

Annual Report  
for EL30/2004 Warrentinna  
for the Period 26 November 2011 to 25 November 2012

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Date: November 2012

## **ABSTRACT**

EL30/2004 Warrentinna is located 60km north-east of Launceston in north-east Tasmania and covers some 25 strike kilometres of Mathinna Group meta-sediments. The company's main focus is gold mineralisation.

Work completed during the period included soil sampling, geological mapping and rock chip sampling at the Oxberry prospect. An RC drilling program at the Derby North prospect is scheduled to commence during late 2012.

## **KEYWORDS**

Geology/Mineralisation

Mathinna Group

Minerals

Gold

Deposits/Occurrences

Derby North

## **COORDINATES**

All lat/long co-ordinates in this report refer to the AGD66 Datum

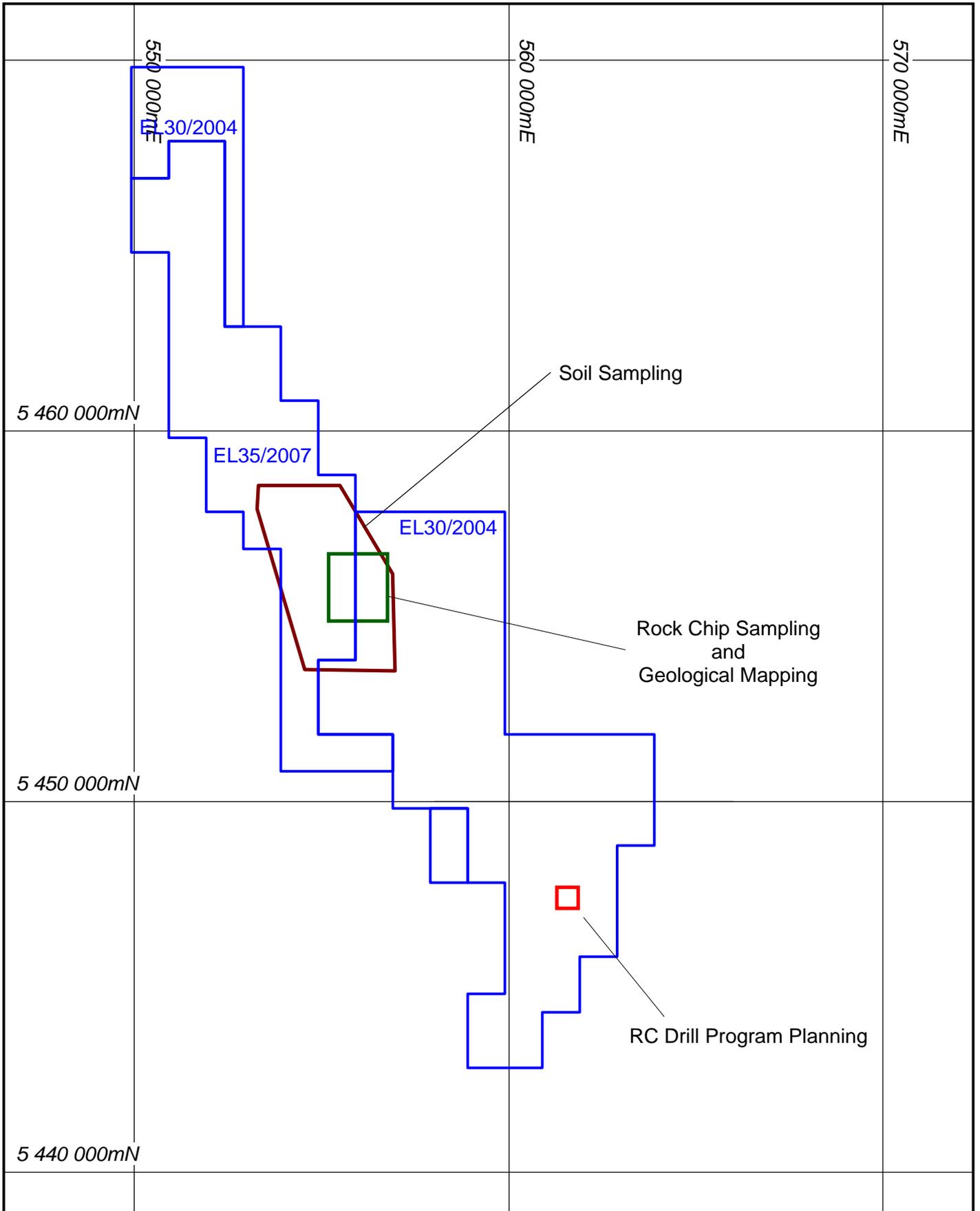
All AMG co-ordinates in this report refer to the AGD66 Datum - Zone55

## FILE SUMMARY LIST

File Name	Format	Contents
el302004_201211_01_report	pdf	report
el302004_201211_02_geochem	txt	data
el302004_201211_03_geochem	txt	data

### **SUMMARY OF ACTIVITIES FOR EL30/2004 WARRENTINNA FOR THE PERIOD 26 NOVEMBER 2011 TO 25 NOVEMBER 2012**

- Soil Sampling
- Rock Chip Sampling
- Geological Mapping
- RC Drill Program Planning



AGD66-ZONE55

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 EL30/2004 WARRENTINNA  
 Exploration Index Map



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## 1.0 Introduction

This report details the exploration activities completed within EL30/2004 during the period 26 November 2011 to 25 November 2012. The lease is located 60km north-east of Launceston in north-east Tasmania.

The tenement covers some 25 strike kilometres of Mathinna Group meta-sediments. The company's main focus is gold mineralisation.

Work completed during the period included soil sampling, geological mapping and rock chip sampling at the Oxberry prospect. An RC drilling program at the Derby North prospect is scheduled to commence during late 2012.

## 2.0 Tenement Details

EL30/2004 Warrentinna was applied for by Greatland Pty Ltd during April 2004 and was granted during November 2004. The tenement covers an area of 71 square kilometres. Tenement details are shown in Table 1.

Table 1 – Tenement Details

Tenement	Holder	Date Granted	Size
EL30/2004 Warrentinna	Greatland Pty Ltd 100%	26 Nov 2004	71km <sup>2</sup>

## 3.0 Location and Access

EL30/2004 Warrentinna is located 60km north-east of Launceston in north-east Tasmania (Figure 1). It lies some 20km north-east of the town of Scottsdale. The tenement forms the south and eastern parts of the Company's Warrentinna project (Figure 2). The bulk of land within the

tenement is logged state forest, with only the northern and southern extremities covering private farming land.

The project lies within the Tasmania NE (SK55-21) 1:250,000 map sheet, and straddles the 1:100,000 map sheets of Forester (8415) and Cape Portland (8416).

From Launceston, access to the project area is by sealed road to Branxholm via Scottsdale, then into the tenements via the formed Warrentinna-Forester road. Logging tracks and local roads provide good access within the project area.

#### **4.0 Geology and Mineralisation**

The licence area covers some 25 strike kilometres of 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).

Further details of geology and mineralisation have been covered in previous annual reports by Askins and Baxter (2005), McLean and Baxter (2006), McLean (2007) and Baxter (2008). The reader is referred to these reports.

## **5.0 Previous Exploration**

Previous exploration activities have been covered in annual reports by Askins and Baxter (2005), McLean and Baxter (2006), McLean (2007), and Baxter (2008, 2009, 2010 and 2011). The reader is referred to these reports.

## **6.0 Work Carried Out During the Period**

Work completed during the period included soil sampling, geological mapping and rock chip sampling at the Oxberry prospect. Also completed was planning for an RC drilling program at the Derby North prospect.

### *Soil Sampling*

Reconnaissance soil sampling was completed at the Oxberry prospect during the period. A total of 40 soil samples were collected along three east-west lines 1km apart. Sample spacing along lines was 50m. Samples were collected from depth of approximately 300mm and coarse sieved to <20mm. Approximately 1kg of sieved material was taken for analysis.

All samples were sent to Genalysis Adelaide for processing and pulps forwarded to Genalysis Perth for analysis. All samples were sieved to -80# at the laboratory and analysed for a suite of 31 elements including gold and base metals by Aqua Regia/AAS/OES. Details of analysis and all results are presented in Appendix I. Sample locations are shown on Figure 4.

Selected highest results were 3ppb Au, 17ppm As, 27ppm Cu, 20ppm Pb, 21ppm Zn.

### *Rock Chip Sampling*

A total of sixteen rock chip samples were collected from the Oxberry prospect during the period. Approximately 1kg of material was collected at each sample site.

All samples were sent to Genalysis Adelaide for processing and pulps forwarded to Genalysis Perth for analysis. All samples were analysed for a suite of 31 elements including gold and base metals by Aqua Regia/AAS/OES. Details of analysis and all results are presented in Appendix II. Sample locations are shown on Figure 5.

Selected highest results were 5ppb Au, 75ppm As, 88ppm Cu, 64ppm Pb, 76ppm Zn.

### *Geological Mapping*

Geological mapping was completed at the Oxberry prospect during the period. The dominant lithology in the Oxberry area are various siltstone/shales, generally very weathered, buff to light brown of the Silurian/Devonian Mathinna Supergroup turbidites. Some were light grey, some possibly graphitic. Quartz veins were located at several sites; micro scale quartz veining at others. Gossanous material was identified and a quartz-hematite breccia. The breccia appeared discordant to the regional geology. A geological map is presented in Appendix III.

More detailed comments on geological mapping and geochemical results at the Oxberry prospect are presented in Appendix III.

### *Drill Program Planning*

An RC drill program at the Derby North prospect was planned during the period. Site inspections have been completed and MRT approvals have been received. A contract is in place with Edrill Pty Ltd for RC drilling equipment. Proposed collar details are presented in Table 2. Drilling is scheduled to commence during late 2012.

Table 2 – Proposed RC Collar Details

Hole_ID	East	North	Datum	Dip (deg)	Azimuth (grid)	Depth (m)
WTR-A	561600	5447375	AGD66-55	60	90	100
WTR-C	561610	5447350	AGD66-55	60	90	100
WTR-E	561625	5447325	AGD66-55	60	90	100

## 7.0 Conclusions

EL30/2004 Warrentinna is located 60km north-east of Launceston in north-east Tasmania. It lies some 20km north-east of the town of Scottsdale. The tenement covers some 25 strike kilometres of Mathinna Group meta-sediments. The company's main focus is gold mineralisation.

Work completed during the period included soil sampling, geological mapping and rock chip sampling at the Oxberry prospect. Also completed was planning for an RC drilling program at the Derby North prospect that is scheduled to commence during late 2012.

## References

- Askins, P. and Baxter, C., 2005. Warrentinna Project, Annual Report for EL30/2004, for the Period 26 November 2004 to 25 November 2005. Greatland Pty Ltd, pp9. (unpublished)
- Baxter, C., 2008. Annual Report for EL30/2004 Warrentinna for the Period 26 November 2007 to 25 November 2008. Greatland Pty Ltd, pp12. (unpublished)
- Baxter, C., 2009. Annual Report for EL30/2004 Warrentinna for the Period 26 November 2008 to 25 November 2009. Greatland Pty Ltd, pp6. (unpublished)
- Baxter, C., 2010. Annual Report for EL30/2004 Warrentinna for the Period 26 November 2009 to 25 November 2010. Greatland Pty Ltd, pp6. (unpublished)
- Baxter, C., 2011. Annual Report for EL30/2004 Warrentinna for the Period 26 November 2010 to 25 November 2011. Greatland Pty Ltd, pp6. (unpublished)
- McLean, G and Baxter, C., 2006. Warrentinna Project, Annual Report for EL30/2004, for the Period 26 November 2005 to 25 November 2006. Greatland Pty Ltd, pp14. (unpublished)
- McLean, G., 2007. Warrentinna Project, Annual Report for EL30/2004, for the Period 26 November 2006 to 25 November 2007. Greatland Pty Ltd, pp29. (unpublished)

