

## **Appendix 10**

### **Analytical Data of Heavy Mineral Samples**



## Appendix 10-1

Results of Chemical Analysis for Heavy Mineral Samples  
in Busuanga Area.

No.	Quadrangle No.	Sample No.	Au(ppb)	Ga(ppm)	Ag(ppb)
1	30563	NA026	-20	-2	-100
2	30563	NA029	-20	-2	-100
3	29561	NB001	-20	-2	-100
4	29561	NB024	-20	-2	-100
5	29562	NB039	-20	-2	-100
6	29562	NB044	-20	-2	-100
7	30563	NC001	-20	-2	-100
8	29562	NC015	-20	-2	-100
9	29562	NC019	-20	-2	-100
10	29562	NC022	-20	-2	-100
11	29562	NC029	-25	-2	-100
12	30563	NC043	-20	-2	-100
13	30563	NC044	-20	-2	-100
14	30564	NC053	-20	-2	-100
15	30554	ND005	-20	-2	-100
16	29561	ND022	-20	-2	-100
17	29552	ND028	-20	-2	-100
18	29552	ND035	-20	-2	-100
19	29551	ND048	-20	-2	-100
20	29551	ND049	-20	-2	-100
21	29552	ND066	-20	-2	-100
22	30563	ND073	-20	-2	-100
23	29552	NE016	-20	-2	-100
24	29552	NE033	-20	-2	-100
25	29552	NE048	-20	-2	-100
26	30564	NF015	-20	-2	-100
27	29561	NF019	-20	-2	-100
28	30564	NF035	-20	-2	-100
29	30563	NF049	-20	-2	-100
30	30563	NF079	-20	-2	-100
31	30563	NF087	-20	-2	-100
32	30563	NF088	-20	-2	-100
33	30551	NF092	-20	-2	-100
34	30551	NF098	-20	-2	-100
35	30562	NG008	-20	-2	-100
36	30562	NG018	-20	-2	-100
37	30562	NG026	-20	-2	-100
38	29551	NH004	-20	-2	-100
39	29551	NH006	-20	-2	-100
40	29551	NH010	-20	-2	-100
41	30563	NH052	-20	2.3	-100
42	29562	NJ010	-20	-2	-100
43	30563	NJ041	-20	-2	-100
44	30563	NJ046	-20	-2	-100
45	29561	NJ047	-20	-2	-100
46	29551	NK017	-20	-2	-100
47	29551	NK020	-20	3.8	-100
48	29551	NK022	-20	-2	-100
49	29551	NK031	-20	-2	-100
50	30564	NL029	-20	-2	-100

51	30563	NL042	-20	-2	-100
52	30563	NL059	-20	-2	-100
53	30563	NL060	-20	-2	-100
54	30563	NL070	-20	-2	-100
55	30563	NM014	-	-	-
56	30562	NM027	-20	-2	-100

## Appendix 10-2

Results of Chemical Analysis for Heavy Mineral Samples  
in Quezon Rio Tuba Area(I)

No.	Quadrangle NO.	Sample No.	Au(ppb)	Ga(ppm)	Ag(ppb)
1	24441	SA021	-20	2.2	-100
2	25454	SA26	-20	2.0	-100
3	24451	SC002	-20	-2	-100
4	24451	SC013	-20	4.7	-100
5	24451	SC016	48	-2	-100
6	24451	SC017	-20	3.7	-100
7	24462	SC019	-20	-2	-100
8	24462	SC060	-20	-2	-100
9	24462	SC061	-20	-2	-100
10	24434	SD060	-20	3.8	-100
11	24451	SE005	-20	-2	-100
12	24451	SE006	-20	2.6	-100
13	24451	SE007	-20	-2	-100
14	24451	SE011	-	-	-
15	24451	SE012	260	-2	-100
16	24451	SE016	-20	-2	-100
17	24451	SF020	-20	10.5	-100
18	24462	SF002	-20	3.2	-100
19	24462	SF044	-20	6.2	-100
20	24462	SF064	-30	-2	-100
21	24462	SF085	-25	-2	-100
22	24451	SG001	-20	-2	-100
23	24451	SG016	-20	-2	-100
24	24451	SG017	-30	-2	-100
25	24451	SG018	-20	-2	-100
26	24451	SG026	-20	-2	-100
27	24451	SG038	-20	-2	-100
28	25463	SG053	-30	-2	-100
29	25464	SG080	-20	-2	-100
30	24451	SH001	-40	-4	-200
31	24451	SH027	-20	-2	-100
32	24451	SH005	-30	-2	-100
33	25461	SJ101	-20	3.2	-100
34	25461	SJ135	-20	7.4	-100
35	25464	SJ142	-20	2.1	-100
36	25463	SJ052	-20	5.3	-100
37	25463	SJ060	-	-	-
38	25461	SJ071	-20	6.2	-100
39	26464	SJ081	-	-	-
40	26473	SJ087	-25	4.6	-100
41	25472	SL002	-20	9.9	-100
42	25472	SL003	-20	8.2	-100
43	25472	SL005	-20	5.0	-100
44	25472	SL033	-20	5.9	-100
45	25472	SL034	-20	5.1	-100
46	25472	SL042	-20	5.2	-100
47	25472	SL060	-20	2.1	-100
48	25461	SL065	-20	-2	-100
49	25461	SL071	-20	7.0	-100
50	26464	SL083	720	7.8	-100

Results of Chemical Analysis for Heavy Mineral Samples  
in Quezon Rio Tuba Area(II)

No.	Quadrangle No.	Sample No.	Au(ppb)	Ga(ppm)	Ag(ppb)
51	25461	SL087	600	7.0	-100
52	25461	SL088	-20	3.2	-100
53	26464	SL116	-20	-2	-100
54	25463	SM034	-20	2.1	-100
55	25463	SM047	-30	2.1	-100
56	25463	SM049	-20	3.0	430
57	25463	SM057	-40	-4	-200
58	25461	SN001	-20	2.2	-100
59	25461	SN012	-20	-2	-100
60	25461	SN013	-20	-2	-100
61	25461	SN020	-30	-2	-100
62	33431	SN043	-	-	-
63	25461	SP002	-30	4.0	-100
64	25462	SP036	-30	-2	-100
65	25463	SP037	-30	2.1	-100
66	25463	SP059	-20	-2	-100
67	25461	SQ002	-20	2.1	-100
68	25461	SQ003	-20	-2	-100
69	25461	SQ027	-20	-2	-100
70	25461	SQ028	-20	3.2	-100
71	26473	SQ032	-20	3.2	-100
72	26473	SQ043	-20	3.4	-100
73	26473	SQ044	-20	4.3	-100
74	26473	SQ073	-20	2.2	-100
75	25472	SR013	-20	15.6	-100
76	25472	SR014	-20	13.8	-100
77	25472	SR019	-	-	-
78	25472	SR020	-	-	-
79	25472	SR029	-	-	-
80	25472	SR030	-	-	-
81	26473	SR098	-	-	-
82	26473	SR102	-	-	-
83	26473	SR106	-	-	-
84	26473	SR110	-	-	-
85	26473	SR115	-	-	-
86	26473	SR116	-	-	-
87	26473	SR123	-	-	-
88	26473	SR124	-	-	-
89	26473	SR125	-	-	-

Results of Chemical Analysis for Heavy Mineral Samples  
in Quezon Rio Tuba area (III)

No.	Quadrangle No.	Sample No.	Au(ppb)	Ga(ppm)	Ag(ppb)
89	26473	SR125	-	-	-
90	25473	ST001	-20	2.6	-100
91	25473	ST012	-20	4.3	-100
92	25473	ST013	-20	-2	-100
93	25473	ST043	-20	14.1	-100
94	25472	ST073	-20	9.0	-100
95	25472	ST074	-	-	-
96	25464	SU010	-30	-2	-100
97	25464	SU018	-	-	-
98	25464	SU072	-20	-2	-100
99	25464	SV016	-20	3.0	-100
100	25464	SV021	-20	3.0	-100
101	25472	SV031	-20	7.0	-100
102	25464	SW009	-20	-2	-100
103	25464	SW012	-20	-2	-100
104	25464	SW013	-20	-2	-100
105	25464	SW024	-	-	-
106	25464	SW025	-20	-2	-100
107	25464	SW039	-20	-2	-100
108	25473	SX001	-20	-2	-100
109	25473	SX004	570	2.2	-100
110	25464	SX005	-20	-2	-100
111	25464	SX006	-20	6.0	-100
112	25472	SX041	870	10.1	-100
113	25472	SX042	-40	-2	-200
114	25472	SY059	-20	11.4	-100
115	25472	SY060	-20	10.6	-100
116	25472	SY089	-20	6.4	-100
117	25472	SY091	-20	11.5	-100
118	25472	SS017	-	-	-
119	25472	SS065	-	-	-
120	25472	SY088	-30	2.3	-100
121	25472	SX018	22	3.4	-100
122	25472	SX019	-20	-2	-100
123	25472	S0003	-20	10.6	-100
124	25472	S0010	-20	10.6	-100
125	25472	S0011	28	9.0	-100
126	25472	S0020	-	-	-
127	25472	S0030	-20	10.4	-100
128	25472	S0049	40	4.2	-100
129	25472	S0052	24	-2	-100
130	25472	SK019	-20	-2	-100
131	25472	SK024	-20	-2	-100
132	25472	SK032	-20	-2	-100
133	25472	SK046	-	-	-
134	25472	SK052	-20	4.8	-100
135	25472	SK072	-20	3.4	-100

## Appendix 10-3

Results of Chemical Analysis for Heavy Mineral Samples  
in Western Negros Area(1)

No.	Quadrangle No.	Sample No.	Au(ppb)	Ga(ppm)	Ag(ppb)
1	34491	H0001	-20	6.9	-100
2	35493	H0002	3600	12.2	380
3	35493	H0003	-20	5.7	-100
4	35493	H0004	-20	10.4	-100
5	35494	H0005	-20	18.4	-100
6	35494	H0006	-20	12.7	-100
7	35494	H0007	-20	18.6	-100
8	35484	H0008	-20	13.8	-100
9	35494	H0009	-20	9.4	-100
10	35494	H0010	-20	8.8	-100
11	35494	H0011	-20	15.4	-100
12	35494	H0012	-20	13.4	-100
13	34491	H0013	-20	11.0	-100
14	34491	H0014	-20	14.6	-100
15	34492	H0015	-20	-2	110
16	34492	H0016	140	12.6	-100
17	34492	H0017	66	10.4	-100
18	35494	H0018	-20	13.4	-100
19	35493	H0019	-20	16.2	-100
20	35493	H0020	-20	6.2	-100
21	35493	H0021	-20	8.6	-100
22	35493	H0022	-20	11.0	-100
23	35493	H0023	-20	-2	-100
24	35483	H0024	-20	14.5	-100
25	35484	H0025	340	15.1	-100
26	35484	H0026	-20	19.4	-100
27	35484	H0027	-20	15.2	-100
28	35493	H0028	-20	14.9	-100
29	34481	H0029	-20	5.8	-100
30	34481	H0030	-20	3.4	-100
31	35483	H0031	-20	6.7	-100
32	35483	H0032	-20	6.4	-100
33	35483	H0033	-20	6.2	-100
34	34481	H0034	-20	6.2	-100
35	35484	H0035	-20	5.1	-100
36	35484	H0036	-20	5.3	-100
37	35483	H0037	-20	6.6	-100
38	35483	H0038	-20	8.0	-100
39	35483	H0039	-20	7.0	-100
40	35484	H0040	-20	6.4	-100
41	35491	H0041	-20	14.2	-100
42	35491	H0042	-20	8.3	-100
43	34491	H0043	-20	7.7	-100
44	34491	H0044	32	12.5	-100
45	34491	H0045	-20	9.5	-100
46	34491	H0046	-20	4.6	-100
47	34491	H0047	-20	12.2	-100
48	34491	H0048	-20	10.6	-100
49	34492	H0049	-20	15.3	-100
50	34492	H0050	35	5.6	-100



Results of Chemical Analysis for Heavy Mineral Samples  
in Western Negros Area (II)

No.	Quadrangle No.	Sample No.	Au(ppb)	Ga(ppm)	Ag(ppb)
51	34491	H0051	26	13.0	-100
52	34491	H0052	-20	12.4	-100
53	34491	H0053	-20	4.3	-100
54	34481	H0054	40	4.3	-100
55	34481	H0055	-20	6.4	-100
56	34481	H0056	-20	5.6	-100
57	34482	H0057	-20	12.2	-100
58	34482	H0058	-20	12.4	-100
59	34492	H0059	-20	5.9	-100
60	35484	H0060	-20	5.9	-100
61	34481	H0061	-20	5.9	-100
62	35484	H0062	-20	3.7	-100
63	34491	H0063	-	-	-
64	34492	H0064	-20	7.5	-100
65	34492	H0065	-20	4.8	-100
66	35493	H0066	-20	13.9	-100
67	35493	H0067	-20	14.6	-100
68	35493	H0068	-20	-2	-100
69	35493	H0069	-20	11.4	-100
70	35494	H0070	-20	15.2	-100
71	35494	H0071	-20	20.5	-100
72	35483	H0072	62	5.3	-100
73	35484	H0073	-20	10.5	-100
74	35484	H0074	-20	5.3	-100
75	35493	H0075	-20	8.6	-100
76	35494	H0076	-20	14.2	-100
77	35494	H0077	-20	7.4	-100
78	34491	H0078	-20	14.1	-100
79	35494	H0079	-20	17.1	-100
80	34492	H0080	-20	9.6	180
81	34492	H0081	130	4.3	-100
82	34492	H0082	-20	7.9	-100
83	34492	H0083	-20	2.9	220
84	34491	H0084	-20	15.2	-100
85	34481	H0085	-20	6.4	-100
86	34481	H0086	-20	6.6	-100
87	34481	H0087	-20	6.6	-100
88	34481	H0088	-20	5.3	-100
89	34481	H0089	-20	6.4	-100
90	34481	H0090	-20	7.4	-100
91	34492	H0091	-20	6.5	-100
92	34492	H0092	-20	6.2	110

Results of Chemical Analysis for Heavy Mineral Samples  
in Western Negros Area (III)

No.	Quadrangle No.	Sample No.	Au(ppb)	Ga(ppm)	Ag(ppb)
93	34481	H0093	-20	9.4	-100
94	35493	H0094	-20	8.8	-100
95	35484	H0095	-20	6.6	-100
96	35484	H0096	-20	6.6	-100
97	35484	H0097	-20	6.7	-100

## **Appendix 11**

### **Data Sheet of Mineral Prospect, Sketches and Route Maps of Mineral Showing**



Appendix 11

Data sheet for Mineral Prospects (I)

Survey Area	San Nicolas, Coron		Mineral Prospects No.		No. 1 Lanka Mine		
Locality #	1/50,000 Topographic Map No.	3056 III	# X Coordinates	120° 12' 30"	# Y Coordinates	12° 02' 30"	Altitude 100 (m)
Survey date	March 1, 1987		Surveyer #	Shida, Uchiyama & Cadawan			
Compiling data (file No.)			Owner of Mining right				
Metallogenic province			Type of Ore deposits	Manganese		Country rock of Ore Deposits	Chert
Ore mineral Assemblage	By field observation # Pyrosite Psilomelane		By micro-scope		By X-Ray Diffraction		
Gage mineral Assemblage	By field observation # Quartz Calcite		By microscope		By X-Ray diffraction		
Alteration mineral Assemblage	By field observation # Limonite		By micro-scope		By X-Ray Diffraction		
Combination of Country rocks #	Chert						

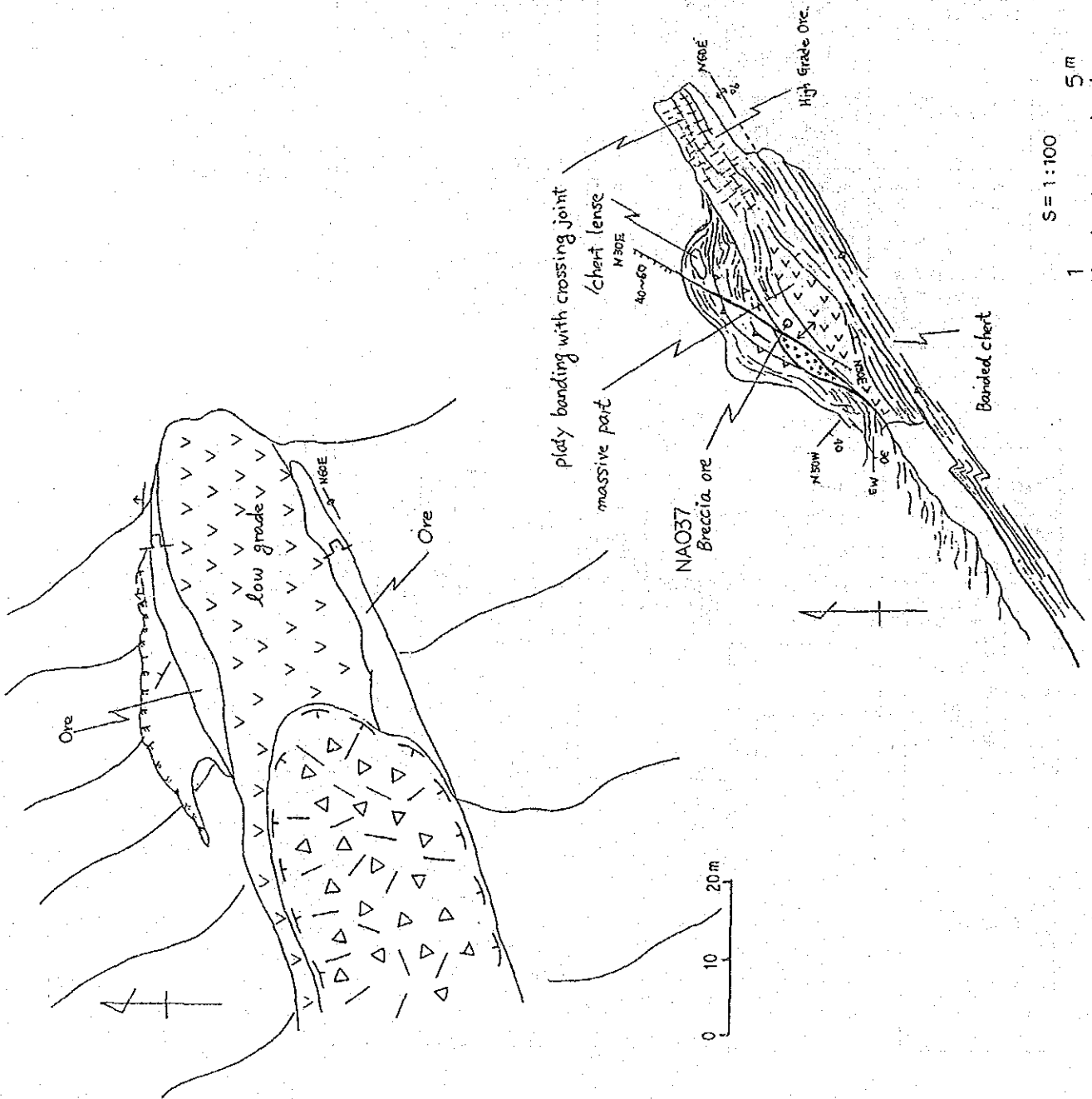
Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Methods		Other Methods							
Investigation of Fossils		Radiolaria		Nanno-Plankton		Other Fossils					
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
	Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
	Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions											



