



Sample No. 4495

Rock name:

Porphyrite

Open nicol

1 mm



Sample No. 4495

Crossed nicols

1 mm





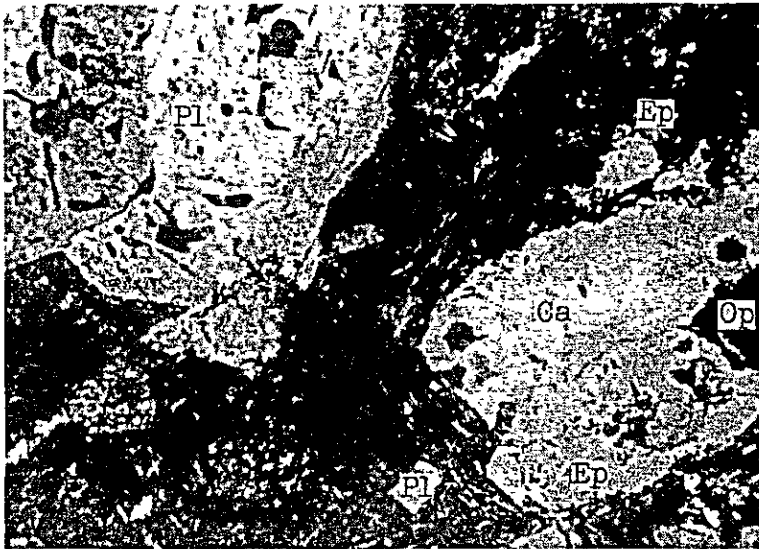
Sample No. 6191

Rock name:

Andesite

Open nicol

1 mm



Sample No. 6218

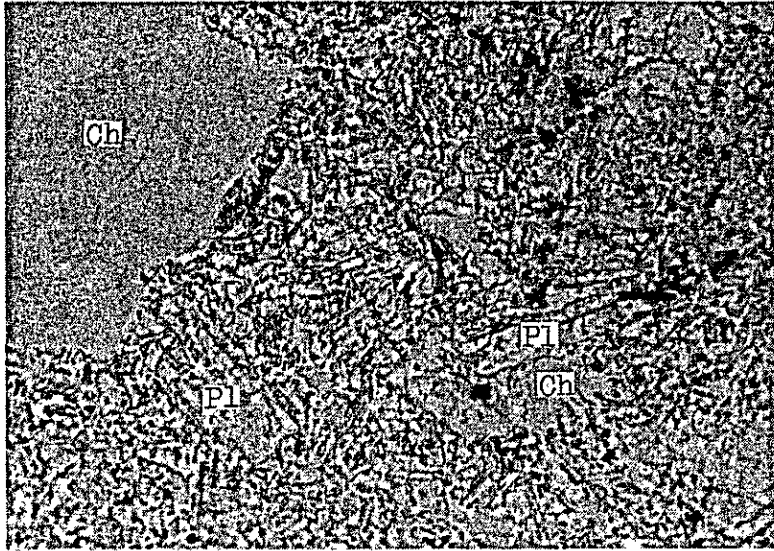
Rock name:

Andesite

Open nicol

1 mm





Sample No. 6274

Rock name:

Porphyrite

Open nicol

1 mm

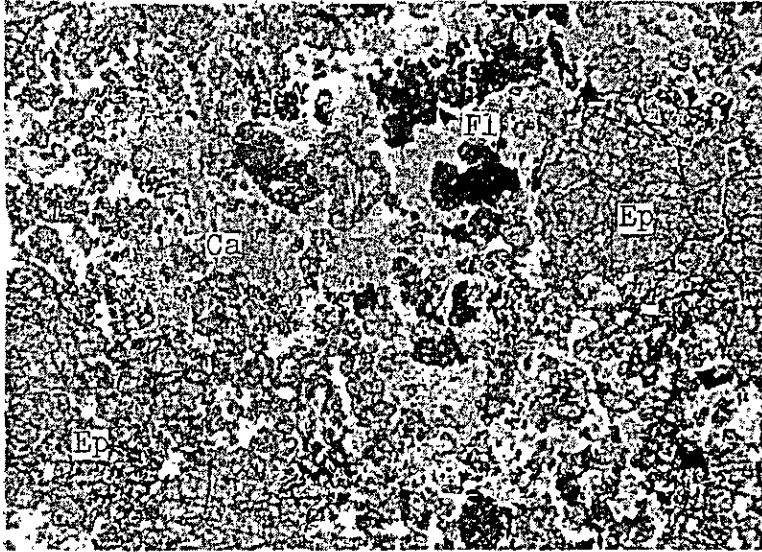


Sample No. 6274

Crossed nicols

1 mm





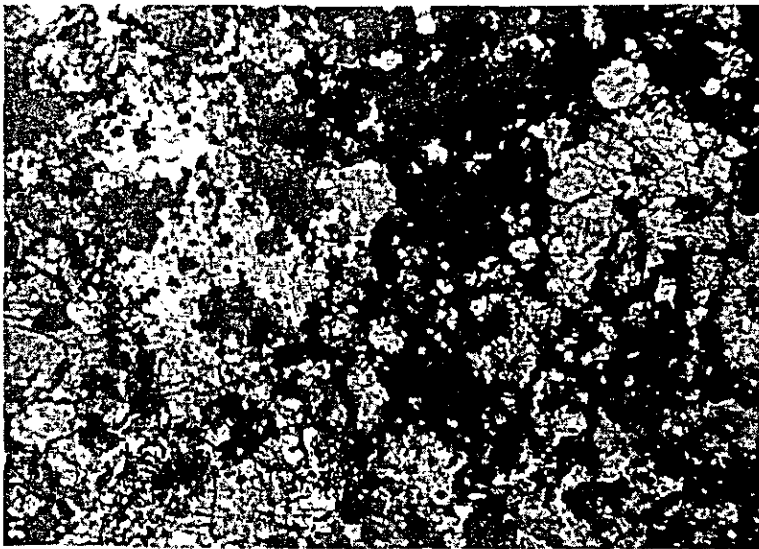
Sample No. 7095

Rock name:

