	<2	20	<5	<5	14	<2	<2	39	13	30	665	0.91	<.01	1.09	1.46	0.05	0.05	1232	<.05	<5
S0902962	WI09-BK15	14	16	72	0.9	11	36	<1	9	23	2.88	<2	22	<5	<5	16	<2	<2	61	10	30	667	1.22	<.01	1.22	2.40	0.05	0.05	1113	<.05	<5
S0902963	WI09-BK16	15	13	66	0.5	13	44	<1	9	18	2.53	<2	15	6	<5	14	<2	<2	40	15	35	772	0.85	<.01	1.08	1.50	0.05	0.05	1216	<.05	<5
S0902964	WI09-BK17	15	13	70	<0.4	17	43	<1	9	19	2.73	<2	19	<5	<5	14	<2	<2	47	13	36	817	1.02	<.01	1.17	2.01	0.05	0.05	1115	<.05	<5
S0902965	WI09-BK18	16	15	77	0.6	14	45	<1	9	20	2.87	<2	20	<5	<5	14	<2	<2	56	14	30	851	1.06	<.01	1.22	2.39	0.04	0.05	1265	<.05	<5
S0902966	WI09-BK19	16	15	75	<0.4	13	47	<1	10	19	2.78	<2	21	<5	<5	16	<2	<2	49	14	36	766	0.99	<.01	1.18	2.05	0.05	0.06	1193	<.05	<5
S0902967	WI09-BK20	15	15	77	<0.4	25	40	<1	10	21	3.02	<2	20	<5	<5	16	<2	<2	60	13	37	789	1.25	<.01	1.30	2.72	0.04	0.05	1084	<.05	<5
S0902968	WI09-BK21	16	21	91	<0.4	13	49	<1	10	23	3.27	3	20	<5	<5	17	<2	<2	58	13	35	1021	1.24	<.01	1.32	2.56	0.05	0.07	1260	<.05	<5
S0902969	WI09-BK22	13	21	76	<0.4	98	50	<1	11	24	3.38	<2	20	<5	<5	20	<2	<2	63	13	47	1220	1.21	<.01	1.26	2.56	0.04	0.06	1247	<.05	<5
S0902970	WI09-BK23	14	17	71	0.5	78	55	<1	9	20	2.89	2	17	<5	<5	17	<2	<2	45	20	72	1152	0.87	<.01	1.06	1.32	0.05	0.06	1430	<.05	<5
STD: DA		124	221	651	5.9	50	396	3	11	35	3.08	3	29	<5	5	51	3	<2	33	8	14	637	0.43	0.03	1.43	0.48	0.05	0.11	914	0.19	<5

I=insufficient sample

If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

GROUP 1AA ICP-AES: 30 element package digested in hot reverse aqua regia (soil, silt) or hot aqua regia (rocks).