SPOT INVESTIGATION No.1

LANKA MINE

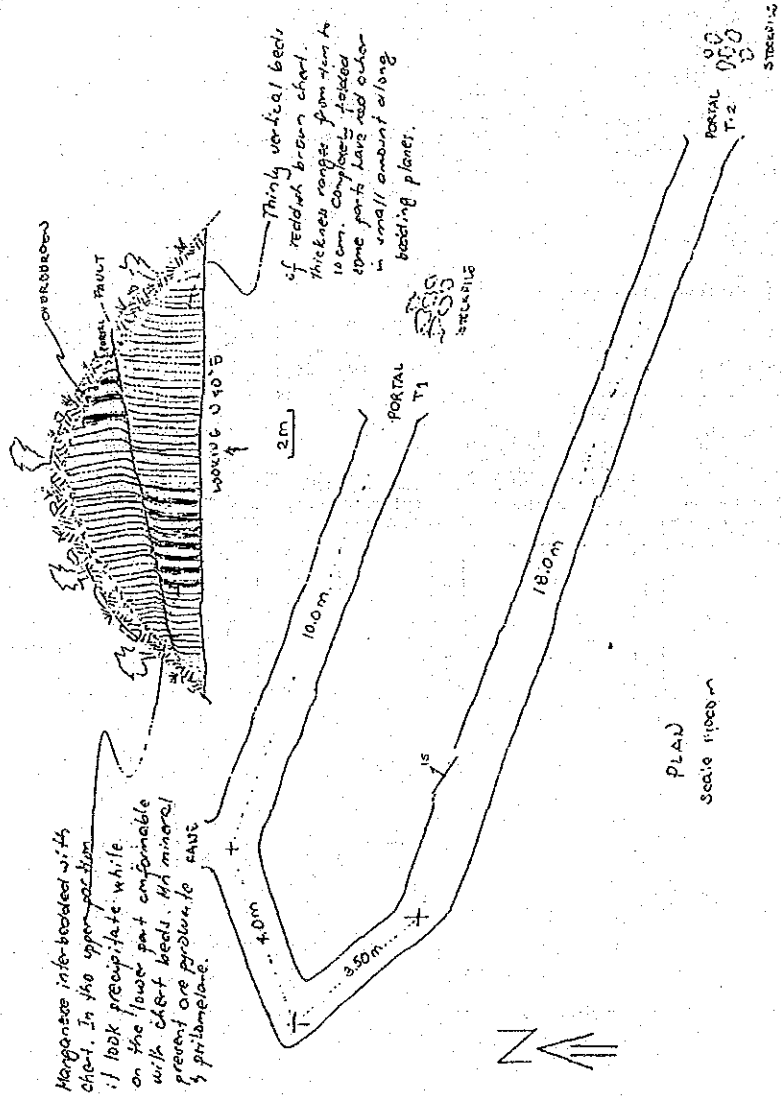
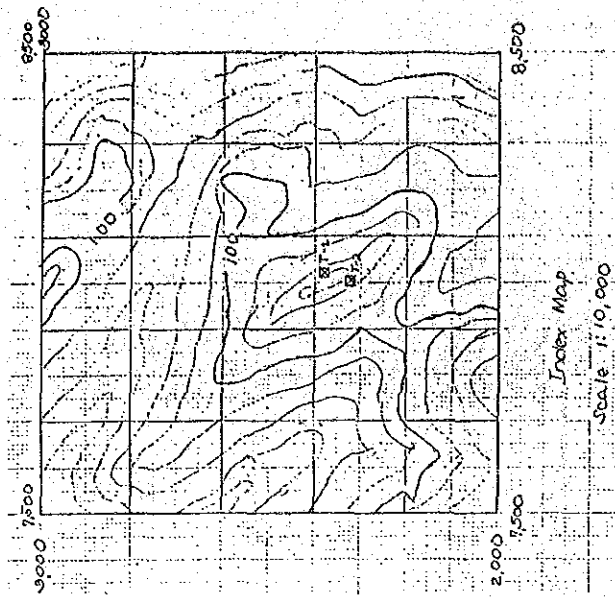


Data sheet for Mineral Prospects (I)

Survey Area	DAPDAPAN MANGANESE MINE (MINE)		Mineral Prospects No.		No. 2, Dapdapan Mine		
Locality #	1/50,000 Topographic Map No.	3056 II	# X Coordinates	7500-8500	# Y Coordinates	2000-3000	Altitude 160 (m)
Survey date	Feb. 26, 1967		Surveyer #	ROLF CRUZ AND ARISTOTE PILLON			
Compiling data (file No.)			Owner of Mining right	Formerly Luzon Mining Corporation			
Metallogenic province			Type of Ore deposits	Bedded Manganese		Country rock of Ore Deposits	Chert
Ore mineral Assemblage	By field observation # Pyroluete & Pyroluete		By micro-scope		By X-Ray Diffraction		
Gague mineral Assemblage	By field observation # Calcite, Silica		By microscope		By X-Ray diffraction		
Alteration mineral Assemblage	By field observation # limonite		By micro-scope		By X-Ray Diffraction		
Combination of Country rocks #	Some part chert with basal siliceous sandstone and oligomitic conglomerate.						

Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Methode		Other Methode							
Investigation of Fossils		Radiolaria		Nanno-Plankton		Other Fossils					
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
	Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
	Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions											



Manganese inter-bedded with chert. In the upper part of the lower part conformable with chert beds. The mineral present are pyrolusite and siderite.

Thinly vertical beds of reddish brown chert. thickness ranges from 1cm to 10 cm. completely bedded some parts have red color in small amount along bedding planes.

PLAN  
Scale 1:1000m

SPOT INVESTIGATION No.2

DAPDAPAN MINE

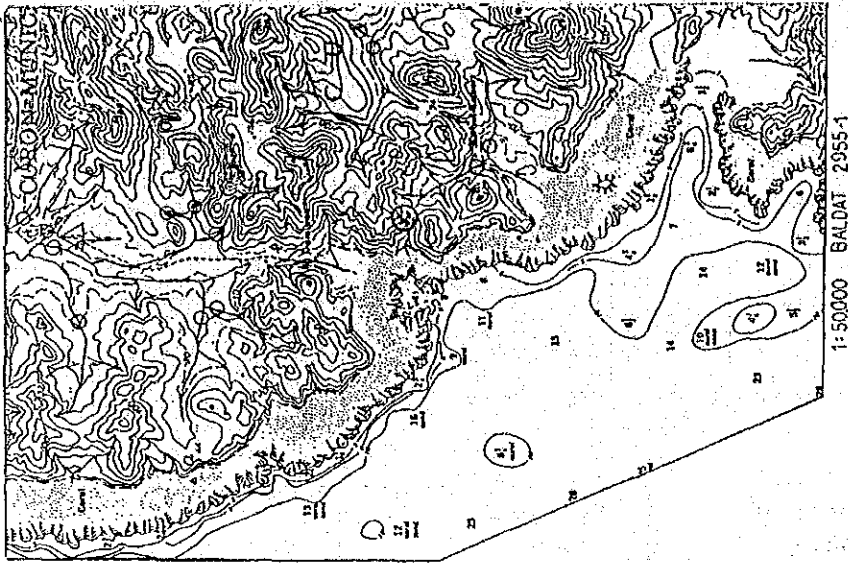


Data sheet for Mineral Prospects (I)

Survey Area	Colbon, island		Mineral Prospects No.		No.3 Kabol-Kabul	
Locality #	1/50,000 Topographic Map No.	29551	(EASTING) X Coordinates	15750	(NORTHING) Y Coordinates	4450
Survey date	February 24, 1987		Surveyer #	Tatsuaki NAKAZUKA, Emmanuel M. Cruz		
Compiling data (file No.)			Owner of Mining right			
Metallogenic province			Type of Ore deposits	Manganese		Country rock # of Ore Deposit
Ore mineral Assemblage	By field observation #		By micro-scope	By X-Ray Diffraction		
Gague mineral Assemblage	By field observation # SiO <sub>2</sub> , CaCO <sub>3</sub> qtz, Calcite		By microscope	By X-Ray diffraction		
Alternation mineral Assemblage	By field observation #		By micro-scope	By X-Ray Diffraction		
Combination of Country rocks #						

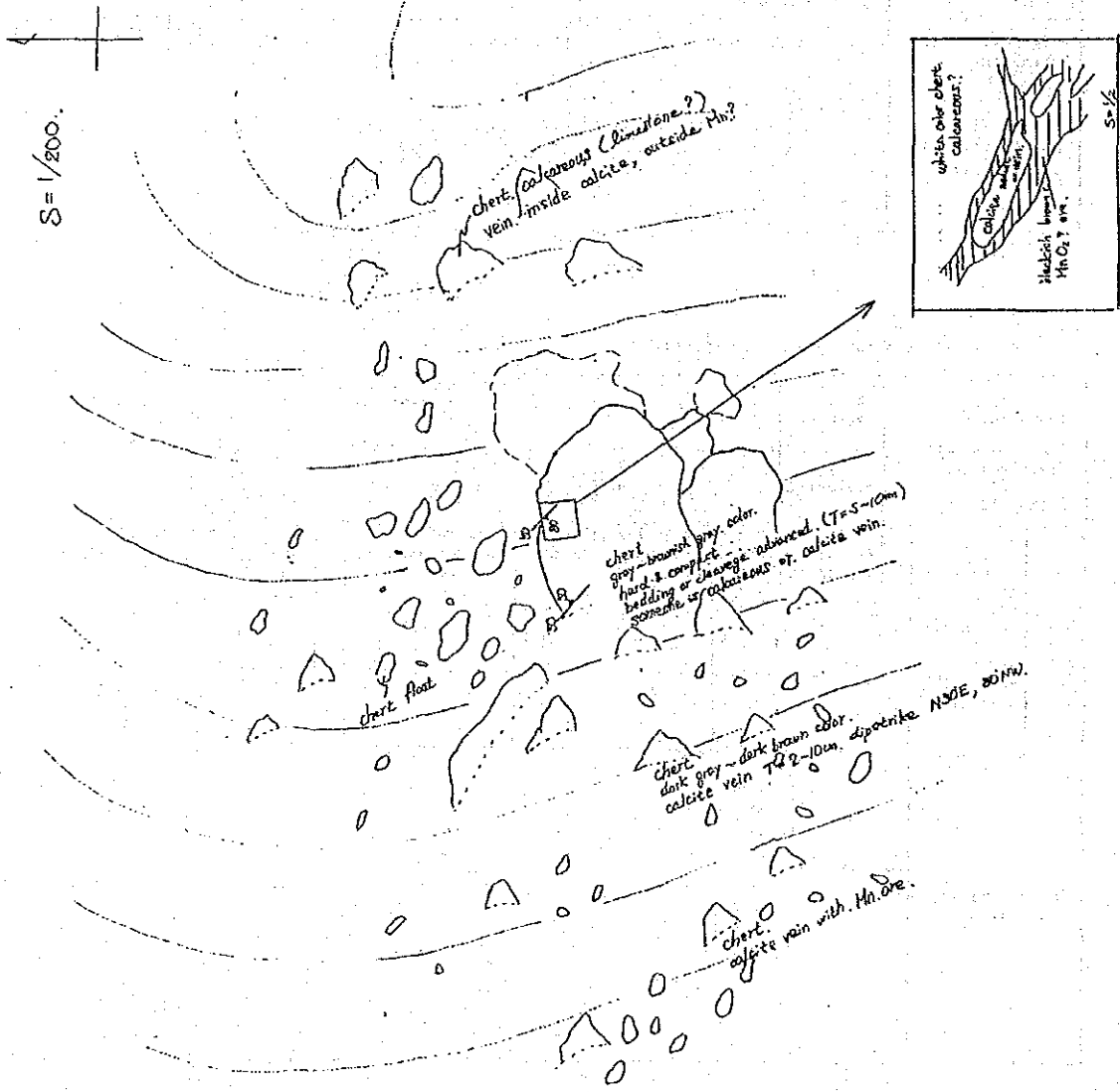
Data sheet for Mineral Prospects (II)

Age Determination	K- Ar Methods				Other Methods	Paleontologic					
Investigation of Fossils	Radiolaria			Hanno-Plankton			Other Fossils				
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
	Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
	Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions											



SPOT INVESTIGATION No. 3

KABUL KAPOI MINE

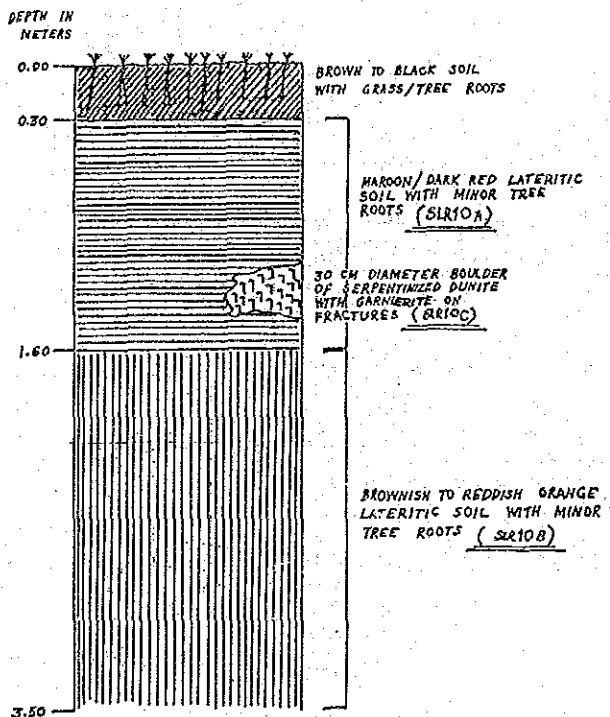
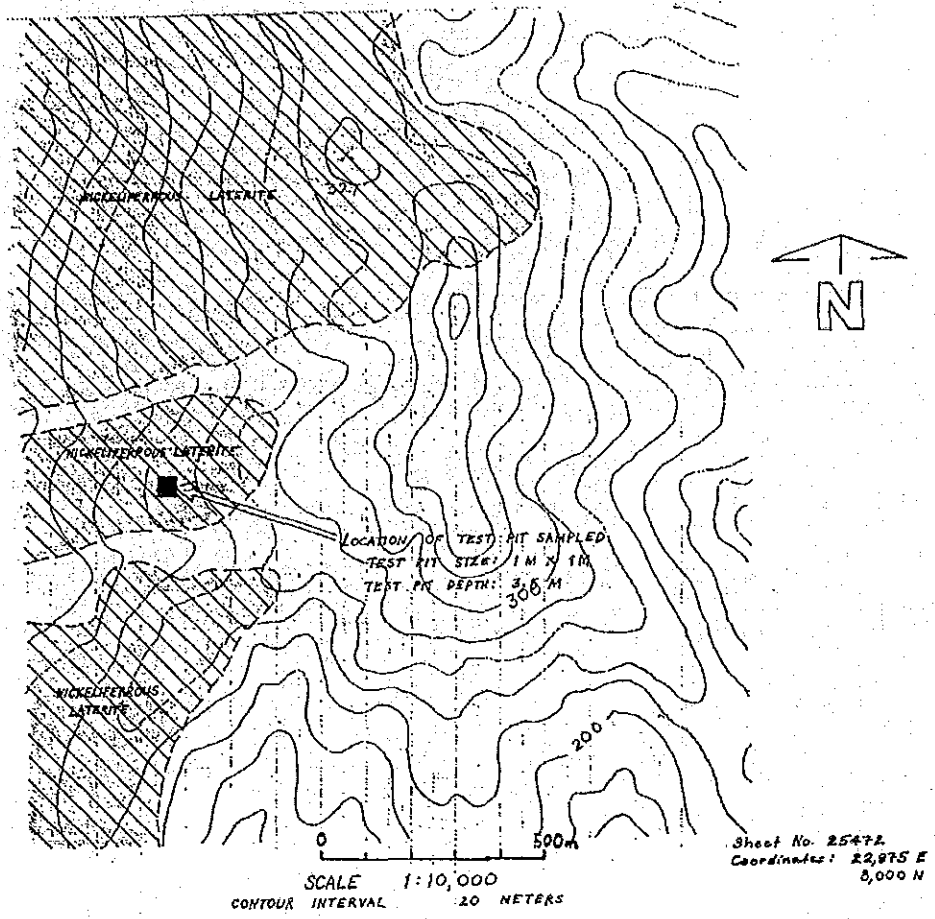


Data sheet for Mineral Prospects (I)

Survey Area	Pulute Range, Southern Palawan		Mineral Prospects No	No. 1				
Locality	1/50,000 Topographic Map No	25472	X Coordinates	22, 975	Y Coordinates	8, 000	Altitude	180 to 360 (m)
Survey date	Feb. 25, 1987		Surveyer	Generoso P. Revilla				
Compiling data (file No.)	1113, 1264, & 1715		Owner of Mining right	Olympic Mines & Dev't Corporation				
Metallogenic province		Type of Ore deposit	Nickeliferous Laterite	Country rock of Ore Deposit	Dunite			
Ore mineral Assemblage	By field observation: Nickeliferous laterite soil and garnierite in dunite		By micro-scope	By X-Ray Diffraction				
Gangue mineral Assemblage	By field observation: Not noted		By micro-scope	By X-Ray Diffraction				
Alteration mineral Assemblage	By field observation: Serpentine in dunite		By micro-scope	By X-Ray Diffraction				
Combination of Country rocks	Dunite with serpentinite							

Data sheet for Mineral Prospects (II)

Age Determination	K-Ar Method	None			Other Method	None				
Investigation of Fossils	Radiolaria	None	Foram-Plankton	None		Other Fossils	None			
Spot Investigation	A	Necessity of follow up survey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
Results of Geochemical & other analysis	A	#	B	#	C	#	D	#	E	#
Summarized Evaluation	A	#	B	#	C	#	D	#	E	#
Other special mentions	<p>Many test pits were dug by Olympic Mines and Development Corporation. The area investigated was located on the western slope of a mountain surrounded by Tagusao, Pulot and Passi River. Only one test pit was investigated having a depth of about 3.5 meters. Two (2) channel samples, labelled SLR10A - 0.3 M to 1.6 M and SLR10B - 1.8 M to 3.5 M, each having a different soil color. A dunite boulder with garnierite on fractures, labelled SLR10C, was noted on the test pit.</p>									



CROSS SECTION OF TEST PIT SAMPLED

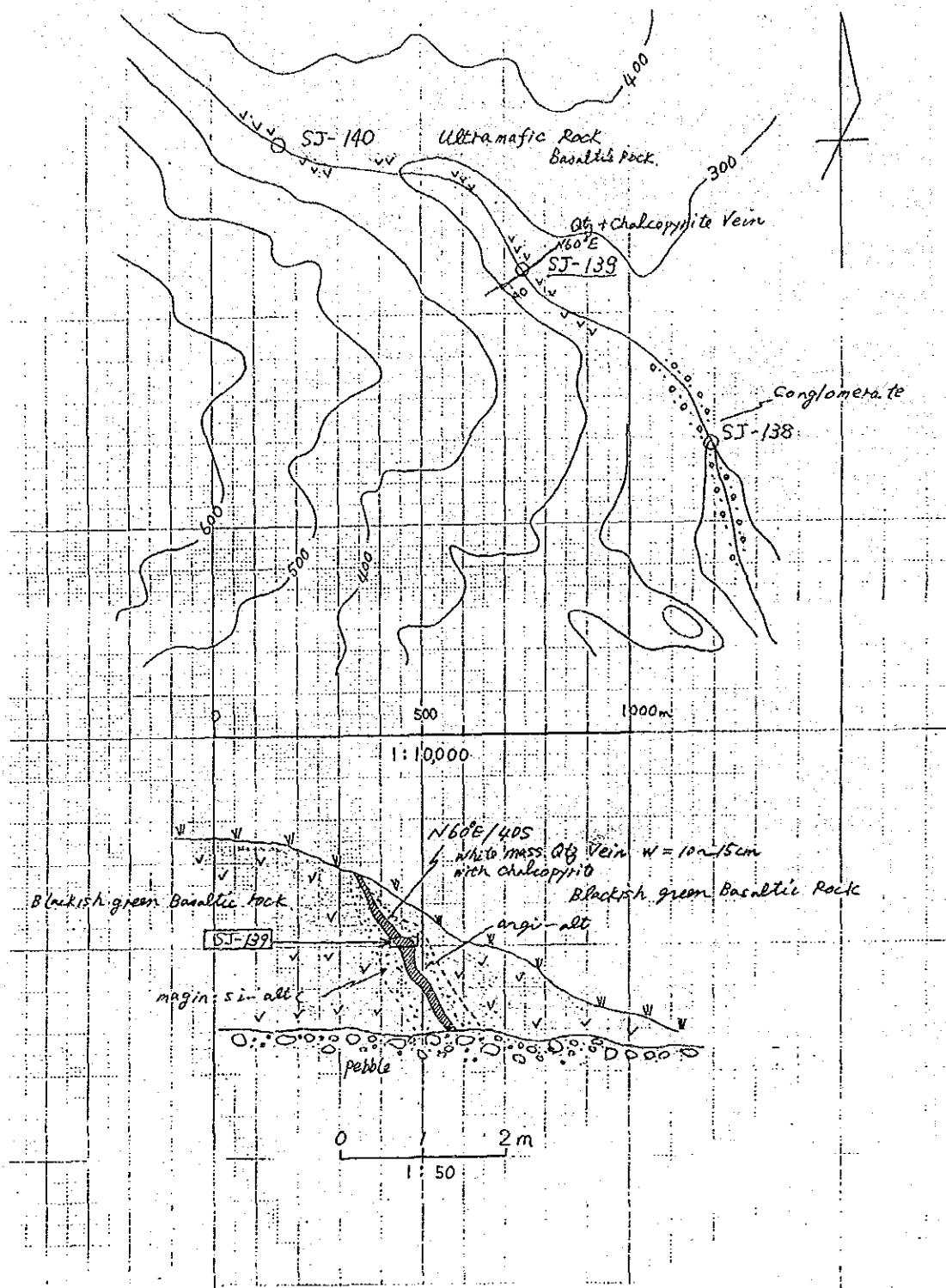
PULUTE RANGE

Data sheet for Mineral Prospects (I)

Survey Area	Pulot, Southern Palawan		Mineral Prospects No.	No. 2				
			Sample No.	SJ-139				
Locality	1/50,000 Topographic Map No	25461	X Coordinates	19,820	Y Coordinates	16,420	Altitude	280 (m)
Survey date	March 3, 1987		Surveyer	Yukuo Kinryu				
Compling data (file No.)			Owner of Mining right	None owner				
Metallogenic province			Type of Ore deposit	Copper vein	Country rock of Ore Deposit	Basalt		
Ore mineral Assemblage	By field observation: chalcopyrite-pyrite			By micro-scope	By X-Ray Diffraction			
Gangue mineral Assemblage	By field observation: quartz			By micro-scope	By X-Ray Diffraction			
Alteration mineral Assemblage	By field observation: argillization			By micro-scope	By X-Ray Diffraction			
Combination of Country rocks	Basalt							

Data sheet for Mineral Prospects (II)

Age Determination	X-Ar Method	None		Other Method	None					
Investigation of Fossils	Radiocarta	None	Hanno- Plankton	None	Other Fossils	None				
Spot Investigation	A	Necessity of follow up sur- vey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up su- rvey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions	Several veins and veinlets are recognized along Malalong river. The veins are of quartz, chalcopyrite and pyrite. The width of veins is 5~15cm. Strikes and dips show N50~60° E and 40~60° SE respectively. The host rock is basalt with chlorite-sericite-pyrite alteration.									



