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# **Assessment Work Report**

On Claims #4262044 &1247790

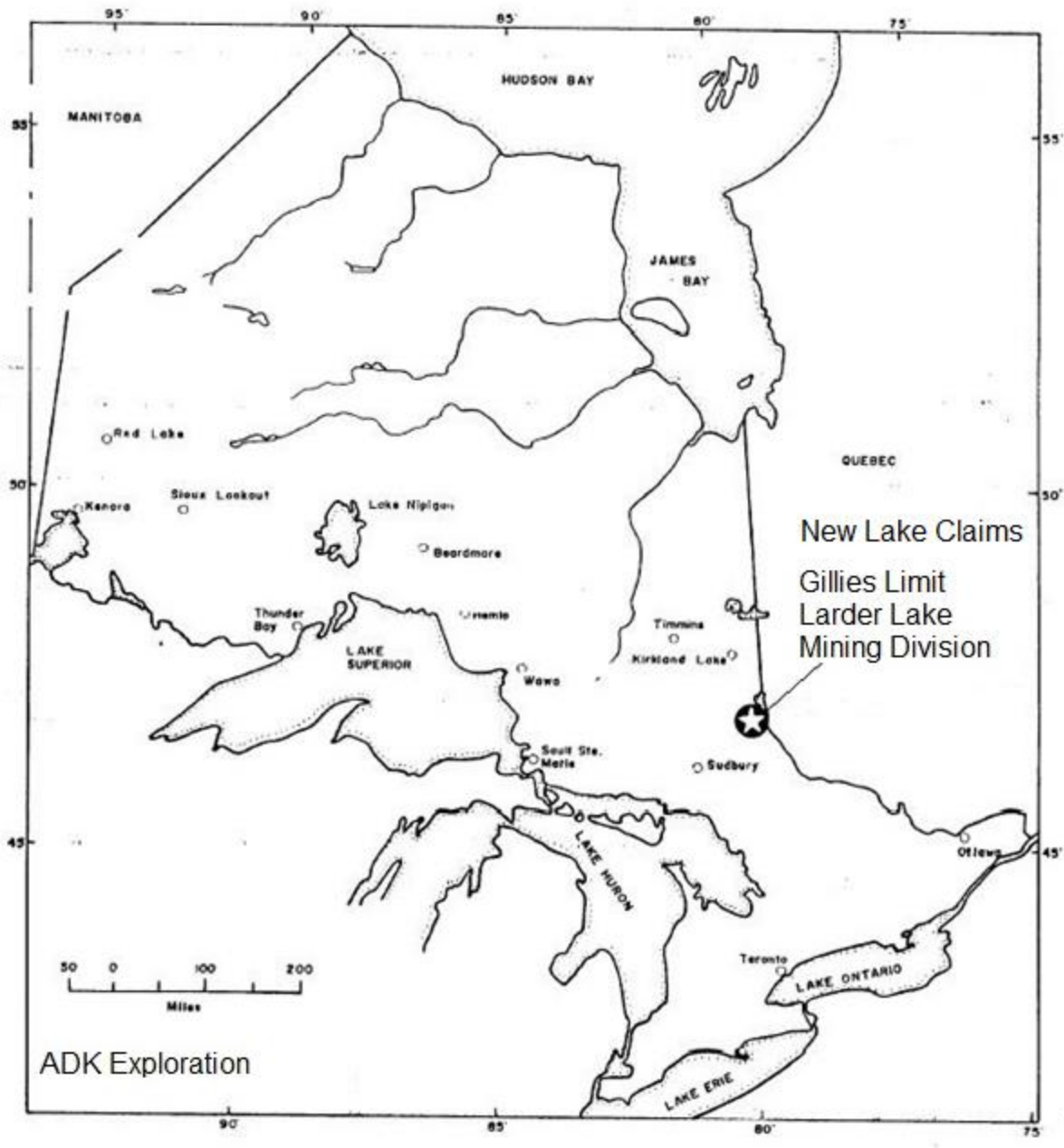
For Outcrop Explorations Ltd

By Alan Kon

May 14, 2017

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## **Introduction**

A Radiometric survey was undertaken on mining claims #4262044 & #1247790 (New Lake claims) located on the east side of Gillies Limit Township, Larder Lake Mining Division Ontario, on May 11<sup>th</sup> 2017. The work was performed by Al Kon and a helper Oliver Renson (HSM mining student) on behalf of Outcrop Exploration Ltd.