  
 Alice Kwan, Chemist - Acme Laboratories

**APPENDIX C**

**FLUORITE GRID**

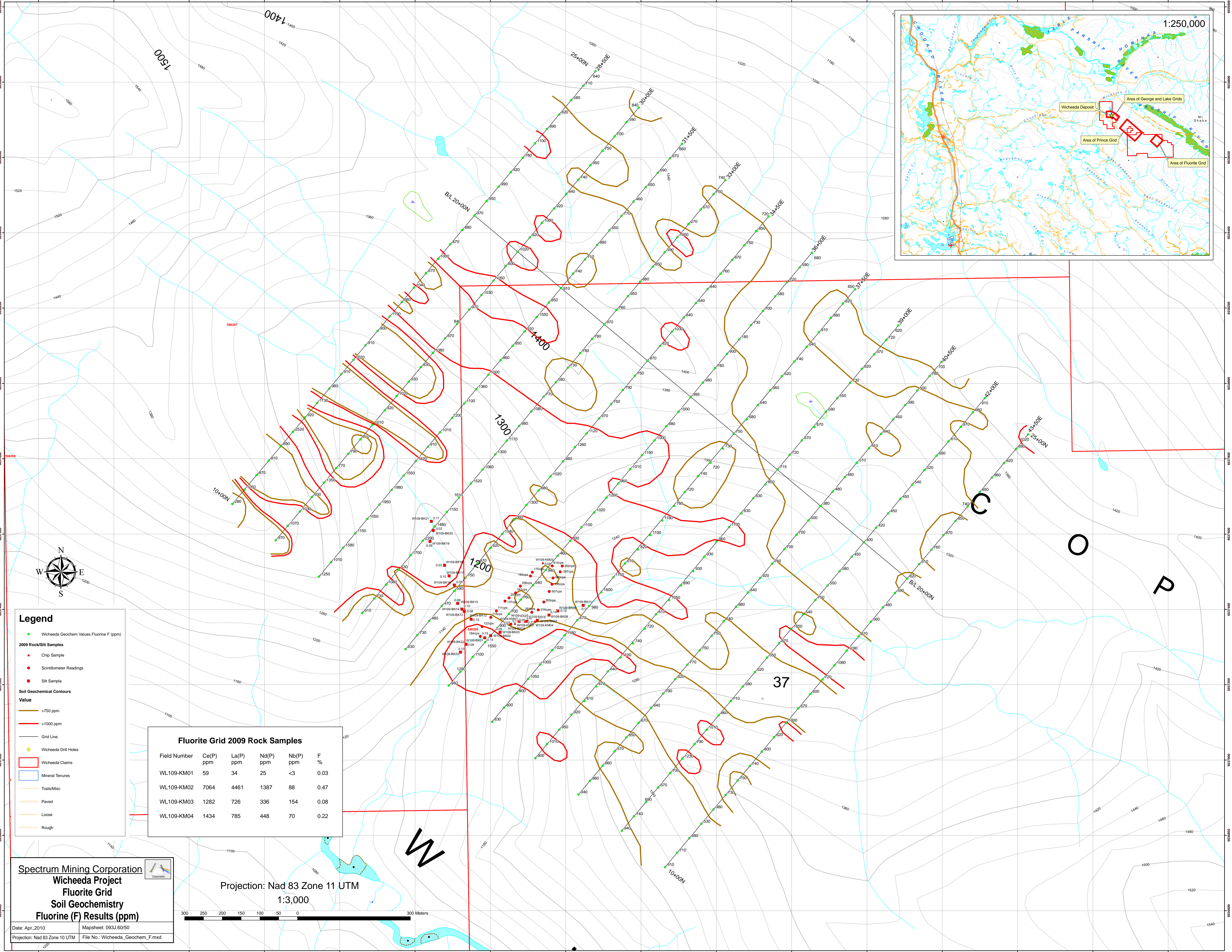
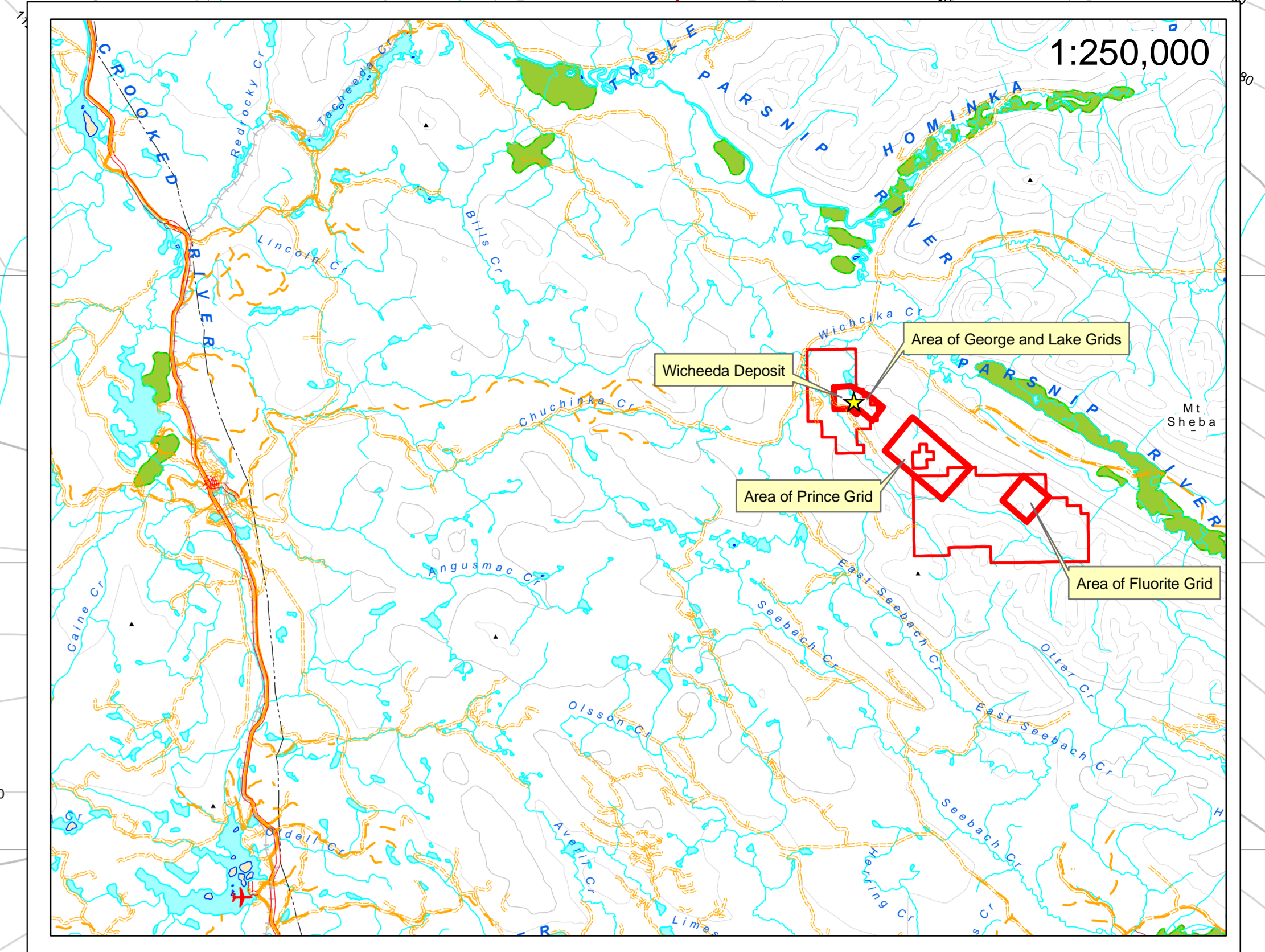
**SOIL GEOCHEMICAL MAPS**