PULOT

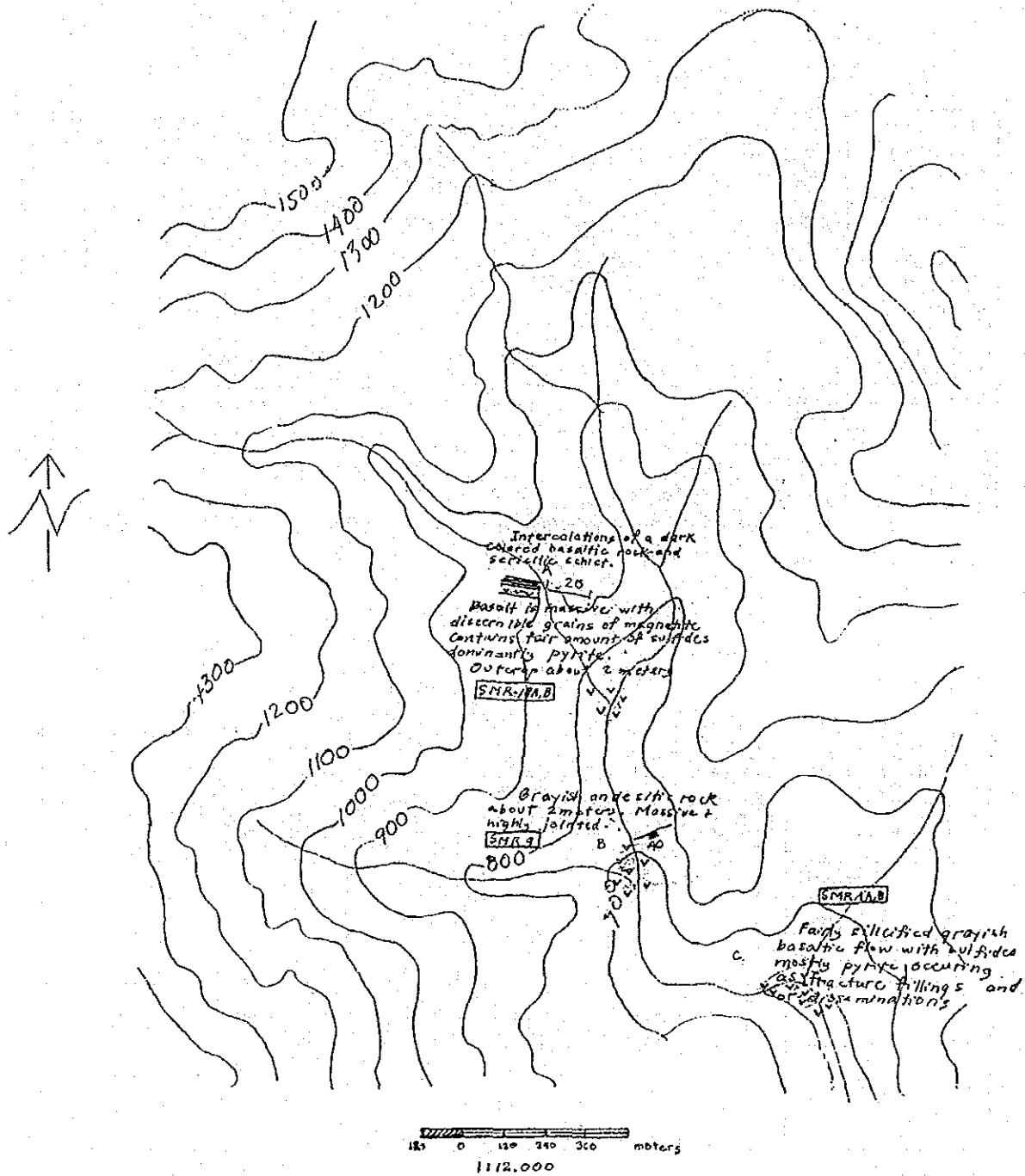
Data sheet for Mineral Prospects (I)

Survey Area	Barong Barong A, Southern Palawan		Mineral Prospects No	No. 3				
Locality	1/50,000 Topographic Map No	25461	X Coordinates	7,900	Y Coordinates	10,800	Altitude	680 (m)
Survey date	Feb. 22, 1987		Surveier	Elmer B. Billedo				
Compling data (file No.)			Owner of Mining right	Lebach Mining Corp.				
Metallogenic province			Type of Ore deposit	Cyprus-type	Country rock of Ore Deposit	Basalt		
Ore mineral Assemblage	By field observation: sphalerite pyrite		By micro-scope	By X-Ray Diffraction				
Gangue mineral Assemblage	By field observation: quartz		By micro-scope	By X-Ray Diffraction				
Alteration mineral Assemblage	By field observation: quartz chlorite, azurite		By micro-scope	By X-Ray Diffraction				
Combination of Country rocks	basalt, ferruginous chert, mudstone							

Data sheet for Mineral Prospects (II)

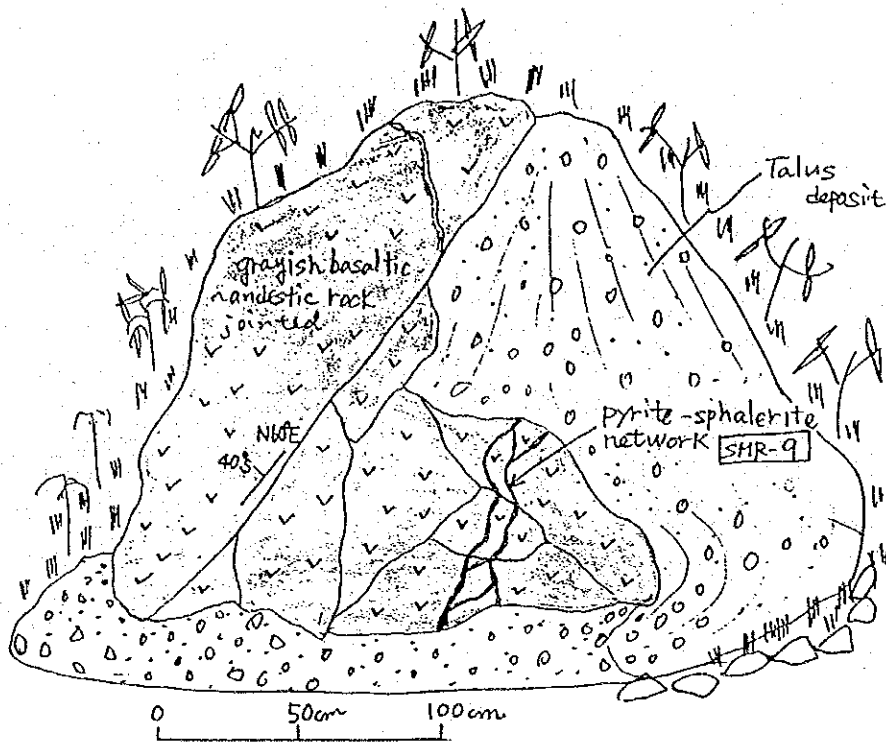
Age Determination	K-Ar Method	not done		Other Method	not done					
Investigation of Fossils	Radiolaria	not done	non- Plankton	not done	Other Fossils	not done				
Spot Investigation	A	Necessity of follow up sur- vey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up sur- vey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions	The occurrence of mineralization is of Cyprus-type. The networks of quartz, sphalerite and pyrite are developed in foot wall basalt lava. This deposit is mostly located in the basic volcanic portions than in any rocks in the area. Ferruginous chert which is hanging wall was noticed by a lot of boulders.									

SPOT INVESTIGATION OF COPPER LEAD CLAIMS AT BRGY LINAO,  
BROOKE'S POINT, SOUTHERN PALAWAN



BARONG BARONG A



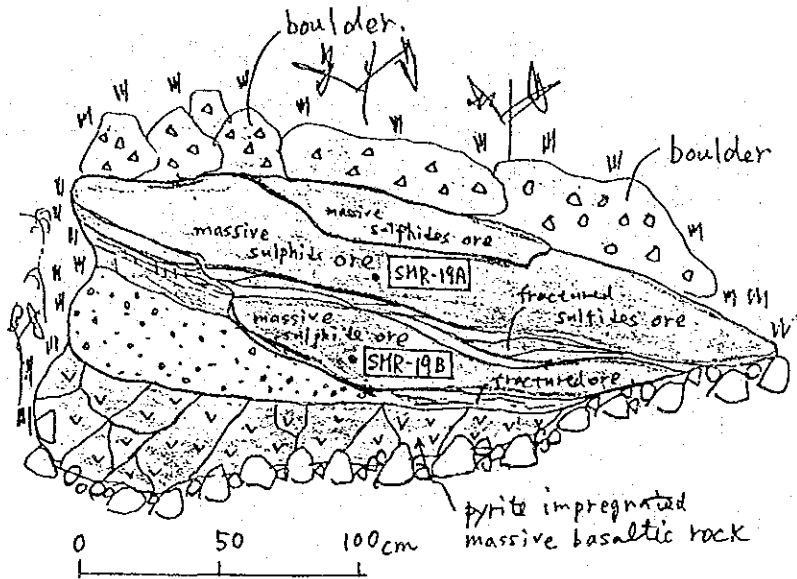


Data sheet for Mineral Prospects (I)

Survey Area	Barang Barong B, Southern Palawan		Mineral Prospects No. 4		Sample No. SMR-18A, SMR-18B		
Locality	1/50,000 Topographic Map No	25461	X Coordinates	17,600	Y Coordinates	12,000	Altitude 760 (m)
Survey date	Feb. 22, 1987		Surveyer	Elmer B. Billedo			
Compiling data (file No.)			Owner of Mining right	Lebach Mining Corp			
Metallogenic province			Type of Ore deposit	Cyprus-type	Country rock of Ore Deposit	Basalt	
Ore mineral Assemblage	By field observation: chalcopyrite, pyrite			By micro-scope	By X-Ray Diffraction		
Gangue mineral Assemblage	By field observation: quartz			By micro-scope	By X-Ray Diffraction		
Alteration mineral Assemblage	By field observation: chlorite, quartz			By micro-scope	By X-Ray Diffraction		
Combination of Country rocks	basalt, ferruginous chert, mudstone						

Data sheet for Mineral Prospects (II)

Age Determination	K-Ar Method				Other Method					
Investigation of Fossils	Radiolaria			Nanno- Plankton			Other Fossils			
Spot Investigation	A Necessity of follow up sur- vey is highest	B Necessity of follow up survey is high	C Possibility of follow up sur- vey is reliable	D Necessity of follow up survey is low	E Follow up survey is needless					
Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions	The occurrence of mineralization is of Cyprus-type massive sulfide. Foot wall rock is strongly altered basalt lava. Discernible sulfides are chalcopyrite and pyrite. Ferruginous chert, which is hanging wall, was recognized by many boulders.									



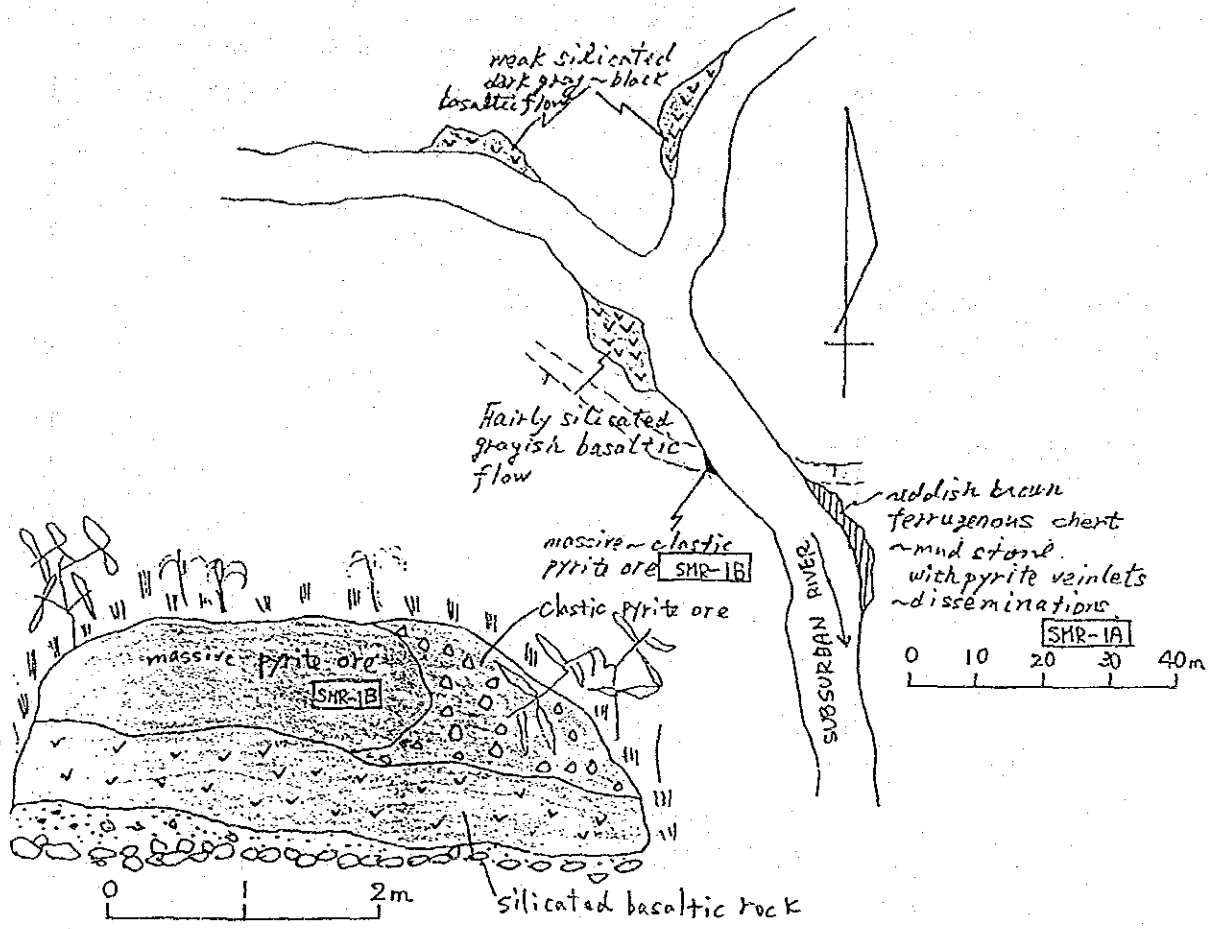
BARONG BARONG B

Data sheet for Mineral Prospects (I)

Survey Area	Barang Barong C		Mineral Prospects No	No. 5				
			Sample No.	SMR-1A, SMR-1B				
Locality	1/50,000 Topographic Map No	25461	X Coordinates	8,500	Y Coordinates	10,600	Altitude	570 (m)
Survey date	Feb. 22, 1987		Surveyor	Elmer B. Billedo				
Compiling data (file No.)			Owner of Mining right	Lebach Mining Corp.				
Metalogenic province			Type of Ore deposit	Cyprus-type	Country rock of Ore Deposit	Basalt		
Ore mineral Assemblage	By field observation: galena chalcopyrite pyrite			By micro-scope	By X-Ray Diffraction			
Gangue mineral Assemblage	By field observation: quartz			By micro-scope	By X-Ray Diffraction			
Alteration mineral Assemblage	By field observation: chlorite, quartz			By micro-scope	By X-Ray Diffraction			
Combination of Country rocks	basalt, ferruginous chert, mudstone							

Data sheet for Mineral Prospects (II)

Age Determination	K-Ar Method				Other Method			
Investigation of Fossils	Radiolaria			Hanno- Plankton			Other Fossils	
Spot Investigation	A Necessity of follow up sur- vey is highest	B Necessity of follow up survey is high	C Possibility of follow up sur- vey is reliable	D Necessity of follow up survey is low	E Follow up survey is needless			
Results of Geochemical & other analysis	A #	B #	C #	D #	E #			
Summarized Evaluation	A #	B #	C #	D #	E #			
Other specially Mentions	The occurrence of mineralization is of Cyprus-type massive sulfide. Foot wall rock is strongly altered basalt lava. Discernible sulfides are chalcopyrite and pyrite. Ferruginous chert, which is hanging wall, was recognized by many boulders.							



BARONG BARONG C

Data sheet for Mineral Prospects (I)

Survey Area	Males, Southern Palawan		Mineral Prospects No. N.o. 6					
Locality	1/50,000 Topographic Map No	25463	X Coordinates	23,600	Y Coordinates	11,800	Altitude	250 (m)
Survey date	March 5, 1987		Sample No.	SOR-37A, B and SOR-38A, B				
Survey date	March 5, 1987		Surveyer	Oscar J. Santelices				
Compiling data (file No.)			Owner of Mining right	None				
Metallogenic province			Type of Ore deposit	Copper Sulfides Cyprus-type		Country rock of Ore Deposit	Basalt	
Ore mineral Assemblage	By field observation: Copper and Iron Sulfides Ore in Basalt			By micro-scope		By X-Ray Diffraction		
Gangue mineral Assemblage	By field observation: quartz			By micro-scope		By X-Ray Diffraction		
Alteration mineral Assemblage	By field observation: chlorite			By micro-scope		By X-Ray Diffraction		
Combination of Country rocks	Basaltic Andesite, Basalt							

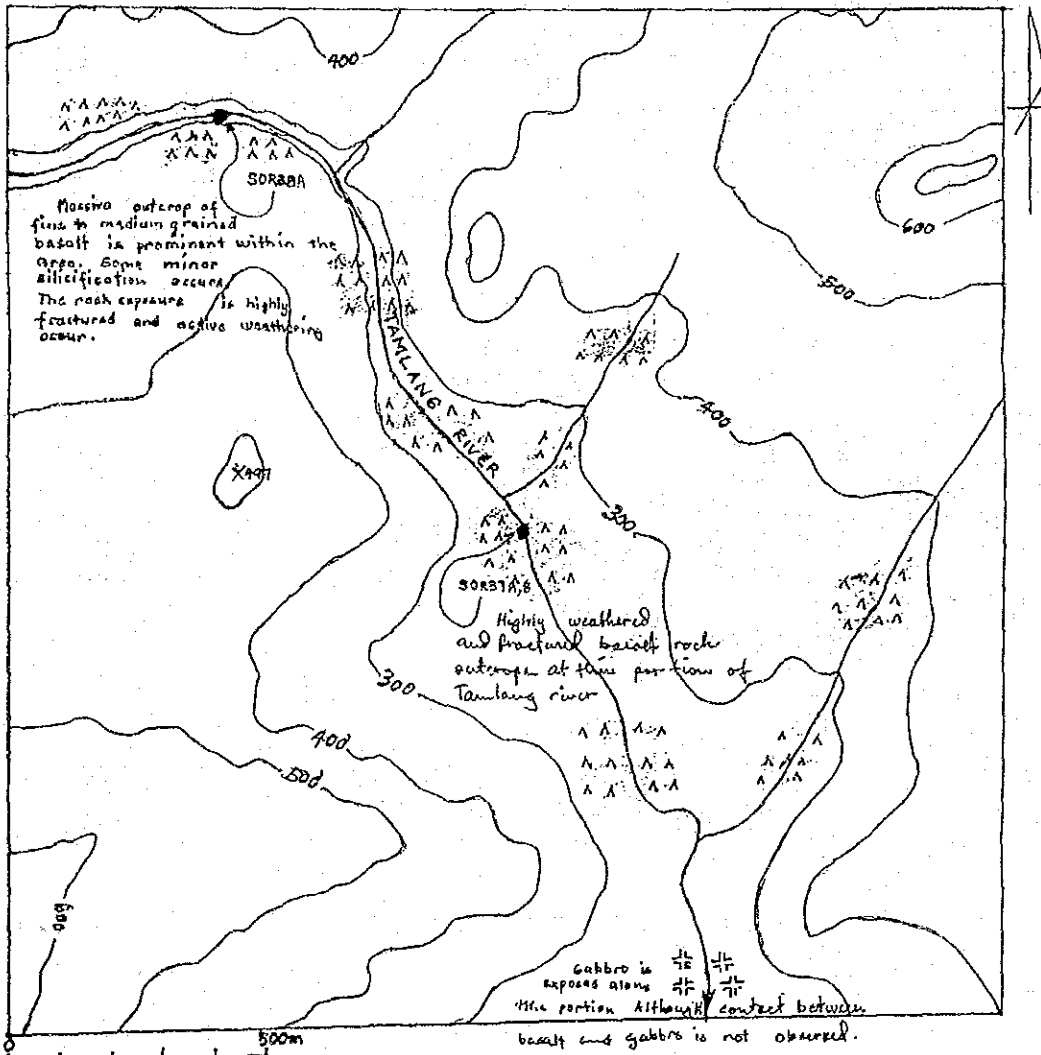
Data sheet for Mineral Prospects (II)

Age Determination	K-Ar Method	None			Other Method	None				
Investigation of Fossils	Radiolaria	Manno-Plankton		Other Fossils						
Spot Investigation	A	Necessity of follow up survey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
Results of Geochemical & other analysis	A	#	B	#	C	#	D	#	E	#
Summarized Evaluation	A	#	B	#	C	#	D	#	E	#
Other specially Mentions	<p>The ore deposit is most likely exposed at the Makarotoy Area, Tawilang River, Brookes Point, Palawan. It is highly mineralized, massive and shows minor alteration. The deposit is probably of Cyprus type (SOR-37A, B). No detailed mapping was done in the area.</p>									

BROOKES Point, Southeastern Palawan

Location of sample in a  
massive sulfide boulder

Scale: 1:10,000



MALES

Data sheet for Mineral Prospects (I)

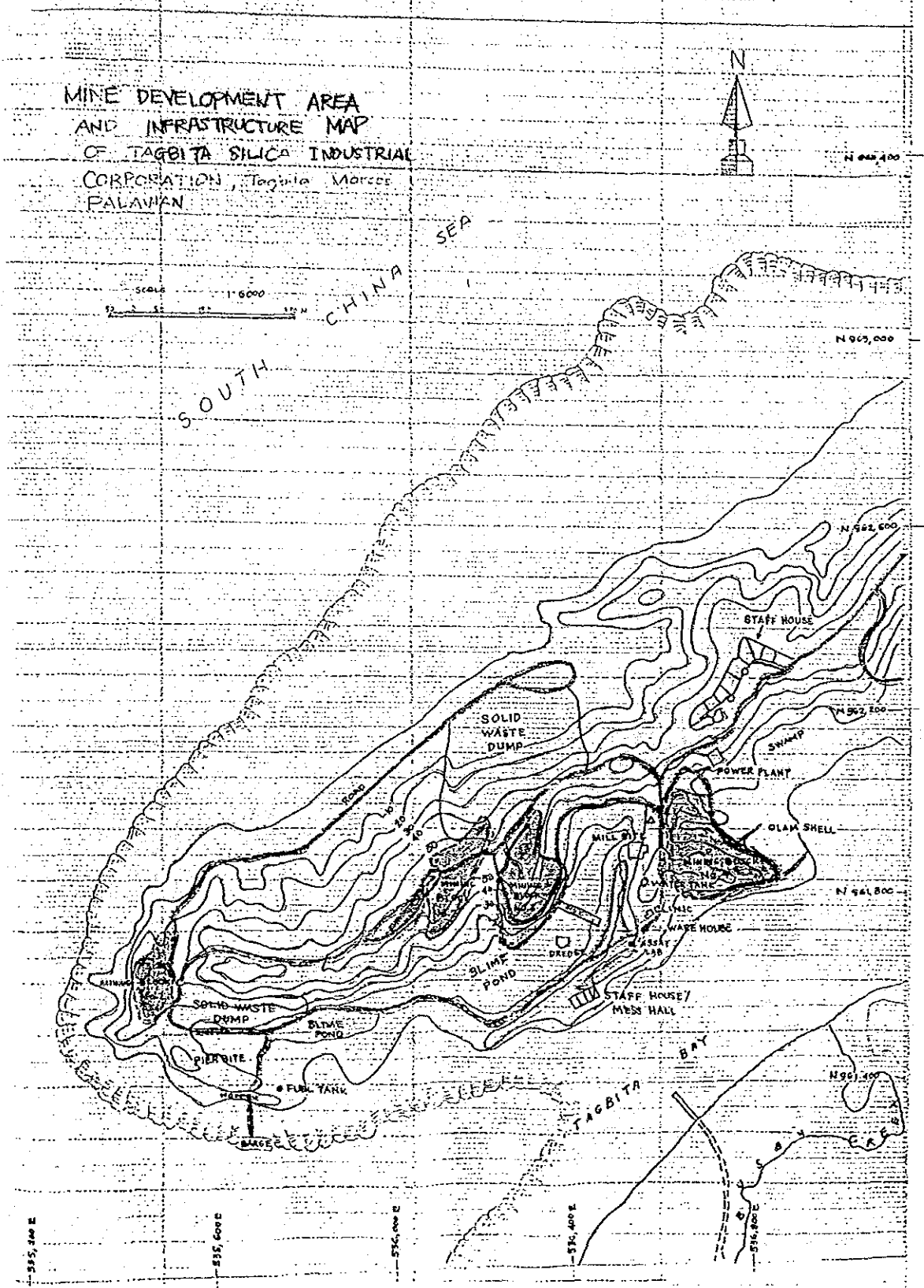
Survey Area	TAGBITA SILICA-Tagbita Marcos, Southern Palawan		Mineral Prospects No	No. 7				
			Sample No.	TAG-1, TAG-2				
Locality	1/50,000 Topographic Map No	24462	X Coordinates	4,000	Y Coordinates	10,000	Altitude	0-295 (m) above sea level
Survey date	March 7, 1987		Surveyer	L. MORALES, R. MIRANDA, S. DAVID				
Compling data (File No.)			Owner of Mining right	TAGBITA SILICA INDUSTRIES CORPORATION (TSIC)				
Metallogenic province			Type of Ore deposit	Non-metallic deposit, Sedimentary origin	Country rock of Ore Deposit	Arkosic Sandstone		
Ore mineral Assemblage	By field observation: Granular Quartz-Plint's umber type Kaolinitic clay		By micro-scope	By X-Ray Diffraction				
Gangue mineral Assemblage	By field observation: Limonite, magnetite Kaolinitic clay		By micro-scope	By X-Ray Diffraction				
Alteration mineral Assemblage	By field observation: Limonite, magnetite, Sericite, epidote, chlorite		By micro-scope	By X-Ray Diffraction				
Combination of Country rocks	Shale, mudstone, Sandy shale, Sandstone							

Data sheet for Mineral Prospects (II)

Age Determination		K-Ar Method		Other Method						
Investigation of Fossils		Radiolaria		Hanno- Plankton		Other Fossils				
Spot Investigation	A	Necessity of follow up sur- vey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up sur- vey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions	The Tagbita silica is being mined and operated commercially by the Tagbita Silica Industries Corporation since 1983 by using the low cost open pit mining method. The mine is expected to yield 150,000 mt/year of processed silica sand and will generate 250,000 mt of wastes as tailings. Of these waste materials, 50% or 125,000 tons as high quality clay will be recovered for ceramics and tile manufacture.									



MINE DEVELOPMENT AREA  
AND INFRASTRUCTURE MAP  
OF TAGBITA SILICA INDUSTRIAL  
CORPORATION, Tagbita, Marcor,  
PALAWAN



TAGBITA SILICA

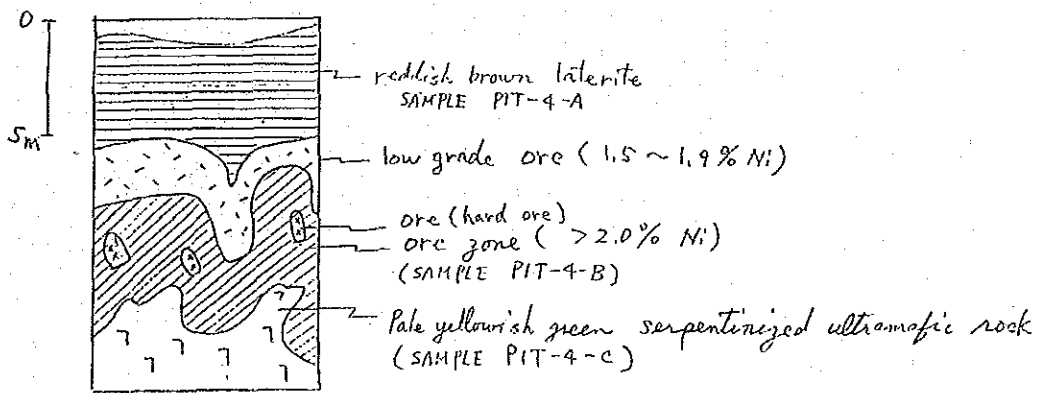
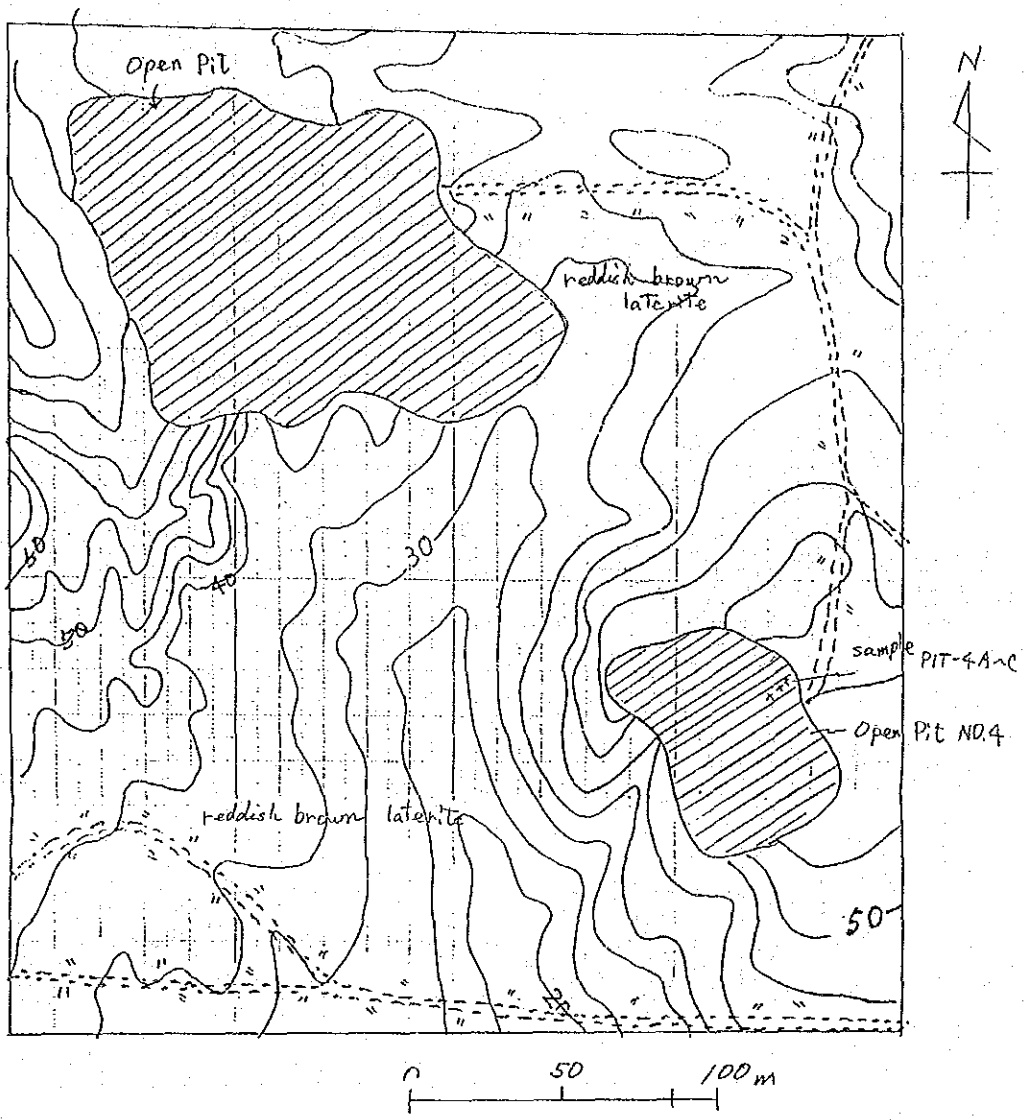
Data sheet for Mineral Prospects (I)

Survey Area	RIO TUBA, PALAVAN		Mineral Prospects No.	No. 8			
			Sample No.	PIT-4A, PIT-4B, PIT-4C			
Locality	1/50,000 Topographic Map No	24461	X Coordinates	18,500 18,250	Y Coordinates	7,800 8,250	Altitude 50 (m)
Survey date	March 3, 1987		Surveyor	K. Masubuchi, Cabantog			
Compiling data (file No.)			Owner of Mining right	Rio Tuba Nickel Co.			
Metallogenic province			Type of Ore deposit	Nickel ore deposit	Country rock of Ore Deposit	Serpentinized peridotite	
Ore mineral Assemblage	By field observation		By micro-scope		By X-Ray Diffraction		
Gangue mineral Assemblage	By field observation		By micro-scope		By X-Ray Diffraction		
Alteration mineral Assemblage	By field observation: Laterite, Ni-oxides		By micro-scope		By X-Ray Diffraction		
Combination of Country rocks	Serpentinized peridotite						

Data sheet for Mineral Prospects (II)

Age Determination	K-Ar Method					Other Method				
Investigation of Fossils	Radiolaria					Nanno- Plankton				Other Fossils
Spot Investigation	A	Necessity of follow up sur- vey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up sur- vey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions	The deposits occur as nickel-bearing ferruginous soil accumulations blanketing the ultramafic rocks. It covers almost all the gentle slopes and flat areas underlain by the ultramafic rocks from which the laterite is genetically related. This soil is dusky reddish-brown to yellowish at depths that finally merge to a yellowish green decomposed serpentinite.									

# SPOT INVESTIGATION AT RIO TUBA



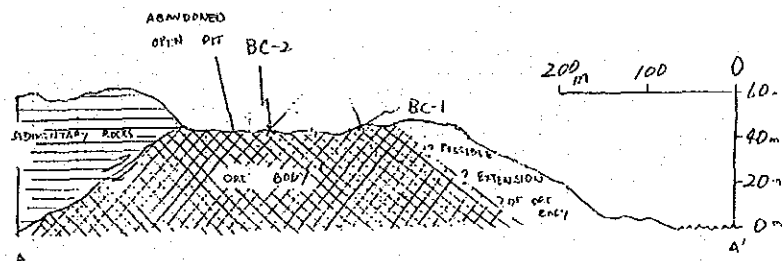
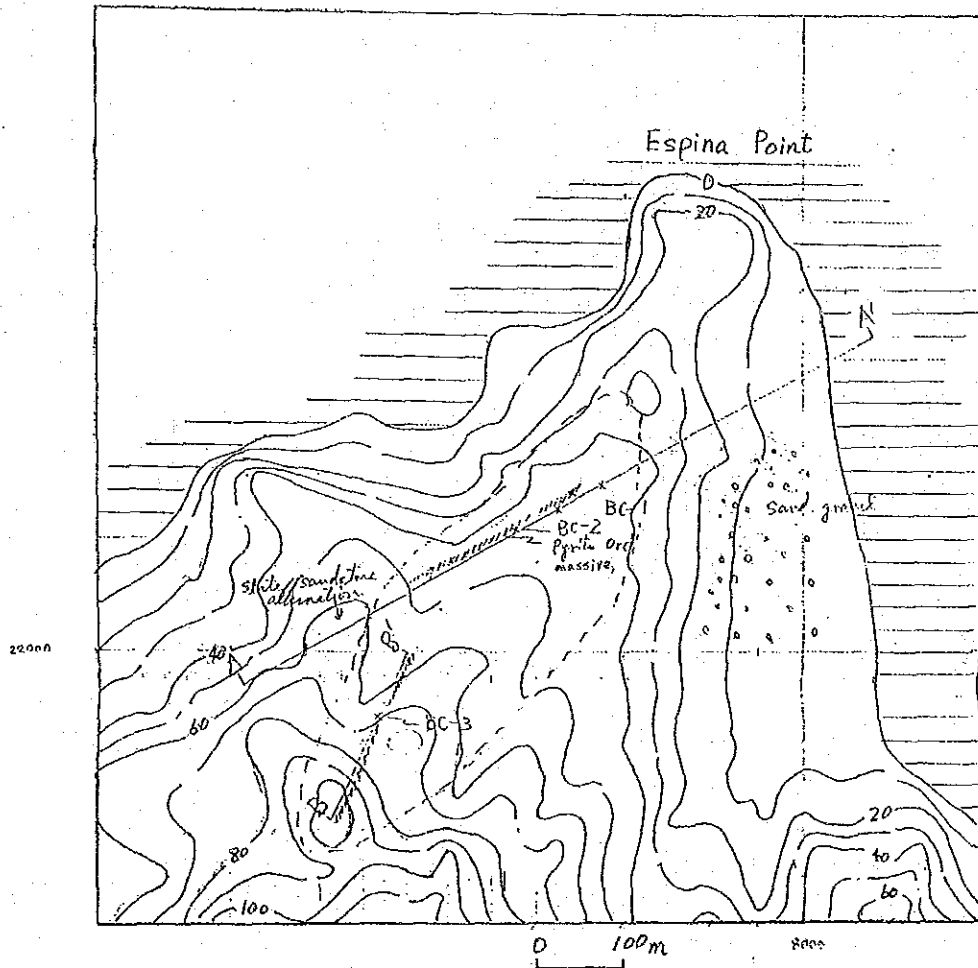
Data sheet for Mineral Prospects (I)

Survey Area	Bajabag Island, Palawan		Mineral Prospects No.	No. 9				
			Sample No.	BC-1, BC-2, BC-3				
Locality	1/50,000 Topographic Map No	24434	X Coordinates	7,300 8,100	Y Coordinates	21,800 22,350	Altitude	30 to 110 (m)
Survey date	March 1, 1987		Surveyer	Marlo A. Aurelio Osin A. Sinsuat, Jr.				
Compling data (file No.)			Owner of Mining right	formerly owned by BENGET CONSOLIDATED INCORP.				
Metallogenic province			Type of Ore deposit	CYPRUS TYPE, MASSIVE SULFIDE, COPPER DEPOSIT	Country rock of Ore Deposit	Intercalated Basalt and Chert		
Ore mineral Assemblage	By field observation pyrite; Chalcopyrite Bornite		By micro-scope	By X-Ray Diffraction				
Gangue mineral Assemblage	By field observation: quartz pyrite		By micro-scope	By X-Ray Diffraction				
Alteration mineral Assemblage	By field observation: quartz chlorite Fe-oxides		By micro-scope	By X-Ray Diffraction				
Combination of Country rocks	Intercalated spilittic basalt and chert							

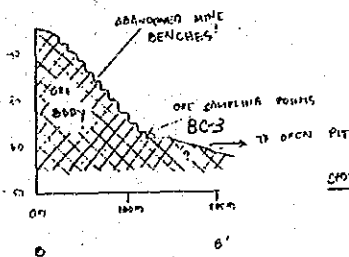
Figure 3, Data sheet for Mineral Prospects (II)

Age Determination		K-Ar Method		Other Method						
Investigation of Fossils		Foraminifera	Micro- Plankton	Other Fossils						
Spot Investigation	A	Necessity of follow up sur- vey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up sur- vey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
Results of Geochemical & other Analysis	A	#	B	#	C	#	D	#	E	#
Summarized Evaluation	A	#	B	#	C	#	D	#	E	#
Other specially Mentions	Ore body probably extends downwards to the sea floor. This would entail high cost of exploration and actual mining.									

SPOT INVESTIGATION AT BALABAC ISLAND, PALAWAN.



SPOT INVESTIGATION NO. 1 - DESCRIPTION - See attached Data Sheet for Mineral Prospects.



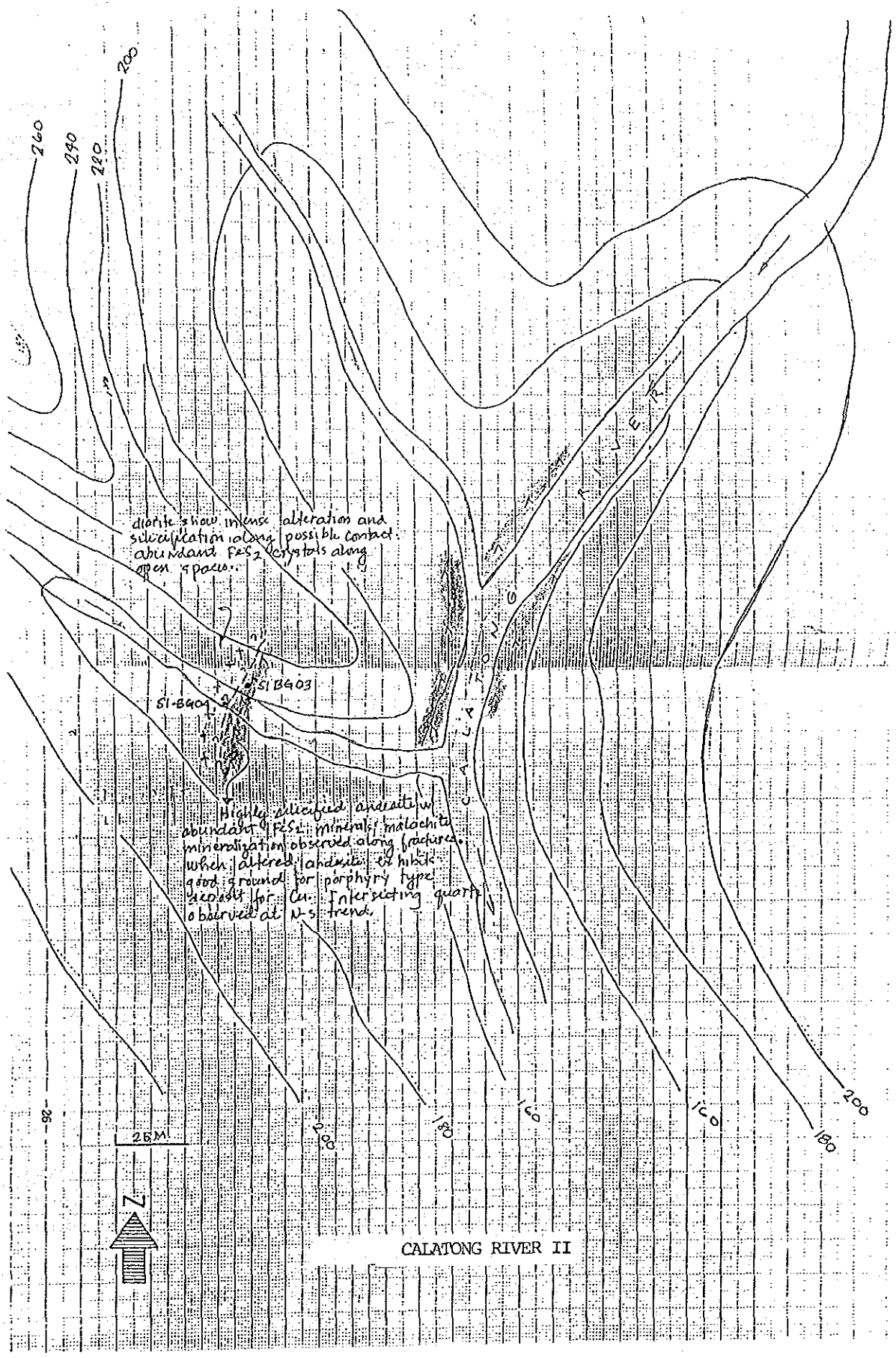
SPOT INVESTIGATION NO. 2 - DESCRIPTION - See attached Data Sheet for Mineral Prospects.