Transportation to the claim was by Chev pickup, ATV and on foot. The instrument used for the survey is a Scintrex GIS-4 Gamma Ray Spectrometer, an older spectrometer but still very accurate and dependable.

A Garmin 62st & Oregon 650 was used for navigation and data recording.

## **Property Location and Access**

The New Lake claims are located in the north east part of Gillies Limit Township, within close proximity of the historical silver mining town of Cobalt, Ontario. These claims can be accessed fairly easily by taking Coleman Rd east from Cobalt to Lawson Mine corner then take the Brady Lake Rd to the Mayfair Mine Rd. A trail going west from the Mayfair Mine crosses most of the claims to New Lake.

## **Topographical & Vegetation**

The topographical setting for the property is much the same as elsewhere in the Cobalt camp. Rolling hills, steep but low cliffs, and an average amount of exposed rock. There are a few small hills in the area. Swamps and low wet areas are abundant.

Vegetation is very heavy. Logging was done in the area at one point. Tree types are varied from small to medium sized cedar, birch and willow to medium and large poplar. There are also a few very large old white and red pines in the area. Undergrowth is thick with dogwood, scrub brush and other vegetation.

## **Wildlife**

Wildlife is much the same as other areas of northern Ontario, with bears, big cats, moose, wolves, and smaller animals such as rabbits, raccoons, beaver, otters, weasels, and birds such as loons, owls, eagles, ducks, and the odd vulture. Bugs...way too many bugs, but luckily not much this time of year.

## **Regional and Property Geology**

The New Lake properties are located within a geological area known as the Cobalt embayment. The rocks that underlie the project area include basement forming Keewatin mafic to felsic metavolcanics and Algoman granitic rocks overlain by relatively flat lying Huronian metasediments. A Nipissing aged diabase unit, in the form of sills and dykes, intrudes all of these rock types. Younger diabase dykes locally cross cut all of these rocks. Lamprophyre dykes of various ages intrude the Keewatin and Algoman rocks.

The rocks in the project area are strongly influenced by at least four major northwest trending regional scale fault structures. These include the Temiskaming Fault, the Crosswise Lake Fault, the Montreal River Fault and the Latchford Fault. Numerous cross-faults connect these major structures.

## Historical Work

The New Lake claims have mostly pits and trenches with a few shallow shafts. The Mayfair Mine is less than 1 km north east of the claims and produced about 26000 oz of silver from 1945 - 1962.

Cabo Mining Enterprises optioned the property from 2000 to 2006 and conducted several exploration programs including diamond drilling.

## Work Program

\*Radiometric Surveying is widely used in geologic mapping, soil surveying, mineral exploration, and lithologic studies. The radiometric, or gamma-ray spectrometric method is a geophysical process used to estimate concentrations of the radioelements potassium, uranium and thorium by measuring the gamma-rays which the radioactive isotopes of these elements emit during radioactive decay\*.

This work program was conducted to help determine whether there are any economical values of potential radioactive material such as uranium, thorium, & potassium.

The spectrometer was set at a fairly low threshold of 80 TC (Total Counts) and calibrated using a thorium TS-5 standard sample. Count time was set at 1 second and the alarm threshold was set to .1.

The survey was plotted starting at the east side line of claim #4262044 near the trail and would travel in an east west direction. Each station was plotted at 25m with 25m line spacing. The plan was to have the helper stay in front of the instrument operator and help guide him to the next station in a straight line through the bush which seemed to work fairly well. The operator held the instrument at about 2 feet above the ground but pointed downward while walking. When each station was reached, the operator would set the instrument down on the ground on an angle for approximately 1 minute then record the value displayed on the analog screen. This procedure worked very well but was time consuming.