**FOR**

**FLUORITE, LANTHANUM**

**AND NIOBIUM**

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**Legend**

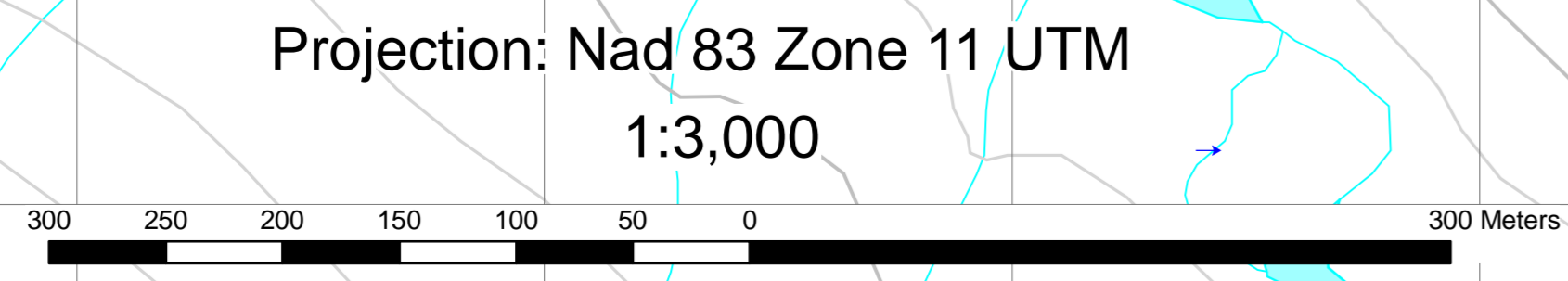
- Wicheeda Geochem Values Fluorine F (ppm)
- 2009 Rock/Silt Samples
  - Chip Sample
  - Scintillometer Readings
  - Silt Sample
- Soil Geochemical Contours Value
  - >750 ppm
  - >1000 ppm
- Grid Line
- Wicheeda Drill Holes
- Wicheeda Claims
- Mineral Tenures
- Trails/Misc
- Paved
- Loose
- Rough