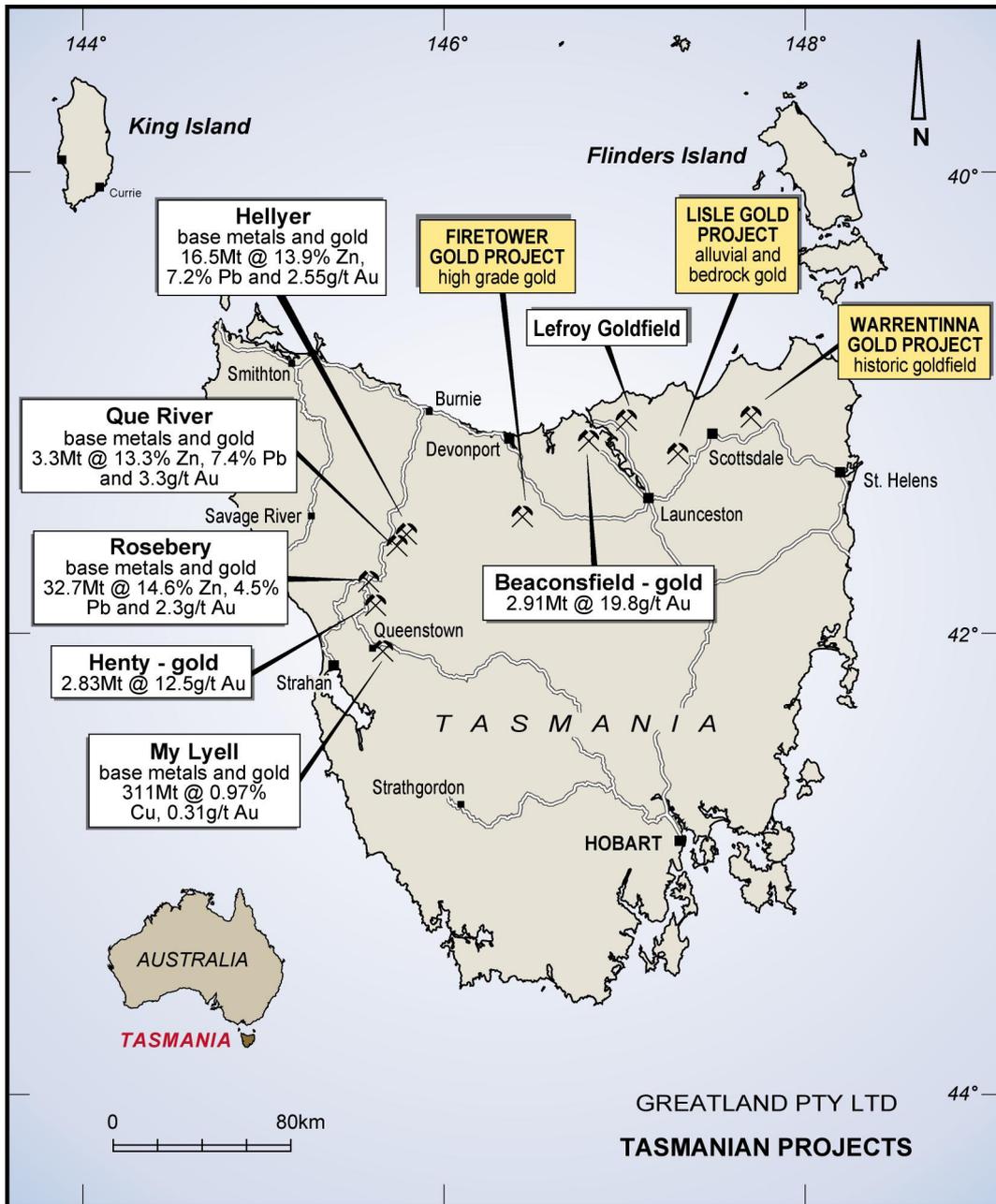


Figure 1 – Project Location Map

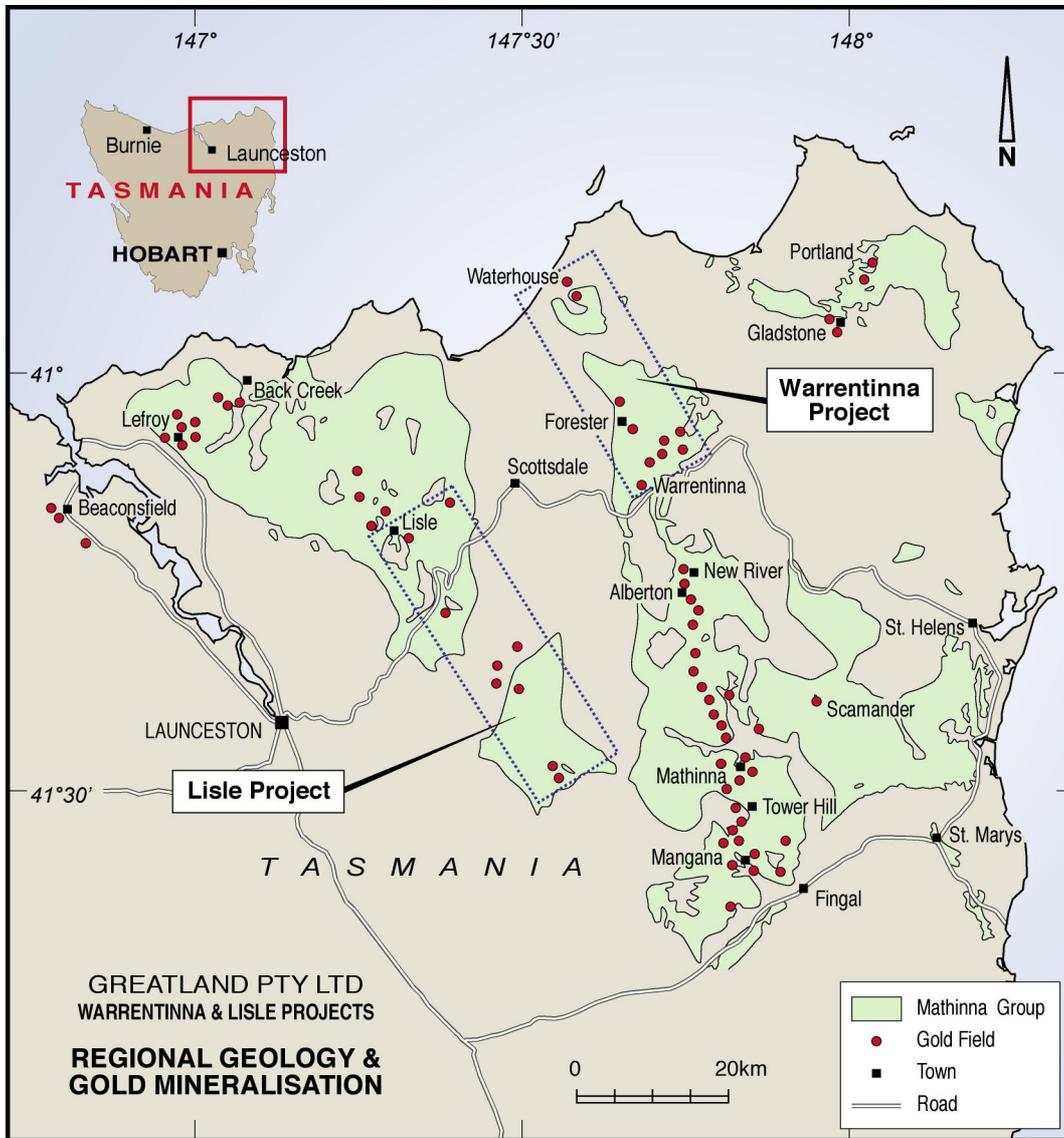


Figure 2 – Regional Geology

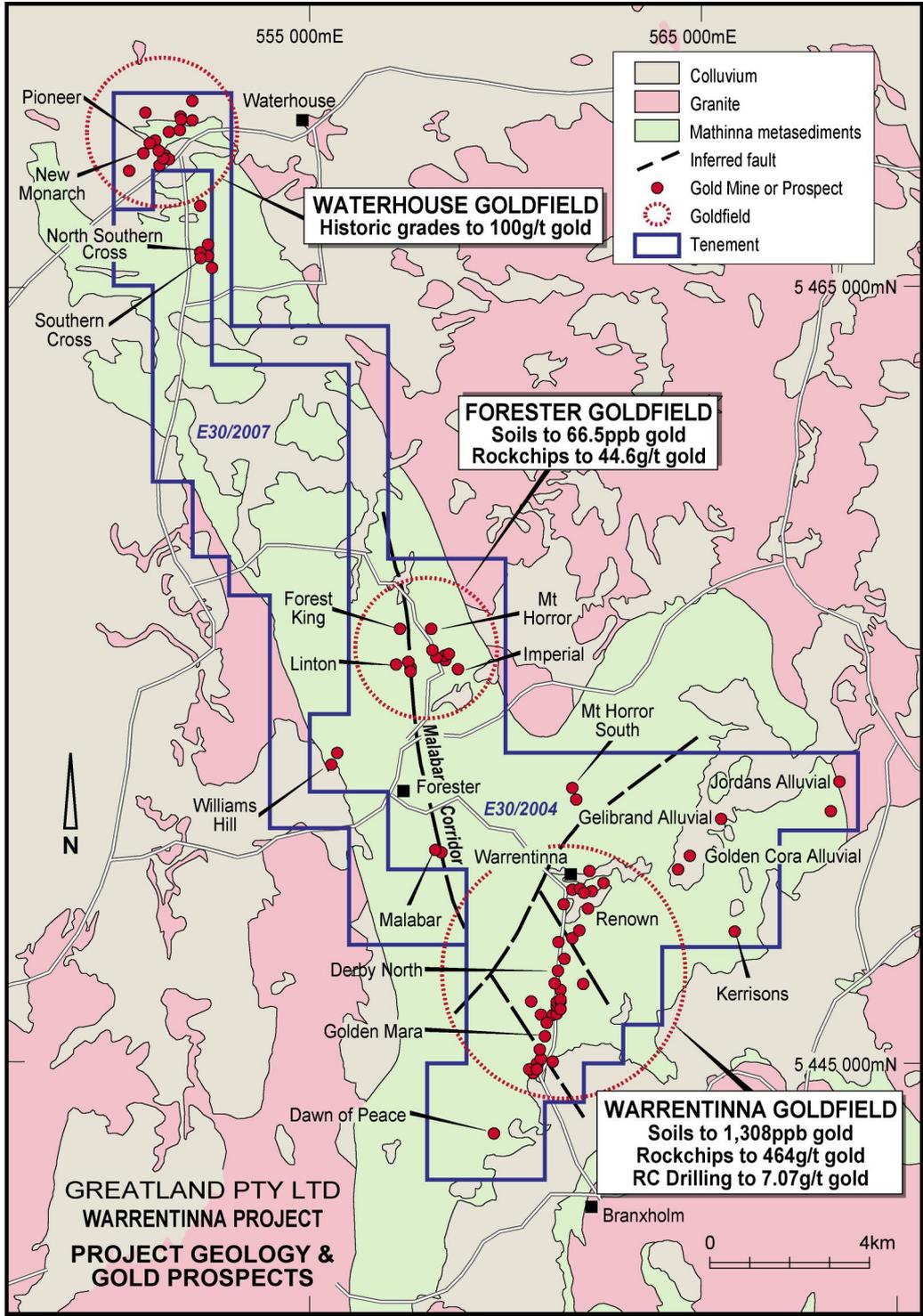
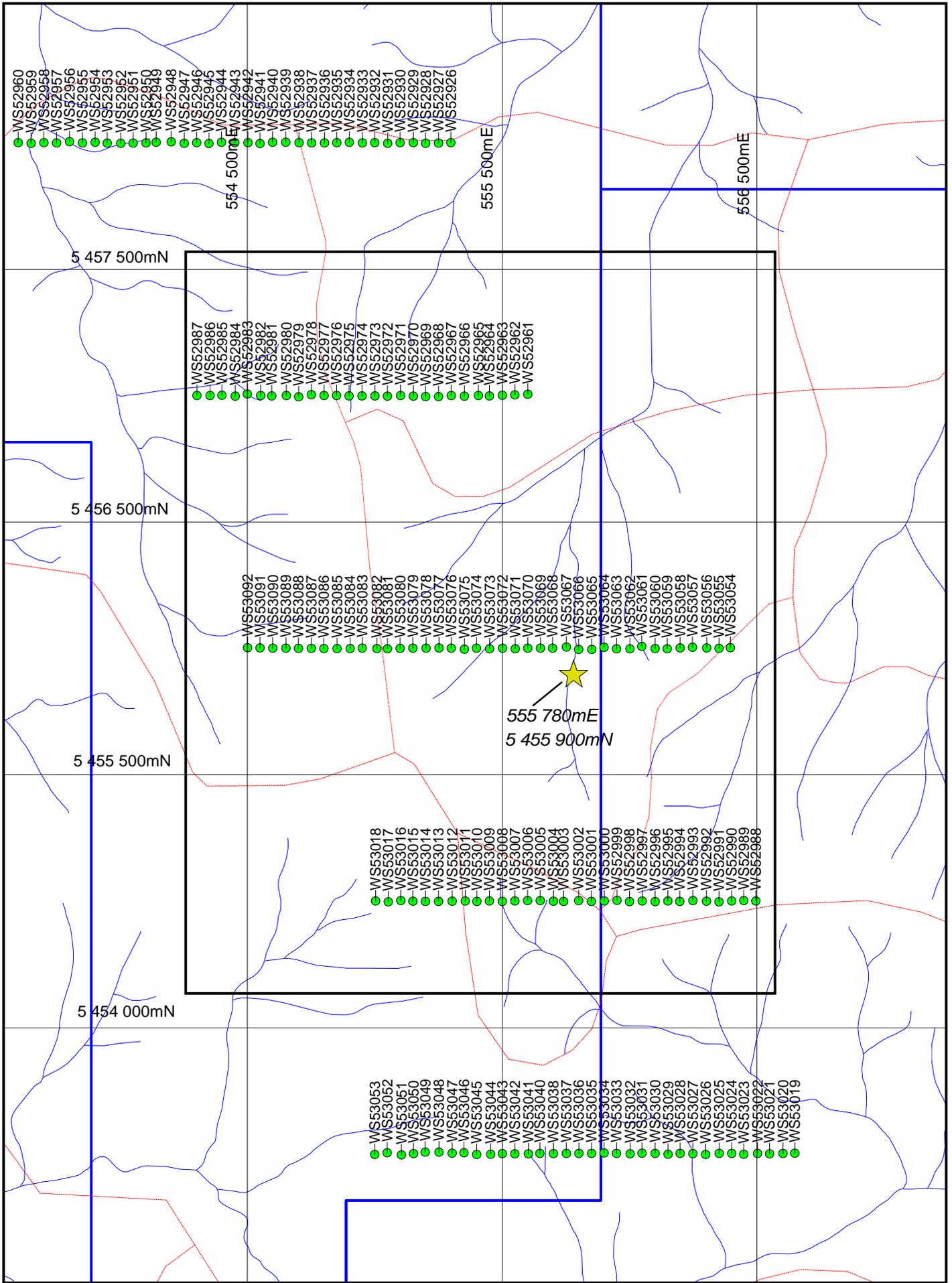
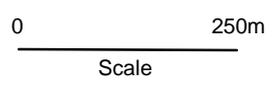


Figure 3 – Project Geology



Co ordinates - AGD66 Zone55



Legend

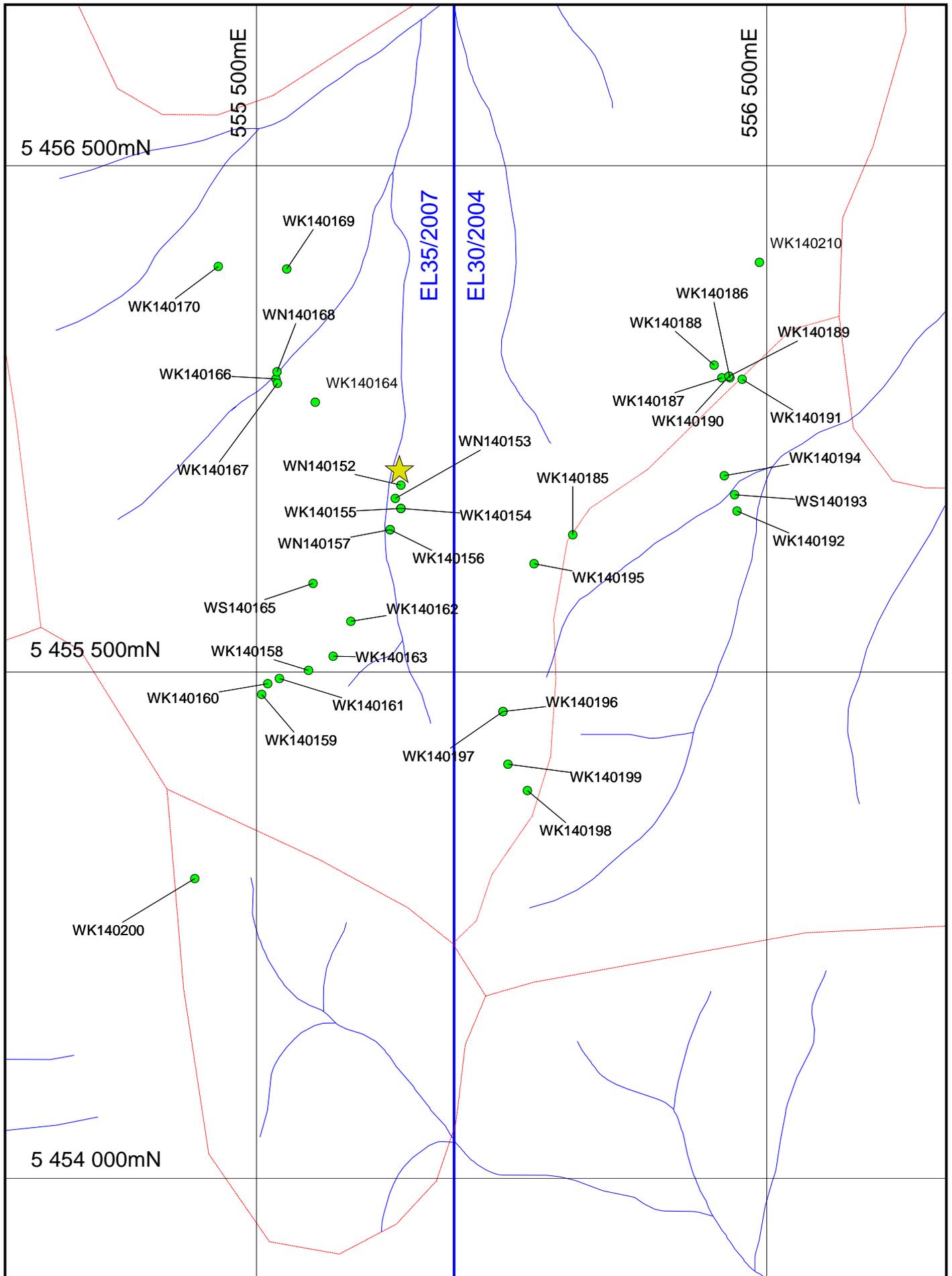
- ★ Panned Gold
- Soil Sample Site

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OXBERRY AREA

Soil Samples

Figure 4



Co ordinates - AGD66 Zone55

Scale - 1:10,000

Legend

- ★ Panned Gold
- Sample Site Dec 2011

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OXBERRY AREA

Sample Numbers

Figure 5

## APPENDIX I

### Soil Sample Data

Soils

H0100 Tenement No/Combined Report No EL30/2004  
H0101 Tenement Holder Greatland Pty Ltd  
H0102 Tenement Operator Greatland Pty Ltd  
H0103 Project Name Warrentinna  
H0104 250K Map Sheet SK55-21  
H0105 100K Map Sheet 8416  
H0200 Start Date of Data Acquisition Dec-11  
H0201 End Date of Data Acquisition Oct-12  
H0202 Data Format S52  
H0203 Number of Data Records 40  
H0204 Date of Metadata Update Nov-12  
H0500 Feature Located Sample Point  
H0501 Geodetic Datum AGD66  
H0502 Vertical Datum N/A  
H0503 Projection AMG  
H0504 Projection Zone 55  
H0505 Surveying Instrument Handheld GPS  
H0506 Surveying Company Greatland Pty Ltd  
H0600 Sample Code soil  
H0601 Sample Type soil  
H0602 Sample Description soil  
H0700 Sample Prep Code ssmg  
H0701 Sample Prep Details 75micron  
H0702 Job No 1201624  
H0800 Assay Code AR10/GF AR10/OE  
H0801 Assay Company Genalysis Laboratories  
H0802 Assay Description Aqua Regia AA5 OES  
H0900 Remarks below detection X

