

China Coal Resources Pty Ltd

ABN: 89 148 842 531

Lake Pieman Project – E.L. 15/2007

Annual Report for the Period

24 July 2011 to 23 July 2012

Authors: Zhang Jiansheng, Zhang Zhao

Edited: C. Swensson

Date: 20 June 2011

Table of Contents

1.0 Introduction.....	3
2.0 Location and Access.....	3
3.0 Tenure.....	4
4.0 Regional Geology and Mineralisation.....	5
5.0 Tenement Geology.....	5
6.0 Review of Previous Exploration.....	5
7.0 Exploration Conducted.....	5
7.1 Stream Sediment Survey Results.....	5
7.1.1 Zn, Fe ,Mn, Cu, Co, Ni, and Ti Anomaly.....	16
7.1.2 W, Sn and Mo Anomaly.....	16
7.2 Geological Traverse observations and Rock sampling Results.....	16
8.0 Track Work Conducted.....	21
9.0 Conclusions.....	21
10.0 Recommendations and Proposed Programme.....	22
11.0 Expenditure.....	24

List of Appendices

Appendix 1 – Rock Sampling Field Data Sheet.....	28
Appendix 2 – EL152007_201207_Annual Report_Rock Chip Assay Data Base Appendix 2.pdf	
Appendix 3 – EL152007_201207_Annual Report_Stream Sediment Data Base Appendix 3.pdf	

List of Figures

Figure 1: Location and Access EL 15/2007.....	4
Figure 2: Location of Stream Sediment Samples.....	6
Figure 3: Contoured Stream Sediment Geochemistry –Cu.....	7

Figure 4: Contoured Stream Sediment Geochemistry –Zn.....	8
Figure 5: Contoured Stream Sediment Geochemistry –Ni.....	9
Figure 6: Contoured Stream Sediment Geochemistry –Co.....	10
Figure 7: Contoured Stream Sediment Geochemistry –Ti.....	11
Figure 8: Contoured Stream Sediment Geochemistry –Mo.....	12
Figure 9: Contoured Stream Sediment Geochemistry – W.....	13
Figure 10: Contoured Stream Sediment Geochemistry – Sn.....	14
Figure 11: Contoured Stream Sediment Geochemistry – Fe.....	15
Figure 12: Location of proposed soil sampling grids.....	23

List of Tables

Table 1 Assay Results of Red Chalcedonic Belt.....	18
---	-----------

1.0 Introduction

This report covers exploration conducted on EL15/2007, Lake Pieman, during the reporting period 24 July 2011 to 23 July 2012. Exploration has included interpretation of the geochemical surveys conducted in the previous reporting period, the identification of target areas for follow up exploration and the organisation of track access to the NE area of the tenement to enable further geochemical sampling and geological mapping work.

The tenement is the subject of a joint venture between ASF Resources Limited and China Coal Geology Engineering Corporation to explore for polymetallic mineralisation over the tenement under the joint venture company China Coal Resources Pty Ltd (CCR).

The joint venture is exploring for epigenetic base metal mineralisation associated with Devonian granite emplacement with Renison Bell type mineralisation and skarn mineralisation being the primary exploration models.

2.0 Location and Access

EL15/2007 is located 15km west of Renison Bell tin mine and approximately 30km west of Rosebery in western Tasmania (Fig.1). The West Coast Highway, A10, borders the eastern side of the tenement while the Pieman Road, 245, provides limited access to the northern sector of the tenement. The Zeehan-Granville Harbour road provides limited access to the southern areas of the tenement. The Pieman River and Dam traverses the centre of the tenement area. Access is limited and topography rugged with much of the tenement comprising the steep sides of the Pieman valley.

The tenement is thickly vegetated with vegetation varying from button grass and heath through thick tea tree scrub and mature eucalypt forest. Altitude difference throughout the tenement is 300-400m. The GDA94 Coordinate System is used in this work and a 13.5° east declination correction was applied for compass bearings.



Figure 1: Location and Access E.L. 15/2007

3.0 Tenure

E.L. 15/2007 was granted to ASF Resources Pty. Ltd (“ASFR”) in July 2007. ASFR subsequently formed a joint venture with China Coal Geology Engineering Corporation (“CCGEC”) to explore the tenement by the formation of an Australian joint venture company, China Coal Resources Pty. Ltd (“CCR”). Title has been transferred from ASFR to CCR. Under the terms of the joint venture, CCGEC will fund \$1.2M of exploration to earn 55% of CCR. If the results of this exploration are favourable, CCGEC may fund an additional \$1.5M of exploration to earn an additional 20% equity in CCR with further expenditure being joint funded by the partners on the basis of their equity share in CCR.

4.0 Regional Geology and Mineralisation

A detailed review of the regional geology and mineralisation styles was provided in the 2010-2011 Annual Report and interested readers are referred to this report.

5.0 Tenement Geology, Structure and Mineralisation

A detailed review of the regional geology and mineralisation styles was provided in the 2010-2011 Annual Report and interested readers are referred to this report.

6.0 Review of Previous Exploration

A detailed review of the regional geology and mineralisation styles was provided in the 2010-2011 Annual Report and interested readers are referred to this report.

7.0 Exploration Conducted

No in-field exploration was conducted during the reporting period. However the geochemical results from the previous year's field season were received and data analysed and interpreted.

In the previous field season, a total of 287 stream sediment samples were collected over a 26km² area in the east and north east of the tenement area at a density of approximately 12 samples per km² (figure 2). During the survey, geological traverses were instigated to investigate the geology of the survey area and to locate potential mineralisation and alteration. As part of this work a total of 30 rock samples were collected and geological observations made. The following sections summarise the results of the stream sediment survey and discuss the main observations of the k geochemistry. Data is presented in Appendices 1-3. Appendices 2 and 3 are provided as separate pdf files.

7.1 Stream Sediment Survey Results

The stream sediment data was subjected to statistical analysis and as a result contoured plots of Cu, Zn, Fe, Mn, Ni, Ti, Co, W, Sn, Mo, Cr and Pb. The results are presented in figures 3-11 below. As can be seen from the plots, a strong NW trend