Never once did the radiation values meet or exceed the 80 TC. Most values were recorded at or below 35 TC which is considered to be normal background radiation. There were a few stations that had higher counts of 40 to 60 TC but nothing to worry about. It's fairly safe to say that in this particular part of the New Lake claims it is safe to walk around in bare feet without having to worry about important body parts falling off due to radiation exposure.

Lines 5 & 6 had to be shorted to 100m in length and line 7 was removed due to snow and water covering most of this part of the claims. ( See *maps & data in Appendix I*)

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# Daily Log

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May 9th – Plot lines and stations on Garmin software

May 10 – Claim access

May 11 – Radiometric survey



## Recommendations

Even though the radiometric survey did not produce any good values on the south part of claims #4262044 & #1247709 which may be due to the depth of the overburden, it would still be a good idea to continue with another radiometric survey on the north part of the claims where there is a good deal more outcropping and exposed rock.

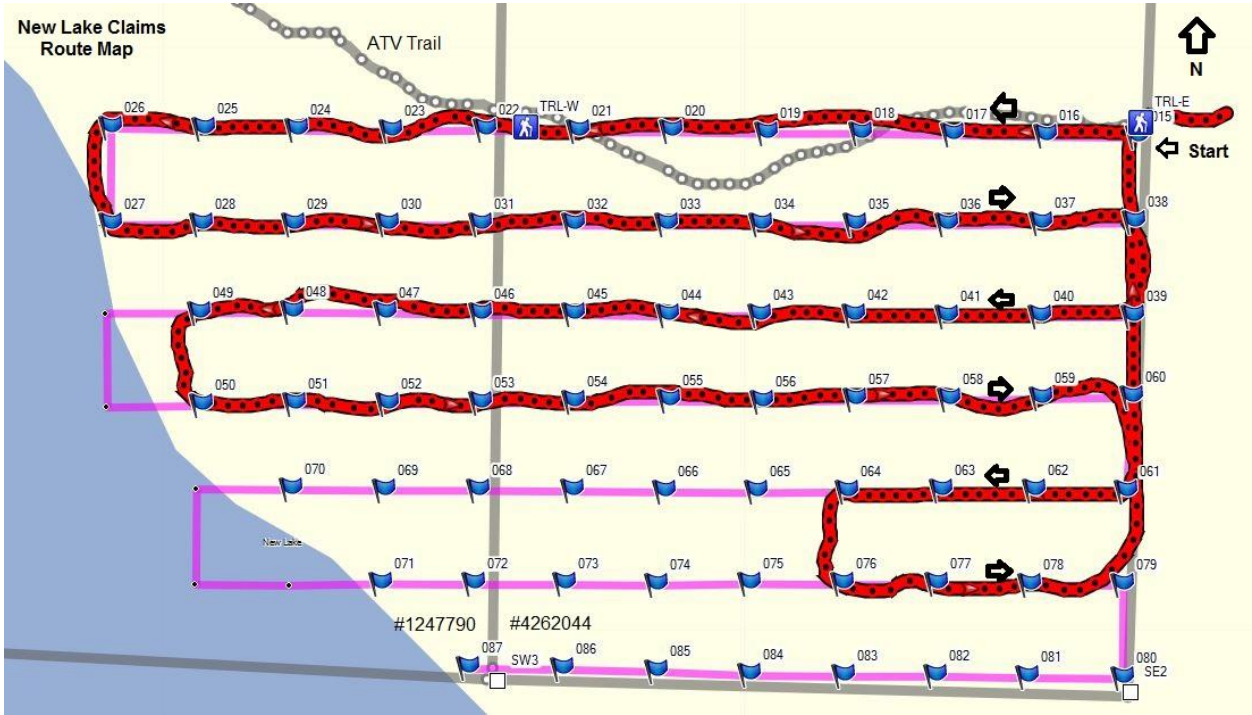
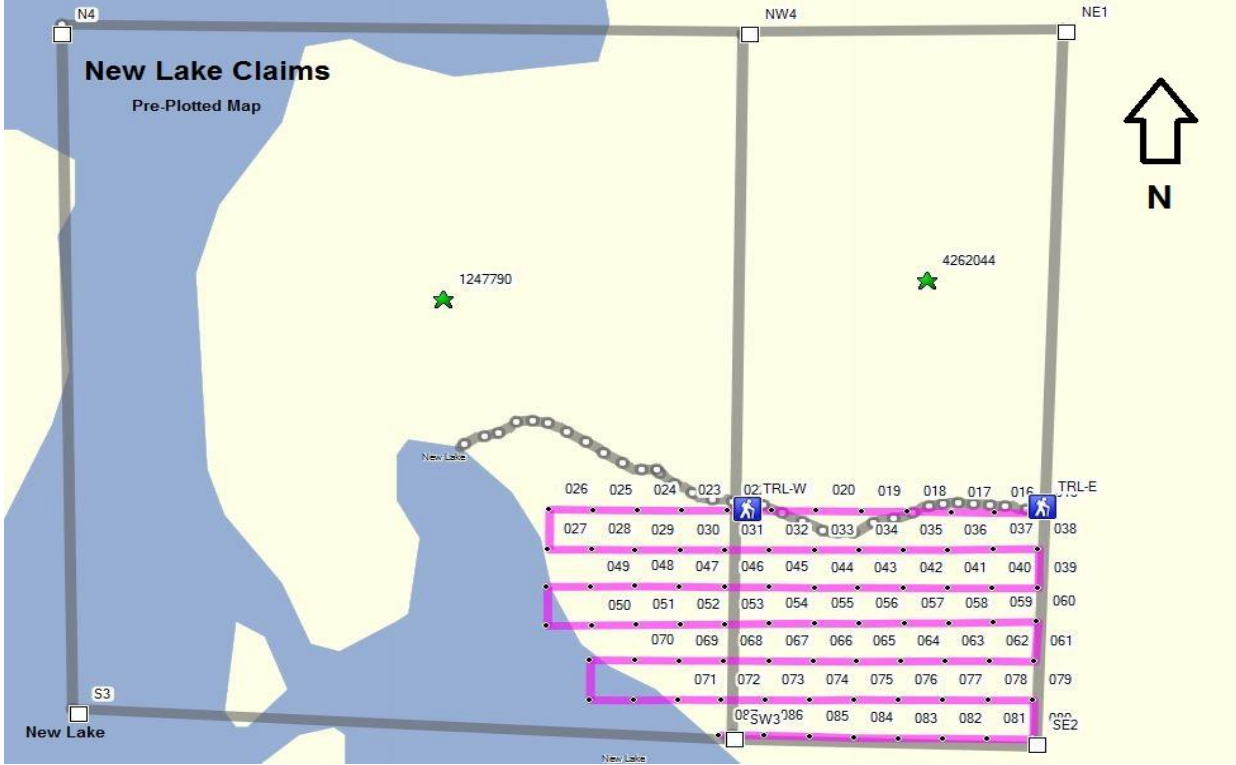
Thank you.