H1000	Sample No	East metres	North metres	Datum	Zone	Au ppb	Ag ppm	Al ppm	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K ppm	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Te ppm	Ti ppm	V ppm	W ppm	Zn ppm		
H1001		1	1		AR10/GF																																
H1002																																					
H1003																																					
D	WS52988	566496	5455001	AGD66	55	X	X		6866 X	41 X			0.05 X	77	3	39	8	1.05	1347 X		0.03	63 X		0.04	3	45	5 X	X				7 X	185 X		13 X	12	
D	WS52989	566449	5455002	AGD66	55	X	X		18991 X	52 X			0.06 X	90	3	32	16	2.35	1447 X		0.06	46 X		0.05	5	106	20 X	X	2		14 X		59 X		23 X	12	
D	WS52990	566401	5455001	AGD66	55	X	X		12548	51 X	5		0.06 X	90	3	26	11	1.62	2016 X		0.05	31 X		0.05	4	72	5 X	X	1		8 X		21 X		18 X	7	
D	WS52991	566351	5454997	AGD66	55	X	X		10929	5	28 X		0.03 X	87	2	17	7	1.86	969 X		0.03	22 X		0.03	3	74	5 X	X			5 X		20 X		19 X	6	
D	WS52992	566302	5455000	AGD66	55	X	X		9112	8	36 X		0.07 X	93	3	20	8	1.16	1301 X		0.04	23 X		0.05	3	84	7 X	X		10 X		13 X		13 X	8		
D	WS52993	566249	5455002	AGD66	55		1 X		20258	14	46 X		0.04 X	85	2	29	9	2.97	1501 X		0.07	32 X		0.04	4	64	9 X	X	2		8 X		16 X		23 X	9	
D	WS52994	566197	5454999	AGD66	55		2 X		43866	15	32 X		0.02 X	89	3	82	14	5.04	963 X		0.05	15		1	0.03	6	124	16 X	X	3		4 X		12 X		43 X	5
D	WS52995	566151	5455001	AGD66	55		1 X		18035 X		46 X		0.11 X	86	3	23	11	2.17	1763 X		0.06	87 X		0.04	4	154	9 X	X	2		16 X		34 X		31 X	11	
D	WS52996	566101	5454998	AGD66	55		2 X		29917	17	26 X		0.05 X	72	2	51	18	4.42	1240 X		0.05	27		1	0.03	5	149	10 X	X	2		8 X		23 X		48 X	7
D	WS52997	566050	5455001	AGD66	55		X		6464 X		20 X		0.02 X	75	3	9	8	1.02	791 X		0.02	70 X				2	67	3 X	X			5 X		66 X		16 X	10
D	WS52998	566000	5454998	AGD66	55		1 X		13176 X		27 X		0.04 X	76	2	24	8	1.64	1181 X		0.06	66 X		0.03	4	79	6 X	X	1		10 X		48 X		24 X	13	
D	WS52999	559551	5455003	AGD66	55		1 X		13459 X		33 X		0.04 X	88	3	14	11	1.41	1134 X		0.05	552 X		0.04	4	136	6 X	X	1		7 X		41 X		20 X	21	
D	WS53000	559501	5455001	AGD66	55		X		16348	5	31 X		0.03 X	86	3	32	9	1.88	1191 X		0.05	61 X		0.03	4	88	7 X	X	1		7 X		26 X		25 X	11	
D	WS53019	566649	5454003	AGD66	55		1 X		4698 X		45 X		0.07 X	102	3	12	8	0.83	1340		0.03	37 X		0.05	3	86	6 X	X	1		9 X		14 X		11 X	19	
D	WS53020	566603	5454002	AGD66	55		1 X		4166 X		30 X		0.08 X	72	3	35	7	0.76	913 X		0.03	31 X		0.03	4	64	4 X	X			7 X		12 X		10 X	8	
D	WS53021	566550	5454000	AGD66	55		2 X		8167 X		51 X		0.1 X	73	3	19	14	1.47	1716 X		0.04	61 X		0.03	5	77	6 X	X		11 X		8 X		15 X		13	
D	WS53022	566503	5454002	AGD66	55		1 X		7679 X		31 X		0.06 X	77	2	40	8	1.11	992 X		0.04	38 X		0.03	3	84	4 X	X		10 X		10 X		17 X		10	
D	WS53023	566449	5453999	AGD66	55		2 X		19652 X		84 X		0.07 X	84	3	32	14	2.53	1292 X		0.06	73 X		0.03	5	132	9 X	X	1		12 X		27 X		27 X	11	
D	WS53024	566401	5454002	AGD66	55		X		7537 X		30 X		0.06 X	79	3	22	7	0.99	862 X		0.03	37 X		0.04	3	115	5 X	X		9 X		20 X		13 X		10	
D	WS53025	566352	5454002	AGD66	55		X		7580	5	24 X		0.1 X	77	3	17	8	1.5	896 X		0.03	38 X		0.03	3	153	6 X	X		10 X		12 X		18 X		5	
D	WS53026	566299	5453998	AGD66	55		1 X		15323 X		23 X		0.06 X	84	2	43	10	2.34	895 X		0.04	66 X		0.04	4	211	7 X	X	1		6 X		24 X		34 X	6	
D	WS53027	566249	5454001	AGD66	55		1 X		12693 X		25 X		0.04 X	90	3	19	8	2	943 X		0.03	79 X		0.03	4	172	7 X	X	1		5 X		27 X		25 X	9	
D	WS53028	566199	5454002	AGD66	55		1 X		17671	14	22 X		0.03 X	72	3	44	11	2.8	801 X		0.03	54		1	0.03	5	195	6 X	X	1		9 X		22 X		36 X	6
D	WS53029	566152	5453999	AGD66	55		3 X		20048	7	35 X		0.17 X	63	3	32	13	2.94	1122 X		0.05	273		1	0.03	5	239	7 X	X	1		20 X		38 X		38 X	7
D	WS53030	566101	5454002	AGD66	55		1 X		6995 X		12 X		0.03 X	82	3	22	6	1.53	437 X		0.02	55 X		0.02	2	76	4 X	X	3		3 X		45 X		30 X	5	
D	WS53031	566049	5454003	AGD66	55		3 X		20193	5	68 X		0.26 X	65	3	36	27	3.02	2020 X		0.08	272		2	0.04	8	208	8 X	X	2		25 X		20 X		29 X	12
D	WS53032	566003	5454000	AGD66	55		2 X		16784 X		49 X		0.1 X	74	3	76	20	2.27	2015 X		0.09	316 X		0.04	8	155	7 X	X	2		10 X		59 X		23 X		15
D	WS53033	565949	5454002	AGD66	55		1 X		17946 X		27 X		0.04 X	79	3	18	8	1.86	891 X		0.05	266 X		0.04	5	168	8 X	X	1		6 X		40 X		23 X		12
D	WS53034	565900	5454004	AGD66	55		3 X		16251 X		28 X		0.05 X	80	4	25	9	1.65	1151 X		0.09	360 X		0.03	6	109	7 X	X	1		7 X		75 X		22 X		13
D	WS53054	566396	5456003	AGD66	55		3 X		11601	8	40 X		0.08 X	111	2	18	12	1.11	1568		0.05	63 X		0.03	4	67	7 X	X		8 X		20 X		12 X		11	
D	WS53055	566351	5456000	AGD66	55		1 X		13869 X		48 X		0.04 X	94	2	24	7	0.74	1497 X		0.05	47 X		0.03	3	45	6 X	X	1		6 X		20 X		12 X		15
D	WS53056	566303	5456002	AGD66	55		2 X		13399 X		42 X		0.04 X	73	3	18	6	1.3	1445 X		0.06	71 X		0.03	4	29	5 X	X	1		6 X		34 X		13 X		16
D	WS53057	566247	5456004	AGD66	55		2 X		18045 X		39 X		0.04 X	92	2	31	6	1.31	1438 X		0.05	38 X		0.04	3	36	7 X	X	2		5 X		65 X		16 X		13
D	WS53058	566199	5456002	AGD66	55		1 X		14161 X		37 X		0.04 X	98	3	20	6	1.17	1407 X		0.06	41 X		0.04	3	36	6 X	X	1		3 X		37 X		15 X		8
D	WS53059	566148	5455998	AGD66	55		2 X		21325 X		55 X		0.06 X	78	2	41	7	1.73	1436 X		0.07	25 X		0.04	3	49	8 X	X	2		7 X		18 X		20 X		10
D	WS53060	566101	5455999	AGD66	55		1 X		25430	5	36 X		0.04 X	76	2	39	6	2.46	1134 X		0.05	22 X		0.03	3	75	10 X	X	2		5 X		25 X		27 X		

## APPENDIX II

### Rock Chip Data

Rock Chips

H0100 Tenement No/Combined Report No EL30/2004  
 H0101 Tenement Header Greatland Pty Ltd  
 H0102 Tenement Operator Greatland Pty Ltd  
 H0103 Project Name Warrentinna  
 H0104 250K Map Sheet SK55-21  
 H0105 100K Map Sheet 8416 8416  
 H0200 Start Date of Data Acquisition Dec-11  
 H0201 End Date of Data Acquisition Oct-12  
 H0202 Data Format SC2  
 H0203 Number of Data Records 16  
 H0204 Date of Metadata Update Nov-12  
 H0500 Feature Located Sample Point  
 H0501 Geodetic Datum AGD86  
 H0502 Vertical Datum N/A  
 H0503 Projection AMG  
 H0504 Projection Zone 55  
 H0505 Surveying Instrument Handheld GPS  
 H0506 Surveying Company Greatland Pty Ltd  
 H0600 Sample Code rockchip  
 H0601 Sample Type rockchip  
 H0602 Sample Description rockchip  
 H0700 Sample Prep Code ssmg  
 H0701 Sample Prep Details 75micron  
 H0702 Job No 1201627  
 H0800 Assay Code AR10/GF AR10/OE  
 H0801 Assay Company Genalysis Laboratories  
 H0802 Assay Description Aqua Regia AAS OES  
 H0900 Remarks below detection = X

H1000	Sample No	East metres	North metres	Datum	Zone	Au ppb	Ag ppm	Al ppm	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K ppm	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Te ppm	Ti ppm	Ti ppm	V ppm	W ppm	Zn ppm		
H1001		1	1				1	0.5	20	5	2	2	0.01	0.5	20	1	2	1	0.01	20	20	0.01	1	1	0.01	1	20	1	2	1	1	2	5	2	2	2	1	
H1002																																						
H1003					AR10/GF		AR10/OE																															
D	WK140185	556120	5455771	AGD86	55	X	X		10463	6	24	X	0.01	X	31	X	47	4	2.3	906	X	0.01	18	X	0.02	3	78	3	X	2	4	X	139	X	17	X	2	
D	WK140186	556428	5456081	AGD86	55	X	1	X	7171	75	36	9	0.01	X	29	X	63	88	11.36	382	X	X	21	X	0.02	9	30	16	X	11	1	X	20	X	64	X	76	
D	WK140187	556412	5456081	AGD86	55	X	X		6891	X	26	3	X	X	29	X	19	13	4.09	1320	X	0.01	16	X	0.02	5	75	10	X	1	4	X	56	X	12	X	9	
D	WK140188	556397	5456106	AGD86	55	X	X		12872	13	27	7	X	X	X	X	65	34	13.77	1545	X	0.02	5	3	0.03	9	751	17	X	6	2	3	33	X	39	X	28	
D	WK140189	556426	5456084	AGD86	55	X	5	X	11848	6	47	X	0.01	X	78	X	29	8	1.45	2499	34	0.03	7	X	0.03	5	56	8	X	2	5	X	77	X	14	X	5	
D	WK140190	556426	5456084	AGD86	55	X	X		7464	19	19	5	0.01	X	22	X	35	37	10.01	955	X	0.01	21	X	0.02	13	523	64	X	4	3	3	20	X	20	X	40	
D	WK140191	556452	5456078	AGD86	55	X	X		14607	12	36	3	0.01	X	73	X	25	19	3.72	1859	34	0.02	4	X	0.02	5	47	10	X	2	5	2	101	X	12	X	2	
D	WK140192	556442	5455818	AGD86	55	X	X		14295	X	49	2	0.01	X	X	1	33	19	2.72	1515	X	0.02	22	1	0.02	7	70	15	X	2	14	X	105	X	19	X	19	
D	WS140193	556437	5455850	AGD86	55	X	X		24172	16	32	7	0.1	X	22	X	39	6	3.06	1107	X	0.06	73	X	0.03	6	131	9	X	2	12	X	15	X	38	X	8	
D	WK140194	556417	5455888	AGD86	55	X	1	X	13007	5	58	X	0.01	X	X	22	19	1.74	1684	X	0.02	8	X	0.02	6	49	11	X	1	15	X	114	X	14	X	20	X	22
D	WK140195	556044	5455714	AGD86	55	X	X		2358	X	10	X	0.01	X	X	X	8	4	0.61	279	X	X	46	X	0.02	3	X	1	X	X	3	2	43	3	4	X	3	
D	WK140196	555983	5455422	AGD86	55	X	X		843	X	2	X	0.01	X	X	X	5	3	0.58	X	X	X	44	X	0.02	2	X	X	X	X	X	10	X	X	X	X	X	
D	WK140197	555983	5455422	AGD86	55	X	5	X	14791	21	44	X	0.02	X	57	X	25	17	2.3	2033	26	0.05	14	X	0.02	5	77	8	X	3	9	X	162	X	26	X	9	
D	WK140198	556031	5455266	AGD86	55	X	X		16717	7	80	3	0.01	X	62	2	39	36	3.64	3287	29	0.2	32	X	0.03	8	104	17	X	2	26	X	442	X	34	X	18	
D	WK140199	555993	5455318	AGD86	55	X	X		595	X	4	0.01	X	X	X	X	5	3	0.45	21	X	X	34	X	0.02	2	X	X	X	X	X	12	X	X	X	X	X	
D	WK140210	556486	5456309	AGD86	55	X	X		8444	X	32	4	X	X	X	X	17	5	1.34	1376	X	0.02	25	X	0.02	3	X	8	X	1	6	2	170	X	11	X	12	

EOF

## APPENDIX III

### Geological Mapping Data

To: Greatland Pty Ltd

Re: Preliminary Notes on Follow-up Sampling of OXBERRY Area, ELs 30/2004, 35/2007

## **Introduction**

Field work was done on Dec 2011 by contract geologist John A. Earthrowl of SilDol P/L with Field Assistant, Neil Ferguson.

## **Task**

A stream sediment sample had been panned for gold by an earlier Greatland geologist and visible gold reported. Callum Baxter of Greatland instructed Earthrowl to revisit the site of the panned gold take appropriate stream sediment samples. In addition the immediate area was to be prospected and mapped and rock samples collected.

## **Topographic, Cadastral and Geological Setting**

Maps supplied by Greatland showed that the panned gold came from a small north-flowing creek in topographically rugged country within Forestry Tasmania ground.

The MRT geology map supplied showed the panned gold site to be within steeply dipping, NNW striking stratigraphy of the Ordovician-Silurian-Devonian? Mathinna Supergroup comprising "interbedded sandstone, siltstone and mudstone". Two hundred metres west of the site the Mathinna units are mapped as "contact metamorphosed by granitic intrusion".

## **Methodology**

Sampling and mapping was done by 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. 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**

Access to the Oxberry area was via good gravel roads east from Scottsdale thence via forestry tracks within the tenements, some of which were very overgrown and narrow.

Creek traversing for stream sediment/soil samples was done on foot.

## **Field Sampling**

The task was to follow-up on a "Panned Gold sample" reported from cords: AGD66 Zone 55 555780E, 5455900N. This site was located on a small creek using a GPS but no evidence of previous sampling could be found....no tag, no flagging.

### **(i) Drainage Sampling**

From this site we proceeded up stream to the south and took additional 3 stream samples in an effort to replicate the original successful panning. These three samples (140152,153,157) were taken within 110m of the panned sample. The samples were collected unsieved in the field, but were washed and sieved to minus 2mm at home prior to sending to the lab.

An additional two samples (140165,140168) were taken from dry creek beds 300m to the north west. A sixth creek bed sample (140193) was taken from 600m to the east.

### (ii) **Rock Sampling**

Various rock samples were collected from traversing within 900m of the panned gold sample site, as follows:

- 5 boulder samples (140154,155,156,188 and 140199)
- 10 rubble samples (140158,163,164,167,185,190,191,192,194 and 196)
- 10 suboutcrop samples (140159,160,161,169,186,187,195,198 and 210)
- 5 outcrop samples (140166,170,189 and 200)

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

### **Preliminary Conclusions**

The following preliminary conclusions can be drawn from the mineralogy of the lithologies sampled and their possible significance:

(1) A Quartz-Hematite Breccia rock (140188 and 190) was found in rubble and boulders in the north east of the traversed area. These two samples came from nearby samples (140189 and 191) which were of Siltst,graphitic. Also nearby were samples with gossanous quartz veining (140186 and 187). Other samples containing graphite came from sites 140197 and 140200.

(2) Samples of gossanous veining was seen in samples of Siltstone and Sandstone (140187 and 140198)

(3) Quartz veining of varying width was seen in samples 140155,167,196 and 199.

(4) Possible mineralogical supporting evidence for the proximity of the Devonian Granite are two samples found in the south west of the area traversed: Quartz pegmatite mineralogy in one sample (140158) and andalusite/staurolite? in sample 140163. Both of these sample sites plot within the mapped contact metamorphic aureole of the Devonian Granite.

Assay results should be available soon so that more definitive conclusions gone be made.

John A Earthrowl  
24 Swamp Rd.,Kindred, Tasmania, 7310

January 31 2012

## Geology: Rock Types

(1) Conglomerates: This rock type is confined to the northern and northeastern parts of the prospect area. The conglomerate is of varying clast size up to 20mm and both polymictic and oligomictic varieties were seen. Matrix was variable and appeared in some places to be volcanoclastic. This unit is interbedded with the sandstone in places.

(2) Sandstone: The mapped areas of sandstone in the central and eastern parts of the prospect are always interbedded with the conglomerates. The sandstones are generally saccharoidal and buff coloured.

(3) Schist: The schists in the mapped area include quartz-sericite (muscovite), chlorite and graphitic varieties. They are poorly outcropping and intruded with quartz veining throughout. Several occurrences of gossanous rocks have been identified within the schists.

(4) Quartzite: A massive, platy in place banded quartzite has been mapped in the western part of the grid. In this area it is often brecciated and in places gossanous. Soil sample results suggest this quartzite may be a facies of the schist to the east and is interbedded with it.

It is tentatively interpreted to continue to the southern part of the grid.

(5) Quartz Veining: Much suboutcrop and rubble of quartz vein material was encountered, mainly in the area interpreted to be underlain by schists in the central part of the mapped area.

## Geology: Structure

Some structural information was gleaned from the outcrops during the traversing; this is shown on the spreadsheet with other information.

Of the more than 130 geological waypoints recorded only 23 were of outcrop, 10 of which showed some recordable structural information.

The interpreted faults shown on the geology map fit quite well with the soil sample results.

## Rock Sample Assay Results

Referring to the assay results with statistics as shown, the following comments are made:

Element	Units	Max	(Sample #)	Av	Min
Au	ppb	100	(140104)	16.5	1
Ag	ppm	1.4	/	1.1	0.7
Al	ppm	43761	(140129)	9834	2203
As	ppm	583	(140124)	73	5
Ba	ppm	110	(140124)	48	8
Bi	ppm	16	(140104)	6	2
Ca	%	1.67	(140105)	0.08	0.01
Cd	ppm	2.9	(140104)	1.4	0.5
Ce	ppm	118	(140133)	51	22

Co	ppm	124	(140124)	23	1
Cr	ppm	108	(140126)	18	2
Cu	ppm	366	(140118)	63	2
Fe	%	40.54	(140124)	9.62	0.72
K	ppm	3935	(140132)	1655	382
La	ppm	63	(140129)	33	20
Mg	%	4.33	(140105)	0.28	0.01
Mn	ppm	3358	(140124)	271	17
Mo	ppm	12	(140117)	5	1
Na	%	0.7	(140105)	0.06	0.03
Ni	ppm	297	(140124)	61	1
P	ppm	2009	(140120)	506	35
Pb	ppm	432	(140102)	65	1
Sb	ppm	5	/	3	2
Sc	ppm	92	(140117)	15	1
Sr	ppm	175	(140105)	11	1
Te	ppm	5	/	4	2
Ti	ppm	2749	(140105)	191	5
Tl	ppm	4	/	4	3
V	ppm	279	(140117)	36	2
W	ppm	10	/	10	10
Zn	ppm	4254	(140124)	524	1

From the above results it can be seen that the following samples have returned possibly significant results:

- **Sample 140124** from coords 470716E, 5396511N: Gossan, boxwork, banded, limonitic; returned maximum values in As, Ba, Co, Fe, Mn, Ni and Zn.
- **Sample 140104** from coords 470447E, 5396626N: Gossan, hematite boxwork within brecciated chlorite schist; returned maximum values in Au, Bi and Cd.

Another two samples (140105 and 140117) returned maxima in Ca, Mg, Na, Sr, Ti and Mo, Sc and V respectively.

Of these four samples, 140124, 140104 and 140117, came from within or near schist lithologies in the northwest of the grid as shown on the geology map in red.

Sample 140105, which is probably a glacial erratic, came from the south of the grid.

### Soil sample Results

Soil results supplied by Greatland are summarised:

**Au:** max was 5ppb from a single unsupported sample from within schist central in the grid. Significantly this sample is 400m away from the 100ppb rock sample result, and the rock sample site produced no soil Au values above DL nearby.

**As:** max was 29ppm from schist with support to the northwest trending into the mapped quartzite.

**Cu:** max was 182ppm from near the schist/quartzite contact in the south. Another area of slight anomalism, with a max of 53ppm, occurs within the quartzite/schist to the west.