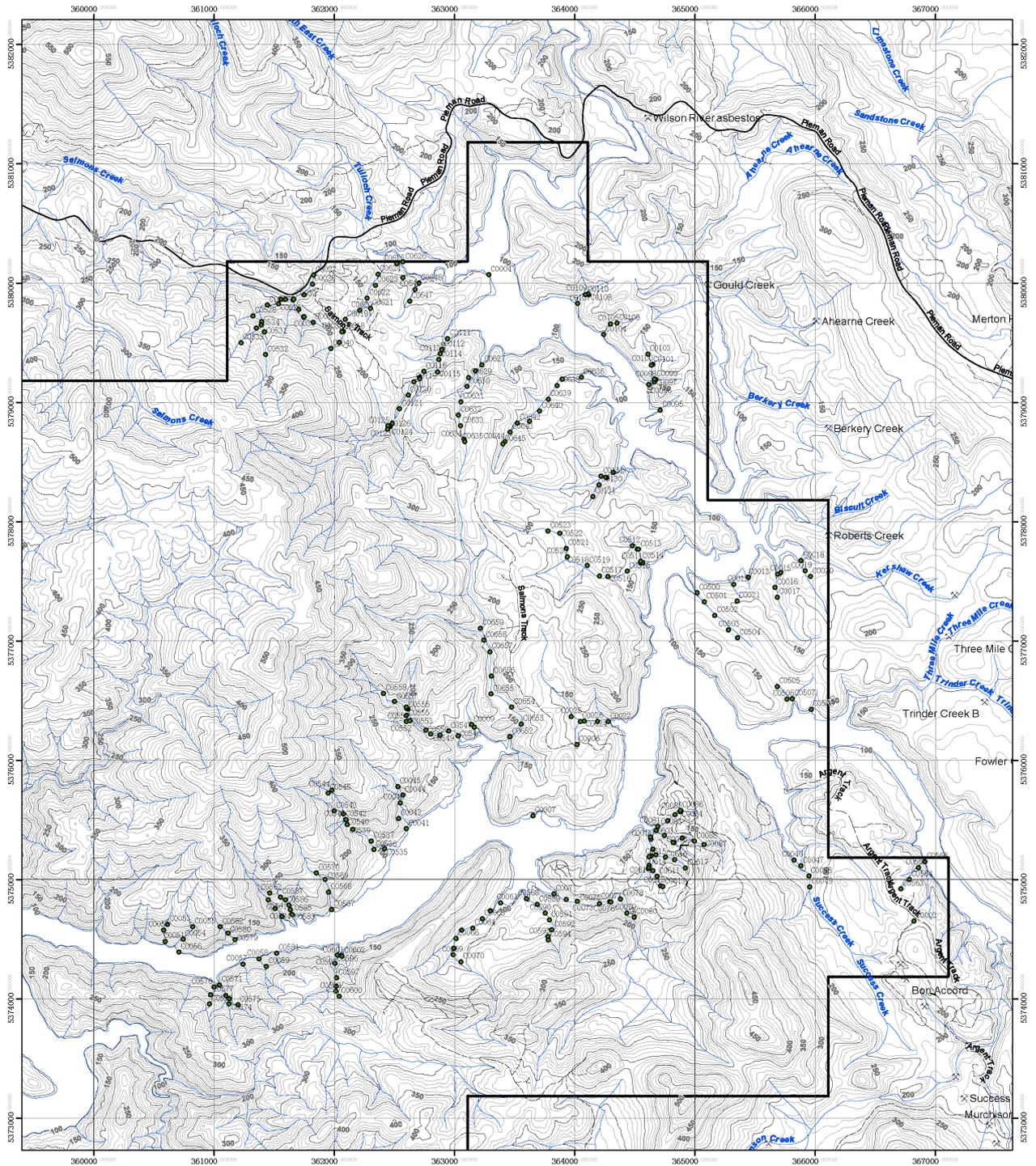


Figure 2: Location of Stream Sediment Samples

separates the area of higher tenor geochemistry to the NW from an area of much lower tenor to the SW. This sharp geochemical zonation marks the contact between the turbidites of the Oonah Formation and the mixed sediment and more ferruginous sequences of the younger Success Creek and Crimson Creek Formations.