A handwritten signature in cursive script that reads "Alan Kon". The ink is dark and the signature is centered horizontally below the "Thank you." text.

Alan Kon

# **APPENDIX I**

Line	Station	Reading	Coordinates	Comment	Line	Station	Reading	Coordinates	Comment	
Line 1	15	31	17 T 601727 5244568		Line 4	50	24	17 T 601476 5244493		
	16	35	17 T 601702 5244568			51	32	17 T 601501 5244494		
	17	29	17 T 601677 5244568			52	40	17 T 601526 5244494		
	18	31	17 T 601652 5244568			53	12	17 T 601551 5244495	SWAMP	
	19	29	17 T 601627 5244567			54	45	17 T 601576 5244496		
	20	23	17 T 601601 5244567			55	32	17 T 601602 5244497		
	21	25	17 T 601576 5244567			56	33	17 T 601627 5244497		
	22	28	17 T 601551 5244567			57	34	17 T 601652 5244498		
	23	34	17 T 601526 5244566			58	38	17 T 601678 5244498		
	24	34	17 T 601500 5244566			59	38	17 T 601702 5244499		
	25	35	17 T 601475 5244566			60	55	17 T 601727 5244500	BOULDER	
	26	24	17 T 601450 5244566			Line 5	61	30	17 T 601726 5244475	
Line 2	27	26	17 T 601450 5244540		62		38	17 T 601701 5244474		
	28	22	17 T 601475 5244541		63		22	17 T 601676 5244474		
	29	21	17 T 601500 5244541		64		38	17 T 601650 5244473		
	30	40	17 T 601525 5244542		65		35	17 T 601626 5244473		
	31	34	17 T 601550 5244542		66			17 T 601601 5244473	Omitted	
	32	33	17 T 601575 5244542		67			17 T 601576 5244472	Omitted	
	33	25	17 T 601601 5244543		68			17 T 601551 5244472	Omitted	
	34	22	17 T 601626 5244543		69			17 T 601525 5244472	Omitted	
	35	31	17 T 601651 5244544		70			17 T 601500 5244471	Omitted	
	36	30	17 T 601676 5244544		Line 6		71		17 T 601525 5244447	Omitted
	37	30	17 T 601701 5244545				72		17 T 601550 5244447	Omitted
	38	31	17 T 601727 5244546			73		17 T 601575 5244448	Omitted	
Line 3	39	35	17 T 601727 5244521			74		17 T 601599 5244448	Omitted	
	40	35	17 T 601702 5244520			75	38	17 T 601624 5244449		
	41	34	17 T 601677 5244520			76	30	17 T 601650 5244449		
	42	24	17 T 601651 5244520			77	28	17 T 601675 5244449		
	43	31	17 T 601626 5244520			78	41	17 T 601700 5244450		
	45	33	17 T 601576 5244519			79	30	17 T 601725 5244450	END	
	46	41	17 T 601551 5244518	PIT		Line 7	80		17 T 601726 5244426	Omitted
	47	34	17 T 601525 5244518				81		17 T 601700 5244425	Omitted
	48	34	17 T 601500 5244518				82		17 T 601675 5244425	Omitted
	49	29	17 T 601475 5244517		83			17 T 601650 5244425	Omitted	
					84			17 T 601625 5244425	Omitted	
					85			17 T 601600 5244425	Omitted	
				86			17 T 601574 5244425	Omitted		
				87			17 T 601549 5244425	Omitted		



LINE 1

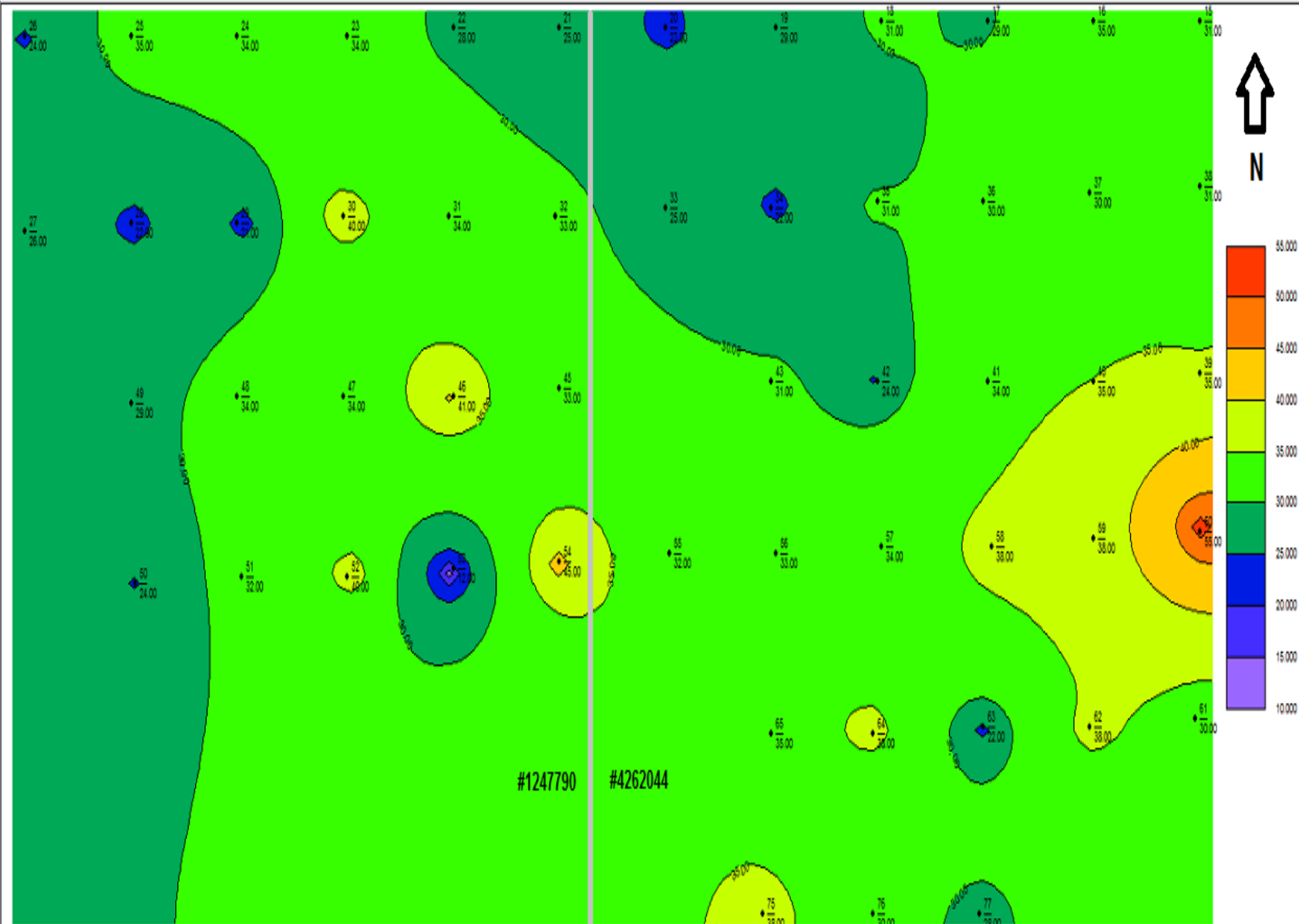
LINE 2

LINE 3

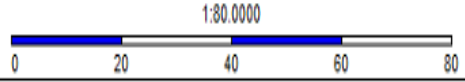
LINE 4

LINE 5

LINE 6



• New Lake Radiometric Survey - May 11, 2017



# **APPENDIX II**

## Garmin Oregon 650

<b>Oregon 650 Physical &amp; Performance:</b>	
<b>Unit dimensions, WxHxD:</b>	2.4" x 4.5" x 1.3" (6.1 x 11.4 x 3.3 cm)
<b>Display size, WxH:</b>	1.5"W x 2.5"H (3.8 x 6.3 cm); 3" diag (7.6 cm)
<b>Display resolution, WxH:</b>	240 x 400 pixels
<b>Display type:</b>	Transflective colour TFT touchscreen
<b>Weight:</b>	7.4 oz (209.8 g) with batteries
<b>Battery:</b>	rechargeable NiMH pack (included) or 2 AA batteries (not included); NIMH or Lithium recommended
<b>Battery life:</b>	8-16 hours depending on use
<b>Waterproof:</b>	yes (IPX7)
<b>Floats:</b>	no
<b>High-sensitivity receiver:</b>	yes
<b>PC interface:</b>	USB and NMEA 0183 compatible
<b>RoHS version available:</b>	yes