**Ni:** max of 59ppm with some support within the quartzite to the west.

**Pb:** a significant max of 690ppm from within the schist with moderately high support in an area trending north-west into the mapped quartzite .Compared to other base metal results in soils the lead values are by far the most anomalous.

**Zn:** max value of only 68ppm which is low considering the high rock sample assay of 4254ppm obtained. The area from which the high rock sample came does show some soil sample support up to 62ppm trending into the quartzite.

**Ba:** max of 214ppm with a broad interfingering contour pattern paralleling the strike of the strata.

## **Conclusions**

The geology map produced from the foot traversing of the area has defined the distribution of the stratigraphy in more detail than shown on government mapping.

The mapped schists are presumably the *Ptp Qtz-Muscovite Schist/Phyllite* as per government mapping? If this is the case the grid mapping has shown them to be more widespread.

The grid mapping of the Quartzite checks with the government mapped *Pts Massive platy quartzite*, but in the grid area this may be part of the schist unit?

The base metal values from the 29 rock samples collected are not overly significant: Co 124ppm, Cu 366, Ni 297, Pb 432 and Zn 4254. Only the Zn value is high and may be due to Mn scavenging as the maxima in Zn and Mn came from the same sample (140124).

Only the Au value of 100ppb from sample 140104 would be statistically regarded as anomalous.

The soil sample results show no significant base metal values, but the soil sample results do show a trend of values into the mapped quartzite in the west of the grid area. This suggests that the mapped quartzite may be a facies of the schist unit as mentioned above.

## **Recommendations**

In view of some of the base metal soil values coming from the separately mapped quartzite unit in the west of the grid, it is recommended that further geological mapping be done in that area to determine whether that unit is in fact interbedded with the schists.

The site of the 690ppm Pb soil sample (470800E/5396450N) should be revisited to identify the source rock and take infill soil samples.

Similarly the site of the 100ppb Au rock sample (470447E/5396626N) should be resampled.

Signed:        John A. Earthrowl M.Sc.  
                  SilDol Pty. Ltd.  
                  Contract Mineral Exploration Consultants  
                  24 Swamp Rd., Kindred, Tasmania, 7310

2 February 2012

To: Greatland P/L

Attn: Callum Baxter

**Notes on Sample Assays and Mapping at the OXBERRY Prospect, ELs 30/2004 and 35/2007**

**Introduction**

This document is a follow-up to the document, dated January 31<sup>st</sup> 2012, titled "Preliminary Notes on Follow-up Sampling of the Oxberry area, ELs 30/2004, 35/2007".

**Erratum**

In the original Jan 31 2012 document, a minor error has been found. In (ii) Rock Sampling, add 140197 to the 5 outcrop samples.

**Assay Results: Rock/Stream Sediment Samples**

The 36 samples, numbered 140152-140170, 140185-140200 and 140210, have been assayed for the following 31 elements at Genalysis Labs., Perth:

Au, Ag, Al, As, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sc, Sr, Te, Ti, Tl, V, W and Zn.

App 1 shows sample details and their assays. Details of lab methodology, detection limits etc are shown in the lab results attached as App 2.

Statistically significant results are summarised:

<b>Element</b>	<b>Units</b>	<b>Max</b>	<b>Ave</b>	<b>Min</b>
Au	ppb	13	2.5	1
Al	ppm	27114	10000	230
As	ppm	172	21.9	5
Ba	ppm	80	34.5	2
Cr	ppm	70	27.7	3
Cu	ppm	88	15.5	1
Fe	%	13.8	3	0.39
K	ppm	8271	1769	21
Mg	%	0.98	0.14	0.01
Mn	ppm	220	57.1	4
Ni	ppm	34	8.6	2
Pb	ppm	64	9.8	1
Sr	ppm	26	7.3	1
Ti	ppm	851	134	6
V	ppm	64	21	3
Zn	ppm	76	21.7	1

Other elements' results were statistically insignificant.

Of the six stream sediment samples, gravels and soils from flowing and dry creek beds, only three returned Au values of 1ppb. The highest gold value came from sample 140158, a rubble sample of "Quartz Vein material with minor muscovite, possibly pegmatitic".

The highest As value of 172ppm (140161) was from suboutcropping "very weathered, buff coloured, slightly fissile Siltstone".

The highest Cu value of 88ppm (140186) supported with 76ppmZn, 64ppmV, 11ppmSc and 9ppmBi was from suboutcrop of "sheared quartz vein with iridescent iron".

The highest Ni value of 34ppm (140160) came from suboutcropping "very weathered shale/siltstone with 1-2mm andalusite/staurolite".

Sample 140163, from rubble of Shale/siltstone with andalusite/staurolite returned maxima of 2.7%Al, 0.83%K, 0.98%Mg, 220ppmMn, 3ppmMo and 851ppmTi.

The samples (140188, 140190) of "quartz- hematite breccia" predictably returned the highest Fe values of 11.36 and 13.77% but insignificant base metals and gold. Phosphate values of 751 and 523ppm are slightly elevated.

### **Assay Results: Soil Samples**

166 soil samples were collected at 50m intervals on the east-west lines as shown on Fig 1. The samples (WS 52926-53092) were sent to Genalysis, Perth, sieved to 80 microns and assayed for the same suite of 31 elements as the rock samples. Results are shown in App 3.

Statistically significant results are summarised:

<b>Element</b>	<b>Units</b>	<b>Max</b>	<b>Ave</b>	<b>Min</b>
Au	ppb	5	1.6	1
Al	%	4.3	1.1	0.04
Ba	ppm	121	36	5
Ca	%	0.39	0.06	0.01
Cr	ppm	82	25	4
Fe	%	5.04	1.36	0.25
K	ppm	5184	1141	82
Mn	ppm	1201	114	15
Ti	ppm	317	49.5	39
V	ppm	48	17.2	2

Only the 5ppb Au sample (WS52954) is of significance to the exploration results.

Base metal maxima for the soil samples were as follows: Co5ppm, Cu27ppm, Ni11ppm, Pb20ppm, Zn37ppm.

As values were as follows: max 26ppm, av 10ppm, min 5ppm which are not statistically significant. Their distribution however did allow crude contouring as per Fig 2 showing a reasonably well defined north-south trend parallel to the regional geology. Sites of maxima base metal and gold values are also shown on Fig 2. They did not lend themselves separately to any meaningful contouring.

### **Geology Mapping**

Of the 30 rock chip samples collected only 5 were from outcrop, a further 10 from suboutcrop and 10 of rubble. Three of the outcrops showed measurable structural information as shown on the spreadsheet, App 1, and on Fig 3.

The dominant lithology in the Oxberry area are various siltstone/shales, generally very weathered, buff to light brown of the Silurian/Devonian Methinna Supergroup turbidites. Some were light grey, some possibly graphitic. Andalusite/staurolite minerals were tentatively identified at two sites. Quartz veins were located at five sites; micro scale quartz veining at a further four sites. Gossanous material was identified at four sites including two associated with a quartz-hematite breccia (140188, 140190). The breccias appeared discordant to the regional geology.

### **Conclusions**

No highly significant gold or base metal values were returned from either the 166 soil samples or the 30 rock chip samples. The 3 stream sediment samples taken upstream from the earlier panned gold sample returned only 1 ppb assays each.

However there is some indication of upstream coincident weak gold, arsenic and base metal anomalism that warrants followup. The maximum Au rock chip sample (140158) of 13 ppb came from the vicinity of samples 140161 and 140163 which returned 172 and 19ppm As. Four high Cu values (36, 42, 13 and 10ppm), three Zn (68, 67 and 45ppm) and Pb (14ppm) came from nearby.

### **Recommendations**

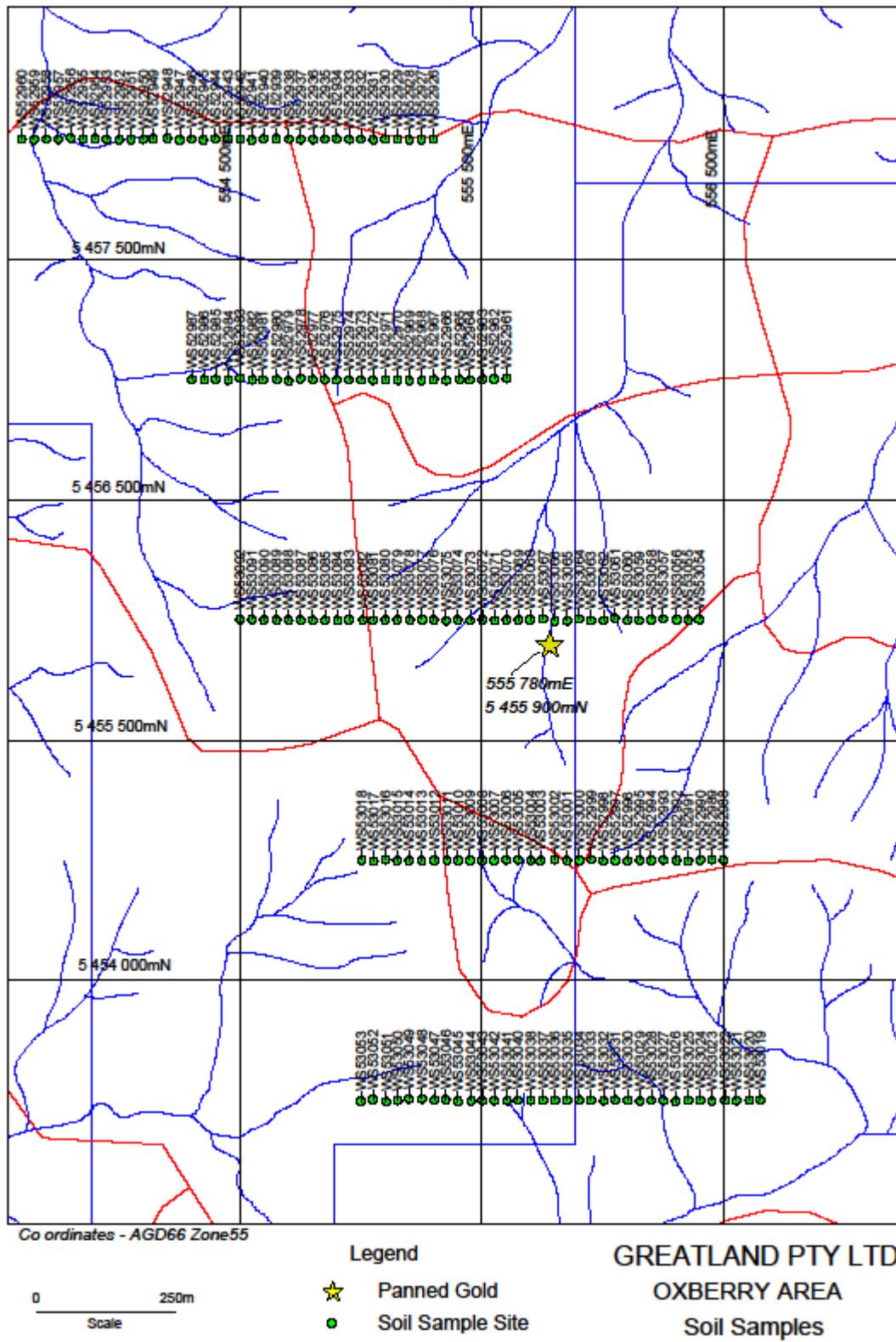
Followup soil sampling and prospecting is warranted to check out the weak coincident Au-As-Cu-Zn-Pb anomalism south of the original panned gold sample.

Two infill soil lines are recommended along (AGD66 Zone55) 5 455 500mN and 5 454 000mN extending from 555 000mE to 556 500mE. This amounts to 3 kms of soil samples at 50m intervals = 60 samples.

John A Earthrowl  
24 Swamp Rd.,  
Kindred, Tasmania, 7310

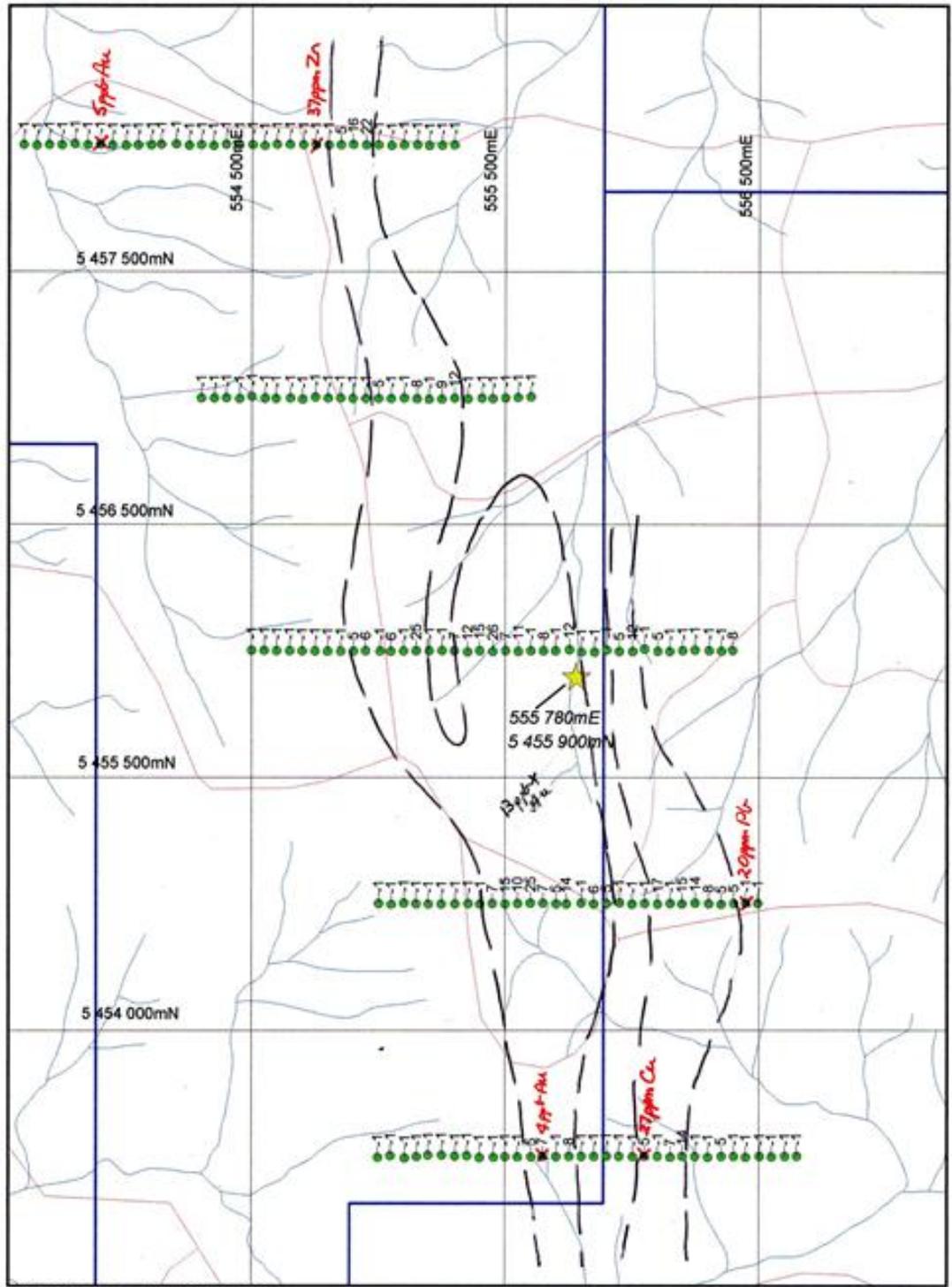
25 April 2012

**Figure 1**

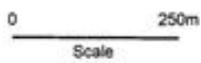


**Figure 2**

Fig. 2



Co ordinates - AGD66 Zone55



**Legend**

- ★ Panned Gold
- Soil Sample Site
- ✕ Soil Assays, maxima.
- ✕ Rock chip, maximum Au.

**GREATLAND PTY LTD  
OXBERRY AREA**

As ppm, Contoured

JAE/21.4.2012





# ANALYTICAL REPORT

**Callum BAXTER**  
**GREATLAND PTY LTD**  
641 Happy Valley Road  
DENMARK, W.A. 6333  
AUSTRALIA

## JOB INFORMATION

JOB CODE : 1170.0/1201627  
No. of SAMPLES : 36  
No. of ELEMENTS : 31  
CLIENT O/N : 20120203 (Job 1 of 1)  
SAMPLE SUBMISSION No. :  
PROJECT : Warrentinna  
STATE : Rock Chip  
DATE RECEIVED : 01/02/2012  
DATE COMPLETED : 06/03/2012  
DATE PRINTED : 06/03/2012  
PRIMARY LABORATORY : Genalysis Main Laboratory

## LEGEND

X = Less than Detection Limit  
N/R = Sample Not Received  
\* = Result Checked  
( ) = Result still to come  
I/S = Insufficient Sample for Analysis  
E6 = Result X 1,000,000  
UA = Unable to Assay  
> = Value beyond Limit of Method  
OV = Value over-range for Package

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## SAMPLE DETAILS

### **DISCLAIMER**

Genalysis Laboratory Services Pty Ltd wishes to make the following disclaimer pertaining to the accompanying analytical results.

Genalysis Laboratory Services Pty Ltd disclaims any liability, legal or otherwise, for any inferences implied from this report relating to either the origin of, or the sampling technique employed in the collection of, the submitted samples.

### **SIGNIFICANT FIGURES**

It is common practice to report data derived from analytical instrumentation to a maximum of two or three significant figures. Some data reported herein may show more figures than this. The reporting of more than two or three figures in no way implies that the third, fourth and subsequent figures may be real or significant.

**Genalysis Laboratory Services Pty Ltd accepts no responsibility whatsoever for any interpretation by any party of any data where more than two or three significant figures have been reported.**

## SAMPLE STORAGE DETAILS

### **GENERAL CONDITIONS**

#### **SAMPLE STORAGE OF SOLIDS**

Bulk Residues and Pulps will be stored for 60 DAYS without charge. After this time all Bulk Residues and Pulps will be stored at a rate of \$3.30 per cubic metre per day until your written advice regarding collection or disposal is received. Expenses related to the return or disposal of samples will be charged to you at cost. Current disposal cost is charged at \$100.00 per cubic metre.