Data sheet for Mineral Prospects (I)

Survey Area	OMAS, SIPALAY		Mineral Prospects No.		/		
Locality #	1/50,000 Topographic Map No.	24492	# X Coordinates	19950	# Y Coordinates	16900	Altitude 1100 (m)
Survey date	MARCH 4, 1987		Surveyer #	JAIMIE G. FLORES			
Compiling data (file No.)			Owner of Mining right	NONE			
Metallogenic province			Type of Ore deposits	COPPER PORPHYRY		Country rock # of Ore Deposits	ANDESITE
Ore mineral Assemblage	By field observation # COPPER/PYRITE/MALACHITE		By micro-scope		By X-Ray Diffraction		
Gauche mineral Assemblage	By field observation # PYRITE		By microscope		By X-Ray diffraction		
Alteration mineral Assemblage	By field observation # silicification/argillization		By micro-scope		By X-Ray Diffraction		
Combination of Country rocks #	ANDESITE/DIABASE						

Data sheet for Mineral Prospects (II)

Age Determination	K- Ar Methode						Other Methode				
Investigation of Fossils	Radioraria				Nanno-Plankton			Other Fossils			
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
	Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
	Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions	X-RAY ANALYSIS FOR CLAY IS RECOMMENDED FOR ALTERATION ZONING.										



Data sheet for Mineral Prospects (I)

Survey Area	San Jose, Sipalay		Mineral Prospects No.	2			
Locality #	1/50,000 Topographic Map No.	34492	# X Coordinates	13A00	# Y Coordinates	16,980	Altitude +80 (m)
Survey date	Feb. 25, 1987		Surveyor #	HIDEO KURODA			
Compiling data (file No.)			Owner of Mining right	Maricalum Mining Corporation			
Metallogenic province			Type of Ore deposits	porphyry copper		Country rock of Ore Deposite	Diorite Dacite porphyry
Ore mineral Assemblage	By field observation <sup>#</sup> Chalcopyrite - bornite - molybdenite - pyrite		By micro-scope		By X-Ray Diffraction		
Gague mineral Assemblage	By field observation <sup>#</sup> Quartz - sericite - biotite		By microscope		By X-Ray diffraction		
Alteration mineral Assemblage	By field observation <sup>#</sup> Sulfidation/Sericitization / Biotitization		Synmicro-scope		By X-Ray Diffraction		
Combination of Country rocks <sup>#</sup>	Diorite / Dacite porphyry / Meta-volcanics						

Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Methode		Other Methode							
Investigation of Fossils		Radiolaria		Nanno-Plankton		Other Fossils					
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
	Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
	Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions		<p>The ore deposits, porphyry copper ore deposit, is operating by Maricalum Mining Corporation. The production of crude ore is 30,000 tons per day and the grade of ore is 0.54 percents copper. Scale of the pit is 1,200 wide and 1,500 long and the depth of the pit is 186 meters. Main ore minerals are chalcopyrite, bornite, molybdenite, pyrite and gangue minerals are quartz - sericite. The occurrence of the sulphide minerals is veins and dissemination. The alteration is sulfidation, sericitization and biotitization.</p>									



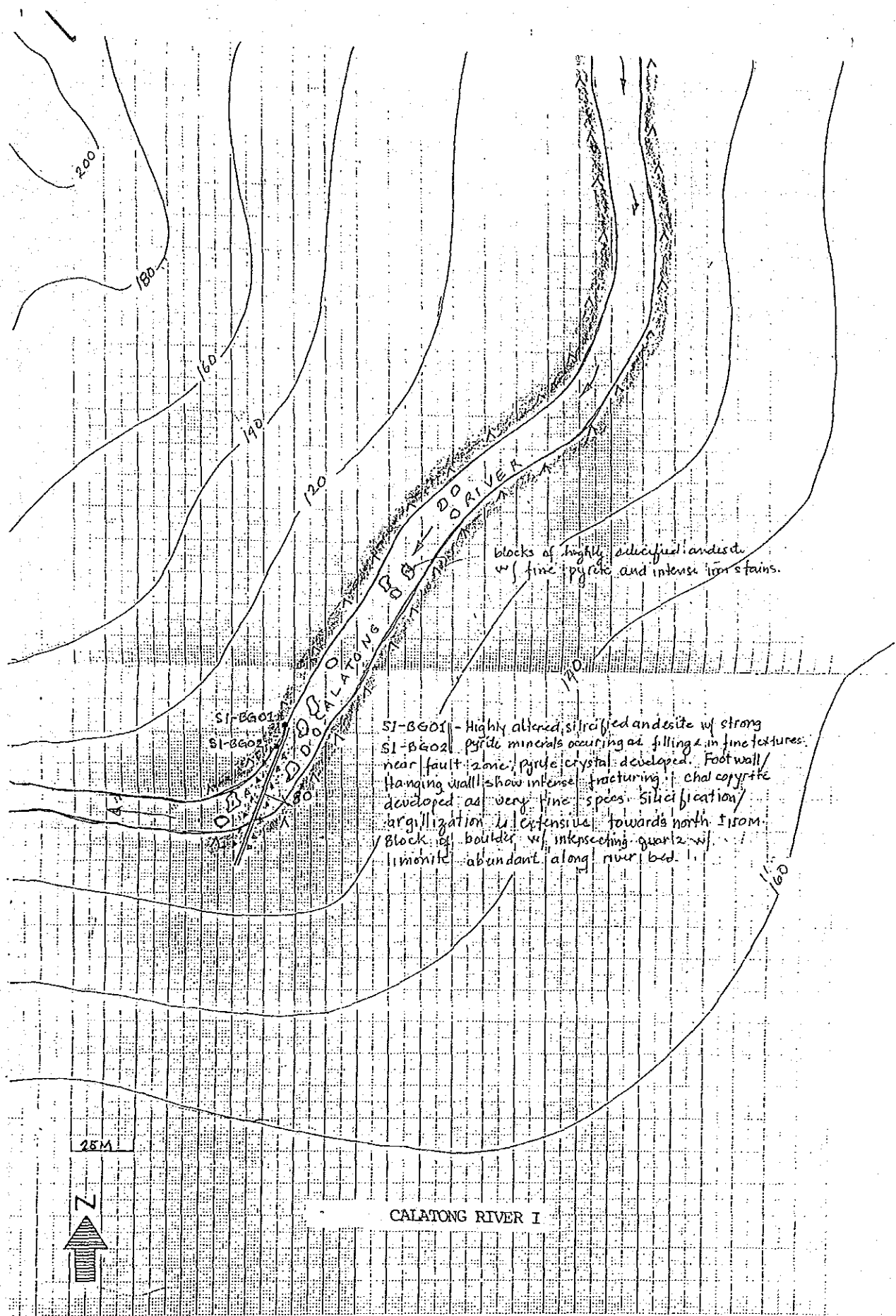


Data sheet for Mineral Prospects (I)

Survey Area	CALATUNG RIVER, SIPALAY		Mineral Prospects No.	3			
Locality #	1/50,000 Topographic Map No.	34492	# X Coordinates	19200	# Y Coordinates	12900	Altitude $\pm$ 20 M (m)
Survey date	MARCH 3, 1987		Surveyor #	JAIME C. FLORES			
Compiling data (file No.)			Owner of Mining right	NONE			
Metallogenic province			Type of Ore deposits	Copper Porphyry		Country rock of Ore Deposits	ANDESITE
Ore mineral Assemblage	By field observation # COPPER - PYRITE - MALACHITE		By micro-scope		By X-Ray Diffraction		
Gague mineral Assemblage	By field observation # PYRITE		By microscope		By X-Ray diffraction		
Alteration mineral Assemblage	By field observation # ARGILLIZATION / SILICIFICATION		By micro-scope		By X-Ray Diffraction		
Combination of Country rocks #	ANDESITE / DIORITE						

Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Methode		Other Methode							
Investigation of Fossils		Radiolaria		Hanno-Plankton		Other Fossils					
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	(D)	Necessity of follow up survey is low	E	Follow up survey is needless
	Results of Geochemical & other analysis	A	"	B	"	C	"	(D)	"	E	"
	Summarised Evaluation	A	"	B	"	C	"	(D)	"	E	"
Other specially Mentions		X-RAY ANALYSIS FOR CLAY IS RECOMMENDED. FOR ALTERATION ZONING.									

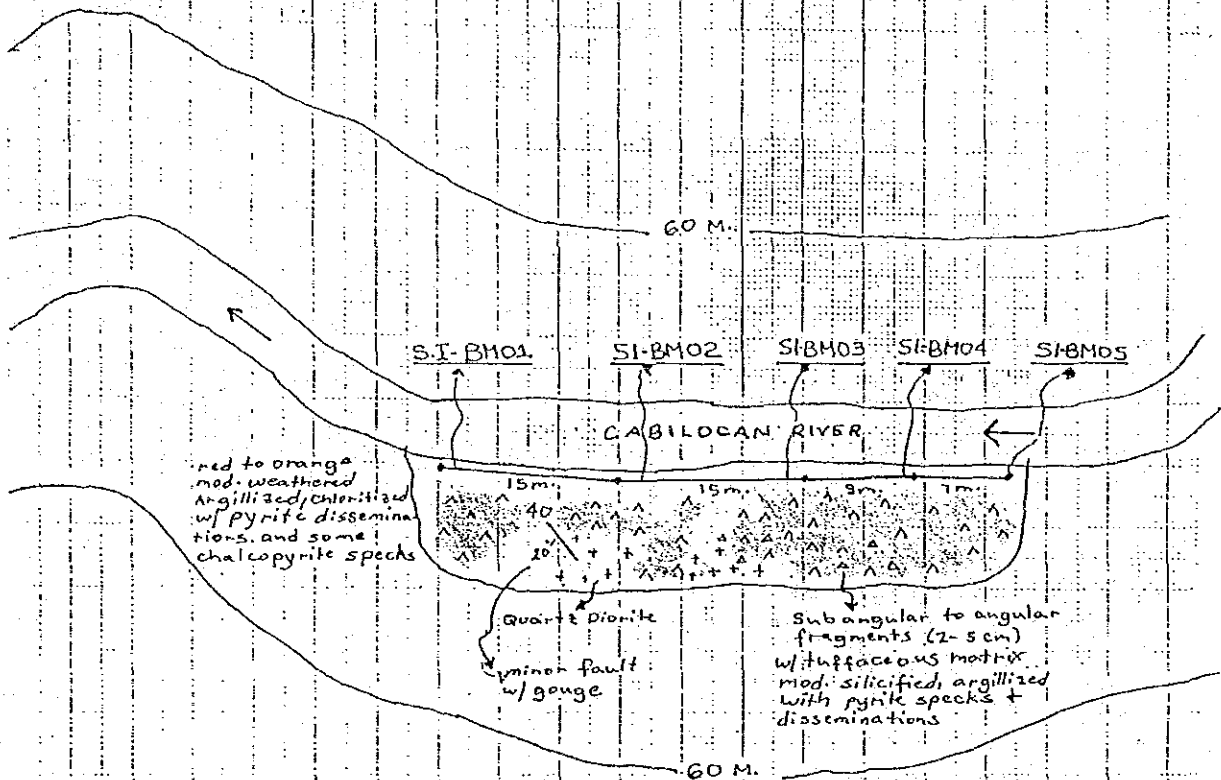
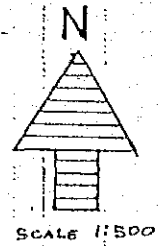
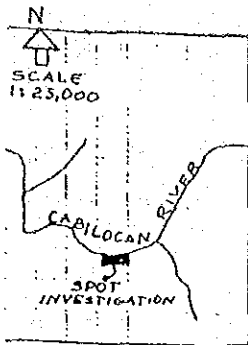


Data sheet for Mineral Prospects (I)

Survey Area	CABOCCAN RIVER manukanoc, Sipalay		Mineral Prospects No.		4		
Locality #	1/50,000 Topographic Map No.	34482	# X Coordinates	7,750	# Y Coordinates	23,400	Altitude 50 (m)
Survey date #	March 6, 1987		Surveyor #	JOSELITO C. VELASQUEZ			
Compiling data (file No.)			Owner of Mining right				
Metallogenic province			Type of Ore deposits			Country rock # of Ore Deposits	Andesite.
Ore mineral Assemblage	By field observation # Chalcopyrite		By micro-scope		By X-Ray Diffraction		
Gague mineral Assemblage	By field observation # Quartz		By microscope		By X-Ray diffraction		
Alteration mineral Assemblage	By field observation # Pyritization Silicification Argillization		By micro-scope		By X-Ray Diffraction		
Combination of Country rocks #	Andesite Quartz Diorite						

Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Methode		Other Methode							
Investigation of Fossils		Radiolaria		Nanno-Plankton		Other Fossils					
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey is high	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
	Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
	Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions		polished section for one analysis of Intro.									



- \* 5 Samples for analysis.  
 ① Cabilocan 1 SI-BM01  
 ② Cabilocan 2 SI-BM02  
 ③ Cabilocan 3 SI-BM03  
 ④ Cabilocan 4 SI-BM04  
 ⑤ Cabilocan 5 SI-BM05

CABILOCAN RIVER

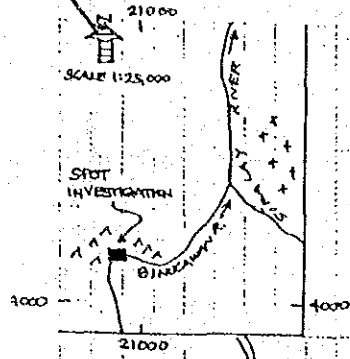
Data sheet for Mineral Prospects (I)

Survey Area	COLET AND CATWANAN BINUCAWAN RIVER, SICALAY		Mineral Prospects No.		5		
Locality # BINUCAWAN RIVER	1/50,000 Topographic Map No.	3449Z	# X Coordinates	20950	# Y Coordinates	4200	Altitude 60 (m)
Survey date MARCH 4, 1987			Surveyor #	ABRAHAM LUCERO JR.			
Compiling data (file No.)			Owner of Mining right				
Metalogenic province			Type of Ore deposits			Country rock # of Ore Deposits	ANDESITE
Ore mineral Assemblage	By field observation #  CHALCOPYRITE		By micro-scope		By X-Ray Diffraction		
Vegetation mineral Assemblage	By field observation #  QUARTZ		By microscope		By X-Ray diffraction		
Alteration mineral Assemblage	By field observation # PYRITIZATION, CHLORITIZATION, ARGILLIZATION, SILEXIFICATION		By micro-scope		By X-Ray Diffraction		
Combination of Country rocks #	ANDESITE						

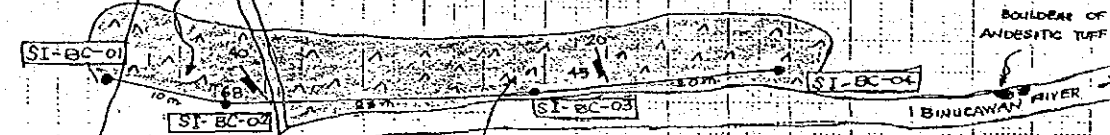
Data sheet for Mineral Prospects (II)

Age Determination		K-Ar Methode		Other Methode							
Investigation of Fossils		Radiolaria		Hanno-Plankton		Other Fossils					
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey is high	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
	Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
	Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions		POLISHED SECTION SHOULD BE MADE FOR ORE ANALYSIS									

TOPOGRAPHIC MAP: SIPALAY - #34492



FINE TO MEDIUM GRAINED  
ANDESITE MODERATELY  
FRACTURED W/ PYRITE  
DESSIMINATIONS. OUTCROP  
IS MODERATELY SILICIFIED  
CHLORITIZED AND ARGIL-  
LIZED. INTENSE BROWNISH  
AND STAINS ON OUTER  
PORTION DUE TO OXIDATION



MODERATELY SILICIFIED  
ANDESITE W/ PY DESSIMINATIONS.  
RUSTY COLOR ON OUTER PORTIONS.

- ④ 4 SAMPLES FOR ANALYSIS:
- ① SI-BC-01
  - ② SI-BC-02
  - ③ SI-BC-03

④ SI-BC-04

COLET AND CATWANAN

Data sheet for Mineral Prospects (I)

Survey Area	SANGKI CU PROJECT SANGKI, JINDAPAN, NEGROS OCC		Mineral Prospects No.		6		
Locality #	1/50,000 Topographic Map No.	34451	X # Coordinates	15,080	Y # Coordinates	14,900	Altitude 150 (m)
Survey date #	FEB. 26, 1987		Surveyor #	E. RILLON & N. RAYBAYAN			
Compiling data (file No.)			Owner of Mining right				
Metalogenic province	JINDAPAN MINERAL DISTRICT		Type of Ore deposits	POLYMETALIC CU		Country rock # of Ore Deposits	QUARTZ DIORITE
Ore mineral Assemblage	By field observation # MALACONITE & MINER CHALCOPHYLLITE		By micro-scope		by X-Ray Diffraction		
Gague mineral Assemblage	By field observation # PYRITE		By microscope		By X-Ray diffraction		
Alteration mineral Assemblage	By field observation # CLAY MINERAL		By micro-scope		by X-Ray Diffraction		
Combination of Country rocks #	QUARTZ DIORITE						

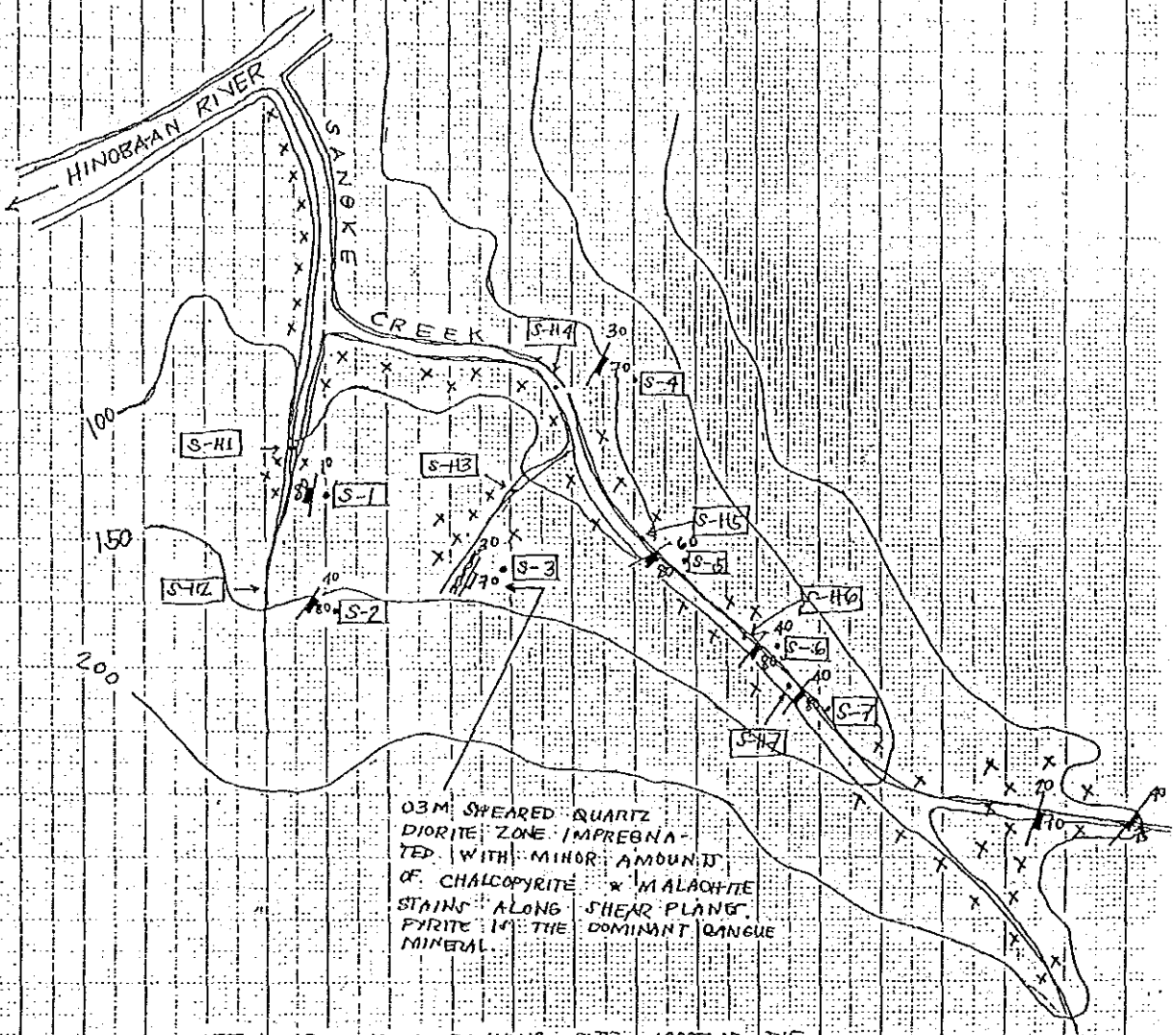
Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Methode		Other Methode							
Investigation of Fossils		Radiolaria		Nanno-Plankton		Other Fossils					
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
	Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
	Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions		SAMPLES ARE RECOMMENDED FOR X-RAY ANALYSIS									



SANGKE CU PROSPECT

N  
SCALE  
1:10,000



03M SHEARED QUARTZ  
DIORITE ZONE IMPREGNA-  
TED WITH MINOR AMOUNTS  
OF CHALCOPYRITE \* MALACHITE  
STAINS ALONG SHEAR PLANE.  
PYRITE IS THE DOMINANT GANGUE  
MINERAL.