## Garmin GPSmap 62st

<b>Garmin GPSMAP 62st Physical &amp; Performance:</b>	
<b>Unit dimensions, WxHxD:</b>	2.4" x 6.3" x 1.4" (6.1 x 16.0 x 3.6 cm)
<b>Display size, WxH:</b>	1.6" x 2.2" (4.1 x 5.6 cm); 2.6" diag (6.6 cm)
<b>Display resolution, WxH:</b>	160 x 240 pixels
<b>Display type:</b>	transflective, 65-K color TFT
<b>Weight:</b>	9.2 oz (260.1 g) with batteries
<b>Battery:</b>	2 AA batteries (not included); NIMH or Lithium recommended
<b>Battery life:</b>	20 hours
<b>Waterproof:</b>	yes (IPX7)
<b>Floats:</b>	no
<b>High-sensitivity receiver:</b>	yes
<b>Interface:</b>	USB and NMEA 0183 compatible

## Scintrex GIS-4 Gamma Ray Spectrometer

Simple to operate.

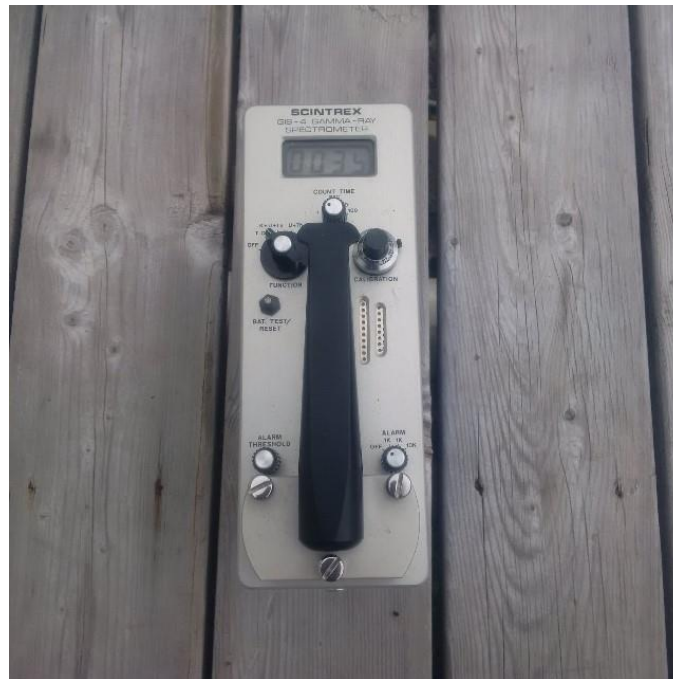
Straightforward calibration procedures using  $\text{ThO}_2$  sources and front panel gain control.

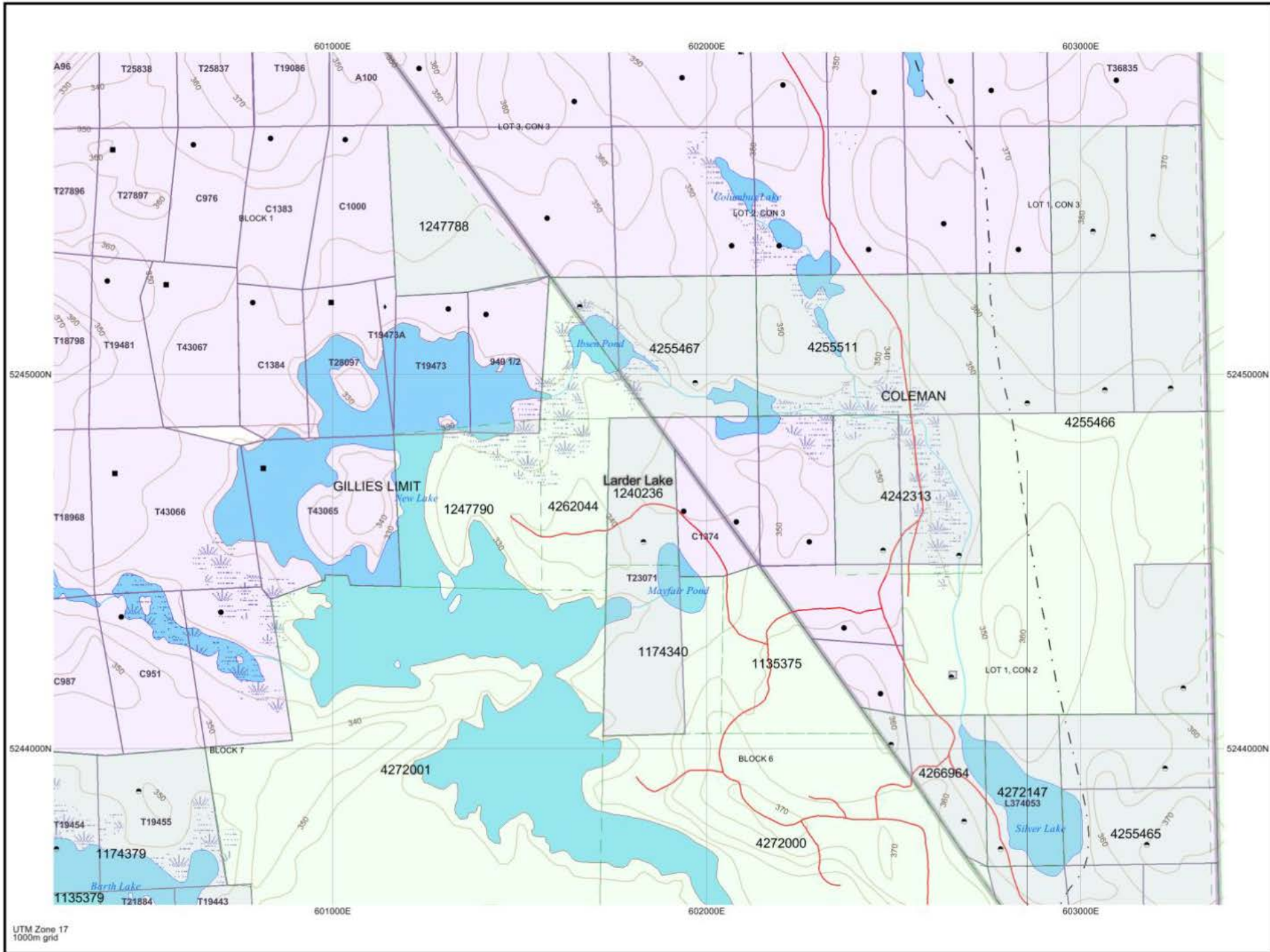
### 3. SPECIFICATIONS

Detector	1.5" x 1.5" ( $43 \text{ cm}^3$ ) ruggedized sodium iodide crystal and photomultiplier assembly.
High Voltage Supply	Regulated electronic supply nominally 1000 volts DC, internally adjustable.
Amplifier	Gain externally adjustable through the range x1.3 to x5.
Energy Thresholds	Single discriminator internally set to 0.05 MeV (T.C.), 1.38 MeV (K + U + Th), 1.66 MeV (U + Th), 2.44 MeV (Th) and 2.62 MeV (CAL), switch selectable.
Counting Periods	1, 3, 10, 30, 100 seconds, switch selectable.
Time Base	Crystal oscillator control.
Radiation Flux Equivalence	1 mR/hr=4000 counts per second in T.C. for gamma rays from a pure thorium source.
Calibration	A $\text{ThO}_2$ calibration source is supplied. Calibration is carried out by front panel adjustment of a ten-turn, calibrated and lockable potentiometer.
Temperature Range	-20°C to +55°C, with ambient temperature rate change less than 5°C per hour. Storage temperature range is -30°C to +75°C.
Audio Output	Integral solid state transducer, maximum output 85 dbA with internally adjustable volume control.



	Pulse-for-pulse representation selectable at OFF, 0.1K, 1K and 10K cps levels.
Standard Accessories	ThO <sub>2</sub> calibration source, carrying strap, batteries, manual.
Power Supply	4 D-cells contained in carrying handle base compartment.
Battery Life	Standard D-cells: 6 days; or, E95 alkaline cells: approximately 10 days at 20°C for continuous 8 hours/day operation.
Dimensions	Overall 260 mm x 90 mm x 190 mm.
Weight	2.3 kg including batteries.
Shipping Weight	Approximately 4.5 kg.





UTM Zone 17  
1000m grid