#### **SAMPLE STORAGE OF SOLUTIONS**

Samples received as liquids, waters or solutions will be held for 60 DAYS free of charge then disposed of, unless written advice for return or collection is received.

**ANALYSIS**

ELEMENTS	Au	Ag	Al	As	Ba	Bi	Ca	Cd	Ce	Co
UNITS	ppb	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
DETECTION LIMIT	1	0.5	20	5	2	2	0.01	0.5	20	1
DIGEST	AR10/	AR10/	AR10/	AR10/	AR10/	AR10/	AR10/	AR10/	AR10/	AR10/
ANALYTICAL FINISH	GF	OE	OE	OE	OE	OE	OE	OE	OE	OE
SAMPLE NUMBERS										
0001 WN140152	1	X	1.44%	6	55	X	0.05	X	29	3
0002 WN140153	1	X	1.21%	10	51	2	0.09	X	31	3
0003 WK140154	X	X	7165	X	25	2	0.02	X	X	X
0004 WK140155	X	X	802	X	4	2	0.05	X	X	X
0005 WK140156	1	X	230	X	X	X	0.02	X	X	X
0006 WN140157	1	X	1.71%	8	64	3	0.05	X	34	3
0007 WK140158	13	X	1013	29	3	2	0.01	X	X	X
0008 WK140159	1	X	1.17%	14	37	2	0.02	X	66	6
0009 WK140160	1	X	1.70%	13	30	X	0.01	X	X	5
0010 WK140161	1	X	9145	172*	26	X	0.01	X	50	X
0011 WK140162	X	X	9532	7	45	X	0.02	X	45	1
0012 WK140163	3	X	2.71%*	19	68	X	0.01	X	76	7
0013 WK140164	1	X	1.31%	14	28	X	0.01	X	44	3
0014 WS140165	X	X	9749	9	37	X	0.13	X	30	X
0015 WK140166	1	X	1.00%	8	30	X	0.01	X	26	X
0016 WK140167	X	X	797	X	2	3	0.01	X	X	X
0017 WN140168	X	X	8603	6	47	X	0.05	X	31	6
0018 WK140169	1	X	7289	X	24	4	0.01	X	X	X
0019 WK140170	5	X	1.03%	30	29	X	0.01	X	54	X
0020 WK140185	X	X	1.05%	6	24	X	0.01	X	31	X
0021 WK140186	1	X	7171	75	36	9	0.01	X	X	1
0022 WK140187	X	X	6891	X	26	3	X	X	29	X
0023 WK140188	X	X	1.29%	13	27	7	X	X	X	X
0024 WK140189	5	X	1.18%	6	47	X	0.01	X	78	X
0025 WK140190	X	X	7464	19	19	5	0.01	X	22	X
0026 WK140191	X	X	1.40%	12	36	3	0.01	X	73	X
0027 WK140192	X	X	1.43%	X	49	2	0.01	X	X	1
0028 WS140193	X	X	2.42%	16	32	7	0.10	X	22	X
0029 WK140194	1	X	1.30%	5	58	X	0.01	X	X	X
0030 WK140195	X	X	2358	X	10	X	0.01	X	X	X
0031 WK140196	X	X	843	X	2	X	0.01	X	X	X
0032 WK140197	5	X	1.48%	21	44	X	0.02	X	57	X
0033 WK140198	X	X	1.67%	7	80	3	0.01	X	62	2
0034 WK140199	X	X	595	X	X	4	0.01	X	X	X
0035 WK140200	X	X	2.15%	X	45	X	0.02	X	85	8
0036 WK140210	X	X	8444	X	32	4	X	X	X	X

**ANALYSIS**

ELEMENTS	Cr	Cu	Fe	K	La	Mg	Mn	Mo	Na	Ni
UNITS	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
DETECTION LIMIT	2	1	0.01	20	20	0.01	1	1	0.01	1
DIGEST	AR10/									
ANALYTICAL FINISH	OE									
SAMPLE NUMBERS										
0001 WN140152	24	7	2.26	2706	X	0.12	107	2	0.03	11
0002 WN140153	20	7	1.82	1927	X	0.13	179	2	0.03	11
0003 WK140154	24	5	1.39	1304	X	0.02	29	X	0.02	5
0004 WK140155	6	1	0.61	126	X	0.02	59	X	0.02	3
0005 WK140156	3	X	0.39	X	X	X	38	X	0.02	3
0006 WN140157	27	8	2.24	3047	X	0.18	128	2	0.03	15
0007 WK140158	6	2	0.55	37	X	X	40	X	0.02	2
0008 WK140159	40	13	2.08	2520	36	0.26	59	1	0.02	24
0009 WK140160	36	36	3.90	1648	X	0.40	148	2	0.03	34
0010 WK140161	25	10	1.65	1039	22	0.02	13	1	0.02	4
0011 WK140162	28	11	2.16	1890	27	0.13	22	1	0.02	8
0012 WK140163	39	42	4.14	8271	37	0.98	220*	3	0.03	28
0013 WK140164	34	19	3.22	2403	20	0.16	22	3	0.02	12
0014 WS140165	14	6	1.67	1182	X	0.06	132	2	0.04	5
0015 WK140166	36	11	2.63	1324	X	0.02	23	2	0.04	4
0016 WK140167	6	2	0.71	X	X	X	39	X	0.02	2
0017 WN140168	14	5	1.32	1783	X	0.10	212	X	0.03	10
0018 WK140169	70	9	9.53	1017	X	X	13	3	0.02	2
0019 WK140170	25	12	1.37	1437	25	0.02	6	2	0.02	3
0020 WK140185	47	4	2.30	906	X	0.01	18	X	0.02	3
0021 WK140186	63	88	11.36	382	X	X	21	X	0.02	9
0022 WK140187	19	13	4.09	1320	X	0.01	16	X	0.02	5
0023 WK140188	65	34	13.77	1545	X	0.02	5	3	0.03	9
0024 WK140189	29	8	1.45	2499	34	0.03	7	X	0.03	5
0025 WK140190	35	37	10.01	955	X	0.01	21	X	0.02	13
0026 WK140191	25	19	0.72	1859	34	0.02	4	X	0.02	5
0027 WK140192	33	19	2.72	1515	X	0.02	22	1	0.02	7
0028 WS140193	39	6	3.06	1107	X	0.06	73	X	0.03	6
0029 WK140194	22	19	1.74	1684	X	0.02	8	X	0.02	6
0030 WK140195	8	4	0.61	279	X	X	46	X	0.02	3
0031 WK140196	5	3	0.58	X	X	X	44	X	0.02	2
0032 WK140197	25	17	2.30	2033	26	0.05	14	X	0.02	5
0033 WK140198	39	36	3.64	3287	29	0.20	32	X	0.03	8
0034 WK140199	5	3	0.45	21	X	X	34	X	0.02	2
0035 WK140200	44	20	3.17	3951	40	0.83	176	X	0.03	32
0036 WK140210	17	5	1.34	1376	X	0.02	25	X	0.02	3

**ANALYSIS**

ELEMENTS	P	Pb	Sb	Sc	Sr	Te	Ti	Tl	V	W
UNITS	ppm									
DETECTION LIMIT	20	1	2	1	1	2	5	2	2	2
DIGEST	AR10/									
ANALYTICAL FINISH	OE									
SAMPLE NUMBERS										
0001 WN140152	146	7	X	2	9	X	91	X	20	X
0002 WN140153	163	6	X	2	14	X	75	X	18	X
0003 WK140154	147	6	X	1	5	X	24	X	17	X
0004 WK140155	X	X	X	X	2	X	15	X	3	X
0005 WK140156	X	1	X	X	X	X	6	X	X	X
0006 WN140157	174	6	3	2	11	X	177	X	24	X
0007 WK140158	X	X	X	X	1	X	13	X	3	X
0008 WK140159	171	6	8*	2	8	X	330	X	22	X
0009 WK140160	312	7	X	2	3	X	85	X	37	X
0010 WK140161	208	3	X	3	9	2	57	X	15	X
0011 WK140162	114	6	X	4	8	X	335	X	21	X
0012 WK140163	189	14	X	5	11	X	851*	X	48	X
0013 WK140164	256	8	X	9	4	X	345	X	26	X
0014 WS140165	191	6	X	1	16	X	37	X	22	X
0015 WK140166	60	8	X	3	6	X	92	X	22	X
0016 WK140167	29	4	X	X	1	X	12	X	3	X
0017 WN140168	93	3	X	1	9	X	74	X	11	X
0018 WK140169	24	7	X	1	3	X	79	X	17	2
0019 WK140170	45	7	X	2	5	X	32	X	14	X
0020 WK140185	78	3	X	2	4	X	139	X	17	X
0021 WK140186	30	16	X	11	1	X	20	X	64	X
0022 WK140187	75	10	X	1	4	X	56	X	12	X
0023 WK140188	751*	17	X	6	2	3	33	X	39	X
0024 WK140189	56	8	X	2	5	X	77	X	14	X
0025 WK140190	523	64*	X	4	3	3	20	X	20	2
0026 WK140191	47	10	X	2	5	2	101	X	12	X
0027 WK140192	70	15	X	2	14	X	105	X	19	X
0028 WS140193	131	9	X	2	12	X	15	X	38	X
0029 WK140194	49	11	X	1	15	X	114	X	20	X
0030 WK140195	X	1	X	X	3	2	43	3	4	X
0031 WK140196	X	X	X	X	X	X	10	X	X	X
0032 WK140197	77	8	X	3	9	X	162	X	26	X
0033 WK140198	104	17	X	2	26	X	442	X	34	X
0034 WK140199	X	X	X	X	X	X	12	X	X	X
0035 WK140200	186	11	X	2	8	X	584	X	33	X
0036 WK140210	X	8	X	1	6	2	170	X	11	X

## ANALYSIS

ELEMENTS	Zn
UNITS	ppm
DETECTION LIMIT	1
DIGEST	AR10/
ANALYTICAL FINISH	OE

### SAMPLE NUMBERS

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0001 WN140152	23
0002 WN140153	25
0003 WK140154	6
0004 WK140155	1
0005 WK140156	X

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0006 WN140157	35
0007 WK140158	X
0008 WK140159	45
0009 WK140160	67
0010 WK140161	7

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0011 WK140162	10
0012 WK140163	68
0013 WK140164	26
0014 WS140165	8
0015 WK140166	10

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0016 WK140167	X
0017 WN140168	17
0018 WK140169	12
0019 WK140170	2
0020 WK140185	2

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0021 WK140186	76
0022 WK140187	8
0023 WK140188	28
0024 WK140189	5
0025 WK140190	40

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0026 WK140191	2
0027 WK140192	19
0028 WS140193	8
0029 WK140194	22
0030 WK140195	3

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0031 WK140196	X
0032 WK140197	9
0033 WK140198	18
0034 WK140199	X
0035 WK140200	58

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0036 WK140210	12
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**ANALYSIS**

ELEMENTS	Au	Ag	Al	As	Ba	Bi	Ca	Cd	Ce	Co
UNITS	ppb	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
DETECTION LIMIT	1	0.5	20	5	2	2	0.01	0.5	20	1
DIGEST	AR10/									
ANALYTICAL FINISH	GF	OE								
<b>CHECKS</b>										
0001 WN140152	2	X	1.75%	13	67	2	0.06	X	36	3
0002 WK140186	1	X	7521	80	37	13	0.01	X	X	2
<b>STANDARDS</b>										
0001 CMM-10	33	1.0	1.59%	105	19	27	8.45	1.4	X	25
0002 PL-19	11	X	8641	24	15	2	0.36	X	X	7
0003 CMM-10	42	1.3	1.91%	93	23	32	9.93	1.7	X	32
<b>BLANKS</b>										
0001 Control Blank	X	X	156	X	X	4	0.01	X	X	X
0002 Control Blank	X	X	50	X	X	X	0.03	X	X	X

**ANALYSIS**

ELEMENTS	Cr	Cu	Fe	K	La	Mg	Mn	Mo	Na	Ni
UNITS	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
DETECTION LIMIT	2	1	0.01	20	20	0.01	1	1	0.01	1
DIGEST	AR10/									
ANALYTICAL FINISH	OE									
<b>CHECKS</b>										
0001 WN140152	28	8	2.56	3379	X	0.14	123	X	0.03	13
0002 WK140186	64	91	11.99	420	X	X	23	X	0.02	10
<b>STANDARDS</b>										
0001 CMM-10	147	78	3.62	692	28	4.89	238	25	1.21	70
0002 PL-19	48	20	8.80	109	X	0.03	128	6	0.35	20
0003 CMM-10	167	92	4.26	861	34	5.69	273	25	1.44	83
<b>BLANKS</b>										
0001 Control Blank	X	X	0.03	X	X	X	1	X	0.02	2
0002 Control Blank	2	X	0.02	X	X	0.01	X	X	0.02	2



# ANALYSIS

ELEMENTS	Zn
UNITS	ppm
DETECTION LIMIT	1
DIGEST	AR10/
ANALYTICAL FINISH	OE

## CHECKS

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0001 WN140152	27
0002 WK140186	77

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## STANDARDS

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0001 CMM-10	67
0002 PL-19	16
0003 CMM-10	75

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## BLANKS

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0001 Control Blank	1
0002 Control Blank	X

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## **METHOD CODE DESCRIPTION**

### **AR10/GF**

Genalysis Main Laboratory

Aqua-Regia digest. Analysed by Graphite Furnace Atomic Absorption Spectrometry.

### **AR10/OE**

Genalysis Main Laboratory

Aqua-Regia digest. Analysed by Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry.

# ANALYTICAL REPORT

**Callum BAXTER**  
**GREATLAND PTY LTD**  
641 Happy Valley Road  
DENMARK, W.A. 6333  
AUSTRALIA

## JOB INFORMATION

JOB CODE : 1170.0/1201624  
No. of SAMPLES : 166  
No. of ELEMENTS : 31  
CLIENT O/N : 20120131 (Job 1 of 1)  
SAMPLE SUBMISSION No. :  
PROJECT : Warrentinna  
STATE : Whole Soil  
DATE RECEIVED : 01/02/2012  
DATE COMPLETED : 29/02/2012  
DATE PRINTED : 29/02/2012  
PRIMARY LABORATORY : Genalysis Main Laboratory

## LEGEND

X = Less than Detection Limit  
N/R = Sample Not Received  
\* = Result Checked  
( ) = Result still to come  
I/S = Insufficient Sample for Analysis  
E6 = Result X 1,000,000  
UA = Unable to Assay  
> = Value beyond Limit of Method  
OV = Value over-range for Package

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## **SAMPLE DETAILS**

### **DISCLAIMER**

Genalysis Laboratory Services Pty Ltd wishes to make the following disclaimer pertaining to the accompanying analytical results.

Genalysis Laboratory Services Pty Ltd disclaims any liability, legal or otherwise, for any inferences implied from this report relating to either the origin of, or the sampling technique employed in the collection of, the submitted samples.

### **SIGNIFICANT FIGURES**

It is common practice to report data derived from analytical instrumentation to a maximum of two or three significant figures. Some data reported herein may show more figures than this. The reporting of more than two or three figures in no way implies that the third, fourth and subsequent figures may be real or significant.

**Genalysis Laboratory Services Pty Ltd accepts no responsibility whatsoever for any interpretation by any party of any data where more than two or three significant figures have been reported.**

## **SAMPLE STORAGE DETAILS**

### **GENERAL CONDITIONS**

#### **SAMPLE STORAGE OF SOLIDS**

Bulk Residues and Pulps will be stored for 60 DAYS without charge. After this time all Bulk Residues and Pulps will be stored at a rate of \$3.30 per cubic metre per day until your written advice regarding collection or disposal is received. Expenses related to the return or disposal of samples will be charged to you at cost. Current disposal cost is charged at \$100.00 per cubic metre.

#### **SAMPLE STORAGE OF SOLUTIONS**

Samples received as liquids, waters or solutions will be held for 60 DAYS free of charge then disposed of, unless written advice for return or collection is received.