NOTE: AREA IS A PANNING SITE. MOST OF THE  
WORKINGS WERE ALREADY MINED OUT. MOST  
OF THE SAMPLES WERE CLAYEY DUE TO THE  
ABSENCE OF FRESH CORE SAMPLES.

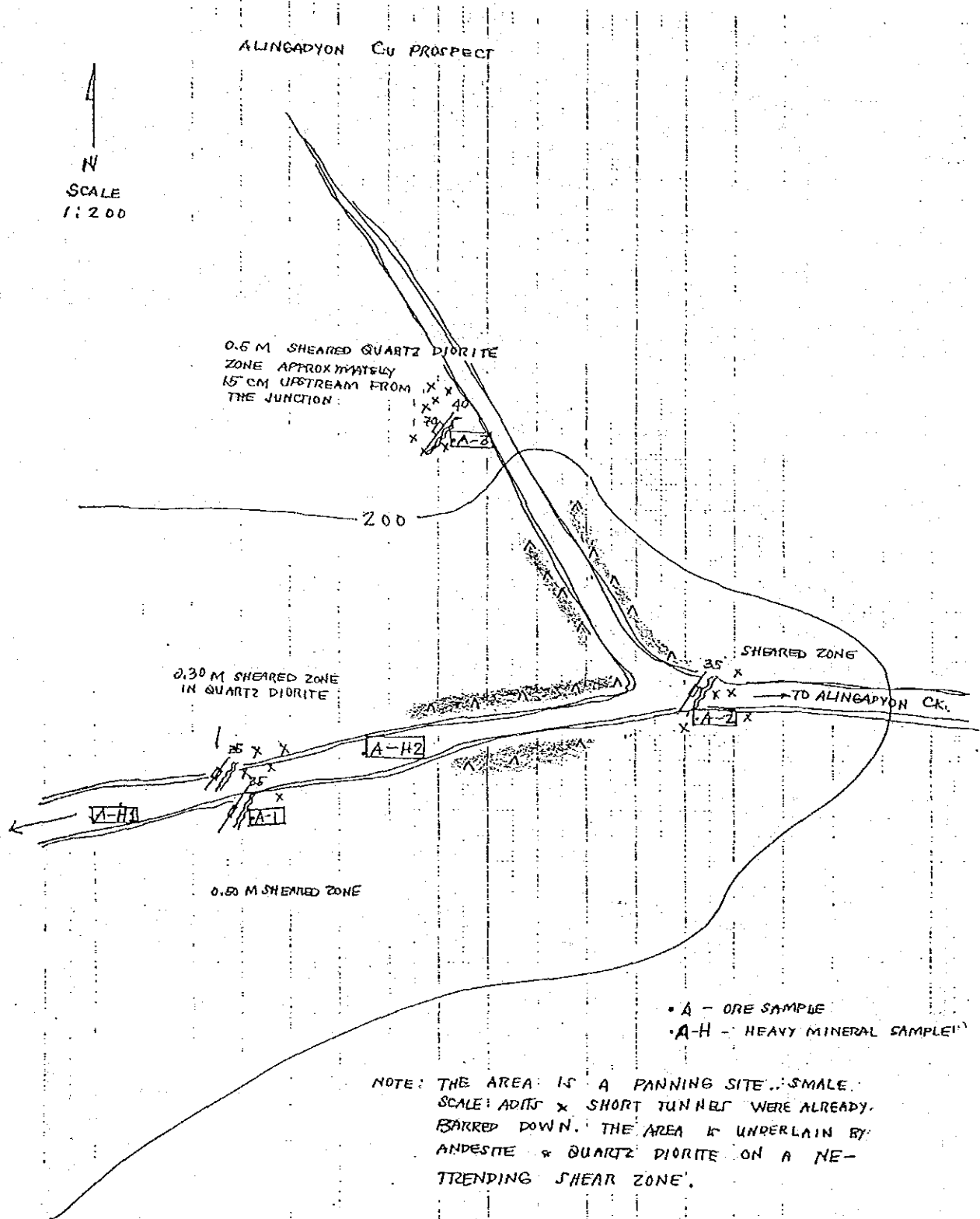
SANGKE

Data sheet for Mineral Prospects (I)

Survey Area	ALINEADYON Cu PROSPECT		Mineral Prospects No.		7		
Locality #	1/50,000 Topographic Map No.	34481	# X Coordinates	15,600	# Y Coordinates	12,400	Altitude 200 (m)
Survey date #	FEB. 27, 1987		Surveyor #	N. BAYBAYAN			
Compiling data (file No.)			Owner of Mining right				
Metalogenic province	JUNOBA-AU MINERAL DISTRICT		Type of Ore deposits	PORPHYRY Cu (?)		Country rock # of Ore Deposits	CONTACT OF ANDESITE & QUARTZ DIORITE PORPHYRY
Ore mineral Assemblage	By field observation # CHALCOPYRITE, MALACHITE, AZURITE		By micro-scope		By X-Ray Diffraction		
Garue mineral Assemblage	By field observation # PYRITE		By microscope		By X-Ray diffraction		
Alternation mineral Assemblage	By field observation # QUARTZ & CLAY MINERALS		By micro-scope		By X-Ray Diffraction		
Combination of Country rocks #	ANDESITE & QUARTZ DIORITE PORPHYRY						

Data sheet for Mineral Prospects (II)

Age Determination		K-Ar Methode		Other Methode							
Investigation of Fossils		Radiolaria		Hanno-Plankton		Other Fossils					
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
	Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
	Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions	CLAY SAMPLES RECOMMENDED FOR X-RAY ANALYSIS										



ALINGADYON

GEOLOGICAL BY: NQB

Data sheet for Mineral Prospects (I)

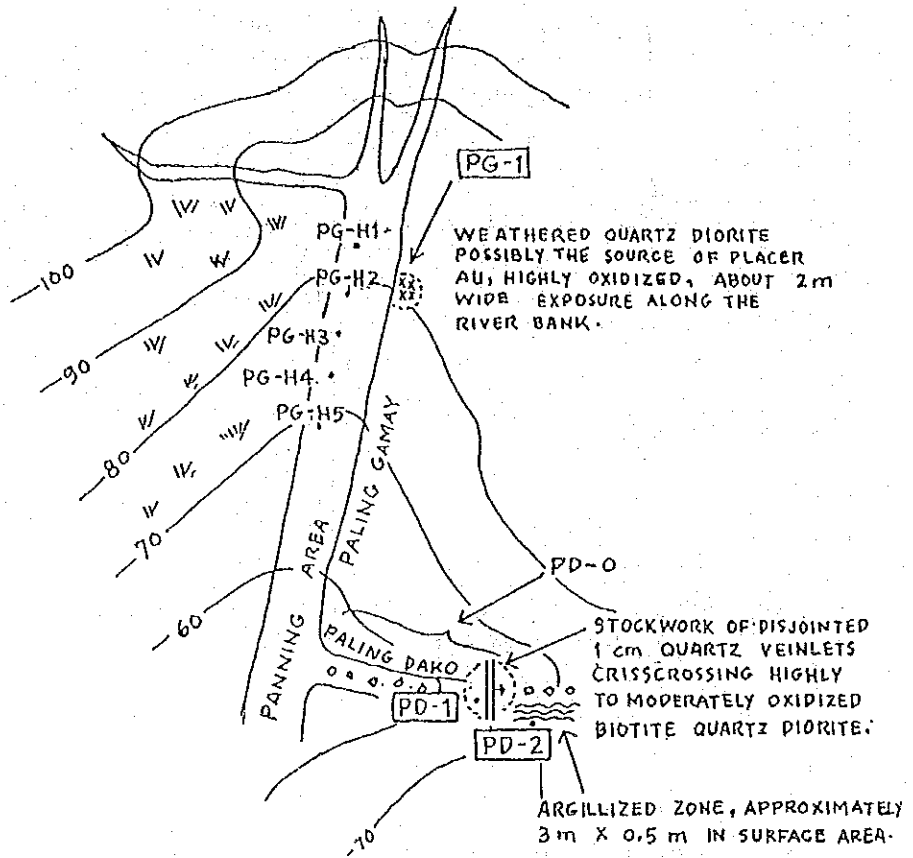
Survey Area	PALING GAMAY-PALING 1740 AN (AMING) AREA		Mineral Prospects No.	8			
Locality #	1/50,000 Topographic Map No.	34481	# X Coordinates	18,750	# Y Coordinates	7,000	Altitude 60 (m)
Survey date	FEB. 23, 1987		Surveyer #	N BAYBAYAN			
Compiling data (file No.)			Owner of Mining right				
Metalogenic province	JINBA-AN MINERAL PROVINCE		Type of Ore deposits	PLACER Au		Country rock of Ore Deposits	ERODED QUARTZ DIORITE PORPHYRY
Ore mineral Assemblage	By field observation # NIL		By micro-scope		by X-Ray Diffraction		
Gague mineral Assemblage	By field observation # PURE		By microscope		By X-Ray diffraction		
Alteration mineral Assemblage	By field observation # ARGILLIZED CLAY MINERALS		By micro-scope		by X-Ray Diffraction		
Combination of Country rocks #	QUARTZ DIORITE						

Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Methode		Other Methode							
Investigation of Fossils		Radiolaria		Nanno-Plankton		Other Fossils					
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey is high	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
	Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
	Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions		CLAY SAMPLES ARE RECOMMENDED FOR X-RAY ANALYSIS									

# PALING GAMAY PANNING AREA

N  
SCALE  
1:500



## NOTE

PD-0 → FLOATS OF QUARTZ FROM A POSSIBLE QUARTZ VEIN WERE NOTED. THE FLOATS ARE COATED WITH OXIDIZED PYRITE AND LIMONITIC STAINS. THE QUARTZ IS YUGGY.

PG-H → ORE SAMPLES

PALING GAMAY

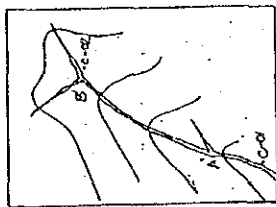
Data sheet for Mineral Prospects (I)

Survey Area	CAPAYASAN CU PROJECT BILUANGAN, ZINDORAN		Mineral Prospects No.		9		
Locality #	1/50,000 Topographic Map No.	34481	X # Coordinates	20,600	Y # Coordinates	4200	Altitude 200 (m)
Survey date	FEB. 26, 1987		Surveyor #	N. DAYAYAN			
Compiling data (file No.)	)		Owner of Mining right				
Metalogenic province	ZINDORAN ANTIKINABANG DISTRICT		Type of Ore deposits	POLYMETALLIC CU (?)		Country rock # of Ore Deposits	QUARTZ DIORITE
Ore mineral Assemblage	By field observation # MALACHITE x AZURITE		By micro-scope		By X-Ray Diffraction		
Gague mineral Assemblage	By field observation # PYRITE		By microscope		By X-Ray diffraction		
Alternation mineral Assemblage	By field observation # QUARTZ x CLAY MINERALS		By micro-scope		By X-Ray Diffraction		
Combination of Country rocks #	QUARTZ DIORITE x AMPHIBOLITE						

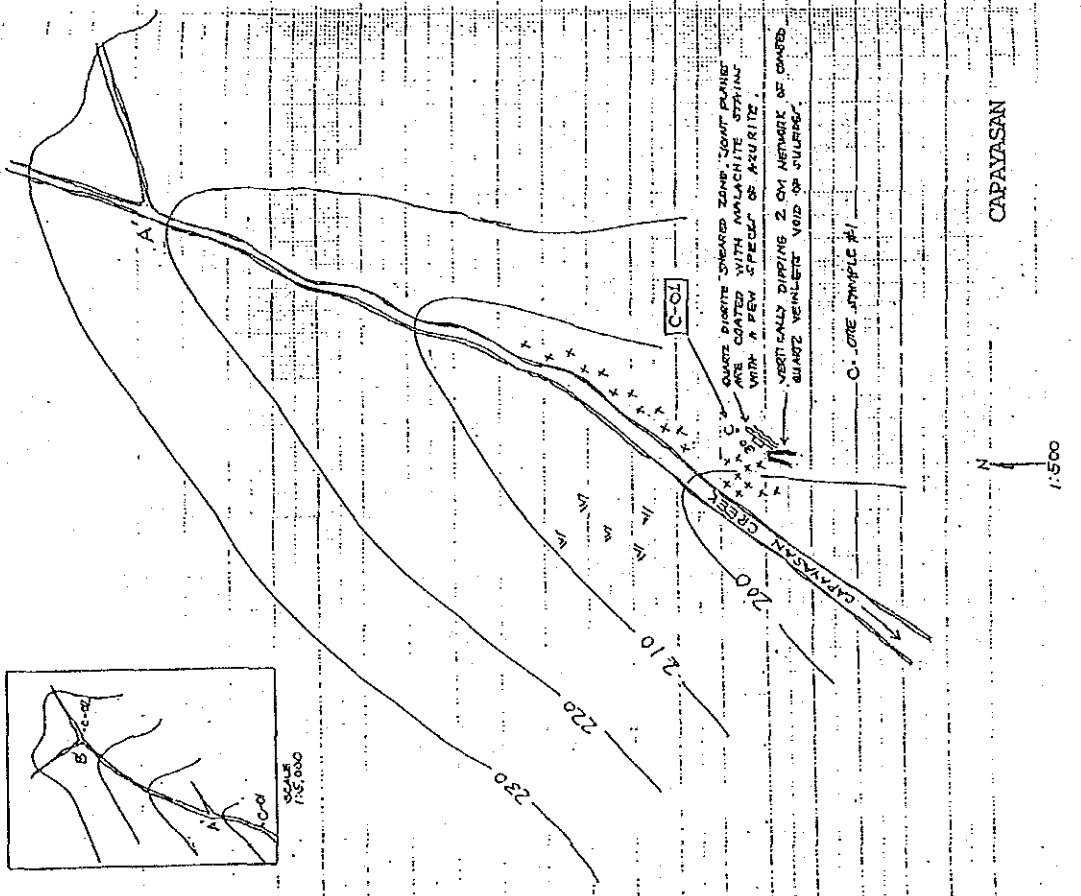
Data sheet for Mineral Prospects (II)

Age Determination	K- Ar Methode					Other Methode					
Investigation of Fossils	Radiolaria					Nanno-Plankton	Other Fossils				
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
	Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
	Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions	POLISHED SECTION OF ORE SAMPLE IS RECOMMENDED FOR FURTHER IDENTIFICATION OF OTHER ORE MINERALS PRESENT										

CAPPAYAN CK., C4 PROSPECT



SCALE  
1:500



CAPPAYAN

N  
1:500

NOTE: CU-CARBONATE MINERALIZATION OCCURS ALONG NE-TRENDING FRACTURES IN QUARTZ PORITE WITH ATTENDANT SULPHIDE OBSERVED ASSOCIATED IN THE FRACTURE FINGER.

REQUEST BY: NGS

Data sheet for Mineral Prospects (I)

Survey Area PASIKO CREEK	Mineral Prospects No. 1					
#CASANDIG Locality WRIGHT, W. SAMAR	1/50,000 Topographic Map No. 40554	# Coordinates 13360	# Coordinates 01360	Altitude 150 m. (n.)		
Survey date AUGUST 1, 1967	Surveior # M. AURELIO					
Compiling data (file No.)	Owner of Mining right					
Metallogenic province	MAGMATIC ARC	Type of Ore deposits	KURUKO TYPE (BOULDER)	Country rock: FELSIC of Ore Deposits VOLCANIC ROCK		
Ore mineral Assemblage	By field observation # Pyrite - Sphalerite - Bornite Cpy (?) - Chalcocite (?)	By micro-scope	By X-Ray Diffraction			
Gague mineral Assemblage	By field observation # Chlorite - Argillite	By microscope	By X-Ray diffraction			
Alter-ation mineral Assemblage	By field observation # Chlorite - Argillite	By micro-scope	By X-Ray Diffraction			
Combination of Country rocks #						

Data sheet for Mineral Prospects (II)

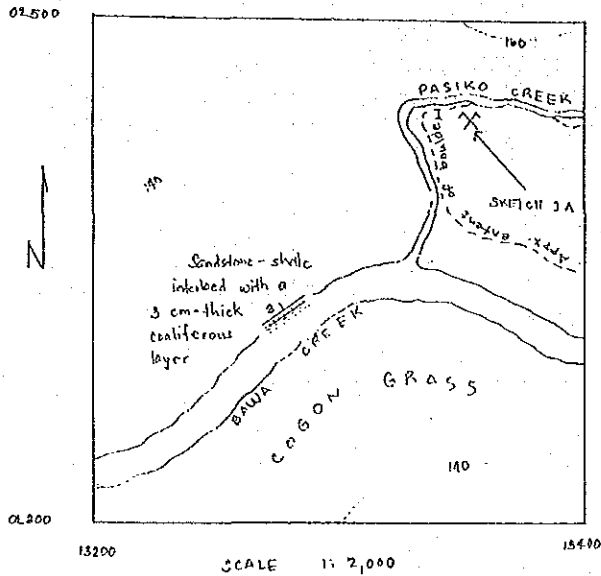
Age Determination		K-Ar Methods		Other Methods			
Investigation of Fossils		Radiolaria		Nano-Plankton		Other Fossils	
Evaluation for Ore Prospects	Spot Investigation	A	B	C	D	E	F
	Results of Geochemical & other analysis	A	B	C	D	E	F
	Summarized Evaluation	A	B	C	D	E	F
Necessity of follow up survey is highest Necessity of follow up survey is high Possibility of follow up survey is reliable Necessity of follow up survey is low Follow up survey needful							
INVESTIGATED AREA IS JUST A LARGE BOULDER SITTING ONTOP OF EITHER GREEN TUFF OR SEDIMENTARY BEDROCK							
Other specially Mentions							



SPOT INVESTIGATION NO. 1  
 PASIKO CREEK  
 AUGUST 1, 1984  
 M. AURELIO

鉱微地調査 ルートマップ/スケッチ

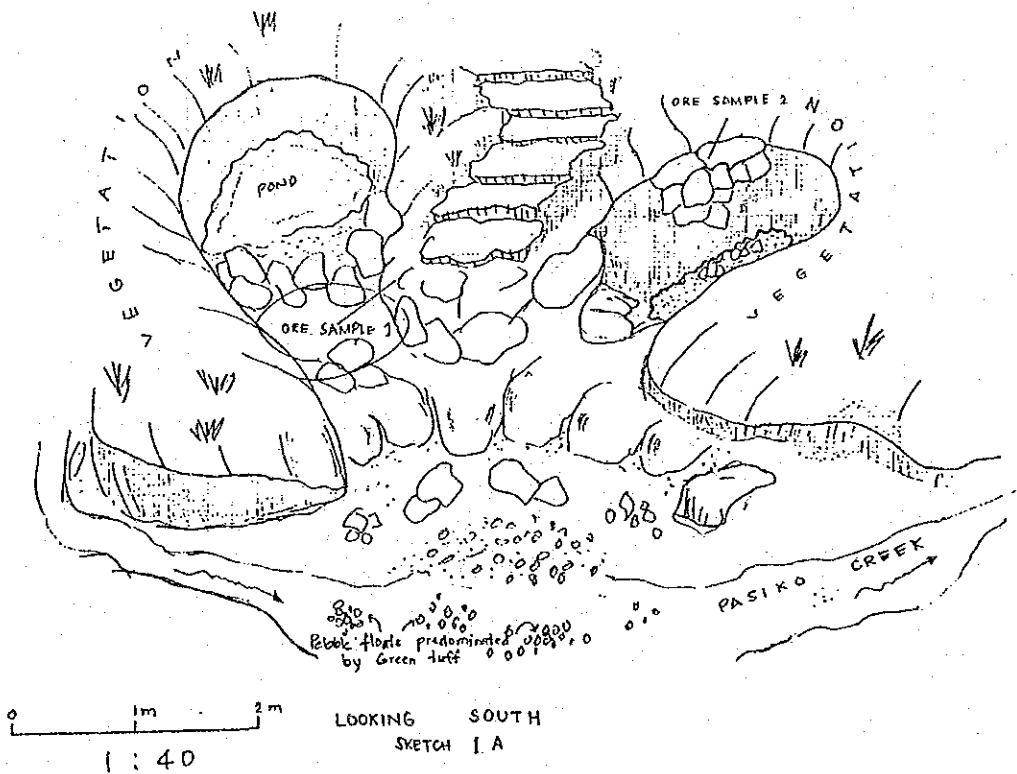
QUADRANGLE NO. 40554



GENERAL DESCRIPTION OF HOST ROCK

The host is generally a felsic volcanic rock. Its specific identification is difficult to arrive at due to extreme alteration and mineralization. Argillite is a dominant alteration (clay) mineral while chlorite alter the feldspars and related silicates. Stains are expressed by iron oxides and sulfides. Pyrite occurs in clusters and disseminations while Sphalerite, Bornite, Chalcopyrite (?) and Chalcocite (?) act as the ore minerals.