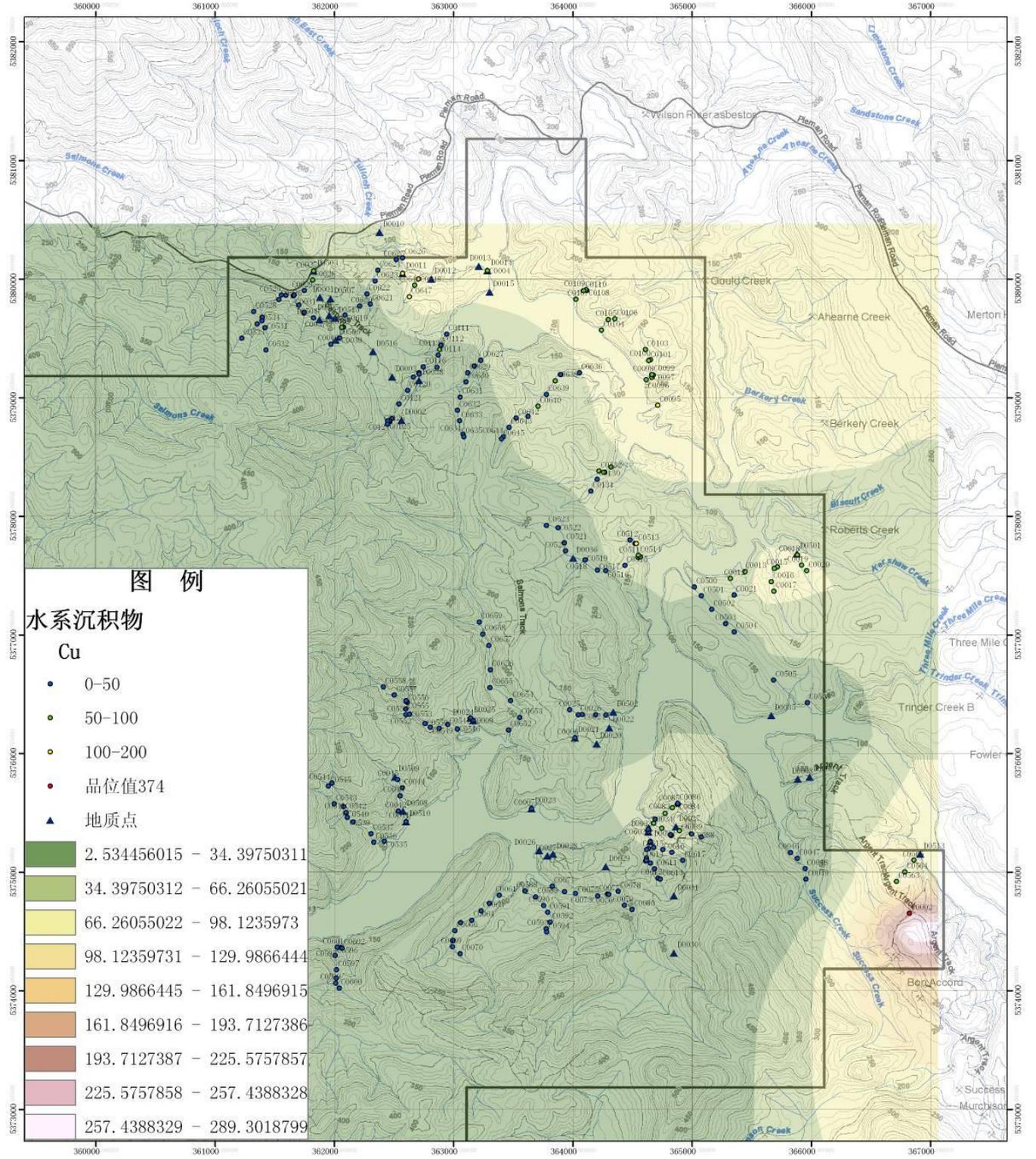


Figure 3: Contoured Stream Sediment Geochemistry -Cu

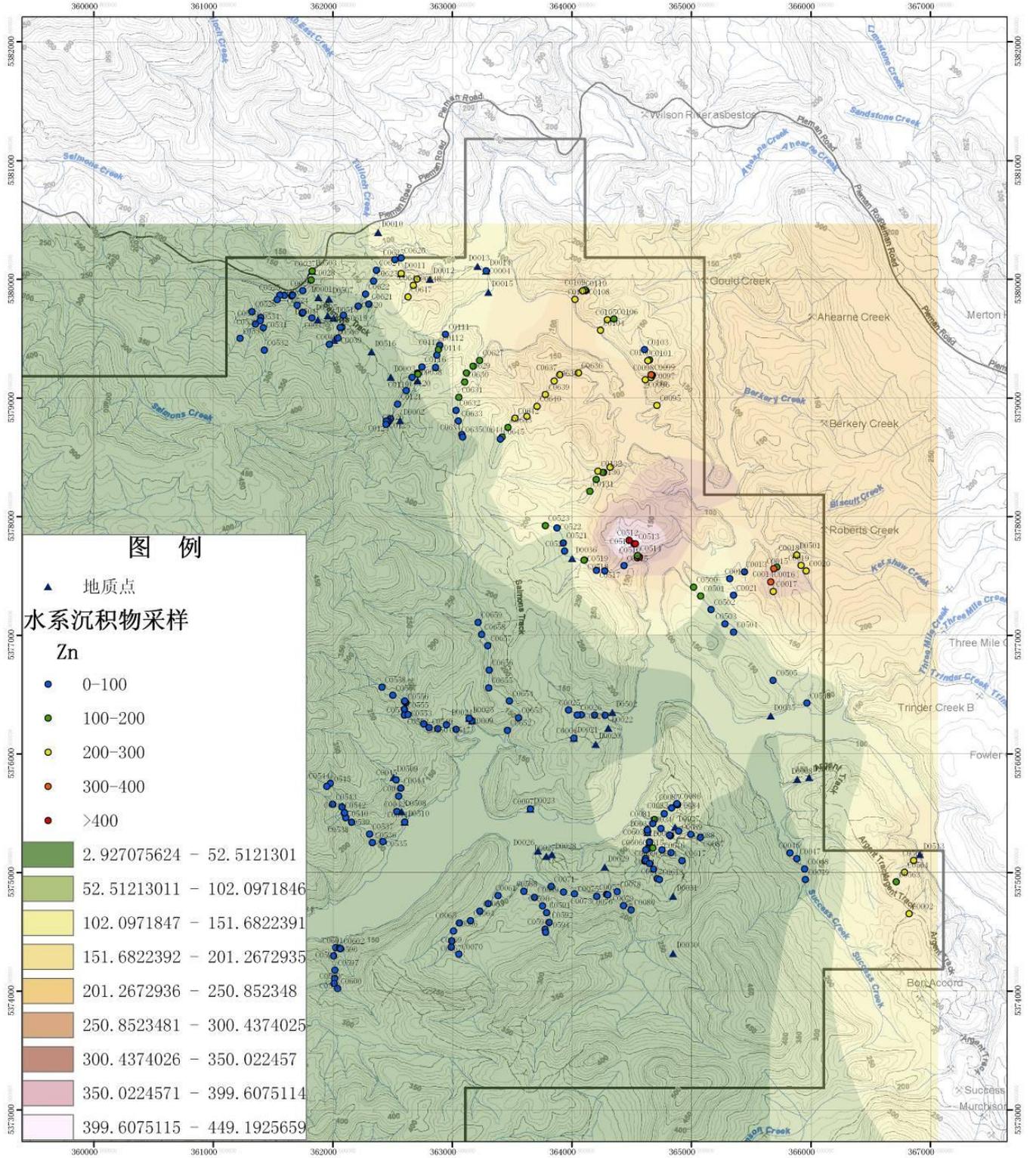


Figure 4: Contoured Stream Sediment Geochemistry -Zn

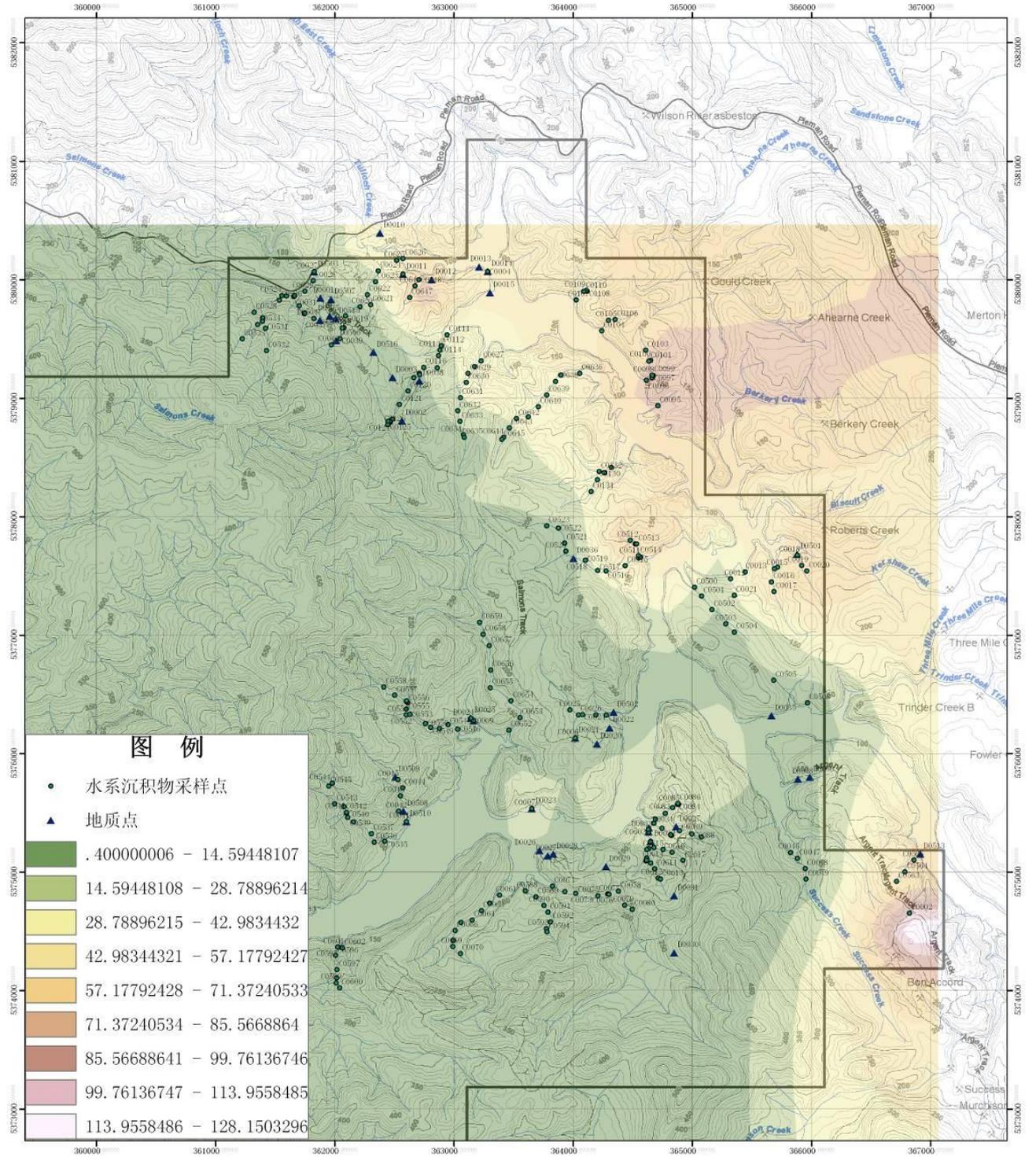


Figure 6: Contoured Stream Sediment Geochemistry –Co

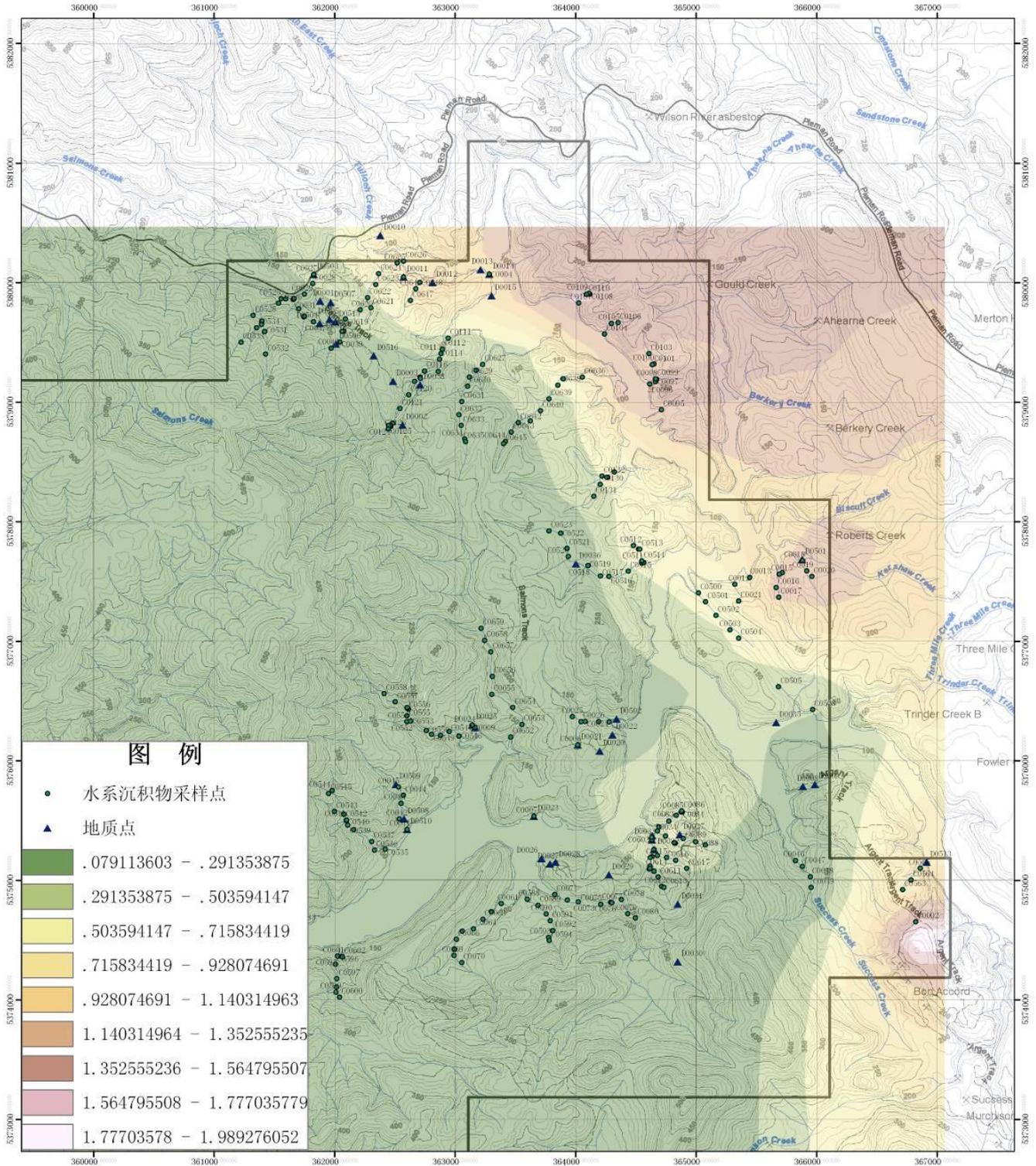


Figure 7: Contoured Stream Sediment Geochemistry -Ti

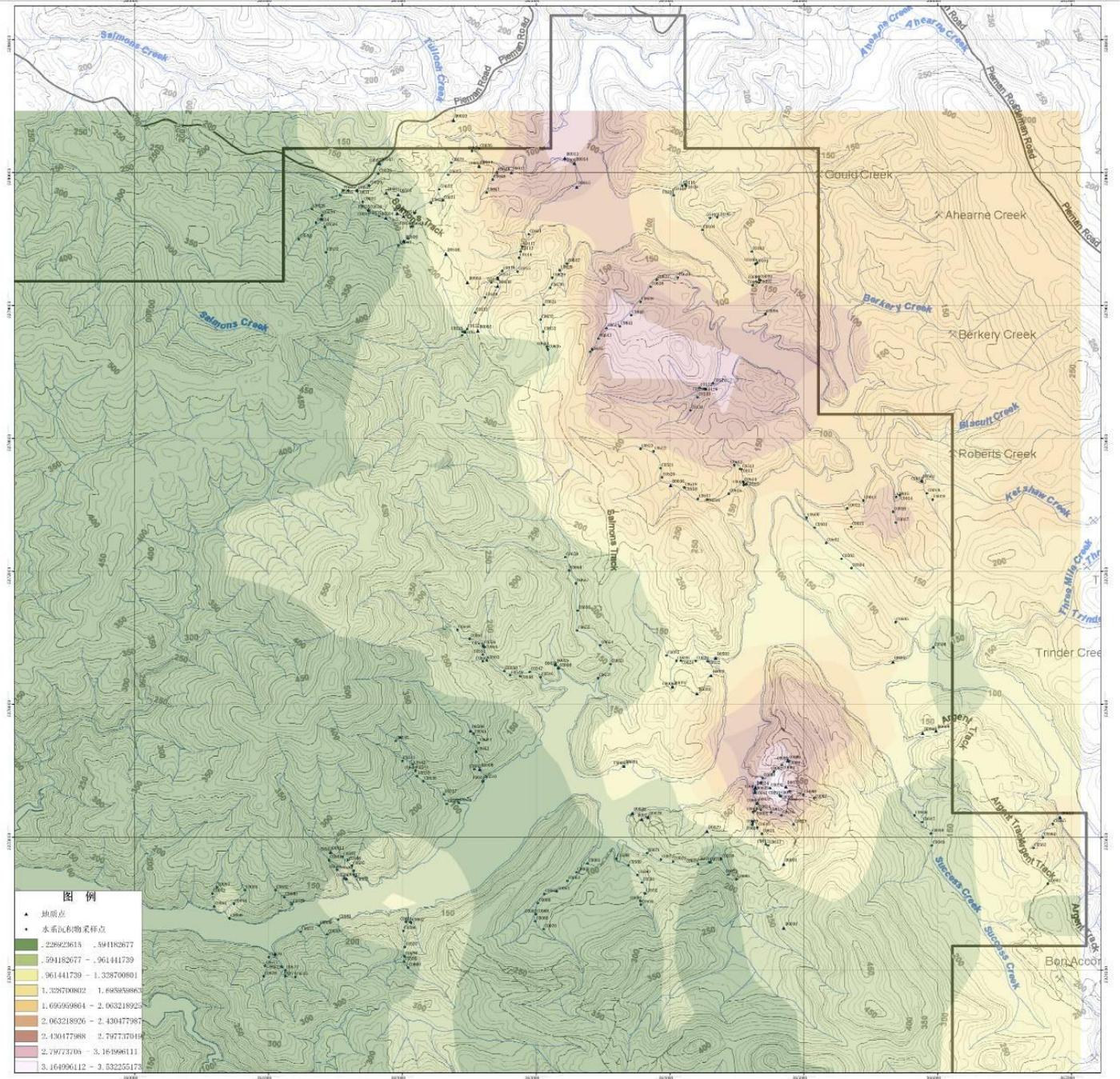


Figure 8: Contoured Stream Sediment Geochemistry -Mo

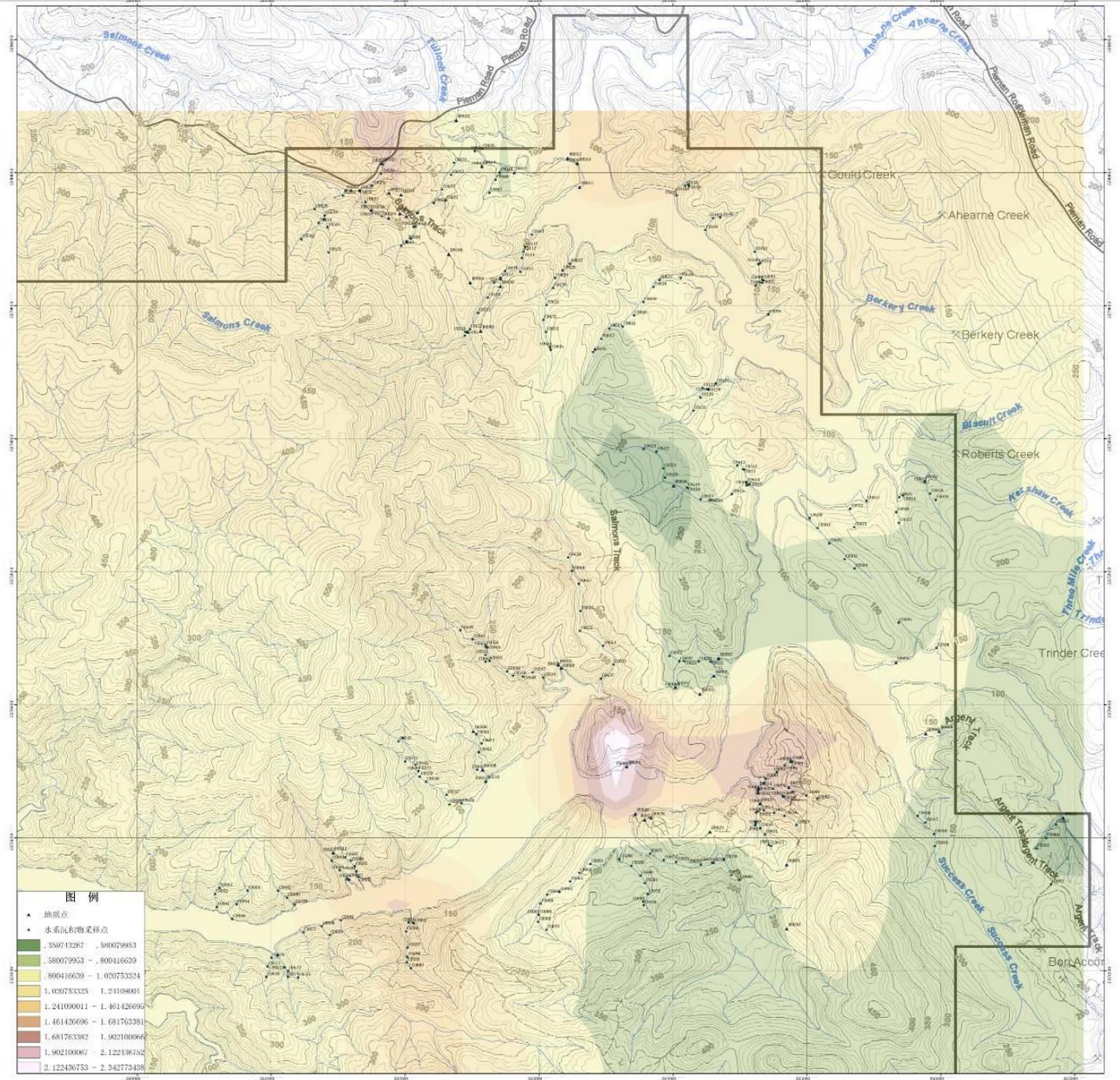


Figure 9: Contoured Stream Sediment Geochemistry - W

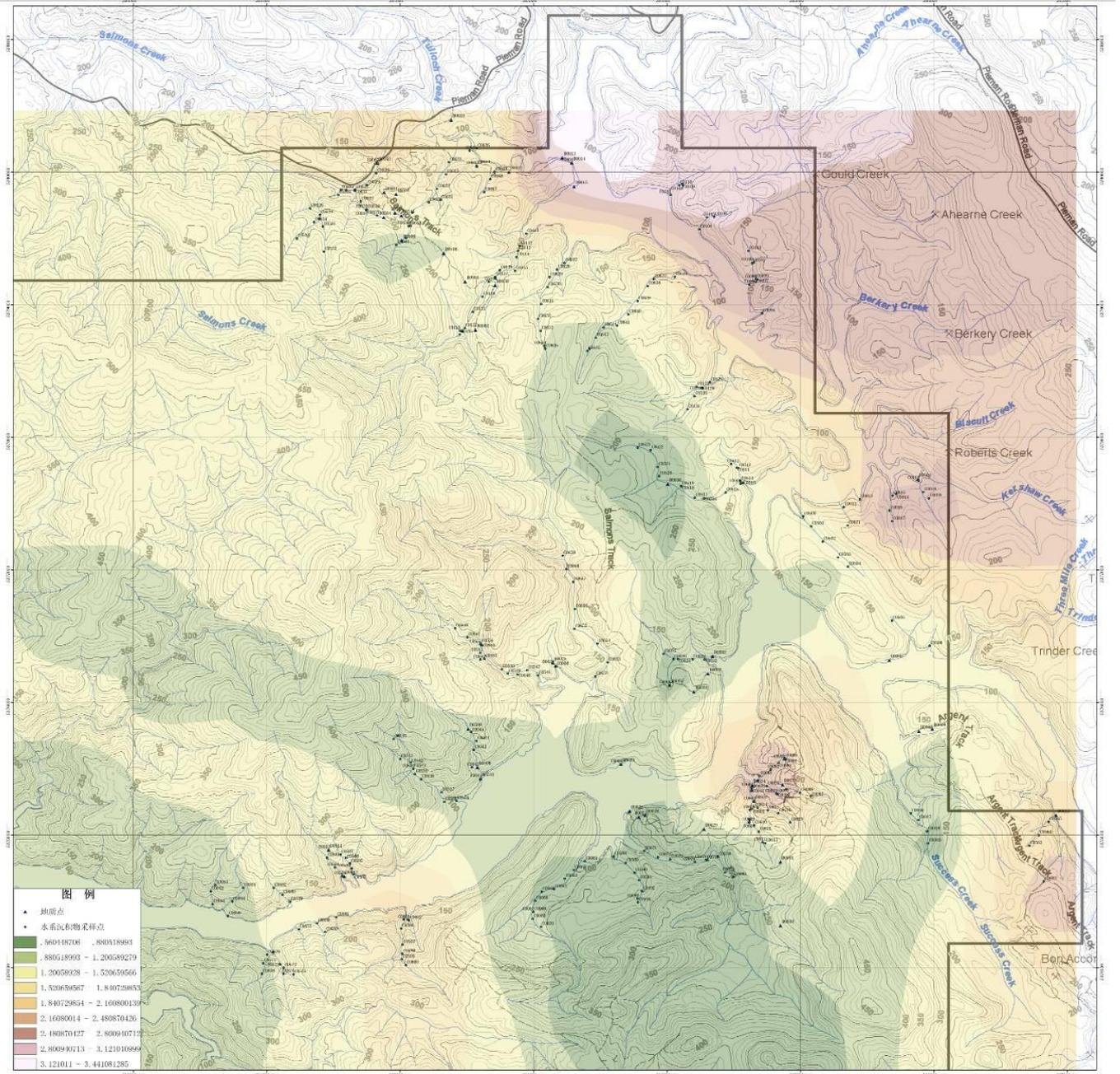


Figure 10: Contoured Stream Sediment Geochemistry - Sn

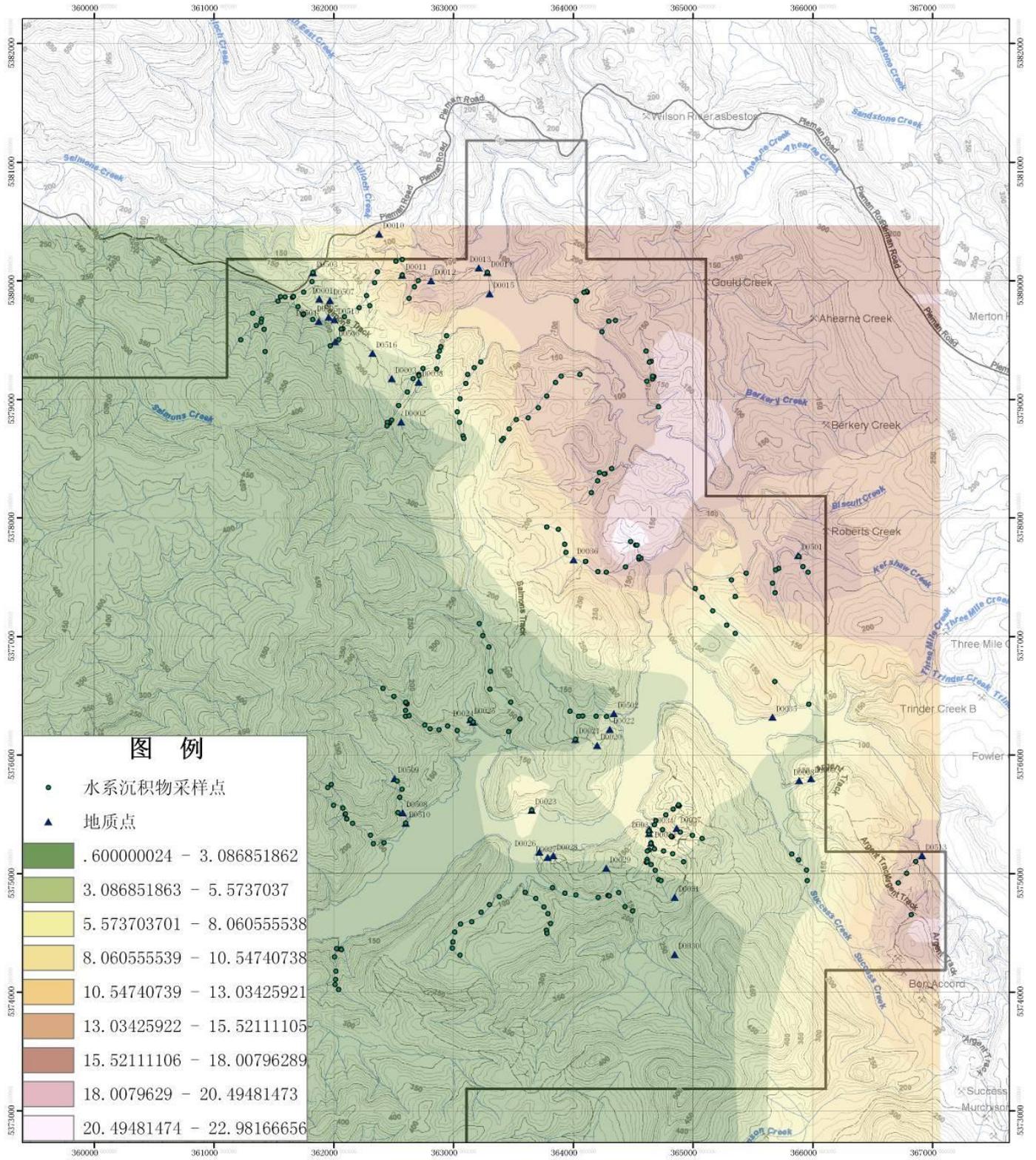


Figure 11: Contoured Stream Sediment Geochemistry - Fe

Analysis of the data has defined two anomalies: a Zn, Fe, Mn, Cu, Co, Ni and Ti anomaly and a W, Sn, Mo anomaly, both located in the northeast of the working area.

7.1.1 Zn, Fe, Mn, Cu, Co, Ni and Ti Anomaly