## ANALYSIS

ELEMENTS	Au	Ag	Al	As	Ba	Bi	Ca	Cd	Ce	Co
UNITS	ppb	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
DETECTION LIMIT	1	0.5	20	5	2	2	0.01	0.5	20	1
DIGEST	AR10/									
ANALYTICAL FINISH	GF	OE								
SAMPLE NUMBERS										
0001 WS52926-80um	1	X	1.11%	X	49	X	0.18	X	68	3
0002 WS52927-80um	1	X	8704	X	58	X	0.13	X	69	3
0003 WS52928-80um	X	X	5400	X	37	X	0.06	X	63	2
0004 WS52929-80um	X	X	1.44%	X	42	X	0.06	X	78	3
0005 WS52930-80um	X	X	9455	X	121*	X	0.19	X	75	3
0006 WS52931-80um	X	X	6590	X	57	X	0.10	X	65	3
0007 WS52932-80um	1	X	1.30%	X	47	X	0.04	X	79	3
0008 WS52933-80um	1	X	1.36%	22	70	X	0.06	X	95	3
0009 WS52934-80um	2	X	1.00%	16	53	X	0.02	X	75	3
0010 WS52935-80um	X	X	1.07%	5	63	X	0.05	X	88	3
0011 WS52936-80um	1	X	1.86%	X	98	X	0.05	X	120	5
0012 WS52937-80um	X	X	1.14%	X	83	X	0.12	X	121	3
0013 WS52938-80um	X	X	8519	X	51	X	0.04	X	95	3
0014 WS52939-80um	X	X	6561	X	45	X	0.06	X	76	2
0015 WS52940-80um	X	X	5448	X	34	X	0.03	X	75	3
0016 WS52941-80um	X	X	9006	X	32	X	0.02	X	91	3
0017 WS52942-80um	X	X	8309	X	38	X	0.03	X	107	2
0018 WS52943-80um	X	X	7776	X	36	X	0.05	X	101	3
0019 WS52944-80um	X	X	1.22%	X	38	X	0.05	X	90	2
0020 WS52945-80um	1	X	1.27%	X	42	X	0.03	X	95	2
0021 WS52946-80um	1	X	1.51%	X	31	X	0.02	X	89	2
0022 WS52947-80um	X	X	2.26%	X	38	X	0.01	X	85	2
0023 WS52948-80um	2	X	1.42%	X	32	X	0.01	X	95	2
0024 WS52949-80um	X	X	1.39%	X	36	X	0.03	X	108	3
0025 WS52950-80um	X	X	6092	X	27	X	0.01	X	118	3
0026 WS52951-80um	X	X	7571	X	29	X	0.03	X	118	3
0027 WS52952-80um	X	X	9414	X	38	X	0.03	X	113	3
0028 WS52953-80um	X	X	2855	X	21	X	0.01	X	102	3
0029 WS52954-80um	5	X	1.26%	X	40	X	0.03	X	109	3
0030 WS52955-80um	1	X	8228	X	34	X	0.06	X	89	3
0031 WS52956-80um	1	X	1.25%	X	50	X	0.06	X	114	3
0032 WS52957-80um	1	X	443	X	5	X	0.03	X	57	3
0033 WS52958-80um	X	X	498	X	5	X	0.02	X	59	3
0034 WS52959-80um	X	X	1.12%	X	33	X	0.02	X	101	2
0035 WS52960-80um	X	X	1.83%	X	29	X	0.02	X	91	3
0036 WS52961-80um	X	X	1.17%	X	16	X	0.03	X	84	2
0037 WS52962-80um	X	X	9730	X	17	X	0.03	X	84	3
0038 WS52963-80um	1	X	7940	X	25	X	0.02	X	92	3
0039 WS52964-80um	3	X	1.26%	X	47	X	0.03	X	122	2
0040 WS52965-80um	3	X	1.24%	X	48	X	0.06	X	98	2

**ANALYSIS**

ELEMENTS	Cr	Cu	Fe	K	La	Mg	Mn	Mo	Na	Ni
UNITS	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
DETECTION LIMIT	2	1	0.01	20	20	0.01	1	1	0.01	1
DIGEST	AR10/									
ANALYTICAL FINISH	OE									
SAMPLE NUMBERS										
0001 WS52926-80um	20	17	1.43	1094	X	0.06	481	X	0.04	4
0002 WS52927-80um	38	14	1.09	1606	X	0.06	295	X	0.05	4
0003 WS52928-80um	11	10	0.84	885	X	0.03	86	X	0.03	3
0004 WS52929-80um	44	11	1.60	1466	X	0.04	58	X	0.04	4
0005 WS52930-80um	15	15	0.93	1886	X	0.08	1201*	X	0.05	5
0006 WS52931-80um	28	9	0.84	1223	X	0.05	149	X	0.04	3
0007 WS52932-80um	18	8	1.23	1179	X	0.06	79	X	0.04	4
0008 WS52933-80um	29	7	1.13	1222	X	0.08	126	X	0.04	4
0009 WS52934-80um	14	6	1.01	1006	X	0.04	70	X	0.03	2
0010 WS52935-80um	25	7	0.59	1398	X	0.06	58	X	0.05	3
0011 WS52936-80um	21	12	1.16	2468	27	0.08	67	X	0.06	5
0012 WS52937-80um	22	8	0.86	1797	29	0.08	74	X	0.05	4
0013 WS52938-80um	12	8	0.76	1024	X	0.04	43	X	0.03	3
0014 WS52939-80um	37	6	0.71	979	X	0.04	66	X	0.03	3
0015 WS52940-80um	9	7	0.54	828	X	0.03	46	X	0.04	2
0016 WS52941-80um	35	6	0.88	958	X	0.03	50	X	0.04	3
0017 WS52942-80um	11	5	1.09	742	22	0.04	43	X	0.04	2
0018 WS52943-80um	35	6	1.27	759	X	0.04	45	X	0.04	3
0019 WS52944-80um	19	8	2.22	898	X	0.06	33	X	0.03	3
0020 WS52945-80um	35	5	1.20	1099	X	0.05	41	X	0.03	3
0021 WS52946-80um	22	4	1.59	792	X	0.04	29	X	0.03	3
0022 WS52947-80um	44	4	1.94	1046	X	0.04	30	X	0.04	7
0023 WS52948-80um	23	4	1.07	701	X	0.03	35	X	0.03	3
0024 WS52949-80um	29	4	0.93	701	22	0.04	48	X	0.04	4
0025 WS52950-80um	9	5	0.49	599	29	0.04	40	X	0.04	3
0026 WS52951-80um	34	5	0.59	741	26	0.04	54	X	0.04	4
0027 WS52952-80um	13	6	1.00	733	25	0.05	43	X	0.03	4
0028 WS52953-80um	34	5	0.39	635	22	0.03	36	X	0.03	2
0029 WS52954-80um	16	7	1.13	1167	22	0.07	39	X	0.04	4
0030 WS52955-80um	31	6	0.92	1120	X	0.05	33	X	0.03	3
0031 WS52956-80um	18	9	1.56	1078	25	0.08	50	X	0.04	6
0032 WS52957-80um	33	7	0.38	98	X	0.02	34	X	0.03	3
0033 WS52958-80um	4	4	0.25	82	X	0.01	25	X	0.02	1
0034 WS52959-80um	36	6	1.28	1004	X	0.04	46	X	0.03	4
0035 WS52960-80um	17	4	1.35	996	X	0.04	32	X	0.03	7
0036 WS52961-80um	29	6	1.04	527	X	0.03	31	X	0.03	5
0037 WS52962-80um	14	7	1.05	573	X	0.03	40	X	0.03	4
0038 WS52963-80um	38	8	0.89	763	X	0.03	51	X	0.03	3
0039 WS52964-80um	19	10	1.41	1749	28	0.04	51	X	0.03	4
0040 WS52965-80um	39	9	1.30	1216	X	0.05	72	X	0.03	4

**ANALYSIS**

ELEMENTS	P	Pb	Sb	Sc	Sr	Te	Ti	Tl	V	W
UNITS	ppm									
DETECTION LIMIT	20	1	2	1	1	2	5	2	2	2
DIGEST	AR10/									
ANALYTICAL FINISH	OE									
SAMPLE NUMBERS										
0001 WS52926-80um	79	5	X	X	9	X	42	X	16	X
0002 WS52927-80um	84	4	X	1	8	X	96	X	12	X
0003 WS52928-80um	45	2	X	X	5	X	167	X	10	X
0004 WS52929-80um	113	4	X	1	7	X	25	X	17	X
0005 WS52930-80um	174	9	X	1	23	X	47	X	12	X
0006 WS52931-80um	79	5	X	X	12	X	35	X	9	X
0007 WS52932-80um	42	6	X	2	5	X	54	X	14	X
0008 WS52933-80um	75	9	X	2	8	X	20	X	15	X
0009 WS52934-80um	49	5	2	1	6	X	41	X	12	X
0010 WS52935-80um	87	5	X	1	8	X	28	X	13	X
0011 WS52936-80um	214	8	X	3	11	X	48	X	19	X
0012 WS52937-80um	91	7	X	1	15	X	35	X	14	X
0013 WS52938-80um	60	5	X	1	7	X	45	X	10	X
0014 WS52939-80um	81	4	X	X	10	X	65	X	9	X
0015 WS52940-80um	40	3	X	X	5	X	73	X	8	X
0016 WS52941-80um	33	4	X	X	4	X	86	X	11	X
0017 WS52942-80um	60	5	X	2	5	X	26	X	10	X
0018 WS52943-80um	54	6	X	2	8	X	62	X	11	X
0019 WS52944-80um	87	6	X	3	6	X	19	X	17	X
0020 WS52945-80um	40	5	X	1	5	X	44	X	14	X
0021 WS52946-80um	33	5	X	1	4	X	29	X	18	X
0022 WS52947-80um	40	6	X	2	4	X	39	X	27	X
0023 WS52948-80um	34	5	X	1	3	X	42	X	18	X
0024 WS52949-80um	42	6	X	1	5	X	44	X	16	X
0025 WS52950-80um	43	4	X	X	3	X	80	X	8	X
0026 WS52951-80um	47	4	X	X	4	X	79	X	9	X
0027 WS52952-80um	56	8	X	X	6	X	41	X	16	X
0028 WS52953-80um	31	3	X	X	4	X	115	X	5	X
0029 WS52954-80um	39	5	X	1	5	X	31	X	14	X
0030 WS52955-80um	45	5	X	X	5	X	14	X	12	X
0031 WS52956-80um	55	10	X	1	8	X	35	X	24	X
0032 WS52957-80um	X	X	X	X	2	X	140	X	2	X
0033 WS52958-80um	X	X	X	X	2	X	141	X	X	X
0034 WS52959-80um	41	6	X	X	4	X	79	X	20	X
0035 WS52960-80um	36	5	X	1	4	X	20	X	24	X
0036 WS52961-80um	31	5	X	X	3	X	70	X	19	X
0037 WS52962-80um	34	4	X	X	3	X	75	X	17	X
0038 WS52963-80um	37	5	X	X	3	X	106	X	14	X
0039 WS52964-80um	51	5	X	2	5	X	29	X	15	X
0040 WS52965-80um	57	6	X	2	7	X	32	X	14	X

# ANALYSIS

ELEMENTS Zn  
UNITS ppm  
DETECTION LIMIT 1  
DIGEST AR10/  
ANALYTICAL FINISH OE

## SAMPLE NUMBERS

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0001 WS52926-80um	13
0002 WS52927-80um	15
0003 WS52928-80um	13
0004 WS52929-80um	8
0005 WS52930-80um	18
0006 WS52931-80um	10
0007 WS52932-80um	15
0008 WS52933-80um	11
0009 WS52934-80um	16
0010 WS52935-80um	14
0011 WS52936-80um	37
0012 WS52937-80um	26
0013 WS52938-80um	24
0014 WS52939-80um	16
0015 WS52940-80um	16
0016 WS52941-80um	15
0017 WS52942-80um	7
0018 WS52943-80um	7
0019 WS52944-80um	6
0020 WS52945-80um	9
0021 WS52946-80um	7
0022 WS52947-80um	8
0023 WS52948-80um	8
0024 WS52949-80um	8
0025 WS52950-80um	5
0026 WS52951-80um	8
0027 WS52952-80um	7
0028 WS52953-80um	4
0029 WS52954-80um	9
0030 WS52955-80um	4
0031 WS52956-80um	9
0032 WS52957-80um	3
0033 WS52958-80um	2
0034 WS52959-80um	9
0035 WS52960-80um	3
0036 WS52961-80um	4
0037 WS52962-80um	5
0038 WS52963-80um	5
0039 WS52964-80um	5
0040 WS52965-80um	4

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## ANALYSIS

ELEMENTS	Au	Ag	Al	As	Ba	Bi	Ca	Cd	Ce	Co
UNITS	ppb	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
DETECTION LIMIT	1	0.5	20	5	2	2	0.01	0.5	20	1
DIGEST	AR10/									
ANALYTICAL FINISH	GF	OE								
SAMPLE NUMBERS										
0041 WS52966-80um	2	X	1.27%	X	36	X	0.03	X	102	3
0042 WS52967-80um	2	X	8575	12	39	X	0.02	X	116	3
0043 WS52968-80um	3	X	1.70%	9	37	X	0.03	X	108	2
0044 WS52969-80um	1	X	6629	X	29	X	0.05	X	114	2
0045 WS52970-80um	1	X	9696	8	29	X	0.04	X	104	3
0046 WS52971-80um	1	X	6207	X	39	X	0.08	X	116	3
0047 WS52972-80um	X	X	9221	X	33	X	0.05	X	105	2
0048 WS52973-80um	2	X	3.33%	5	38	X	0.03	X	87	3
0049 WS52974-80um	1	X	4967	X	25	X	0.04	X	108	2
0050 WS52975-80um	2	X	7484	X	28	X	0.03	X	118	2
0051 WS52976-80um	2	X	7864	X	31	X	0.06	X	106	3
0052 WS52977-80um	X	X	7352	X	34	X	0.04	X	94	2
0053 WS52978-80um	X	X	5591	X	30	X	0.04	X	101	2
0054 WS52979-80um	X	X	4823	X	27	X	0.03	X	95	3
0055 WS52980-80um	1	X	4090	X	37	X	0.05	X	75	3
0056 WS52981-80um	X	X	7833	X	34	X	0.04	X	119	3
0057 WS52982-80um	X	X	9661	X	38	X	0.06	X	122	4
0058 WS52983-80um	1	X	7158	X	42	X	0.05	X	111	3
0059 WS52984-80um	1	X	1.19%	X	34	X	0.04	X	116	3
0060 WS52985-80um	1	X	8858	X	43	X	0.05	X	121	3
0061 WS52986-80um	X	X	1.22%	X	57	X	0.06	X	122	4
0062 WS52987-80um	X	X	1.10%	X	58	X	0.15	X	119	3
0063 WS52988-80um	X	X	6866	X	41	X	0.05	X	77	3
0064 WS52989-80um	X	X	1.87%	X	52	X	0.06	X	90	3
0065 WS52990-80um	X	X	1.26%	5	51	X	0.06	X	90	3
0066 WS52991-80um	X	X	1.09%	5	28	X	0.03	X	87	2
0067 WS52992-80um	X	X	9112	8	36	X	0.07	X	93	3
0068 WS52993-80um	1	X	2.03%	14	46	X	0.04	X	85	2
0069 WS52994-80um	2	X	4.39%	15	32	X	0.02	X	89	3
0070 WS52995-80um	1	X	1.80%	X	46	X	0.11	X	86	3
0071 WS52996-80um	2	X	2.99%	17	26	X	0.05	X	72	2
0072 WS52997-80um	X	X	6464	X	20	X	0.02	X	75	3
0073 WS52998-80um	1	X	1.32%	X	27	X	0.04	X	76	2
0074 WS52999-80um	1	X	1.35%	X	33	X	0.04	X	88	3
0075 WS53000-80um	X	X	1.63%	5	31	X	0.03	X	86	3
0076 WS53001-80um	1	X	5578	6	32	X	0.05	X	82	3
0077 WS53002-80um	1	X	1711	X	13	X	0.02	X	72	2
0078 WS53003-80um	1	X	1.51%	14	20	X	0.06	X	91	2
0079 WS53004-80um	X	X	9933	5	35	X	0.05	X	101	3
0080 WS53005-80um	2	X	6683	7	13	X	0.02	X	76	2

## ANALYSIS

ELEMENTS	Cr	Cu	Fe	K	La	Mg	Mn	Mo	Na	Ni
UNITS	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
DETECTION LIMIT	2	1	0.01	20	20	0.01	1	1	0.01	1
DIGEST	AR10/									
ANALYTICAL FINISH	OE									
SAMPLE NUMBERS										
0041 WS52966-80um	27	8	1.82	1371	X	0.04	30	X	0.03	3
0042 WS52967-80um	36	9	1.29	1555	26	0.03	56	X	0.03	3
0043 WS52968-80um	47	10	1.85	1245	22	0.04	65	X	0.03	6
0044 WS52969-80um	14	7	1.17	1035	25	0.03	114	X	0.03	3
0045 WS52970-80um	16	11	1.26	901	21	0.03	75	X	0.03	4
0046 WS52971-80um	46	9	0.94	1177	30	0.03	107	X	0.03	4
0047 WS52972-80um	17	8	1.46	973	21	0.03	93	X	0.03	3
0048 WS52973-80um	53	10	3.15	1363	X	0.05	51	X	0.04	7
0049 WS52974-80um	8	5	0.40	858	25	0.03	33	X	0.05	2
0050 WS52975-80um	31	6	0.75	883	27	0.02	47	X	0.03	3
0051 WS52976-80um	14	11	0.95	872	24	0.03	141	X	0.03	4
0052 WS52977-80um	34	7	1.09	1142	X	0.03	81	X	0.03	3
0053 WS52978-80um	11	9	0.75	1043	22	0.02	66	X	0.03	3
0054 WS52979-80um	39	8	0.56	778	20	0.02	37	X	0.03	3
0055 WS52980-80um	12	10	0.76	1150	X	0.02	42	X	0.04	3
0056 WS52981-80um	37	6	1.06	1074	26	0.04	92	X	0.04	4
0057 WS52982-80um	17	8	1.37	1762	28	0.11	90	X	0.03	8
0058 WS52983-80um	44	5	0.97	1302	26	0.03	97	X	0.04	4
0059 WS52984-80um	15	6	1.03	1263	28	0.05	48	X	0.04	3
0060 WS52985-80um	38	6	1.06	1608	30	0.07	94	X	0.03	5
0061 WS52986-80um	37	7	1.22	1582	30	0.07	257	X	0.05	6
0062 WS52987-80um	18	8	1.19	1552	29	0.09	199	X	0.06	5
0063 WS52988-80um	39	8	1.05	1347	X	0.03	63	X	0.04	3
0064 WS52989-80um	32	16	2.35	1447	X	0.06	46	X	0.05	5
0065 WS52990-80um	26	11	1.62	2016	X	0.05	31	X	0.05	4
0066 WS52991-80um	17	7	1.86	969	X	0.03	22	X	0.03	3
0067 WS52992-80um	20	8	1.16	1301	X	0.04	23	X	0.05	3
0068 WS52993-80um	29	9	2.97	1501	X	0.07	32	X	0.04	4
0069 WS52994-80um	82	14	5.04*	963	X	0.05	15	1	0.03	6
0070 WS52995-80um	23	11	2.17	1763	X	0.06	87	X	0.04	4
0071 WS52996-80um	51	18	4.42	1240	X	0.05	27	1	0.03	5
0072 WS52997-80um	9	8	1.02	781	X	0.02	70	X	0.03	2
0073 WS52998-80um	24	8	1.64	1181	X	0.06	66	X	0.03	4
0074 WS52999-80um	14	11	1.41	1134	X	0.05	552	X	0.04	4
0075 WS53000-80um	32	9	1.88	1191	X	0.05	61	X	0.03	4
0076 WS53001-80um	13	9	1.00	938	X	0.03	36	X	0.04	3
0077 WS53002-80um	12	4	0.26	441	X	0.01	17	X	0.03	2
0078 WS53003-80um	31	7	2.73	677	X	0.04	31	X	0.03	4
0079 WS53004-80um	23	8	1.34	897	X	0.03	61	X	0.04	4
0080 WS53005-80um	10	6	1.04	476	X	0.02	44	X	0.03	3