\* the host rock is only a large float, however, sitting on top of either green tuff or sedimentary bedrock.



Data Sheet for Mineral Prospects

Survey area *	SAN JOSE, BERANGAN, EASTERN SAMAR			Mineral Prospects No. *	E-2			
Locality	1/50,000 Topographic Map No. *	40541	X Coordinate *	14100	Y Coordinate *	12300	Altitude *	200 (m)
Survey date *	AUG. 1-87		Surveyor *	KAZUHIRO ABACHI				
Compiling date (file No.)			Owner of mining right					
Metalogenic province			Type of Ore Deposits *	Vein type	Country rock of Ore Deposits *	limestone		
Ore mineral Assemblage	by field observation * Manganese oxide (pyrolusite)		by microscope		by X-ray diffraction			
Gangue mineral Assemblage	by field observation * quartz, calcite		by microscope		by X-ray diffraction			
Alteration mineral Assemblage	by field observation * quartz		by microscope		by X-ray diffraction			
Combination of country rocks *								

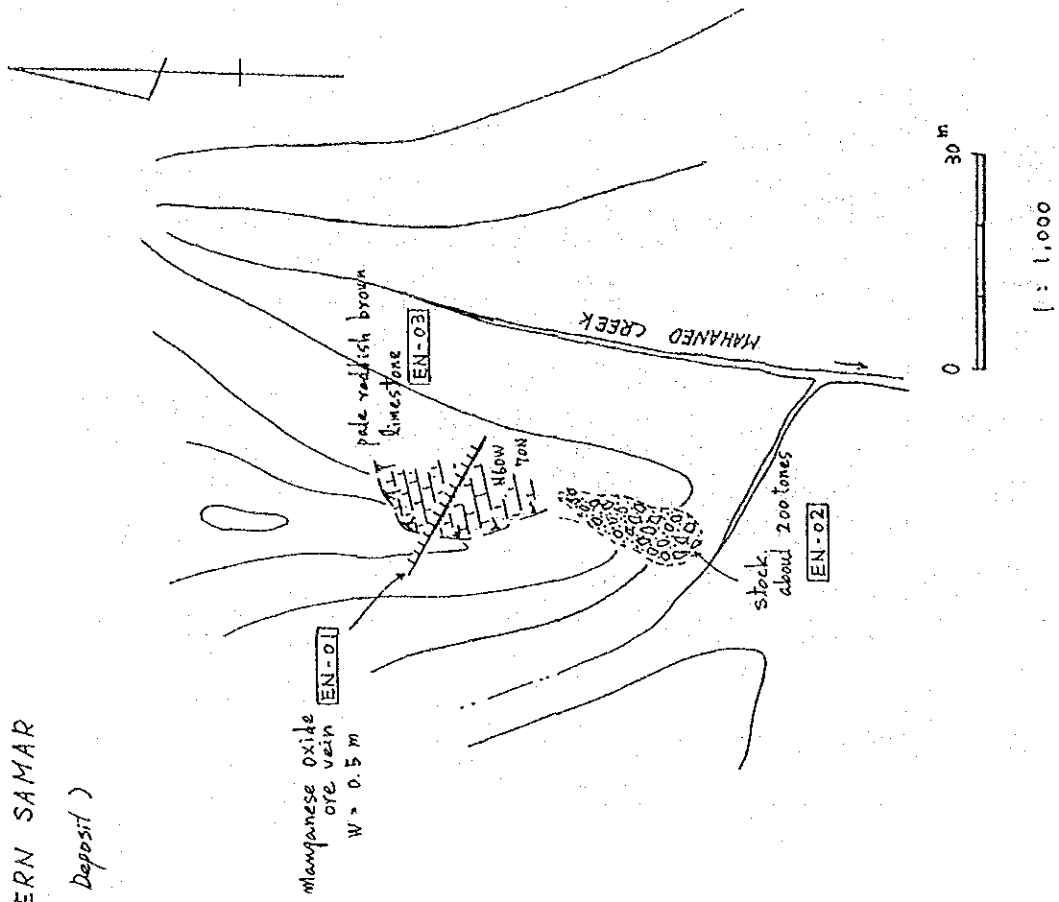
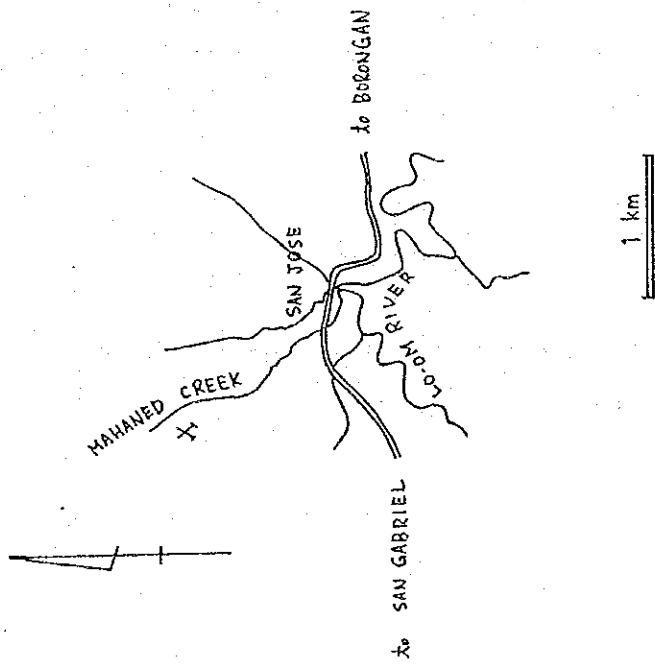
\* boxes have to describe on field survey

Age Determination	K-Ar Age method		Rb-Sr Age method		Another method					
Identification of fossils	Radiolaria		Nano-Pinkton		Another fossils					
Spot Investigation *	A	Necessity of follow up survey is the highest.	B	Necessity of follow up survey is high.	C	Possibility to consider the follow up survey.	D	Necessity of follow up survey is low.	E	Follow up survey is needless.
Result of geochemical & other analysis	A	*	B	*	C	*	D	*	E	*
Summarized evaluation	A	*	B	*	C	*	D	*	E	*
Other specially mentions *	Manganese oxide was formed in secondary oxidation. In primary, this ore deposit was manganese silicate or carbonate ore deposit.									

\* boxes have to describe on field survey

SAN JOSE, BORONGAN, EASTERN SAMAR

( Vein type Manganese Ore Deposit )



Data Sheet for Mineral Prospects

Survey area *	BAGACAY, SAMAR			Mineral Prospects No. *	E-1			
Locality	1/50,000 Topographic Map No. *	40553	X * Coordinate	25400	Y * Coordinate	14200	Altitude *	200 (m)
Survey date *	Aug. 20 - 87		Surveyor *	KAZUHIRO ADACHI KAZUHIKO YAMANAKA				
Compiling date (file No.)			Owner of mining right					
Metalogenic province			Type of Ore Deposits *	KUROKO TYPE		Country rock of Ore Deposits *	Green tuff	
Ore mineral Assemblage	by field observation * pyrite, chalcopyrite bornite, chalcocite		by microscope		by X-ray diffraction			
Gangue mineral Assemblage	by field observation * quartz, white clay mineral		by microscope		by X-ray diffraction			
Alteration mineral Assemblage	by field observation * white argillization		by microscope		by X-ray diffraction			
Combination of country rocks *	tuff, tuffaceous siltstone, dolomite, limestone							

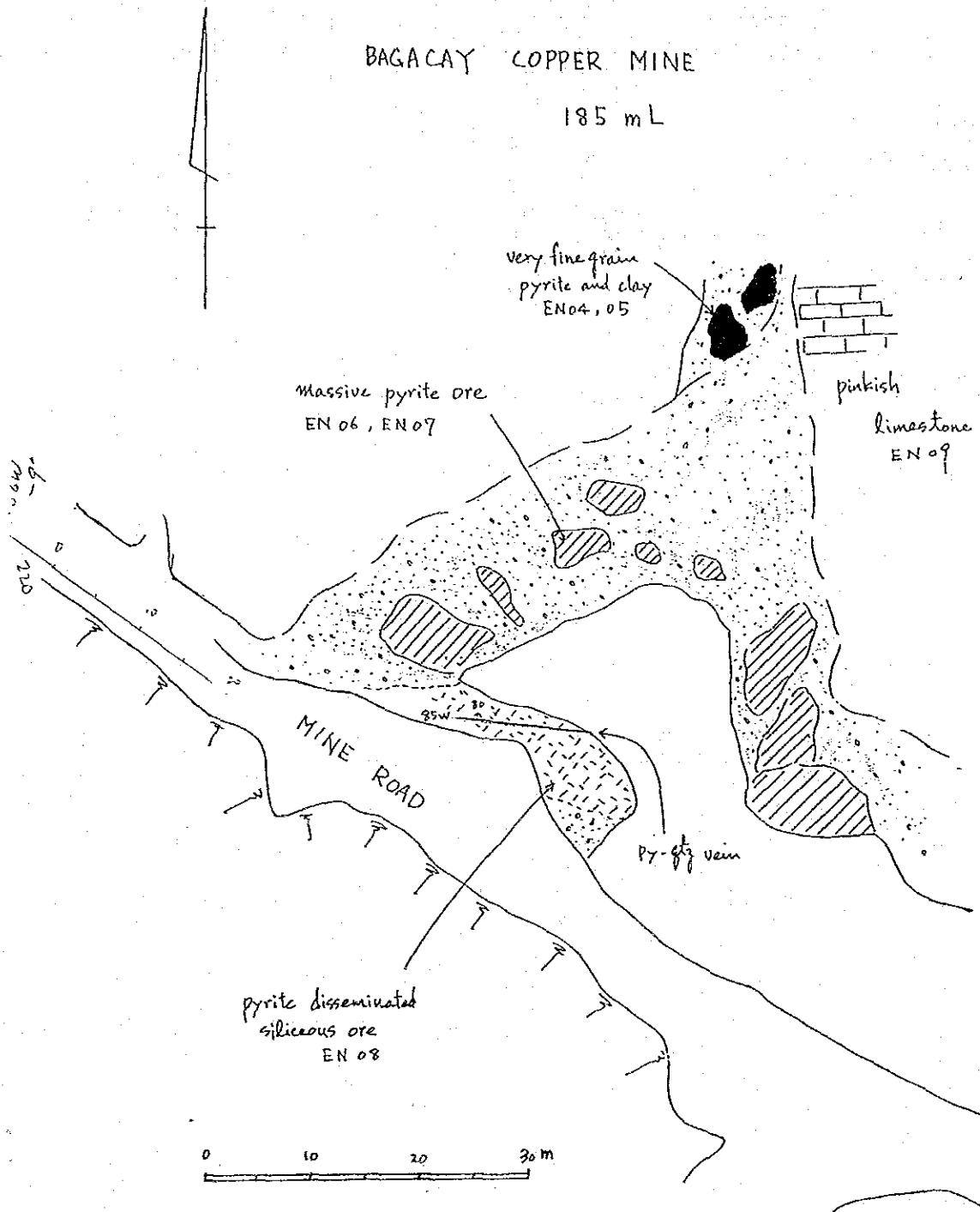
\* boxes have to describe on field survey

Age Determination	K-Ar Age method		Rb-Sr Age method		Another method					
Identification of fossils	Radiolaria		Nanno-Plankton		Another fossils					
Spot Investigation *	A	Necessity of follow up survey is the highest.	D	Necessity of follow up survey is high.	C	Possibility to consider the follow up survey.	D	Necessity of follow up survey is low.	E	Follow up survey is needless.
Result of geochemical & other analysis	A	*	B	*	C	*	D	*	E	*
Summarized evaluation	A	*	B	*	C	*	D	*	E	*
Other specially mentions *	BAGACAY MINE is operated by PHILIPPINE PYRITE CORP. (PPC) Crude ore. max 1,000 t/day.									

\* boxes have to describe on field survey

# BAGACAY COPPER MINE

185 mL



Data sheet for Mineral Prospects (I)

Survey Area TIGA CREEK	Mineral Prospects No. 2	
#LAWAAN, W. SAMAR	1/50,000 Topographic Map No. 4055+	# X 14580 # Y 04450
Survey date AUGUST 3, 1987	Coordinates	Altitude ~165 m. (±)
Compiling data (file No.)	Surveyor # M. AURELIO	Owner of Mining right
Metallogenic province MAGMATIC ARC	Type of Ore deposits KUROKO TYPE (IN VEIN SYSTEM)	Country rock of Ore Deposits DACITE
Ore mineral Assemblage	By field observation # Py - Sph - Bn (Other black ore minerals)	By micro-scope By X-Ray Diffraction
Gangue mineral Assemblage	By field observation # Altered feldspars / Quartz	By microscope By X-Ray diffraction
Alter-ation mineral Assemblage	By field observation # Chlorite - Argillite - Sericite (?)	By micro-scope By X-Ray Diffraction
Combination of Country rocks		

Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Methode		Other Methode							
Investigation of Fossils		Radiocarbon		Nano-Plankton		Other Fossils					
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey needless
	Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
	Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions		MINERALIZATION (KUROKO) COMMONLY OCCURS IN JOINT AND FRACTURE SYSTEMS.									



Data sheet for Mineral Prospects (11)

Age Determination		K-Ar Methods		Other Methods							
Investigation of Fossils		Radiolaria		Manno-Plankton		Other Fossils					
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey in highest	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Necessity of follow up survey is medium
	Results of Geochemical & other analysis	A	"	B	"	C	"	D	"	E	"
	Summarized Evaluation	A	"	B	"	C	"	D	"	E	"
Other specially Mentions		INVESTIGATED AREA WAS PREVIOUSLY SAMPLED BY "MARCOPPER" (1967)									

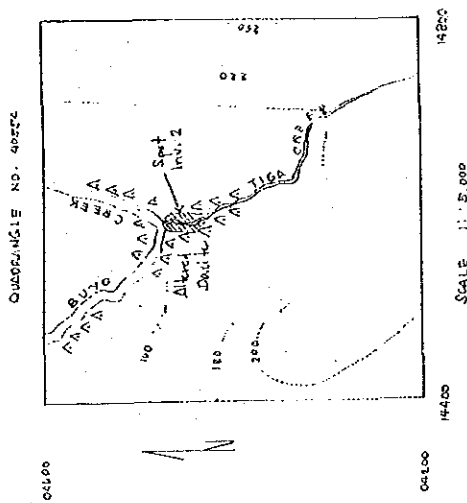
Data sheet for Mineral Prospects (1)

Survey Area	Mineral Prospects No. 3	
OLI CREEK		
#LAWAAN, Locality WRIGHT, W. SAMAR	1/50,000 Topographic Map No. 40554	# X Coordinates ~14500 # Y Coordinates ~06600
Altitude ~200 m. (m)		
Survey date AUGUST 4, 1987	Surveyor # M. AURELIO	
Compiling data (file No.)	Owner of Mining right	
Metallogenic province MAGMATIC ARC	Type of Ore deposits KUROKO TYPE	Country rock of Ore Deposits PACIFIC ROCK
Ore mineral Assemblage	By field observation # Pyrite - Chalcopyrite	By micro-scope
		By X-Ray Diffraction
Gage mineral Assemblage	By field observation #	By microscope
		By X-Ray diffraction
Alter-ation mineral Assemblage	By field observation # Iron oxides/sulphides	By micro-scope
		By X-Ray Diffraction
Combination of Country rocks #		

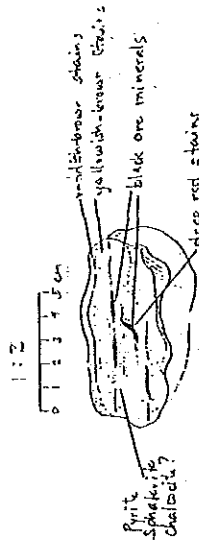


SPOT INVESTIGATION NO. 2  
 TIGA CREEK  
 AUGUST 5, 1967  
 M. AURELIO

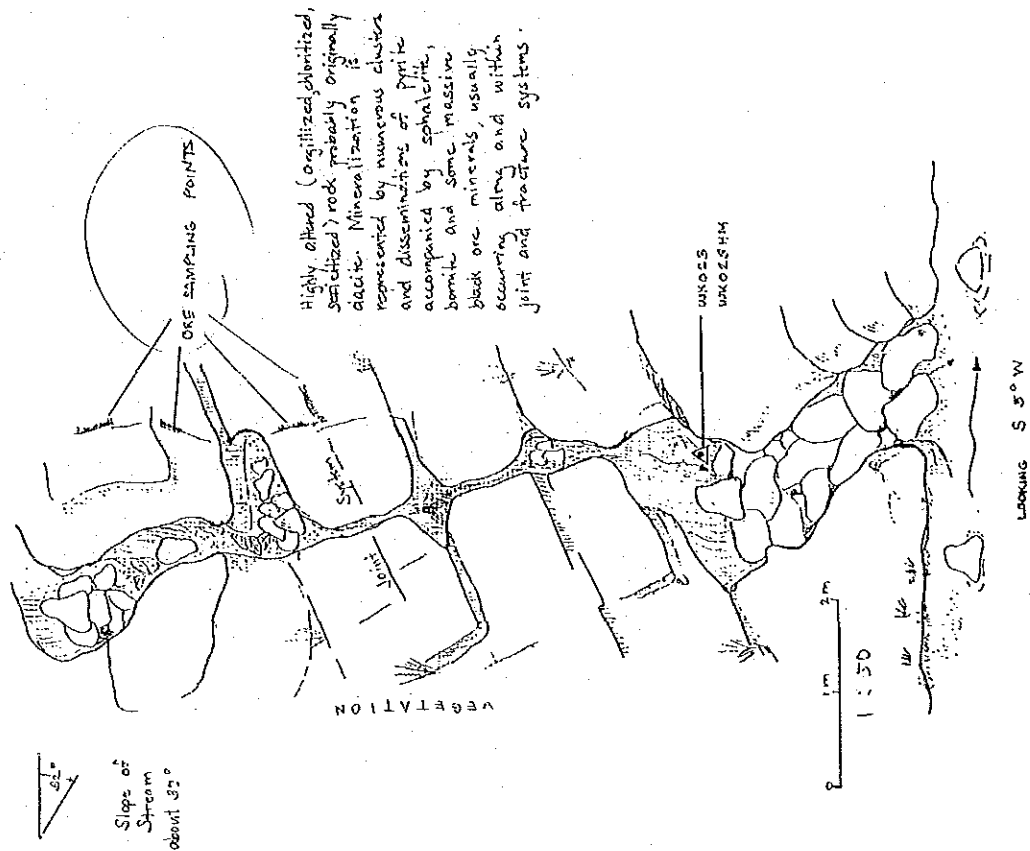
鉱産地調査 ルートマップ/スケッチ



SCALE 1:5,000



Hand specimen indicates that mineralization occurs in between microstructures (stratification, micro-fractures etc.). Ore mineral concentrations are common along joint fractures cross cutting throughout the rock. The outer edges of the rock are altered by reddish-brown stains grading into yellowish brown. Sometimes accompanying black ore minerals are deep red stains.