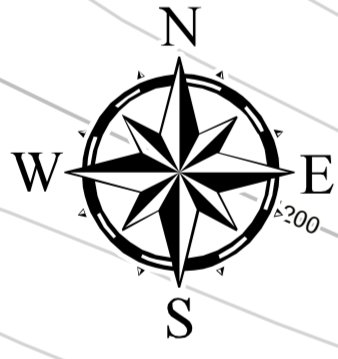
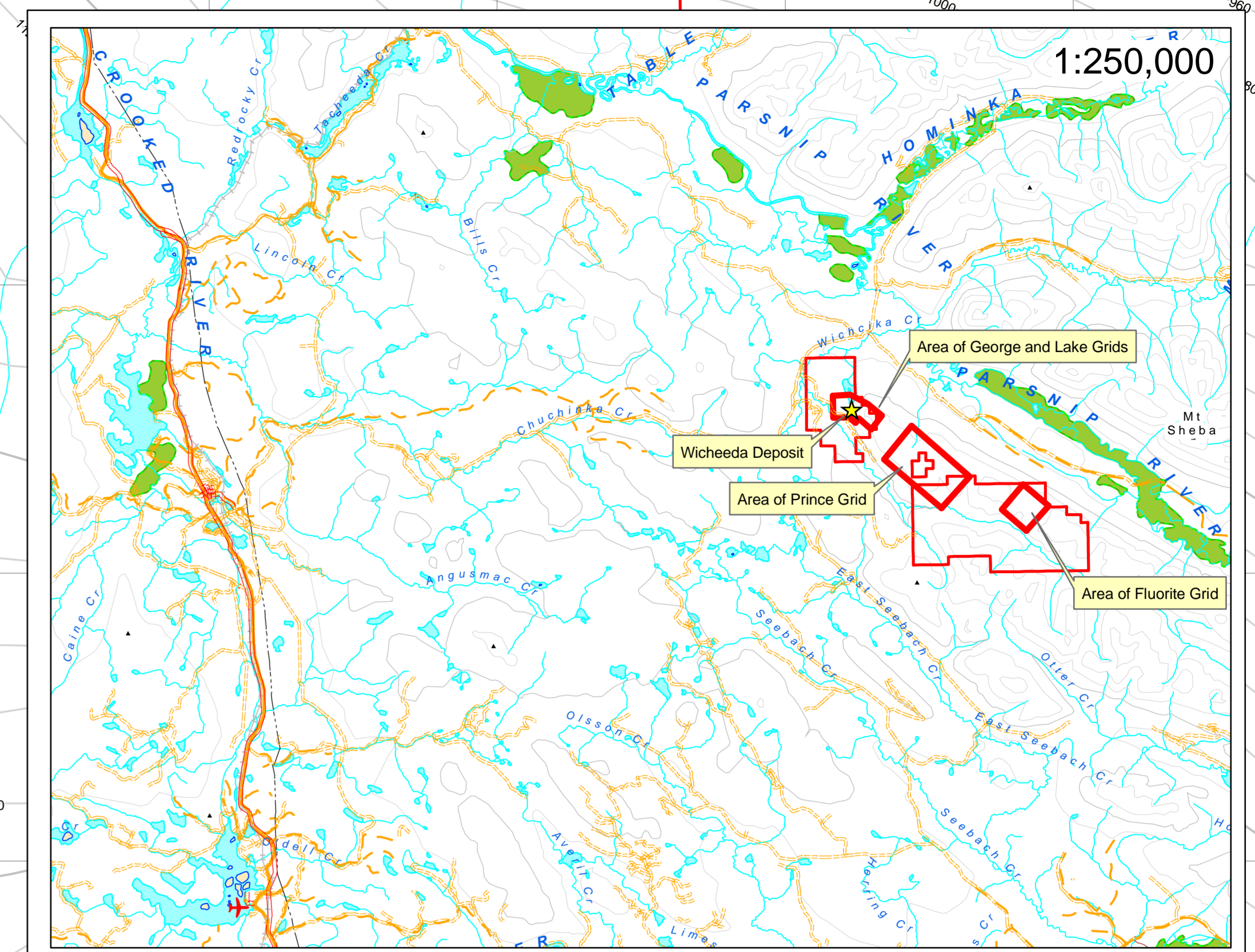
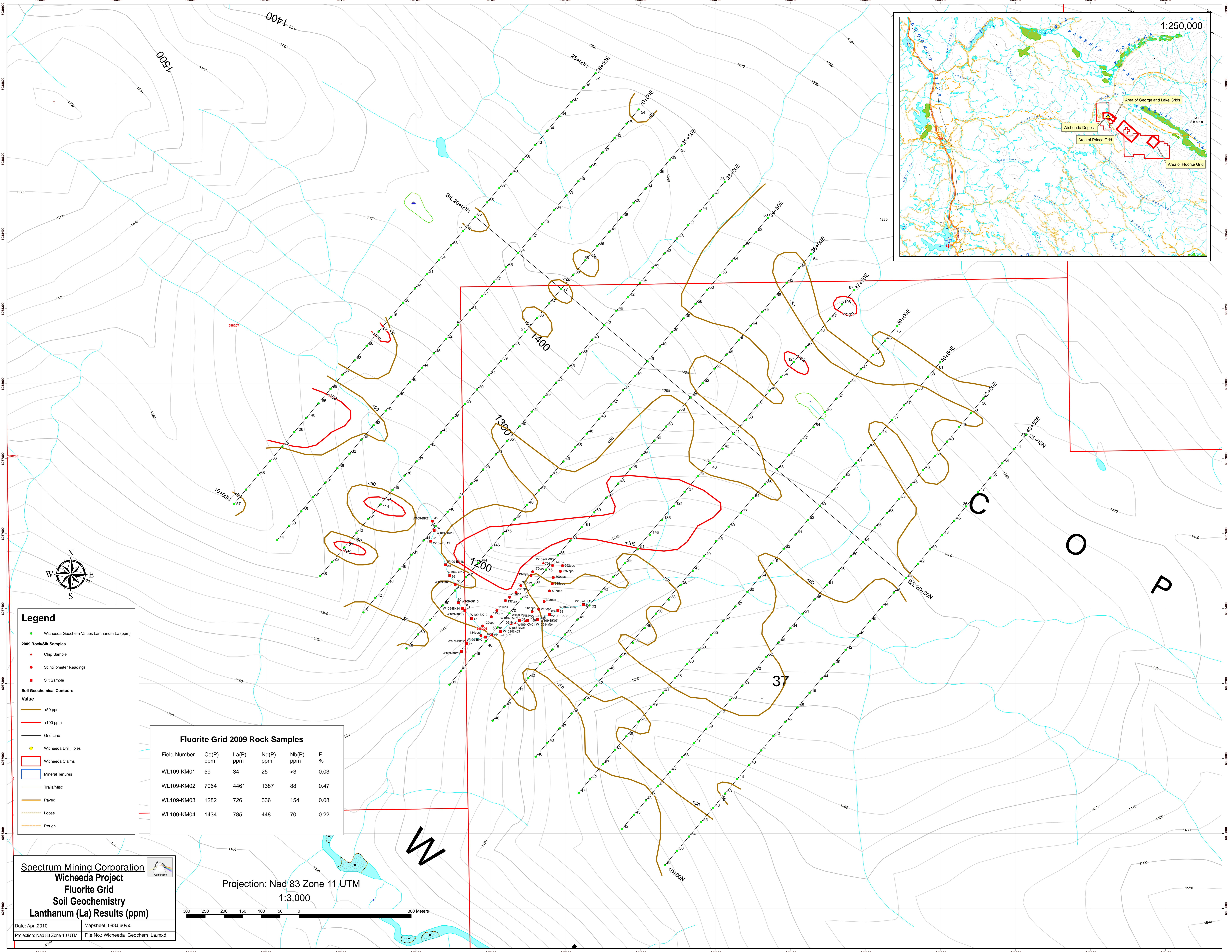
**Fluorite Grid 2009 Rock Samples**

Field Number	Ce(P) ppm	La(P) ppm	Nd(P) ppm	Nb(P) ppm	F %
WL109-KM01	59	34	25	<3	0.03
WL109-KM02	7064	4461	1387	88	0.47
WL109-KM03	1282	726	336	154	0.08
WL109-KM04	1434	785	448	70	0.22

**Spectrum Mining Corporation**  
**Wicheeda Project**  
**Fluorite Grid**  
**Soil Geochemistry**  
**Fluorine (F) Results (ppm)**

Date: Apr.,2010    Mapsheet: 093J.60/50  
 Projection: Nad 83 Zone 10 UTM    File No.: Wicheeda\_Geochem\_F.mxd





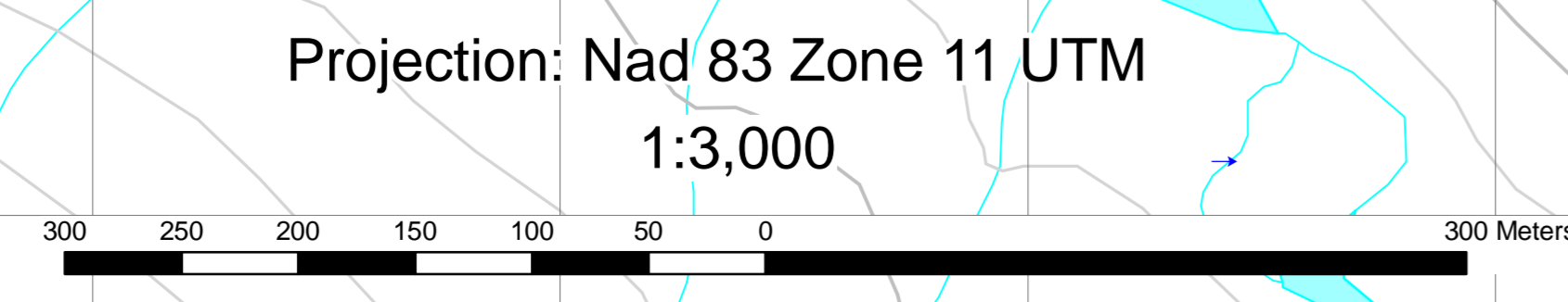
- Legend**
- Wicheeda Geochem Values Lanthanum La (ppm)
  - 2009 Rock/Silt Samples
    - Chip Sample
    - Scintillometer Readings
    - Silt Sample
  - Soil Geochemical Contours Value
    - <50 ppm
    - <100 ppm
  - Grid Line
  - Wicheeda Drill Holes
  - Wicheeda Claims
  - Mineral Tenures
  - Trails/Misc
    - Paved
    - Loose
    - Rough