## ANALYSIS

ELEMENTS	P	Pb	Sb	Sc	Sr	Te	Ti	Tl	V	W
UNITS	ppm									
DETECTION LIMIT	20	1	2	1	1	2	5	2	2	2
DIGEST	AR10/									
ANALYTICAL FINISH	OE									
SAMPLE NUMBERS										
0041 WS52966-80um	52	6	X	2	6	X	46	X	17	X
0042 WS52967-80um	51	4	X	1	5	X	36	X	16	X
0043 WS52968-80um	87	7	X	1	5	X	63	X	22	X
0044 WS52969-80um	70	4	X	X	6	X	34	X	12	X
0045 WS52970-80um	77	4	X	X	4	X	42	X	15	X
0046 WS52971-80um	89	4	X	X	10	X	73	X	10	X
0047 WS52972-80um	83	6	X	1	8	X	52	X	13	X
0048 WS52973-80um	72	8	X	3	7	X	26	X	33	X
0049 WS52974-80um	69	3	X	X	9	X	26	X	9	X
0050 WS52975-80um	57	4	X	X	4	X	43	X	15	X
0051 WS52976-80um	56	4	X	X	7	X	71	X	13	X
0052 WS52977-80um	45	4	X	1	6	X	18	X	12	X
0053 WS52978-80um	57	4	X	X	5	X	59	X	10	X
0054 WS52979-80um	49	3	X	X	7	X	112	X	12	X
0055 WS52980-80um	45	3	X	X	6	X	27	X	12	X
0056 WS52981-80um	54	4	X	1	8	X	317	X	18	X
0057 WS52982-80um	82	5	X	1	8	X	106	X	16	X
0058 WS52983-80um	67	5	X	X	9	X	117	X	13	X
0059 WS52984-80um	59	6	X	1	6	X	40	X	16	X
0060 WS52985-80um	62	6	X	1	7	X	112	X	13	X
0061 WS52986-80um	66	7	X	2	8	X	42	X	14	X
0062 WS52987-80um	103	8	X	1	17	X	62	X	15	X
0063 WS52988-80um	45	5	X	X	7	X	185	X	13	X
0064 WS52989-80um	106	20	X	2	14	X	59	X	23	X
0065 WS52990-80um	72	5	X	1	8	X	21	X	18	X
0066 WS52991-80um	74	5	X	X	5	X	20	X	19	X
0067 WS52992-80um	84	7	X	X	10	X	13	X	13	X
0068 WS52993-80um	64	9	X	2	8	X	16	X	23	X
0069 WS52994-80um	124	16	X	3	4	X	12	X	43	X
0070 WS52995-80um	154	9	X	2	16	X	34	X	31	X
0071 WS52996-80um	149	10	X	2	8	X	23	X	48	X
0072 WS52997-80um	67	3	X	X	5	X	66	X	16	X
0073 WS52998-80um	79	6	X	1	10	X	48	X	24	X
0074 WS52999-80um	136	6	X	1	7	X	41	X	20	X
0075 WS53000-80um	88	7	X	1	7	X	26	X	25	X
0076 WS53001-80um	64	4	X	X	8	X	17	X	13	X
0077 WS53002-80um	38	2	X	X	3	X	15	X	5	X
0078 WS53003-80um	99	4	X	X	4	X	16	X	32	X
0079 WS53004-80um	127	5	X	X	7	X	15	X	19	X
0080 WS53005-80um	108	4	X	X	3	X	25	X	19	X

## ANALYSIS

ELEMENTS	Zn
UNITS	ppm
DETECTION LIMIT	1
DIGEST	AR10/
ANALYTICAL FINISH	OE

### SAMPLE NUMBERS

0041 WS52966-80um	5
0042 WS52967-80um	12
0043 WS52968-80um	13
0044 WS52969-80um	7
0045 WS52970-80um	8
0046 WS52971-80um	6
0047 WS52972-80um	7
0048 WS52973-80um	9
0049 WS52974-80um	7
0050 WS52975-80um	6
0051 WS52976-80um	7
0052 WS52977-80um	6
0053 WS52978-80um	10
0054 WS52979-80um	9
0055 WS52980-80um	13
0056 WS52981-80um	18
0057 WS52982-80um	18
0058 WS52983-80um	8
0059 WS52984-80um	5
0060 WS52985-80um	10
0061 WS52986-80um	9
0062 WS52987-80um	9
0063 WS52988-80um	12
0064 WS52989-80um	12
0065 WS52990-80um	7
0066 WS52991-80um	6
0067 WS52992-80um	9
0068 WS52993-80um	8
0069 WS52994-80um	5
0070 WS52995-80um	11
0071 WS52996-80um	7
0072 WS52997-80um	10
0073 WS52998-80um	13
0074 WS52999-80um	21
0075 WS53000-80um	11
0076 WS53001-80um	9
0077 WS53002-80um	3
0078 WS53003-80um	4
0079 WS53004-80um	7
0080 WS53005-80um	4

**ANALYSIS**

ELEMENTS	Au	Ag	Al	As	Ba	Bi	Ca	Cd	Ce	Co
UNITS	ppb	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
DETECTION LIMIT	1	0.5	20	5	2	2	0.01	0.5	20	1
DIGEST	AR10/									
ANALYTICAL FINISH	GF	OE								
SAMPLE NUMBERS										
0081 WS53006-80um	2	X	2.16%	25	20	X	0.03	X	70	2
0082 WS53007-80um	1	X	1.36%	10	22	X	0.03	X	81	3
0083 WS53008-80um	2	X	2.25%	15	22	X	0.04	X	75	3
0084 WS53009-80um	1	X	9573	7	25	X	0.08	X	91	2
0085 WS53010-80um	1	X	2.32%	X	28	X	0.08	X	76	3
0086 WS53011-80um	2	X	5229	X	22	X	0.06	X	105	2
0087 WS53012-80um	X	X	1.15%	X	27	X	0.05	X	95	2
0088 WS53013-80um	X	X	1.71%	X	48	X	0.18	X	91	4
0089 WS53014-80um	2	X	8831	X	34	X	0.06	X	105	3
0090 WS53015-80um	X	X	3471	X	25	X	0.03	X	98	3
0091 WS53016-80um	1	X	6170	X	31	X	0.04	X	98	2
0092 WS53017-80um	2	X	1.28%	X	31	X	0.04	X	92	3
0093 WS53018-80um	X	X	6433	X	27	X	0.04	X	93	3
0094 WS53019-80um	1	X	4694	X	45	X	0.07	X	102	3
0095 WS53020-80um	1	X	4166	X	30	X	0.08	X	72	3
0096 WS53021-80um	2	X	8167	X	51	X	0.10	X	73	3
0097 WS53022-80um	1	X	7679	X	31	X	0.06	X	77	2
0098 WS53023-80um	2	X	1.97%	X	59	X	0.07	X	84	3
0099 WS53024-80um	X	X	7537	X	30	X	0.06	X	79	3
0100 WS53025-80um	X	X	7580	5	24	X	0.10	X	77	3
0101 WS53026-80um	1	X	1.53%	X	23	X	0.06	X	84	2
0102 WS53027-80um	1	X	1.27%	X	25	X	0.04	X	90	3
0103 WS53028-80um	1	X	1.77%	14	22	X	0.07	X	72	3
0104 WS53029-80um	3	X	2.00%	7	35	X	0.17	X	63	3
0105 WS53030-80um	1	X	6995	X	12	X	0.03	X	82	3
0106 WS53031-80um	3	X	2.02%	5	68	X	0.26	X	65	3
0107 WS53032-80um	2	X	1.68%	X	49	X	0.10	X	74	3
0108 WS53033-80um	1	X	1.79%	X	27	X	0.04	X	79	3
0109 WS53034-80um	3	X	1.63%	X	28	X	0.05	X	80	4
0110 WS53035-80um	2	X	1.59%	X	47	X	0.07	X	101	5
0111 WS53036-80um	1	X	4220	X	17	X	0.06	X	78	2
0112 WS53037-80um	2	X	1.33%	8	43	X	0.06	X	100	3
0113 WS53038-80um	X	X	6648	X	21	X	0.04	X	83	3
0114 WS53040-80um	4	X	2.73%	7	31	X	0.07	X	92	3
0115 WS53041-80um	2	X	8004	5	27	X	0.08	X	99	3
0116 WS53042-80um	2	X	4792	X	22	X	0.05	X	114	3
0117 WS53043-80um	2	X	8707	X	36	X	0.09	X	114	3
0118 WS53044-80um	X	X	4975	X	36	X	0.10	X	104	2
0119 WS53045-80um	X	X	1.10%	X	38	X	0.10	X	101	2
0120 WS53046-80um	X	X	8887	X	36	X	0.06	X	119	3

**ANALYSIS**

ELEMENTS	Cr	Cu	Fe	K	La	Mg	Mn	Mo	Na	Ni
UNITS	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
DETECTION LIMIT	2	1	0.01	20	20	0.01	1	1	0.01	1
DIGEST	AR10/									
ANALYTICAL FINISH	OE									
SAMPLE NUMBERS										
0081 WS53006-80um	32	13	2.88	862	X	0.07	73	X	0.03	5
0082 WS53007-80um	16	8	1.90	906	X	0.07	51	X	0.04	4
0083 WS53008-80um	28	14	2.69	921	X	0.08	97	X	0.04	6
0084 WS53009-80um	14	8	1.67	853	X	0.04	95	X	0.05	4
0085 WS53010-80um	30	8	2.33	876	X	0.06	361	X	0.04	7
0086 WS53011-80um	10	7	0.98	767	26	0.03	87	X	0.03	3
0087 WS53012-80um	25	7	1.67	781	X	0.03	30	X	0.04	4
0088 WS53013-80um	23	16	1.94	1462	X	0.11	443	X	0.05	10
0089 WS53014-80um	26	8	1.11	1223	23	0.09	58	X	0.05	6
0090 WS53015-80um	7	6	0.63	737	21	0.04	38	X	0.03	3
0091 WS53016-80um	24	6	1.04	909	20	0.04	30	X	0.03	4
0092 WS53017-80um	22	8	1.70	971	X	0.06	42	X	0.04	5
0093 WS53018-80um	20	5	0.97	883	X	0.04	175	X	0.03	3
0094 WS53019-80um	12	8	0.83	1340	25	0.03	37	X	0.05	3
0095 WS53020-80um	35	7	0.76	913	X	0.03	31	X	0.03	4
0096 WS53021-80um	19	14	1.47	1716	X	0.04	61	X	0.03	5
0097 WS53022-80um	40	8	1.11	992	X	0.04	38	X	0.03	3
0098 WS53023-80um	32	14	2.53	1292	X	0.06	73	X	0.03	5
0099 WS53024-80um	22	7	0.99	862	X	0.03	37	X	0.04	3
0100 WS53025-80um	17	8	1.50	896	X	0.03	38	X	0.03	3
0101 WS53026-80um	43	10	2.34	885	X	0.04	66	X	0.04	4
0102 WS53027-80um	19	8	2.00	943	X	0.03	79	X	0.03	4
0103 WS53028-80um	44	11	2.80	801	X	0.03	54	1	0.03	5
0104 WS53029-80um	32	13	2.94	1122	X	0.05	273	1	0.03	5
0105 WS53030-80um	22	6	1.53	437	X	0.02	55	X	0.02	2
0106 WS53031-80um	36	27	3.02	2020	X	0.08	272	2	0.04	8
0107 WS53032-80um	76	20	2.27	2015	X	0.09	316	X	0.04	8
0108 WS53033-80um	18	8	1.86	891	X	0.05	286	X	0.04	5
0109 WS53034-80um	25	9	1.65	1151	X	0.09	360	X	0.03	6
0110 WS53035-80um	19	13	1.79	1719	20	0.12	720	X	0.03	8
0111 WS53036-80um	17	5	0.55	522	X	0.03	185	X	0.02	3
0112 WS53037-80um	15	9	1.36	1210	X	0.07	343	X	0.03	6
0113 WS53038-80um	19	9	0.88	655	X	0.03	312	X	0.03	3
0114 WS53040-80um	31	17	2.55	1347	X	0.11	406	X	0.04	11
0115 WS53041-80um	24	10	1.03	801	23	0.04	994	X	0.02	4
0116 WS53042-80um	9	7	0.71	973	28	0.04	69	X	0.02	4
0117 WS53043-80um	48	12	1.35	1813	24	0.11	247	X	0.03	7
0118 WS53044-80um	12	6	0.71	926	23	0.04	323	X	0.03	2
0119 WS53045-80um	25	6	1.47	1143	X	0.06	144	X	0.04	4
0120 WS53046-80um	13	7	0.84	1544	27	0.05	98	X	0.04	4

**ANALYSIS**

ELEMENTS	P	Pb	Sb	Sc	Sr	Te	Ti	Tl	V	W
UNITS	ppm									
DETECTION LIMIT	20	1	2	1	1	2	5	2	2	2
DIGEST	AR10/									
ANALYTICAL FINISH	OE									
SAMPLE NUMBERS										
0081 WS53006-80um	147	9	X	2	6	X	37	X	35	X
0082 WS53007-80um	154	7	X	X	7	X	71	X	23	X
0083 WS53008-80um	278	10	X	2	6	X	58	X	34	X
0084 WS53009-80um	193	5	X	X	9	X	26	X	23	X
0085 WS53010-80um	217	7	X	1	14	X	21	X	28	X
0086 WS53011-80um	87	4	X	X	7	X	22	X	13	X
0087 WS53012-80um	136	6	X	X	6	X	29	X	23	X
0088 WS53013-80um	212	7	X	1	16	X	48	X	21	X
0089 WS53014-80um	107	5	X	X	6	X	41	X	13	X
0090 WS53015-80um	76	3	X	X	5	X	17	X	8	X
0091 WS53016-80um	88	5	X	X	5	X	17	X	15	X
0092 WS53017-80um	114	6	X	X	6	X	12	X	21	X
0093 WS53018-80um	95	5	X	X	5	X	18	X	12	X
0094 WS53019-80um	86	6	X	X	9	X	14	X	11	X
0095 WS53020-80um	64	4	X	X	7	X	12	X	10	X
0096 WS53021-80um	77	6	X	X	11	X	8	X	15	X
0097 WS53022-80um	84	4	X	X	12	X	10	X	17	X
0098 WS53023-80um	132	9	X	1	12	X	25	X	27	X
0099 WS53024-80um	115	5	X	X	9	X	20	X	13	X
0100 WS53025-80um	153	6	X	X	10	X	12	X	18	X
0101 WS53026-80um	211	7	X	1	6	X	24	X	34	X
0102 WS53027-80um	172	7	X	1	5	X	27	X	25	X
0103 WS53028-80um	195	6	X	1	9	X	22	X	36	X
0104 WS53029-80um	239	7	X	1	20	X	20	X	38	X
0105 WS53030-80um	76	4	X	X	3	X	45	X	30	X
0106 WS53031-80um	208	8	X	2	25	X	30	X	29	X
0107 WS53032-80um	155	7	X	2	10	X	59	X	23	X
0108 WS53033-80um	168	8	X	1	6	X	40	X	23	X
0109 WS53034-80um	109	7	X	1	7	X	75	X	22	X
0110 WS53035-80um	178	8	X	1	8	X	48	X	20	X
0111 WS53036-80um	94	3	X	X	6	X	98	X	7	X
0112 WS53037-80um	156	7	X	1	8	X	69	X	18	X
0113 WS53038-80um	215	6	X	X	4	X	46	X	12	X
0114 WS53040-80um	323	12	X	2	7	X	111	X	36	X
0115 WS53041-80um	266	6	X	X	6	X	36	X	14	X
0116 WS53042-80um	86	4	X	X	5	X	60	X	9	X
0117 WS53043-80um	95	7	X	X	8	X	90	X	16	X
0118 WS53044-80um	113	4	X	X	11	X	35	X	10	X
0119 WS53045-80um	116	6	X	X	10	X	17	X	18	X
0120 WS53046-80um	114	5	X	X	10	X	20	X	12	X

# ANALYSIS

ELEMENTS Zn  
UNITS ppm  
DETECTION LIMIT 1  
DIGEST AR10/  
ANALYTICAL FINISH OE

## SAMPLE NUMBERS

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0081 WS53006-80um	9
0082 WS53007-80um	8
0083 WS53008-80um	14
0084 WS53009-80um	7
0085 WS53010-80um	13
0086 WS53011-80um	5
0087 WS53012-80um	5
0088 WS53013-80um	26
0089 WS53014-80um	14
0090 WS53015-80um	6
0091 WS53016-80um	6
0092 WS53017-80um	8
0093 WS53018-80um	7
0094 WS53019-80um	19
0095 WS53020-80um	8
0096 WS53021-80um	13
0097 WS53022-80um	10
0098 WS53023-80um	11
0099 WS53024-80um	10
0100 WS53025-80um	5
0101 WS53026-80um	6
0102 WS53027-80um	9
0103 WS53028-80um	6
0104 WS53029-80um	7
0105 WS53030-80um	5
0106 WS53031-80um	12
0107 WS53032-80um	15
0108 WS53033-80um	12
0109 WS53034-80um	13
0110 WS53035-80um	21
0111 WS53036-80um	5
0112 WS53037-80um	10
0113 WS53038-80um	11
0114 WS53040-80um	23
0115 WS53041-80um	16
0116 WS53042-80um	7
0117 WS53043-80um	13
0118 WS53044-80um	7
0119 WS53045-80um	6
0120 WS53046-80um	8