This anomaly locates in the northeast of the working area, and occurs as a NW-trending belt trends NW, bounded by the red iron bearing formation. The centre of the anomaly is near the southern end of the red iron bearing formation with coordinates of 364480 5377799. The association of elements is related to ultrabasic rock and iron bearing formation. The maximum value of Zn is 678ppm. The outcrop is Cambrian red iron bearing formation (Pdsr), black mudstone, siltstone, carbonaceous siltstone (Pdscu) of the Success Creek Formation and mafic volcanoclastic wacke, siltstone and mudstone (Pdv) of the Crimson Creek Formation. The anomaly contains the silicified limonitic zone (No.3, Geological Point D501)) described in the previous annual report and the No.8 Cu-Zn occurrence (Geological Point D0013) and the No.6 Cu-Zn occurrence (geological Point No.D0014).

7.1.2 W, Sn, Mo Anomaly

This anomaly is not obvious. It is located in the south-northeast of the working area. The No. 1 and No. 4 Cu-Zn mineralized points controlled by D0034 and D0037 geological points are distributed in the centre of the anomaly.

7.2 Geological Traverse Observations and Rock Sampling Results

Red Chalcedonic Iron Bearing Formation Belt

This belt is located in the northeast of the working area and trends NW in general and partially south-north and east-west. Along the strike, the zone is controlled by 5 geological points D0002(362564 , 5378809), 0003(362486 , 5379174), 0038(362710 , 5379145), 0505(361960, 5379692) and 0516(362325 , 5379388) and P1 section, and is traceable for over 1km with an additional outcrop which is over

2km and towards the south west. The strike of the belt is dominantly NW, partially north-south, with a dip of 40°- 80° to the NE.

The belt is dominantly haematite with strong silicification. Ferruginisation is developed as lumps and is not distributed uniformly. At each survey site, 1-3 layers of massive haematite, 0.5-14m in width is typical (Photos 1 and 2).



Photo 1



Photo 2

On both contacts of the massive haematite there are associated zones of silicification and haematisation. The lumpy hydrated iron oxides can be seen in part. The haematite in the silicified rock is distributed as densely to sparse round-spherulitic oval masses (Photo 3). In the spherulitic haematite, pyrite occurs occasionally. The altered belt has a width of up to 20m.

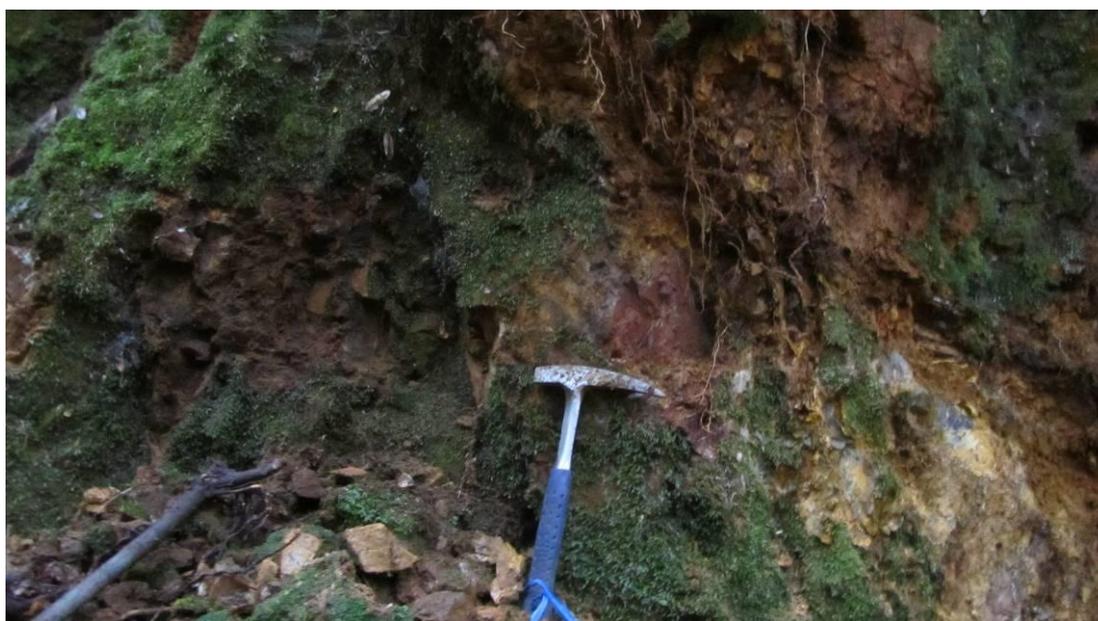


Photo 3

Assay results are shown below:

Table 1 Assay Results of Red Chalcedonic Belt

SAMPLE	Cd	Cu	Fe	Mn	Mo	Pb	Sb	Sn	W	Zn	Au
DESCRIPTION	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
P1-H2	0.08	21.4	23.7	63	0.82	13.1	0.75	0.5	2	136	0.003
P1-H2A	0.04	14.4	12.2	130	1.16	9.8	0.71	0.7	0.6	89	<0.002
P1-H3	0.08	23.6	18.8	182	0.92	27.3	3.52	0.6	0.6	72	<0.002
P1-H3A	0.09	28.1	19.6	137	1.09	29.5	3.28	0.5	0.7	83	<0.002
P1-H4	0.09	23.6	19.9	128	1	31.3	3.63	0.4	1	58	<0.002
P1-H5	0.08	36.6	21.8	242	1.07	18.1	1.16	0.5	0.9	52	<0.002
P1-H6	0.05	32	27.5	128	0.91	14.2	3.38	0.3	0.6	40	<0.002
P1-H7	<0.02	43.3	11.6	147	1.13	9.4	0.34	0.3	0.3	30	<0.002

D0038-H1	0.03	11.9	13.95	141	1.19	8.1	0.11	0.3	0.5	57	<0.002
D0038-H2	0.05	193.5	32.4	65	1.74	136	1.48	0.4	0.4	181	<0.002
D505-H1	3.59	312	32.3	43900	5.16	6.9	1.45	0.8	0.4	498	0.009
D505-H2	0.04	14.6	31.6	219	0.82	19.1	3.83	0.5	0.7	11	<0.002

According to the assay results, the haematite content varies greatly. There are only 3 samples with haematite content over 30% and 3 samples with haematite content over 20%. The haematite content of the remaining samples is between 11.6% -19.9%. What is noteworthy is that individual samples contain higher level of Cu, Zn and Pb.

No.1 Pb-Zn Mineralized Point

This site is at the south side of the northeast part of the working area. It is controlled by D0034 geological point (364636, 5375374). The ferruginisation is tan and brown in colour. The most ferruginous zones exhibit a honeycomb texture. Zones of silicification and pyrite are irregular and massive in occurrence. Chalcopyrite occurs as reddish blue film (photo 4). The mineralized outcrop is 2-3m in width and is traceable for 25m. The mineralisation is bounded by black silicified, carbonaceous mudstone which is over 10m in width. The rock has strong silicification. Quartz occurs as a network of veinlets of 1-3mm in width. The altered zone strikes NE 70° with dips uncertain. The assay results returned 1170 ppm Zn and 340 ppm Pb.



Photo 4 Silicified ferruginous, pyrite and chalcopyrite samples

No.3 Cu-Zn Mineralized Point

This occurrence of Cu-Zn mineralization (photo 5) is at east of the working area. It is controlled by D0501 geological point (365878, 5377683). The host rock is granite and the zone is 0.3m in width and 5m in length. The strike of the zone is 048° and dip angle 56° . Ferruginisation occurs as black network of veins and partially as irregular masses. Ferruginous veins are 1mm in width and occur with quartz veins to 5cm in width. Ferruginisation is developed strongly on the margins of the quartz veins.

The sample assay results returned 102.5 ppm and 104 ppm Cu, and 376 ppm and 384 ppm Zn.



Photo 5

No.4 Cu-Zn Mineralized Point

This area is located at D0037 geological point (364865 , 5375381). Silicification and ferruginisation are found in mudstone with a width of 1-2m, length uncertain, a trend of 120° and a dip of 20° . The sample assay results returned 164 ppm and 65.7 ppm Cu and 164ppm and 118ppm Zn.

No.5 Cu-Zn Mineralized Point

It is located at D0014 geological point (363285 , 5380069). Ferruginisation is developed strongly in mudstone with a width of 3m and a length of over 10m. The sample assay results returned 184 ppm Cu and 444 ppm Zn.

No.6 Cu-Zn Mineralized Point

This area is located at D0022 geological point (364306 , 5376216). Silicification and ferruginisation are found in siltstone with a width of 0.5m, a trend of 048° and a dip of 62°. The sample assay results returned 121.5 ppm Cu.

No.7 Cu-Zn Mineralized Point

This area of interest is located at D0013 geological point (363213 , 5380108). The ferruginisation is developed in diabase with a width of about 1m and a length of over 10m. The sample assay results returned 198 ppm Cu and 199ppm Zn.

8.0 Track Work Conducted

All Terrain Vehicle track work commenced in May 2012 by Ron Gregory Prospecting Pty Ltd on Salmons Track. The boom gate at the entrance was installed and the Salmons Track has since been completed and is suitable for All Terrain Vehicle use. Some grid cutting has also been done along Salmons Track which should be completed in the second half of 2012.

9.0 Conclusions

The results of the geochemical drainage survey, the identification of potentially favourable ferruginous host rocks and the occurrence of base metal mineralisation are all considered highly favourable results. This is particularly the case when the following aspects are considered:

- The area locates within a favourable metallogenic region at the edges of the Dundas geosynclines, on west side of the Cambrian volcanogenic massive sulphide deposit belt. The Rosebery Pb-Zn deposit is located 30km east of

this tenement and the Renison Bell skarn deposit is located adjacent to the northeast of the tenement.

- The area locates within a favourable local geological setting at the outer contact zone of the Devonian Type I granite with Cambrian magenta chalcedonic iron bearing formation and volcanic rocks, which suggests that the tenement has the many of the precursor conditions for the formation of polymetallic skarn deposits.
- The anomalies delineated by the stream sediment survey are spatially closely related to the Cambrian magenta chalcedonic iron bearing formation, aeromagnetic anomalies and fault structures. The iron formation rocks have anomalous levels of Cu, Zn and Pb.
- Large area of silicification and sericitisation have been identified which are indicative of significant hydrothermal processes and add to the prospectivity of the area.

10.0 Recommendations and Proposed Programme

The following exploration programme is recommended and proposed for the next field season:

1. 1:10000 Preliminary Geological Survey

It is proposed to implement a 1:10000 preliminary geological survey in key working areas with the priorities of identifying the spatial distribution of faults, volcanic rocks and diabase and identifying new mineralization. This work will be concentrated in the areas of the proposed soil surveys (figure 12) over approximately 6km².

2. Soil Survey

It is proposed to conduct grid controlled soil sampling over the stream sediment anomalies and favourable ferruginous lithologies described in Section 7.2 above. The location of the proposed soil grids is shown in figure 12. The purpose of the soil surveys is to define drill targets. The proposed grid spacing is 200x50m in the

northern grid and 100x50m for the central and southern grid. The surveys will involve the collection of 650 samples.

3. Trenching

A programme of trenching is proposed, involving approximately 300m to test anomalies defined from the soil sampling programme and to investigate the mineralised occurrences identified from geological traversing described in Section 7.2 above.