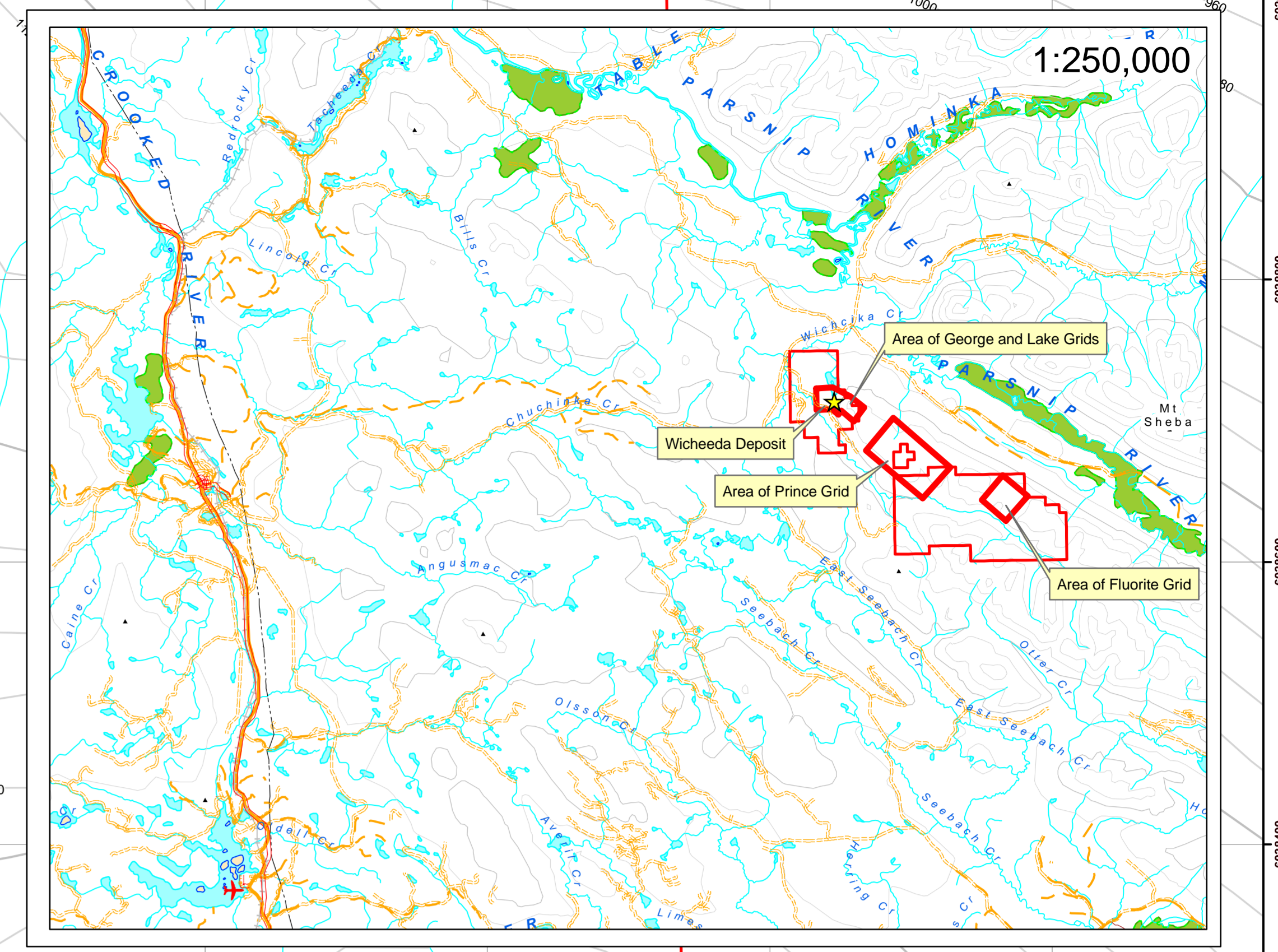
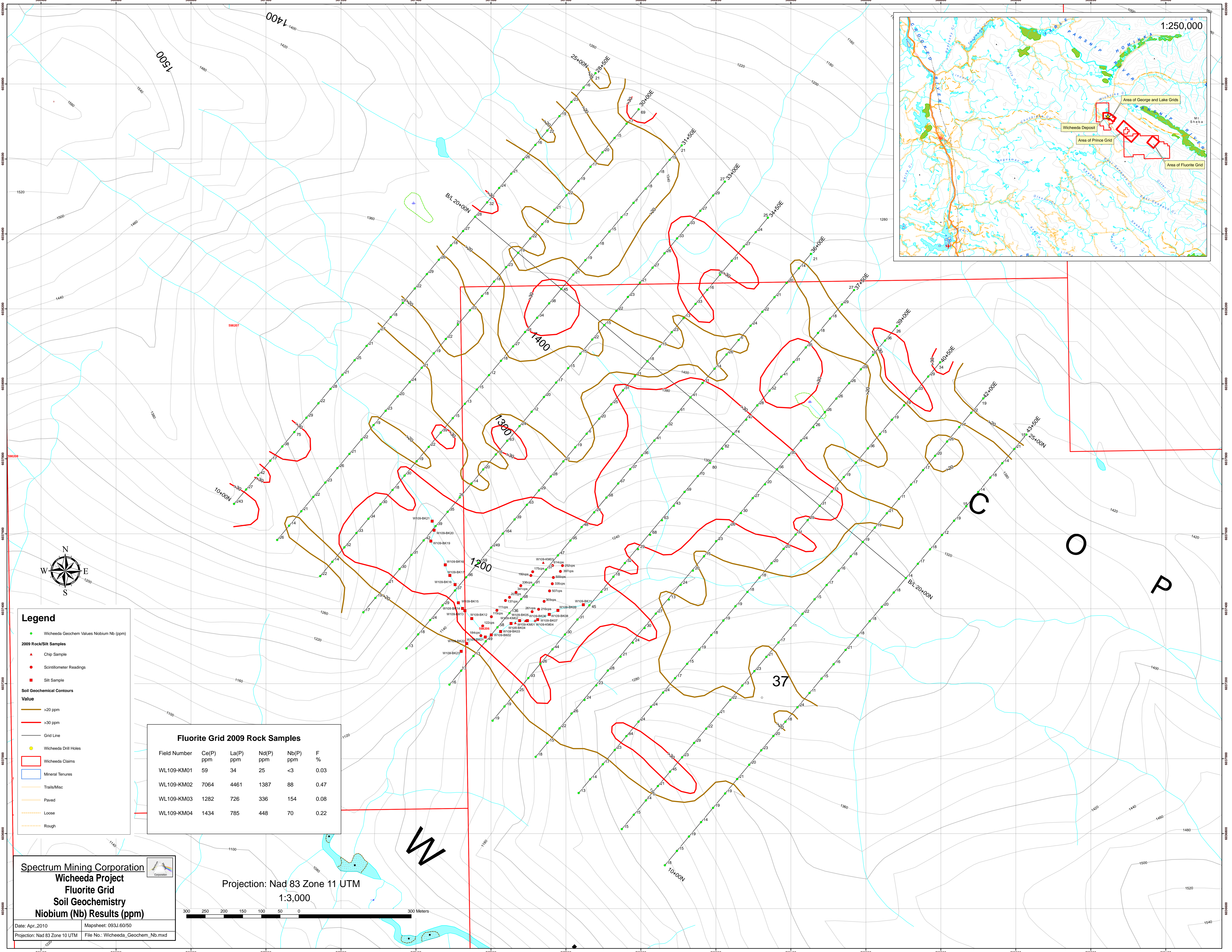
**Fluorite Grid 2009 Rock Samples**