## **Appendix 12**

### **Microscopic Observation List**



Appendix 12-1 Microscopic Observation List (Thin Section)

(Palawan V Area)

Sample No.	Rock Name	Minerals and Rocks	Texture
NA-039	Radiolarian chert	McQz, Fe-hyd, Cm	
NE-002	Sandstone	Qz, K-Fel, Pl, Bi, My, Cal; Ch, Cha, Silt	
NF-033	Sandstone	Qz, K-Fel, Pl, Mi, Bi, Zi, Chl; Ch, Silt, Sh	
NF-092B	Basalt	Pl, Il, Fe-hyd	
NK-022	Radiolarian chert	McQz, Ill, Chl, Cm, Fe-hyd	

(Palawan VI Area)

Sample No.	Rock Name	Minerals and Rocks	Texture
SLR-12	Hb-Bi-granodiorite	Qz, K-Fel, Pl, Bi, Hb, Mt, Ap, Chl, Ep	Holocrystalline equigranular texture
SW-033R	Dacite	Pl, Mf, Qz, Fel, Hb, Ep, Hm	
SV-010R	Olivine-gabbro	Pl, Cpx, OPx, Ol, Mt, Pi	Holocrystalline equigranular texture
SLR-2	Hb-Px-gabbro	Pl, Cpx, OPx, Hb, Mt	Holocrystalline equigranular texture
SXR-3	Pyroxenite	CPx, Opx, Ol, Im	
SPR-5	Basalt	Mt, Pl, Cpx, OPx, Chl, Cal	Intersertal texture
SPR-28	Fel-phyric dolerite	Pl, Mf, Pl, CPx, OPx, Il, Chl, Cal	Intergranular texture
SOR-22	Gabbro	Pl, CPx, Bi, Mt, Ap, Serp, Pre, Cal	Holocrystalline equigranular texture
SOR-39	Basalt	Pl, Mf, CPx, OPx, Il, Chl, Cal	Intergranular texture
SPR-1	Act-schist	Act, Ep, Alb, Qz, Spe, Fe-ox	

## (West Negros Area)

Sample No.	Rock Name	Minerals and Rocks	Texture
BL-69R	Spessartite	Pl, Hb, Mt, Spe, Cal, Chl	Holocrystalline equigranular texture
BL-48	Hb-gabbro	Qz, Pl, Hb, CPx, OPx, Mt, Ap, Chl, Ep, Cal	Holocrystalline equigranular texture
BL-202	Qz-diorite	Qz, K-Fel, Pl, Hb, Mt, Bi, Ap, Spe, Chl, Ep	Holocrystalline equigranular texture
BL-203	Bi bearing diorite	Qz, K-Fel, Pl, Bi, Hb, Mt, CPx, OPx, Ap, Spe, Zi, Chl	Holocrystalline equigranular texture
BL-200	Qz-diorite	Qz, K-Fel, Pl, Hb, Bi, CPx, OPx, Mt, Ap, Spe, Chl, Ep	Holocrystalline equigranular texture
FR-04	Qz-diorite	Qz, K-Fel, Pl, Hb, Bi, CPx, OPx, Mt, Ap, Zi, SPe, Chl, Ep, Cal	Holocrystalline porphyritic texture
BK-55	Basalt	Pl, CPx, OPx, Mt, Cal	Intersertal texture
BL-201	Basalt tuff	Pl, Hb, Mt, Bi, Qz, Amp: Basalt	
FR-32	Porphyrite	Pl, Hb, Mt, Ap, Qz, K-Fel, Chl, Cal, Ep	Holocrystalline porphyritic texture
FR-21	Basalt	Pl, Mf, Mt, Chl, Ep, Spe	Intersertal texture

## (Samar I Area)

Sample No.	Rock Name	Minerals and Rocks	Texture
NG-02R	Basalt	Pl, OPx, Pl, CPx, Mt, Cal, Chl, Zo	Integranular texture
NG-05R	Dacite	Qz, Pl, Mt, Chl, Zo, Ap, Spe	Felsitic texture
NK-01R	Aphyric andesite	Pl, CPx, Mt, Opx, Qz, Il	Hyalopilitic texture
NK-03R	Basalt	Pl, Mf, CPx, Opx, Mt, Chl, Cal	Integranular texture
NK-08R	Basalt	Pl, CPx, Opx, Mt, Qz, Chl	Integranular texture

## (Samar II Area)

Sample No.	Rock Name	Minerals and Rocks	Texture
EN-09	Limestone	Cal, Foraminifera	
EJ-01	Two-Px-andesite	Pl, CPx, OPx, Mt, Ap, Spe	Intersertal texture
EQ-03R	Hb-gabbro	Pl, Hb, Tre, Bi, Mt, Cal, Chl, Spe	Holocrystalline equigranular ~ porphyritic texture
EF-01R	Harzburgite	OPx, Ol, Chr, Mt, Ta	Holocrystalline equigranular exture
EH-04R	Lherzolite	OPx, CPx, Ol, Pi, Mt	Holocrystalline equigranular exture

## (Samar III Area)

Sample No.	Rock Name	Minerals and Rocks	Texture
WB-001	Dacitic tuff	Q, K-Fel, Pl, Ser, Chl, Ep, Ap, Pyrite	
WE-009R	Diorite	Pl, CPx, OPx, Hb, Qz, Mt, Spe, Ap	Holocrystalline equigranular exture
WF-003R	Hb-gabbro	Pl, Hb, SPe, Mt, Il	Holocrystalline equigranular exture
WG-005	Andesite	Pl, Mf, Qz, Chl, Ep, Spe, Cal, Pyrite	
WK-02R	Dacitic tuff	Qz, Pl, Ser, Chl, Fe-hyd, Pyrite	
WK-012R	Dacite	Qz, Pl, K-Fel, Mt, Chl, Ep, Ser, Zo, Spe, Ap	
WL-010R	Diorite-porphyrite	Pl, Hb, K-Fel, Qz, Mt, Ap	Holocrystalline equigranular exture
WL-014R	Dacitic tuff	Qz, Pl, K-Fel, Chl, Ser, Cal, Ap, Mt, Pyrite	
WN-001R	Qz-diorite	Qz, Pl, CPx, Hb, K-Fel, My, Mt, Ap, Spe	Holocrystalline equigranular exture
WN-003R	Basalt	Pl, CPx, PRx, Chl, Mt, Il, Spe	Basaltic texture

## (Abbreviation)

Act : Actinolite	Hm : Hematite	PRx : Phombic pyroxene
Alb : Albite	Hb : Hornblende	Pi : Picotite
Amp : Amphibole	Il : Ilmenite	Pre : Prehnite
Ap : Apatite	Ill : Illite	Qz : Quartz
Bi : Biotite	Im : Iron mineral	Ser : Sericite
Cal : Calcite	K-Fel: Kalifeldspar	Serp: Serpentine
Ch : Chert	McQz: Microcrystalline quartz	Sh : Shale
Chl : Chalcedony	Mf : Mafic mineral	Silt : Siltstone
Chr : Chromite	Mt : Magnetite	Spe : Spheue
Cm : Clay minerals	My : Myrmekite	Ta : Talc
Ep : Epidote	Ol : Olivine	Tre : Tremolite
Fe-hyd: Fe-hydroxides	Pl : Plagioclase	Zi : Zircon
Fe-ox : Fe-oxides	Px : Pyroxene	Zo : Zeolite
Fel : Feldspar	CPx : Clinopyroxene	
	OPx : Orthopyroxene	

Appendix 12-2 Microscopic Observation List (Polished Section)

(Palawan V Area)

Sample No.	Ore Name	Ore Minerals	Gangue Mineral
NA037	Manganese ore	Cryp, Fe-hyd,	Qz
NA-038	Manganese mineral veinlets	Pyr, Cryp, Hm	
NA-040	Manganese ore	Cryp, Pyr,	Qz
NK-046	Manganese ore	Cryp, Pyr, Psi, Fe-hyd	Qz
T-1	Manganese ore	Cryp, Fe-hyd	Qz

(Palawan VI Area)

Sample No.	Ore Name	Ore Minerals	Gangue Mineral
SOR-37B	Pyrite ore with brownish Cp and Sp	Py, Brownish Cp, Sp	Qz
SMR-1A	Py-Cp-Hm ore	Py, Cp, Hm	
SMR-1B	Pyrite-brownish Cp ore	Py, Brownish Cp, Sp, Hm	Qz
SMR-19A	Brownish Cp-Sp-Py-Mar ore	Py, Mar, Brownish Cp, Sp, Ga	Qz
SMR-9	Sp-Py ore	Py, Sp, Cp	
SLR-10C	Serpentinized peridstite with Gn	Cr, Mt, Gn	
SJ-139	Cp-Qz ore	Cp, Py, Sp, Cv	Qz
BC-1	Py-Brownish Cp ore	Py, Brownish Cp, Sp, Cv	Qz
BC-2	Py-Brownish Cp ore	Py, Brownish Cp, Ga, SP, Cv	Qz
SOR-38A	Mt-Py ore	Mt, Hm, Py, Sp	Qz

(West Negros Area)

Sample No.	Ore Name	Ore Minerals	Gangue Mineral
BA-1	Cp-py ore	Py, Cp, Sp	Qz
BA-2	Bo-Cp ore	Bo, Cp, Cv	Qz, Cal
BA-5	Mo-Cp ore	Mo, Cp, Tet, Bo, Sp, Py	Qz
SI-BG-02	Py (impregnation)	Py, Sp	Qz
SI-BG-04	Py (impregnation)	Py, Sp	
PD-0	Limenite (Fe-hyd)	Fe-hyd, Py, Ga, Sp	Qz
PD-2	Mt in sand	Mt	
SI-BC-01	Py (impregnation)	Py, Sp, Fe-hyd	Qz
C-01A	Cp (-Bo) (impregnation)	Mt, Hm, Cp, Bo, SP, Ga, Cc, Cv	
SI-BM-01	Py (impregnation)	Mt, Py	



(Samar II Area)

Sample No.	Ore Name	Ore Minerals	Gangue Mineral
EN06	Qz-Py ore	Py, Sp	Qz
EN07	Massive Py ore	Py, Sp	
EN08	Qz-Py ore	Py, Sp	Qz
EJ08	Massive Py ore	Py,	Qz
EJ10	Py ore	Py, Sp, Hm	

(Samar III Area)

Sample No.	Ore Name	Ore Minerals	Gangue Mineral
WF002R	Serpentinized peridotite	Cr, Mt, Py	
Spot No. 1	Py-Sp-Cp-Tet ore	Py, Cp, Sp, Tet, Ga, Cv	Ba, Qz
Spot No. 2	Py-Cp ore	Py, Cp, Bo, Sp, Cv	
Spot No. 3	Py-Cp-Sp ore	Py, Cp, Sp	Qz

(Abbreviation)

Ba	: Barite	Hm	: Hematite
Bo	: Bornite	Mo	: Molybdenite
Cc	: Chalcocite	Mt	: Magnetite
Cp	: Chalcopyrite	Mar	: Marcasite
Cr	: Chromite	Psi	: Psilomelane
Cal	: Calcite	Py	: Pyrite
Cryp	: Cryptomelane	Pyr	: Pyrolusite
Cv	: Covellite	Qz	: Quartz
Fe-hyd	: Fe-hydroxides	Sp	: Sphalerite
Ga	: Galena	Tet	: Tetrahedrite
Gn	: Garnierite		



## **Appendix 13**

### **Heavy Mineral Observation List**



Appendix 13-1 Heavy Mineral Observation List  
Mineralogic Composition of Heavy Mineral

(Palawan V Area)

(unit: %)

Sample No.	NC-044	NE-048	ND-028	NF-098	NH-010	NK-022	NM-027	NL-059	NA-026	NB-024
Mineral										
Plagioclase	70	90	97	98	—	5	75	5	50	20
Quartz	2	2	2	1	96	92	20	90	30	70
K-Feldspar	25	5	1	1	2	1	4	2	15	3
Limonite	3	2	—	—	tr.	—	—	—	—	—
Chromite	tr.	1	—	—	—	—	—	tr.	—	—
Fossil	tr.	tr.	—	—	—	—	tr.	—	tr.	—
Hematite	—	tr.	—	—	—	1	tr.	tr.	—	1
Augite	—	tr.	—	—	—	—	—	—	—	—
Rock fragment	—	—	—	tr.	—	1	—	—	1	2
Rutile	—	—	—	—	tr.	—	tr.	—	—	—
Zircon	—	—	—	—	1	—	tr.	—	—	tr.
Hornblende	—	—	—	—	—	—	1	3	4	5

(Palawan VI Area)

(unit: %)

Sample No.	SA-021	SC-017	SE-020	SJ-142	SP-002	SO-010	SX-041	SV-016	SQ-002	SL-003
Mineral										
Magnetite	tr.	—	—	tr.	35	70	50	40	10	50
Ilmenite	tr.	20	—	tr.	5	tr.	2	5	3	10
Quartz	80	5	5	50	15	5	10	10	2	3
Feldspar	8	1	1	3	5	2	1	4	20	—
Hornblende	1	2	—	15	5	—	1	3	20	4
Augite	5	5	3	25	10	3	18	5	37	6
Hematite	4	1	1	3	3	—	1	1	—	1
Limonite	2	—	15	2	2	—	—	1	1	—
Mica	tr.	—	—	—	—	—	—	—	—	—
Apatite	tr.	—	—	—	—	—	—	—	—	—
Magnetite	—	30	50	—	—	—	—	—	—	—
Chromite	—	35	35	tr.	2.0	20	15	30	7	25
Mica	—	tr.	—	2	tr.	—	—	tr.	—	—
Zircon	—	tr.	—	—	tr.	tr.	tr.	—	—	tr.
Apatite	—	tr.	tr.	—	tr.	tr.	tr.	—	—	tr.
Rock fragment	—	—	tr.	—	—	—	tr.	1	—	—
Plagioclase	—	—	—	—	—	—	—	—	—	1
Rutile	—	—	—	—	—	—	—	—	—	tr.

## (West Negros Area)

(unit: %)

Sample No.	BB-001	BB-099	BC-050	BD-112	BF-022	BG-068	BH-021	BK-047	BL-009	BM-111
Mineral										
Magnetite	10	65	90	50	75	7	10	3	65	4
Hematite	3	2	1	5	1	3	5	3	3	5
Ilmenite	tr.	3	tr.	3	2	2	1	tr.	2	—
Hornblende	25	10	2	—	5	50	33	23	3	—
Augite	50	15	3	10	6	5	20	60	5	1
Quartz	4	1	2	3	5	25	15	10	5	10
Mica	1	tr.	tr.	—	—	tr.	tr.	—	tr.	—
Limonite	2	2	1	2	1	1	3	1	2	—
Rutile	tr.	—	—	tr.	—	4	—	—	—	—
Zircon	tr.	—	—	—	tr.	tr.	—	—	tr.	—
Chromite	3	—	1	27	4	3	3	tr.	15	—
Feldspar	—	tr.	—	tr.	1	—	10	1	tr.	—
Pyrite	—	tr.	—	—	—	—	—	—	—	80
Apatite	—	—	—	—	tr.	—	tr.	—	tr.	—

## (Samar I-III Area)

(unit: %)

Sample No.	EG-003	EM-013	EP-003	EP-004	EP-010	WE-100	WH-001	WN-030	WP-029
Mineral									
Magnetite	8	5	35	3	10	5	30	3	25
Chromite	65	35	30	65	50	70	25	30	20
Ilmenite	15	12	15	17	10	13	10	20	18
Hematite	5	3	2	5	5	3	7	40	3
Fe oxide	2	tr.	tr.	3	3	—	2	2	tr.
Olivine	tr.	2	tr.	—	2	2	8	tr.	4
Diopside	3	40	8	2	5	2	10	—	20
Augite	tr.	3	3	—	—	1	3	5	5
Hypersthene	—	tr.	—	—	—	—	1	tr.	2
Hornblende	—	—	—	—	tr.	2	—	—	tr.
Epidote	tr.	—	—	—	2	tr.	tr.	—	tr.
Plagioclase	2	—	5	3	10	2	4	—	3
Quartz	tr.	—	2	2	3	tr.	tr.	—	tr.
Pyrite	—	—	—	—	—	tr.	—	—	—
Zircon	tr.	—	tr.	—	tr.	tr.	tr.	—	—
Gold (?)	—	—	—	—	—	—	tr.	—	—

## **Appendix 14**

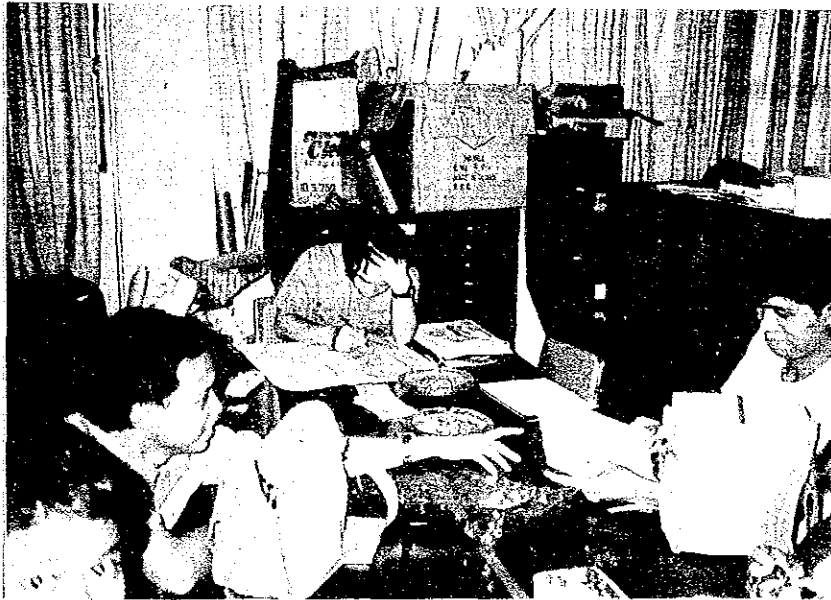
### **Photographs of Samar Survey Field**





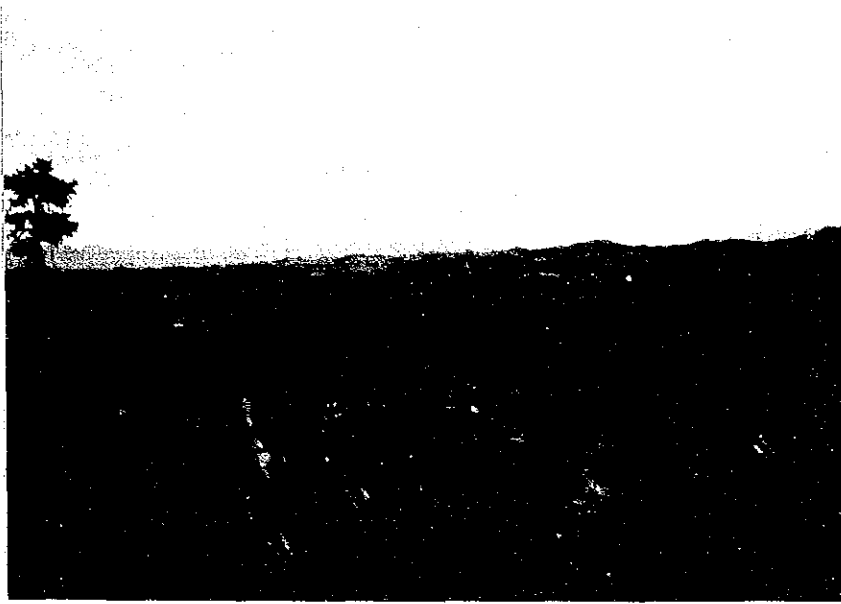


Stream sediment sample sieving



Data arrangement in PETROLAB



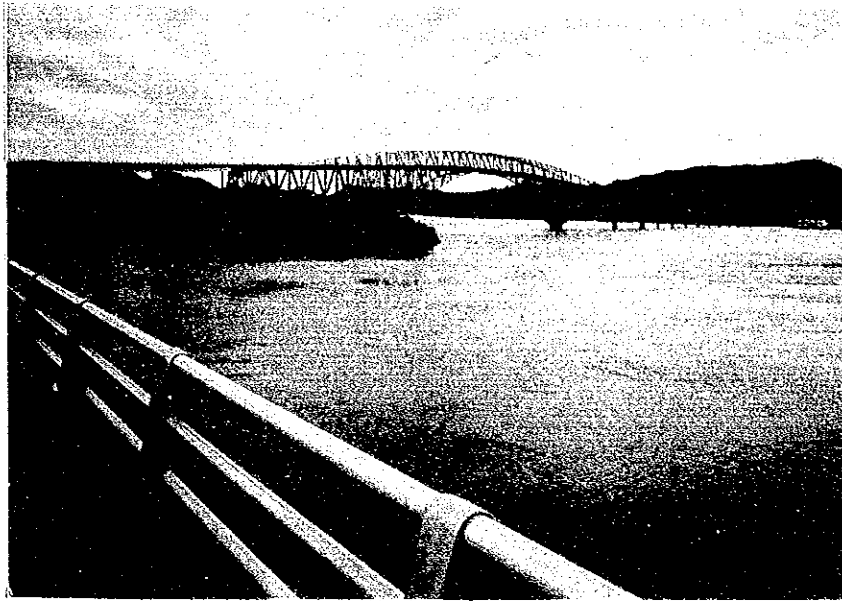


Mountain view in Samar III area



Access to Branch Camp with Banca boat.





Fan Fanico Bridge  
(Between Samar Is. to Leyte Is.)



Northern view from Samar Cross road  
(Western part of Samar III Area)

JICA