

## CHAPTER 2 C BLOCK AREA

### 2-1 Location of the Survey Area

As shown in Fig. 2, the survey area is located in the central part of the Alta Floresta region at approximately 20Km northwest of Paranaita City. During the Phase II, several surveys were also carried out in the C Block area within a large area that presented concentrations of gold anomalies of above 25 ppb in soil. Based on statistical calculations of soil geochemical data provided from Phase I survey, the values above 25ppb were considered as anomalous values.

### 2-2 Survey Methods

Further investigation was recommended to be carried out within the large soil gold anomaly discovered during Phase I. During the Phase II, the following surveys were carried out:

- i) A semidetailed soil geochemical survey
- ii) Hand auger survey and some scout drillings based on the newly detected anomalies in i)

#### 2-2-1 Geochemical survey

For this survey, both the semidetailed soil geochemical survey and hand auger survey were considered as part of the geochemical survey.

As shown in Fig.II-2-1, the Phase II survey was carried out in a large area within the C Block area delineated by the concentrations of gold anomalies in soil above 25 ppb.

The survey method was similar to that in B Block.

The Appendices 22 and 26 indicate the lists of the soil and hand auger samples including their respective description in field. The results of the chemical analysis are shown in the Appendices 23 and 27. Statistical data are shown in the Appendices 24 and 28.

#### 2-2-2 Drilling survey

For the scout drilling survey of the Phase II, total coring drilling was conducted to acquire geologic and tectonic information at depth.

The sites for drilling were defined after the completion of Phase II geochemical survey. Drilling survey method was similar to that in B Block.

The list of drilling machine and equipment used in this survey are annexed on Appendix 7. Appendix 13 shows the results of chemical analysis and appendix 9 the drilling core descriptions. The results of laboratory tests are indicated from Appendices 1 to 5.

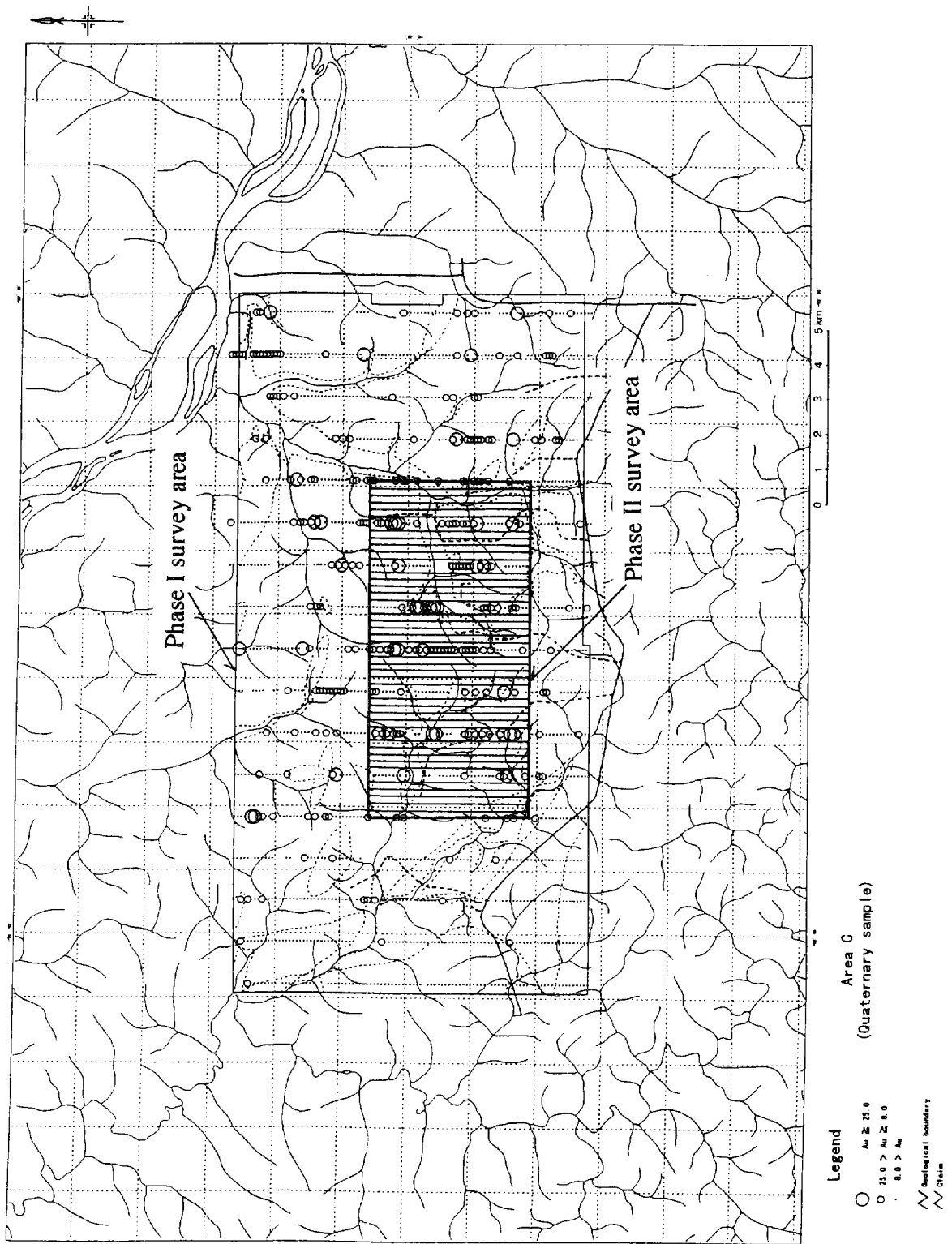


Fig. II-2-1 Geochemical survey area of Block C

## **2-3 Geology**

### **2-3-1 Geological survey results**

#### **(1) Geology**

The geology of the area can be described as follows. The geological map and geological profile is presented on Fig II-2-2.

##### **(i) Stratigraphy**

The geology of C block is composed of Lower Proterozoic Pre-Uatuma Granite, Middle Proterozoic Uatuma Group, Dykes and Quaternary sediments. The Uatuma Group within the area is represented by the Iri Formation.

##### **① Pre-Uatuma Granite**

It is composed of biotite granite (GriIIb). The biotite granite (GriIIb) shows medium pinkish color and includes quartz, biotite and coarse feldspar. Locally the feldspar is porphyry and the pyrite is widely disseminated in the vicinities of gold primary garimpo. Results from microscopic observation of the sample (A2036 and C2001 in Appendix 1) indicate that the granite shows weak cataclastic texture and includes alteration minerals as chlorite, sericite and epidote. Pyrite and chalcopyrite were also observed.

##### **② Iri Formation**

Rocks from Iri Formation is distributed at the western part of the survey area and it is represented by acidic volcanic rocks (Puiv).

The acidic volcanic rocks (Puiv) consist of gray, rhyolitic and dacitic lava and tuff.

##### **③ Dykes**

The dikes are composed of aplite (Ap) and diabase (Di).

The aplite is present in the west part of the survey area, while the diabase is present in the northeast part of the survey area.

##### **④ Quaternary**

The quaternary (Qa) consists mainly of alluvial deposits that are distributed in the rivers flat.

##### **(ii) Geological structure**

The shearing zones represent the most important geological structure observed in the survey area.

A shearing trend was observed along the NW-SE direction in some of the primary gold garimpo. Shear zones with NNW-SSE and ENE-WSW trends also were confirmed in the area.

### **(iii) Mineralization**

Gold alluvial garimpo are found widespread in the survey area, confirming the presence of a large alluvial gold mineralization in the survey area. The source of primary gold are thought to be due to a disseminated or vein / veinlets types gold mineralization.

The mineral showing C7 consists of an open pit with a length of 200m and located on line C0840 in the central part of the survey area. The gold mineralization is related to quartz vein with a width of 30cm that fills a 30-degree dip and shearing along NNW-SSE direction.

The host rock consists of strongly weathered porphyry biotite granite with chlorite, epidote, potassic and sericite alterations (samples A2140 and A2141, Appendix 3). Polished sections of samples A2040(a ~d) indicated in Appendix2, presented pyrite, magnetite, chalcopyrite, covellite, sphalerite and gold grains. The gold grains are present either as free gold filling pyrite fracture or as inclusion inside the pyrite crystal.

The results of ore analysis are listed in Table II-2-1. The ore sample A2040 showed gold values of 113.44g/t of Au, 194.3g/t of Ag and a high content of Bismuth. Anomalous values of Cu, Pb and Zn were also confirmed in this sample.

Results of fluid inclusion in the samples A2040 and A2049 in Appendix 5 indicate averages homogenization temperatures of 313.4°C and 292.8°C, respectively and salinity of 11.9% and 19.0%, respectively.

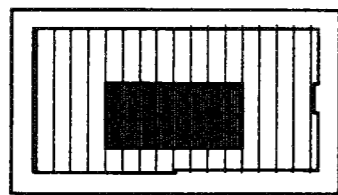
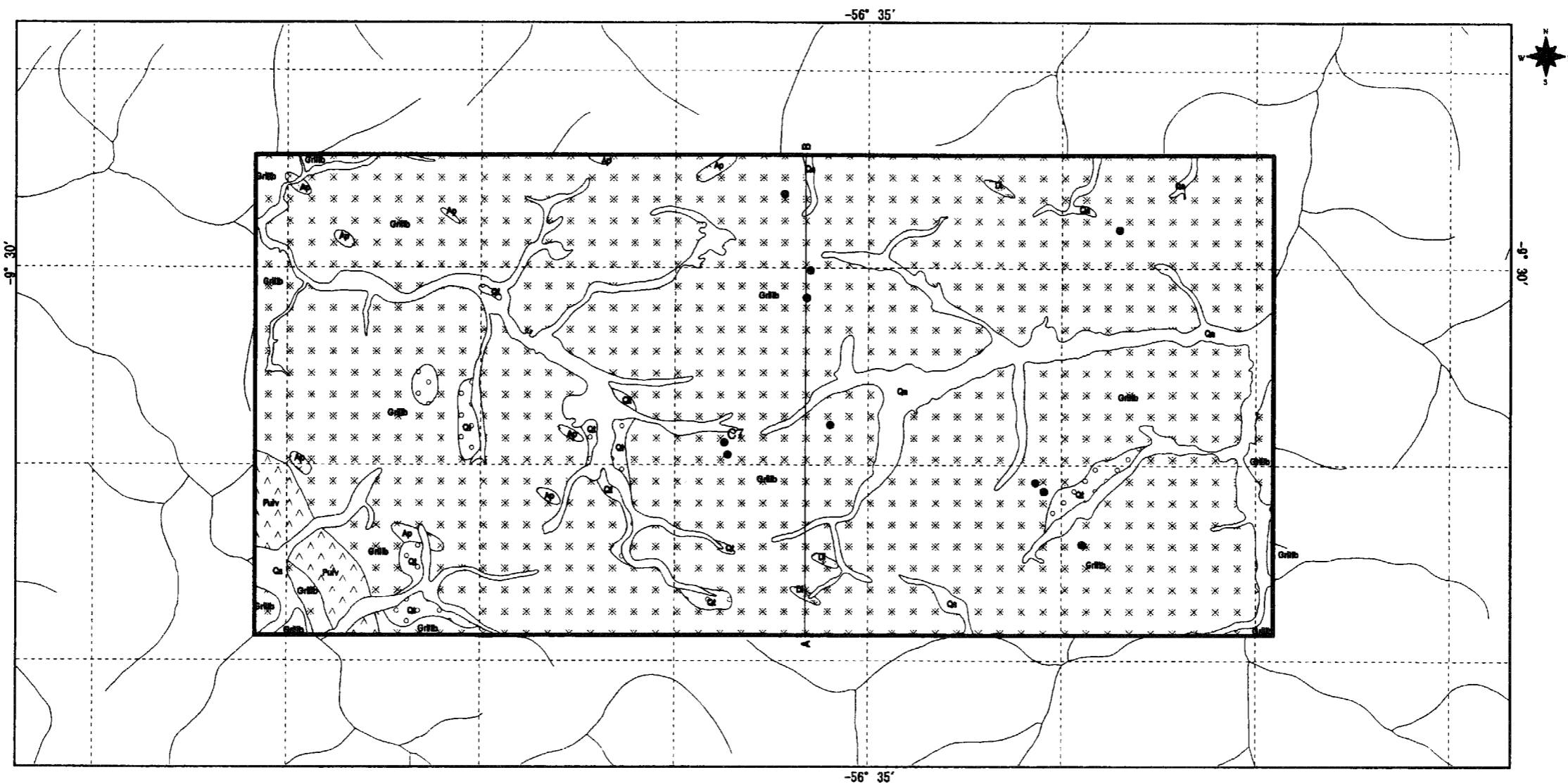
## **(2) Discussion**

The geology of C block is composed of Lower Proterozoic Pre-Uatuma Granite, Middle Proterozoic Uatuma Group, Dykes and Quaternary sediments. Shearing zones with NW-SE, NNW-SSE and ENE-WSW trends were confirmed in primary gold garimpo of the survey area.

Gold alluvial garimpo found widespread in the survey area confirms the presence of primary gold in the proximity. The source of primary gold is thought to be due to a disseminated type or vein / veinlets type gold mineralization.

In the mineral showing C7, the gold mineralization is related to 30-cm wide quartz vein that fills a 30-degree dip within a shearing zone trending along NNW-SSE direction.

Results of ore analysis showed values as 113.44g/t of Au and 194.3g/t of Ag. The ore analysis confirmed also anomalous values of Cu, Pb and Zn.



Location of Phase II survey area



LEGEND

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| <p>Quaternary</p> <p>Alluvial deposits  <b>Qa</b> Gravels, sand, silt and clay.</p> <p>Terrace deposits  <b>Qt</b> Gravels, sand, silt and clay.</p> <p>Uatuma Group</p> <p>Iri Formation  <b>Palv</b> Acidic volcanic rocks: biotite rhyolite and dacite.</p> <p>Pre-Uatuma Granite  <b>Grfb</b> Coarse grained, potassium feldspar porphyritic, biotite granite with weak Ep-Chl alteration and Py dissemination.</p> | <p>Dyke rock</p> <p> <b>Ap</b> Aprite to fine granite.</p> <p> <b>Di</b> Diabase.</p> <p>Structure</p> <p> sheared zone.</p> <p>Mineralization</p> <p> <b>Pg</b> Primary garmpo.</p> <p> <b>Ag</b> Alluvial garmpo.</p> |
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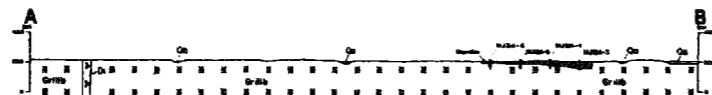


Fig. II-2-2 Geological map and cross section of Block C

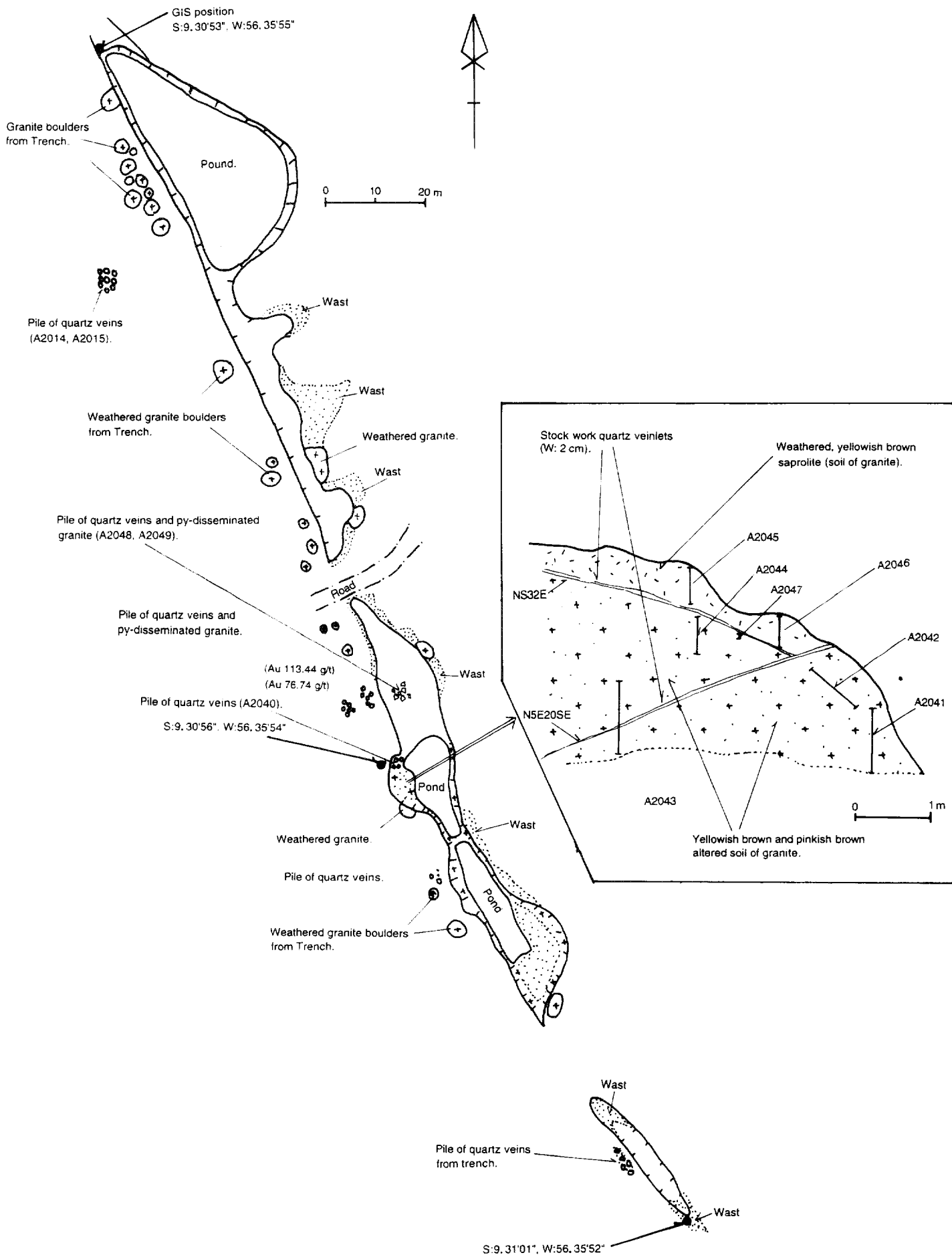


Fig. II-2-3 Sketch of Mineral showing C7 (C08401700)

Table II-2-1 Ore assay of mineral showing C7 in Block C

Ser. No.	Sample No.	Description	Assay Results									
			Au (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Fe (%)	As (ppm)	Hg (ppm)	Bi (ppm)	Mn (ppm)
1	A2014	Piled samples of quartz vein with hematite	0.29	0.3	11	8	16	0.41	<1	0.01	6.8	34
2	A2015	Piled samples of quartz vein with Py holes (φ=1~10mm) and hematite	0.38	0.9	87	28	55	2.95	2.6	0.05	74	46
3	A2040a	Piled ores of quartz vein with Py-Cp dissemination (1m x 1m 0.5m)	113.44	194.3	1073	6828	2198	2.87	4.7	0.30	370	536
4	A2040b	Piled ores of quartz vein with Py-Cp dissemination. (1m x 1m 0.5m).	76.74	158.0	776	3410	1847	2.41	3.5	0.26	320	478
5	A2041	1 m channeling sample of oxidized and argillized granite	0.02	<0.2	52	34	122	3.38	<1	<0.01	4.8	609
6	A2042	1 m channeling sample of oxidized and argillized granite	0.02	<0.2	38	60	75	2.71	<1	<0.01	3.8	715
7	A2043	1 m channeling sample of oxidized and argillized granite	0.28	0.5	72	600	253	1.86	<1	0.02	4.5	5970
8	A2044	1 m channeling sample of oxidized and argillized granite	0.50	<0.2	71	647	267	1.98	<1	0.02	4.7	5021
9	A2045	1 m channeling sample of oxidized and argillized granite	0.09	<0.2	55	254	158	2.31	<1	0.02	0.5	2573
10	A2046	1 m channeling sample of oxidized and argillized granite	0.02	<0.2	16	33	25	2.82	<1	0.02	1.4	106
11	A2048	Piled samples of sheared granite with chi-ep alteration and Py dissemination.	0.26	<0.2	68	421	71	1.57	<1	0.02	12.5	735
12	A2049	Piled samples of quartz vein	0.09	0.5	7	28	8	0.24	<1	<0.01	4	168