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**ANALYSIS**

ELEMENTS	Au	Ag	Al	As	Ba	Bi	Ca	Cd	Ce	Co
UNITS	ppb	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
DETECTION LIMIT	1	0.5	20	5	2	2	0.01	0.5	20	1
DIGEST	AR10/									
ANALYTICAL FINISH	GF	OE								
SAMPLE NUMBERS										
0121 WS53047-80um	2	X	4147	X	22	X	0.06	X	99	2
0122 WS53048-80um	X	X	4937	X	18	X	0.03	X	108	2
0123 WS53049-80um	X	X	8760	X	40	X	0.03	X	123	3
0124 WS53050-80um	X	X	7638	X	38	X	0.03	X	99	3
0125 WS53051-80um	X	X	1.31%	X	32	X	0.03	X	90	2
0126 WS53052-80um	X	X	1.12%	X	40	X	0.02	X	112	3
0127 WS53053-80um	2	X	5553	X	28	X	0.02	X	98	2
0128 WS53054-80um	3	X	1.16%	8	40	X	0.08	X	111	2
0129 WS53055-80um	1	X	1.39%	X	48	X	0.04	X	94	2
0130 WS53056-80um	2	X	1.34%	X	42	X	0.04	X	73	3
0131 WS53057-80um	2	X	1.80%	X	39	X	0.04	X	92	2
0132 WS53058-80um	1	X	1.42%	X	37	X	0.04	X	98	3
0133 WS53059-80um	2	X	2.13%	X	55	X	0.06	X	78	2
0134 WS53060-80um	1	X	2.54%	5	36	X	0.04	X	76	2
0135 WS53061-80um	1	X	1.10%	X	39	X	0.11	X	86	3
0136 WS53062-80um	3	X	1.64%	12	44	X	0.13	X	94	2
0137 WS53063-80um	X	X	1.24%	5	49	X	0.05	X	108	3
0138 WS53064-80um	2	X	1.02%	X	33	X	0.02	X	100	2
0139 WS53065-80um	X	X	7135	X	28	X	0.03	X	91	3
0140 WS53066-80um	X	X	7695	X	34	X	0.03	X	98	2
0141 WS53067-80um	2	X	2.71%	12	30	X	0.04	X	92	2
0142 WS53068-80um	2	X	6942	X	43	X	0.10	X	96	2
0143 WS53069-80um	1	X	1.22%	8	33	X	0.05	X	100	2
0144 WS53070-80um	1	X	6311	X	27	X	0.04	X	93	3
0145 WS53071-80um	2	X	1.60%	11	32	X	0.04	X	99	2
0146 WS53072-80um	1	X	1.46%	7	75	X	0.16	X	105	3
0147 WS53073-80um	2	X	1.70%	26	28	X	0.05	X	93	2
0148 WS53074-80um	1	X	9118	15	25	X	0.06	X	97	2
0149 WS53075-80um	X	X	5998	12	20	X	0.04	X	88	2
0150 WS53076-80um	X	X	3868	7	23	X	0.07	X	106	3
0151 WS53077-80um	X	X	1.45%	X	42	X	0.08	X	119	3
0152 WS53078-80um	1	X	2564	X	19	X	0.02	X	91	3
0153 WS53079-80um	3	X	1.62%	25	41	X	0.12	X	110	3
0154 WS53080-80um	1	X	4405	X	27	X	0.05	X	99	2
0155 WS53081-80um	1	X	1.06%	6	66	X	0.20	X	106	3
0156 WS53082-80um	2	X	9026	X	39	X	0.03	X	99	3
0157 WS53083-80um	1	X	2.04%	6	111	X	0.39	X	110	3
0158 WS53084-80um	X	X	2.58%	5	39	X	0.05	X	93	3
0159 WS53085-80um	X	X	5280	X	24	X	0.04	X	110	2
0160 WS53086-80um	X	X	6823	X	28	X	0.15	X	104	3

**ANALYSIS**

ELEMENTS	Cr	Cu	Fe	K	La	Mg	Mn	Mo	Na	Ni
UNITS	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
DETECTION LIMIT	2	1	0.01	20	20	0.01	1	1	0.01	1
DIGEST	AR10/									
ANALYTICAL FINISH	OE									
SAMPLE NUMBERS										
0121 WS53047-80um	18	4	0.55	739	23	0.03	40	X	0.03	2
0122 WS53048-80um	10	5	0.75	662	24	0.03	55	X	0.03	2
0123 WS53049-80um	25	5	1.00	1396	28	0.07	56	X	0.04	3
0124 WS53050-80um	12	5	0.91	1207	21	0.05	57	X	0.04	2
0125 WS53051-80um	41	4	1.73	861	X	0.06	33	X	0.03	4
0126 WS53052-80um	14	5	0.91	1400	25	0.06	55	X	0.04	3
0127 WS53053-80um	21	3	0.63	881	20	0.04	45	X	0.03	2
0128 WS53054-80um	18	12	1.11	1568	23	0.05	63	X	0.03	4
0129 WS53055-80um	24	7	0.74	1497	X	0.05	47	X	0.03	3
0130 WS53056-80um	18	6	1.30	1445	X	0.06	71	X	0.03	4
0131 WS53057-80um	31	6	1.31	1438	X	0.05	38	X	0.04	3
0132 WS53058-80um	20	6	1.17	1407	X	0.06	41	X	0.04	3
0133 WS53059-80um	41	7	1.73	1436	X	0.07	25	X	0.04	3
0134 WS53060-80um	39	6	2.46	1134	X	0.05	22	X	0.03	3
0135 WS53061-80um	27	10	1.14	1147	X	0.06	107	X	0.04	3
0136 WS53062-80um	28	8	1.88	1420	X	0.06	177	X	0.03	4
0137 WS53063-80um	27	6	1.42	1187	22	0.06	38	X	0.03	2
0138 WS53064-80um	18	6	1.29	1216	X	0.03	57	X	0.03	2
0139 WS53065-80um	25	5	1.22	1325	X	0.04	51	X	0.03	2
0140 WS53066-80um	11	6	1.14	864	X	0.03	36	X	0.03	2
0141 WS53067-80um	62	5	3.71	1196	X	0.05	27	1	0.04	5
0142 WS53068-80um	17	7	1.02	1270	22	0.04	35	X	0.04	3
0143 WS53069-80um	28	4	1.35	1041	X	0.04	47	X	0.03	3
0144 WS53070-80um	8	7	0.54	829	X	0.03	48	X	0.03	3
0145 WS53071-80um	45	8	2.07	1196	X	0.04	31	X	0.04	4
0146 WS53072-80um	21	22	1.68	1863	22	0.08	193	X	0.05	6
0147 WS53073-80um	37	12	2.58	1136	X	0.06	68	X	0.04	4
0148 WS53074-80um	14	7	1.24	1037	X	0.03	53	X	0.04	3
0149 WS53075-80um	19	7	1.07	608	X	0.02	37	X	0.03	2
0150 WS53076-80um	7	8	0.54	751	23	0.02	67	X	0.04	2
0151 WS53077-80um	31	11	1.59	1541	27	0.06	209	X	0.05	5
0152 WS53078-80um	5	4	0.34	565	X	0.02	101	X	0.03	1
0153 WS53079-80um	37	19	2.39	1658	22	0.07	248	X	0.06	7
0154 WS53080-80um	7	7	0.61	1081	21	0.03	64	X	0.03	3
0155 WS53081-80um	24	10	1.02	1925	21	0.08	542	X	0.05	5
0156 WS53082-80um	19	10	1.13	2013	X	0.06	76	X	0.03	3
0157 WS53083-80um	39	13	1.12	5184	25	0.14	579	X	0.07	5
0158 WS53084-80um	38	6	2.15	1989	X	0.10	70	X	0.04	9
0159 WS53085-80um	23	4	0.56	1167	26	0.04	46	X	0.03	2
0160 WS53086-80um	10	6	0.55	1152	24	0.05	64	X	0.04	3

**ANALYSIS**

ELEMENTS	P	Pb	Sb	Sc	Sr	Te	Ti	Tl	V	W
UNITS	ppm									
DETECTION LIMIT	20	1	2	1	1	2	5	2	2	2
DIGEST	AR10/									
ANALYTICAL FINISH	OE									
SAMPLE NUMBERS										
0121 WS53047-80um	95	3	X	X	8	X	38	X	10	X
0122 WS53048-80um	47	3	X	X	4	X	85	X	9	X
0123 WS53049-80um	52	5	X	X	11	X	53	X	16	X
0124 WS53050-80um	44	5	X	X	6	X	42	X	13	X
0125 WS53051-80um	44	9	X	1	7	X	18	X	23	X
0126 WS53052-80um	41	6	X	1	5	X	29	X	15	X
0127 WS53053-80um	36	3	X	X	4	X	36	X	12	X
0128 WS53054-80um	67	7	X	X	8	X	20	X	12	X
0129 WS53055-80um	45	6	X	1	6	X	20	X	12	X
0130 WS53056-80um	29	5	X	1	6	X	34	X	13	X
0131 WS53057-80um	36	7	X	2	5	X	65	X	16	X
0132 WS53058-80um	36	6	X	1	5	X	37	X	15	X
0133 WS53059-80um	49	8	X	2	7	X	18	X	20	X
0134 WS53060-80um	75	10	X	2	5	X	25	X	27	X
0135 WS53061-80um	92	6	X	1	13	X	38	X	14	X
0136 WS53062-80um	80	8	X	2	12	X	23	X	19	X
0137 WS53063-80um	69	8	X	1	7	X	20	X	17	X
0138 WS53064-80um	43	5	X	1	4	X	45	X	15	X
0139 WS53065-80um	34	5	X	X	5	X	61	X	13	X
0140 WS53066-80um	97	6	X	X	9	X	32	X	17	X
0141 WS53067-80um	92	9	X	3	6	X	21	X	38	X
0142 WS53068-80um	72	5	X	X	15	X	35	X	12	X
0143 WS53069-80um	79	6	X	X	7	X	30	X	16	X
0144 WS53070-80um	81	5	X	X	6	X	36	X	7	X
0145 WS53071-80um	81	6	X	1	6	X	27	X	22	X
0146 WS53072-80um	145	9	X	2	26	X	54	X	26	X
0147 WS53073-80um	189	8	X	2	7	X	47	X	29	X
0148 WS53074-80um	125	5	X	X	8	X	74	X	20	X
0149 WS53075-80um	98	5	X	X	5	X	36	X	19	X
0150 WS53076-80um	73	3	X	X	10	X	116	X	7	X
0151 WS53077-80um	132	7	X	1	10	X	78	X	21	X
0152 WS53078-80um	31	2	X	X	3	X	92	X	4	X
0153 WS53079-80um	167	8	X	3	13	X	80	X	22	X
0154 WS53080-80um	109	3	X	X	4	X	23	X	8	X
0155 WS53081-80um	155	6	X	X	17	X	26	X	13	X
0156 WS53082-80um	68	6	X	X	6	X	47	X	15	X
0157 WS53083-80um	338*	9	X	2	39*	X	70	X	30	X
0158 WS53084-80um	81	10	X	2	9	X	73	X	33	X
0159 WS53085-80um	102	4	X	X	6	X	42	X	11	X
0160 WS53086-80um	135	4	X	X	17	X	32	X	11	X

## ANALYSIS

ELEMENTS	Zn
UNITS	ppm
DETECTION LIMIT	1
DIGEST	AR10/
ANALYTICAL FINISH	OE

### SAMPLE NUMBERS

0121 WS53047-80um	6
0122 WS53048-80um	5
0123 WS53049-80um	11
0124 WS53050-80um	7
0125 WS53051-80um	6
0126 WS53052-80um	11
0127 WS53053-80um	7
0128 WS53054-80um	11
0129 WS53055-80um	15
0130 WS53056-80um	18
0131 WS53057-80um	13
0132 WS53058-80um	8
0133 WS53059-80um	10
0134 WS53060-80um	4
0135 WS53061-80um	8
0136 WS53062-80um	7
0137 WS53063-80um	9
0138 WS53064-80um	9
0139 WS53065-80um	14
0140 WS53066-80um	7
0141 WS53067-80um	4
0142 WS53068-80um	7
0143 WS53069-80um	6
0144 WS53070-80um	7
0145 WS53071-80um	9
0146 WS53072-80um	10
0147 WS53073-80um	8
0148 WS53074-80um	8
0149 WS53075-80um	7
0150 WS53076-80um	9
0151 WS53077-80um	14
0152 WS53078-80um	7
0153 WS53079-80um	15
0154 WS53080-80um	4
0155 WS53081-80um	11
0156 WS53082-80um	9
0157 WS53083-80um	18
0158 WS53084-80um	10
0159 WS53085-80um	5
0160 WS53086-80um	5

**ANALYSIS**

ELEMENTS	Au	Ag	Al	As	Ba	Bi	Ca	Cd	Ce	Co
UNITS	ppb	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
DETECTION LIMIT	1	0.5	20	5	2	2	0.01	0.5	20	1
DIGEST	AR10/									
ANALYTICAL FINISH	GF	OE								
SAMPLE NUMBERS										
0161 WS53087-80um	X	X	4807	X	15	X	0.04	X	87	2
0162 WS53088-80um	2	X	1.44%	X	28	X	0.07	X	88	3
0163 WS53089-80um	1	X	5560	X	21	X	0.05	X	85	2
0164 WS53090-80um	X	X	8551	X	24	X	0.06	X	102	3
0165 WS53091-80um	X	X	5768	X	21	X	0.06	X	86	2
0166 WS53092-80um	2	X	1.69%	X	29	X	0.07	X	85	2

**CHECKS**

0001 WS52926-80um	2	X	1.28%	X	51	X	0.22	X	71	3
0002 WS52946-80um	2	X	1.60%	X	33	X	0.02	X	88	2
0003 WS52966-80um	3	X	1.26%	X	36	X	0.03	X	100	2
0004 WS52986-80um	X	X	1.08%	X	52	X	0.06	X	118	3
0005 WS53006-80um	2	X	2.41%	26	23	X	0.04	X	76	2
0006 WS53026-80um	1	X	1.57%	6	23	X	0.06	X	91	2
0007 WS53047-80um	1	X	3515	X	19	X	0.06	X	97	2
0008 WS53067-80um	2	X	2.35%	11	25	X	0.04	X	86	2
0009 WS53087-80um	X	X	4115	X	14	X	0.04	X	87	2

**STANDARDS**

0001 CMM-10	36	0.9	2.05%	141	25	14	10.25	1.2	X	39
0002 PL-19	12	X	1.04%	26	18	2	0.40	X	66	9
0003 CMM-10	33	0.9	2.06%	135	25	12	10.46	1.2	X	38
0004 PL-19	13	X	9638	23	17	4	0.39	X	63	9
0005 CMM-10	41	0.9	2.03%	120	24	15	9.83	1.1	X	39
0006 PL-19	11	X	9376	24	17	3	0.37	X	68	8
0007 CMM-10	36	0.9	1.84%	76	23	14	10.28	1.2	X	29

**BLANKS**

0001 Control Blank	X	X	40	X	X	X	0.02	X	55	2
0002 Control Blank	X	X	42	X	X	X	0.02	X	50	2

**ANALYSIS**

ELEMENTS	Cr	Cu	Fe	K	La	Mg	Mn	Mo	Na	Ni
UNITS	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
DETECTION LIMIT	2	1	0.01	20	20	0.01	1	1	0.01	1
DIGEST	AR10/									
ANALYTICAL FINISH	OE									
SAMPLE NUMBERS										
0161 WS53087-80um	16	4	0.28	656	X	0.02	25	X	0.03	2
0162 WS53088-80um	27	7	1.74	1211	X	0.06	78	X	0.03	5
0163 WS53089-80um	20	5	0.52	800	X	0.03	52	X	0.05	2
0164 WS53090-80um	12	6	1.07	865	X	0.04	339	X	0.04	3
0165 WS53091-80um	31	5	0.82	723	X	0.03	84	X	0.04	3
0166 WS53092-80um	32	7	1.67	1066	X	0.06	71	X	0.04	5

**CHECKS**

0001 WS52926-80um	24	19	1.64	1274	X	0.08	519	X	0.05	5
0002 WS52946-80um	24	5	1.58	921	X	0.04	38	X	0.03	3
0003 WS52966-80um	26	8	1.68	1391	X	0.04	31	X	0.03	3
0004 WS52986-80um	33	6	1.12	1309	28	0.07	243	X	0.04	5
0005 WS53006-80um	35	14	2.83	1011	X	0.09	89	X	0.04	7
0006 WS53026-80um	43	10	2.19	950	X	0.04	74	X	0.04	4
0007 WS53047-80um	16	4	0.52	613	X	0.03	33	X	0.03	2
0008 WS53067-80um	59	5	3.84	1005	X	0.04	20	X	0.04	3
0009 WS53087-80um	15	4	0.25	612	X	0.02	19	X	0.03	2

**STANDARDS**

0001 CMM-10	179	100	4.53	526	32	6.28	304	24	1.51	91
0002 PL-19	54	23	11.15	114	X	0.03	159	7	0.40	22
0003 CMM-10	176	98	4.48	513	33	6.05	301	24	1.46	89
0004 PL-19	53	22	8.57	102	X	0.03	147	5	0.38	21
0005 CMM-10	166	93	4.20	554	32	5.79	281	22	1.39	85
0006 PL-19	50	22	10.16	122	X	0.03	144	6	0.36	20
0007 CMM-10	170	95	4.14	455	28	5.88	289	16	1.41	88

**BLANKS**

0001 Control Blank	2	X	0.03	23	X	X	7	X	0.03	1
0002 Control Blank	X	X	0.01	X	X	X	2	X	0.03	X



# ANALYSIS

ELEMENTS	Zn
UNITS	ppm
DETECTION LIMIT	1
DIGEST	AR10/
ANALYTICAL FINISH	OE

## SAMPLE NUMBERS

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0161 WS53087-80um	3
0162 WS53088-80um	5
0163 WS53089-80um	4
0164 WS53090-80um	6
0165 WS53091-80um	5
0166 WS53092-80um	5

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## CHECKS

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0001 WS52926-80um	15
0002 WS52946-80um	7
0003 WS52966-80um	4
0004 WS52986-80um	9
0005 WS53006-80um	11
0006 WS53026-80um	8
0007 WS53047-80um	5
0008 WS53067-80um	3
0009 WS53087-80um	3

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## STANDARDS

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0001 CMM-10	90
0002 PL-19	19
0003 CMM-10	89
0004 PL-19	18
0005 CMM-10	83
0006 PL-19	17
0007 CMM-10	87

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## BLANKS

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0001 Control Blank	X
0002 Control Blank	X

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## **METHOD CODE DESCRIPTION**

### **AR10/GF**

Genalysis Main Laboratory

Aqua-Regia digest. Analysed by Graphite Furnace Atomic Absorption Spectrometry.

### **AR10/OE**

Genalysis Main Laboratory

Aqua-Regia digest. Analysed by Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry.