

Annual Report
for EL40/2008 East Lisle
for the Period 13 January 2012 to 12 January 2013

Author: C Baxter

Date: January 2013

ABSTRACT

EL40/2008 East Lisle is located 25km north-east of Launceston in north-east Tasmania and covers Mathinna Group meta-sediments. The company's main focus is gold mineralisation.

Work completed during the period included geological mapping, geochemical sampling, botanical sampling and data review at the Faulkner Creek area to follow up on an apparent REE anomaly. Results of this work failed to locate the source of the REE anomaly. The gold prospectivity of the tenement remains high following failure of the 2011 drill program to effectively test bedrock gold targets.

KEYWORDS

Geology/Mineralisation

Mathinna Group

Minerals

Gold

Deposits/Occurrences

Lisle

COORDINATES

All lat/long co-ordinates in this report refer to the GDA94 Datum

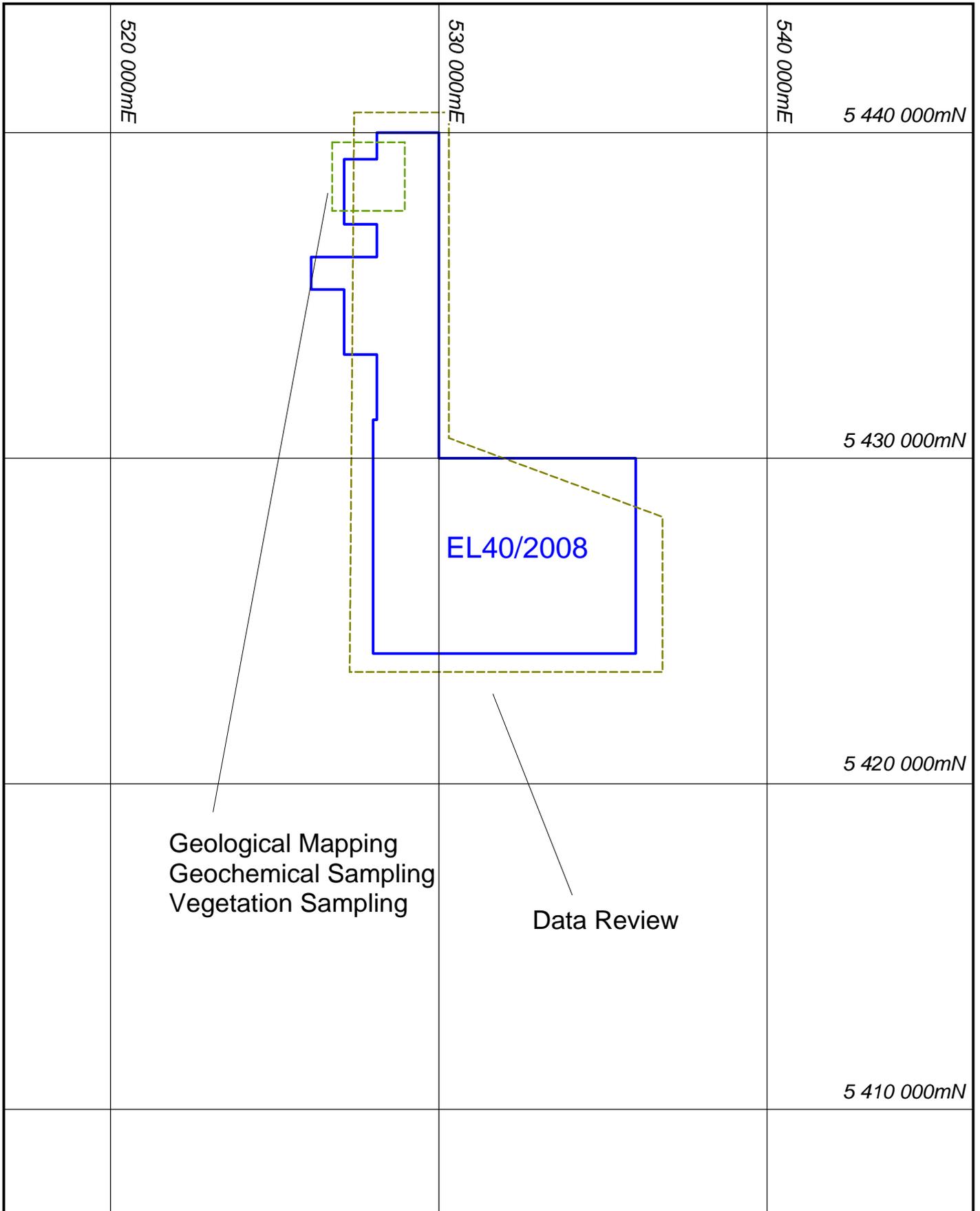
All AMG co-ordinates in this report refer to the GDA94 - Zone55

FILE SUMMARY LIST

File Name	Format	Contents
el402008_201301_01_report	pdf	report
el402008_201301_02_geochem	txt	data
el402008_201301_03_biochem	txt	data

SUMMARY OF ACTIVITIES FOR EL40/2008 EAST LISLE FOR THE PERIOD 13 JANUARY 2012 TO 12 JANUARY 2013

- Geological Mapping
- Geochemical Sampling
- Vegetation Sampling
- Data Review



GDA94-ZONE55



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EL40/2008 EAST LISLE

Exploration Index Map

CONTENTS

	page
1.0 Introduction	1
2.0 Tenement Details	1
3.0 Location and Access	2
4.0 Geology and Mineralisation	2
5.0 Previous Exploration	3
6.0 Work Carried Out During the Period	3
7.0 Conclusions	5
References	5

FIGURES

Figure 1	Project Location Map	in text
Figure 2	Regional Geology	in text
Figure 3	Project Geology	in text
Figure 4	Sample Location Map	in text

TABLES

Table 1	Tenement Details	1
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1.0 Introduction

This report details the exploration activities completed within EL40/2008 during the period 13 January 2012 to 12 January 2013. The lease is located 25km north-east of Launceston in north-east Tasmania.

The tenement covers Mathinna Group meta-sediments. The company's main focus is gold mineralisation.

Work completed during the period included geological mapping, geochemical sampling, botanical sampling and data review at the Faulkner Creek area to follow up on an apparent REE anomaly.

2.0 Tenement Details

EL40/2008 East Lisle was applied for by Greatland Pty Ltd during May 2008 and was granted during January 2009. The licence area was subject to a variation during 2009 and a voluntary reduction from 229sq kms to 72 sq kms during 2010. Tenement details are shown in Table 1.

Table 1 – Tenement Details

Tenement	Holder	Date Granted	Size
EL40/2008 East Lisle	Greatland Pty Ltd 100%	13 Jan 2009	72km ²

3.0 Location and Access

EL40/2008 East Lisle is located 25km north-east of Launceston in north-east Tasmania (Figure 1). The tenement forms the Company's East Lisle project (Figure 2). The bulk of land within the tenement is logged state forest and timber plantation, with minor areas covering private farming land.

The project lies within the Tasmania NE (SK55-21) 1:250,000 map sheet, and the 1:100,000 map sheet of St Patricks (8315).

From Launceston, access to the project area is by sealed road to Targa. Formed local roads and logging tracks provide good access within the project area.

4.0 Geology and Mineralisation

The East Lisle project area covers Mathinna Group rocks (Figure 3) which comprise metamorphosed sandstones, siltstones and mudstones of late Cambrian to Early Devonian age. The Mathinna Group metasediments, together with intrusive Devonian granites, cover much of the north eastern parts of Tasmania and are considered to be equivalent to rocks of the Melbourne Trough which host the bulk of Victoria's gold mineralisation. Goldfields in north-eastern Tasmania hosted by the Mathinna group or adjacent rocks of the same age include Beaconsfield, Lefroy, Mangana, Mathinna, Alberton, Warrentinna, Forester, Waterhouse, Scamander and Portland (Figure 2).

Gold mineralisation in the Lisle-Golconda goldfield is unusual for mining districts in northeast Tasmania in that more than 95% of all the gold recovered was won from alluvial workings. The majority of this production came from the Lisle goldfield, which has produced an estimated 250,000 ounces of gold. Despite the high alluvial production no obvious hard rock source of the alluvial

gold has been found. The primary aim of Greatland is to determine the hard-rock source for the alluvial gold.

Further details of geology and mineralisation can be found in Baxter 2010a, Baxter 2010b, Askins 2011 and Askins 2012.

5.0 Previous Exploration

Previous exploration activities have been covered in previous annual reports by the Company (Baxter 2010a, Baxter 2010b, Askins 2011 and Askins 2012). The reader is referred to these reports.

6.0 Work Carried Out During the Period

Work completed during the period included geological mapping, geochemical sampling, botanical sampling and data review at the Faulkner Creek area to follow up on an apparent REE anomaly.

Geological Mapping

Vegetation sampling at the Faulkners Creek area during 2011 returned elevated REE values of 10,135ppb Ce and 5,055ppb La. Geological mapping was carried out during the period to determine the source of the anomaly.

Lithologies encountered in the vicinity of the anomaly were fissile siltstones with only minor gossanous veinlets observed. No pegmatites were found. Lithological and structural observations conformed to the MRT 25K mapping data. Further information on geological mapping is presented in Appendix I.

Geochemical Sampling

During geological mapping a total of 19 geochemical samples were collected. Samples were predominantly grab rock chip samples with two gravel samples from creeks. All samples were approx 1kg and sent to Genalysis for analysis of a comprehensive suite of elements.

Samples returned selected results of 115.43ppm Ce, 12.43ppm Gd and 61.42ppm La. Sample locations are presented in Figure 4. All assay details and results are presented in Appendix II.

Vegetation Sampling

During the course of prospecting the Faulkners Creek area a total of five vegetation samples were collected. All samples were taken from *Acacia dealbata* (silver wattle) and sent to Genalysis for analysis of a comprehensive suite of elements.

None of the results were considered significant. Sample locations are presented in Figure 4. All assay details and results are presented in Appendix III.

Data Review

A review of all data collected by Greatland from the Faulkners Creek area was undertaken. The vegetation sample collected during 2011 must still be regarded as anomalous especially in Ce and La and to a lesser extent Nd. Mapping and sampling during the period failed to locate the source of the REE anomaly. It was recommended that further vegetation sampling and detailed prospecting be carried out.

A review of the gold prospectivity of the licence was also undertaken during the period. This concluded the gold prospectivity of the tenement remains

high following failure of the 2011 drill program to effectively test bedrock gold targets.

7.0 Conclusions

EL40/2008 East Lisle is located 25km north-east of Launceston in north-east Tasmania. The tenement covers Mathinna Group meta-sediments. The company's main focus is gold mineralisation.

Work completed during the period included geological mapping, geochemical sampling, botanical sampling and data review at the Faulkner Creek area to follow up on an apparent REE anomaly. Results of this work failed to locate the source of the REE anomaly. The gold prospectivity of the tenement remains high following failure of the 2011 drill program to effectively test bedrock gold targets.

References

Askins, P.W., 2011. Annual Report for EL40/2008 East Lisle for the Period 13 January 2010 to 12 January 2011. Greatland Pty Ltd, pp39.

Askins, P.W., 2012. Annual Report for EL40/2008 East Lisle for the Period 13 January 2011 to 12 January 2012. Greatland Pty Ltd, pp14.

Baxter, C., 2010a. Annual Report for EL40/2008 East Lisle for the Period 13 January 2009 to 12 January 2010. Greatland Pty Ltd, pp9.

Baxter, C., 2010b. Partial Surrender Report for EL40/2008 East Lisle for the Period 13 January 2009 to 12 January 2010. Greatland Pty Ltd, pp6.

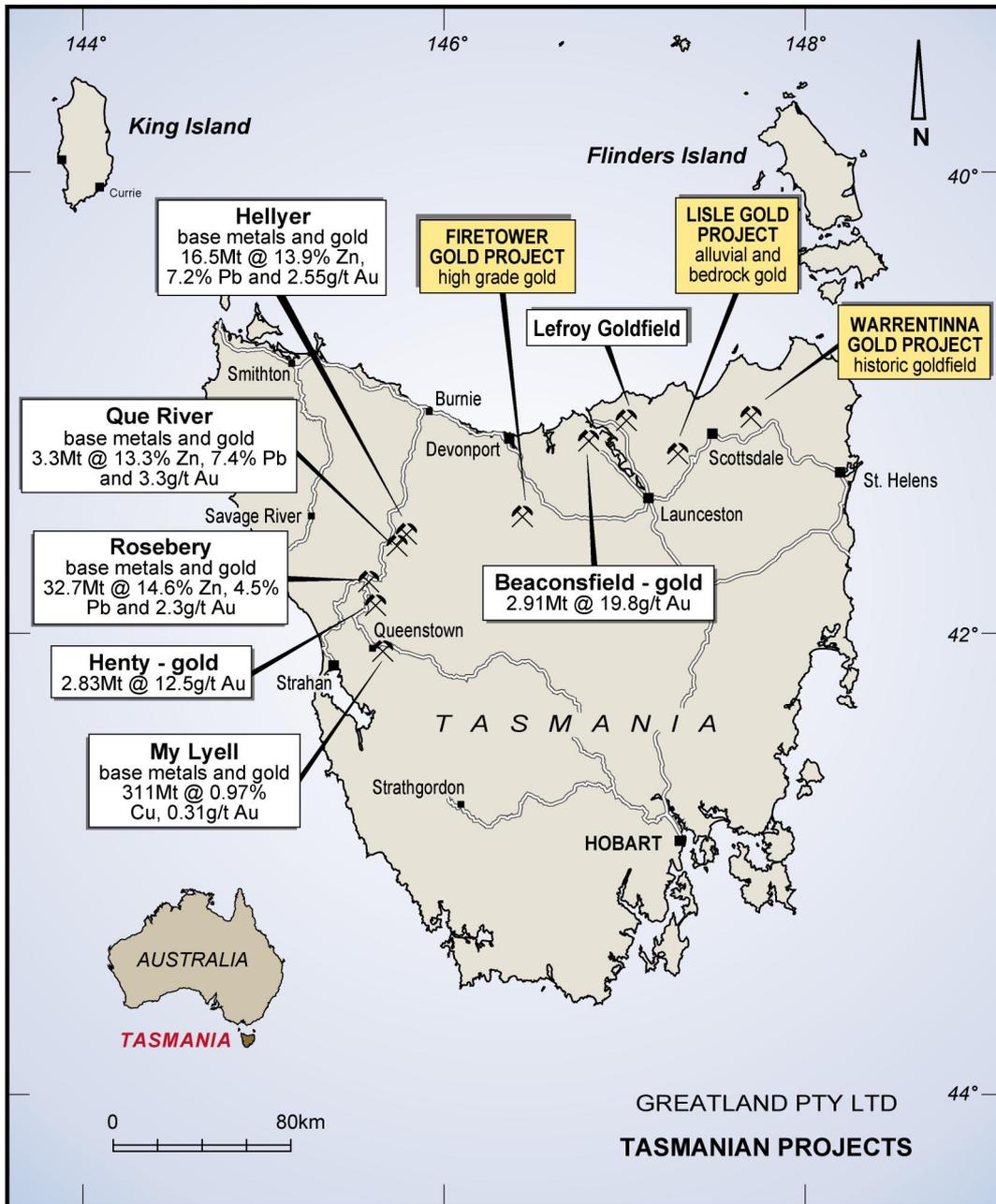


Figure 1 – Project Location Map

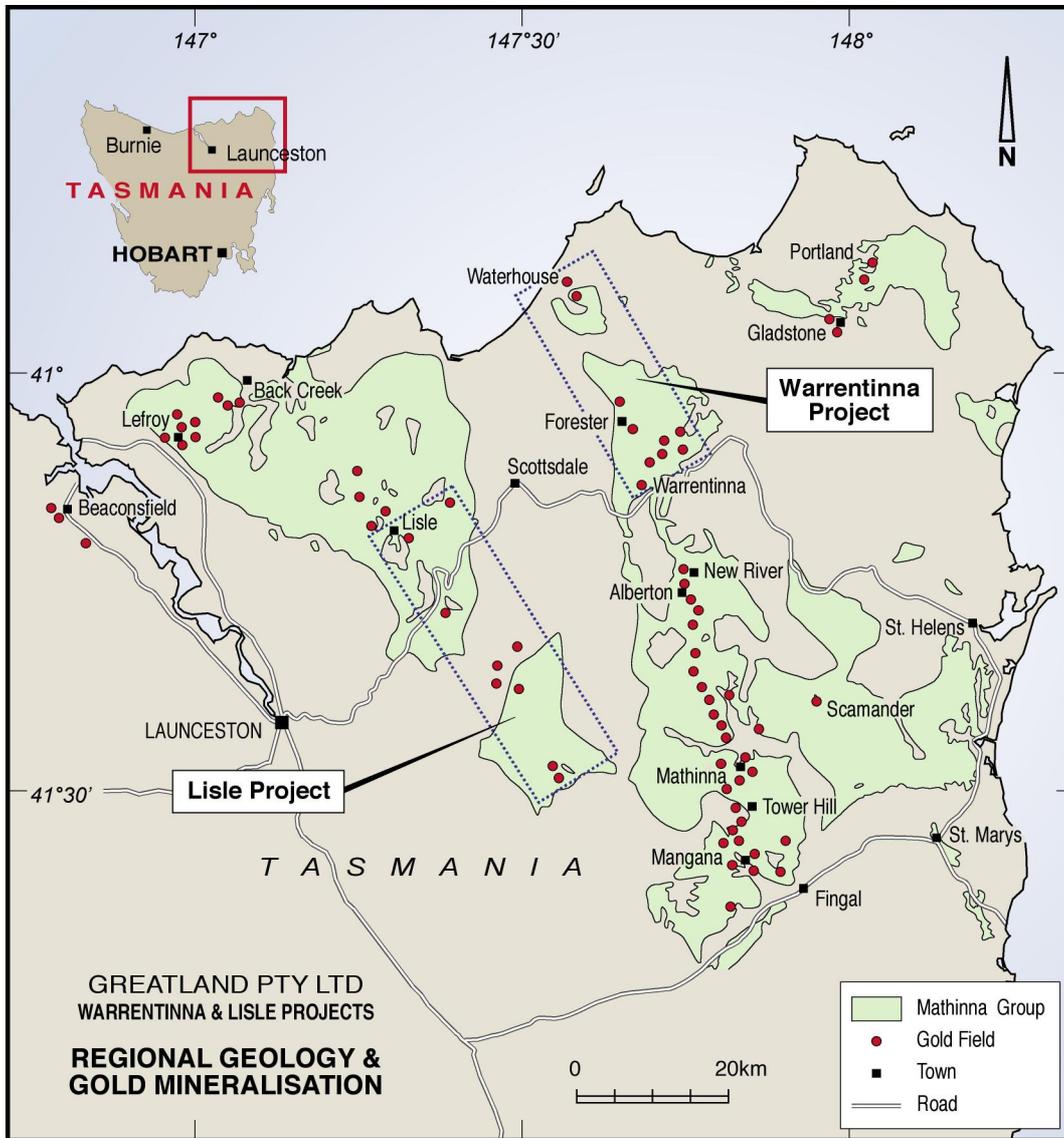
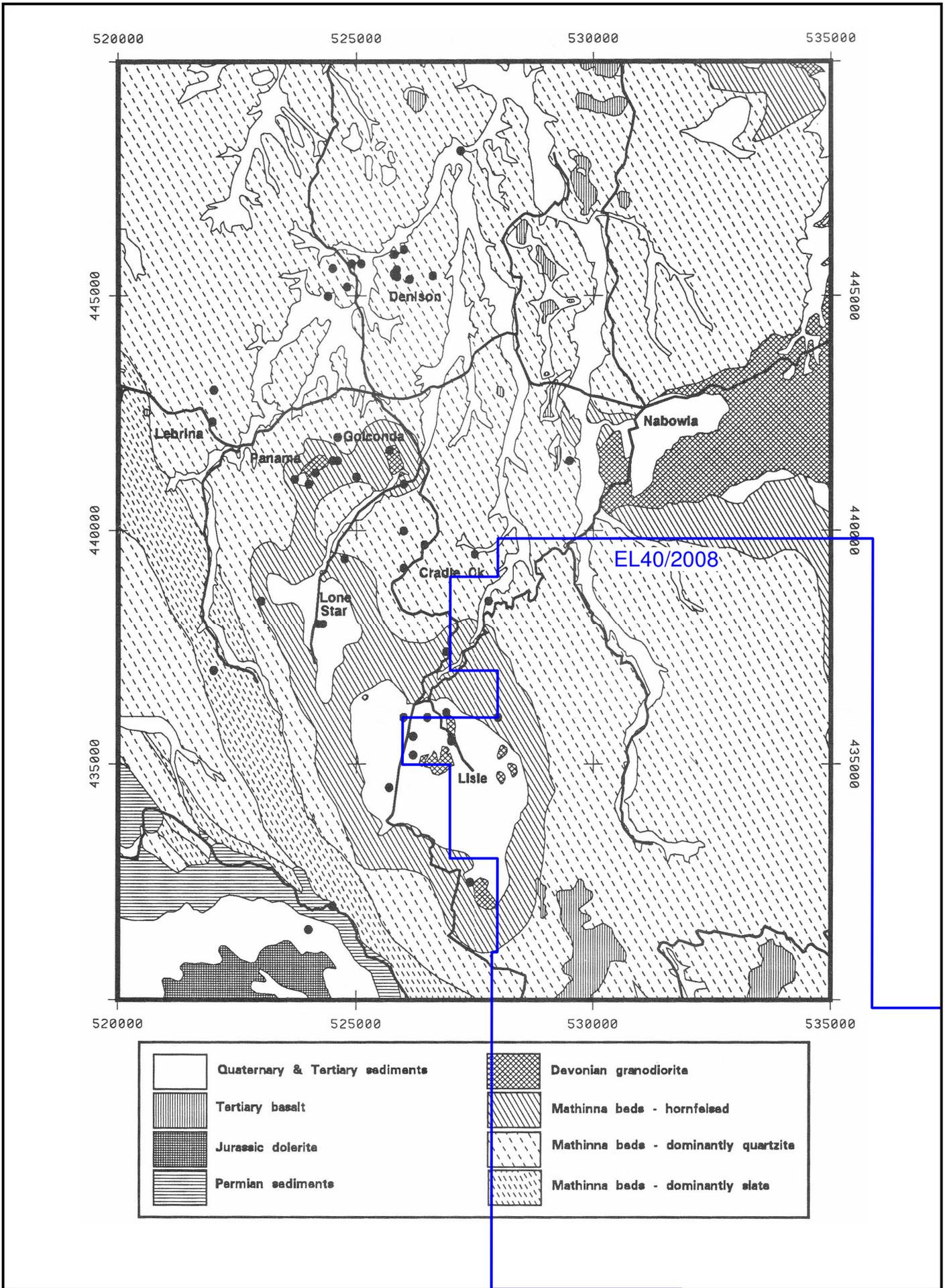


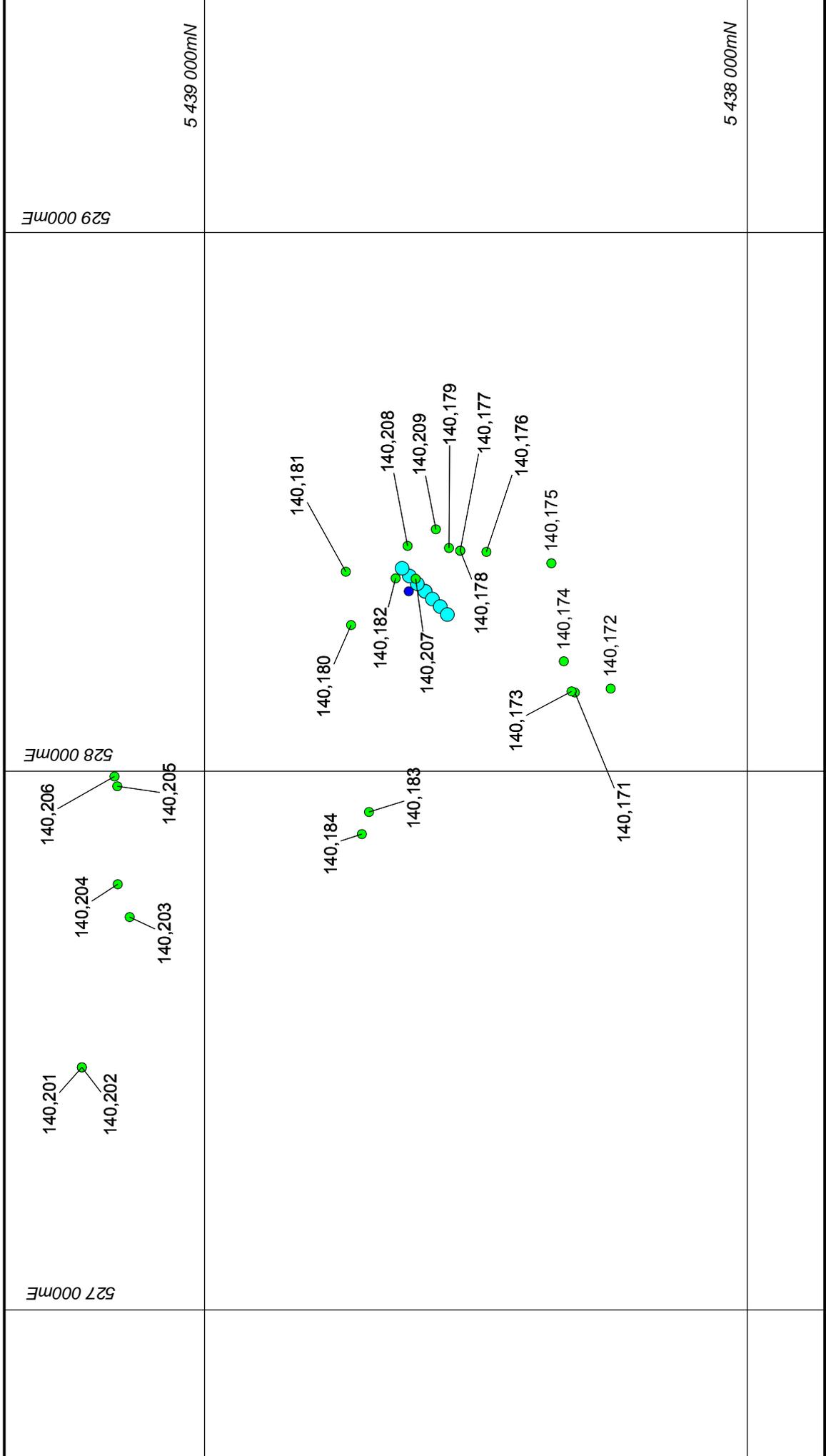
Figure 2 – Regional Geology



AGD66-Zone55

GREATLAND PTY LTD
 EAST LISLE PROJECT
 Project Geology

Figure 3



GDA94 Zone55

Figure 4

APPENDIX I

Geological Mapping Data

To: Greatland Pty Ltd
Attn: Callum Baxter

Re: Preliminary Notes: Follow-up Sampling of the LISLE CREEK REE anomaly EL40/2008

Introduction

Field work was done by Contract geologist John A. Earthrowl of SilDol P/L with Field Assistant, Neil Ferguson. Accommodation at Belle Cottage in Scottsdale was ideal.

Task

A vegetation sample of pine needles had been taken by Paul Askins of Greatland earlier in 2011. High values in Ce and La came back from laboratory assays. These were confirmed to be anomalous by Consultant Geologist, Colin E. Dunn in B.C Canada, an acquaintance of Paul Askins.

The initial sample LV15 ran 10,135ppb Ce and 5055ppb La. Subsequent follow up vegetation samples (LV16-LV22) returned lower values but some still anomalous. One stream sediment sample (LSS1/LVSS1) returned slightly elevated REE values.

Callum Baxter of Greatland instructed Earthrowl to revisit the site of the initial vegetation samples and to take appropriate rock and other samples and prospect for any possible geological source of the REE anomalism.

Topographic, Cadastral and Geological Setting

Maps supplied by Greatland showed that the Lisle REE anomaly area was situated in relatively undulating topography with limited gully formation. The original vegetation samples came from the edge of a pine plantation adjacent to open farm paddocks on a south flowing tributary of Lisle Creek. The MRT geology map supplied showed the Lisle REE site to be within steeply dipping, NW striking stratigraphy of the Ordovician-Silurian-Devonian? Mathinna Supergroup comprising “interbedded sandstone, siltstone and mudstone”. Nine hundred metres south of the site the Mathinna units are mapped as “contact metamorphosed by granitic intrusion”.

Methodology

Sampling and mapping was done by vehicle and foot traversing of the subject area using a hand-held GPS. At all sample sites, a waypoint was recorded and geological notes made into a field book. Vegetation, stream sediment/soil samples and rocks were sampled and assigned a sample number in the 140xxx series and additional data recorded on the sample tag book. These data were all subsequently transferred to an excel spreadsheet.

Access

The site is easily accessible by vehicle from tracks south from B81 near Golconda and Nabowla.

Access to the Lisle REE anomaly area itself was via good gravel roads from both the Golconda and Nabowla access tracks. At the time of being on site, plantation thinning operations were in progress allowing access in to the forest although only on foot due to the rough under foot terrain.

Field Sampling

The task was to follow-up on the original LV15 vegetation site, the GPS coordinate measured as coords: GDA94 Zone 55 0528333E, 5438594N

This site was located on a small creek using a GPS to the south of a track crossing the dry creek bed. A series of flagged sites were noted, assumed to be the sample sites of LV16-LV22.

A suite of 23 various samples were collected from an area approximately 1km north and 250m south of the original LV15 site.

(i) Drainage Sampling

Only two creek bed samples were collected: one (140181) downstream from LV15, the other from the main channel of Lisle Creek to the west of LV15.

(ii) Vegetation Samples

While carrying out other sampling in the area, it was noticed that one of the species of trees, subsequently identified as Silver Wattle (*Acacia dealbata*), was defoliating and dying off.

Having checked with Callum Baxter by phone it was decided to take some vegetation samples of this species' leaves and twigs. This was done in the off chance the trees were being affected by the REE anomalism detected in pine needle samples.

A total of 5 vegetation samples were collected.....140201,203,205,207 and 208.

(iii) Rock Sampling

Various rock samples were collected from traversing to the northwest and southeast, as follows:

- 1 boulder samples (140171)
- 2 rubble samples (140172 and 140183)
- 9 suboutcrop samples (140173,174,175,176,177,178,179,180 and 182)
- 4 outcrop samples (140202,204,206 and 209)

Their lithologies are shown on the spreadsheet previously supplied and on the interpreted geology map that will be completed after assays are received.

Whilst walking back from site 140180, in addition to having to avoid a tiger snake, we came across a partially buried pile of old bottles, circa early to mid 1900s. These were in the vicinity of manmade ditches/trenches? around 60cm wide. Possibly to do with alluvial gold workings?

Preliminary Conclusions

Assay results are awaited; these comments are of a preliminary nature based on field observations only.

(1) The lithologies encountered in the vicinity of the Lisle REE anomaly were all of deeply weathered siltstones, grey to brown, mostly fissile and in some cases with bedding/laminations visible. Only very minor gossanous veinlets were observed in two samples.

No pegmatites were found.

(2) Since taking the vegetation samples I have been advised by Ron Gregory that the Silver Wattles may be suffering from some biological problem. Nevertheless there seemed to be some correlation of the dying wattles and the location of the REE anomaly.

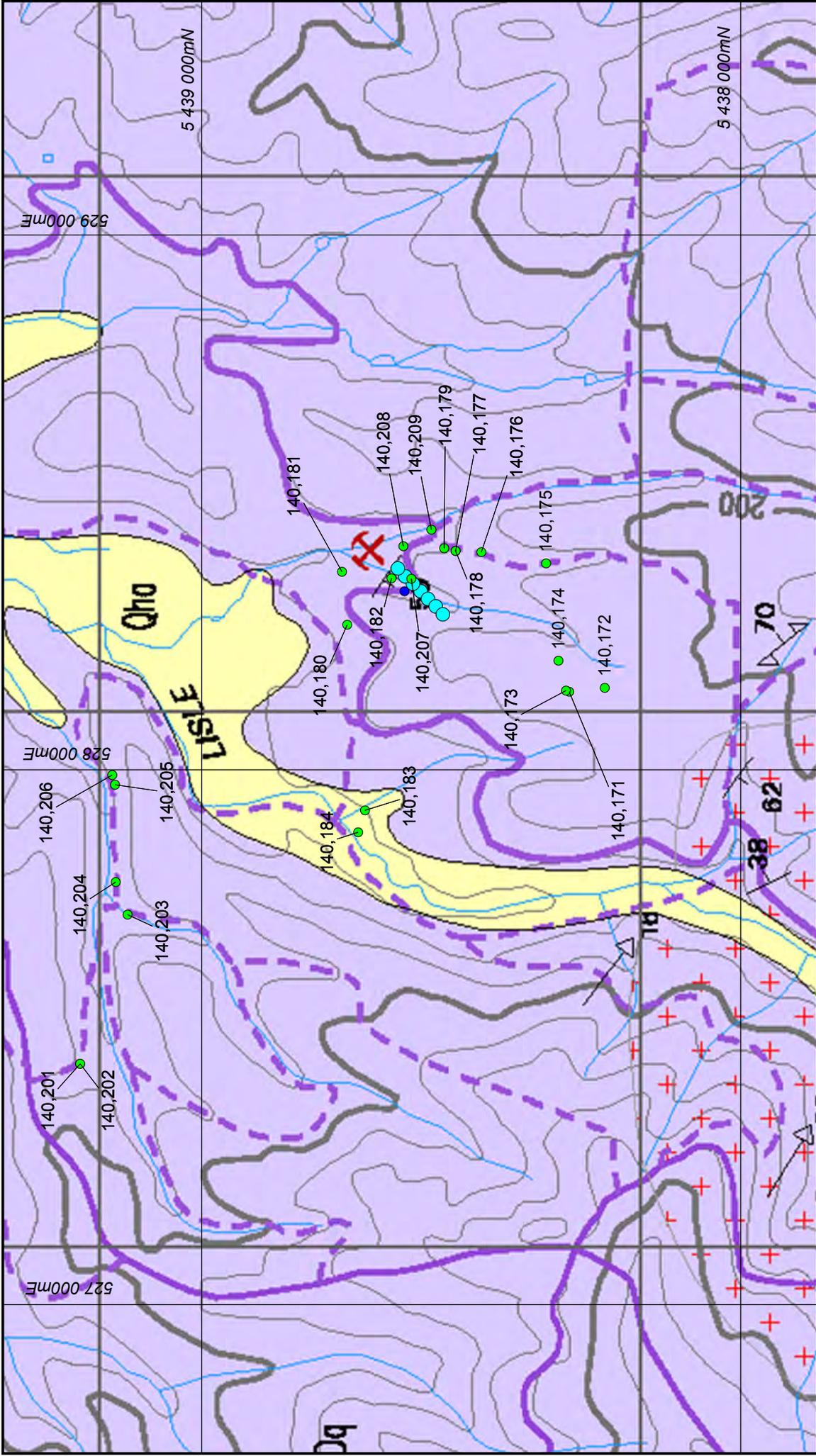
(3) Structural information from the few outcrops located conformed to MRT mapping.... bedding and cleavage strikes around 120 degrees M with dips to the northeast.

Assays should be available soon at which time more definitive conclusions will be made.