Field Number	Ce(P) ppm	La(P) ppm	Nd(P) ppm	Nb(P) ppm	F %
WL109-KM01	59	34	25	<3	0.03
WL109-KM02	7064	4461	1387	88	0.47
WL109-KM03	1282	726	336	154	0.08
WL109-KM04	1434	785	448	70	0.22

**Spectrum Mining Corporation**  
**Wicheeda Project**  
**Fluorite Grid**  
**Soil Geochemistry**  
**Lanthanum (La) Results (ppm)**

Date: Apr.,2010      Mapsheet: 093J.60/50  
 Projection: Nad 83 Zone 10 UTM      File No.: Wicheeda\_Geochem\_La.mxd





**Legend**

- Wicheeda Geochem Values Niobium Nb (ppm)
- 2009 Rock/Silt Samples
  - Chip Sample
  - Scintillometer Readings
  - Silt Sample
- Soil Geochemical Contours Value
  - >20 ppm
  - >30 ppm
- Grid Line
- Wicheeda Drill Holes
- Wicheeda Claims
- Mineral Tenures
- Trails/Misc
- Paved
- Loose
- Rough

**Fluorite Grid 2009 Rock Samples**

Field Number	Ce(P) ppm	La(P) ppm	Nd(P) ppm	Nb(P) ppm	F %
WL109-KM01	59	34	25	<3	0.03
WL109-KM02	7064	4461	1387	88	0.47
WL109-KM03	1282	726	336	154	0.08
WL109-KM04	1434	785	448	70	0.22

**Spectrum Mining Corporation**  
**Wicheeda Project**  
**Fluorite Grid**  
**Soil Geochemistry**  
**Niobium (Nb) Results (ppm)**

Date: Apr., 2010      Mapsheet: 093J.60/50  
 Projection: Nad 83 Zone 10 UTM      File No.: Wicheeda\_Geochem\_Nb.mxd

Projection: Nad 83 Zone 11 UTM  
 1:3,000

W

C  
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P