

PRELIMINARY REPORT ON DIAMOND DRILL HOLES PL-01 and PL-02

Separation Property

-Paterson Lake Area (G.2634)-

Kenora Mining Division -10- Ontario

Prepared for

MEGA GRAPHITE Inc.

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2. 49257

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August 21, 2011

MEGA GRAPHITE Inc.

-Separation Property

PRELIMINARY REPORT ON DIAMOND DRILL HOLES PL-01 and PL-02

Separation Property

-Paterson Lake Area (G.2634)-

Kenora Mining Division -10- Ontario

Project/Property: Separation/Paterson/Big Mack

Claim Property Ownership: Mega Graphite Inc. (client #408407) – 100%

Mineral Commodities: Petalite (Li), Rare Earth Metals (Ta), Rare Earth Elements

Mining Claim Surveyed: Mining claim lease CLM 428

Type of Survey: Geological logging and assaying of two diamond drill holes PL-01 and PL-02

Assessment Work Distribution: Claim #1220417, 1220418, 1220424, 1220425 and 1233597

Date of Survey: September 12, 2006 to August 21, 2011

INTRODUCTION

Mega Graphite Inc. acquired the property from Pacific Iron ore Corporation (Emerald Fields Resource Corporation) on June 21, 2010. The property is located in the Separation Rapids area of Northwestern Ontario, Kenora Mining Division – 10 hosting the “Big Mack” petalite bearing pegmatite discovered in 1997. During 1997 and early 2000, other pegmatite dykes were identified mineralized with Li, Ta and Sn-Ta-Nb. Other pegmatite dykes have been noted further to the north but have not received any exploration attention. Mega Graphite’s intent is as follows:

- 1/. Expand on the Li content of the Big Mack and Zone Eleven;
- 2/. Drill test other previously discovered petalite (Li) dykes and other dykes bearing Ta+/-Sn+/-Nb, and
- 3/. Evaluate the claim group for Rare Earth Elements (REE) including their Treelined/Trout Lake graphite deposit lying to the east.

LOCATION and ACCESS

The property is located about 75 km north of Kenora, Ontario. Access to the property is by road Hwy#658 north from Kenora to Reddit and north on the English River gravel road to kilometre signed 65. Turning west on the Sand Lake logging road for about 5.2 km to the Mine Road and north for

approximately 12 km. Unfortunately, the Mine Road section was decommissioned last Fall 2010 leaving access to 4x4 bike quad transport.

REGIONAL GEOLOGY

This Separation Rapids property is closely associated with the Archean Separation Lake Greenstone Belt comprised of metavolcanic and metasedimentary rocks. This Belt is equated with Manitoba's Bird River System to the west. This suite of rocks is part of the Superior Province which constitutes the boundary zone between the north lying metasedimentary English River Subprovince and the south granite dominated Winnipeg River Subprovince.

The Bird River Belt is host to TANCO's Ta and Cs producing mine at Bernic Lake. The Separation Lake Belt is host to the Big Mack, Avalon's Big Whopper and Champion Bear's Marko's petalite pegmatites.

Intrusive granite, granite-pegmatite, pegmatite and aplite invade all of the lithologies exhibiting a wide degree of mineralogy and textural fabric. All unites have been metamorphosed to middle to upper amphibolite grade.

Although not studied in great detail, structure does play an important role in the control and deposit development of the petalite bearing pegmatites; i.e., refolding/accordion affect increasing size.

PROPERTY GEOLOGY

Surface discoveries todate are the Big Mack and Zone Eleven just to the northwest. Other petalite bearing dykes; such as, the Glitter and Spinkler Zones have been exposed and surface sampled but not drill tested. Attached is a copy of the property's Lithologic Legend after Pryslak and Chastko, 2001.

SURVEY

Two drill holes PL-01 and PL-02 were recovered from the camp and core storage area on claim CLM 428. (The camp and core have been vandalized with core dumped from the racks and core removed from various core boxes.) These two holes represent a cross-section of the Big Mack from north to south starting in mafic metavolcanics and finishing in the same. The UTM co-ordinates for both holes are as follows (NAD 83 Zone 15): PL-0: 5569787mN; 386542mE; drill azimuth 180 degrees @ -45 degrees south. PL-02: 5569771mN; 386542mE; drill azimuth 180 degrees @ -45 degrees south. PL-02 is about 16m south of PL-01. In relation to corner survey pin (refer figure: SEP-3), the drill collars are 112m east and 25 and 41m respectively north.

Transport of the core was by a combination of quad to truck. The truck was parked just north on the Mine Road off the Sand Lake Road. The boxes were transported back to Kenora where they were logged, sampled and shipped to Actlabs, subsidiary Dryden, Ontario office for preparation. The 50 samples (33 from PL-01 and 17 from PL-02) were sent to Ancaster, Ontario for analyses. The chemistry packages consist of Li assay and sodium peroxide fusion; REE; B; Br; F. The elevated Ga is being presently scoped as another possible value added recoverable commodity. A detail report of findings to follow.



Drill Log Journal de forage

Under section 8 of the *Mining Act*, this information is used to maintain a public record. / Aux termes de l'article 8 de la *Loi sur les mines*, ces renseignements serviront à tenir à jour les dossiers publics.

Hole ID / Forage n° PL-01	Claim No. / N° de concession minière CLM-428	Township/Area / Canton Paterson Lake (G-2634)
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Name of Land Holder / No, de Mega Graphite Inc.	Azimuth 180 °	Dip / Inclinaison 45 °	End of Hole (m) / fin de forage (m) 30.64m	Overburden Depth / profondeur des morts- terrains 0.00
Drilling Company / Compagnie de forage Emeral Fields Resource Corporation Kenora, Ontario	Logged by (<i>print</i>) / Inscrit par (<i>écrire en lettres moulées</i>) A.J.M. Mowat, C.E.T.		Core Size / Dimensions de la carotte AW 35.1mm	Collar Elevation / Elévation du collier +/- 360.0m
Date Hole Started (<i>yyyy/mm/dd</i>) / Date de commencement du forage (<i>aaaa/mm/jj</i>) 2006-09-14	Date Completed (<i>yyyy/mm/dd</i>) / Date d'achèvement (<i>aaaa/mm/jj</i>) 2006-09-17	Date Logged (<i>yyyy/mm/dd</i>) / Date d'inscription au journal (<i>aaaa/mm/jj</i>) 2011-06-21	Location of Core Storage / Endroit où la carotte est stockée N/A (Refer rpt. #A11-5670)	

DRILL HOLE COLLAR LOCATION CO-ORDINATES / COORDONNÉES DU COLLIER DE TROU DE FORAGE	
UTM / MTU	Latitude / Longitude
degrees/minutes/seconds or decimal values degrés/minutes/secondes ou valeurs décimales	
Datum: <input type="checkbox"/> NAD 27 <input checked="" type="checkbox"/> NAD 83	
Zone: <input checked="" type="checkbox"/> 15 <input type="checkbox"/> 16 <input type="checkbox"/> 17 <input type="checkbox"/> 18	
Northing / Ordonnée: 5569787	
Easting / Abscisse: 386542	
Datum: <input type="checkbox"/> NAD 27 <input type="checkbox"/> NAD 83	
Latitude:	
Longitude:	

Footage/Avancement	Rock type / type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) / Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle ° / Angle des caractéristiques planes	Core Specimen Footage / Longueur en pieds des carottes prélevées	Your Sample No./ N° d'échantillon du prospecteur	Sample Footage / Niveau de prélèvement de l'échantillon (<i>en pieds</i>)		Sample Length / Longueur de l'échantillon	Assays / Analyses minéralurgiques
						From/De	To/À		
0.00	0.50m	1a,b			57801	0.00	0.50 m	0.50 mV	
0.50	0.82	1a,b;8c			57802	0.50	0.82	0.32 mV+P	
0.82	1.82	8c			57803	0.82	1.82	0.00*	N/A
1.82	2.82	8c			57804	1.82	2.82	1.00	
2.82	3.82	8c			57805	2.82	3.82	1.00	
3.82	4.82	8c			57806	3.82	4.82	1.00	
4.82	5.82	8c			57807	4.82	5.82	1.00	
5.82	6.82	8c			57808	5.82	6.82	1.00	
6.82	7.82	8c			57809	6.82	7.82	1.00	
7.82	8.82	8c			57810	7.82	8.82	1.00	
8.82	9.80	8c			57811	8.82	9.80	0.98	

*For features such as foliation, bedding, schistosity, measured from the long axis of the core. / *Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

"Mining Lands Website: http://www.mndm.gov.on.ca/mndm/mines/lands/default_e.asp"
"Site Web de la Section des terrains miniers : http://www.mndm.gov.on.ca/mndm/mines/lands/default_f.asp"



Drill Log
Journal de forage

Footage/Avancement		Rock type / type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) / Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle * / Angle des caractéristiques planes	Core Specimen Footage / Longueur en pieds des carottes prélevées	Your Sample No. / N° d'échantillon du prospecteur	Sample Footage / Niveau de prélèvement de l'échantillon (en pieds)		Sample Length / Longueur de l'échantillon	Assays / Analyses minéralurgiques	
From/De	To/À						From/De	To/À			
9.80	10.80	1a,b	Mafic metavolcanic flows & pillows as above with glimmerite; top contact @	30 ca		57812	9.80	10.80	1.00 mV		
10.80	11.80	1a,b	Mafic metavolcanic; amph.chloritic, with <= 4mm bands of homquistite @	30 ca		57813	10.80	11.80	1.00 mV		
11.80	12.28	1a,b	as above			57814	11.80	12.28	0.48		
12.28	12.72	8c, 1a,b	Petalite Pegmatite; @ 12.55 m 30mm mafic inclusion			57815	12.28	12.72	0.44		
12.72	13.72	8c	Petalite Pegmatite			57816	12.72	13.72	1.00		
13.72	14.72	8c	as above			57817	13.72	14.72	1.00		
14.72	15.60	8c	as above			57818	14.72	15.60	0.88		
15.60	15.96	1a,b	Mafic metavolcanic; top & bottom contact @	60/45 ca		57819	15.60	15.96	0.36 mV		
15.96	16.96	8c	Petalite Pegmatite			57820	15.96	16.96	1.00		
16.96	17.96	8c	as above			57821	16.96	17.96	1.00		
17.96	18.96	8c	as above			57822	17.96	18.96	1.00		
18.96	19.96	8c	as above			57823	18.96	19.96	1.00		
19.96	20.96	8c	as above			57824	19.96	20.96	1.00		
20.96	21.96	8c	as above			57825	20.96	21.96	1.00		
21.96	22.96	8c	as above; @ 22.44-22.96m aplitic (marble appearance)			57826	21.96	22.96	1.00		
22.96	23.96	8c	Petalite Pegmatite			57827	22.96	23.96	1.00		
23.96	24.96	8c	as above; missing 0.69m ground core between 24.27 to 24.96 m			57828	23.96	24.96	0.31*		
24.96	25.96	8c	Petalite Pegmatite			57829	24.96	25.96	1.00		
25.96	26.96	8c	as above			57830	25.96	26.96	1.00		
26.96	27.96	8c	as above			57831	26.96	27.96	1.00		
27.96	28.96	8c	as above			57832	27.96	28.96	1.00		
28.96	29.96	8c	as above			57833	28.96	29.96	1.00		
29.96	30.64	8c	as above			57834	29.96	30.64	0.68		
30.64			End of Hole (E.O.H.)								

*For features such as foliation, bedding, schistosity, measured from the long axis of the core. / *Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

"Mining Lands Website: http://www.mndm.gov.on.ca/mndm/mines/lands/default_e.asp"

"Site Web de la Section des terrains miniers : http://www.mndm.gov.on.ca/mndm/mines/lands/default_f.asp"



Drill Log
Journal de forage

Under section 8 of the *Mining Act*, this information is used to maintain a public record. / Aux termes de l'article 8 de la *Loi sur les mines*, ces renseignements serviront à tenir à jour les dossiers publics.

Hole ID / Forage n° PL-02	Claim No. / N° de concession minière CLM-428	Township/Area / Canton Paterson Lake (G-2634)
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Name of Land Holder / No, de Mega Graphic Inc.	Azimuth 180 °	Dip / Inclinaison 45 °	End of Hole (m) / fin de forage (m) 33.64m	Overburden Depth / profondeur des morts- terrains 0.00
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Drilling Company / Compagnie de forage Emerald Fields Resource Corporation Kenora, Ontario	Logged by (print) / Inscrit par (écrire en lettres moulées) A.J.M. Mowat, C.E.T.	Core Size / Dimensions de la carotte AW 35.1mm	Collar Elevation / Élévation du collier +/- 360.5m
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Date Hole Started (yyyy/mm/dd) / Date de commencement du forage (aaaa/mm/jj) 2006-09-17	Date Completed (yyyy/mm/dd) / Date d'achèvement (aaaa/mm/jj) 2006-09-19	Date Logged (yyyy/mm/dd) / Date d'inscription au journal (aaaa/mm/jj) 2011-06-29	Location of Core Storage / Endroit où la carotte est stockée N/A (Refer rpt.#A11-6059)
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UTM / MTU		Latitude / Longitude	
Datum: <input type="checkbox"/> NAD 27 <input checked="" type="checkbox"/> NAD 83		degrees/minutes/seconds or decimal values degrés/minutes/secondes ou valeurs décimales	
Zone: <input checked="" type="checkbox"/> 15 <input type="checkbox"/> 16 <input type="checkbox"/> 17 <input type="checkbox"/> 18		Datum: <input type="checkbox"/> NAD 27 <input type="checkbox"/> NAD 83	
Northing / Ordonnée: 5569771		Latitude:	
Easting / Abscisse: 386542		Longitude:	

Footage/Avancement		Rock type / type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) / Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle * / Angle des caractéristiques planes	Core Specimen Footage / Longueur en pieds des carottes prélevées	Your Sample No. / N° d'échantillon du prospecteur	Sample Footage / Niveau de prélèvement de l'échantillon (en pieds)		Sample Length / Longueur de l'échantillon	Assays / Analyses minéralurgiques
From/De	To/À						From/De	To/À		
0.00	6.03m	8c	Petalite Pegmatite (refer ddh EFR-PL-01) core missing				0.00	6.03m	(6.03)*	
6.03	7.00	8c	Petalite Pegmatite			57835	6.03	7.00	0.97	
7.00	7.82	8c	as above			57836	7.00	7.82	0.82	
7.82	8.20	1a,b	Mafic metavolcanic; med. gn; f. gr.; hornquistic; glimmerite; foli & contact @	45 ca		57837	7.82	8.20	0.38 mV	
8.20	9.00	8c	Petalite Pegmatite: foliation @	45 ca		57838	8.20	9.00	0.80	
9.00	10.00	8c	as above			57839	9.00	10.00	1.00	
10.00	11.00	8c	as above			57840	10.00	11.00	1.00	
11.00	12.00	8c	as above			57841	11.00	12.00	1.00	
12.00	13.00	8c	as above			57842	12.00	13.00	1.00	
13.00	13.24	8c	as above, bottom contact @	50 ca		57843	13.00	13.24	0.24	
13.24	13.39	1a,b	Mafic metavolcanic; med gn; f gr., chloritic + biotitic; bottom contact @	45 ca		57844	13.24	13.39	0.15 mV	

*For features such as foliation, bedding, schistosity, measured from the long axis of the core. / *Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

"Mining Lands Website: http://www.mndm.gov.on.ca/mndm/mines/lands/default_e.asp"

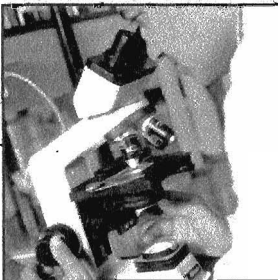
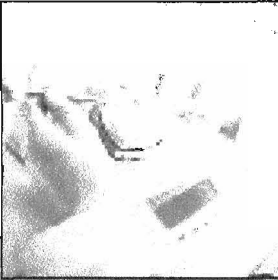
"Site Web de la Section des terrains miniers : http://www.mndm.gov.on.ca/mndm/mines/lands/default_f.asp"



Actlabs Group of Companies



Revised July 29/11



2011 Canadian Schedule of Services and Fees



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Sample Preparation

To obtain meaningful analytical results, it is imperative that sample collection and preparation be done properly. ACTLABS can advise on sampling protocol for your field program if requested. Once the samples arrive in the laboratory, ACTLABS will ensure that they are prepared properly. As a routine practice with rock and core, the entire sample is crushed to a nominal minus 10 mesh (1.7 mm), mechanically split (riffle) to obtain a representative sample and then pulverized to at least 95% minus 150 mesh (105 microns). All of our steel mills are now mild steel and do not induce Cr or Ni contamination.

As a routine practice, we **will automatically use cleaner sand between each sample at no cost to the customer**. Quality of crushing and pulverization is routinely checked as part of our quality assurance program. Randomization of samples in larger orders (>100) provides an excellent means to monitor data for systematic errors. The data is resorted after analysis according to sample number. Please request **Code Random (additional \$1.25/sample)** if you prefer randomization.

Samples submitted in an unorganized fashion will be subject to a sorting surcharge and may substantially slow turnaround time. Providing an accurate detailed sample list by e-mail will also aid in improving turnaround time and for Quality Control purposes. Additional charges may apply for poorly organized batches. **Code CP2** - Sample list not provided for orders over 25 samples (**\$0.30/sample**); **Code CP3** - Sorting chaotic shipments (**\$0.55/sample**).

Rock, Core and Drill Cuttings

code RX1	crush (< 5 kg) up to 90% passing 2 mm, split (250 g) and pulverize (hardened steel) to 95% passing 105µ	\$9.50
code RX1+500	500 grams pulverized	add \$2.00
code RX1+800	800 grams pulverized	add \$3.50
code RX1+1.3	1.3 kg pulverized	add \$5.00
code RX2	crush (< 5 kg), split and pulverize with mild steel (100 g) (best for low contamination)	\$9.00
code RX3	oversize charge per kilogram for crushing	\$2.00
code RX4	pulverization only (mild steel) (coarse pulp or crushed rock) (< 800 g)	\$6.50
code RX5	pulverize ceramic (100 g)	\$15.50
code RX6	hand pulverize small samples (agate mortar & pestle)	\$15.50
code RX7	crush and split (< 5 kg)	\$4.50
code RX8	sample prep only surcharge, no analyses	\$3.50
code RX9	compositing (per composite) dry weight	\$2.25
code RX10	dry drill cuttings in plastic bags	\$2.00
code RX11	checking quality of pulps or rejects prepared by other labs and issuing report	\$8.25

Note: Larger sample sizes than listed above can be pulverized at additional cost.

Samples shipped to the following locations will incur additional surcharges as follows in order to provide the fastest turnaround time for your exploration program:

Fredericton, NB	\$0.50/sample
Goose Bay, NL	\$2.00/sample
Thunder Bay, ON	\$0.50/sample
Stewart, BC	\$0.50/sample

Pulverization Contaminants Added

(amount added depends on hardness of material and particle size required)

Mill Type	Contaminant Added
Mild Steel (best choice)	Fe (up to 0.2%)
Hardened Steel	Fe (up to 0.2%), Cr (up to 200 ppm), trace Ni, Si, Mn and C
Ceramic	Al (up to 0.2%), Ba, trace REE
Tungsten Carbide	W (up to 0.1%), Co, C, Ta, Nb and Ti
Agate	Si (up to 0.3%), Al, Na, Fe, K, Ca, Mg, Pb

Soils, Stream and Lake Bottom Sediments

code S1	drying (60°C) and sieving (-80 mesh) save all portions	\$3.50
code S1 DIS	drying (60°C) and sieving (-80 mesh), discard oversize	\$3.00
code S1-230	drying (60°C) and sieving (-230 mesh), save oversize	\$4.75
code S1-230 DIS	drying (60°C) and sieving (-230 mesh), discard oversize	\$4.50
code S2	lake bottom sediment preparation crush & sieve (-80 mesh)	\$7.25
code S3	alternate size fractions and bracket sieving, add	\$2.25
code S4	Enzyme Leach SM or SGH drying (40°C) & sieving (-60 mesh)	\$4.00
code S5	wet or damp samples submitted in plastic bags, add	\$1.75
code S6	separating -2 micron material	\$71.50
code S7	methylene iodide heavy mineral separation specific gravity of 3.3 (250 grams)	\$55.00
code S8	sieve analysis (4 sieve sizes)	\$35.00

Biogeochemical Samples

code B1	drying and blending humus	\$4.50
code B2	drying and macerating vegetation	\$5.75
code B3	dry ashing	\$8.25
code B4	washing vegetation	\$4.00
code B5	samples submitted in plastic bags, add	\$1.75

Special Digestion Procedures

code MDI	Microwave digestion - closed vessel	\$38.50
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Sample Storage and Disposal

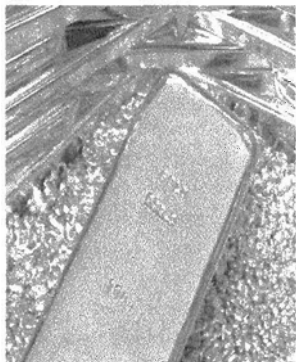
All soil, sediment and vegetation coming from outside Canada require incineration prior to disposal under CFIA regulations. All pulps and rejects will be returned to the client at cost. Disposal costs are additional. Pulps and rejects will incur a storage fee after the free period listed below.

RTRN	Return of all reject portions and/or pulps	At cost
INCIN	Incineration of soil, sediment and vegetation samples from outside Canada (for samples up to 0.5 kg; samples over 0.5 kg will have higher incineration costs)	\$0.30
H&R	Handling and retrieval of stored pulps and core	\$55.00/hour to end of rock core and drill cuttings sample storage & disposal
DISP	Disposal of pulps and reject to landfill site	\$0.20
STORE 1	Monthly storage of reject after 60 days	\$0.25
STORE 2	Monthly storage of pulps after 90 days	\$0.10
STORE 3	Monthly storage of sieve rejects after 3 months	\$0.15

Assay Products

Code 8 - Assay Products

Assays provide quantitative determinations of elements in non-processed geological materials. Assays are usually required only when the client knows or suspects higher levels of metals in samples. Geochemical methods generally provide lower detection limits than assays. For lower levels, geochemical methods should be used. All assays are traceable to international reference standards. Prices listed in our fee schedule are for normal geologic materials and are not for metallurgical products. Metallurgical products such as heads and concentrates are handled separately to prevent contamination in the laboratory. These materials are charged at five times the prices listed in our fee schedule.



Element	Price	Element	Price
Alumina - Al ₂ O ₃	\$22.00	Magnesium (oxide) - MgO	\$22.00
Antimony - Sb	\$22.00	Moisture - H ₂ O	\$11.00
Arsenic - As	\$22.00	Molybdenum (total) - Mo	\$11.00
Barium (Instrumental) - Ba	\$22.00	Molybdenum (oxide)	\$22.00
Barium (Gravimetric) - Ba	\$33.00	Molybdenum (sulfide)	\$22.00
Beryllium - Be	\$27.50	Nickel - Ni	\$11.00
Bismuth - Bi	\$22.00	Nickel - Ni Sulphide	\$22.00
Boron - B	\$27.50	Niobium - Nb	\$22.00
Bromine - Br	\$22.00	Phosphorous (oxide) - P ₂ O ₅	\$22.00
Cadmium - Cd	\$20.00	Platinum-Palladium-Gold (Pt-Pd-Au)	\$44.00
Calcium (oxide) - CaO	\$22.00	Potassium (oxide) - K ₂ O	\$22.00
Cerium - Ce	\$22.00	Rhenium - Re (Mo concentrates)	\$42.00
Chlorine - Cl	\$27.50	Rhodium - Rh	See Code 1C-Rh
Chromium - Cr	\$22.00	Selenium - Se	\$22.00
Cobalt - Co	\$11.00	Silicon (oxide) - SiO ₂	\$22.00
Copper (total) - Cu	\$11.00	Silver - Ag	\$15.50
Copper (CN soluble)	\$12.25	Sodium (oxide) - Na ₂ O	\$22.00
Copper (Acid soluble)	\$11.00	Specific Gravity - S.G.	\$24.50
Copper (Ferric sulfate soluble)	\$12.25	Strontium - Sr	\$16.50
Copper (Sequential Oxide Analysis)	\$33.00	Sulfur (Infrared)	\$27.50
Fluorine - F	\$27.50	Sulfur (Gravimetric) - S	\$27.50
Gold - Au	See Code 1A3	Sulfate - SO ₄	\$22.00
Gold-Silver (Au-Ag)	See Code 1A3-Ag	Tantalum - Ta	\$22.00
Gallium - Ga	\$27.50	Tellurium - Te	\$22.00
Germanium - Ge	\$38.50	Thallium - Tl	\$22.00
Insolubles	\$20.00	Thorium - Th	\$22.00
Iron (oxide) - Fe ₂ O ₃	\$16.50	Tin - Sn	\$22.00
Lanthanum - La	\$16.50	Titanium (oxide) - TiO ₂	\$22.00
Lead (total) - Pb	\$11.00	Tungsten (oxide) - WO ₃	\$22.00
Lead (oxide) - PbO	\$22.00	Uranium (oxide) - U ₃ O ₈	\$22.00
Lithium - Li	\$22.00	Vanadium (oxide) - V ₂ O ₅	\$22.00
Loss on ignition - LOI	\$10.00	Zinc (total) - Zn	\$11.00
Mercury - Hg	\$22.00	Zinc (oxide) - ZnO	\$22.00
Manganese (oxide) - MnO	\$22.00		

Code 8 - AR ICP - Assay package for base metals, aqua regia digestion

						Price	
Copper - Cu	Lead - Pb	Zinc - Zn	Cadmium - Cd	Iron - Fe	Manganese - Mn	One element	\$11.00
Cobalt - Co	Nickel - Ni	Silver - Ag	Mercury - Hg			Each additional	\$3.50

Code 8 - 4 Acid ICP - Assay package for base metals, 4 acid digestion

						Price	
Copper - Cu	Lead - Pb	Zinc - Zn	Manganese - Mn	Lithium - Li	Iron - Fe	One element	\$14.50
Cobalt - Co	Nickel - Ni	Silver - Ag	Molybdenum - Mo	Cadmium - Cd		Each additional	\$3.50

Code 8 - Peroxide ICP

Sodium peroxide fusion, acid dissolution followed by ICP/OES.

Elements and Detection Limits (%)

Al	0.01	Mg	0.01
As	0.01	Mn	0.01
Be	0.001	Ni	0.005
Ca	0.01	Pb	0.01
Co	0.002	S	0.01
Cr	0.01	Si	0.01
Cu	0.005	Ti	0.01
Fe	0.05	Zn	0.01
K	0.1	Zr*	0.001
Li	0.001		

Price: One element - \$15.50; Each additional - \$3.50

* If P₂O₅ > 0.3%, then fusion XRF is recommended.

Code 8 - Peroxide ICP/MS

Sodium peroxide fusion, acid dissolution followed by ICP/MS.

Elements and Detection Limit (%)

As	0.001	Se	0.001
Bi	0.001	Sn	0.001
Cs	0.001	Te	0.001
Ga	0.001	Th	0.001
Ge	0.001	Tl	0.001
In	0.001	U	0.001
Re	0.001		

Price: One element - \$18.50; Each additional - \$3.50

Exploration Techniques for Specific Deposit Types

Code 8 - REE Assay Package. Rare Earth Element-Niobium-Zirconium-Yttrium-Tantalum-Uranium-Thorium-Beryllium-Phosphate-Tin Assay ICP and ICP/MS Package

Rare earths and rare elements are among the most difficult to analyze properly. It is essential that the sample be ground to 95%-200 mesh to ensure complete fusion of resistate minerals. The analysis requires a lithium metaborate/tetraborate fusion with subsequent analysis by ICP and ICP/MS. Mass balance is required as an additional quality control technique and elemental totals of the oxides should be between 98 to 101%. In certain circumstances the presence of small amounts of phosphate will have very severe consequences to Nb₂O₅ assays by this method with results being very low for Nb₂O₅. Reanalysis is required for Nb₂O₅ by fusion XRF. In many cases these types of deposits may contain high amounts of fluorite. This should be noted on the Request for Analysis form or F assays should be requested. This will speed up processing as mass balance won't be achieved otherwise and a delay in returning results will ensue as samples get repeated. IN NO CIRCUMSTANCES SHOULD AN ACID DIGESTION OF ANY TYPE BE USED TO EVALUATE THE ABOVE ELEMENTS AS THEY WILL ONLY BE PARTIAL ANALYSIS.

Fusion ICP & ICP/MS, Elements and Detection Limits (ppm, except where noted)						Price: \$80.00	
Al ₂ O ₃	0.01%	Be	1	Rb	2	La	0.1
CaO	0.01%	Bi	0.4	Sb	0.5	Ce	0.1
Fe ₂ O ₃	0.01%	Co	1	Sc	1	Pr	0.05
K ₂ O	0.01%	Cr	20	Sn	1	Nd	0.1
MgO	0.01%	Cs	0.5	Sr	2	Sm	0.1
MnO	0.001%	Cu	10	Ta	0.1	Eu	0.05
Na ₂ O	0.01%	Ga	1	Th	0.1	Gd	0.1
P ₂ O ₅	0.01%	Ge	1	Tl	0.1	Tb	0.1
SiO ₂	0.01%	Hf	0.2	U	0.1	Dy	0.1
TiO ₂	0.001%	In	0.2	V	5	Ho	0.1
LOI	0.01%	Mo	2	W	1	Er	0.1
Ag	0.5	Nb	1	Y	2	Tm	0.05
As	5	Ni	20	Zn	30	Yb	0.1
Ba	3	Pb	5	Zr	4	Lu	0.04

Volume discounts are available.

If samples contain >0.3% P₂O₅ then Nb₂O₅ and ZrO₂ is recommended to be replaced by fusion XRF as ICP/MS results may be very low.

Code 8 - XRF Nb₂O₅, ZrO₂ & Ta₂O₅ Option Price: \$20.00

Code 8 - F Option Price: \$15.00

Code 8 - Niobium-Zirconium-Yttrium-Tantalum-Uranium-Thorium-Phosphate-Tin Assay XRF Package

Samples not requiring rare earths can be analyzed by fusion with lithium metaborate/tetraborate in platinum crucibles with the molten glass cast into a glass disc in platinum crucibles. These glass discs are analyzed by XRF. Generally low Ta₂O₅ detection limits can't be achieved with this package and the INAA technique is recommended for tantalum.

Elements	Detection Limit (%)	INAA Option:	Elements	Detection Limit (ppm)
Ta ₂ O ₅	0.003		Ta	0.5
Nb ₂ O ₅	0.003		Th	0.2
U ₃ O ₈	0.005		U	0.5
ThO ₂	0.005		La	0.5
ZrO ₂	0.003		Ce	3
Fe ₂ O ₃ (T)	0.01		Nd	5
P ₂ O ₅	0.01		Sm	0.1
SnO ₂	0.003		Eu	0.2
Y ₂ O ₃	0.003		Yb	0.2
			Lu	0.05

Price: \$40.00, Volume discounts are available.

Major Oxide Option: \$20.00

Price: First element - \$18.00; each additional - \$1.00

Code 8 - Chromite/PGE Assay XRF Package

Chromite assays are usually combined with major oxide analysis as other elements are required for the metallurgical use of the chromite. Cr/Fe ratios are very important in assigning value to chromite as well as other deleterious elements.

Elements	Detection Limits	Elements	Detection Limits	Price: \$35.00
Al ₂ O ₃	0.01%	MnO	0.01%	Volume discounts are available.
CaO	0.01%	Na ₂ O	0.01%	
Cr ₂ O ₃	0.01%	NiO	0.01%	
Co ₃ O ₄	0.01%	P ₂ O ₅	0.01%	
CuO	0.01%	SiO ₂	0.01%	
Fe ₂ O ₃	0.01%	TiO ₂	0.01%	
K ₂ O	0.01%	V ₂ O ₅	0.01%	
MgO	0.01%	LOI	0.01%	

PGE (ICP/OES) Option:

Au	2 - 30,000 ppb
Pt	5 - 30,000 ppb
Pd	5 - 30,000 ppb

PGE Option: \$20.00
Volume discounts are available.

Code 8 - Coal Package

Parameter	ASTM Method	Price
Sample Preparation	D-2013	\$16.00
Dry Screen Analysis (1 kg) (first fraction)	D-4749	\$40.00
Specific Gravity (Relative Density)	D-167	\$29.00
Total Moisture (TM)	D-3302	\$25.00
Proximate Analysis (Ash, Inherent Moisture, Volatile Matter)	D-3172	\$40.00
Free Swelling Index	D-720	\$20.00
Calorific Value (CV)	D-5865	\$40.00
Total Sulphur	D-4239	\$26.00
Forms of Sulphur (including sulphates, pyritic sulphur and organic C)	D-2492	\$62.00
Mercury	D-6414	\$25.00
Equilibrium Moisture	D-1412	\$45.00
Ash Fusion Temperature (Reducing, Oxidizing, Combined)	D-1857	\$125.00
Ultimate Analysis:	D-3176	
Carbon		\$55.00
Hydrogen		\$60.75
Carbon + Nitrogen		\$95.00
Nitrogen	D-5373	\$55.00
Bulk Density		\$33.00
F in coal	ASTM 5987-96	\$77.00
Cl in coal		\$44.00
Loss on Ignition 750°C	ASTM D7348-08	\$25.00
Hardgrove Grindability	ASTM D409/D409 M-09	\$75.00

Major and trace elements on ash:

Price: \$163.00

Elements and Detection Limits (ppm, except where noted)

SiO ₂	0.01%	Bi	0.4	In	0.2	Sn	1
Al ₂ O ₃	0.01%	Br	0.5	Ir	5 ppb	Sr	2
Fe ₂ O ₃	0.01%	Ce	0.1	La	0.1	Ta	0.1
MgO	0.01%	Cd	0.5	Lu	0.04	Tb	0.1
MnO	0.001%	Co	1	Mo	2	Th	0.1
CaO	0.01%	Cr	5	Nb	1	Ti	0.1
TiO ₂	0.001%	Cs	0.5	Nd	0.1	Tm	0.05
Na ₂ O ₅	0.01%	Cu	1	Ni	1	U	0.1
K ₂ O	0.01%	Dy	0.1	Pb	5	V	5
P ₂ O ₅	0.01%	Er	0.1	Pr	0.05	W	1
LOI	0.01%	Eu	0.05	Rb	2	Y	2
Ag	0.5	Ga	1	S	0.001%	Yb	0.1
As	0.5	Gd	0.1	Sb	0.2	Zn	1
Au	2 ppb	Ge	1	Sc	0.1	Zr	4
Ba	3	Hf	0.2	Se	3		
Be	1	Ho	0.1	Sm	0.1		

Code 8 - Iron Ore Analysis XRF

Oxides and Detection Limits (%)

SiO ₂	0.01	MnO	0.001	K ₂ O	0.01	Davis tube magnetic separation	Price: \$100.00
TiO ₂	0.01	MgO	0.01	P ₂ O ₅	0.01	Sulphur	Price: \$18.00
Al ₂ O ₃	0.01	CaO	0.01	Cr ₂ O ₃	0.01	TGA Analysis	Price: \$40.00
Fe ₂ O ₃	0.01	Na ₂ O	0.01	LOI	0.01	Satmagan Test	Price: \$25.00

Price: \$39.75

Volume discounts are available

Code 8 - Lithium Ore Analysis

Li assays by Peroxide Fusion ICP/OES (detection limit 0.001%)	Price: \$15.50
Li assays by 4-Acid Digestion ICP/OES (detection limit 0.001%)	Price: \$14.50
Li assays on brines by ICP/OES (detection limit 0.05 mg/L)	Price: \$15.00

Add-ons:

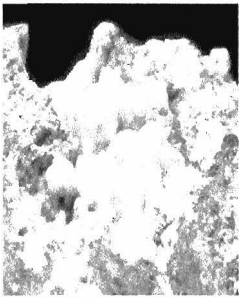
Any of the above packages can be converted to multielement analysis. Common elements requested are K, Mg, B, Na and Ca.	Price: \$8.00
F assay by ISE.	Price: \$15.00

Notes:

For geochemical packages, see Code 1F2 for 4-Acid Digestion ICP or Code Ultratrace 7 for Peroxide Fusion ICP+ICP/MS. Multielement brine package is Code 6MB.

Volume discounts are available.

Litho geochemistry for Exploration and Research



	Total IDENT Code 4E-expl.	Total IDENT Code 4E-research
Al ₂ O ₃	0.01%	0.01%
CaO	0.01%	0.01%
SiO ₂	0.01%	0.01%
Fe ₂ O ₃	0.01%	0.01%
K ₂ O	0.01%	0.01%
TiO ₂	0.005%	0.005%
MgO	0.01%	0.01%
MnO	0.01%	0.01%
Na ₂ O	0.01%	0.01%
P ₂ O ₅	0.01%	0.01%
LOI	0.01%	0.01%
Ag	0.5	0.5
As	2	1
Au	5 ppb	1 ppb
Ba	3	1
Be	1	1
Bi	10	10 (0.1+++)
Br	1	0.5
Cd	0.5	0.5
Co	1	0.1
Cr	1	0.5
Cs	0.5	0.2 (0.1+++)
Cu	1	1
Ga	(5***)	(5***) (1+++)
Ge		(0.5+++)
Hf	0.5	0.2 (0.1+++)
In		(0.1+++)
Ir	5 ppb	1 ppb
Mo	5	2
Nb	(2***)	(2***) (0.2+++)
Ni	1	1
Pb	5	5
Rb	20 (2***)	10 (2***) (1+++)
Sb	0.2	0.1
Sc	0.1	0.01
Se	3	0.5
Sn	(5***)	(5***) (1+++)
Sr	2	2
Ta	1	0.3 (0.01+++)
Th	0.5	0.1 (0.05+++)
Tl		(0.05+++)
U	0.5	0.1 (0.01+++)
V	5	5
W	3	1
Y	1	1
Zn	1	1
Zr	4	4 (1+++)
La	0.5	0.05 (0.05+++)
Ce	3	1 (0.05+++)
Pr		(0.01+++)
Nd	5	1 (0.05+++)
Sm	0.1	0.01
Eu	0.1	0.05 (0.005+++)
Gd		(0.01+++)
Tb	0.5	0.1 (0.01+++)
Dy		(0.01+++)
Ho		(0.01+++)
Er		(0.01+++)
Tm		(0.005+++)
Yb	0.1	0.05 (0.01+++)
Lu	0.05	0.01 (0.002+++)
# Samples		
1-10	\$54.00	\$119.00
11+	\$49.50	\$110.00

Notes:

Code 4A - Both the exploration and research grades are determined by INAA.

A minimum sample weight of 2 g is recommended. REE chondrite plots are provided at no charge with the research grade or at **\$1.25 per sample for the exploration grade**. For elements indicated with † (Code 4A RES/MS) by fusion ICP/MS, add \$31.00.

Codes 4B, 4B2-STD, 4B2-RESEARCH, 4LITHO, 4LITHORESEARCH - Actlabs has developed a lithium metaborate/tetraborate fusion ICP Whole Rock Package Code 4B and a trace element ICP/MS package Code 4B2 which is unique for scope of elements and detection limits. The two packages are combined for Code 4Litho and Code 4Lithoresearch. The quality of whole rock data in Code 4B meets or exceeds quality of data by fusion XRF Code 4C, the old standard in whole rock analysis. The fusion process ensures total metals particularly for elements like REE in resistate phases. (This may not be the case for acid digestions, particularly for heavy rare earths and other elements contained in refractory minerals like zircon, sphene, monazite, chromite, gahnite and several other phases. If refractory minerals are not digested, a bias may occur for certain REE and HFSE with acid digestions). Quality of data is exceptional and can be used for the most exacting applications. The trace element package by ICP/MS, Codes 4B2-STD or 4B2-RESEARCH, on the fusion solution provides research quality data whether using standard or research detection limits. Eu determinations are semiquantitative in samples having extremely high Ba concentrations (greater than 1%). This package is intended primarily for unmineralized samples. *Mineralized samples can be analyzed, however, data may be semiquantitative for chalcophile elements (Ag, As, Bi, Co, Cu, Mo, Ni, Pb, Sb, Sn, W and Zn). When quantitative values for the chalcophile elements are required on mineralized samples, please indicate as Code 4B2-STDQUANT, 4B2-RESEARCHQUANT, 4LITHOQUANT or 4LITHORESEARCHQUANT, and a surcharge of \$17.75 per sample will apply. A minimum sample weight of 5 g is required.* Elements with (+) are available (Code 4B1) for an additional \$9.25 per sample. Those indicated with (++) are available by INAA (Code 4B-INAA) for an additional \$16.50 per sample. Please add 0.5 to 30 g depending on sample size you prefer to analyze for Au with this option. Values on replicates and standards are provided at no cost, as are REE plots.

Code 4C, 4C Laterite - The tried and true fusion XRF whole rock package. Samples containing high barite or high sulphide (greater than 1%) should be analyzed with Code 4B. A minimum sample weight of 3 g is required. We reserve the right to change analytical method to Code 4B if required by the sample composition.

Code 4C1 - This XRF pressed pellet method requires a minimum sample weight of 6 g. The XRF pressed pellet method is only suitable for low metal content of below 1% for each element listed.

Prices: 1st element - \$11.00; each additional - \$3.50; ** lot - \$20.00; * lot - \$20.00. Each element not in * or **, add \$3.50 per element.

Code 4E - This unique package uses ICP, INAA, ICP/MS and XRF technologies to completely characterize geological samples. Two different grades of analysis (exploration and research) are provided depending upon your requirements. This package is not suitable for analyzing concentrates or mill products. A minimum sample weight of 5 g is required).

Code 4E Options

- Ga, Pb, Sn, Nb and Rb (Code 4E-XRF) indicated by (***) by Pressed Pellet XRF add \$20.00. This package can be added to Code 4E exploration or Code 4E research (please add 6 g of sample).
- The Code 4E ICP/MS add-on option (detection limits indicated by +++) can only be added to Code 4E research grade at an **additional cost of \$33.00**.
- Any selections from Code 4F can be added to Code 4E exploration or research

Code 4F - Other analyses associated with WRA (can be added to any Code 4 package). Add 1 gram for each option chosen.

FeO (0.1%) by Titration	\$16.50	CO ₂ (0.01%) by Coulometry	\$16.50
S (0.01%) by Infrared	\$16.50	H ₂ O +/- (0.1%) by Gravimetric	\$22.00
SO ₂ (0.3%) by Infrared	\$22.00	C, S (0.01%) by Infrared	\$22.00
Cl (0.01%) by INAA	\$24.25	B (0.5 ppm) by PGNA	\$31.00
Hg by Cold Vapour FIMS	\$8.25	B (2 ppm) by PGNA	\$20.00
F (0.01%) by ISE	\$14.00	N (total) Thermal Conductivity	\$38.50

Enviromining

Code 11 - Acid/Base Accounting

Acid/Base	Includes sulphur (total), Net NP, AP, NP and paste pH	\$82.50
Acid/Base Enhanced	Includes sulphur (total), Net NP, AP, NP, paste pH, acid soluble sulphate and sulphide	\$104.50
Acid/Base Supreme	Includes sulphur (total), sulphate (total and acid soluble), sulphide, CO ₂ paste pH, Net NP, AP and NP	\$115.50

Code 12 - Leachate Quality

Leachate Extraction Procedure	SWEP, TCLP, EPA, MWEP (leach only for metals)	\$86.00
Leachate Analysis	SWEP, TCLP, EPA (includes metals and Hg)	\$93.50
Leachate Extraction Procedure	For Organics - please enquire for price for organic analysis	\$104.50

Code 13 - Vegetation Growth Potential

Gradation (% clay, % silt, % sand, % gravel)	\$66.00
Paste pH	\$6.75
Conductivity	\$13.25
Sodium adsorption (SAR)	\$82.50
Organic carbon (LECO)	\$27.50
Meteoritic Water Mobility Test	On request
Humidity Cells	On request

N - NH ₃	\$16.50
N - NH ₄	\$16.50
N - NH ₄ + NH ₃	\$25.50
Total Nitrogen (LECO)	\$16.50
Total Nitrogen - Nitrate KCl extractable	\$16.50
S - Leach ICP	\$33.00
K - Ammonium acetate leach	\$10.00
P - Sodium bicarbonate leach	\$10.00

Miscellaneous Methods

All element are in ppm except where noted.

Code 5 - Other Elements - INAA

1 g sample required.

	Basic Code 5A	Improved Code 5B
As	2	1
Au	5 ppb	2 ppb
Ba	200	100
Br	2	0.5
Ce	5	3
Co	2	0.5
Cr	10	1
Cs	2	0.5
Eu	0.2	0.2
Fe	0.02%	0.01%
Hf	1	0.5
La	1	0.1
Lu	0.1	0.05
Mo	5	2
Na	500	100
Nd	10	5
Rb	50	20
Sb	0.2	0.1
Sc	0.5	0.1
Se	5	2
Sm	0.1	0.01
Ta	2	0.5
Th	1	0.1
U	2	0.2
W	5	2
Yb	0.5	0.2

Price: First element \$12.75 \$17.25
 Each additional \$2.25 \$2.25

Code 5D - Elements & Specific Methods

Element	Detection Limit	Price
B-Total (PGNAA)	0.5	\$31.00
B-Total (PGNAA)	2	\$20.00
C-Total (Infrared)	0.01%	\$17.75
C-Graphitic (Infrared)	0.05%	\$27.50
C-Organic (Infrared)	0.05%	\$27.50
F (ISE)	100	\$15.00
Li ("total" digestion)	1	\$11.00
Sn (XRF)	5	\$11.00
Ti ("total" digestion)	0.2	\$11.00
U-Total (DNC)	0.1	\$15.50

Code 5G - Carbon & Sulphur/Metallurgical Balance Package

Element	Detection Limit	
C-Total	0.01%	Price: \$82.50/sample
C-Graphitic	0.05%	
C-Organic	0.05%	
CO ₂	0.01%	
S	0.01%	
SO ₂	0.3%	

Code 5S - Short Lived Isotopes - INAA

Al	1	Price: First element \$38.50 Each additional \$6.75
Br	5	
Cl	100	
Cu	100	
Dy	0.5	
Ga	10	
I	0.5	
In	0.1	
Mg	0.05%	
Mn	0.1	
Na	50	
Re	1	
Ti	50	
V	0.1	

Code S9	Particle Size Analysis (Laser)	\$82.50
---------	--------------------------------	---------

Quality Analysis ...



Innovative Technologies

Invoice No.: A11-5670
 Purchase Order:
 Invoice Date: 01-Aug-11
 Date submitted: 23-Jun-11
 Your Reference: Seperation
 GST #: R121979355

Mega Graphite Inc.
 Suite A-86 Wilson Street
 Oakville Ontario L6K 3G5
 Canada

ATTN: Pres. Paul Gorman

INVOICE

No. samples	Description	Unit Price	Total
33	RX1-T(DRYDEN)	\$ 10.00	\$ 330.00
33	4F-B(0.5ppm)	\$ 31.00	\$ 1,023.00
33	4F-F	\$ 11.00	\$ 363.00
33	5A	\$ 12.75	\$ 420.75
33	8-REE Assay Package	\$ 80.00	\$ 2,640.00
33	8-Li Assay	\$ 22.00	\$ 726.00
Subtotal: :			\$ 5,502.75
HST-13% :			\$ 715.36
AMOUNT DUE: (CAD) :			\$ 6,218.11

Net 30 days. 1 1/2 % per month charged on overdue accounts.

Bank Transfers can be made to:
 ACTIVATION LABORATORIES LTD at
 ROYAL BANK OF CANADA
 59 WILSON STREET WEST
 ANCASTER, ONTARIO CANADA L9G 1N1
 TRANSIT #: 00102 003 ACCOUNT #: 100 154 4
 SWIFT CODE#: ROYCCAT2

Please reference the invoice number when
 making a payment by Bank/Wire transfer.
 Intermediary Bank Fees are the responsibility
 of the client.
 Thank you!

**ACTIVATION LABORATORIES LTD.**

1336 Sandhill Drive, Ancaster, Ontario, Canada L9G 4V5 TELEPHONE +1 905 648 9611 or
 +1 888 228 5227 FAX +1 905 648 9613

E-MAIL ancaster@actlabsint.com ACTLABS GROUP WEBSITE <http://www.actlabsint.com>

Quality Analysis ...



Innovative Technologies

Date Submitted: 23-Jun-11
Invoice No.: A11-5670
Invoice Date: 19-Jul-11
Your Reference: Separation

Mega Graphite Inc.
Suite A-86 Wilson Street
Oakville Ontario L6K 3G5
Canada

ATTN: Pres. Paul Gorman

CERTIFICATE OF ANALYSIS

34 Rock samples were submitted for analysis.

The following analytical packages were requested:

REPORT **A11-5670**

Code 4F-B(0.5ppm) PGNAA
 Code 4F-F Fusion Specific Ion Electrode-ISE
 Code 5A INAA(INAAGEO)
 Code 8-REE Assay Package Major Elements Fusion
 ICP(WRA)/Trace Elements Fusion ICP/MS(WRA4B2)
 Code 8-Sodium Peroxide Fusion Sodium Peroxide Fusion

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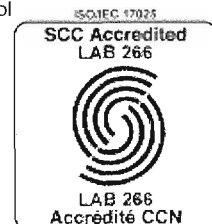
Notes:

Total includes all elements in % oxide to the left of total.
 Values which exceed Upper limit should be assayed for most accurate values.

CERTIFIED BY :

Emmanuel Esemé , Ph.D.

Quality Control



ACTIVATION LABORATORIES LTD.

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 +1.888.228.5227 FAX +1.905.648.9613
 E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Activation Laboratories Ltd. Report: A11-5670

Analyte Symbol	F	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.01	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01	0.01	0.01	1	1	5	20	1	20	10	30	1	1	5
Analysis Method	FUS-ISE	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
57801	0.15	48.30	14.37	11.89	0.184	8.39	10.20	0.67	0.97	0.715	0.04	2.46	98.19	46	3	277	350	51	160	100	110	14	3	< 5
57802	0.06	68.22	16.69	3.03	0.118	1.54	3.95	4.18	0.94	0.139	0.11	1.40	100.3	8	187	46	70	8	< 20	20	50	51	6	9
57803-No Core																								
57804	< 0.01	75.23	15.16	0.56	0.196	0.05	0.17	3.76	4.06	0.003	0.04	0.73	99.98	< 1	113	< 5	< 20	< 1	< 20	< 10	60	30	4	< 5
57805	< 0.01	77.06	16.34	0.61	0.199	0.04	0.14	2.55	2.47	0.002	0.03	0.67	100.1	< 1	109	< 5	< 20	< 1	< 20	< 10	70	32	5	< 5
57806	< 0.01	76.28	16.05	0.40	0.036	0.04	0.13	2.33	2.69	0.002	0.01	0.76	98.72	< 1	97	< 5	< 20	< 1	< 20	< 10	140	35	4	< 5
57807	< 0.01	76.33	16.37	0.54	0.051	0.04	0.19	4.04	1.52	0.004	0.03	0.75	99.87	< 1	115	< 5	< 20	< 1	< 20	< 10	80	38	4	< 5
57808	< 0.01	76.93	14.69	0.72	0.077	0.05	0.16	3.37	2.20	0.004	< 0.01	0.79	98.99	< 1	185	< 5	< 20	< 1	< 20	< 10	120	36	3	< 5
57809	< 0.01	76.37	15.40	0.74	0.060	0.05	0.14	3.00	2.37	0.003	0.01	0.73	98.89	< 1	107	< 5	< 20	< 1	< 20	< 10	200	30	4	< 5
57810	< 0.01	74.22	15.00	0.80	0.078	0.10	0.29	4.84	3.03	0.006	0.02	1.10	99.48	< 1	164	< 5	< 20	< 1	< 20	< 10	150	46	4	< 5
57811	< 0.01	74.92	15.81	0.62	0.065	0.06	0.61	6.02	2.08	0.009	0.04	0.69	100.9	1	182	< 5	< 20	1	< 20	< 10	100	51	6	< 5
57812	0.19	49.56	14.33	11.82	0.167	8.46	9.78	0.69	1.02	0.698	0.03	1.90	98.46	45	3	266	350	58	160	220	90	16	3	< 5
57813	0.06	50.09	14.42	12.10	0.155	9.18	9.85	0.65	0.63	0.723	0.04	1.86	99.89	47	< 1	273	370	51	150	90	80	16	3	< 5
57814	0.17	49.93	14.10	11.80	0.137	8.58	10.54	0.68	0.79	0.682	0.06	1.69	99.01	44	3	260	360	50	150	150	70	16	3	< 5
57815	0.22	62.35	14.57	6.28	0.109	4.14	4.30	2.63	1.70	0.339	0.08	1.52	98.02	22	39	127	170	24	70	130	120	36	5	7
57816	< 0.01	74.51	15.49	0.69	0.167	0.06	0.23	4.01	3.02	0.003	0.04	0.51	98.72	< 1	151	< 5	< 20	< 1	< 20	< 10	80	39	5	< 5
57817	< 0.01	74.63	14.79	0.68	0.046	0.05	0.25	5.48	2.35	0.004	0.02	0.79	99.09	< 1	152	< 5	< 20	< 1	< 20	< 10	90	47	4	< 5
57818	< 0.01	73.37	15.07	0.52	0.089	0.02	0.41	5.83	2.28	0.004	0.03	0.62	98.25	< 1	133	< 5	< 20	< 1	< 20	10	70	50	6	< 5
57819	0.43	50.46	15.60	13.03	0.278	5.03	6.29	0.40	2.46	0.726	0.06	4.40	98.74	45	33	282	380	47	110	250	570	23	4	< 5
57820	< 0.01	76.42	14.58	0.81	0.167	0.06	0.32	3.52	2.37	0.004	0.04	0.74	99.03	< 1	216	< 5	< 20	< 1	< 20	< 10	70	38	5	< 5
57821	< 0.01	76.46	16.07	0.79	0.138	0.05	0.23	3.49	2.35	0.005	0.05	0.54	100.2	< 1	184	< 5	< 20	< 1	< 20	< 10	100	38	5	< 5
57822	< 0.01	74.94	15.52	0.77	0.434	0.10	0.23	3.03	2.39	0.002	0.05	0.76	98.22	< 1	153	< 5	< 20	< 1	< 20	< 10	110	41	6	< 5
57823	< 0.01	74.56	16.03	0.85	0.110	0.24	0.55	2.34	2.17	0.002	0.04	1.77	98.65	< 1	144	< 5	< 20	< 1	< 20	< 10	90	33	4	< 5
57824	< 0.01	73.75	15.81	0.65	0.040	0.07	0.30	2.21	4.32	0.003	0.04	0.98	98.19	< 1	76	< 5	< 20	< 1	< 20	< 10	90	35	5	< 5
57825	< 0.01	76.16	16.37	0.74	0.043	0.08	0.29	1.85	1.91	0.003	0.02	0.88	98.35	< 1	56	< 5	< 20	< 1	< 20	< 10	110	34	4	< 5
57826	0.02	70.53	15.29	0.85	0.037	0.31	1.03	2.84	5.61	0.002	0.05	2.78	99.32	< 1	81	< 5	< 20	< 1	< 20	< 10	50	34	4	< 5
57827	< 0.01	72.13	16.47	0.82	0.046	0.09	0.24	1.68	5.87	0.003	0.06	1.04	98.46	< 1	66	< 5	< 20	< 1	< 20	< 10	80	35	5	< 5
57828	< 0.01	74.73	16.37	0.73	0.066	0.04	0.21	2.18	4.00	0.002	0.03	0.64	99.00	< 1	104	< 5	< 20	< 1	< 20	< 10	80	31	4	< 5
57829	< 0.01	77.90	14.73	0.69	0.079	0.02	0.15	2.01	3.11	0.002	0.03	0.49	99.22	< 1	92	< 5	< 20	< 1	< 20	< 10	100	30	5	< 5
57830	0.01	73.02	16.79	0.81	0.087	0.03	0.37	3.70	3.08	0.004	0.06	0.91	98.86	< 1	155	< 5	< 20	< 1	< 20	< 10	90	48	6	6
57831	< 0.01	76.57	15.60	0.67	0.311	0.02	0.21	4.32	1.71	0.002	0.03	0.44	99.88	< 1	177	< 5	< 20	< 1	< 20	< 10	200	42	5	< 5
57832	< 0.01	76.58	15.15	0.59	0.240	0.06	0.26	4.26	1.40	0.006	0.04	0.46	99.05	< 1	163	< 5	< 20	< 1	< 20	< 10	50	38	5	< 5
57833	0.01	75.24	15.54	0.63	0.104	0.02	0.37	5.38	2.08	0.003	0.06	0.57	100.0	< 1	177	< 5	< 20	< 1	< 20	< 10	180	49	5	< 5
57834	0.02	75.95	15.67	0.82	0.192	0.05	0.35	5.02	1.79	0.005	0.06	0.64	100.5	< 1	172	< 5	< 20	< 1	< 20	< 10	180	46	5	< 5

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Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er		
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Detection Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1		
Analysis Method	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS		
57801	870	60	14	37	3	< 2	< 0.5	< 0.2	9	< 0.5	110	224	< 0.4	2.8	5.9	0.76	4.1	1.3	0.52	2.0	0.4	2.4	0.5	1.5		
57802	1010	71	7	20	61	< 2	< 0.5	< 0.2	272	< 0.5	93.6	78	< 0.4	1.2	2.6	0.35	1.5	1.1	0.21	1.3	0.2	1.2	0.2	0.5		
57803-No Core																										
57804	2600	43	5	17	30	< 2	< 0.5	< 0.2	187	< 0.5	28.5	11	0.7	0.7	1.5	0.18	0.6	0.4	< 0.05	0.4	0.1	0.8	0.1	0.3		
57805	2070	33	6	20	42	< 2	< 0.5	< 0.2	107	< 0.5	25.9	7	1.0	0.6	1.3	0.16	0.7	0.4	< 0.05	0.5	0.2	1.0	0.1	0.3		
57806	2280	38	4	6	45	< 2	< 0.5	< 0.2	111	< 0.5	32.8	< 3	2.8	0.9	1.7	0.26	0.9	0.7	< 0.05	1.0	0.2	1.1	0.1	0.3		
57807	1310	26	3	14	62	< 2	< 0.5	< 0.2	149	< 0.5	23.0	5	0.7	1.0	2.1	0.24	0.9	0.6	< 0.05	0.5	0.1	0.5	< 0.1	0.1		
57808	1680	41	3	< 4	70	< 2	< 0.5	0.2	354	< 0.5	28.4	4	< 0.4	1.2	3.6	0.38	1.5	0.8	< 0.05	0.8	0.2	0.8	< 0.1	0.2		
57809	1760	34	5	< 4	58	< 2	< 0.5	0.2	338	< 0.5	32.2	5	< 0.4	1.0	2.2	0.26	1.0	0.7	< 0.05	1.0	0.2	1.1	0.1	0.2		
57810	2580	88	8	6	94	< 2	< 0.5	0.6	879	< 0.5	77.8	19	1.1	1.5	4.1	0.51	2.0	1.5	< 0.05	1.6	0.4	1.8	0.2	0.4		
57811	1840	30	5	5	90	< 2	< 0.5	0.4	574	< 0.5	24.5	< 3	0.9	1.5	3.9	0.53	2.2	1.4	< 0.05	1.5	0.3	1.4	0.1	0.3		
57812	1180	92	15	35	3	< 2	< 0.5	< 0.2	16	< 0.5	110	55	< 0.4	2.2	5.5	0.83	4.7	1.6	0.53	2.1	0.4	2.6	0.6	1.7		
57813	667	78	16	36	2	< 2	< 0.5	< 0.2	2	< 0.5	56.3	61	< 0.4	2.0	5.7	0.82	4.6	1.7	0.59	2.4	0.4	2.8	0.6	1.7		
57814	1140	76	16	34	2	< 2	< 0.5	< 0.2	31	< 0.5	75.9	57	< 0.4	2.1	5.7	0.81	4.3	1.6	0.63	2.2	0.4	2.8	0.6	1.7		
57815	2870	73	11	21	54	< 2	< 0.5	< 0.2	182	< 0.5	158	47	1.6	2.1	5.4	0.75	3.2	1.8	0.26	2.0	0.4	2.2	0.3	0.9		
57816	2710	33	6	27	53	< 2	< 0.5	< 0.2	191	< 0.5	25.1	4	0.5	0.8	1.7	0.21	1.0	0.5	< 0.05	0.6	0.2	1.1	0.1	0.3		
57817	1850	27	< 2	7	97	< 2	< 0.5	0.3	437	< 0.5	25.0	< 3	< 0.4	0.9	2.2	0.29	1.0	0.7	< 0.05	0.7	0.1	0.5	< 0.1	< 0.1		
57818	1940	24	3	8	75	< 2	< 0.5	0.3	389	< 0.5	16.5	4	0.7	0.7	1.7	0.24	1.2	0.7	< 0.05	0.8	0.2	0.9	0.1	0.2		
57819	4580	56	17	39	6	< 2	< 0.5	< 0.2	88	< 0.5	321	114	0.9	2.5	5.9	0.83	4.4	1.8	0.54	2.5	0.5	3.2	0.7	1.9		
57820	2080	41	5	13	79	< 2	< 0.5	< 0.2	222	< 0.5	50.4	16	6.8	0.7	1.5	0.21	0.6	0.6	< 0.05	0.6	0.2	0.9	< 0.1	0.2		
57821	2270	31	6	15	69	< 2	< 0.5	< 0.2	170	< 0.5	24.7	8	5.0	0.5	1.2	0.16	0.8	0.7	< 0.05	0.9	0.2	0.9	< 0.1	0.2		
57822	1690	86	4	41	47	< 2	< 0.5	< 0.2	204	< 0.5	55.4	101	2.7	0.4	0.8	0.10	0.7	0.5	< 0.05	0.5	0.1	0.7	< 0.1	0.1		
57823	1820	65	4	21	48	< 2	< 0.5	< 0.2	113	< 0.5	124	67	2.8	0.5	1.0	0.15	0.8	0.5	< 0.05	0.5	0.1	0.7	< 0.1	0.1		
57824	3930	65	3	6	41	< 2	< 0.5	< 0.2	56	< 0.5	65.0	22	3.4	0.5	1.2	0.14	0.6	0.5	< 0.05	0.7	0.1	0.7	< 0.1	0.1		
57825	1730	39	4	< 4	46	< 2	< 0.5	< 0.2	57	< 0.5	44.0	15	5.4	1.0	1.6	0.17	0.8	0.5	< 0.05	0.7	0.2	0.8	< 0.1	0.1		
57826	4120	102	3	< 4	33	< 2	< 0.5	< 0.2	55	< 0.5	355	24	4.7	0.8	1.6	0.20	0.8	0.6	< 0.05	0.7	0.1	0.8	< 0.1	0.1		
57827	4930	75	3	4	27	< 2	< 0.5	< 0.2	45	< 0.5	128	10	11.9	0.8	1.3	0.17	1.0	0.5	< 0.05	0.6	0.1	0.8	< 0.1	0.1		
57828	3380	48	4	< 4	33	< 2	< 0.5	< 0.2	44	< 0.5	61.0	< 3	7.4	0.7	1.7	0.24	0.9	0.8	< 0.05	1.1	0.3	1.2	< 0.1	0.2		
57829	2800	36	4	< 4	40	< 2	< 0.5	< 0.2	46	< 0.5	49.9	< 3	4.7	0.6	1.5	0.20	0.8	0.6	< 0.05	0.8	0.2	1.1	< 0.1	0.2		
57830	2980	44	6	5	63	< 2	< 0.5	< 0.2	69	< 0.5	77.6	< 3	1.9	1.1	2.6	0.32	1.6	1.0	< 0.05	1.1	0.3	1.4	0.1	0.3		
57831	1460	28	8	18	54	< 2	< 0.5	< 0.2	56	< 0.5	32.2	< 3	4.4	4.9	8.0	0.83	2.6	0.4	0.06	0.8	0.3	1.4	0.2	0.4		
57832	1210	19	< 2	18	20	< 2	< 0.5	< 0.2	42	< 0.5	20.9	< 3	3.2	1.3	2.1	0.26	1.0	0.2	< 0.05	0.4	0.1	0.5	< 0.1	0.2		
57833	1900	25	4	5	102	< 2	< 0.5	< 0.2	71	< 0.5	19.8	< 3	11.4	1.2	2.2	0.27	0.9	0.2	< 0.05	0.8	0.2	0.8	< 0.1	0.2		
57834	1670	24	4	8	87	< 2	< 0.5	< 0.2	83	< 0.5	19.0	< 3	10.2	1.0	2.3	0.30	0.9	0.1	< 0.05	0.9	0.3	0.9	< 0.1	0.2		

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Analyte Symbol	Tm	Yb	Lu	Hf	Ta	W	Ti	Pb	Th	U	Li	Br	Mass	B	Mass
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	g	ppm	g
Detection Limit	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.1	0.1	0.01	2		0.5	
Analysis Method	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	INAA	INAA	PGNAA	PGNAA
57801	0.23	1.6	0.28	0.8	0.2	2	6.9	< 5	0.2	0.2	0.11	17	1.005	11.6	1.00
57802	0.08	0.6	0.12	1.5	128	4	7.8	18	5.0	4.7	0.07	< 2	1.010	8.3	1.01
57803-No Core															
57804	0.06	0.5	0.07	1.2	15.7	2	17.4	20	3.1	6.0	0.31	< 2	1.087	2.3	1.09
57805	0.06	0.4	0.07	1.0	22.7	3	12.8	12	2.7	4.9	0.98	< 2	1.008	< 0.5	1.01
57806	< 0.05	0.3	0.05	0.6	22.1	3	14.5	8	3.1	2.3	1.04	13	1.002	0.7	1.00
57807	< 0.05	0.1	< 0.04	0.5	29.3	3	7.7	7	4.4	3.9	0.83	< 2	1.007	0.6	1.01
57808	< 0.05	0.2	< 0.04	< 0.2	30.0	3	9.6	11	5.0	4.6	0.67	< 2	1.009	0.8	1.01
57809	< 0.05	0.3	0.05	0.3	29.4	3	11.5	9	4.4	5.3	0.88	8	1.010	4.4	1.01
57810	0.08	0.6	0.08	0.5	56.0	5	15.9	16	7.7	9.4	0.07	8	1.009	< 0.5	1.01
57811	< 0.05	0.4	0.06	0.6	65.5	9	10.4	22	6.6	7.1	0.02	23	1.004	5.3	1.00
57812	0.26	1.8	0.29	0.8	1.3	2	9.8	< 5	0.2	0.2	0.20	< 2	1.006	6.0	1.01
57813	0.28	1.9	0.33	0.9	0.1	2	5.3	6	0.2	0.3	0.33	< 2	1.004	3.3	1.00
57814	0.27	1.8	0.30	0.9	0.2	2	8.4	< 5	0.2	< 0.1	0.12	< 2	1.007	5.4	1.01
57815	0.15	1.1	0.16	0.9	55.8	6	20.8	21	4.4	5.6	0.12	29	1.004	12.1	1.00
57816	0.07	0.6	0.10	1.7	45.5	3	17.2	13	3.3	6.4	0.48	< 2	1.010	6.4	1.01
57817	< 0.05	0.1	< 0.04	0.8	59.6	3	11.0	12	5.4	8.9	0.13	< 2	1.008	< 0.5	1.01
57818	< 0.05	0.3	0.05	0.9	77.6	4	12.0	15	5.0	7.5	0.02	< 2	1.009	1.0	1.01
57819	0.28	1.9	0.34	1.1	20.5	5	33.2	27	0.4	1.9	0.40	24	1.009	10.6	1.01
57820	< 0.05	0.3	0.05	0.7	62.3	7	12.6	11	4.0	6.6	0.54	< 2	1.005	0.6	1.01
57821	< 0.05	0.2	0.05	0.6	55.3	3	15.0	9	3.4	6.3	0.78	18	1.000	< 0.5	1.00
57822	< 0.05	0.3	0.05	3.4	47.0	3	9.8	13	3.7	13.9	0.92	18	1.005	< 0.5	1.01
57823	< 0.05	0.2	< 0.04	1.4	36.2	3	10.8	7	1.7	3.4	0.97	< 2	1.005	4.7	1.01
57824	< 0.05	0.1	< 0.04	< 0.2	24.2	3	27.8	6	1.6	1.1	0.75	22	1.009	2.5	1.01
57825	< 0.05	0.2	< 0.04	< 0.2	25.2	4	10.3	< 5	1.0	0.6	1.27	18	1.002	0.8	1.00
57826	< 0.05	0.2	< 0.04	< 0.2	20.6	3	24.8	< 5	1.1	1.1	0.14	5	1.010	7.0	1.01
57827	< 0.05	0.2	< 0.04	< 0.2	18.3	4	33.1	6	1.3	1.1	0.72	4	1.004	4.6	1.00
57828	< 0.05	0.3	0.05	< 0.2	16.5	3	22.7	< 5	1.0	1.0	0.88	14	1.005	3.9	1.01
57829	< 0.05	0.3	0.05	< 0.2	22.2	4	18.5	6	1.6	2.2	0.87	11	1.008	3.0	1.01
57830	0.06	0.4	0.08	0.6	45.1	5	17.9	8	3.8	6.9	0.58	< 2	1.002	0.8	1.00
57831	0.08	0.7	0.10	2.0	34.5	3	9.2	17	2.7	6.5	0.61	12	1.001	< 0.5	1.00
57832	< 0.05	0.2	< 0.04	2.3	14.0	3	7.1	10	2.3	6.2	0.70	< 2	1.004	< 0.5	1.00
57833	< 0.05	0.2	< 0.04	0.7	92.3	4	10.8	8	2.0	4.9	0.18	< 2	1.008	2.5	1.01
57834	< 0.05	0.2	0.04	0.9	73.2	4	9.6	9	2.2	4.4	0.33	31	1.008	< 0.5	1.01

Quality Control																									
Analyte Symbol	F	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As	
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Detection Limit	0.01	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5	
Analysis Method	FUS-ISE	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	
DH-1a Meas																									
DH-1a Cert																									
NIST 694 Meas		11.59	1.95	0.74	0.012	0.36	44.14	0.90	0.57	0.119	30.31					1673									
NIST 694 Cert		11.2	1.80	0.790	0.0116	0.330	43.6	0.860	0.510	0.110	30.2					1740									
DNC-1 Meas		47.26	18.74	9.71	0.147	9.95	11.24	1.90	0.23	0.482	0.05			31		155	270	58	260	100	70				
DNC-1 Cert		47.15	18.34	9.97	0.150	10.13	11.49	1.890	0.234	0.480	0.070			31		148.0	270.0	57.0	247	100.0	70.0				
GBW 07113 Meas	0.14	72.62	12.93	3.22	0.142	0.14	0.55	2.46	5.38	0.283	0.03			5	4	< 5									
GBW 07113 Cert	0.130	72.8	13.0	3.21	0.140	0.160	0.590	2.57	5.43	0.300	0.0500			5.00	4.00	5.00									
LKSD-3 Meas																	80	31	50	30	140			24	
LKSD-3 Cert																	87.0	30.0	47.0	35.0	152			27.0	
MAG-1 (Depleted) Meas																									
MAG-1 (Depleted) Cert																									
SY-2 Meas																									
SY-2 Cert																									
SY-3 Meas																									
SY-3 Cert																									
DR-N Meas	0.05																								
DR-N Cert	0.0500																								
UB-N Meas	< 0.01																								
UB-N Cert	0.00950																								
NIST 1632c Meas																									
NIST 1632c Cert																									
W-2a Meas	0.02	52.40	15.35	10.55	0.165	6.23	10.73	2.21	0.62	1.055	0.11			35	< 1	274	90	45	70	110	90	18	2	< 5	
W-2a Cert	0.0205	52.4	15.4	10.7	0.163	6.37	10.9	2.14	0.626	1.06	0.130			36.0	1.30	262	92.0	43.0	70.0	110	80.0	17.0	1.00	1.20	
SY-4 Meas		49.81	20.59	6.25	0.106	0.50	7.84	7.01	1.69	0.286	0.10			< 1	3	< 5									
SY-4 Cert		49.9	20.69	6.21	0.108	0.54	8.05	7.10	1.66	0.287	0.131			1.1	2.6	8.0									
CTA-AC-1 Meas																					50				
CTA-AC-1 Cert																					54.0				
BIR-1a Meas		47.51	15.55	10.96	0.170	9.37	13.16	1.78	0.02	0.950	< 0.01			43	< 1	336	370	53	160	130	70	15		< 5	
BIR-1a Cert		47.96	15.50	11.30	0.175	9.700	13.30	1.82	0.030	0.96	0.021			44	0.58	310	370	52	170	125	70	16		0.44	
NCS DC86312 Meas																									
NCS DC86312 Cert																									
ZW-C Meas																									
ZW-C Cert																									
NCS DC70014 Meas																			27	70	2630	7400	26		
NCS DC70014 Cert																			26.2	70.9	2600.00	7400.00	25.2		
NCS DC70009 (GBW07241) Meas																		30	4	< 20	890	110	17	11	72
NCS DC70009 (GBW07241) Cert																		30	3.7	2.8	960.000	100.000	16.5	11.2	69.9
SGR-1b Meas	0.20																								
SGR-1b Cert	0.1960																								
OREAS 100a (Fusion) Meas																					17				
OREAS 100a (Fusion) Cert																					18.1				
OREAS 101a (Fusion) Meas																					47				
OREAS 101a (Fusion) Cert																					48.8				
JR-1 Meas																									
JR-1 Cert																									
SARM 3 Meas																									
SARM 3 Cert																									
NCS DC86303 Meas																									
NCS DC86303 Cert																									
NCS DC86304 Meas																									
NCS DC86304 Cert																									
NCS DC86314 Meas																									

Quality Control																									
Analyte Symbol	F	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As	
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Detection Limit	0.01	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5	
Analysis Method	FUS-ISE	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	
NCS DC86314 Cert																									
BCR-2 Meas		53.81	13.31	13.31		3.48	7.07	3.09	1.76	2.282	0.33			33		438									
BCR-2 Cert		54.1	13.5	13.8		3.59	7.12	3.16	1.79	2.26	0.35			33		416									
57802 Orig	0.06	67.61	16.75	3.01	0.119	1.53	3.93	4.15	0.93	0.138	0.11	1.40	99.67	8	186	46	70	8	< 20	20	60	50	5	9	
57802 Dup	0.06	68.83	16.62	3.06	0.118	1.56	3.97	4.20	0.95	0.139	0.11	1.40	101.0	8	189	46	70	8	< 20	30	50	52	6	9	
57810 Orig																									
57810 Dup																									
57819 Orig	0.43	50.87	15.71	13.09	0.278	5.04	6.32	0.41	2.48	0.733	0.06	4.40	99.39	45	33	283	380	46	110	250	540	23	4	< 5	
57819 Dup	0.43	50.05	15.49	12.96	0.277	5.03	6.26	0.40	2.44	0.720	0.06	4.40	98.10	44	33	280	390	47	110	260	600	23	4	< 5	
57820 Orig																									
57820 Dup																									
57830 Orig	0.01	73.02	16.79	0.81	0.087	0.03	0.37	3.70	3.08	0.004	0.06	0.91	98.86	< 1	155	< 5	< 20	< 1	< 20	< 10	90	48	6	6	
57830 Split	0.01	74.05	17.04	0.81	0.087	0.03	0.37	3.83	3.14	0.004	0.04	0.88	100.3	< 1	155	< 5	< 20	< 1	< 20	< 10	100	47	6	6	
57830 Orig																									
57830 Dup																									
Method Blank Method																	< 20	< 1	< 20	< 10	< 30	< 1	< 1	< 5	
Blank																									
Method Blank Method	< 0.01																								
Blank																									
Method Blank Method																									
Blank																									
Method Blank Method																									
Blank																									
Method Blank Method																									
Blank																									

Quality Control	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er
Analyte Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Unit Symbol																								
Detection Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1
Analysis Method	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS

DH-1a Meas																								
DH-1a Cert																								
NIST 694 Meas																								
NIST 694 Cert																								
DNC-1 Meas		142	17	35						0.9		107		3.8			4.9		0.57					
DNC-1 Cert		144.0	18.0	38						0.96		118		3.6			5.20		0.59					
GBW 07113 Meas			41	45	389																			
GBW 07113 Cert			43.0	43.0	403																			
LKSD-3 Meas	74					< 2	2.6		2		2.4			48.5	93.3		41.5	7.5	1.37		0.9	4.7		
LKSD-3 Cert	78.0					2.00	2.70		3.00		2.30			52.0	90.0		44.0	8.00	1.50		1.00	4.90		
MAG-1 (Depleted) Meas																								
MAG-1 (Depleted) Cert																								
SY-2 Meas																								
SY-2 Cert																								
SY-3 Meas																								
SY-3 Cert																								
DR-N Meas																								
DR-N Cert																								
UB-N Meas																								
UB-N Cert																								
NIST 1632c Meas																								
NIST 1632c Cert																								
W-2a Meas	20	195	20	86	7	< 2	< 0.5			0.7	0.9	175	< 0.4	11.2	23.9		12.4	3.0	1.02		0.6	3.7	0.7	2.0
W-2a Cert	21.0	190	24.0	94.0	7.90	0.500	0.0460			0.790	0.990	182	0.0300	10.0	23.0		13.0	3.30	1.00		0.630	3.60	0.760	2.50
SY-4 Meas		1204	117	556																				
SY-4 Cert		1191	119	517																				
CTA-AC-1 Meas														2140	3330		1100	160	44.3	127	14.6			
CTA-AC-1 Cert														2176	3326		1087	162	46.7	124	13.9			
BIR-1a Meas		106	14	17	< 1					0.5		8		0.7	2.1		2.3	1.0	0.50	1.8				
BIR-1a Cert		110	16	18	0.6					0.58		6		0.63	1.9		2.5	1.1	0.55	2.0				
NCS DC86312 Meas															2390	195		1590		230	34.5	181	35.8	96.4
NCS DC86312 Cert														2360.000	190.000		1600.000		225.0	34.6	183.00	35.70	96.2	
ZW-C Meas	8340										263													
ZW-C Cert	8500										260													
NCS DC70014 Meas						270	16.7			180			80.3	44.6	89.0		36.3	7.4		7.0	1.1	6.1	1.2	3.4
NCS DC70014 Cert						270.000	16.7			180.000			80.3	45.3	87.0		39.9	8.0		7.4	1.1	6.7	1.3	3.5
NCS DC70009 (GBW07241) Meas	503						1.6	1.3	1700	3.7	43.3			22.9	58.4	7.13	30.0	11.6	0.12	14.3	3.2	19.5	4.1	12.4
NCS DC70009 (GBW07241) Cert	500.00						1.8	1.3	1701.000	3.1	41			23.7	60.3	7.9	32.9	12.5	0.16	14.8	3.3	20.7	4.5	13.4
SGR-1b Meas																								
SGR-1b Cert																								
OREAS 100a (Fusion) Meas						23								265	481	44.6	143	22.8	3.38	20.4	3.5	21.5	4.6	13.9
OREAS 100a (Fusion) Cert						24.1								260	463	47.1	152	23.6	3.71	23.6	3.80	23.2	4.81	14.9
OREAS 101a (Fusion) Meas						21								804	1380	123	376	47.4	7.65		5.2	30.0	6.1	18.1
OREAS 101a (Fusion) Cert						21.9								816	1396	134	403	48.8	8.06		5.92	33.3	6.46	19.5
JR-1 Meas	247				15	3	< 0.5	< 0.2	3	1.4	20.9		0.5	20.5	48.7	5.73	22.5	5.6	0.27	5.5	1.0	6.0		4.0
JR-1 Cert	257				15.2	3.25	0.031	0.028	2.86	1.19	20.8		0.56	19.7	47.2	5.58	23.3	6.03	0.30	5.06	1.01	5.69		3.61
SARM 3 Meas						979																		
SARM 3 Cert						978																		
NCS DC86303 Meas																								
NCS DC86303 Cert																								
NCS DC86304 Meas																								
NCS DC86304 Cert																								
NCS DC86314 Meas																								

Quality Control																									
Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Detection Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	
Analysis Method	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	
NCS DC86314 Cert																									
BCR-2 Meas		339	33	170								694													
BCR-2 Cert		346	37	188								683													
57802 Orig	979	71	7	20	62	< 2	< 0.5	< 0.2	262	< 0.5	90.5	77	< 0.4	1.1	2.5	0.34	1.5	1.0	0.20	1.2	0.2	1.1	0.2	0.5	
57802 Dup	1040	70	7	20	60	< 2	< 0.5	< 0.2	282	< 0.5	96.6	79	< 0.4	1.2	2.6	0.36	1.5	1.1	0.21	1.4	0.3	1.3	0.2	0.5	
57810 Orig																									
57810 Dup																									
57819 Orig	4530	56	17	38	6	< 2	< 0.5	< 0.2	88	< 0.5	319	110	1.1	2.4	5.9	0.81	4.4	1.8	0.54	2.5	0.5	3.1	0.7	1.9	
57819 Dup	4630	56	17	39	6	< 2	< 0.5	< 0.2	88	< 0.5	324	118	0.7	2.5	5.9	0.85	4.4	1.8	0.54	2.5	0.5	3.2	0.6	1.9	
57820 Orig																									
57820 Dup																									
57830 Orig	2980	44	6	5	63	< 2	< 0.5	< 0.2	69	< 0.5	77.6	< 3	1.9	1.1	2.6	0.32	1.6	1.0	< 0.05	1.1	0.3	1.4	0.1	0.3	
57830 Split	2870	43	5	5	62	< 2	< 0.5	< 0.2	79	< 0.5	77.8	< 3	2.1	1.1	2.6	0.32	1.6	1.0	< 0.05	1.1	0.3	1.5	0.1	0.3	
57830 Orig																									
57830 Dup																									
Method Blank Method Blank	< 2				< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5		< 0.4	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Method Blank Method Blank																									
Method Blank Method Blank																									
Method Blank Method Blank																									
Method Blank Method Blank																									

Quality Control																
Analyte Symbol	Tm	Yb	Lu	Hf	Ta	W	Tl	Pb	Th	U	Li	Br	Mass	B	Mass	
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	g	ppm	g	
Detection Limit	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.1	0.1	0.01	2		0.5		
Analysis Method	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS- Na2O2	INAA	INAA	PGNAA	PGNAA	
DH-1a Meas										890						
DH-1a Cert										910						
NIST 694 Meas																
NIST 694 Cert																
DNC-1 Meas		1.9														
DNC-1 Cert		2.0														
GBW 07113 Meas																
GBW 07113 Cert																
LKSD-3 Meas		2.5	0.40		0.6	1			10.9	4.9						
LKSD-3 Cert		2.70	0.400		0.700	2.00			11.4	4.60						
MAG-1 (Depleted) Meas												214				
MAG-1 (Depleted) Cert												250				
SY-2 Meas														88.3		
SY-2 Cert														88.0		
SY-3 Meas														108		
SY-3 Cert														107		
DR-N Meas																
DR-N Cert																
UB-N Meas																
UB-N Cert																
NIST 1632c Meas												23				
NIST 1632c Cert												18.7				
W-2a Meas	0.30	1.9	0.29	2.2	0.5	2	0.1	9	2.1	0.5						
W-2a Cert	0.380	2.10	0.330	2.60	0.500	0.300	0.200	9.30	2.40	0.530						
SY-4 Meas																
SY-4 Cert																
CTA-AC-1 Meas		10.4	1.08	1.5	2.6				23.1	4.3						
CTA-AC-1 Cert		11.4	1.08	1.13	2.65				21.8	4.4						
BIR-1a Meas		1.6	0.24	0.5				< 5								
BIR-1a Cert		1.7	0.3	0.60				3								
NCS DC86312 Meas	13.2	86.9	12.1						26.7							
NCS DC86312 Cert	15.1	87.79	11.96						23.6							
ZW-C Meas					84.5						1.15					
ZW-C Cert					82						1.13					
NCS DC70014 Meas		3.3	0.47					27200								
NCS DC70014 Cert		3.3	0.50					27200.00								
NCS DC70009 (GBW07241) Meas	2.13	15.4	2.22			2200			28.2							
NCS DC70009 (GBW07241) Cert	2.2	14.9	2.4			2200.00			28.3							
SGR-1b Meas																
SGR-1b Cert																
OREAS 100a (Fusion) Meas	2.15	14.4	2.09						51.0	141						
OREAS 100a (Fusion) Cert	2.31	14.9	2.26						51.6	135						
OREAS 101a (Fusion) Meas		17.1	2.40						35.0	420						
OREAS 101a (Fusion) Cert		17.5	2.66						36.6	422						
JR-1 Meas	0.61	4.4	0.69	4.0	1.9		1.6	20	26.9	9.3						
JR-1 Cert	0.67	4.55	0.71	4.51	1.86		1.56	19.3	26.7	8.88						
SARM 3 Meas																
SARM 3 Cert																
NCS DC86303 Meas											0.22					
NCS DC86303 Cert											0.21					
NCS DC86304 Meas											1.07					
NCS DC86304 Cert											1.06					

Quality Control

Analyte Symbol	Tm	Yb	Lu	Hf	Ta	W	Tl	Pb	Th	U	Li	Br	Mass	B	Mass
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	g	ppm	g
Detection Limit	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.1	0.1	0.01	2		0.5	
Analysis Method	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS- Na2O2	INAA	INAA	PGNAA	PGNAA
NCS DC86314 Meas											1.79				
NCS DC86314 Cert											1.81				
BCR-2 Meas															
BCR-2 Cert															
57802 Orig	0.08	0.7	0.12	1.6	129	4	7.6	18	4.9	4.5					
57802 Dup	0.08	0.6	0.11	1.5	128	4	7.9	19	5.2	4.9					
57810 Orig											0.07				
57810 Dup											0.08				
57819 Orig	0.29	1.9	0.35	1.1	21.3	6	33.9	27	0.4	1.9					
57819 Dup	0.28	2.0	0.34	1.2	19.7	5	32.4	26	0.4	1.9					
57820 Orig											0.54				
57820 Dup											0.54				
57830 Orig	0.06	0.4	0.08	0.6	45.1	5	17.9	8	3.8	6.9	0.58	< 2	1.002	0.8	1.00
57830 Split	0.06	0.4	0.07	0.5	41.9	5	17.4	7	3.6	7.0	0.58	< 2	1.002	2.7	1.00
57830 Orig											0.58				
57830 Dup											0.57				
Method Blank Method Blank	< 0.05	< 0.1	< 0.04	< 0.2	< 0.1	< 1	< 0.1	< 5	< 0.1	< 0.1					
Method Blank Method Blank															
Method Blank Method Blank											< 0.01				
Method Blank Method Blank											< 0.01				
Method Blank Method Blank														< 0.5	1.00

Quality Analysis ...



Innovative Technologies

Invoice No.: **A11-6059**
 Purchase Order: **A11-**
 Invoice Date: **02-Aug-11**
 Date submitted: **04-Jul-11**
 Your Reference: **Seperation**
 GST #: **R121979355**

Mega Graphite Inc.
Suite A-86 Wilson Street
Oakville Ontario L6K 3G5
Canada

ATTN: Pres. Paul Gorman

INVOICE

No. samples	Description	Unit Price	Total
17	RX1-T(DRYDEN)	\$ 10.00	\$ 170.00
17	4F-B(0.5ppm)	\$ 31.00	\$ 527.00
17	4F-F	\$ 11.00	\$ 187.00
17	5A (Br)	\$ 12.75	\$ 216.75
17	8-Li (Sodium Peroxide Fusion)	\$ 15.50	\$ 263.50
17	8-REE Assay Package	\$ 80.00	\$ 1,360.00
		Subtotal: :	\$ 2,724.25
		HST-13% :	\$ 354.15
		AMOUNT DUE: (CAD) :	\$ 3,078.40

Net 30 days. 1 1/2 % per month charged on overdue accounts.

Bank Transfers can be made to:
 ACTIVATION LABORATORIES LTD at
 ROYAL BANK OF CANADA
 59 WILSON STREET WEST
 ANCASTER, ONTARIO CANADA L9G 1N1
 TRANSIT #: 00102 003 ACCOUNT #: 100 154 4
 SWIFT CODE#: ROYCCAT2

Please reference the invoice number when making a payment by Bank/Wire transfer. Intermediary Bank Fees are the responsibility of the client.
 Thank you!

**ACTIVATION LABORATORIES LTD.**

1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or
 +1.888.228.5227 FAX +1.905.648.9613

E-MAIL ancaster@actlabsint.com ACTLABS GROUP WEBSITE <http://www.actlabsint.com>

Quality Analysis ...



Innovative Technologies

Date Submitted: 04-Jul-11
Invoice No.: A11-6059
Invoice Date: 29-Jul-11
Your Reference: Separation

Mega Graphite Inc.
 Suite A-86 Wilson Street
 Oakville Ontario L6K 3G5
 Canada

ATTN: Pres. Paul Gorman

CERTIFICATE OF ANALYSIS

17 Rock samples were submitted for analysis.

The following analytical packages were requested:

REPORT **A11-6059**

Code 4F-B(0.5ppm) PGNAA
 Code 4F-F Fusion Specific Ion Electrode-ISE
 Code 5A INAA(INAAGEO)
 Code 8-Li (Sodium Peroxide Fusion) Sodium Peroxide Fusion
 Code 8-REE Assay Package Major Elements Fusion
 ICP(WRA)/Trace Elements Fusion ICP/MS(WRA4B2)

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Total includes all elements in % oxide to the left of total.
 Values which exceed Upper limit should be assayed for most accurate values.

CERTIFIED BY :

Emmanuel Eseme, Ph.D.

Quality Control



ACTIVATION LABORATORIES LTD.

1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or
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 E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Activation Laboratories Ltd. Report: A11-6059

Analyte Symbol	Li	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.01	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Analysis Method	FUS-Na2O2	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
57835	0.85	74.95	15.41	0.66	0.212	0.02	0.22	3.90	2.60	0.003	0.05	0.38	98.41	< 1	132	< 5	< 20	< 1	< 20	< 10	90	34	6	< 5
57836	0.47	75.60	16.35	0.52	0.221	0.03	0.29	5.68	1.62	0.003	0.08	0.31	100.7	< 1	202	< 5	< 20	< 1	< 20	< 10	110	45	8	< 5
57837	0.21	49.20	15.29	13.69	0.227	7.38	10.22	0.70	1.64	0.872	0.07	1.62	100.9	44	24	301	250	52	130	80	120	17	5	< 5
57838	0.44	73.40	16.28	0.82	0.308	0.29	0.82	5.25	1.76	0.034	0.14	0.48	99.67	2	154	12	< 20	2	< 20	< 10	50	42	7	< 5
57839	0.32	77.23	14.78	0.66	0.190	0.04	0.36	5.34	1.74	0.003	0.07	0.41	100.8	< 1	190	< 5	< 20	< 1	< 20	< 10	120	39	6	< 5
57840	0.72	76.11	15.52	0.47	0.191	0.03	0.19	3.06	3.30	0.002	0.06	0.35	99.29	< 1	148	< 5	< 20	< 1	< 20	< 10	80	34	6	< 5
57841	0.62	78.06	15.44	0.59	0.159	0.03	0.28	3.93	1.92	0.003	0.05	0.43	100.9	< 1	189	< 5	< 20	< 1	< 20	< 10	140	35	6	< 5
57842	0.89	78.24	15.72	0.55	0.139	0.02	0.17	2.46	2.80	0.002	0.08	0.41	100.6	< 1	146	< 5	< 20	< 1	< 20	< 10	90	32	5	< 5
57843	0.52	74.36	15.65	0.50	0.282	0.06	0.74	4.84	1.52	0.007	0.07	0.32	98.37	< 1	194	< 5	< 20	< 1	< 20	< 10	90	45	8	< 5
57844	0.32	49.16	14.17	11.94	0.241	8.42	7.66	0.54	3.03	0.796	0.07	2.40	98.42	43	46	282	250	47	110	80	170	16	7	< 5
57845	0.46	74.16	15.62	0.70	0.083	0.05	0.52	3.88	3.04	0.005	0.05	0.50	98.60	< 1	172	< 5	< 20	< 1	< 20	< 10	60	34	5	< 5
57846	0.95	75.73	16.80	0.86	0.050	0.05	0.18	2.44	2.67	0.006	0.04	0.55	99.39	1	110	< 5	< 20	< 1	< 20	< 10	80	34	4	< 5
57847	0.68	76.19	15.52	0.76	0.040	0.04	0.37	2.86	3.42	0.006	0.04	0.73	99.97	< 1	93	< 5	< 20	< 1	< 20	< 10	70	39	5	< 5
57848	0.43	75.30	16.14	0.60	0.029	0.03	0.25	4.71	3.34	0.005	0.06	0.50	101.0	1	108	< 5	< 20	< 1	< 20	< 10	60	35	5	< 5
57849	0.28	76.31	14.82	0.69	0.070	0.03	0.26	4.47	2.64	0.004	0.05	0.39	99.74	< 1	265	< 5	< 20	< 1	< 20	< 10	70	40	4	< 5
57850	0.02	75.36	15.08	0.61	0.065	0.20	0.57	6.84	0.60	0.008	0.06	0.41	99.81	< 1	132	< 5	< 20	1	< 20	< 10	80	37	6	< 5
57851	0.18	48.14	15.20	11.17	0.182	11.77	10.23	0.72	0.68	0.493	0.05	1.96	100.6	33	3	195	460	60	310	80	80	13	3	< 5

Activation Laboratories Ltd. Report: A11-6059

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1
Analysis Method	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
57835	2190	30	6	18	51	< 2	< 0.5	< 0.2	47	< 0.5	31.8	5	16.1	0.7	1.6	0.20	0.8	0.4	< 0.05	0.4	0.2	1.0	0.1	0.3
57836	1170	21	2	50	26	< 2	< 0.5	< 0.2	51	< 0.5	25.1	5	6.4	0.5	1.0	0.13	0.4	0.2	< 0.05	0.3	< 0.1	0.4	< 0.1	0.1
57837	2790	115	17	46	4	< 2	< 0.5	< 0.2	62	< 0.5	539	32	0.7	2.3	6.4	1.01	5.3	1.9	0.69	2.4	0.5	3.1	0.7	2.0
57838	1530	30	4	34	29	< 2	< 0.5	< 0.2	35	< 0.5	59.9	7	7.2	0.7	1.6	0.22	0.8	0.5	< 0.05	0.5	0.2	0.7	0.1	0.2
57839	1340	19	6	12	62	< 2	< 0.5	< 0.2	65	< 0.5	19.4	6	20.1	0.7	1.9	0.27	0.9	0.7	< 0.05	0.7	0.2	0.8	< 0.1	0.2
57840	2800	39	4	14	66	< 2	< 0.5	< 0.2	50	< 0.5	28.9	7	9.1	0.5	1.4	0.19	0.7	0.5	< 0.05	0.5	0.1	0.6	< 0.1	0.1
57841	1620	31	4	12	112	< 2	< 0.5	< 0.2	63	< 0.5	22.2	4	7.6	0.5	1.5	0.20	0.7	0.7	< 0.05	0.7	0.2	0.8	< 0.1	0.2
57842	2450	35	4	16	78	< 2	< 0.5	< 0.2	66	< 0.5	30.8	4	3.2	0.6	1.6	0.21	0.7	0.6	< 0.05	0.5	0.1	0.8	< 0.1	0.2
57843	1130	28	4	32	73	< 2	< 0.5	< 0.2	170	< 0.5	25.9	5	1.9	0.4	1.1	0.15	0.4	0.3	< 0.05	0.4	0.1	0.5	< 0.1	0.1
57844	5850	101	17	46	3	< 2	< 0.5	< 0.2	125	< 0.5	1100	20	1.0	1.9	5.5	0.87	4.9	1.8	0.62	2.4	0.4	3.1	0.6	1.9
57845	2160	52	7	11	56	< 2	< 0.5	< 0.2	73	< 0.5	36.9	5	9.6	1.3	3.7	0.53	1.7	1.4	< 0.05	1.5	0.3	1.5	0.2	0.3
57846	2160	28	5	14	65	< 2	< 0.5	< 0.2	96	< 0.5	35.0	4	12.3	1.1	3.0	0.39	1.4	1.1	< 0.05	1.0	0.2	1.1	0.1	0.2
57847	2960	39	6	9	67	< 2	< 0.5	< 0.2	118	< 0.5	52.4	5	11.3	1.0	3.2	0.44	1.5	1.3	< 0.05	1.3	0.3	1.2	0.1	0.3
57848	2320	29	7	14	59	< 2	< 0.5	< 0.2	85	< 0.5	16.1	5	11.0	1.5	4.0	0.53	1.7	1.5	< 0.05	1.6	0.4	1.5	0.2	0.4
57849	1850	24	9	19	88	< 2	< 0.5	< 0.2	251	< 0.5	16.6	6	5.2	1.2	3.4	0.44	1.6	1.3	< 0.05	1.5	0.4	1.7	0.2	0.4
57850	346	10	3	13	57	< 2	< 0.5	< 0.2	193	< 0.5	12.1	15	1.8	0.6	1.7	0.23	0.9	0.7	< 0.05	0.7	0.2	0.8	< 0.1	0.2
57851	758	65	10	28	1	< 2	< 0.5	< 0.2	16	< 0.5	97.4	28	< 0.4	1.5	3.7	0.58	3.0	1.1	0.43	1.4	0.3	1.9	0.4	1.1

Activation Laboratories Ltd. Report: A11-6059

Analyte Symbol	Tm	Yb	Lu	Hf	Ta	W	Ti	Pb	Th	U	F	B	Mass	Br	Mass
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	g	ppm	g
Detection Limit	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.5		2	
Analysis Method	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ISE	PGNAA	PGNAA	INAA	INAA
57835	0.07	0.5	0.08	0.9	33.7	1	14.0	11	1.6	4.3	< 0.01	< 0.5	1.01	< 2	1.491
57836	< 0.05	0.2	0.06	4.9	33.8	< 1	7.4	24	2.8	8.6	< 0.01	< 0.5	1.01	< 2	1.398
57837	0.30	2.0	0.34	1.2	13.2	< 1	21.6	6	0.3	0.1	0.63	< 0.5	1.00	< 2	1.450
57838	< 0.05	0.4	0.05	2.7	57.0	2	10.9	17	5.3	10.8	0.03	< 0.5	1.01	< 2	1.364
57839	< 0.05	0.3	0.05	0.7	60.4	2	7.6	8	2.1	4.7	0.01	< 0.5	1.01	< 2	1.601
57840	< 0.05	0.2	< 0.04	0.9	44.6	2	17.9	11	3.0	3.8	< 0.01	3.4	1.00	< 2	1.535
57841	< 0.05	0.3	0.04	0.6	70.6	3	10.2	7	2.2	3.1	< 0.01	2.4	1.01	< 2	1.620
57842	< 0.05	0.4	0.06	0.8	47.2	2	15.8	12	3.5	3.9	< 0.01	< 0.5	1.01	< 2	1.532
57843	< 0.05	0.3	0.05	2.8	129	2	7.7	17	4.8	7.6	< 0.01	5.1	1.00	< 2	1.745
57844	0.29	2.0	0.33	1.2	8.0	2	43.4	< 5	0.2	0.3	1.11	0.6	1.00	< 2	1.519
57845	0.05	0.4	0.05	0.6	40.3	2	13.4	11	5.2	5.3	0.01	2.9	1.00	< 2	1.481
57846	< 0.05	0.3	0.04	0.5	33.6	3	13.0	9	4.1	3.6	0.04	0.6	1.00	< 2	1.429
57847	< 0.05	0.3	< 0.04	0.3	35.3	4	18.7	7	5.5	3.9	0.04	3.1	1.01	< 2	1.394
57848	0.08	0.5	0.05	0.4	28.8	3	14.7	10	5.3	4.2	0.03	5.9	1.01	< 2	1.395
57849	0.08	0.6	0.08	0.9	34.5	2	11.2	14	7.0	10.9	< 0.01	1.2	1.01	< 2	1.325
57850	< 0.05	0.2	0.05	0.6	65.8	2	2.0	43	3.6	4.3	< 0.01	3.2	1.00	< 2	1.490
57851	0.18	1.2	0.19	0.7	0.2	< 1	5.8	< 5	0.1	< 0.1	0.08	1.7	1.00	2	1.783

Activation Laboratories Ltd. Report: A11-6059

Quality Control	Li	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Analyte Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Unit Symbol																								
Detection Limit	0.01	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Analysis Method	FUS-Na2O2	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS

DH-1a Meas																									
DH-1a Cert																									
TAN-1 Meas																									
TAN-1 Cert																									
NIST 694 Meas		11.25	1.90	0.74	0.011	0.33	42.67	0.86	0.55	0.117	30.12									1659					
NIST 694 Cert		11.2	1.80	0.790	0.0116	0.330	43.6	0.860	0.510	0.110	30.2									1740					
DNC-1 Meas		47.09	18.46	9.88	0.147	9.97	11.50	1.91	0.22	0.474	0.07			31		154	270	58	250	100	80				
DNC-1 Cert		47.15	18.34	9.97	0.150	10.13	11.49	1.890	0.234	0.480	0.070			31		148.0	270.0	57.0	247	100.0	70.0				
GBW 07113 Meas		70.91	12.86	3.27	0.141	0.14	0.59	2.36	5.30	0.280	0.06			6	4	5									
GBW 07113 Cert		72.8	13.0	3.21	0.140	0.160	0.590	2.57	5.43	0.300	0.0500			5.00	4.00	5.00									
LKSD-3 Meas																		80		30	150			26	
LKSD-3 Cert																		87.0	30.0	47.0	35.0	152		27.0	
TDB-1 Meas																		240		100	350	170			
TDB-1 Cert																		251		92	323	155			
LKSD-4 Meas																									
LKSD-4 Cert																									
LKSD-4 Meas																									
LKSD-4 Cert																									
SY-2 Meas																									
SY-2 Cert																									
SY-3 Meas																									
SY-3 Cert																									
DR-N Meas																									
DR-N Cert																									
DR-N Meas																									
DR-N Cert																									
UB-N Meas																									
UB-N Cert																									
W-2a Meas		52.47	15.11	10.81	0.165	6.23	11.10	2.18	0.62	1.071	0.14			35	< 1	280	90	44	70	110	80	18	3	< 5	
W-2a Cert		52.4	15.4	10.7	0.163	6.37	10.9	2.14	0.626	1.06	0.130			36.0	1.30	262	92.0	43.0	70.0	110	80.0	17.0	1.00	1.20	
W-2a Meas																									
W-2a Cert																									
SY-4 Meas		49.59	20.97	6.16	0.108	0.51	8.11	7.02	1.72	0.293	0.15			1	3	5									
SY-4 Cert		49.9	20.69	6.21	0.108	0.54	8.05	7.10	1.66	0.287	0.131			1.1	2.6	8.0									
CTA-AC-1 Meas																			< 1		60	30			
CTA-AC-1 Cert																			2.72		54.0	38.0			
BIR-1a Meas		47.26	15.52	11.48	0.173	9.38	13.49	1.77	0.02	0.953	0.04			43	< 1	339	370	53	170	130	80	15		< 5	
BIR-1a Cert		47.96	15.50	11.30	0.175	9.700	13.30	1.82	0.030	0.96	0.021			44	0.58	310	370	52	170	125	70	16		0.44	
NCS DC86312 Meas																									
NCS DC86312 Cert																									
ZW-C Meas	1.14																					1070	95		
ZW-C Cert	1.13																					1050	99		
NCS DC70014 Meas																			25	70	2580	7400	25		
NCS DC70014 Cert																			26.2	70.9	2600.00	7400.00	25.2		
NCS DC86316 Meas																									
NCS DC86316 Cert																									
NCS DC70009 (GBW07241) Meas																		30	3	< 20	990	90	17	11	
NCS DC70009 (GBW07241) Cert																		30	3.7	2.8	960.000	100.000	16.5	11.2	
SGR-1b Meas																									
SGR-1b Cert																									
OREAS 100a (Fusion) Meas																			17		170				
OREAS 100a (Fusion) Cert																			18.1		169				
OREAS 101a (Fusion) Meas																			48		440				

Quality Control																									
Analyte Symbol	Li	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As	
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Detection Limit	0.01	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5	
Analysis Method	FUS-Na2O2	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	
OREAS 101a (Fusion) Cert																		48.8		434					
OREAS 101b (Fusion) Meas																		45	< 20	410					
OREAS 101b (Fusion) Cert																		47	9	416					
JR-1 Meas																	< 20	< 1	< 20	< 10	30	17	4	18	
JR-1 Cert																	2.83	0.83	1.67	2.58	30.6	16.1	1.88	15.3	
SARM 3 Meas																									
SARM 3 Cert																									
NCS DC86303 Meas	0.21																								
NCS DC86303 Cert	0.21																								
NCS DC86304 Meas	1.04																								
NCS DC86304 Cert	1.06																								
NCS DC86314 Meas	1.78																								
NCS DC86314 Cert	1.81																								
BCR-2 Meas		54.83	13.34	14.13		3.41	7.28	3.15	1.83	2.245	0.39			33		444									
BCR-2 Cert		54.1	13.5	13.8		3.59	7.12	3.16	1.79	2.26	0.35			33		416									
57844 Orig	0.32																								
57844 Dup	0.32																								
57849 Orig		75.73	14.83	0.70	0.069	0.03	0.26	4.43	2.63	0.004	0.04	0.39	99.11	< 1	258	< 5	< 20	< 1	< 20	< 10	70	39	4	< 5	
57849 Dup		76.89	14.80	0.69	0.070	0.03	0.27	4.51	2.66	0.004	0.06	0.39	100.4	< 1	272	< 5	< 20	< 1	< 20	< 10	70	40	4	< 5	
Method Blank Method Blank																	< 20	< 1	< 20	< 10	< 30	< 1	< 1	< 5	
Method Blank Method Blank																	< 20	< 1	< 20	< 10	< 30	< 1	< 1	< 5	
Method Blank Method Blank																									
Method Blank Method Blank																									
Method Blank Method Blank	< 0.01																								
Method Blank Method Blank																									

Activation Laboratories Ltd. Report: A11-6059

Quality Control																									
Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Detection Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	
Analysis Method	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	
DH-1a Meas																									
DH-1a Cert																									
TAN-1 Meas																									
TAN-1 Cert																									
NIST 694 Meas																									
NIST 694 Cert																									
DNC-1 Meas		144	16	30						0.7		108		3.7			4.8		0.57						
DNC-1 Cert		144.0	18.0	38						0.96		118		3.6			5.20		0.59						
GBW 07113 Meas		38	44	378								484													
GBW 07113 Cert		43.0	43.0	403								506													
LKSD-3 Meas	73					< 2	2.7		3	0.7	2.3			50.7	86.1		41.9	7.8	1.40		0.9	4.8			
LKSD-3 Cert	78.0					2.00	2.70		3.00	1.30	2.30			52.0	90.0		44.0	8.00	1.50		1.00	4.90			
TDB-1 Meas	21													16.1	37.8		23.6		1.96						
TDB-1 Cert	23													17	41		23		2.1						
LKSD-4 Meas																									
LKSD-4 Cert																									
LKSD-4 Meas																									
LKSD-4 Cert																									
SY-2 Meas																									
SY-2 Cert																									
SY-3 Meas																									
SY-3 Cert																									
DR-N Meas																									
DR-N Cert																									
DR-N Meas																									
DR-N Cert																									
UB-N Meas																									
UB-N Cert																									
W-2a Meas	19	191	19	88	7	< 2	< 0.5			0.6	0.9	173	< 0.4	10.7	22.7		12.7	3.4	1.08		0.6	3.8	0.8	2.4	
W-2a Cert	21.0	190	24.0	94.0	7.90	0.600	0.0460			0.790	0.990	182	0.0300	10.0	23.0		13.0	3.30	1.00		0.630	3.60	0.760	2.50	
W-2a Meas																									
W-2a Cert																									
SY-4 Meas		1221	118	556								352													
SY-4 Cert		1191	119	517								340													
CTA-AC-1 Meas														2210	3340		1140	168	45.5	130	15.2				
CTA-AC-1 Cert														2176	3326		1087	162	46.7	124	13.9				
BIR-1a Meas		103	14	20	< 1					< 0.5		8			2.1		2.3	1.1	0.51	1.9					
BIR-1a Cert		110	16	18	0.6					0.58		6			1.9		2.5	1.1	0.55	2.0					
NCS DC86312 Meas														2340	174		1560			223	34.2	183	35.7	96.2	
NCS DC86312 Cert														2360.000	190.000		1600.000			225.0	34.6	183.00	35.70	96.2	
ZW-C Meas	8570										270														
ZW-C Cert	8500										260														
NCS DC70014 Meas						270	16.8			180			80.3	44.0	86.0	10.2	38.9	8.1	1.72	7.2	1.2	6.4	1.3	3.4	
NCS DC70014 Cert						270	16.7			180.000			80.3	45.3	87.0	10.8	39.9	8.0	1.8	7.4	1.1	6.7	1.3	3.5	
NCS DC86316 Meas																									
NCS DC86316 Cert																									
NCS DC70009 (GBW07241) Meas	503						1.3	1.3	1700	1.8	42.8			24.2	60.8	8.08	33.1	13.0	0.11	14.9	3.4	21.3	4.4	13.2	
NCS DC70009 (GBW07241) Cert	500.00						1.8	1.3	1701.000	3.1	41			23.7	60.3	7.9	32.9	12.5	0.16	14.8	3.3	20.7	4.5	13.4	
SGR-1b Meas																									
SGR-1b Cert																									
OREAS 100a (Fusion) Meas						23								248	443	44.6	145	23.7	3.56	21.8	3.7	22.6	4.9	14.4	
OREAS 100a (Fusion) Cert						24.1								260	463	47.1	152	23.6	3.71	23.6	3.80	23.2	4.81	14.9	
OREAS 101a (Fusion) Meas						20								800	1370	127	386	50.2	8.03		5.4	31.7	6.6	19.1	

Quality Control																										
Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er		
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Detection Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1		
Analysis Method	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS		
OREAS 101a (Fusion) Cert						21.9								816	1396	134	403	48.8	8.06		5.92	33.3	6.46	19.5		
OREAS 101b (Fusion) Meas						20								727	1260	117	357	46.6	7.39		5.2	29.8	6.2	17.9		
OREAS 101b (Fusion) Cert						20.9								789	1331	127	378	48	7.77		5.37	32.1	6.34	18.7		
JR-1 Meas	250				14	3	< 0.5	< 0.2	4	1.1	20.9		0.6	19.4	45.9	5.80	23.0	5.9	0.27	5.4	1.0	5.9		3.9		
JR-1 Cert	257				15.2	3.25	0.031	0.028	2.86	1.19	20.8		0.56	19.7	47.2	5.58	23.3	6.03	0.30	5.06	1.01	5.69		3.61		
SARM 3 Meas					978																					
SARM 3 Cert					978																					
NCS DC86303 Meas																										
NCS DC86303 Cert																										
NCS DC86304 Meas																										
NCS DC86304 Cert																										
NCS DC86314 Meas																										
NCS DC86314 Cert																										
BCR-2 Meas		329	31	176								700														
BCR-2 Cert		346	37	188								683														
57844 Orig																										
57844 Dup																										
57849 Orig	1860	24	8	18	86	< 2	< 0.5	< 0.2	252	< 0.5	16.5	6	5.4	1.1	3.5	0.43	1.6	1.3	< 0.05	1.4	0.4	1.6	0.2	0.4		
57849 Dup	1840	24	9	19	90	< 2	< 0.5	< 0.2	249	< 0.5	16.6	7	5.0	1.2	3.4	0.45	1.6	1.3	< 0.05	1.5	0.4	1.8	0.2	0.5		
Method Blank Method	< 2				< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5		< 0.4	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Method Blank Method	< 2				< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5		< 0.4	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Method Blank Method																										
Method Blank Method																										
Method Blank Method																										
Method Blank Method																										

Quality Control																
Analyte Symbol	Tm	Yb	Lu	Hf	Ta	W	Ti	Pb	Th	U	F	B	Mass	Br	Mass	
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	g	ppm	g	
Detection Limit	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.5		2		
Analysis Method	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ISE	PGNAA	PGNAA	INAA	INAA	
DH-1a Meas																880
DH-1a Cert																910
TAN-1 Meas																2370
TAN-1 Cert																2360
NIST 694 Meas																
NIST 694 Cert																
DNC-1 Meas		2.0														
DNC-1 Cert		2.0														
GBW 07113 Meas												0.13				
GBW 07113 Cert												0.130				
LKSD-3 Meas		2.8	0.40		0.6	1			10.7	4.7						
LKSD-3 Cert		2.70	0.400		0.700	2.00			11.4	4.60						
TDB-1 Meas		3.3							2.7							
TDB-1 Cert		3.4							2.7							
LKSD-4 Meas																50
LKSD-4 Cert																49.0
LKSD-4 Meas																49
LKSD-4 Cert																49.0
SY-2 Meas													87.8			
SY-2 Cert													88.0			
SY-3 Meas													109			
SY-3 Cert													107			
DR-N Meas													0.05			
DR-N Cert													0.0500			
DR-N Meas													0.05			
DR-N Cert													0.0500			
UB-N Meas													< 0.01			
UB-N Cert													0.00950			
W-2a Meas	0.36	2.1	0.33	2.5	0.5	2	0.1	10	2.2	0.5	0.02					
W-2a Cert	0.380	2.10	0.330	2.60	0.500	0.300	0.200	9.30	2.40	0.530	0.0205					
W-2a Meas																0.02
W-2a Cert																0.0205
SY-4 Meas																
SY-4 Cert																
CTA-AC-1 Meas		11.2	1.13		2.7				23.7	4.2						
CTA-AC-1 Cert		11.4	1.08		2.65				21.8	4.4						
BIR-1a Meas		1.7	0.27	0.7				< 5								
BIR-1a Cert		1.7	0.3	0.60				3								
NCS DC86312 Meas	14.4	87.3	12.0						25.3							
NCS DC86312 Cert	15.1	87.79	11.96						23.6							
ZW-C Meas																
ZW-C Cert																
NCS DC70014 Meas	0.53	3.3	0.48					27200								
NCS DC70014 Cert	0.57	3.3	0.50					27200.00								
NCS DC86316 Meas				712												
NCS DC86316 Cert				712												
NCS DC70009 (GBW07241) Meas	2.39	15.6	2.30			2200			29.6							
NCS DC70009 (GBW07241) Cert	2.2	14.9	2.4			2200.00			28.3							
SGR-1b Meas												0.21				
SGR-1b Cert												0.1960				
OREAS 100a (Fusion) Meas	2.36	15.2	2.10						50.3	137						
OREAS 100a (Fusion) Cert	2.31	14.9	2.26						51.6	135						
OREAS 101a (Fusion) Meas	2.96	18.4	2.51						35.4	421						

LITHOLOGIC LEGEND

- 8. PEGMATITE, PEGMATITIC GRANITE, ALBITE
 - 8A. ALBITIC UNITS
 - a. albitic aplite +garnet+mica
 - b. mixed albitic aplite & granitic to blocky units
 - c. quartz-garnet-mica zones +cordierite + holmquistite
 - 8B. QUARTZ + K-spar DOMINANT PEGMATITE & PEGMATITIC GRANITE
 - a. quartz + K-spar + albite + biotite
 - b. quartz + K-spar + albite + muscovite
 - c. quartz + K-spar + albite + mica
 - d. moderately albitized qtz + K-spar + mica units
 - 8C. PETALITE BEARING PEGMATITES
 - 8D. GRANITIC PHASES

- 7. FELSIC GRANITIC INTRUSIONS
 - a. granite, granodiorite
 - b. tronjhemite, feldspar porphyry
 - c. FP-garnet+quartz+muscovite+biotite+Li-mica

- 6. MAFIC-ULTRAMAFIC INTRUSIONS
 - a. hornblende phyric gabbro
 - b. aphyric, medium grained gabbro (possibly unit 1d)
 - c. aphyric, coarse grained gabbro
 - d. diorite

- 5. HIGH GRADE CLASTIC METASEDIMENTS- GNEISS

- 4. CLASTIC METASEDIMENTS
 - a. siltstone, sandstone
 - b. quartz-sericite-garnet schist

- 3. CHEMICAL METASEDIMENTS
 - a. chert
 - b. chert-oxide I.F.
 - c. silicate facies I.F.
 - d. sulphide facies I.F.

- 2. FELSIC METAVOLCANICS

- 1. MAFIC METAVOLCANICS
 - a. massive flows
 - b. pillowed flows
 - c. banded units; interflow seds to highly tectonized units
 - d. medium grained massive flows or gabbro (in part, unit 6b)

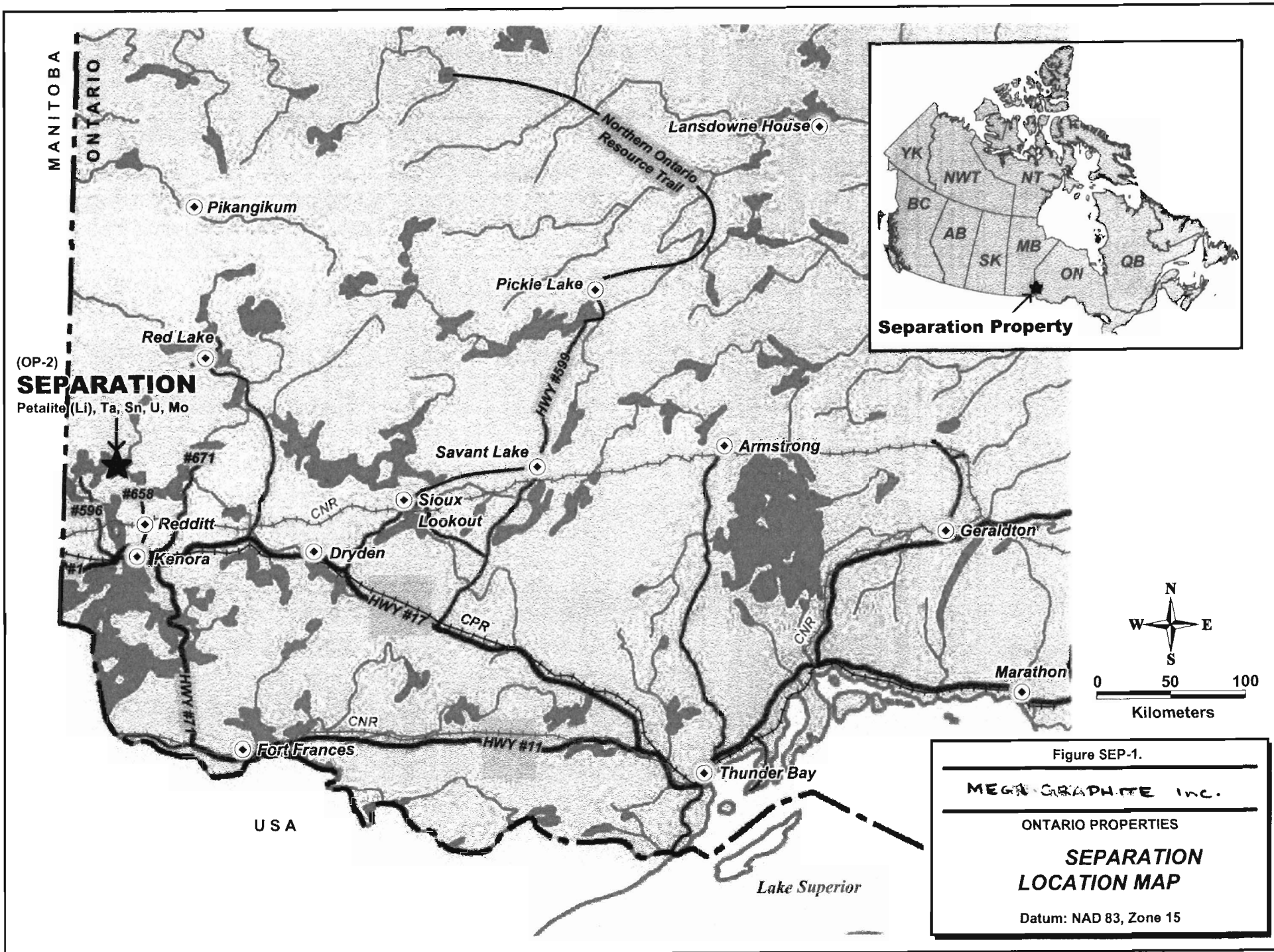


Figure : SEP - 1 Location Map

AUG. 2011
AJM

Date / Time of Issue: Sun Aug 21 18:20:29 EDT 2011

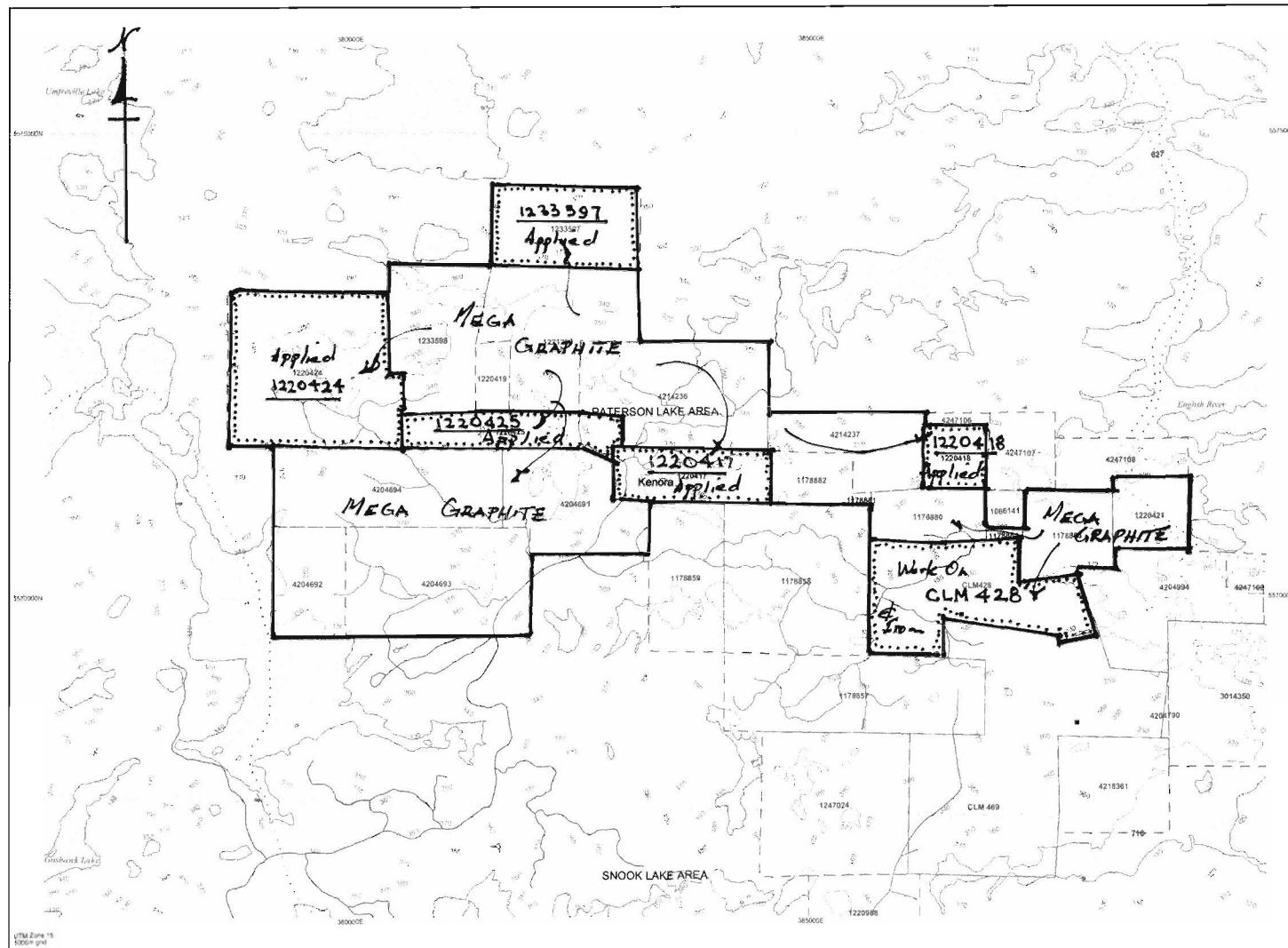
TOWNSHIP / AREA
PATERSON LAKE AREA

PLAN
G-2634

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division
Land Titles/Registry Division
Ministry of Natural Resources District

Kenora
KENORA
KENORA



TOPOGRAPHIC	Land Tenure
Administrative Boundaries	Freehold Patent
Township	Surface And Mining Rights
Concession, Lot	Surface Rights Only
Provincial Park	Mining Rights Only
Indian Reserve	
City, Tn & Pier	Leasehold Patent
Contour	Surface And Mining Rights
Mine Shaft	Surface Rights Only
Mine Headframe	Mining Rights Only
Railway	License of Occupation
Road	Uses Not Specified
Trail	Surface And Mining Rights
Natural Gas Pipeline	Surface Rights Only
Utilities	Mining Rights Only
Tower	Land Use Permit
	Order In Council (Not open for sitting)
	Water Power Lease Agreement
	Mining Claims
	Field Only Mining Claims
	LAND TENURE WITHDRAWALS
	1204 Areas Withdrawn From Disposition
	Mining Area Withdrawal Types
	Wm Surface And Mining Rights Withdrawal
	Wm Surface Rights Only Withdrawal
	Wm Mining Rights Only Withdrawal
	Wm Order In Council Withdrawal Types
	Wm Surface And Mining Rights Withdrawal
	Wm Surface Rights Only Withdrawal
	Wm Mining Rights Only Withdrawal
	IMPORTANT NOTICES

Scale 1:45000
0 1km 2km

MEGA GRAPHITE Inc.
Separation / Paterson Lake
Project
Aug. 2011 AJM

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

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

General Information and Limitations
 Contact Information: Provincial Mining Records' Office, Wilket Creek Millar Centre 933 Ramsey Lake Road, Sudbury ON P3E 6S5
 Toll Free: 1 (888) 415-8845 ext 3742
 Tel: 1 (888) 415-8845 ext 3742
 Fax: 1 (877) 570-1444
 Website: www.mdm.gov.on.ca/MCD/MINESLANDS/rdmmapge.htm

Map Datum: NAD 83
 Projection: UTM (6 degrees)
 Topographic Data Source: Lands Information Ontario
 Mining Land Tenure Source: Provincial Mining Records' Office
 This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, bonding rights, licences, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and interests that restrict or prohibit free entry to stake mining claims may not be illustrated.

Figure: SEP-2 Paterson Lake Area Claim Map

Date / Time of Issue: Mon Aug 22 07:57:51 EDT 2011

TOWNSHIP / AREA
PATERSON LAKE AREA

PLAN
G-2634

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division
Land Titles/Registry Division
Ministry of Natural Resources District

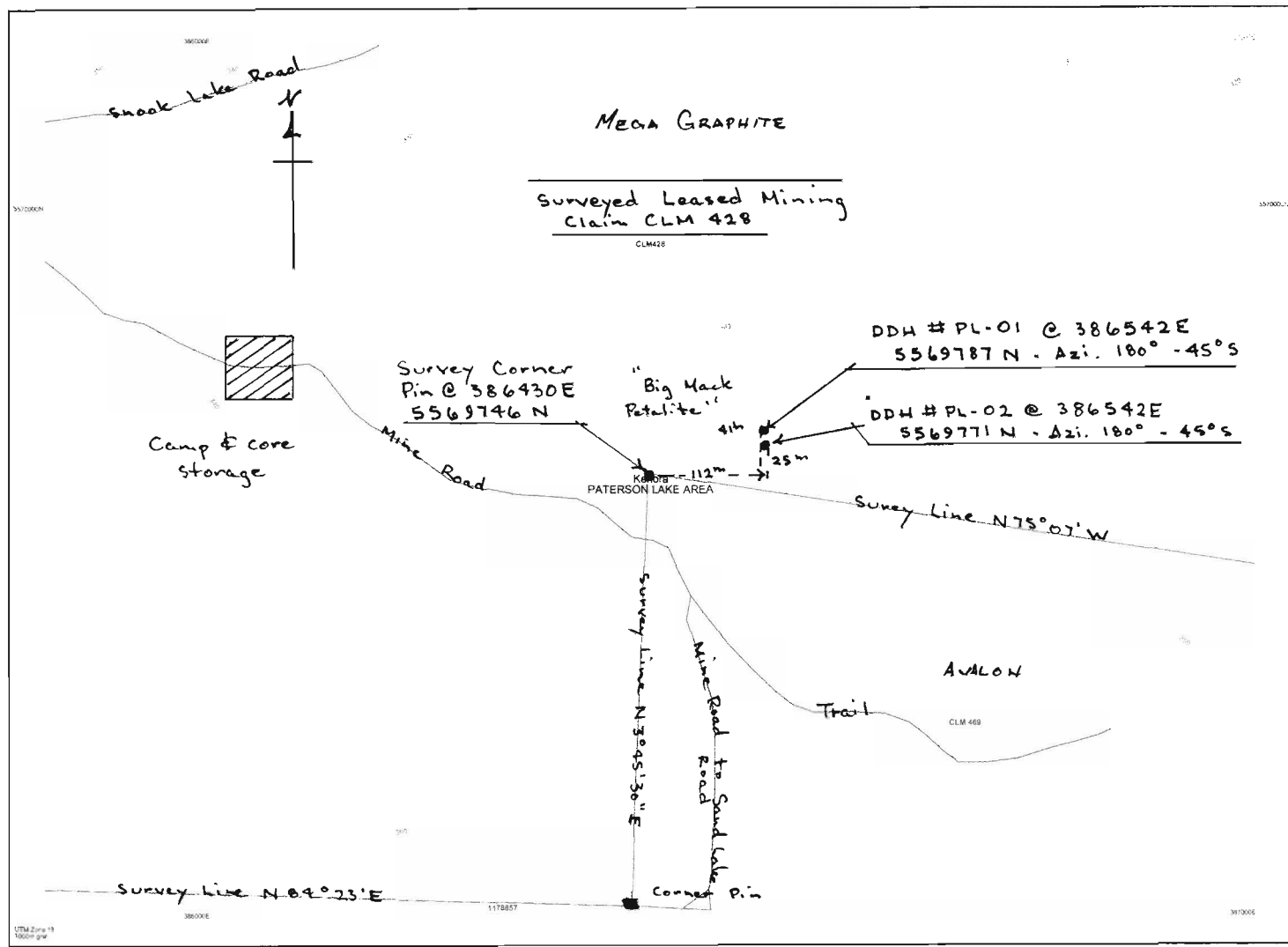
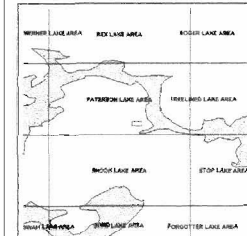
Kenora
KENORA
KENORA

TOPOGRAPHIC

- Administrative Boundaries
- Township
- Cadastral Lot
- Provincial Park
- Indian Reserve
- Old Pt. & Sho
- Contour
- Mine Shaft
- Mine Headframe
- Railway
- Road
- Trail
- Natural Gas Pipeline
- Utilities
- Tower

Land Tenure

- Freehold Patent
 - Surface And Mining Right
 - Surface Rights Only
 - Mining Rights Only
 - Leasehold Patent
 - Surface And Mining Right
 - Surface Rights Only
 - Mining Rights Only
 - License of Occupation
 - Uses Not Specified
 - Surface And Mining Right
 - Surface Rights Only
 - Mining Rights Only
 - Land Use Permit
 - Order In Council (Not open for staking)
 - Water Power Lease Agreement
 - Mining Claim
 - Filed Only Mining Claims
- LAND TENURE WITHDRAWALS**
- 1234 Areas Withdrawn from Disposition
- Mining Act Withdrawal Types
- Wm Withdrawal Mining Rights In Order
 - Ws Surface Rights Only Withdrawal
 - Wm Mining Rights Only Withdrawal
- Order In Council Withdrawal Types
- Wm Surface And Mining Rights Withdrawal
 - Ws Surface Rights Only Withdrawal
 - Wm Mining Rights Only Withdrawal
- 16 IMPORTANT NOTICES



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General Information and Limitations

Contact information:
Provincial Mining Registrars' Office
Wildcat Creek Mine Complex 933 Ramsey Lake Road
Sudbury, ON P3E 6S5
Home Page: www.mindings.on.ca/ANDMINRES/LANDS/submitpage.htm

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Map Datum: NAD 83
Projection: UTM 18N
Topographic Data Source: Land Information Ontario
Mining Land Tenure Source: Provincial Mining Registrars' Office

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

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Figure : SEP-3 Drill Hole Location Plan

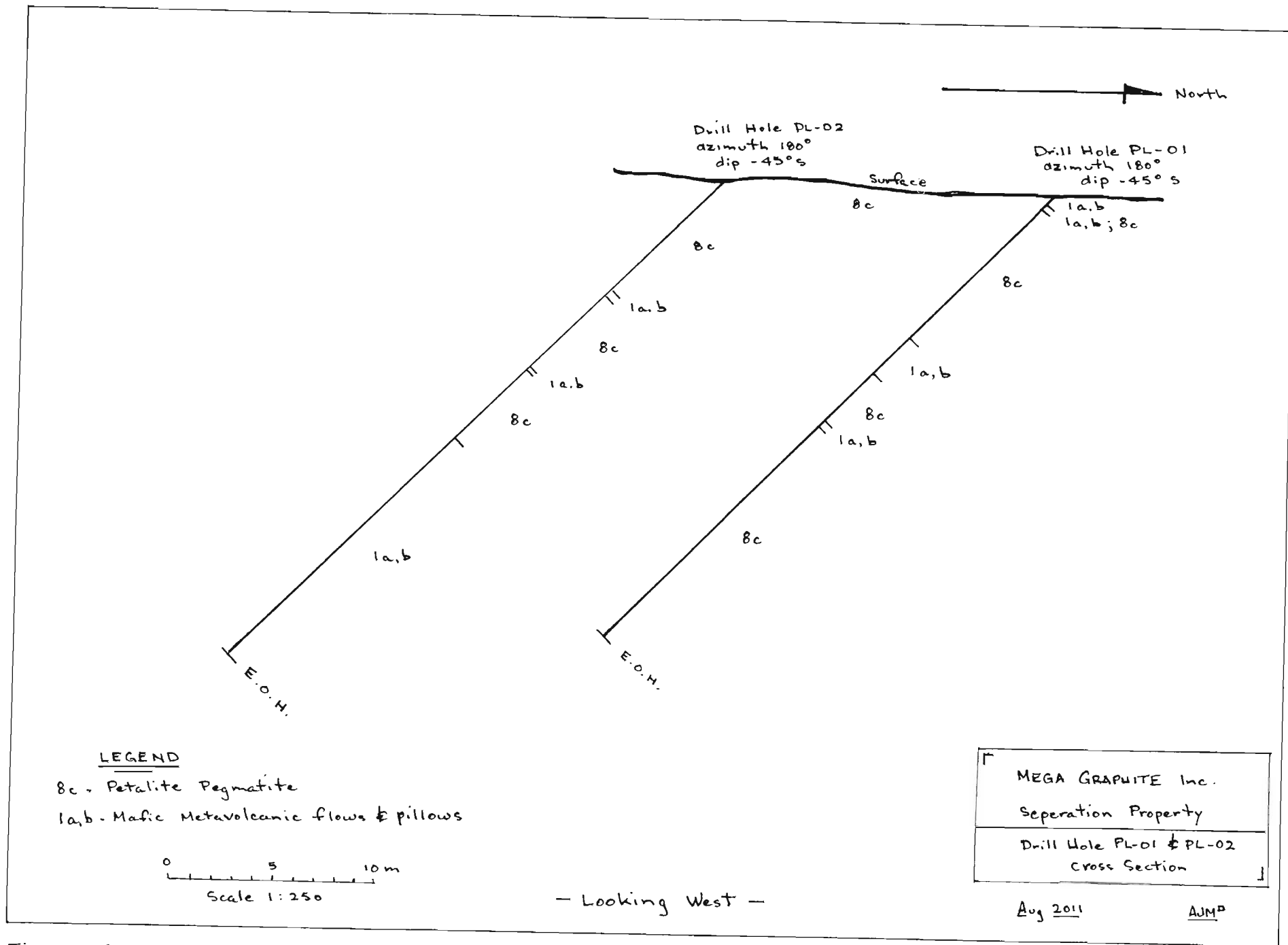


Figure : SEP-4 Drill Hole PL-01 and PL-02 Cross-Section