4. Drilling

A total of 1500m of drilling has been allocated to test mineralisation and anomalies defined from the above programmes.

The anticipated expenditure for the proposed programme is \$986,285.

Party A		3
Total Income		
1. Fiscal Allotment		
2. Local Government Allotment		
3. Self-supporting Funds		
4. Other Funds		
Total Expenditure	598178.60	
1. Expenditure for Workers	275209.81	
2. Office Expenses		
3. Printing Expenses		
3.1. Report Printing		
3.2. Other Printing		
4. House Rent and Utilities	17963.06	
4.1. Gas Fees	111.27	
4.2. Electricity Charge	3912.00	
4.3. Wood	271.40	
4.4. House Rent	13668.39	
5. Communication Expenses	3182.67	
6. Transportation	40256.61	
6.1. Rents	30219.65	
6.2. Fuel Cost	7683.54	
6.3. Maintenance Cost	2016.70	
6.4. Toll Fee	235.52	
6.5. Insurance Expenses	101.20	
7. Travelling Expenses	20970.03	

7.1. Air Tickets	6978.20	
7.2. Accommodation	7832.55	
7.3. Meal	5470.91	
7.4. Transportation	688.37	
8. Conference Expenses		
8.1. Design Review		
8.2. Result Inspection		
8.3. Seminar		
9. Training Expenses	5980.00	
1. Organize Training	5980.00	
2. Attend Training		
10. Special Materials and Fuel Cost	22109.37	
10.1. Geological Supplies	16766.40	
10.2. Office Supplies	5342.96	
10.3. Low Value Consumables		
10.4. Technical Data		
10.5. Special Fuel Cost		
11. Consulting and Service Fee	40545.18	
11.1. Design Review	30602.28	
11.2. Result Inspection		
11.3. Temporary Employees		
11.4. Employees for Field Work	9942.90	
12. Fees for Entrusted Business	161458.09	
12.1. Test Fee	40282.18	
12.2. Attorney Fee	70881.40	

12.3. Translation Fee	314.64	
12.4. Track Upgrading Fee	49979.87	
12.5. Collaborative Research		
12.6. Software Development		
13. Equipment Purchase Expense		
13.1. Special Equipment Purchase		
13.2. Special Equipment Trial-manufacture		
13.3. Special Software Purchase		
14. Maintenance Fee		
15. Others	10503.77	
15.1. Land Compensation Fee		
(1)Temporary Facilities Construction and Demolition		
(2)Temporary Land Occupation		
(3)Young Crops and Trees Compensation		
15.2. Physical Examination Fees	381.25	
15.3. Medical Care Expenses	157.69	
15.4. Insurance Expenses	4565.35	
15.5. Business Tax	5399.48	

Prepared by: Xu Kun

Appendix 1
Rock Sampling Data Sheet

No.	Sampling point	X	Y	Sampling Date	Outcrop	Nature of point	Description	Sample No.
D0001		361880	5379845	2011.4.14	artificial ordinary	Mineralization point	Color is black, brown. Length > 10 m, width > 5 m. Occurrence is 138 ° < 68 °. Inside the quartz vein, there is net-veined, contains large numbers of limonite and a few honeycomb pores. In the northwest of the point, occurred silicified mudstone, limonite mineralization and kaolinization, strong limonite zone is yellow, a little weak zone is pale, with the powder of exquisite and smooth, visible width is about 1.5m. Wall rock: thin-bedded mudstone, fresh surface is grey, the fracture surface has limonite film, the weathered surface is mudstone, color is grey purple. Occurrence: 75 ° < 84 °.	D0001-H1
D0002		362564	5378809	2011.4.14		Mineralization point	Silicified hematite, color is reddish brown, thickness of about 1m or so, on the sport there are sandstone, mudstone and kaolinization. luxuriant vegetation around, weathering. Occurrence: 60 ° < 46 °	D0002-H1
D0003		362486	5379174	2011.4.14		Mineralization point	Strong limonite mineralization, mudstone. The color is filemot, thickness about 1.5m, length more than 10m. Luxuriant vegetation around. Occurrence: 242 ° < 15 °.	D0003-H1
D0005		358729	5366921	2011.4.15	artificial ordinary	Tectonic point	Quartz sandstone, the color is grey, width > 5 m, to the west of the point, there is strong cleaved quartz sandstone, to the east is silicified quartz sandstone. In the quartz sandstone, occurred vertical structural belt of quartz vein, the width of the quartz vein is 1cm-2cm. The surface extends 10m, its occurrence is 194 ° < 62 °.	

D0006		355550	5366173	2011.4.15	artificial ordinary	lithological point, tectonic point	Quartz sandstone, the color is pale, medium-sized grain structure, thin layer of grain structure, thin stratification, influenced by the structure, the rock occurred strong fracture and lithification, the width of the structural belt is more than 5m, the length is more than 5m.	
D0007		351480	5369881	2011.4.15	artificial ordinary		The lower is siltstone, with the color of yellow, flesh red; the middle is giant conglomerate, with the color of pale, better grinding roundness, the content of gravel is 60% ~ 70% and the diachronic size is 20cm-30cm, but the oriented arrangement is not obvious; The upper is coarse conglomerate, which is lesser, with the color of pale, the content of the gravel is about 60%-70%, gravel path is about 2cm-3cm, the formation attitude of the thick and giant conglomerate is $160^\circ < 14^\circ$, the formation attitude of the giant-grained sandstone and the siltstone is $283^\circ < 20^\circ$.	
D0008		365887	5375783	2011.4.16	artificial good	lithological point	The medium-coarse feldspathic quartz sandstone, the color is yellow, strong weathering, medium-coarse structure layered formation, the main composition for feldspathic quartz.	
D0009		365987	5375801	2011.4.16	artificial good	boundary point	the upper is elliptic gravel, with the diameter of about 10cm, permeability is poor, about 1m thick; The lower is conglomerate, medium-coarse feldspathic quartz sandstone, the color is khaki, strong weathering, medium-coarse structure, layered formation, mainly composed by feldspathic quartz.	
D0010		362381	5380394	2011.4.18			The Ore contains sphalerite rubble, magnetite, a few galenite, the content of sphalerite is 75%, iron pyrite 15%, galenite 5%.	
D0011		362573	5380046	2011.4.18		tectonic point	Mudstone, color is red brown, strong weathering, hematization, more than 10m in length, width more than 3m, thickness of 30cm, the occurrence is $261^\circ < 24^\circ$, the anticline occurrence is $85^\circ < 25^\circ$.	C0003

D0012		362814	5380000	2011.4.18		tectonic point	Strong silicification, with the color of brownish-purple, partly occurred a few galenite, hematization, occurrence is $12^{\circ} < 19^{\circ}$, there is 4-5cm ore belt in the middle.	D0012-H1
D0013		363213	5380108	2011.4.18	natural		Strong weathering, limonite mineralization, diabase, color is filemot, more than 10m in length, about 1m thick, luxuriant vegetation in the south of the lake, a large number of the diabase gravel occurred in the surface, with the color of dark gray, mineral grain is tiny, in which occurred dissemination structure of chalcopyrite and pyrite, partly occurred copper chippings, visual estimated the copper less than 0.1%. in the fresh surface, the pyrite particle diameter is about 0.1mm.	D0013-H1,b1, B1,B2
D0014		363285	5380069	2011.4.18		boundary point	Mudstone, the color is filemot, limonite mineralization, the length is more than 10m, about 3m thick, to the east of the point is mudstone, with the color of yellow, to the west of the point is strong hematization mudstone, with the color is filemot.	D0014-H1
D0015		363302	5379890	2011.4.18		quick soil point	lakeside, all around is quick soil, luxuriant vegetation in the north side.	
D0016		354326	5369658	2011.4.19	artificial good	geological point	This point appeared grey purple siltstone, the sandstone structure, thin stratified structure, in which occurred mudstone interlayer, mudstone is grey purple with light flesh red, small faults occurred in the rock. Occurrence: $40^{\circ} < 25^{\circ}$, faultage occurrence: $0^{\circ} < 70^{\circ}$.	
D0017		350273	5372111	2011.4.19	artificial good		Mudstone, quartz vein, weathering surface showed grey purple, a large number of quartz gravel, constant, limonite mineralization, filemot.	D0017-H1

D0018		355960	5380050	2011.4.24	natural good	lithological point	Sandstone, medium-coarse feldspar quartz sandstone, semi weathered, offwhite, medium-coarse structure, thin stratified structure, main composition: feldspar, quartz, rock fragments, sorting is good, inside the rock filling quartz, quartz vein crosscut bedding, the thickness of the quartz vein is several mm, - 2 or 3cm, vein body distributed tightly, every meter there is more than 10 quartz veins, sandstone occurrence $20^{\circ}<76^{\circ}$, quartz vein occurrence: $105^{\circ}<61^{\circ}$.	
D0019		356202	5380110	2011.4.24				
D0020		364200	5376081	2011.4.26	artificial very bad		quartz sandstone, the color is offwhite, appeared blocky quartz, the diameter is about 3cm.	
D0021		364018	5376131	2011.4.26				
D0022		364306	5376216				appeared silicification, limonite mineralization, the alteration zone is 0.5m, inside there is crumbling quartz, along the cranny surface there is Mn, dye black, occurrence: $48^{\circ}<62^{\circ}$.	D0022-H1
D0023		363654	5375535				appeared encrusting limonite. Water system sample no.C0007	
D0024		363166	5376277				water system sample no.C0008.	
D0025		363143	5376299				water system sample no.C0009.	
D0026		363718	5375181	2011.4.27				
D0027		363788	5375136				occurrence $31^{\circ}<68^{\circ}$.	
D0028		363835	5375150		natural common	Mineralization point		
D0029		364276	5375045		artificial good	reference point	offwhite mudstone, strong weathering, clay shape.	
D0030		364849	5374318					
D0031		364849	5374799				yellow-white mudstone, occurrence: $339^{\circ}<18^{\circ}$.	

