

AR 2010-124

Clear Lake Resources Inc.

Silica Mountain District Project

Colchester County, Nova Scotia

11E/11B

Joined Assessment Report for Exploration Licenses

08771 & 08772

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APPENDIX D is Maps 1-9 in Back Pocket

1.0 Summary

The Silica Mountain District is located in a mafic-felsic volcanic and plutonic suite of rocks in the Cobequid highlands. Recent discoveries of anomalous REE indicator minerals (Th, Zr, Y, Nb) in such rocks as well as the increasing potential for IOCG type discoveries along the Cobequid-Chedabucto Fault Zone make the Silica Mountain district a strong candidate for discovery of either type of deposit.

The 2010 work program focused on reconnaissance and follow up field work to Gulf Minerals Canada Ltd. work of the late 20th century. This included completing a small 49 station scintillometer survey, some basic geological mapping observations as well as collecting geochemical data via a portable handheld XRF. XRF data was then used to produce grids to identify regions of anomalous indicator mineral concentrations (REE and IOCG) for further exploration.

Field results were promising as several locations of anomalous REE and IOCG indicator concentrations were identified. Additional field discoveries included observation of widespread sulfide mineralization, generally elevated scintillometer readings (total counts per second) on both properties and the identification of a possible marker horizon in the Byers Brook Formation.

2.0 Introduction

As the potential for rare earth mineralization increases in the Cobequid Highlands (MacHattie, 2010a), regional exploration of the Hart Lake-Byers Lake granite body and overlying Byers Brook Formation is warranted. Licenses 08771 and 08772 are majorly Byers Brook Formation located just east of the eastern extent of the main body of the Hart Lake-Byers Lake granite. The potential for IOCG style mineralization also exists as the licenses are along the Cobequid-Chebucto Fault zone (MacHattie, O'Reilly, 2009b).

The main focus of the 2010 work program was to collect X-ray florescence (XRF) data to identify REE and IOCG indicator minerals in order to generate local targets for more detailed exploration. This data was collected on:

- i) Reconnaissance prospecting trips of the entire property via local access roads
- ii) Field traverses around Gulf Minerals Canada Ltd reported Th anomalies

Field work was completed by Alex MacKay, geologist and author, Lindsay Allen, prospector and manager and Alex Debay, prospector.

3.0 Location and Access

The properties are located in the Silica Mountain district of Colchester County, NS., approximately 20km north of the town of Truro. The properties are easily accessible from Halifax via highway 102 north to exit 14A. Head east off of the exit onto Onslow Rd. and proceed 3.5 km until junction 311. Turn north onto highway 311. After 5km turn left, cross over the North River and continue to proceed north on Truro Rd which bi-sects the properties. An abundance of local woods and country roads provide further access to the properties. Woods roads can generally be described as good, with only a small percentage of the roads starting to become too grown in for vehicular access. Please refer to figure 1 for a schematic display of access to the properties. See figure 13 for a detailed look at the local access roads on the properties.

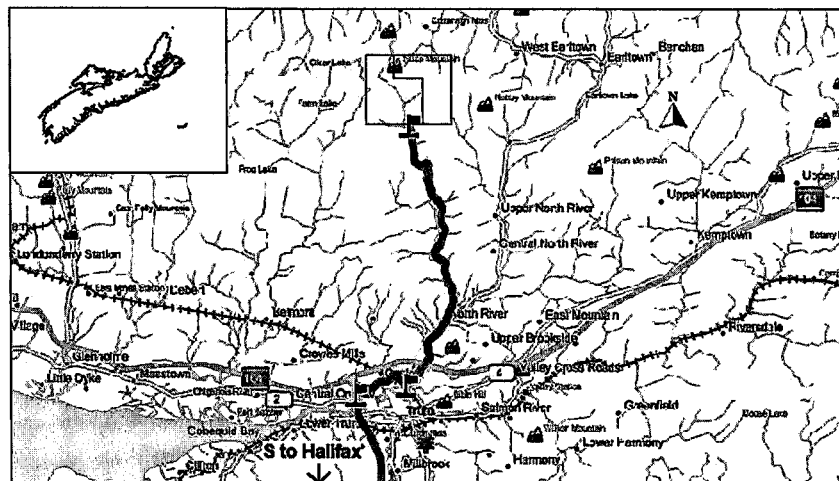


Figure 1-Properties Location Map from Truro, NS, not to scale

4.0 License Tabulation

License 08771 is composed of five tracts of 16 claims each. License 08772 is made up of four tracts of sixteen claims each. A detailed breakdown of the license claim composition can be seen in Table 1 below.

Table 1-Tabulation of Exploration Licenses 08771 & 08772 held in the name of Clear Lake Resources Inc.

License #	NTS Map Sheet	Tract	Claims	Date of issue
08771	11E/11B	46✓	ABCDEFGH JKLMNOPQ	11/19/2009
08771	11E/11B	47✓	ABCDEFGH JKLMNOPQ	11/19/2009
08771	11E/11B	50✓	ABCDEFGH JKLMNOPQ	11/19/2009
08771	11E/11B	51✓	ABCDEFGH JKLMNOPQ	11/19/2009
08771	11E/11B	70	ABCDEFGH JKLMNOPQ	11/19/2009
08772	11E/11B	48✓	ABCDEFGH JKLMNOPQ	11/19/2009
08772	11E/11B	49✓	ABCDEFGH JKLMNOPQ	11/19/2009
08772	11E/11B	71 ✓	ABCDEFGH JKLMNOPQ	11/19/2009
08772	11E/11B	72 ✓	ABCDEFGH JKLMNOPQ	11/19/2009

5.0 Previous Work

During the late 1970's and early 1980's Gulf Minerals Canada Ltd. carried out an extensive exploration program for Uranium in the Cobequid highlands. Gulf's program included geological mapping, soil and rock sampling, trenching, and drilling. Gulf also carried out ground and airborne gamma ray spectrometry surveys as well as VLF-EM- magnetometer. Unfortunately, Gulf's work was focused to the west of licenses 08771 and 08772, with just a few hand samples collected on the current licenses.

From 1889-1923 Oxford Tripoli Company produced 540 tons of Diatomaceous Earth from Silica Lake, a small pond located on license 08771. (O'Reilly, 2010)

Several gravel pits were also observed on the properties. None displayed evidence of recent activity.

6.0 Local and Regional Geology

Regional geology of the area is dominated by four Late Devonian-Early Carboniferous mafic-felsic volcanic and plutonic units as shown in figure 2. This suite of rocks is bound to the north by unconformably overlying late Carboniferous rocks of the Cumberland Basin and to the south by the Rockland Brook fault (RBF) (MacHattie, 2010a). From east to west the units are: the Folly Lake gabbro-diorite (FLGB), the Hart Lake-Byers Lake granite (HLBL), the Byers Brook Formation (BBF) and the Diamond Brook Formation (DBF).

Locally, the RBF cuts the southern portion of the property. This section of the fault has been interpreted to be a ductile shear zone (Pe-Piper, 1989). Geological units on the property and south of the RBF, from east to west, are Horton Group sediments, an unnamed Silurian-Ordovician unit of wacke's, siltstones, shales and tuffs and a window of the HLBL. North of the RBF the licenses are dominated by felsic volcanic and volcanoclastic rocks of the BBF. Gower (1988) reports an attitude of 115/70 for the BBF.

The BBF has been further broken down into two periods of volcanism separated by a period of lacustrine siltstone deposition; both volcanic events are characterized by early pyroclastic events which grade into rhyolitic flow units (Gower, 1988).

The BBF contacts the conformably overlying DBF in the north east corner of the property. The DBF is interpreted to be post BBF volcanism with early rhyolitic flows grading to flow basalts which dominate the unit (Pe-Piper, 2002). The extrusive volcanic units are often separated by sandy and/or conglomerate facies sediments (Pe-Piper, 2002).

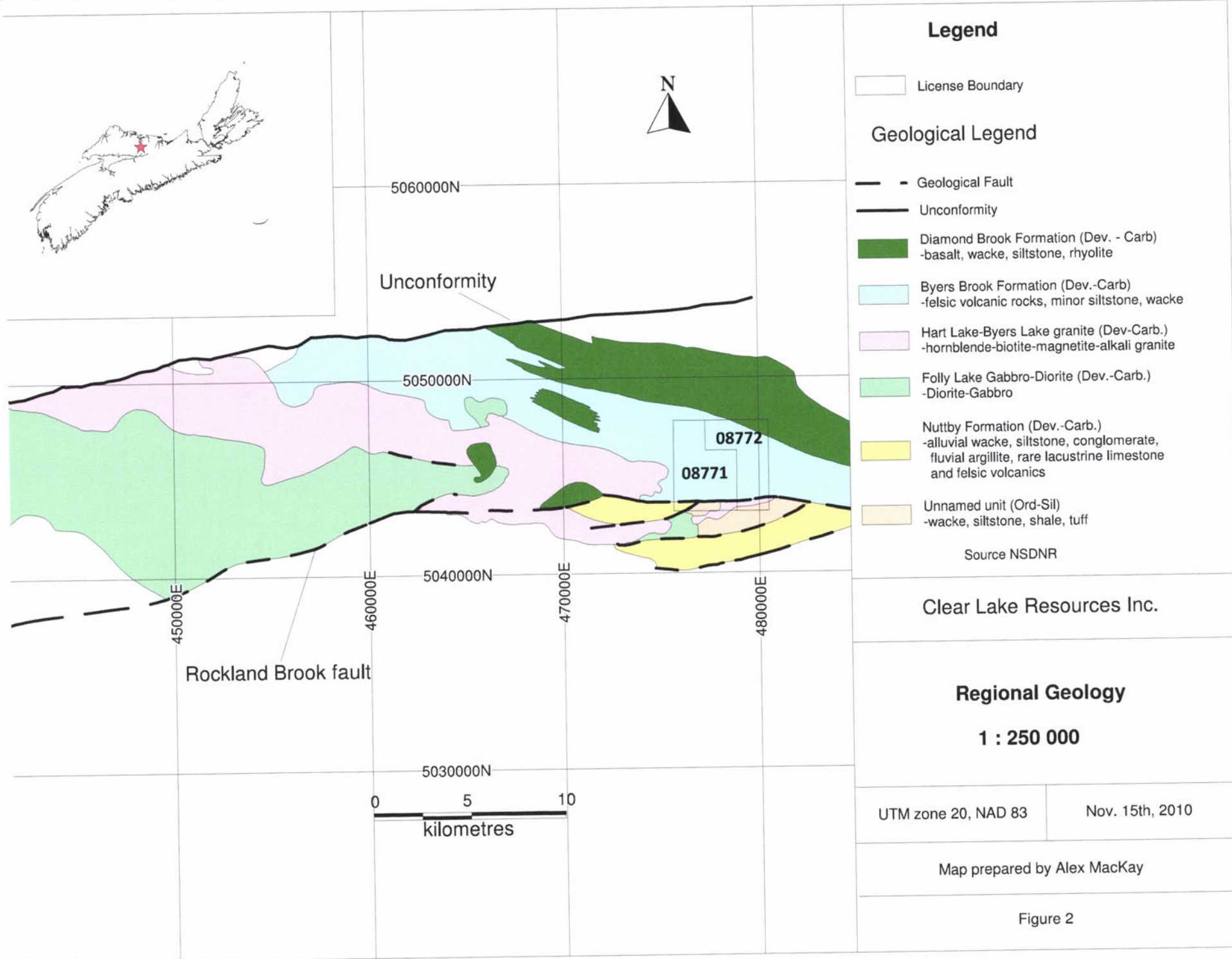
7.0 Work Performed

Work performed included research and geological map compilation prior to and throughout the two field work phases of 2010 work program.

The first phase of the field work program was to explore all known and unknown access roads on the property. The second phase was to complete field traverses around known thorium anomaly areas as reported by Gulf Minerals Canada Ltd.



Figure 3 Alex MacKay (left) with portable XRF analyzer and Alex Debay (right) with Scintillometer. Location X=477820, Y=5046300



Work Performed Con't

General rock descriptions, locations, total counts per second (CPS) and XRF analysis results were recorded for each outcrop as appropriate. Locations were recorded using a Garmin GPSmap 76S[®] GPS receiver. UTM coordinates were recorded and are reported based on the NAD 83. Total counts per seconds were recorded using an Urtec UG130 Threshold Gamma Ray Scintillometer. XRF analyses were completed using an Olympus-Innovex Delta 90 handheld portable XRF analyzer. Condensed versions of recorded field notes and CPS readings can be seen in Appendix A. Raw XRF results are available in Appendix B.

The general goals of the 2010 work program were to:

- i) Prospect and field check mapped Bedrock units along RBF
- ii) Prospect BBF to identify potentially REE mineralized veins
-as reported in MacHattie (2010b)
- iii) Collect XRF data to produce thematic anomaly grids for REE and IOCG indicators
-REE indicators include Th, Zr, Y, Nb (MacHattie, 2010a)
-IOCG indicators include Fe, Ba, Co (MacHattie, O'Reilly, 2009b)
- iv) Correlate like units of the Byers Brook Formation

8.0 Results of Work

Passes along access roads on the property revealed that till can be quite thick in some areas of the property. This is especially true in eastern areas of the property where no outcrops of the BBF were observed. Basalts of the DBF are well exposed in the NE corner but offer low CPS readings and poor XRF analysis for REE. Data for the DBF was not recorded as XRF results for such contrasting matrices cannot be trusted at this time (see Appendix B for more details about portable XRF analyzer data collection methods).

In the south along the RBF, rocks observed largely agreed with mapped units. Although it should be noted that HLBL window is of the aphanitic variety and was only observed mixed with siltstones of the unnamed Silurian-Ordovician unit.

The majority of rocks encountered in the BBF were of varying rhyolitic compositions. Exceptions were two siltstone outcrops observed at stations CL6 and CL31 as identified in Plate 1 in Appendix D, and several granite stringers (see rock notes in Appendix A and Plate 1 in Appendix D).

The two siltstone occurrences are separated by approximately 3km's and strike approximately 115° of each other. This could be a marker horizon between the first and second volcanic BBF volcanic events as proposed by Gower, 1988. Further evidence is the observation of ignimbrites and pyroclastic rocks (see figure 4) just up dip of the siltstone unit. Gower proposed that early stages of each volcanic event were dominated by pyroclastic events. See figure 13 for a schematic sketch of these features.



Figure 4-Pyroclastic rocks at X=478200, Y=5046200



The BBF generally showed elevated CPS readings of around 200 total cps with several counts in the 300-500cps range and 1 peak of 900 cps located at X=477937, Y=5046128. Widespread pyrite mineralization was observed throughout the BBF as small 1mm veinlet's in ignimbrites and disseminated throughout the ground mass of granite, rhyolites and siltstones. One vein with elevated REE indicator minerals was positively identified at X=475813 and Y=5046334 and can be seen in figure 5 to the left. Several other anomalous REE indicator mineral concentrations were also observed, see Appendix B for a breakdown of XRF analysis results with locations.

Figure 5-Steep dipping vein with elevated REE indicator minerals as identified with portable XRF analyzer. Location X=475813, Y=5046334

Thematic grids for IOCG indicators (Fe, Ba, Co) (MacHattie, O'Reilly, 2008) were produced and are displayed below in figures 6-9 below. Data used to generate grids is plotted on plates 3-9 in Appendix D. The Fe and Ba grids produce peaks in the north and SE while the Co peaks only in the SE. Combined with Pe-Piper's description of southern portion of the properties to be a ductile fault zone, it can be surmised that the SE is the most likely location of IOCG type mineralization.

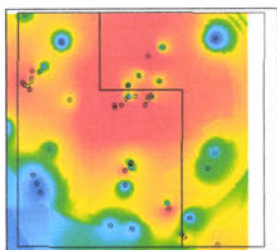


Figure 6- Fe anomaly grid

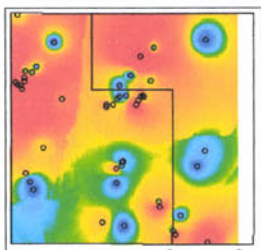


Figure 7-Ba anomaly grid

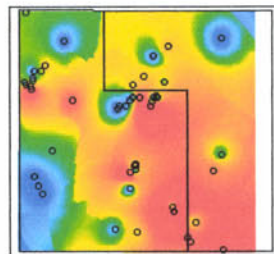


Figure 8-Co anomaly grid

Thematic grids for REE indicators (Th, Zr, Y, Nb) all produced similar trends of peaks in the central and northwest areas of the property. See figures 9-12 below.

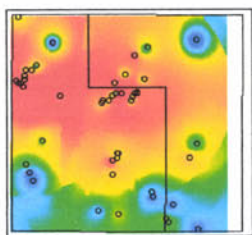


Figure 9-Th anomaly grid

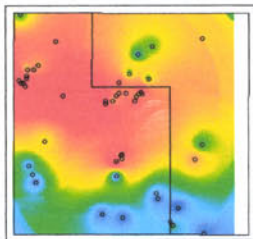


Figure 10-Zr anomaly grid

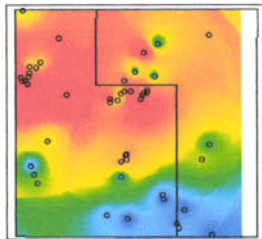


Figure 11-Y anomaly grid

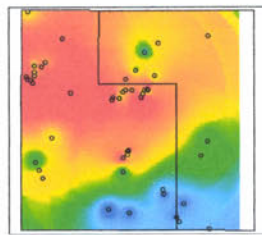
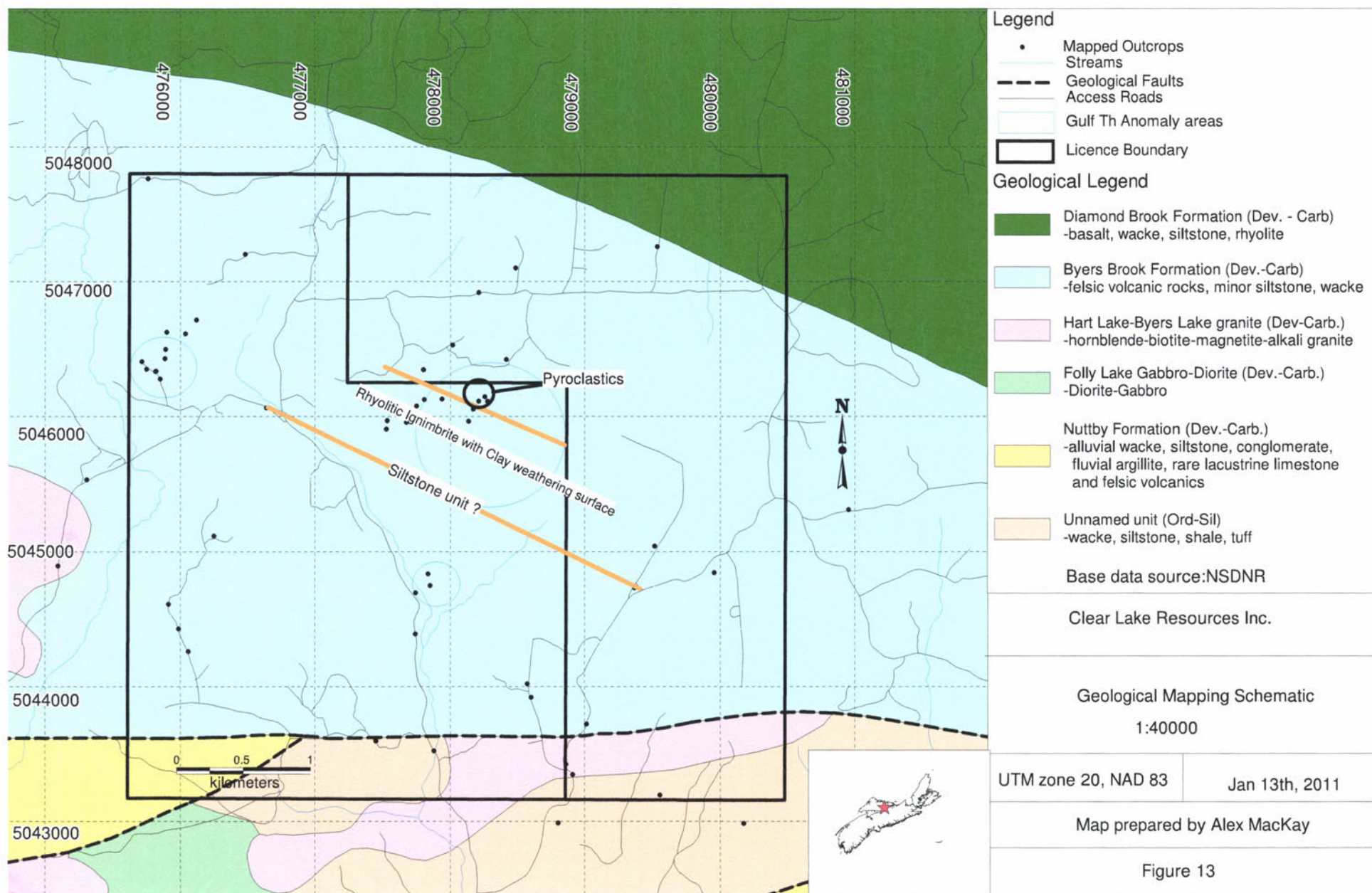


Figure 12-Nb anomaly grid



8.0a Conclusions and Recommendations

Although time and money were limited for a thorough examination of the property, the 2010 field program has produced some interesting results and further work is recommended.

Further work should include:

- A whole rock sampling program
- More XRF readings to refine resolution of IOCG and REE indicator grids
- Further exploration along the RBF with attention focused towards IOCG mineralization
- Further prospecting around elevated REE indicator mineral locations

9.0 References

Downey, N. 1978: Cobequid Project, exploration program 1977-78 on parts of 11E/11A, B, C and D; Gulf minerals Exploration Limite; Nova Scotia Department of Mines; Assessment Report ME 11E/11B 54-D-16(02).

Gower, D.P. 1988: Geology and genesis of uranium mineralization in subaerial felsic volcanic rocks of the Byers Brook Formation and the comagmatic Hart Lake granite, Wentworth area, Cobequid Highlands, Nova Scotia; unpublished M.Sc. thesis, Memorial University of Newfoundland, p. 1-358.

MacHattie, T.G. and O'Reilly, G.A. 2009a: Timing of Iron Oxide-Copper-Gold (IOCG) Mineralization and Alteration along the Cobequid Chedabucto Fault Zone ; *in* Mineral Resources Branch, Report of Activities 2008; Nova Scotia Department of Natural Resources, Report ME 2009-1, p. 63-69.

MacHattie, T.G. and O'Reilly, G.A. 2009b: Field and Geochemical Evidence for Contemporaneous Mafic Magmatism and Iron Oxide-Copper-Gold (IOCG) Mineralization and Alteration along the Cobequid-Chedabucto Fault Zone; *in* Mineral Resources Branch, Report of Activities 2008; Nova Scotia Department of Natural Resources, Report ME 2009-1, p. 71-83.

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Pe-Piper, G., Murphy, J.B. and Turner, D.S. 1989: Petrology, geochemistry and tectonic setting of some Carboniferous plutons of the eastern Cobequid Hills; *Atlantic Geology*, v. 25, p. 37-49.

Pe-Piper, G., Piper, D.J.W 2002: A synopsis of the geology of the Cobequid Highlands, Nova Scotia; *Atlantic Geology*, v. 38, p.145-160.


10.0 Statement of Qualifications

I, S. Alex Mackay of Westville, Nova Scotia do hereby swear to be a qualified author for Nova Scotia exploration assessment reports. Qualifications stem from degrees obtained from Dalhousie University of Halifax, Nova Scotia Canada.

-BSc. Earth Science & Physics (2008)

-Dip. of Engineering (2003)

In addition to degree qualifications, I have 3+ years of professional work experience including report writing, as well as Au and REE exploration experience in Nova Scotia and abroad.


Alex MacKay (BSc.)

Appendix A

Condensed field notes

-all notes recorded from outcrop unless otherwise noted see Plate 1 for locations

Date	Station ID	X	Y	Rock type	Qualifier	Rocktype2	CPS	Mineralization	Comments					
10/18/2010	CL1	475813	5046334	Rhyolite	Ignimbrite	diorite	400	py, py veinlets	several rock types in outcrop (mixing zone?), rhyolite ignimbrite, mafics and pink purple veins show the best Y values, rocks capped with clay(chemically weathered feldspars), vein also line with epidote, slickensides at 268/11 (collected sample), slicken slides in siltstone 268/11 (gulf mapped a fault in area)					
10/18/2010	CL2	475847	5046278	rhyolite	tuff	quartzite	400		soft pink vein with anomolous Y values hosted in dark quartzite, 2 fracture directions 020/90 and 105/90, flow banding parallel to 105/90 fracture set					
10/18/2010	CL3	475711	5046407	Rhyolite		quartzite	175	Cr, spec. hm						
10/18/2010	CL4	475747	5046351	Rhyolite			200	py, aspy	pink spot in rhyolite					
10/18/2010	CL5	475096	5044897	Granite		ignimbrite	200		qtz-K-spar-Hornblende Granite, amzonite?					
10/18/2010	CL6	476640	5046065	siltstone	ignimbrite		350	py	fine grained green matrix with small amounts of courser pink material, weather surface greyish clays, a few py crysals in matrix, elev. Th, Y					
10/18/2010	CL7	478134	5045964	rhyolite	ignimbrite		150	py	.5 -1cm thick clay weathered surface on Ignimbrite, dissminated py					
10/18/2010	CL8	478170	5046054	rhyolite	ignimbrite		225	py	.5 -1cm thick clay weathered surface on Ignimbrite, dissminated py					
10/18/2010	CL9	478418	5046422	rhyolite	ignimbrite		175	py	.5 -1cm thick clay weathered surface on Ignimbrite, dissminated py					
10/18/2010	CL10	478016	5046530	rhyolite	ignimbrite		200		ignimbrite in gravel pit					
10/18/2010	CL11	477747	5046077	rhyolite			200							
10/18/2010	CL12	477804	5046123	Rhyolite	boulder		350							
10/18/2010	CL13	479529	5047258	Siltstone				py						
10/18/2010	CL14	475308	5045534	Rhyolite			250							
10/20/2010	CL15	477449	5043596	Siltstone		rhyolite	125		purpleish-grey siltstone, 1mm qtz phenocrysts in rhyolite...mixing zone					
10/20/2010	CL16	476060	5044262	Granite		tuff	250		2m x 4m granite outcrop, mixed with fine grained tuff					
10/20/2010	CL17	475986	5044430	Granite			175		granite, purple spots, epidote veining					
10/20/2010	CL18	475911	5044611	Granite			200		2 x 20m granite outcrop along road, mafics in area, Fe staining on granite surface					
10/20/2010	CL19	476250	5045118	rhyolite		mafic	175		rhyolite with a possible mafic dyke					
10/20/2010	CL20	475757	5047764	rhyolite	ignimbrite	aplite	175	magnetite	rheomorphic flow??...rhyolitic pink layer with ignimbrite (phenocrysts layers)...approx. .5 cm layers..foliations??					
10/20/2010	CL21	476485	5047202	rhyolite	ignimbrite		200		rheomorphic flow??...rhyolitic(or aplite) pink layer with ignimbrite (phenocrysts layers)...approx. .5 cm layers..foliations??					
10/20/2010	CL22	478486	5047100	rhyolite	ignimbrite		200	py	.5 -1cm thick clay weathered surface on Ignimbrite,					

10/29/2010	CL23	478804	5042989	Siltstone			125	hm	Osv				
10/29/2010	CL24	478911	5043347	siltstone			125	hm	Osv siltstone, green, black				
10/29/2010	CL25	478604	5043920	Basalt			125		Basalt in BBF				
10/29/2010	CL26	478574	5044020	granite		siltstone	125		granite stringer				
10/29/2010	CL27	478860	5043424	Granite		Siltstone	125		Mixing of "granite" and siltstones, fine grained granite				
10/29/2010	CL28	479014	5043721	granite		diorite	125						
10/29/2010	CL29	479552	5043195	Siltstone			125		Osv				
10/29/2010	CL30	480176	5042986	siltstone			125		Osv				
10/29/2010	CL31	479368	5044733	siltstone		mafic?	225	py, magnetite	small pit with black siltstone, heavy, magnetitic, 1mm qtz crystals, same rock as on silica lake road				
10/29/2010	CL32	479513	5045042	rhyolite	ignimbrite			magnetite					
10/29/2010	CL33	477878	5043524	Siltstone					Osv				
10/29/2010	CL34	477739	5044390	rhyolite									
10/29/2010	CL35	477741	5044695	granite?			200		Red granite? In road way				
11/3/2010	CL36	477798	5046346	other			225		15 cm vein?, possibly REE mineralized, fe staining				
11/3/2010	CL37	477800	5046346	Boulder					local boulder				
11/3/2010	CL38	477937	5046128	subcrop			900	py	probable outcrop, pink rhyolite				
11/3/2010	CL39	477670	5045957	rhyolite	ignimbrite		250	py	Fe staining, clay on weathered surface				
11/3/2010	CL40	477531	5045969	subcrop			300	py	Fe staining, clay on weathered surface				
11/3/2010	CL41	477524	5045907	Granite			200	py	abundant pyrite in granite stringer veins				
11/3/2010	CL42	478210	5046113	ignimbrite			175		.5 -1cm thick clay weathered surface on Ignimbrite, dissminated py				
11/3/2010	CL43	478257	5046146	ignimbrite			175		.5 -1cm thick clay weathered surface on Ignimbrite, dissminated py				
11/3/2010	CL44	478277	5046112	ignimbrite			175		.5 -1cm thick clay weathered surface on Ignimbrite, dissminated py, pyroclastic/volcanic breccia north of this unit				
11/3/2010	CL45	478210	5046920	ignimbrite			175		.5 -1cm thick clay weathered surface on Ignimbrite, dissminated py,				
11/4/2010	CL46	475817	5046336	rhyolite	tuff	quartzite	175		looks like qtzite...but has clay weathered surface(feldspars)				
11/4/2010	CL47	475883	5046429	rhyolite	tuff	quartzite	175	py	looks like qtzite...but has clay weathered surface(feldspars)				
11/4/2010	CL48	475889	5046498	rhyolite	tuff	quartzite	300		looks like qtzite...but has clay weathered surface(feldspars), bedding at 320/75...photo				
11/4/2010	CL49	476037	5046615	rhyolite	tuff	quartzite	275		looks like qtzite...but has clay weathered surface(feldspars)				
11/4/2010	CL50	476120	5046717	rhyolite	tuff	quartzite	225		looks like qtzite...but has clay weathered surface(feldspars)				

11/4/2010	CL51	475897	5046624	rhyolite	tuff	quartzite	200		looks like qtzite...but has clay weathered surface(feldspars)				
11/4/2010	CL52	477848	5044750	subcrop			250		red/grey granite mix				
11/4/2010	CL53	477855	5044844	Boulder			400		local boulder				
11/4/2010	CL54	477855	5044832	Boulder			500		local boulder				
11/4/2010	CL55	477833	5044835	rhyolite			500		green rhyolite?				
	CL56	480953	5045312						XRF only				

Appendix B

XRF DATA

Portable handheld XRF analyzers are a relatively new technology in the exploration business. Manufactures of the Delta 90 recommend calibrating the analyzer for each rock type to get the best results. This requires having known geochemical test samples to test the analyzer results against to find out where correction factors need to be applied. As no samples have yet been sent for geochemical analysis; results are reported in raw, uncorrected form. All data was collected under the "fundamental parameters" setting in the 3 beam soil analysis mode as per manufactures recommendations for use without inputting calibration factors into the analyzer. Each station involved 30 secs of total analysis time with each beam analyzing for 10 secs. The analyzer was set to analysis for 35 elements including P, S, Cl, K, Ca, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Rb, Sr, Y, Zr, Nb, Mo, Ag, Cd, Sn, Sb, Ba, W, Au, Hg, Pb, Bi, Th & U.

Since most of the rocks analyzed were of rhyolitic or similar granitic composition it is assumed that raw data is precise enough for identifying trends and relative anomalous values. The accuracy of the values cannot be assumed 100% at this time.

Currently, the Canadian Mining Industry Research Organization (CAMIRO) in conjunction with the Geological Survey of Canada is completing a research project (CAMIRO PROJECT 10E01) to identify accuracy and precision of a wide range of element and matrices as well as to develop standard practices for collecting portable XRF data. Upon completion of this project, anticipated to be finished in April 2011, recommendations put forward by CAMIRO will be evaluated and where appropriate will be incorporated into Clear Lake Resources Inc. XRF data collection methods.

Station Id	Easting	Northing	P	S	Cl	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As
CL1	475813	5046334	2660	7223	ND	36840	5176	13	835	287	301	542	20905	5	91	32	78	4
CL2	475847	5046278	ND	4833	ND	26379	13948	146	6102	369	464	2200	99709	26	31	30	326	10
CL3	475711	5046407	12880	ND	ND	2966	45365	ND	17291	1223	1076	990	218969	ND	89	21	102	5
CL4	475747	5046351	9110	12806	514	46699	5847	139	8037	783	780	6315	52772	9	77	84	1448	141
CL5	475096	5044897	1929	296	137	39854	2290	31	1108	352	319	499	8695	1	ND	2	95	7
CL6	476640	5046065	2469	1858	ND	26385	4580	ND	2682	112	73	622	30498	10	20	42	321	2
CL7	478134	5045964	243519	80262	10456	6970	1732	479	4704	57	ND	509	273469	67	363	1074	1246	ND
CL8	478170	5046054	5175	1847	ND	10651	237	63	1587	193	268	147	9324	2	ND	12	25	5
CL9	478418	5046422	4394	ND	ND	54187	688	ND	4947	75	40	420	20645	4	ND	5	67	7
CL10	478016	5046530	5491	1425	50	55213	1511	53	2909	59	33	671	20922	5	ND	8	28	9
CL11	477747	5046077	8043	9584	ND	55382	ND	11	10855	94	27	157	25035	ND	12	13	31	10
CL15	477449	5043596	ND	603	ND	16139	681	10	1809	74	44	816	11485	2	8	28	21	1
CL16	476060	5044262							995		49	91	3028	0	ND	ND	ND	ND
CL18	475911	5044611	3013	ND	ND	41534	2287	25	3796	114	68	392	9827	ND	8	11	6	9
CL19	476250	5045118	4216	ND	410	37799	3847	27	2731	155	171	4124	19855	3	ND	51	168	1
CL20	475757	5047764	401	ND	275	49504	5397	ND	5978	122	85	418	23910	4	15	22	25	4
CL22	478486	5047100	3491	ND	ND	57286	2	ND	2896	59	21	139	14748	6	ND	ND	1	8
CL23	478804	5042989	ND	ND	ND	43602	1920	ND	3722	123	45	275	14429	5	11	ND	31	12
CL24	478911	5043347	ND	ND	177	50312	1726	ND	12217	159	184	447	36396	9	24	40	64	18
CL25	478604	5043920	ND	1586	ND	4250	23157	328	7908	191	14	874	120518	34	ND	ND	38	4
CL26	478574	5044020	1625	ND	ND	48627	3510	0	1873	72	34	198	9744	3	ND	3	47	3
CL27	478860	5043424	ND	ND	ND	6747	1353	ND	3676	57	53	292	25949	10	ND	ND	36	1
CL28	479014	5043721	ND	73	ND	11262	564	ND	1205	56	39	517	9169	5	ND	ND	2	10
CL29	479552	5043195	ND	ND	227	47889	3285	ND	8751	292	85	427	43940	15	ND	3	26	1
CL30	480176	5042986	ND	ND	ND	12252	3910	66	5784	151	117	550	39405	13	ND	11	39	3

Station Id	Easting	Northing	P	S	Cl	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As
CL31	479368	5044733	2258	ND	176	81363	1407	32	1008	86	103	680	19713	8	ND	39	32	11
CL32	479513	5045042	4247	ND	ND	48769	1853	38	1950	98	88	426	15099	3	ND	3	44	1
CL33	477878	5043524	ND	ND	126	42796	1253	31	2191	85	32	443	10066	5	ND	6	36	ND
CL34	477739	5044390	672	607	ND	39019	6273	ND	2028	43	59	302	7430	1	1	18	13	ND
CL35	477741	5044695	ND	ND	ND	32150	2302	ND	3117	84	67	1451	91391	20	ND	69	100	19
CL36	477798	5046346	5597	2741	8	49755	95	ND	3781	38	43	149	17880	6	ND	36	33	10
CL37	477800	5046346	2191	ND	ND	59880	1266	ND	1979	54	89	295	15190	4	23	15	29	6
CL38	477937	5046128	2670	3173	ND	39090	6212	40	6200	125	71	666	33646	11	6	23	38	18
CL39	477670	5045957	ND	6533	ND	16452	ND	ND	1084	29	28	28	254666	ND	202	ND	209	3
CL40	477531	5045969	ND	4577	ND	7866	ND	ND	1418	24	ND	13	505166	ND	141	30	795	7
CL41	477524	5045907	ND	68157	25	41549	ND	ND	3259	81	53	86	105270	ND	98	18	50	106
CL42	478210	5046113	ND	243	ND	24637	ND	ND	1366	61	58	521	192668	ND	51	9	157	ND
CL43	478257	5046146	10752	ND	ND	81265	3658	ND	5918	224	230	470	50530	5	30	58	108	13
CL44	478277	5046112	2140	1636	ND	41977	190	ND	757	40	36	89	2459	2	5	6	9	10
CL45	478210	5046920	ND	ND	ND	11310	ND	ND	3384	623	462	34205	313416	ND	135	9	514	61
CL46	475817	5046336	1490	ND	283	37435	12082	ND	2620	295	355	773	26758	5	36	31	57	ND
CL47	475883	5046429	4151	ND	21	40823	1365	3	4071	113	127	600	23788	4	7	12	172	5
CL48	475889	5046498	5785	ND	ND	50963	622	ND	4441	127	136	335	61543	ND	72	35	110	12
CL49	476037	5046615	6872	13675	ND	45449	862	9	2103	77	94	473	16746	4	5	44	390	1
CL50	476120	5046717	4871	ND	328	17641	1234	35	2143	60	115	315	12838	6	3	12	18	ND
CL51	475897	5046624	ND	13117	ND	17454	44	ND	1963	44	33	178	91628	ND	60	22	167	8
CL52	477848	5044750	5411	ND	ND	20802	1002	ND	869	51	70	281	10170	2	15	1	68	3
CL53	477855	5044844	68	ND	ND	54031	1403	ND	1362	92	93	256	26831	4	7	21	52	4
CL54	477855	5044832	15459	ND	17	96317	148	ND	5168	102	145	422	54385	12	34	69	112	4
CL55	477833	5044835	2380	6715	56	37753	2	ND	1454	30	38	171	8112	4	3	11	60	16
CL56	480953	5045312	1960	ND	ND	46959	725	16	1840	64	28	695	17335	4	ND	9	30	15

Station Id	Easting	Northing	Se	Rb	Sr	Y	Zr	Nb	Mo	Ag	Cd	Sn	Sb	Ba	W	Au	Hg	Pb	Bi	Th	U
CL1	475813	5046334	ND	148	44	10253	1360	1796	ND	ND	9	42	19	676	5	ND	12	21	ND	1375	ND
CL2	475847	5046278	ND	110	39	8595	1468	4284	365	9	10	44	ND	2591	ND	0	9	32	ND	1071	11
CL3	475711	5046407	ND	25	44	3834	1057	3583	12	44	ND	31	41	11221	34	ND	ND	37	ND	220	10
CL4	475747	5046351	ND	215	39	6842	3391	5536	ND	2	ND	22	ND	5767	31	ND	4	881	4	391	16
CL5	475096	5044897	ND	225	22	717	90	691	ND	ND	ND	17	ND	1436	18	ND	1	13	ND	112	15
CL6	476640	5046065	ND	146	65	5311	1784	3327	ND	ND	29	55	ND	1060	2	23	9	23	ND	265	18
CL7	478134	5045964	ND	548	15	12212	1451	5450	996	50	ND	19	ND	3211	73	ND	65	119	324	165	ND
CL8	478170	5046054	ND	37	1	3011	946	1311	882	ND	18	5	ND	1047	10	ND	1	11	ND	176	4
CL9	478418	5046422	ND	243	19	878	510	1325	623	ND	ND	19	34	539	ND	12	4	16	ND	165	7
CL10	478016	5046530	ND	197	36	1352	513	1190	959	20	12	ND	ND	ND	ND	23	7	3	ND	127	14
CL11	477747	5046077	ND	187	26	2067	1090	1629	1327	17	ND	ND	ND	447	26	ND	ND	18	ND	133	5
CL15	477449	5043596	ND	52	177	636	116	150	549	7	ND	ND	ND	826	ND	ND	12	ND	ND	54	3
CL16	476060	5044262	ND	204	8	1807	133	1608	ND	ND	40	66	ND	ND	51	14	ND	14	6	10	8
CL18	475911	5044611	ND	203	31	521	246	878	ND	ND	ND	ND	6	925	21	ND	6	19	ND	97	2
CL19	476250	5045118	ND	112	30	1912	709	1465	521	ND	5	15	45	636	21	7	ND	23	ND	114	6
CL20	475757	5047764	ND	228	36	1881	514	1571	1457	30	ND	ND	ND	661	33	ND	ND	14	ND	154	9
CL22	478486	5047100	ND	268	19	970	511	1641	ND	ND	8	22	ND	432	9	11	2	20	ND	79	ND
CL23	478804	5042989	ND	235	160	438	203	396	177	ND	ND	ND	ND	741	ND	16	3	8	ND	93	ND
CL24	478911	5043347	ND	187	76	806	394	585	899	19	ND	ND	ND	1623	3	18	5	28	ND	95	ND
CL25	478604	5043920	ND	7	77	203	46	138	ND	11	ND	ND	ND	2133	2	3	7	34	ND	ND	8
CL26	478574	5044020	ND	52	96	553	225	614	680	ND	14	ND	ND	429	ND	13	9	14	ND	70	ND
CL27	478860	5043424	ND	38	49	365	153	220	385	4	9	12	7	290	ND	18	2	12	2	125	ND
CL28	479014	5043721	ND	147	38	325	54	272	437	ND	5	ND	ND	144	ND	18	4	11	ND	19	ND
CL29	479552	5043195	ND	122	200	323	108	466	ND	ND	13	ND	ND	2170	24	ND	ND	24	ND	19	3
CL30	480176	5042986	ND	78	49	464	172	376	ND	ND	7	22	5	467	ND	6	6	25	ND	64	2

Station Id	Easting	Northing	Se	Rb	Sr	Y	Zr	Nb	Mo	Ag	Cd	Sn	Sb	Ba	W	Au	Hg	Pb	Bi	Th	U
CL31	479368	5044733	ND	181	22	1913	1016	1097	652	17	ND	50	14	79	ND	14	8	28	ND	191	2
CL32	479513	5045042	ND	177	31	1481	429	885	2465	17	ND	2	3	246	ND	9	10	12	ND	82	1
CL33	477878	5043524	ND	135	96	306	96	248	1421	ND	ND	34	ND	ND	ND	13	0	5	ND	128	1
CL34	477739	5044390	ND	182	40	880	137	798	557	ND	ND	48	ND	ND	7	ND	6	16	ND	170	1
CL35	477741	5044695	ND	312	25	3388	1810	2689	ND	21	ND	ND	22	1236	ND	30	13	82	ND	342	8
CL36	477798	5046346	ND	239	8	4236	1495	2462	ND	ND	11	60	ND	14	37	ND	ND	19	4	198	8
CL37	477800	5046346	ND	260	21	3014	1005	1727	1032	20	ND	32	2	7	ND	11	1	8	ND	243	13
CL38	477937	5046128	ND	184	95	4596	1167	1878	ND	ND	13	20	8	ND	12	ND	7	14	35	2079	ND
CL39	477670	5045957	ND	217	13	1950	823	1236	ND	24	3	ND	3	661	18	ND	ND	116	ND	176	6
CL40	477531	5045969	ND	171	13	6214	3160	4190	213	134	22	53	ND	1233	8	1	ND	39	ND	238	ND
CL41	477524	5045907	ND	140	21	2015	968	1918	ND	22	5	15	ND	801	28	ND	ND	549	ND	178	2
CL42	478210	5046113	ND	166	8	1794	1009	1198	ND	29	ND	11	ND	716	5	ND	ND	15	ND	146	7
CL43	478257	5046146	ND	368	24	5192	1855	3421	393	14	ND	14	25	1665	6	ND	2	34	ND	256	13
CL44	478277	5046112	ND	207	33	2565	1057	1104	1385	ND	ND	24	ND	ND	7	ND	ND	4	10	264	ND
CL45	478210	5046920	ND	92	15	5744	273	631	2893	93	ND	49	12	8142	ND	39	ND	70	ND	283	7
CL46	475817	5046336	ND	143	41	5496	1388	2505	ND	ND	ND	22	8	3027	12	12	7	18	ND	387	ND
CL47	475883	5046429	ND	145	23	2134	1109	1428	1351	32	ND	12	2	677	ND	5	0	30	ND	201	1
CL48	475889	5046498	ND	216	16	3112	1172	1535	371	11	ND	ND	ND	1117	9	2	10	41	1	168	0
CL49	476037	5046615	ND	215	47	2678	1143	2266	676	2	11	37	ND	468	ND	10	3	131	ND	201	3
CL50	476120	5046717	ND	113	17	2816	981	1894	791	ND	ND	19	42	268	6	3	7	27	ND	62	5
CL51	475897	5046624	ND	152	21	2012	853	1487	1520	25	ND	11	ND	370	5	ND	3	70	ND	164	3
CL52	477848	5044750	ND	140	32	2815	1017	1424	162	ND	10	ND	11	161	3	ND	3	23	ND	146	9
CL53	477855	5044844	ND	252	56	2586	1024	1728	878	12	ND	ND	10	365	26	ND	3	34	ND	162	7
CL54	477855	5044832	ND	455	42	6884	2471	3752	ND	ND	ND	28	39	457	1	3	8	40	7	188	23
CL55	477833	5044835	ND	157	35	2010	864	1485	1128	18	ND	2	ND	ND	ND	ND	1	21	ND	134	10
CL56	480953	5045312	ND	196	34	816	516	1099	199	ND	ND	1	ND	890	13	ND	1	10	ND	165	ND

APPENDIX C

XRF Analyzer Specs and Theory

ΔDELTA
Dynamic XRF



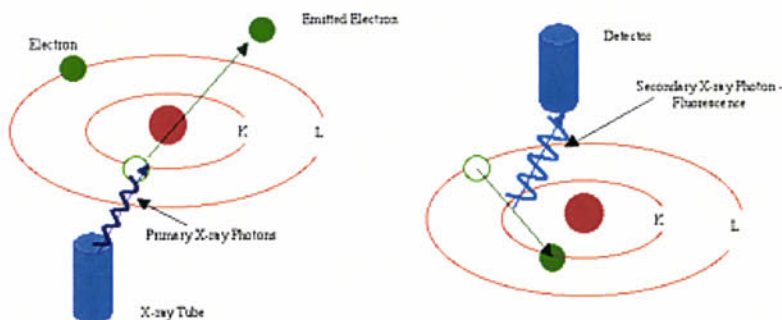
X-Ray Fluorescence (XRF) Spectrometry

BASIC THEORY

Although more popularly known for its diagnostic use in the medical field, the use of x-rays forms the basis of many other powerful measurement techniques, including X-ray Fluorescence (XRF) Spectrometry.

XRF Spectrometry is used to identify elements in a substance and quantify the amount of those elements present to ultimately determine the elemental composition of a material. An element is identified by its characteristic X-ray emission wavelength (λ) or energy (E). The amount of an element present is quantified by measuring the intensity (I) of its characteristic emission.

All atoms have a fixed number of electrons (negatively charged particles) arranged in orbitals around the nucleus. Energy Dispersive (ED) XRF and Wavelength Dispersive (WD) XRF Spectrometry typically utilize activity in the first three electron orbitals, the K, L, and M lines, where K is closest to the nucleus.



In XRF Spectrometry, high-energy primary X-ray photons are emitted from a source (X-ray tube) and strike the sample. The primary photons from the X-ray tube have enough energy to knock electrons out of the innermost, K or L, orbitals. When this occurs, the atoms become ions, which are unstable. An electron from an outer orbital, L or M, will move into the newly vacant space at the inner orbital to regain stability. As the electron from the outer orbital moves into the inner orbital space, it emits an energy known as a secondary X-ray photon. This phenomenon is called fluorescence. The secondary X-ray produced is characteristic of a specific element. The energy (E) of the emitted fluorescent X-ray photon is determined by the difference in energies between the initial and final orbitals of the individual transitions.

This is described by the formula

$$E=hc\lambda^{-1}$$

where h is Planck's constant; c is the velocity of light; and λ is the characteristic wavelength of the photon.

Energies are inversely proportional to the wavelengths; they are characteristic for each element. For example the $K\alpha$ energy for Iron (Fe) is about 6.4keV. Typical spectra for EDXRF Spectrometry appear as a plot of Energy (E) versus the Intensity (I).

Elemental Analysis

XRF Spectrometry is the choice of many analysts for elemental analysis. XRF Spectrometry easily and quickly identifies and quantifies elements over a wide dynamic concentration range, from PPM levels up to virtually 100% by weight. XRF Spectrometry does not destroy the sample and requires little, if any, sample preparation. It has a very fast overall analysis turnaround time. These factors lead to a significant reduction in the per sample analytical cost when compared to other elemental analysis techniques.

Aqueous elemental analysis instrument techniques typically require destructive and time-consuming specimen preparation, often using concentrated acids or other hazardous materials. Not only is the sample destroyed, waste streams are generated during the analysis process that need to be disposed of, many of which are hazardous. These aqueous elemental analysis techniques often take twenty minutes to several hours for sample preparation and analysis time. All of these factors lead to a relatively high cost per sample. However, if PPB and lower elemental concentrations are the primary measurement need, aqueous instrument elemental analysis techniques are necessary.

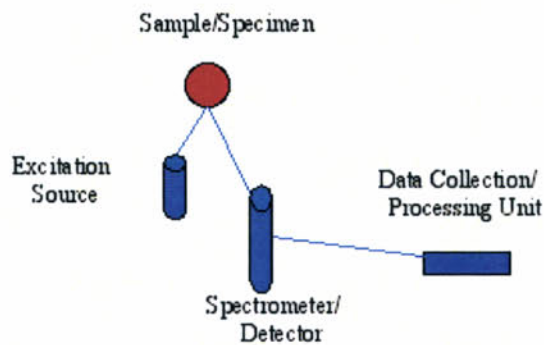
All elemental analysis techniques experience interferences, both chemical and physical in nature, and must be corrected or compensated for in order to achieve adequate analytical results. Most aqueous instrument techniques for elemental analysis suffer from interferences that are corrected for by extensive and complex sample preparation techniques, instrumentation modifications or enhancements, and by mathematical corrections in the system's software. In XRF Spectrometry, the primary interference is from other specific elements in a substance that can influence (matrix effects) the analysis of the element(s) of interest. However, these interferences are well known and documented; and, instrumentation advancements and mathematical corrections in the system's software easily and quickly correct for them. In certain cases, the geometry of the sample can affect XRF analysis, but this is easily compensated for by selecting the optimum sampling area, grinding or polishing the sample, or by pressing a pellet or making glass beads.

Quantitative elemental analysis for XRF Spectrometry is typically performed using Empirical Methods (calibration curves using standards similar in property to the unknown) or Fundamental Parameters (FP). FP is frequently preferred because it allows elemental analysis to be performed without standards or calibration curves. This enables the analyst to use the system immediately, without having to spend additional time setting up individual calibration curves for the various

elements and materials of interest. The capabilities of modern computers allow the use of this non-standard mathematical analysis, FP, accompanied by stored libraries of known materials, to determine not only the elemental composition of an unknown material quickly and easily, but even to identify the unknown material itself.

Spectrometers

Innov-X Systems utilizes the EDXRF Spectrometer technique for its mechanical simplicity and excellent adaptation to portable field use. An EDXRF system typically has three major components: an excitation source, a spectrometer/detector, and a data collection/processing unit. The ease of use, rapid analysis time, lower initial purchase price and substantially lower long-term maintenance costs of EDXRF Spectrometers have led to having more systems in use today worldwide than WDXRF Spectrometer systems. Handheld, field portable EDXRF units can be taken directly to the sample as opposed to bringing the sample to the analyzer and configuring it to fit in an analysis chamber. Innov-X Systems portable, handheld EDXRF units solve real 21 st century application problems: solving crimes, analyzing alloys, exposing pollution, preserving history, searching for WMD's, conserving art treasures, and a myriad of other elemental field-oriented analyses.



The Deltas' Cutting-edge features include:

- Exceptional speed and sample throughput due to state-of-the-art electronics, a floating point processor, and redesigned analytical geometry
- Ruggedized, weather and dustproof industrialized LEXAN housing – no PDA or movable screen – provides superior reliability
- Significant improvement in LODs and light element analysis resulting from the DELTA's unique 4W, 200 μ A (max) x-ray tube



- Advanced integrated technology including an accelerometer, barometer, true hot-swap battery capabilities, and other innovations
- Icon-driven UI via bright, Blanview™ color touchscreen
 - brightens in sunlight – easy to read in all environments
- Available with fully integrated camera and X-ray spot collimation
 - crisp accurate sample images that can be archived into memory
 - small spot collimation for focusing the beam to a 3mm diameter spot.

Innov-X has reinvented on-site analysis with the DELTA line; a new breed of handheld XRF. We've redesigned our analyzers from the ground up to create instruments that are both analytically superior AND rugged enough for virtually any environment. The DELTA analyzers feature the very latest in large area silicon drift detector technology, and unique 4W, 200µA (max) x-ray tubes for maximized accuracy and precision.

DELTA analyzers are also fully industrialized tools, and offer unsurpassed testing speed; yielding significantly increased productivity and throughput for operators. Take hundreds more tests per day with the DELTA analyzer. Smart on the inside. Tough on the outside. **No compromises.**

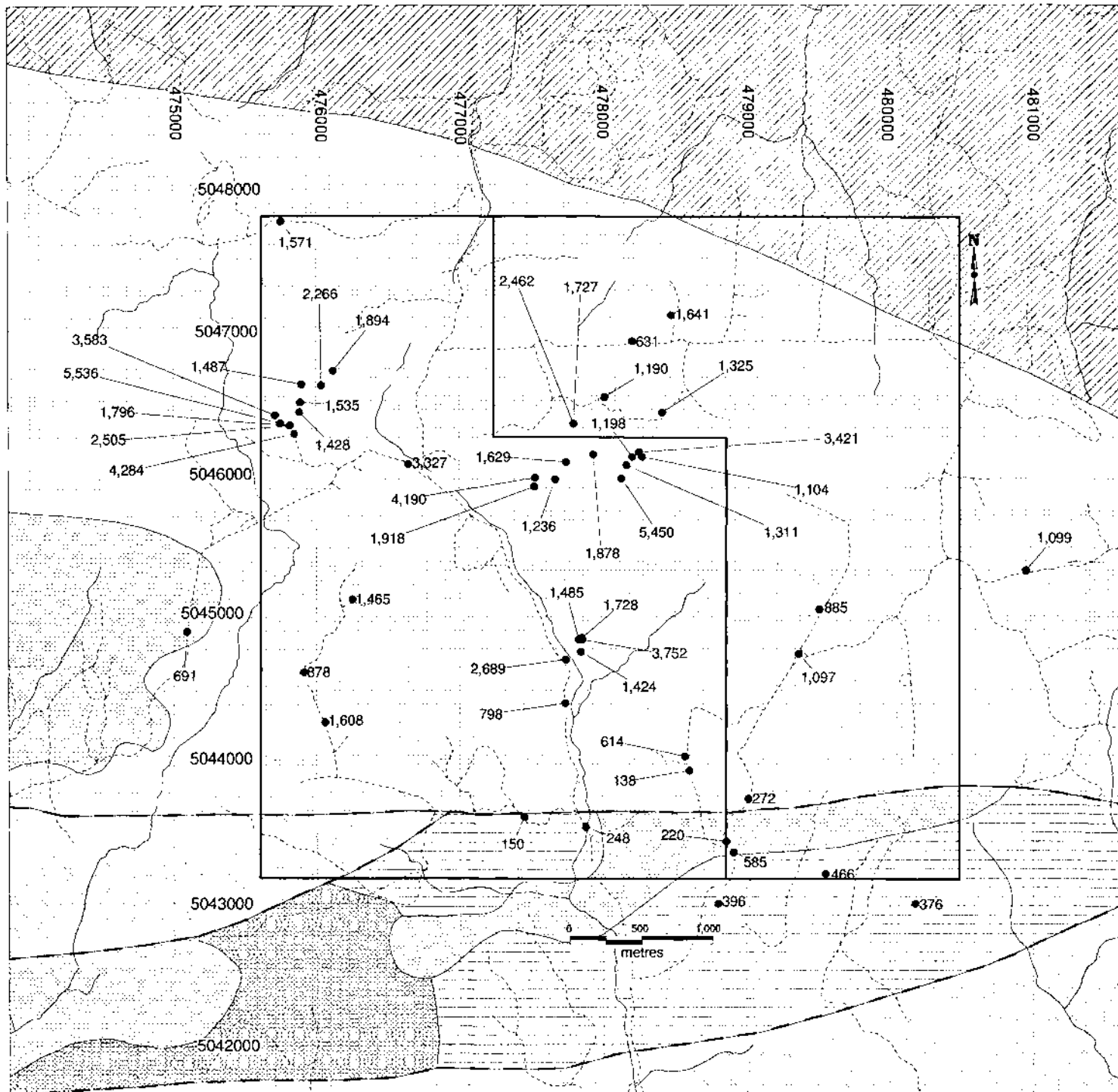
The DELTA line of analyzers feature our signature upgradeability. Customers may purchase a value-leading **Classic** model and upgrade to the analytically best **Premium** model at any time as analytical needs change - all with the same hardware platform and intuitive, friendly user interface.

The Innov-X Handheld XRF for elemental analysis meets EPA Method 6200 for metals in soil, NIOSH Method 7702 for lead in air filters, and OSHA Methods OSHA1 and OSS1 for lead in air filters and dust wipes. The 8 RCRA Metals and Priority Pollutant Metals are easily monitored on-site with the Innov-X Handheld XRF.

The Innov-X Systems Materials Testing & Mining Analyzers include standard hardware and accessories. Capabilities available include Fundamental Parameters, Empirical Analysis, linear or quadratic calibration modes, LEAP for Light Element Analysis, and Single or Multi element analysis capability.

Appendix D

Scintillometer and Geochemical Plates



Legend

- XRF Analysis Location
- Streams
- - - Country Roads
- - - Geological Fault

▭ Licence Boundary

Geological Legend

- ▨ Folly Lake Gabbro-Diorite (Dev.-Carb.)
-Diorite-Gabbro
- ▨ Diamond Brook Formation (Dev. - Carb)
-basalt, wacke, siltstone, rhyolite
- ▨ Byers Brook Formation (Dev.-Carb)
-felsic volcanic rocks, minor siltstone, wacke
- ▨ Nuttby Formation (Dev.-Carb.)
-alluvial wacke, siltstone, conglomerate, fluvial argillite, rare lacustrine limestone and felsic volcanics
- ▨ Hart Lake-Byers Lake granite (Dev-Carb.)
-hornblende-biotite-magnetite-alkali granite
- ▨ Unnamed unit (Ord-Sil)
-wacke, siltstone, shale, tuff



Base data source: NSONR

Clear Lake Resources Inc.

Nb Results (ppm) from XRF Analysis

1:20000

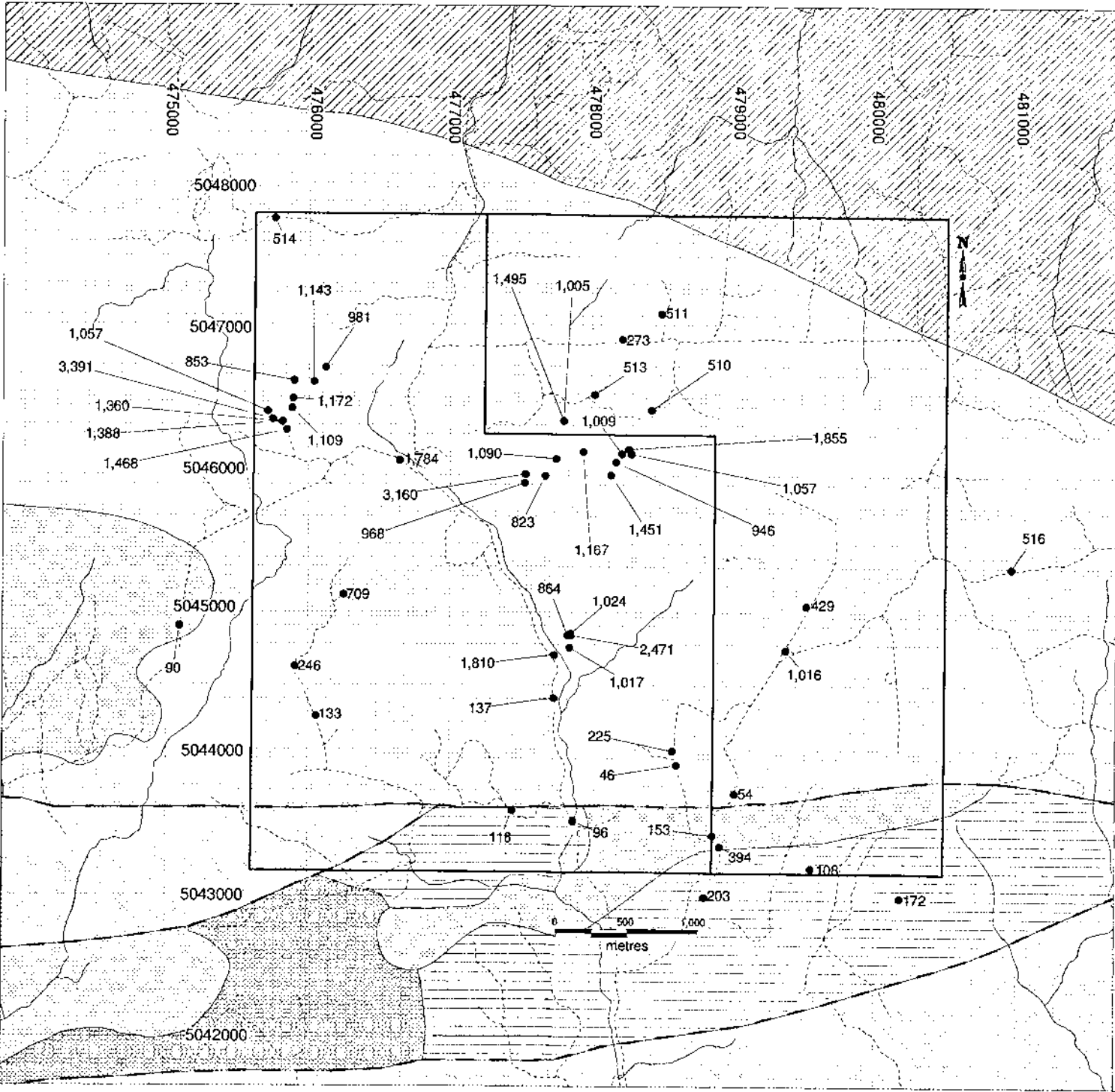
UTM zone 20, NAD 83

Jan. 13, 2011

Map prepared by Alex MacKay

Plate 9

AR2010-124



Legend

- XRF Analysis Location
- Streams
- Country Roads
- - - Geological Fault
- ▭ Licence Boundary

Geological Legend

- Folly Lake Gabbro-Diorite (Dev.-Carb.)
-Diorite-Gabbro
- Diamond Brook Formation (Dev. - Carb)
-basalt, wacke, siltstone, rhyolite
- Byers Brook Formation (Dev.-Carb)
-felsic volcanic rocks, minor siltstone, wacke
- Nuttby Formation (Dev.-Carb.)
-alluvial wacke, siltstone, conglomerate, fluvial argillite, rare lacustrine limestone and felsic volcanics
- Hart Lake-Byers Lake granite (Dev-Carb.)
-hornblende-biotite-magnetite-alkali granite
- Unnamed unit (Ord-Sil)
-wacke, siltstone, shale, tuff



Base data source: NSDNR

Clear Lake Resources Inc.

Zr Results (ppm) from XRF Analysis

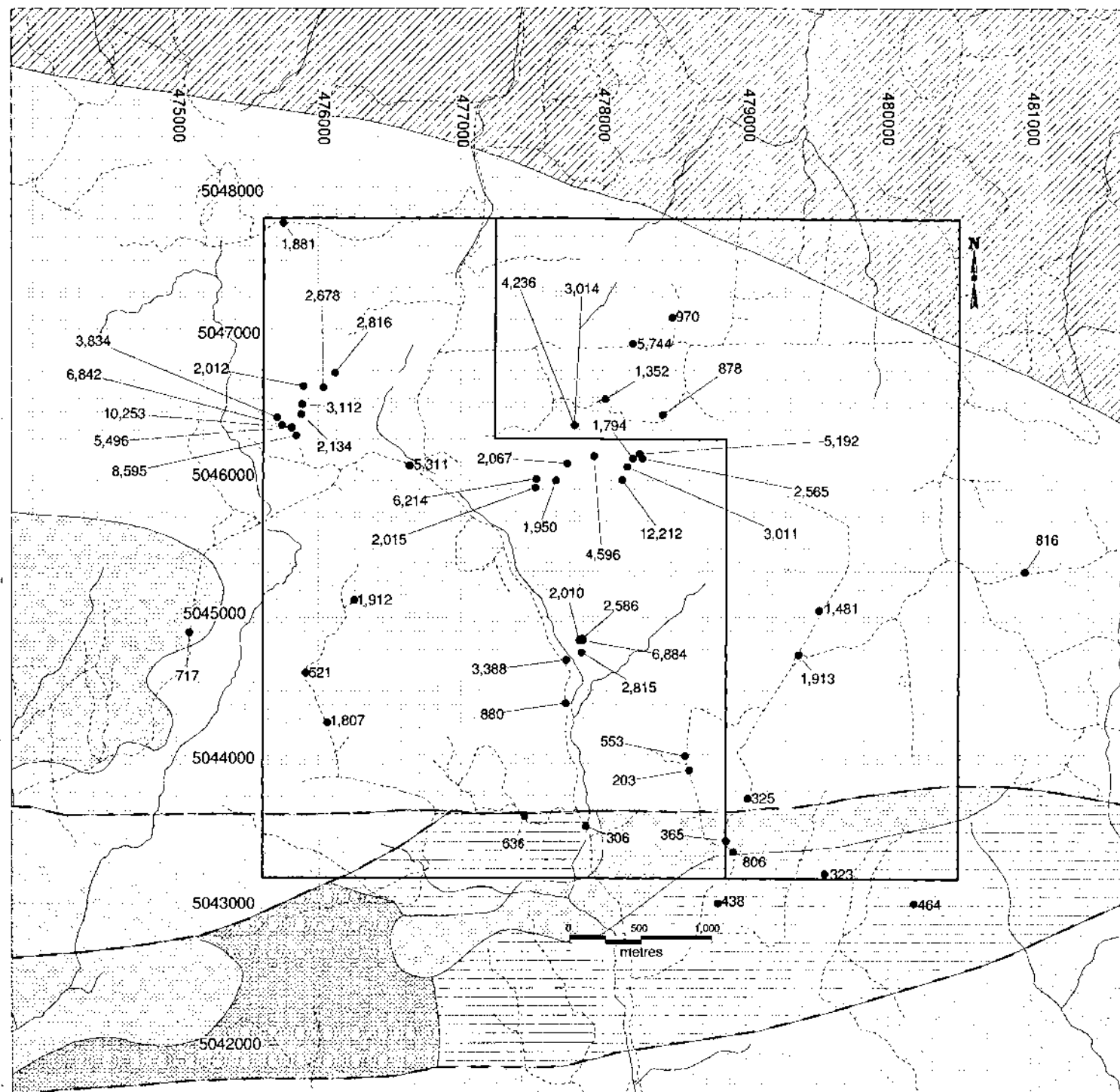
1:20000

UTM zone 20, NAD 83

Jan. 13, 2011

Map prepared by Alex MacKay

Plate 7



Legend

- XRF Analysis Location
- Streams
- - - Country Roads
- - - Geological Fault

Licence Boundary

Geological Legend

- Folly Lake Gabbro-Diorite (Dev.-Carb.)
-Diorite-Gabbro
- Diamond Brook Formation (Dev. - Carb)
-basalt, wacke, siltstone, rhyolite
- Byers Brook Formation (Dev.-Carb)
-felsic volcanic rocks, minor siltstone, wacke
- Nuttby Formation (Dev.-Carb.)
-alluvial wacke, siltstone, conglomerate, fluvial argillite, rare lacustrine limestone and felsic volcanics
- Hart Lake-Byers Lake granite (Dev.-Carb.)
-hornblende-biotite-magnetite-alkali granite
- Unnamed unit (Ord-Sil)
-wacke, siltstone, shale, tuff



Base data source: NSDNR

Clear Lake Resources Inc.

Y Results (ppm) from XRF Analysis

1:20000

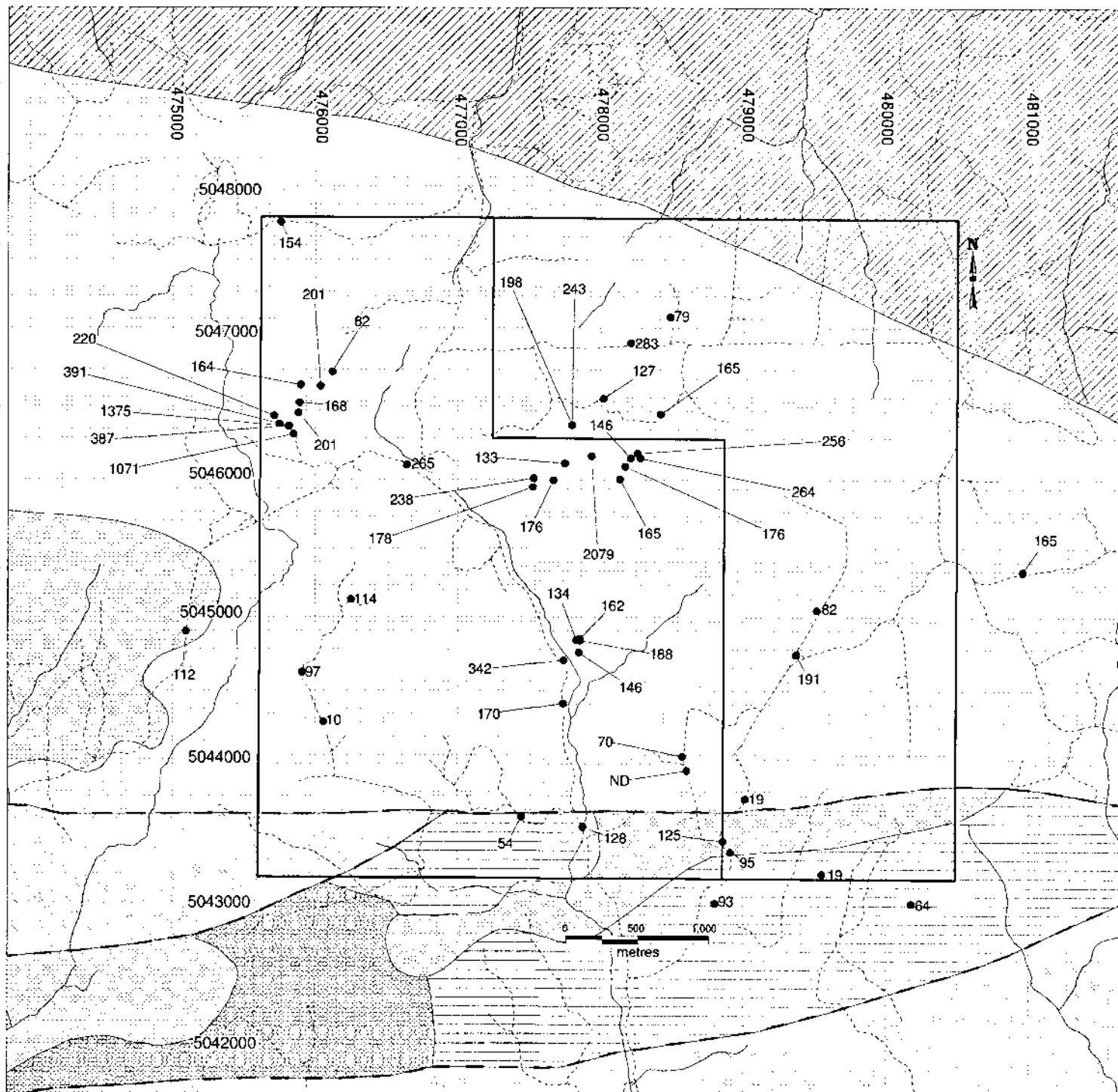
UTM zone 20, NAD 83

Jan. 13, 2011

Map prepared by Alex MacKay

Plate 8

AR2010-124



Legend

- XRF Analysis Location
- Streams
- Country Roads
- - - Geological Fault



Licence Boundary

Geological Legend



Folly Lake Gabbro-Diorite (Dev.-Carb.)
-Diorite-Gabbro



Diamond Brook Formation (Dev.-Carb.)
-basalt, wacke, siltstone, rhyolite



Byers Brook Formation (Dev.-Carb.)
-felsic volcanic rocks, minor siltstone, wacke



Nuttby Formation (Dev.-Carb.)
-alluvial wacke, siltstone, conglomerate,
fluvial argillite, rare lacustrine limestone
and felsic volcanics



Hart Lake-Byers Lake granite (Dev.-Carb.)
-hornblende-biotite-magnetite-alkali granite



Unnamed unit (Ord-Sil)
-wacke, siltstone, shale, tuff



Base data source: NSDNR

Clear Lake Resources Inc.

The Results (ppm) from XRF Analysis

1:20000

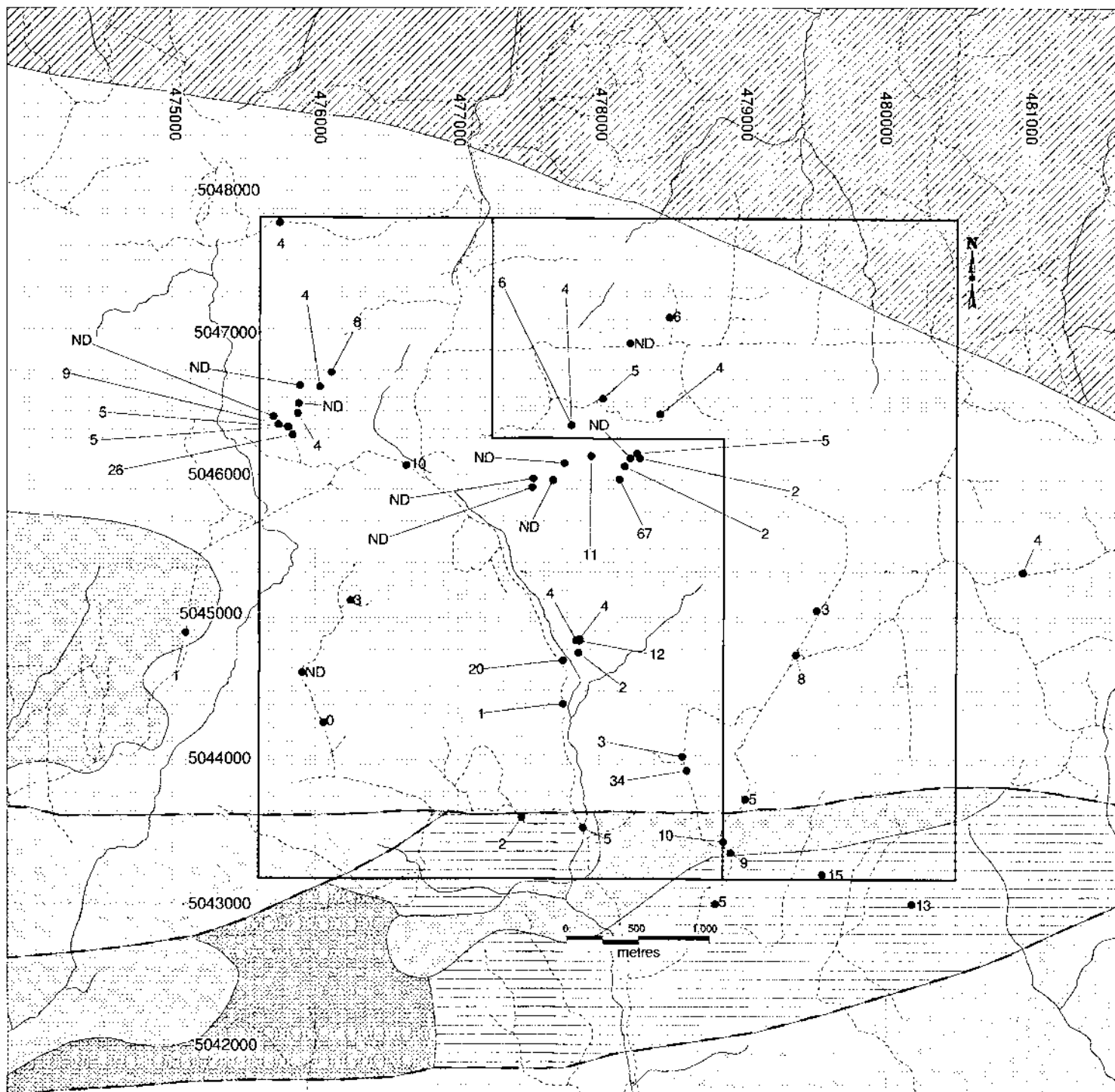
UTM zone 20, NAD 83

Jan. 13, 2011

Map prepared by Alex MacKay

Plate 6

AR2010-124



Legend

- XRF Analysis Location
- Streams
- Country Roads
- - - Geological Fault
- ▭ Licence Boundary

Geological Legend

- Folly Lake Gabbro-Diorite (Dev.-Carb.)
-Diorite-Gabbro
- Diamond Brook Formation (Dev. - Carb)
-basalt, wacke, siltstone, rhyolite
- Byers Brook Formation (Dev.-Carb)
-felsic volcanic rocks, minor siltstone, wacke
- Nutby Formation (Dev.-Carb.)
-alluvial wacke, siltstone, conglomerate,
fluvial argillite, rare lacustrine limestone
and felsic volcanics
- Hart Lake-Byers Lake granite (Dev.-Carb.)
-hornblende-biotite-magnetite-alkali granite
- Unnamed unit (Ord-Sil)
-wacke, siltstone, shale, tuff



Base data source: NSDNR

Clear Lake Resources Inc.

Co Results (ppm) from XRF Analysis

1:20000

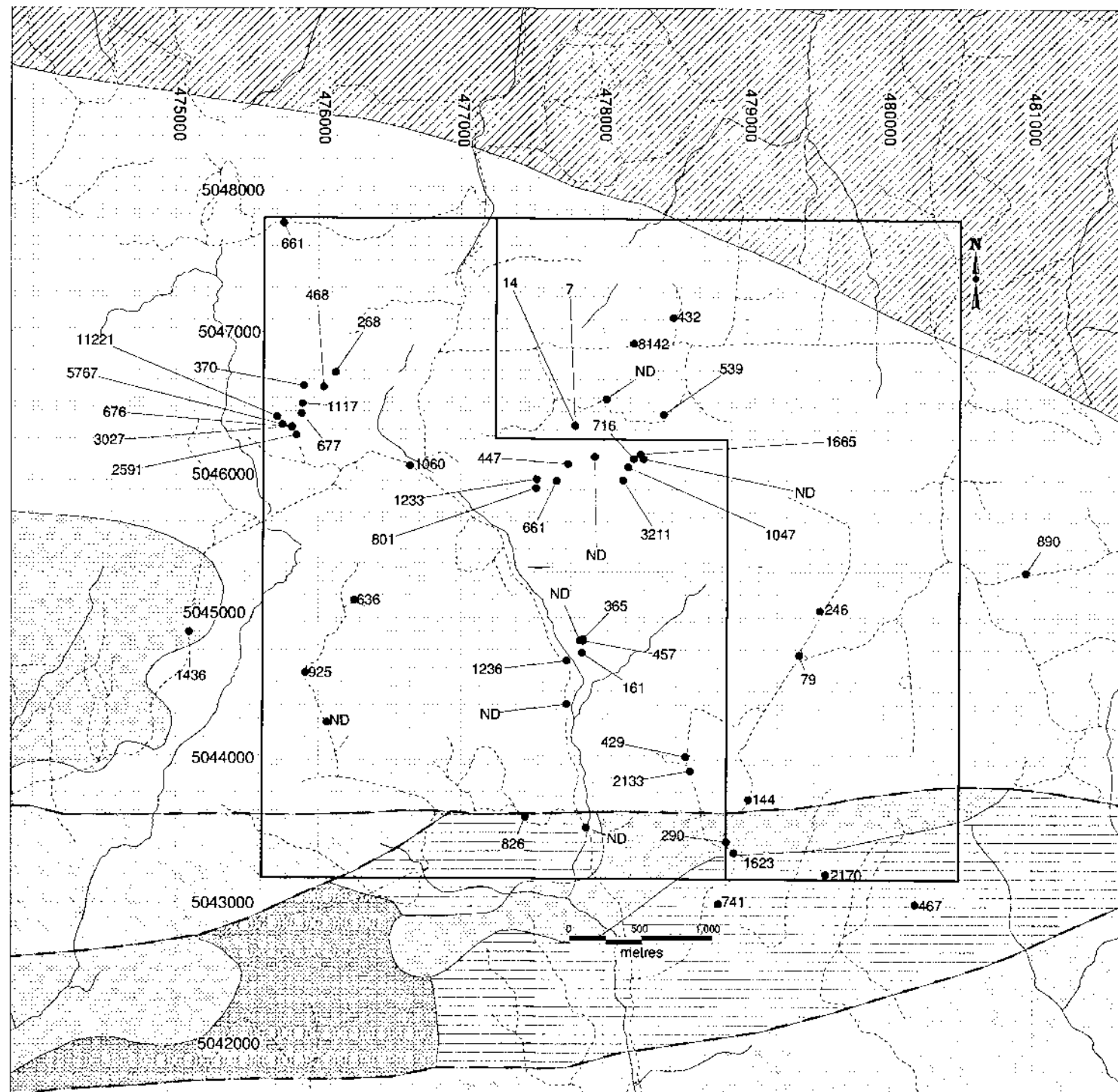
UTM zone 20, NAD 83

Jan. 13, 2011

Map prepared by Alex MacKay

Plate 5

AR2010-124



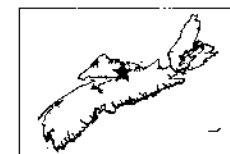
Legend

- XRF Analysis Location
- Streams
- Country Roads
- - - Geological Fault

Licence Boundary

Geological Legend

- Folly Lake Gabbro-Diorite (Dev.-Carb.)
-Diorite-Gabbro
- Diamond Brook Formation (Dev.-Carb.)
-basalt, wacke, siltstone, rhyolite
- Byers Brook Formation (Dev.-Carb.)
-felsic volcanic rocks, minor siltstone, wacke
- Nuttby Formation (Dev.-Carb.)
-alluvial wacke, siltstone, conglomerate,
fluvial argillite, rare lacustrine limestone
and felsic volcanics
- Hart Lake-Byers Lake granite (Dev.-Carb.)
-hornblende-biotite-magnetite-alkali granite
- Unnamed unit (Ord-Sil)
-wacke, siltstone, shale, tuff



Base data source: NSDNR

Clear Lake Resources Inc.

Ba Results (ppm) from XRF Analysis

1:20000

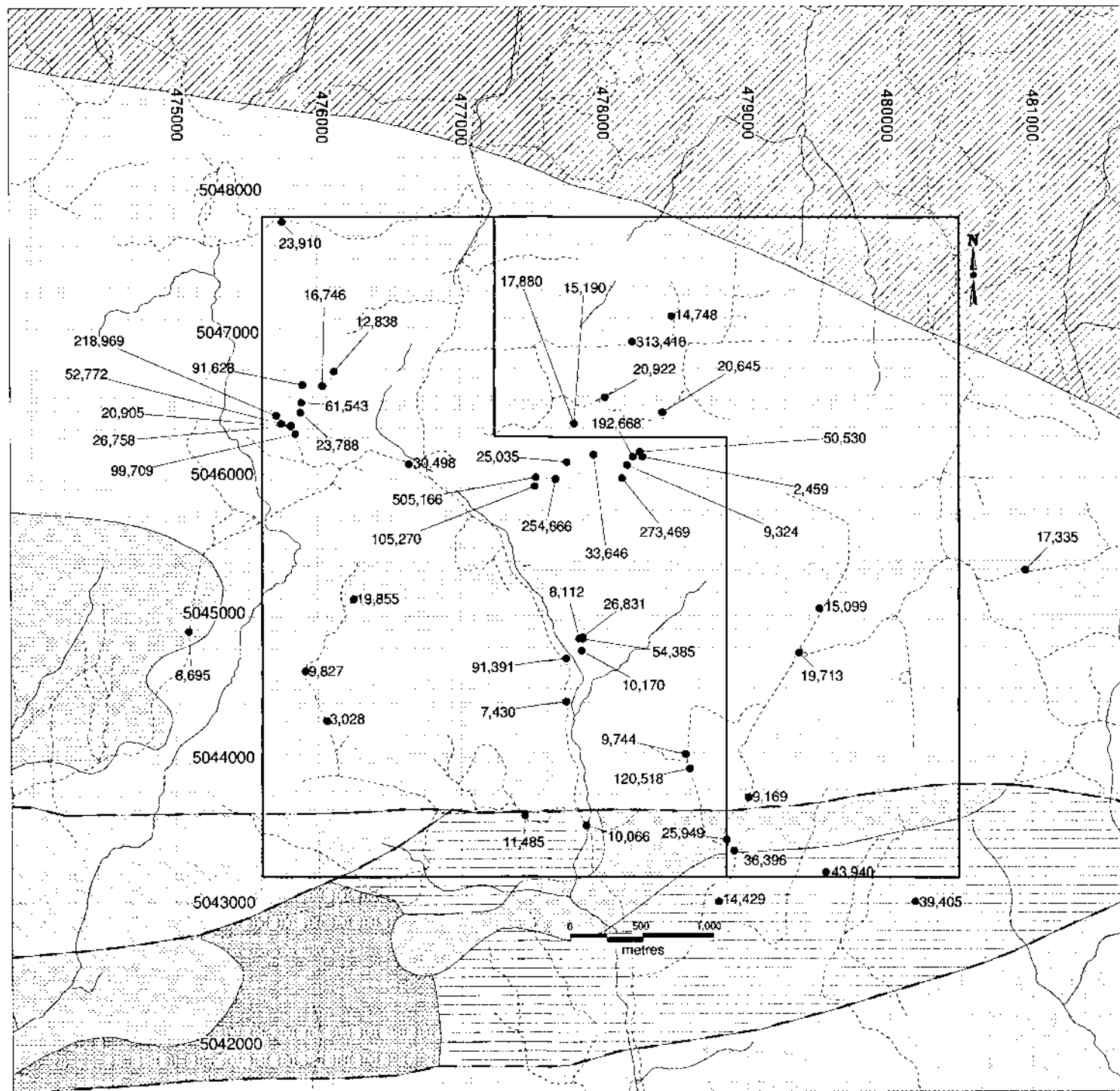
UTM zone 20, NAD 83

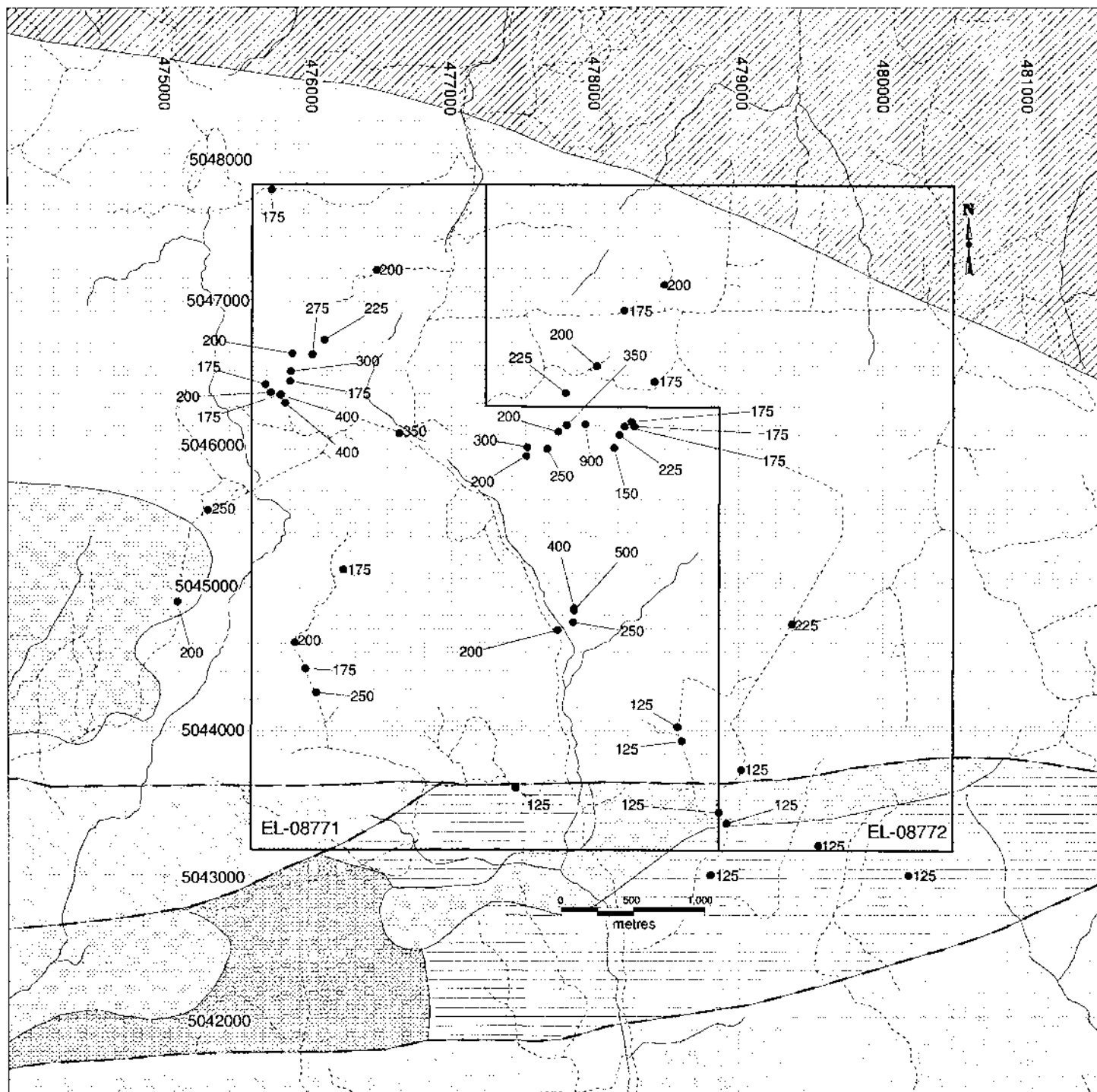
Jan. 13, 2011

Map prepared by Alex MacKay

Plate 4

AR2010-124





Legend

- Location of Scintillometer reading (in total counts per second)
- Streams
- Country Roads
- - - Geological Fault
- Licence Boundary

Geological Legend

- Folly Lake Gabbro-Diorite (Dev.-Carb.)
-Diorite-Gabbro
- Diamond Brook Formation (Dev. - Carb)
-basalt, wacke, siltstone, rhyolite
- Byers Brook Formation (Dev.-Carb)
-felsic volcanic rocks, minor siltstone, wacke
- Nutby Formation (Dev.-Carb.)
-alluvial wacke, siltstone, conglomerate, fluvial argillite, rare lacustrine limestone and felsic volcanics
- Hart Lake-Byers Lake granite (Dev.-Carb.)
-hornblende-biotite-magnetite-alkali granite
- Unnamed unit (Ord-Sil)
-wacke, siltstone, shale, tuff



Base Data source: NSDNR

Clear Lake Resources Inc.

Scintillometer Survey Results

1:20000

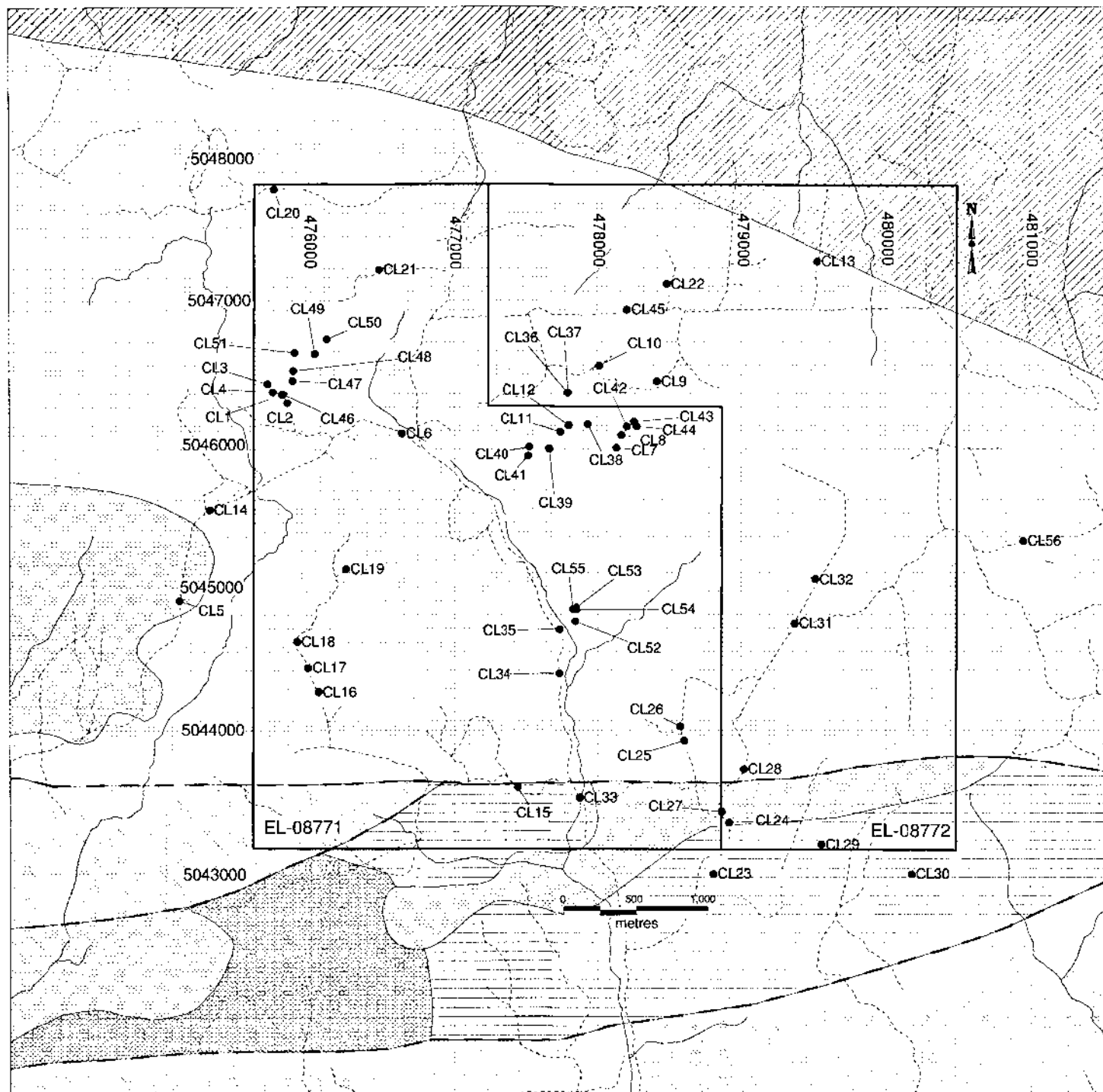
UTM zone 20, NAD 83

Jan. 13, 2011

Map prepared by Alex MacKay

Plate 2

AR2010-124



Legend

- Station Identifier
(See appendix A for station information)
- Streams
- - - Country Roads
- - - Geological Fault
- Licence Boundary

Geological Legend

- Folly Lake Gabbro-Diorite (Dev.-Carb.)
-Diorite-Gabbro
- Diamond Brook Formation (Dev. - Carb)
-basalt, wacke, siltstone, rhyolite
- Byers Brook Formation (Dev.-Carb)
-felsic volcanic rocks, minor siltstone, wacke
- Nutby Formation (Dev.-Carb.)
-alluvial wacke, siltstone, conglomerate,
fluvial argillite, rare lacustrine limestone
and felsic volcanics
- Hart Lake-Byers Lake granite (Dev.-Carb.)
-hornblende-biotite-magnetite-alkali granite
- Unnamed unit (Ord-Sil)
-wacke, siltstone, shale, tuff



Base Data source: NSDNR

Clear Lake Resources Inc.

Station Identifier Map

1:20000

UTM zone 20, NAD 83

Jan. 13, 2011

Map prepared by Alex MacKay

Plate 1

AR2010-124

Form 10 - Statement of Assessment Work Expenditure
(pursuant to the *Mineral Resources Act*, S.N.S. 1990, c. 18, s. 43(1))

(Complete as necessary to substantiate the total claimed.)

Re: Licence No. 08771 Date of issue NOV 19, 2010

Type of Work		Amount Spent
1.	Prospecting ↓ SCINTILLIMETER <u>5x300 + 7x400</u>	<u>12</u> days <u>4300</u>
2.	Geological mapping	<u>3</u> days <u>1200</u>
3.	Trenching/stripping/refilling	_____ m ² / _____ m ³
4.	Assaying & whole rock analysis 2 SCINTILLIMETER RENTAL	_____ # <u>600</u>
5.	Other laboratory <u>XRF RENTAL</u>	_____ # <u>7500</u>
6.	Grid: (a) Line cutting (b) Picket setting (c) Flagging	_____ km _____ km _____ km
7.	Geophysical surveys Airborne: (a) EM/VLF (b) Magn or Grav (c) Radiometric (d) Combination (e) Other	_____ km _____ km _____ km _____ km _____ km
8.	Geophysical surveys Ground: (a) EM/VLF (b) Seismic soundings (c) Magnetic/telluric (d) IP/resistivity (e) Gravity (f) Other <u>RADIOMETRIC</u>	_____ km _____ # _____ km _____ km _____ km <u>40</u> km
9.	Geochemical surveys (a) Lake, stream, spring (i) Water (ii) Sediments (b) (i) Rock (ii) Core (iii) Chips (c) (i) Soil (ii) Overburden (d) Gas (e) Biogeochemistry (f) Sample collection (g) Other	_____ samples _____ samples _____ samples _____ samples _____ samples _____ samples _____ samples _____ samples _____ days
10.	Drilling: (a) Diamond (# holes/m) (b) Percussion (# holes/m) (c) Rotary (# holes/m) (d) Auger (# holes/m) (e) Reverse circulation (# holes/m) (f) Logging, supervision, etc. (g) Sealing (# holes)	_____ / _____ m _____ / _____ m _____ / _____ m _____ / _____ m _____ / _____ m _____ days _____ #
11.	Other (describe) <u>MILEAGE 1102km @ 44¢ = 539.98</u> <u>FIELD MEALS 15 @ 25 = 375</u> <u>MOTEL 6x90 = 540</u>	<u>539.98</u> <u>375.00</u> <u>540.00</u> <u>1454.98</u> <u>1454.98</u>
Subtotal		<u>1454.98</u> <u>15054.98</u>
Overhead costs <u>10% OVERHEAD</u>		<u>1505.49</u>
12.	Secretarial services	<u>16560.47</u>
13.	Drafting services	
14.	Office expenses (rent, heat, light, etc.)	
15.	Field supplies	
16.	Compensation paid to landowners	
17.	Legal fees	
18.	Other (describe)	
Subtotal		
Grand total		<u>16,560.47</u>

Form 10 - Statement of Assessment Work Expenditure
(pursuant to the Mineral Resources Act, S.N.S. 1990, c. 18, s. 43(1))

(Complete as necessary to substantiate the total claimed.)

Re: Licence No. 08772 Date of issue NOV 19, 2009

Type of Work		Amount Spent
1. Prospecting & SCINTILLOMETER <u>3x300 + 7x400</u>	<u>10 14</u> days	<u>3700</u>
2. Geological mapping <u>2x400</u>	<u>2</u> days	<u>800</u>
3. Trenching/stripping/refilling	_____ m ² / _____ m ³	
4. Assaying & whole rock analysis <u>2 SCINTILLOMETER RENTAL</u>	_____ #	<u>480</u>
5. Other laboratory <u>XRF RENTAL</u>	_____ #	<u>6000</u>
6. Grid: (a) Line cutting (b) Picket setting (c) Flagging	_____ km _____ km _____ km	
7. Geophysical surveys Airborne: (a) EM/VLF (b) Mag or Grad (c) Radiometric (d) Combination (e) Other	_____ km _____ km _____ km _____ km _____ km	
8. Geophysical surveys Ground: (a) EM/VLF (b) Seismic soundings (c) Magnetic/telluric (d) IP/resistivity (e) Gravity (f) Other <u>RADIOMETRIC</u>	_____ km _____ # _____ km _____ km _____ km <u>30</u> km	
9. Geochemical surveys (a) Lake, stream, spring (i) Water (ii) Sediment (b) Rock (i) Core (ii) Chips (c) Soil (i) Overburden (d) Gas (e) Biogeochemistry (f) Sample collection (g) Other	_____ samples _____ samples _____ samples _____ samples _____ samples _____ samples _____ samples _____ days	
10. Drilling: (a) Diamond (# holes/m) (b) Percussion (# holes/m) (c) Rotary (# holes/m) (d) Auger (# holes/m) (e) Reverse circulation (# holes/m) (f) Logging, supervision, etc. (g) Sealing (# holes)	_____ / _____ m _____ / _____ m _____ / _____ m _____ / _____ m _____ / _____ m _____ days _____ #	
11. Other (describe) <u>MILEAGE 807km @ 49¢ = 395.43</u> <u>FIELD MEALS 12 @ 25 = 300</u> <u>MOTEL 4x90 = 360</u>	<u>395.43</u> <u>300</u> <u>360</u> <u>1055.43</u>	<u>1055.43</u>
Subtotal	<u>1055.43</u>	<u>12035.43</u>
Overhead costs <u>10% OVERHEAD</u>		<u>1203.54</u>
12. Secretarial services		
13. Drafting services		
14. Office expenses (rent, heat, light, etc.)		
15. Field supplies		
16. Compensation paid to landowners		
17. Legal fees		
18. Other (describe)		
Subtotal		
Grand total		<u>13238.97</u>

List the names of the persons who conducted the work reported in the previous table and the dates during which the work was performed.

[illegible]

I hereby certify that the information in this form is true and correct, that it has not before been submitted for assessment work credit and that it is the total of all work conducted on the licence during the past licensed year.

As LICENSEE
(position in company or licensee) I am duly authorized to make this certification.

Dated at HALIFAX in the Province of NOVA SCOTIA on NOV 18, 2010.

Name and address of licensee: CLEAR LAKE RESOURCES INC.
11 RIVER RD, TERENCE BAY RIVER, NS B3T1X2

Signature L. Allen

For further information, contact the Registrar of Mineral and Petroleum Titles at 1-902-424-4068.