John A Earthrowl
SilDol P/L
Contract Geologists
24 Swamp Rd.
Kindred TAS 7310

Feb 2012

Sample ID	Sample Type	Sieve Mesh	Project	Area	Datum	Zone	East	North	Sampler	Sample Description	Notes
140171	rock chip	none	Lisle	Lisle REE	GD A94	55G	528146	5438318	JAE/NF	Boulder	Siltst, w/thrd, buff, purple, finely laminated, micro goss, veinlets to 2mm
140172	rock chip	none	Lisle	Lisle REE	GD A94	55G	528153	5438252	JAE/NF	Rubble under tree	Siltst, v w/thrd, lt-dk buff clrd, laminated, w minor micro goss veining.
140173	rock chip	none	Lisle	Lisle REE	GD A94	55G	528148	5438324	JAE/NF	Suboutcrop	Siltst, v w/thrd, buff, laminated, slight schistose, minor micro veining.
140174	rock chip	none	Lisle	Lisle REE	GD A94	55G	528204	5438338	JAE/NF	Suboutcrop	Siltst, v w/thrd, buff clrd, fissile.
140175	rock chip	none	Lisle	Lisle REE	GD A94	55G	528386	5438361	JAE/NF	Suboutcrop	Siltst, v w/thrd, buff clrd, fissile.
140176	rock chip	none	Lisle	Lisle REE	GD A94	55G	528407	5438481	JAE/NF	Suboutcrop	Siltst, v w/thrd, buff clrd, fissile.
140177	rock chip	none	Lisle	Lisle REE	GD A94	55G	528409	5438529	JAE/NF	Suboutcrop	Siltst, v w/thrd, buff clrd, laminated, fissile
140178	rock chip	none	Lisle	Lisle REE	GD A94	55G	528414	5438550	JAE/NF	Suboutcrop	Siltst, massive, v w/thrd, buff clrd, nonlam, nonfissile
140179	rock chip	none	Lisle	Lisle REE	GD A94	55G	528271	5438730	JAE/NF	Suboutcrop	Siltst, v w/thrd, buff clrd, fissile. (Tiger snake)
140180	rock chip	none	Lisle	Lisle REE	GD A94	55G	528370	5438740	JAE/NF	Soil from creek	No alluv, sample of soil from channel.
140181	drainage	none	Lisle	Lisle REE	GD A94	55G	528358	5438648	JAE/NF	Suboutcrop	Siltst, v w/thrd, buff clrd, massive.
140182	rock chip	none	Lisle	Lisle REE	GD A94	55G	527924	5438697	JAE/NF	Rubble on bank creek	Siltst, rel fresh, massive. lt grey, fissile, indistinct laminations.
140183	rock chip	none	Lisle	Lisle REE	GD A94	55G	527883	5438710	JAE/NF	SS sieved gravel-2mm	From Lisle Creek, up from bridge.
140184	drainage	none	Lisle	Lisle REE	GD A94	55G	527450	5439226	JAE/NF	Vegetation: Bipinnate leaves	Vegetation: Bipinnate leaves=Acacia dealbata(Silver Wattle). Fresh alive leaves.
140201	vegetation	none	Lisle	Lisle REE	GD A94	55G	527450	5439226	JAE/NF	Outcrop	Siltst, buff clrd, laminate, fissile
140202	rock chip	none	Lisle	Lisle REE	GD A94	55G	527729	5439138	JAE/NF	Vegetation: Bipinnate leaves	Vegetation: Bipinnate leaves Silver Wattle: dead leaves, "stalks" only as leaves dropped off
140203	vegetation	none	Lisle	Lisle REE	GD A94	55G	527790	5439160	JAE/NF	Outcrop	Siltst, buff clrd, massive.
140204	rock chip	none	Lisle	Lisle REE	GD A94	55G	527972	5439161	JAE/NF	Vegetation: Bipinnate leaves	Vegetation: Bipinnate leaves Silver Wattle, dying leaves, stalks and leaves.
140205	vegetation	none	Lisle	Lisle REE	GD A94	55G	527990	5439166	JAE/NF	Outcrop	Siltst, rel fresh, lt grey, cherty interbeds, well laminated
140206	rock chip	none	Lisle	Lisle REE	GD A94	55G	528357	5438611	JAE/NF	Vegetation: Bipinnate leaves	Vegetation: Bipinnate leaves Silver Wattle, almost dead tree on track near LV15 site.
140207	vegetation	none	Lisle	Lisle REE	GD A94	55G	528418	5438626	JAE/NF	Vegetation: Bipinnate leaves	Vegetation: Bipinnate leaves Silver Wattle, almost dead tree on track.
140208	vegetation	none	Lisle	Lisle REE	GD A94	55G	528449	5438574	JAE/NF	Outcrop	Siltst, massive, buff clrd, non laminated, non fissile.
140209	rock chip	none	Lisle	Lisle REE	GD A94	55G					



GDA94 Zone55

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EL40/2008 LISLE

Lisle Creek REE Samples

LEGEND

- Previous Vegetation Sample
- Previous Drainage Sample
- Sample 2012

Scale 1:10,000

To: Greatland Pty Ltd
Attn: Callum Baxter

Re: Notes on **Assays Results** of Follow-Up sampling of the LISLE CREEK REE anomaly EL40/2008

Introduction

These notes are to be read in conjunction with the report titled:

“Preliminary Notes: Follow-up Sampling of the LISLE CREEK REE anomaly EL40/2008”
By John A Earthrowl dated Feb 2 2012.

The REE assays from original vegetation sampling by Paul Askins, specifically sample LV15, was interpreted to be anomalous by consultant geochemist, C. E. Dunn.

Sample LV15 returned the highest values of 22 vegetation samples in all REEs: Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sm, Tb, Tm and Yb. Ce at 10135 ppb and La at 5055 ppb were regarded by Dunn as highly anomalous.

Earthrowl was contracted to revisit the Lisle area and try to find a geological explanation for the apparent REE anomaly.

Assay Results-Vegetation Samples

The assays results for the 23 samples collected by Earthrowl are shown attached as App 1 and App 2.

In addition App 3 is a spreadsheet showing all previous as well as recent assay results.

App 4 is a spreadsheet showing only assay results for REEs with additional lines 37, 38 and 39 giving summaries of examples of biogeochemical results sourced from the text book by Colin E. Dunn (Dunn 2007).

As shown in App 4, the Ce value of 10135 ppb and the La value of 5055 ppb from sample LV15 were both considered anomalous by Colin E. Dunn as reported in Paul Askins' notes to Greatland.

Values of Ce 12000 ppb and La 10000 ppb are reported in C.E.Dunn's textbook from an REE Allanite prospect in Saskatchewan, Canada.

The moderately high Nd (Neodymium) value of 4001 ppb also from LV15 compares with an assay of 2700 ppb from the kimberlite area.

Sm (Samarium) assays from the same vegetation samples however ran 800 ppb, whereas from the Lisle prospect returned only 140 ppb.

Dunn also lists REE assays from *Acacia mellifera* from a known kimberlite, but no La value is quoted.

All other REE values from the Lisle prospect were generally lower than from the kimberlite reported by Dunn.

Assay Results - Rock Chip

The values shown on line 76 of the App 4 spreadsheet are the “Crustal Rock” averages sourced from (Kaye & Laby 1982) page 154.

Comparing these to values obtained from the rock chip samples collected by Earthrowl it can be seen that all REE values except Ce (Cerium), Gd (Gadolinium) and La (Lanthanum) are lower.

Ce at 115.43ppm (sample 140206), Gd at 12.43ppm (sample 140178) and La at 61.42ppm (sample 140206) are moderately higher.

Sample 140206 is described as ... “Siltstone, relatively fresh, light grey, well laminated with cherty interbeds”. Sample 140178 is described as ... “Siltstone, very weathered, buff coloured, laminated, fissile”. Neither of these lithologies gives any hint as to their slightly elevated REE content.

Conclusions

No other literature could be accessed for the interpretation of the Lisle Creek assay results without going to UTAS in Hobart.

The vegetation sample LV15 collected by Paul Askins must still be regarded as anomalous especially in Ce and La, and to a lesser extent in Nd.

The rock samples collected by Earthrowl (140171-140209) do not however explain the high REE vegetation samples. No rocks of a true pegmatite lithology were found.

Recommendations

In an effort to explain the apparent La/Ce REE anomaly, it is recommended that further vegetation sampling and detailed prospecting be carried out at the Lisle Creek area in the immediate vicinity of LV15.

In conjunction with this biogeochemical sampling further detailed thorough prospecting is warranted.

John A Earthrowl MSc
SilDol Pty Ltd
24 Swamp Rd, Kindred, Tasmania, 7310

18 June 2012

REFERENCES

- (1) Dunn, Colin E. (2007) Biogeochemistry in Mineral Exploration Vol 9.
Handbook of Exploration and Environmental Geochemistry.
Elsevier ISBN 978-0-444-53074-5

- (2) Kaye, G. W. C. & Laby, T. H. (Compilers) (1982)
Tables of Physical and Chemical Constants
Longman ISBN 0 582 46326 2

APPEDNIX I

ELEMENTS	Au	Ag	Al	As	B	Ba	Be	Bi	
UNITS	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppb	
DETECTION	0.5		5	5	0.1	2	0.05	5	2
METHOD	BG/MS	BG/MS	BG/OE	BG/MS	BG/OE	BG/MS	BG/MS	BG/MS	BG/MS

COMMENTS: 1170.0/1201626 (13/03/2012) CLIENT O/N: 20120202 1/1

SAMPLE NUMBERS

LV140201	0.6	223	52 X		26	3 X		13
LV140203	1.6 X		80 X		10	4.53 X		8
LV140205 X	X		159 X		7	5.82 X		17
LV140207	0.6 X		129 X		7	8.08 X		11
LV140208	0.7 X		228 X		14	2.11 X		11

CHECKS

LV140201 X		152	60 X		26	3.13 X		15
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STANDARDS

Mango Lea X	X		115 X		22	29.69 X		3
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BLANKS

Control Bla X	X		12 X	X		0.09 X	X	
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Mo ppm	Na ppm	Nb ppm	Nd ppb	Ni ppm	P ppm	Pb ppm	Pd ppb	Pt ppb	
0.02	20	5	2	0.2	5	0.02	2	1	
BG/MS	BG/OE	BG/MS	BG/MS	BG/OE	BG/OE	BG/MS	BG/MS	BG/MS	
0.03	66 X		80	1.3	1136	0.27 X	X		
0.03	117 X		61	1.1	995	0.24 X	X		
0.04	107 X		143	1.7	971	0.35 X	X		
0.13	75 X		346	2.3	1459	0.24 X	X		
0.08	395 X		435	1.5	842	0.26 X	X		
0.02	85 X		69	1.3	1151	0.27 X	X		
0.28	319 X		470	0.8	782	1.45 X	X		
X	X	X	X	X	X	0.02 X	X		

U	V	W	Y	Zn	Zr	
ppb	ppm	ppm	ppb	ppm	ppm	
	1	0.2	0.02	5	0.2	0.05
BG/MS	BG/OE	BG/MS	BG/MS	BG/OE	BG/MS	

14 X		0.04	34	18.5	0.05
7	0.2	0.03	27	24.9	0.06
8	0.4	0.04	57	13.4	0.1
11	0.3	0.03	81	19.8	0.06
16	0.5	0.02	100	32	0.06

8 X		0.03	32	19.3 X	
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11 X		0.03	322	24.9 X	
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1 X	X	X	X	X	
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APPENDIX II

ELEMENTS	Au	Ag	Al	As	Ba	Be	Bi	Ca
UNITS	ppb	ppm						
DETECTION	1	0.05	50	0.5	0.1	0.05	0.01	50
METHOD	AR10/GF	4A/MS	4A/OE	4A/MS	4A/MS	4A/MS	4A/MS	4A/OE

COMMENTS: 1170.0/1201625 (19/03/2012) CLIENT O/N: 20120201 1/1

SAMPLE NUMBERS

LK140171	3 X		96355	2.5	622.6	1.72	0.33	90
LK140172	1 X		96450 X		657.2	1.33	0.23	199
LK140173	1	0.06	87650 X		519.7	1.34	0.31 X	
LK140174	1	0.11	86952	1.4	622.3	1.85	0.69	125
LK140175	2 X		88846	2.4	522.2	2.47	0.52	131
LK140176	2 X		89891 X		608.1	2.18	0.5	155
LK140177	1 X		84402	2.3	535	1.69	0.47	131
LK140178 X	X		83459	0.8	494.7	1.38	0.5	50
LK140179	1 X		73989	0.8	578.1	1.59	0.17	77
LK140180	2 X		82998	0.5	524.5	2.22	0.29	159
LK140181	1	0.05	49348	2.5	308.5	2.26	0.39	603
LK140182	2 X		87199	0.6	517.2	3.12	0.56	113
LK140183 X	X		81749	0.9	520.3	1.52	0.32	154
LK140184	3	0.08	29416	1.8	201.5	0.86	0.06	1621
LK140202	2 X		90703	0.8	623.9	2.56	0.39	54
LK140204	1 X		95219	0.9	527.4	2.59	0.62	90
LK140206 X	X		85435 X		505.4	2.76	0.65	59
LK140209	1 X		81633	13.9	521.6	3.11	0.63 X	

CHECKS

LK140171	1 X		89812	1.6	600.6	1.89	0.3	55
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STANDARDS

CMM-10	49							
OREAS 45P		1.06	69467	12.2	265.2	0.94	0.33	2998

BLANKS

Control Bla X	X		56 X		0.1 X		0.22 X	
Control Blank	X		114 X		0.4 X	X	X	
Control Bla X								
Acid Blank	X	X	X		0.3	0.1	0.02 X	

Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Dy ppm	Er ppm	Eu ppm
0.02	0.01	0.1	1	0.05	0.5	0.01	0.01	0.01
4A/MS	4A/MS	4A/MS	4A/OE	4A/MS	4A/OE	4A/MS	4A/MS	4A/MS

0.11	72.27	6	81	4.5	181	3.08	1.59	1.15
0.13	78.51	13.2	87	7.86	36.5	3.24	1.74	1.17
0.08	80.39	10.5	67	6.05	30.5	3.58	2.09	1.16
0.1	88.65	14.6	80	7.77	33	5.07	1.64	1.19
0.13	66.01	4.3	80	6.41	36.7	4.47	1.72	0.94
0.11	89.4	9.2	78	9.78	16.4	2.92	1.55	1.18
0.14	94.35	8.1	76	7.03	23.8	3.53	1.85	1.2
0.08	85.83	7.5	69	6.21	21.9	3.35	1.86	1.13
0.12	83.86	7.2	64	5.69	66.9	3.26	1.65	1.22
0.09	83.19	14.1	74	8.75	42.2	4.53	2.68	1.39
0.12	77.56	6.6	40	7.55	19	2.9	1.39	1.06
0.11	79.16	8.6	68	8.58	117.2	4.19	2.35	1.25
0.2	103.43	16	69	11.62	24.1	4.03	1.88	1.47
0.04	24.39	5.1	19	3.2	8	0.92	0.49	0.32
0.12	21.02	5.1	75	5.7	42	1.84	1.34	0.44
0.09	45.53	7.1	79	6.41	44.9	3.25	2.03	0.57
0.13	115.43	15	72	8.11	14.6	4.12	2.26	1.35
0.11	73.18	2.8	87	4.68	41.8	3.76	2.02	1.15

0.13	68.76	5.8	79	4.34	167	2.96	1.57	1.28
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0.33	49.07	124.8	1110	2.11	762.4	3.77	1.97	1.23
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X	0.02 X		1 X	X	X	X	X	X
X	0.04 X		1 X		1	0.03	0.03 X	
0.03	0.01 X	X	X	X	X	X	X	X

Fe %	Ga ppm	Gd ppm	Ge ppm	Hf ppm	Ho ppm	In ppm	K ppm	La ppm
0.01	0.05	0.01	0.05	0.05	0.01	0.005	20	0.01
4A/OE	4A/MS	4A/MS	4A/MS	4A/MS	4A/MS	4A/MS	4A/OE	4A/MS

5.42	23.69	4.85	1.82	5.84	0.56	0.083	27938	35.54
4.95	23.78	5.2	1.92	4.02	0.58	0.089	36589	38.16
4.28	22.9	5.56	1.87	3.97	0.61	0.078	32063	39.02
4.76	24.26	4.79	2.03	4.18	0.54	0.109	30301	45.47
4.9	24.67	3.9	1.92	3.61	0.48	0.08	28848	32.78
4.59	24.58	4.95	1.87	3.68	0.5	0.077	38494	44.83
5.23	24.28	5.56	1.91	3.89	0.62	0.071	32531	45.25
4.49	22.81	12.43	1.92	4.24	0.6	0.072	30476	41.31
4.53	23.63	5.07	1.94	4.1	0.57	0.081	25960	41.25
4.6	23.12	6.43	1.87	3.36	0.82	0.076	31216	45.93
1.74	13.64	4.99	1.49	2.54	0.51	0.038	13046	39.7
4.56	23.74	5.95	1.86	4.27	0.8	0.078	32028	39.27
5.27	22.73	6.96	1.88	3.56	0.67	0.072	35401	51.66
1.75	7.37	1.4	0.81	1.1	0.17	0.02	9269	13.15
4.4	23.48	1.98	1.66	3.81	0.39	0.076	30205	12.69
5.02	24.87	2.67	1.8	3.41	0.68	0.092	31478	32.48
4.97	23.44	6.56	1.8	3.81	0.75	0.079	35405	61.42
4.71	22.46	5.46	1.46	3.36	1	0.08	27643	37.42

4.97	23.42	4.74	1.99	5.4	0.54	0.084	25683	33.82
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20.96	33.37	4.43	1.34	4.6	0.7	0.106	3732	24.73
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X	X	0.02 X		0.14 X	X	X		0.02
	0.03	0.14	0.02 X	X	0.02 X	X		0.03

X		0.09	0.01 X	X	X	X	X	X
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Li	Lu	Mg	Mn	Mo	Na	Nb	Nd	Ni
ppm								
0.1	0.005	20	1	0.1	20	0.05	0.01	0.5
4A/MS	4A/MS	4A/OE	4A/OE	4A/MS	4A/OE	4A/MS	4A/MS	4A/OE

17.2	0.255	3493	599	0.3	2344	18.86	29.85	16.1
20.9	0.251	7994	330	0.1	2617	17.53	32.75	33.8
15.6	0.271	5567	150	0.1	2420	16.54	33.75	23.3
39.2	0.293	6694	454	0.2	2205	18.43	34.81	51.4
16.2	0.238	4132	464	0.3	1473	16.88	27.09	13.3
22.5	0.222	7131	266 X		1819	17.29	36.15	22.8
19.7	0.286	4707	335	0.2	1765	16.67	38.33	20.3
18.9	0.258	4149	209	0.1	1631	17.12	35.32	19.2
20.4	0.261	3455	464	0.1	1510	16.9	34.26	21.4
34.1	0.347	7788	591	0.2	1347	16.08	40.04	34.1
24.7	0.189	1845	361	1.5	928	11.94	33.95	14.6
39.8	0.325	5063	483	0.3	1329	16.91	35.42	32.3
45.9	0.308	12764	470	0.1	3092	15.97	44.33	32.4
11.6	0.094	2788	260	0.5	3076	5.18	9.9	8.4
16.2	0.255	3676	356	0.2	1044	17.29	10.22	13.9
18.3	0.385	4829	448	0.6	1163	17.24	14.39	11.4
32.8	0.323	12289	917	0.3	1453	15.92	42.4	33.7
24.9	0.266	3398	53	0.2	1440	15.5	33.25	17.1

16.9	0.228	3185	550	0.4	2152	17.39	28.6	14.9
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15.2	0.24	2051	1270	2.4	839	20.27	22.2	368
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0.1	0.007 X		3 X	X	X		0.12 X	
0.2	0.005 X		5 X	X		0.12	0.12	0.6
0.2	0.005 X		1 X	X	X		0.04 X	

P	Pb	Pr	Rb	Re	S	Sb	Sc	Se
ppm								
50	0.5	0.005	0.05	0.002	50	0.05	0.1	0.5
4A/OE	4A/MS	4A/MS	4A/MS	4A/MS	4A/OE	4A/MS	4A/MS	4A/MS

128	36.2	8.268	112.46	X		130	1.19	15.2	1.5
179	22.5	9.009	168.29	X		56	0.48	15.5	1.5
241	25.2	9.156	156.09	X		64	0.52	15.9	1
304	40.4	9.807	155.25	X		76	0.83	18	1.2
225	19.1	7.597	140.85		0.002	119	0.43	15.8	1.3
304	21.6	10.223	219.04	X		X	0.61	15.8	0.9
318	31	10.54	175.35	X		51	0.71	16.2	1.8
196	27	9.74	163.09	X		X	1	14.7	1.3
192	28.5	9.465	144.06		0.003	94	0.58	15.9	1.2
169	29.2	10.94	189.09		0.003	X	0.44	15.1	1.2
259	20	9.144	88.27	X		472	0.65	8.1	2.5
113	36.3	9.434	175.83		0.009	71	0.71	15.1	1.8
303	22.3	12.016	232.95		0.003	102	0.33	15	1.3
116	7.5	2.767	53.16	X		87	0.27	3.8	0.8
134	18.2	2.646	150.58	X		107	1.14	19.3	1.8
395	32.2	4.792	170.76		0.005	133	0.92	17.1	2
261	32.8	12.354	208.05		0.006	X	0.57	15.8	1.6
314	25.9	8.907	127.31		0.006	73	1.38	16.5	1.6

119	38	7.86	112.09		0.006	111	1.14	15.5	1.8
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475	45.4	5.967	24	X		293	0.98	68.2	3.5
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X	X		0.009	0.05	X	X		0.1	X
X		1.7	0.03	0.09	X	X		0.4	X
X		0.6	0.007	0.05	X	X		0.5	0.9

Sm ppm	Sn ppm	Sr ppm	Ta ppm	Tb ppm	Te ppm	Th ppm	Ti ppm	Tl ppm
0.01	0.1	0.05	0.01	0.005	0.05	0.01	5	0.02
4A/MS	4A/OE	4A/MS						

5.62	4.8	52.01	1.49	0.639 X		20.93	4925	0.53
6.05	4.9	53.53	1.35	0.673	0.09	20.12	5220	0.8
6.22	4.5	48.95	1.67	0.732	0.11	19.56	4450	0.73
6.05	5.2	37.97	1.81	0.658	0.08	20.64	4609	0.72
4.92	5.9	35.4	1.68	0.551	0.07	20.39	4595	0.61
6.23	5	49.11	1.65	0.623	0.08	19.61	4780	0.98
6.85	4.8	54.08	1.57	0.718 X		19.89	4585	0.78
6.23	4.6	35.89	1.6	0.677 X		19.46	4514	0.73
6.06	4.7	37.92	1.61	0.676 X		20.38	3995	0.67
7.26	4.5	54.77	1.48	0.884 X		18.2	4291	0.97
6	3.1	36.58	1.1	0.642	0.05	12.63	3939	0.53
6.65	4.7	32.62	1.52	0.809	0.21	21.75	4898	0.86
7.76	4.5	77.56	1.42	0.859	0.05	18.64	4530	1.2
1.66	1.3	41.56	0.48	0.201 X		6.25	2086	0.3
1.96	5	35.51	1.46	0.299	0.06	20.8	4787	0.65
2.47	4.9	31.71	1.52	0.469	0.07	20.38	4837	0.78
7.32	4.6	41.36	1.44	0.812 X		19.45	4682	0.96
6.36	4.8	45.21	1.39	0.734	0.06	18.16	4275	0.55

5.23	4.7	51	1.55	0.614	0.07	19.77	4567	0.48
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4.63	3.4	34.6	1.52	0.648	0.24	9.66	11150	0.22
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0.03	0.4	0.18 X	X	X		0.03	6 X
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0.03 X		0.08	0.02	0.014 X		0.01	21 X
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0.02	0.2	0.1 X	X	X		0.01 X	X
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Tm ppm	U ppm	V ppm	W ppm	Y ppm	Yb ppm	Zn ppm	Zr ppm
0.01	0.01	1	0.1	0.05	0.01	1	0.1
4A/MS	4A/MS	4A/OE	4A/MS	4A/MS	4A/MS	4A/OE	4A/MS

0.23	3.9	110	2.9	13.7	1.6	82	137.2
0.26	2.73	114	3.3	16.71	1.76	97	147.1
0.24	2.81	102	3.3	14.95	1.77	68	137.5
0.23	3	116	3.3	14.69	1.77	127	141.4
0.21	2.55	109	3.6	14.14	1.65	46	125.1
0.19	2.49	108	3.4	13.86	1.51	50	130.8
0.25	2.94	108	3.2	15.71	1.71	48	139.1
0.24	2.57	94	3.1	19.14	1.76	36	151
0.23	4.15	95	3.5	13.55	1.71	54	139.7
0.33	2.66	95	2.8	24.55	2.3	85	118.8
0.18	2.18	61	2.1	12.28	1.26	45	85.6
0.33	3.74	105	3.1	19.75	2.27	108	141.9
0.26	2.27	101	2.9	15.81	1.82	101	123.9
0.06	0.96	34	1.6	4.29	0.44	27	39.5
0.23	2.8	109	2.8	10.21	1.72	53	134.5
0.29	2.76	119	3.1	16.63	2.12	66	117.2
0.32	2.11	106	3	22.94	2.23	83	131.7
0.25	3.85	102	3.2	17.11	1.88	39	116.3

0.21	3.75	107	2.8	13.41	1.61	76	135.2
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0.26	2.23	286	1.6	14.06	1.72	135	178.5
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X	0.01 X	X	X		0.01 X		0.3
X	0.02 X	X		0.16	0.05 X		0.2
X	0.01 X	X	X		0.03 X	X	

APPENDIX III

ELEMENTS		Au	Ag	Al	As	B	Ba	Be	
		Gold	Silver	Aluminium	Arsenic	Boron	Barium	Beryllium	
Sample	UNITS	ppb	ppb	ppm	ppm	ppm	ppm	ppm	
Type	Sample #								
Vegetation LV1		X		8	792 X		20	1.9	0.01
Vegetation LV2		X		8	806 X		19	3	0.01
Vegetation LV3		X		23	567 X		14	2.7	0.01
Vegetation LV4		X		9	621 X		18	2.4	0.02
Vegetation LV5		X		8	705 X		19	3.2	0.02
Vegetation LV6		X		7	667 X		20	3.7	0.02
Vegetation LV7		X		11	540 X		13	2.8	0.02
Vegetation LV8		X		20	592 X		16	2.4	0.02
Vegetation LV9		X		12	451 X		14	3.2	0.02
Vegetation LV10		X		13	632 X		15	3	0.01
Vegetation LV11		X		11	590 X		16	3.8	0.02
Vegetation LV12		X		11	781 X		14	4	0.03
Vegetation LV13		X		5	472 X		16	2.3	0.02
Vegetation LV14		X		11	286 X		20	2	0.02
Vegetation LV15		X		15	1950	0.2	15	8.4	0.06
Vegetation LV16		X		15	1807	0.2	16	13.1	0.06
Vegetation LV17		X		20	1550 X		16	6.4	0.03
Vegetation LV18		X		13	975 X		13	2.8	0.02
Vegetation LV19		X		15	1022 X		13	3.7	0.02
Vegetation LV20		X		12	1207 X		16	6.6	0.03
Vegetation LV21		X		13	1271 X		18	9.8	0.04
Vegetation LV22		X		14	1153 X		17	6.2	0.03
Vegetation LV140201			0.6	223	52 X		26	3 X	
Vegetation LV140203			1.6 X		80 X		10	4.53 X	
Vegetation LV140205	X		X		159 X		7	5.82 X	
Vegetation LV140207			0.6 X		129 X		7	8.08 X	
Vegetation LV140208			0.7 X		228 X		14	2.11 X	
	Max		1.6	223	1950	0.2	26	13.1	0.06
	Ave		0.9	22	744	0.2	16	4.5	0.02
	Min		0.6	5	52	0.2	7	1.9	0.01

		Au	Ag	Al	As	B	Ba	Be	
		ppb	ppm	ppm	ppm	ppm	ppm	ppm	
Stream Sed LSS1/LVSS1			1	0.04	24673	5.6 X		67	1.83
Stream Sed 140181			1	0.05	49348	2.5		308.5	2.26
Stream Sed 140184			3	0.08	29416	1.8		201.5	0.86

		Au	Ag	Al	As	B	Ba	Be	
		ppb	ppm	ppm	ppm		ppm	ppm	
Rock Chip 140171			3 X		96355	2.5		622.6	1.72

Rock Chip	140172	1 X		96450 X		657.2	1.33
Rock Chip	140173	1	0.06	87650 X		519.7	1.34
Rock Chip	140174	1	0.11	86952	1.4	622.3	1.85
Rock Chip	140175	2 X		88846	2.4	522.2	2.47
Rock Chip	140176	2 X		89891 X		608.1	2.18
Rock Chip	140177	1 X		84402	2.3	535	1.69
Rock Chip	140178 X	X		83459	0.8	494.7	1.38
Rock Chip	140179	1 X		73989	0.8	578.1	1.59
Rock Chip	140180	2 X		82998	0.5	524.5	2.22
Rock Chip	140182	2 X		87199	0.6	517.2	3.12
Rock Chip	140183 X	X		81749	0.9	520.3	1.52
Rock Chip	140202	2 X		90703	0.8	623.9	2.56
Rock Chip	140204	1 X		95219	0.9	527.4	2.59
Rock Chip	140206 X	X		85435 X		505.4	2.76
Rock Chip	140209	1 X		81633	13.9	521.6	3.11
	Max	3	0.11	96450	13.9	657.2	3.12
	Ave	2	0.09	87420	1.3	558.6	2.02
	Min	1	0.06	73989	0.5	494.7	1.33

Bi Bismuth	Ca Calcium	Cd Cadmium	Ce Cerium Lanthanide	Co Cobalt	Cr Cromium	Cs Cesium	Cu Copper	Dy Dysprosiun Lanthanide
ppb	ppm	ppb	ppb	ppm	ppm	ppb	ppm	ppb
6	10919	84	364	0.13	0.8	41	2	15.2
14	8595	40	591	0.15	0.9	57	3.7	24.6
6	6473	39	341	0.13	0.6	39	2.6	15.2
8	9311	23	457	0.15	0.7	43	2.2	17.7
8	11207	17	613	0.15	0.5	77	6.5	22.3
10	11755	31	547	0.15	0.7	62	5.7	21.6
8	10204	22	536	0.17	0.9	44	1.9	22.5
7	7571	23	469	0.15	0.8	82	2.3	20.1
12	9447	30	427	0.18	0.6	91	2.4	16.9
9	9042	17	478	0.19	0.8	39	2.2	22.2
11	9187	33	674	0.24	0.9	53	2.4	33.1
12	7272	20	763	0.25	1.2	77	4.8	35.1
8	6941	30	380	0.2	0.8	28	2.6	17.2
6	12709	37	280	0.15 X		24	2.8	15.8
30	8161	31	10135	0.65	8.9	352	3.8	234.3
27	6561	52	7594	0.49	6.9	364	9.2	192.9
17	8723	46	3143	0.34	3.2	190	5.4	92.4
7	5669	37	858	0.15	2.1	58	3.9	30.1
14	6229	37	923	0.19	1.6	73	4.5	35.7
19	7834	81	2941	0.28	2.9	305	7.7	83.8
25	6993	78	4529	0.34	4.6	525	8.8	113.9
20	6822	30	2512	0.31	2.8	188	6.1	76.8
13	6061	4	597	0.05	0.4	58	18.9	
8	5935	12	165	0.08	0.5	35	15.9	
17	5472	6	454	0.07	0.7	29	12.7	
11	10553	18	849	0.11	1.3	623	19.2	
11	3699	13	1061	0.13	2	188	18.2	
30	12709	84	10135	0.65	8.9	623	19.2	234.3
13	8124	33	1581	0.21	1.9	139	6.6	52.7
6	3699	4	165	0.05	0.4	24	1.9	15.2

Bi ppm	Ca ppm	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Dy ppm
0.27	400	0.07	77.48	6.2	28	6.2	13	2.81
0.39	603	0.12	77.56	6.6	40	7.55	19	2.9
0.06	1621	0.04	24.39	5.1	19	3.2	8	0.92

Bi ppm	Ca ppm	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Dy ppm
0.33	90	0.11	72.27	6	81	4.5	181	3.08

0.23	199	0.13	78.51	13.2	87	7.86	36.5	3.24
0.31 X		0.08	80.39	10.5	67	6.05	30.5	3.58
0.69	125	0.1	88.65	14.6	80	7.77	33	5.07
0.52	131	0.13	66.01	4.3	80	6.41	36.7	4.47
0.5	155	0.11	89.4	9.2	78	9.78	16.4	2.92
0.47	131	0.14	94.35	8.1	76	7.03	23.8	3.53
0.5	50	0.08	85.83	7.5	69	6.21	21.9	3.35
0.17	77	0.12	83.86	7.2	64	5.69	66.9	3.26
0.29	159	0.09	83.19	14.1	74	8.75	42.2	4.53
0.56	113	0.11	79.16	8.6	68	8.58	117.2	4.19
0.32	154	0.2	103.43	16	69	11.62	24.1	4.03
0.39	54	0.12	21.02	5.1	75	5.7	42	1.84
0.62	90	0.09	45.53	7.1	79	6.41	44.9	3.25
0.65	59	0.13	115.43	15	72	8.11	14.6	4.12
0.63 X		0.11	73.18	2.8	87	4.68	41.8	3.76
0.69	199	0.2	115.43	16	87	11.62	181	5.07
0.44	113	0.12	79.14	10	75	7.36	49	3.63
0.17	50	0.08	21.02	2.8	64	4.5	14.6	1.84

Er Erbium Lanthanide ppb	Eu Europium Lanthanide ppb	Fe Iron ppm	Ga Gallium ppb	Gd Gadolinium Lanthanide ppb	Hf Hafnium ppb	Hg Mercury ppb	Ho Holmium Lanthanide ppb	In Indium ppb
7.1	4.8	161	108	21.2 X			36	3 X
11	8.2	323	138	37.3 X			115	4.3 X
8	5.3	169	95	23.9 X			58	2.8 X
8	6.3	245	132	29.1 X			82	3.6 X
10.6	7.7	313	142	35.3 X			82	4.2 X
9.7	7.1	280	128	32 X			83	4 X
11.2	8.1	253	118	34.8 X			68	4 X
10.4	5.8	196	121	30.4 X			70	4 X
8.8	6.4	226	114	27.5		1.6	69	3.5 X
10.5	7.2	256	139	33 X			78	4 X
16.7	10.7	312	173	48.4 X			116	6.4 X
15.5	10.5	380	176	49.3 X			140	6.2 X
8.6	5.6	192	133	24.9 X			74	3.3 X
8	4.3	120	145	21.4 X			60	5 X
80.7	112.5	1688	483	493.2		2	47	34.5 X
70.2	83.7	1353	338	425.8		3.2	64	27 X
37.3	38.1	822	251	185.7		1.2	129	14.6 X
12.7	11.2	350	116	56.6 X			56	5 X
16.5	12.7	413	147	62.7		0.6	163	6 X
33.2	35	689	193	172		0.9	85	12.7 X
42	50.3	867	210	260.3		1.6	97	16.3 X
32	30.1	780	212	152		0.9	96	11.6 X
		116	300	10 X			42	X
		128	400	8.3		2	23	X
		169	600	16.8		3	37	X
		209	700	41.2 X			36	X
		330	800	51.1 X			8	X
80.7	112.5	1688	800	493.2		3.2	163	34.5
21.3	21.4	420	245	88.3		1.7	75	8.5
7.1	4.3	116	95	8.3		0.6	8	2.8

Er ppm	Eu ppm	Fe %	Ga ppm	Gd ppm	Ge ppm	Hf ppm	Ho ppm	In ppm	
1.29	1.05	2.99	5.42	4.5			0.09	0.48	0.019
1.39	1.06	1.74	13.64	4.99	1.49		2.54	0.51	0.038
0.49	0.32	1.75	7.37	1.4	0.81		1.1	0.17	0.02

Er ppm	Eu ppm	Fe percent	Ga ppm	Gd ppm	Ge ppm	Hf ppm	Ho ppm	In ppm	
1.59	1.15	5.42	23.69	4.85	1.82		5.84	0.56	0.083

1.74	1.17	4.95	23.78	5.2	1.92	4.02	0.58	0.089
2.09	1.16	4.28	22.9	5.56	1.87	3.97	0.61	0.078
1.64	1.19	4.76	24.26	4.79	2.03	4.18	0.54	0.109
1.72	0.94	4.9	24.67	3.9	1.92	3.61	0.48	0.08
1.55	1.18	4.59	24.58	4.95	1.87	3.68	0.5	0.077
1.85	1.2	5.23	24.28	5.56	1.91	3.89	0.62	0.071
1.86	1.13	4.49	22.81	12.43	1.92	4.24	0.6	0.072
1.65	1.22	4.53	23.63	5.07	1.94	4.1	0.57	0.081
2.68	1.39	4.6	23.12	6.43	1.87	3.36	0.82	0.076
2.35	1.25	4.56	23.74	5.95	1.86	4.27	0.8	0.078
1.88	1.47	5.27	22.73	6.96	1.88	3.56	0.67	0.072
1.34	0.44	4.4	23.48	1.98	1.66	3.81	0.39	0.076
2.03	0.57	5.02	24.87	2.67	1.8	3.41	0.68	0.092
2.26	1.35	4.97	23.44	6.56	1.8	3.81	0.75	0.079
2.02	1.15	4.71	22.46	5.46	1.46	3.36	1	0.08
2.68	1.47	5.42	24.87	12.43	2.03	5.84	1	0.109
1.88	1.12	4.8	23.73	5.52	1.87	3.98	0.61	0.081
1.34	0.44	4.28	22.46	1.98	1.46	3.36	0.39	0.071

K	La	Li	Lu	Mg	Mn	Mo	Na	Nb
Potassium	Lanthanum	Lithium	Lutetium	Magnesium	Manganese	Molybdenum	Sodium	Niobium
ppm	Lanthanide ppb	ppm	Lanthanide ppb	ppm	ppm	ppm	ppm	ppb
1841	204	0.12	0.7	2025	1730	0.04	211	11
1440	294	0.17	1.3	1766	1088	0.06	198	23
1252	170	0.1	0.8	1305	992	0.04	219	13
1256	239	0.15	0.9	2036	1503	0.05	310	18
1220	312	0.18	1.1	1757	1137.6	0.06	127	24
1343	280	0.15	1.2	1847	963.3	0.06	116	24
846	267	0.13	0.9	1200	967.9	0.05	139	20
1221	227	0.11	1	1635	1530.7	0.05	257	17
1095	210	0.14	0.8	1702	1164.3	0.05	161	17
1076	242	0.16	1.2	1300	1550.6	0.05	160	18
1272	344	0.17	1.6	1680	1879.9	0.07	156	24
1268	379	0.21	1.6	1587	1685.3	0.08	119	23
2092	182	0.12	1	1671	1711.4	0.04	235	15
1674	139	0.09	0.8	1756	2879.8	0.03	187	11
1378	5055	0.97	6.2	1763	987.5	0.35	205	170
1595	3685	0.94	5.2	1919	783.9	0.13	253	167
1406	1488	0.53	2.4	2055	1541.2	0.08	290	70
1268	417	0.22	0.2	1330	960.9	0.05	189	29
978	444	0.24	1.5	1518	1544.7	0.05	205	33
1524	1430	0.43	2.9	1955	997.9	0.07	238	72
2216	2212	0.47	3.7	2166	540.3	0.11	330	115
1770	1206	0.44	2.9	2105	1079	0.08	340	81
8174	107	0.12		1678	335.9	0.03	66 X	
6754	85	0.17		2589	324.6	0.03	117 X	
8596	193	0.25		2188	362.2	0.04	107 X	
6908	415	0.78		2912	428.3	0.13	75 X	
9177	506	0.38		1178	286.4	0.08	395 X	
9177	5055	0.97	6.2	2912	2879.8	0.35	395	170
2616	768	0.29	1.8	1801	1146.5	0.07	200	45
846	85	0.09	0.2	1178	286.4	0.03	66	11

K	La	Li	Lu	Mg	Mn	Mo	Na	Nb
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
2128	39.84	17.2	0.127	900	180	0.2	200	0.43
13046	39.7	24.7	0.189	1845	361	1.5	928	11.94
9269	13.15	11.6	0.094	2788	260	0.5	3076	5.18

K	La	Li	Lu	Mg	Mn	Mo	Na	Nb
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
27938	35.54	17.2	0.255	3493	599	0.3	2344	18.86

36589	38.16	20.9	0.251	7994	330	0.1	2617	17.53
32063	39.02	15.6	0.271	5567	150	0.1	2420	16.54
30301	45.47	39.2	0.293	6694	454	0.2	2205	18.43
28848	32.78	16.2	0.238	4132	464	0.3	1473	16.88
38494	44.83	22.5	0.222	7131	266 X		1819	17.29
32531	45.25	19.7	0.286	4707	335	0.2	1765	16.67
30476	41.31	18.9	0.258	4149	209	0.1	1631	17.12
25960	41.25	20.4	0.261	3455	464	0.1	1510	16.9
31216	45.93	34.1	0.347	7788	591	0.2	1347	16.08
32028	39.27	39.8	0.325	5063	483	0.3	1329	16.91
35401	51.66	45.9	0.308	12764	470	0.1	3092	15.97
30205	12.69	16.2	0.255	3676	356	0.2	1044	17.29
31478	32.48	18.3	0.385	4829	448	0.6	1163	17.24
35405	61.42	32.8	0.323	12289	917	0.3	1453	15.92
27643	37.42	24.9	0.266	3398	53	0.2	1440	15.5
38494	61.42	45.9	0.385	12764	917	0.6	3092	18.86
31929	40.47	25.2	0.285	6249	436	0.2	1814	17.04
25960	12.69	15.6	0.222	3398	53	0.1	1044	15.5

Nd Neodymium Lanthanide ppb	Ni Nickel ppm	P Phosphorus ppm	Pb Lead ppm	Pd Palladium ppb	Pr Praseodymium Lanthanide ppb	Pt Platinum ppb	Rb Rubidium ppm	Re Rhenium ppb
	145	0.5	518	0.27 X		40 X		3.36 X
	238	1.1	511	0.52 X		63 X		2.5 X
	140	0.9	360	0.47 X		38 X		2.48 X
	191	1	361	0.36 X		49 X		1.73 X
	237	1.2	498	0.42 X		62 X		2.21 X
	215	0.9	477	0.41 X		57 X		2.2 X
	222	0.6	312	0.39 X		59 X		1.26 X
	188	0.8	400	0.33 X		48 X		2.14 X
	178	0.9	329	0.35 X		46 X		2.45 X
	202	1	355	0.48 X		52 X		1.79 X
	289	1.2	343	0.53 X		75 X		2.92 X
	325	1.2	455	0.62 X		85 X		3.96 X
	166	0.5	435	0.38 X		42 X		3.27 X
	117	0.4	445	0.28 X		30 X		3.57 X
	4001	3.3	392	1.23 X		1091 X		6.07 X
	3023	3.5	522	0.9 X		847 X		5.27 X
	1259	2.3	629	0.67 X		348 X		3.21 X
	353	1.3	484	0.47 X		97 X		2.02 X
	381	1.2	460	0.46 X		104 X		1.64 X
	1200	1.8	550	0.67 X		328 X		5.56 X
	1801	2.5	650	0.54 X		501 X		9.44 X
	1012	1.8	574	0.6 X		276 X		3.56 X
	80	1.3	1136	0.27 X		X		9.35 X
	61	1.1	995	0.24 X		X		8.88 X
	143	1.7	971	0.35 X		X		13.11 X
	346	2.3	1459	0.24 X		X		31.69 X
	435	1.5	842	0.26 X		X		34.89 X
	4001	3.5	1459	1.23		1091		34.89
	628	1.4	573	0.47		197		6.32
	61	0.4	312	0.24		30		1.26

Nd ppm	Ni ppm	P ppm	Pb ppm	Pd ppb	Pr ppm	Pt ppb	Rb ppm	Re ppm
	35.19	15	403	11.7 X		9.615 X		39.99 X
	33.95	14.6	259	20		9.144		88.27 X
	9.9	8.4	116	7.5		2.767		53.16 X

Nd ppm	Ni ppm	P ppm	Pb ppm	Pd ppb	Pr ppm	Pt ppb	Rb ppm	Re ppm
	29.85	16.1	128	36.2		8.268		112.46 X

32.75	33.8	179	22.5	9.009	168.29 X	
33.75	23.3	241	25.2	9.156	156.09 X	
34.81	51.4	304	40.4	9.807	155.25 X	
27.09	13.3	225	19.1	7.597	140.85	0.002
36.15	22.8	304	21.6	10.223	219.04 X	
38.33	20.3	318	31	10.54	175.35 X	
35.32	19.2	196	27	9.74	163.09 X	
34.26	21.4	192	28.5	9.465	144.06	0.003
40.04	34.1	169	29.2	10.94	189.09	0.003
35.42	32.3	113	36.3	9.434	175.83	0.009
44.33	32.4	303	22.3	12.016	232.95	0.003
10.22	13.9	134	18.2	2.646	150.58 X	
14.39	11.4	395	32.2	4.792	170.76	0.005
42.4	33.7	261	32.8	12.354	208.05	0.006
33.25	17.1	314	25.9	8.907	127.31	0.006
44.33	51.4	395	40.4	12.354	232.95	0.009
32.61	25.3	231	28.2	9.066	170.78	0.004
10.22	11.4	113	18.2	2.646	112.46	0.002

	56	0.48	15.5	1.5	6.05	4.9	53.53	1.35
	64	0.52	15.9	1	6.22	4.5	48.95	1.67
	76	0.83	18	1.2	6.05	5.2	37.97	1.81
	119	0.43	15.8	1.3	4.92	5.9	35.4	1.68
X		0.61	15.8	0.9	6.23	5	49.11	1.65
	51	0.71	16.2	1.8	6.85	4.8	54.08	1.57
X		1	14.7	1.3	6.23	4.6	35.89	1.6
	94	0.58	15.9	1.2	6.06	4.7	37.92	1.61
X		0.44	15.1	1.2	7.26	4.5	54.77	1.48
	71	0.71	15.1	1.8	6.65	4.7	32.62	1.52
	102	0.33	15	1.3	7.76	4.5	77.56	1.42
	107	1.14	19.3	1.8	1.96	5	35.51	1.46
	133	0.92	17.1	2	2.47	4.9	31.71	1.52
X		0.57	15.8	1.6	7.32	4.6	41.36	1.44
	73	1.38	16.5	1.6	6.36	4.8	45.21	1.39
	133	1.38	19.3	2	7.76	5.9	77.56	1.81
	91	0.7	16	1.4	5.8	4.8	45.23	1.55
	51	0.33	14.7	0.9	1.96	4.5	31.71	1.35

Tb	Te	Th	Ti	Tl	Tm	U	V	W	
Terbium Lanthanide	Tellurium	Thorium	Titanium	Thallium	Thulium Lanthanide	Uranium	Vanadium	Tungsten	
ppb	ppm	ppb	ppm	ppm	ppb	ppb	ppm	ppm	
	3.1 X		15	1.4	0.04	0.8	7	0.5 X	
	5 X		43	6.6	0.03	1.4	13	0.6 X	
	3.3 X		29	3.4	0.02	0.9	7	0.4 X	
	3.7 X		37	5.1	0.03	1.1	9	0.6 X	
	4.6 X		39	5.1	0.02	1.3	11	0.7	0.02
	4.4 X		45	6.5	0.02	1.3	10	0.7 X	
	4.8 X		50	6.4	0.01	1.3	11	0.6 X	
	4.4 X		39	4.3	0.05	1.3	9	0.4 X	
	3.8 X		48	6	0.04	1.2	8	0.5	0.05
	4.5 X		25	3.5	0.02	1.1	9	0.6 X	
	6.8 X		62	8.5	0.03	1.9	12	0.7 X	
	6.5 X		70	8.7	0.04	2	15	0.8 X	
	3.7 X		33	4.6	0.02	1.1	8	0.5 X	
	2.9 X		20	3.2	0.07	0.9	7	0.4 X	
	57.4 X	1480	60.4	0.05	9.1	116	3 X		
	51.6 X	774	47.5	0.03	7.2	91	2.8 X		
	23.8 X	282	16.9	0.05	4	45	1.7	0.03	
	7 X	82	6.9	0.02	1.3	15	0.7 X		
	8.3 X	77	8.4	0.02	1.9	16	1	0.02	
	20.9 X	277	20.2	0.04	3.4	41	1.5 X		
	31.4 X	494	34.1	0.05	4.4	56	1.8 X		
	18.6 X	249	20.8	0.03	3.5	39	1.7 X		
	X	16	2.8	16		14 X		0.04	
	X	18	3.2	12		7	0.2	0.03	
	X	40	5.2	10		8	0.4	0.04	
	X	93	6.2	31		11	0.3	0.03	
	X	103	9.6	26		16	0.5	0.02	
	57.4	1480	60.4	31	9.1	116	3	0.05	
	12.8	168	11.7	4	2.4	23	1	0.03	
	2.9	15	1.4	0.01	0.8	7	0.2	0.02	

Tb	Te	Th	Ti	Tl	Tm	U	V	W	
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
	0.589 X		10.96	312	0.32	0.15	1.14	38 X	
	0.642	0.05	12.63	3939	0.53	0.18	2.18	61	2.1
	0.201 X		6.25	2086	0.3	0.06	0.96	34	1.6

Tb	Te	Th	Ti	Tl	Tm	U	V	W	
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
	0.639 X		20.93	4925	0.53	0.23	3.9	110	2.9

0.673	0.09	20.12	5220	0.8	0.26	2.73	114	3.3
0.732	0.11	19.56	4450	0.73	0.24	2.81	102	3.3
0.658	0.08	20.64	4609	0.72	0.23	3	116	3.3
0.551	0.07	20.39	4595	0.61	0.21	2.55	109	3.6
0.623	0.08	19.61	4780	0.98	0.19	2.49	108	3.4
0.718 X		19.89	4585	0.78	0.25	2.94	108	3.2
0.677 X		19.46	4514	0.73	0.24	2.57	94	3.1
0.676 X		20.38	3995	0.67	0.23	4.15	95	3.5
0.884 X		18.2	4291	0.97	0.33	2.66	95	2.8
0.809	0.21	21.75	4898	0.86	0.33	3.74	105	3.1
0.859	0.05	18.64	4530	1.2	0.26	2.27	101	2.9
0.299	0.06	20.8	4787	0.65	0.23	2.8	109	2.8
0.469	0.07	20.38	4837	0.78	0.29	2.76	119	3.1
0.812 X		19.45	4682	0.96	0.32	2.11	106	3
0.734	0.06	18.16	4275	0.55	0.25	3.85	102	3.2
0.884	0.21	21.75	5220	1.2	0.33	4.15	119	3.6
0.672	0.09	20.01	4647	0.8	0.26	2.9	106	3.2
0.299	0.05	18.16	3995	0.53	0.19	2.11	94	2.8

Y	Yb	Zn	Zr
Yttrium	Ytterbium	Zinc	Zirconium
Lanthanide	Lanthanide		
ppb	ppb	ppm	ppm

76	5.6	18.3 X	
124	7.5	14.4 X	
85	4.9	12.7	0.06
92	6.3	51.9 X	
118	8.2	36.5 X	
108	7	33	0.07
123	9.3	9.7	0.17
110	6.8	11.1	0.07
94	6.5	37.9	0.11
115	7.1	45.6 X	
186	11.6	41.2	0.08
179	11	29.6 X	
98	7.4	65.7	0.06
99	5.6	122.9	0.06
851	46.9	27	0.34
651	44.3	32.4	0.14
351	24.2	26.4 X	
122	8.7	20.2 X	
157	12.1	29.2 X	
319	21.8	31.4 X	
404	26.4	53.6	0.09
298	21.2	60.9 X	
34		18.5	0.05
27		24.9	0.06
57		13.4	0.1
81		19.8	0.06
100		32	0.06
851	46.9	122.9	0.34
187	14.1	34.1	0.1
27	4.9	9.7	0.05

Y	Yb	Zn	Zr
ppm	ppm	ppm	ppm
12.45	0.95	45	5.6
12.28	1.26	45	85.6
4.29	0.44	27	39.5

Y	Yb	Zn	Zr
ppm	ppm	ppm	ppm
13.7	1.6	82	137.2

16.71	1.76	97	147.1
14.95	1.77	68	137.5
14.69	1.77	127	141.4
14.14	1.65	46	125.1
13.86	1.51	50	130.8
15.71	1.71	48	139.1
19.14	1.76	36	151
13.55	1.71	54	139.7
24.55	2.3	85	118.8
19.75	2.27	108	141.9
15.81	1.82	101	123.9
10.21	1.72	53	134.5
16.63	2.12	66	117.2
22.94	2.23	83	131.7
17.11	1.88	39	116.3
24.55	2.3	127	151
16.42	1.8	74	134
10.21	1.51	36	116.3

APPENDIX IV

Sample Type	ELEMENTS UNITS Sample #	Ce	Dy	Er	Eu	Gd	Ho	La
		Cerium ppb	Dysprosiu ppb	Erbium ppb	Europium ppb	Gadolinium ppb	Holmium ppb	Lanthanum ppb
Vegetation LV1		364	15.2	7.1	4.8	21.2	3	204
Vegetation LV2		591	24.6	11	8.2	37.3	4.3	294
Vegetation LV3		341	15.2	8	5.3	23.9	2.8	170
Vegetation LV4		457	17.7	8	6.3	29.1	3.6	239
Vegetation LV5		613	22.3	10.6	7.7	35.3	4.2	312
Vegetation LV6		547	21.6	9.7	7.1	32	4	280
Vegetation LV7		536	22.5	11.2	8.1	34.8	4	267
Vegetation LV8		469	20.1	10.4	5.8	30.4	4	227
Vegetation LV9		427	16.9	8.8	6.4	27.5	3.5	210
Vegetation LV10		478	22.2	10.5	7.2	33	4	242
Vegetation LV11		674	33.1	16.7	10.7	48.4	6.4	344
Vegetation LV12		763	35.1	15.5	10.5	49.3	6.2	379
Vegetation LV13		380	17.2	8.6	5.6	24.9	3.3	182
Vegetation LV14		280	15.8	8	4.3	21.4	5	139
Vegetation LV15		10135	234.3	80.7	112.5	493.2	34.5	5055
Vegetation LV16		7594	192.9	70.2	83.7	425.8	27	3685
Vegetation LV17		3143	92.4	37.3	38.1	185.7	14.6	1488
Vegetation LV18		858	30.1	12.7	11.2	56.6	5	417
Vegetation LV19		923	35.7	16.5	12.7	62.7	6	444
Vegetation LV20		2941	83.8	33.2	35	172	12.7	1430
Vegetation LV21		4529	113.9	42	50.3	260.3	16.3	2212
Vegetation LV22		2512	76.8	32	30.1	152	11.6	1206
Vegetation LV140201		597				10		107
Vegetation LV140203		165				8.3		85
Vegetation LV140205		454				16.8		193
Vegetation LV140207		849				41.2		415
Vegetation LV140208		1061				51.1		506
Max		10135	234.3	80.7	112.5	493.2	34.5	5055
Ave		1581	52.7	21.3	21.4	88.3	8.5	768
Min		165	15.2	7.1	4.3	8.3	2.8	85
"Controls"		1600	90	40	25	130	20	900
eg Acacia mellifera nr I		1500	420	200	120	660	80	
Other Vegetation exan		12000						10000
Alnus crispa								Alnus crispa
REE Allanite								REE Allanite
Hoidas Lake								Hoidas Lake
Saskatchewan								Saskatchew
		Ce	Dy	Er	Eu	Gd	Ho	La
		ppm	ppm	ppm	ppm	ppm	ppm	ppm
Stream Sed LSS1/LVSS1		77.48	2.81	1.29	1.05	4.5	0.48	39.84
Stream Sed 140181		77.56	2.9	1.39	1.06	4.99	0.51	39.7
Stream Sed 140184		24.39	0.92	0.49	0.32	1.4	0.17	13.15

		Ce ppm	Dy ppm	Er ppm	Eu ppm	Gd ppm	Ho ppm	La ppm	
Rock Chip	140171	72.27	3.08	1.59	1.15	4.85	0.56	35.54	
Rock Chip	140172	78.51	3.24	1.74	1.17	5.2	0.58	38.16	
Rock Chip	140173	80.39	3.58	2.09	1.16	5.56	0.61	39.02	
Rock Chip	140174	88.65	5.07	1.64	1.19	4.79	0.54	45.47	
Rock Chip	140175	66.01	4.47	1.72	0.94	3.9	0.48	32.78	
Rock Chip	140176	89.4	2.92	1.55	1.18	4.95	0.5	44.83	
Rock Chip	140177	94.35	3.53	1.85	1.2	5.56	0.62	45.25	
Rock Chip	140178	85.83	3.35	1.86	1.13	12.43	0.6	41.31	
Rock Chip	140179	83.86	3.26	1.65	1.22	5.07	0.57	41.25	
Rock Chip	140180	83.19	4.53	2.68	1.39	6.43	0.82	45.93	
Rock Chip	140182	79.16	4.19	2.35	1.25	5.95	0.8	39.27	
Rock Chip	140183	103.43	4.03	1.88	1.47	6.96	0.67	51.66	
Rock Chip	140202	21.02	1.84	1.34	0.44	1.98	0.39	12.69	
Rock Chip	140204	45.53	3.25	2.03	0.57	2.67	0.68	32.48	
Rock Chip	140206	115.43	4.12	2.26	1.35	6.56	0.75	61.42	
Rock Chip	140209	73.18	3.76	2.02	1.15	5.46	1	37.42	
	Max	115.43	5.07	2.68	1.47	12.43	1	61.42	
	Ave	79.14	3.63	1.88	1.12	5.52	0.61	40.47	
	Min	21.02	1.84	1.34	0.44	1.98	0.39	12.69	
Crustal Rocks		83	8.5	3.6	2.2	6.3	1.6	50	

Lu	Nd	Pr	Sm	Tb	Tm	Yb
Lutetium	Neodymium	Praseodym	Samarium	Terbium	Thulium	Ytterbium
ppb	ppb	ppb	ppb	ppb	ppb	ppb

0.7	145	40	28	3.1	0.8	5.6
1.3	238	63	46	5	1.4	7.5
0.8	140	38	29	3.3	0.9	4.9
0.9	191	49	37	3.7	1.1	6.3
1.1	237	62	45	4.6	1.3	8.2
1.2	215	57	38	4.4	1.3	7
0.9	222	59	41	4.8	1.3	9.3
1	188	48	36	4.4	1.3	6.8
0.8	178	46	33	3.8	1.2	6.5
1.2	202	52	38	4.5	1.1	7.1
1.6	289	75	57	6.8	1.9	11.6
1.6	325	85	61	6.5	2	11
1	166	42	32	3.7	1.1	7.4
0.8	117	30	24	2.9	0.9	5.6
6.2	4001	1091	725	57.4	9.1	46.9
5.2	3023	847	535	51.6	7.2	44.3
2.4	1259	348	230	23.8	4	24.2
0.2	353	97	59	7	1.3	8.7
1.5	381	104	73	8.3	1.9	12.1
2.9	1200	328	212	20.9	3.4	21.8
3.7	1801	501	315	31.4	4.4	26.4
2.9	1012	276	182	18.6	3.5	21.2

80
61
143
346
435

6.2	4001	1091	725	57.4	9.1	46.9
1.8	628	197	131	12.8	2.4	14.1
0.2	61	30	24	2.9	0.8	4.9

2	700	190	140	10	10	40
	2700	2700	560			80
	600,000		800			

a	Artemesia	Alnus crispa
e	OBO REE Mine	REE Allanite
e	China.?	Hoidas Lake
/an		Saskatchewan

Lu	Nd	Pr	Sm	Tb	Tm	Yb
ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.127	35.19	9.615	6.2	0.589	0.15	0.95
0.189	33.95	9.144	6	0.642	0.18	1.26
0.094	9.9	2.767	1.66	0.201	0.06	0.44

Lu ppm	Nd ppm	Pr ppm	Sm ppm	Tb ppm	Tm ppm	Yb ppm	
0.255	29.85	8.268	5.62	0.639	0.23	1.6	
0.251	32.75	9.009	6.05	0.673	0.26	1.76	
0.271	33.75	9.156	6.22	0.732	0.24	1.77	
0.293	34.81	9.807	6.05	0.658	0.23	1.77	
0.238	27.09	7.597	4.92	0.551	0.21	1.65	
0.222	36.15	10.223	6.23	0.623	0.19	1.51	
0.286	38.33	10.54	6.85	0.718	0.25	1.71	
0.258	35.32	9.74	6.23	0.677	0.24	1.76	
0.261	34.26	9.465	6.06	0.676	0.23	1.71	
0.347	40.04	10.94	7.26	0.884	0.33	2.3	
0.325	35.42	9.434	6.65	0.809	0.33	2.27	
0.308	44.33	12.016	7.76	0.859	0.26	1.82	
0.255	10.22	2.646	1.96	0.299	0.23	1.72	
0.385	14.39	4.792	2.47	0.469	0.29	2.12	
0.323	42.4	12.354	7.32	0.812	0.32	2.23	
0.266	33.25	8.907	6.36	0.734	0.25	1.88	
0.385	44.33	12.354	7.76	0.884	0.33	2.3	
0.285	32.61	9.066	5.8	0.672	0.26	1.8	
0.222	10.22	2.646	1.96	0.299	0.19	1.51	
0.8	44	13	7.7	1	0.52	3.4	

APPENDIX II

Geochemical Sampling Data

APPENDIX III

Vegetation Sampling Data