D0032		364652	5375256				water system sample no.C0010.
D0033		364634	5375338				water system sample no.C0011.
D0034		364636	5375374		natural common	Mineralization point	Limonite mineralization, chalcopyritization, silicified limonite mineralization, pyrite mineralization, limonite mineralization shows taupe, filemot, the strong place occurred honeycomb, after weathering shows silt silicification, white quartz is irregular crumbling. Pyrite mineralization shows irregular crumbling. Copper mineralization, after weathering shows pale red, fresh is bright red, crumbling and grain shape, the thick rock is silicified black mustone. The mineralized area is 2 square meters, the occurrence of 10°<51°.Tend towards 235°.
D0035		365665	5376319				
D0036		364004	5377647	2011.4.28			Muddy siltstone, thin stratified , light dark green. Occurrence :343<75°.
D0501		365878	5377683				Granite, weathered surface is khaki, blocky structure, strong weathered rock, loose earthy, clear blocky structure, the feldspar is weathered, becomes caoline, only a small amount of quartz grains, there is black reticulated limonite in the lithosome, the limonite is 0.2-2mm wide, there is a quartz vein(5cm wide), there is a clear alteration zone of limonitization(30cm wide) beside the quartz vein, there is black reticulated limonite, local part is lumpish. Occurrence:48°<56°
D0502		364341	5376348	2011.4.29	natural exposure		Black sandstone, the slight quartz through it, there is limonitization:white grains, metallic luster, 5m wide, >10m long, there is pyrite in 340 ° azimuth

D0503		361828	5380067	2011.5.2	natural,good	Structural point	It is located in northeast of creek, the lithology is silty mudstone, weak weathered rock, gray, clay structure, the thin-layer-like structure can be seen, the rock is strongly broken because of the construction hydrothermal, the rock of developed limonitization and silicification is broken, the broken rock is 10-20cm wide, clear orientation arrange. the broken rock belt is 10m wide, Occurrence: $2^{\circ} < 66^{\circ}$
D0504		361876	5379658		natural,bad	Lithological point	Siltstone: moderate weathering, grey white, silty structure, thin-layer-like structure, main ingredients are silts (>80%), the argillaceous (<20%) cement bedding thickness is <10cm. formation occurrence: $35^{\circ} < 25^{\circ}$
D0505		361960	5379692		artificial,good	Mineralization point	It is located in south of road in northeast of tenement, the outcrop is about 5m, hematization can be seen, adjacent rock is yellow mudstone, there is manganese minerals in the yellow mudstone and continuous exposed 2-3 layers hematite ore body, the hematite: dark brown, coarse granular structure, layer structure. the content is >60%. Some become limonite because of oxidization, the limonite: star point or mottled distribution. the poor level of oxidization of hematite has few limonite. the bottle wall of hematite ore body is ferrous feldspar quartz sandstone, there is cherty iron formation in the ore body, the interlayer is 1-2m thick, the most thickness of ore body is >5m, but the extend length is unclear.
D0506		362011	5379485		natural,normal	Lithological point	Located in the west of SAIMON'S TRACK, at the 150m along the creek upwards. muddy shale, weak weathering, charcoal, muddy structure, thin-layer formation (1cm thick), Occurrence: $215^{\circ} < 75^{\circ}$
D0507		361969	5379833		artificial,normal	Lithological point	Located beside the SAIMON'S TRACK. Basipetal dikes, serpentization. 5m wide, the diabase can be seen: there is limonitization in it, fine granular

							structure,block structure.	
D0508		362578	5375512	2011.5.3	natural,good	Boundary point	Muddy shale in the south of this point,weak weathering,gray white、dark gray.micro laminated structure, clear foliation. Feldspar quartz sandstone in the north of this point,weak weathering,off-white,fine granular structure,thin-layer structure, the Major nutrition compositions are feldspa (about 70%) and quartz(about 65%),muddy and silicified cementation which is tightening.the interface and bedding surface are conformable contact, the contact occurrence:131°<69°.there is siltstone away from 5m in the north of this point.	
D0509		362509	5375801		natural,good	Rocky Point	Quartz-sandstone in the two sides of this point, grey white,granular structure ,Laminated structure,Occurrence:51°<55°	
D0510		362602	5375425		natural,good	Lithological point	Quartz-sandstone:grey white,slight quartz vein through it,Occurrence:112°<73°	
D0511		361463	5374888	2011.5.6	natural,good	Lithological point	Silicified and pyritization carbonaceous mudstone, pyrite grains are <0.1mm, several are about 0.5mm.Occurrence:33°<58°	
D0512		361581	5374689		natural,good	Lithological point	Silicified and pyritization carbonaceous mudstone can be seen,weathered face is lime green,fresh face is black,the rock silication is strong, has felspar quartz, pyrite: slight dissemination distribution, local is fine streak, most of grains are <0.1mm,several are about 0.5mm.East of this point is schistosity carbonaceous mudstone,in which has dissemination pyrite and white metallic minerals,there is quartz stringer(0.1-0.5cm wide) in the silicified carbonaceous mudstone, Occurrence:85°<68°,the fault occurrence:110°<80°	

D0513		366914	5375150	2011.5.7			There is grayish purple mudstone in the west of this point, slight quartz stringer in it,from C0565-this point, there is lime green and grayish purple volcanic detritus, occasionally purple detritus and crystal fragment; chlorite stringer can be seen,0.1mm.pyrite stringer:mottled hematite in it. There is caesious siltstone in the east of this point, star point pyrite and pyrite stringer,the coarseness is <0.1mm, 0.1mm wide. The grayish purple mudstone occurrence:55°<70°
D0515		362008	5379671	2011.5.12	artificial,normal	P1profile start point	38-46m:grey white mudstone,there is silicified limonitlization in the external contact zone of grey white mudstone and blocky alteration rock.46-53m:blocky hematite,hepatic.Occurrence at the 53m:90°<56°; it is strong silicified limonitlization and dissemination limonitlization alteration rock, the hematite is limonitlization, the limonite: blocky, so hard because of silication, quartz stringer in it.53-61m:silicified limonitlization and hematization alteration rock, strong silication,the hematite is intensive dissemination, the limonitlization is unclear.61-61.5m:blocky hematization and limonitlization alteration rock.61.5-76:silicified limonitlization alteration rock.76-80m:grey white mudstone.the end point coordinate:x: 361944 y: 5379712.the profile orientation is 310°.

D0516		362325	5379388	2011.5.15	artificial,normal	silicified limonitization rubble point	Silicified limonitization rubble, strong silication, most of rocks are quartz; limonite is dissemination or intensive dissemination, the grain is clear and black, the ram is 1-2mm, content is 10%-30%; the silicified limonitization alteration rock beside the limonite; the black flecks in the silicified rock are because of weathered pyrite, occasionally star spot and micro granule pyrite in the black flecks. the black flecks: intensive dissemination, distributed in the silicified mudstone, content is 5%-20%, outcrop is >10m, 5-6m wide, the alteration zone is about 20m. There is strong silicified hematization and limonitization alteration rock in the south of road (240m away from D516), the rock is earthy, the hematization is red and mottled, the content is 30%, 6m wide.
D0037		364865	5375381	2011.5.26	artificial,good	Lithological point	Red mudstone, strong weathering, silicified and thin-layer structure, weak limonitization and hematization. Occurrence: $120^{\circ} < 20^{\circ}$
D0038		362710	5379145	2011.6.2	artificial,good	Mineralized alteration point	There is limonitization and manganese-based silicalite. limonitization: black brown or tawny, honeycomb, about 1m wide, manganese-based silicalite in its both sides, the manganese: black, dyes hand, small lumpish, 1-4mm, uneven distribution, the content is 10%-20%, 5m wide.