Epidote Fluorite skarn

Open nicol

1 mm



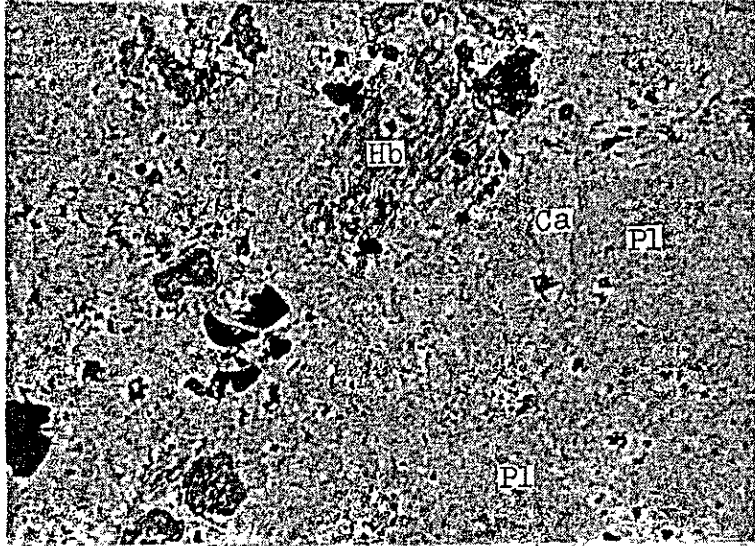
Sample No. 7095

Crossed nicols

1 mm







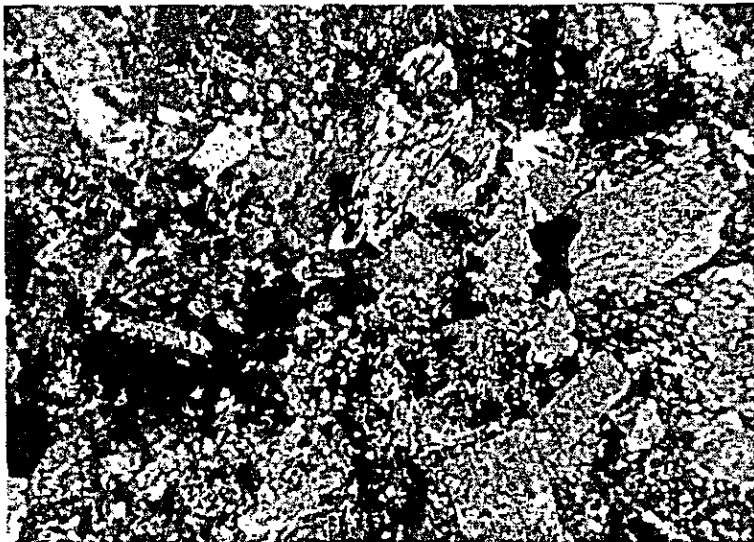
Sample No. 7110

Rock name:

Porphyritic granodiorite

Open nicol

1 mm



Sample No. 7110

Crossed nicols

1 mm





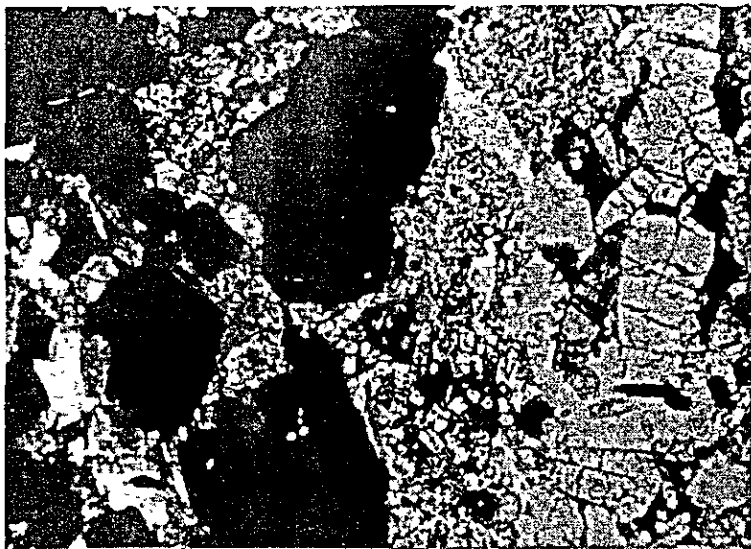
Sample No. 7113

Rock name:

Epidote skarn

Open nicol

1 mm

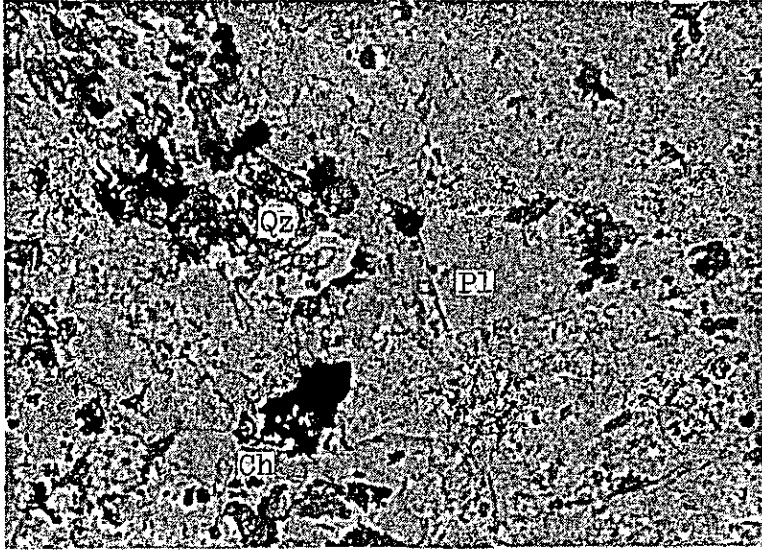


Sample No 7113

Crossed nicols

1 mm





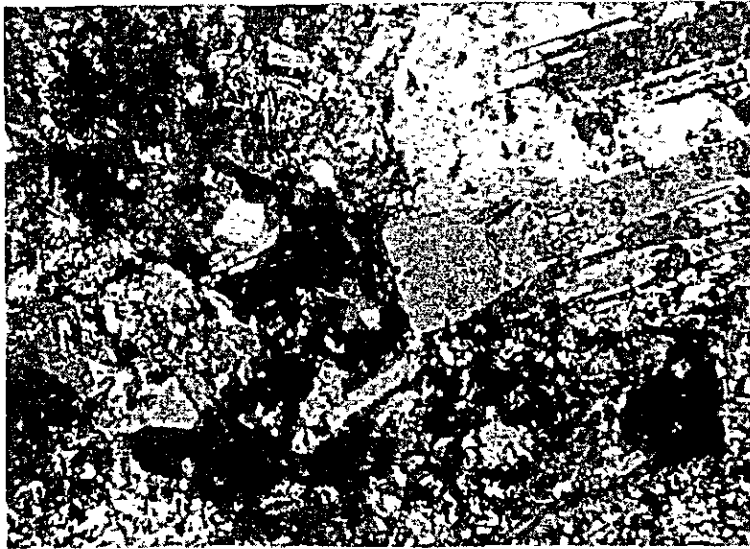
Sample No. 7156

Rock name:

Porphyritic diorite

Open nicol

1 mm

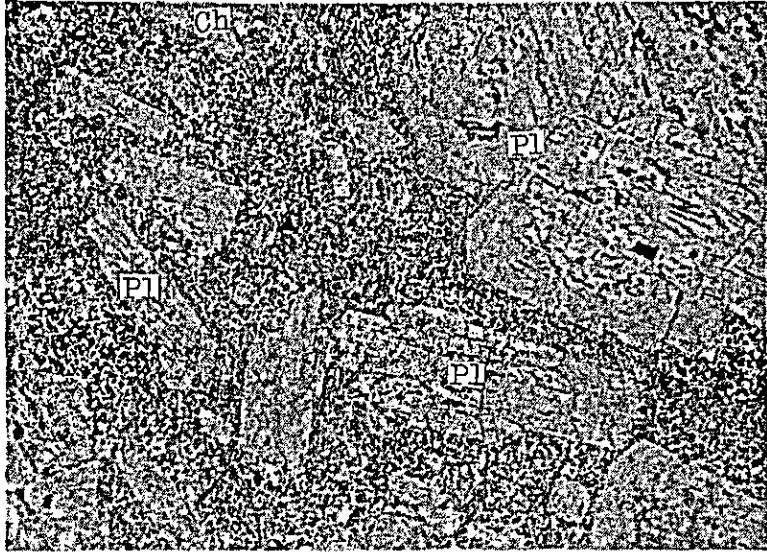


Sample No. 7156

Crossed nicols

1 mm





Sample No. 8115

Rock name:

Meta andesite

Open nicol

1 mm



Sample No. 8115

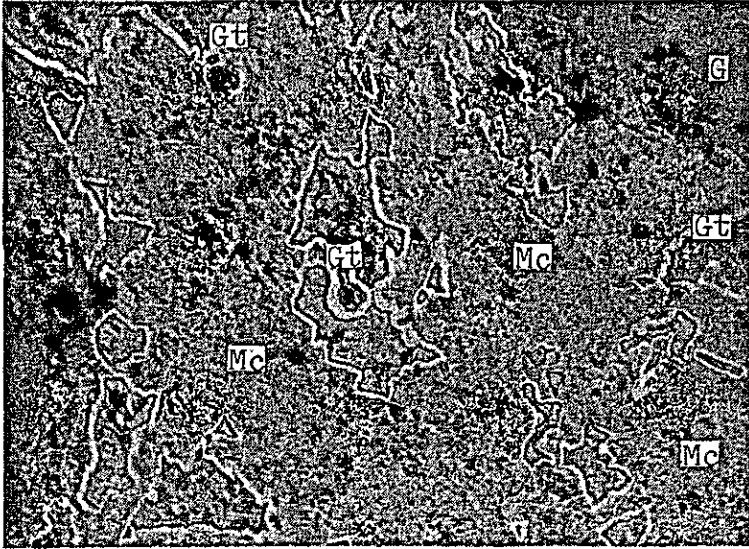
Crossed nicols

1 mm





Polished Sections



Sample No. 72807

Ore minerals:

Malachite, goethite

0.25 mm



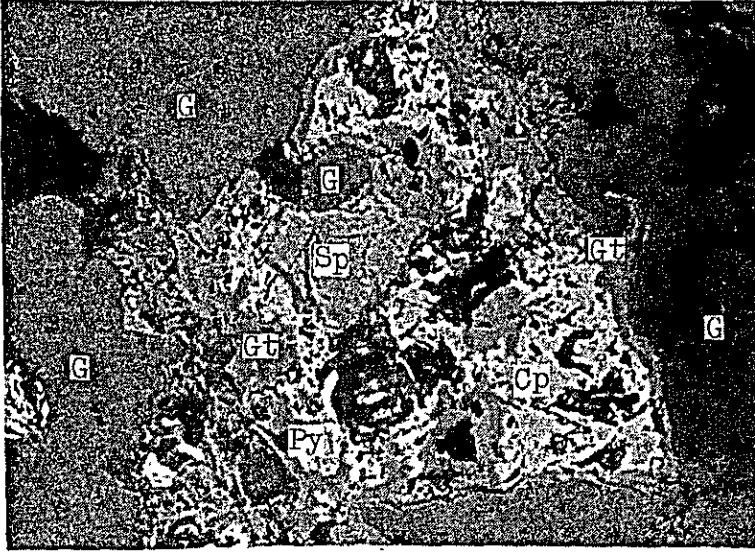
Sample No. 80205

Ore minerals:

Magnetite, hematite

0.25 mm





Sample No. 82409

Ore minerals:

Chalcopyrite, sphalerite,  
goethite and pyrite

0.25 mm



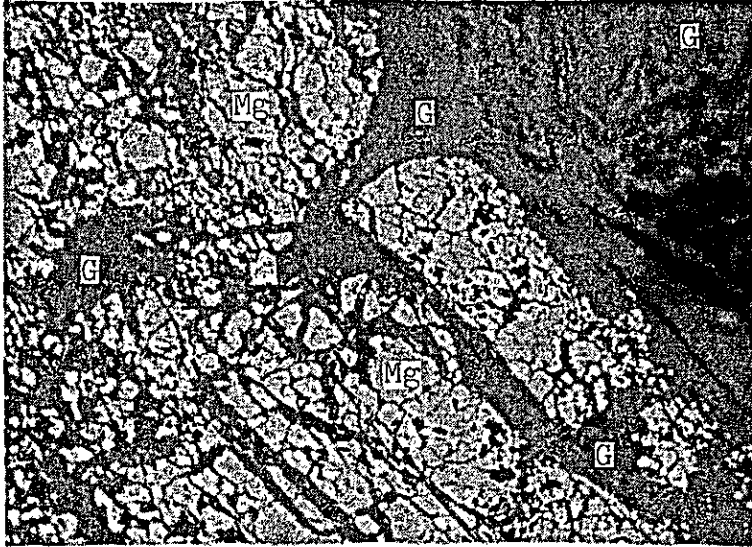
Sample No. 82409

Ore minerals:

Hematite

0.25 mm





Sample No. 80306

Ore mineral:  
Magnetite

0.25 mm

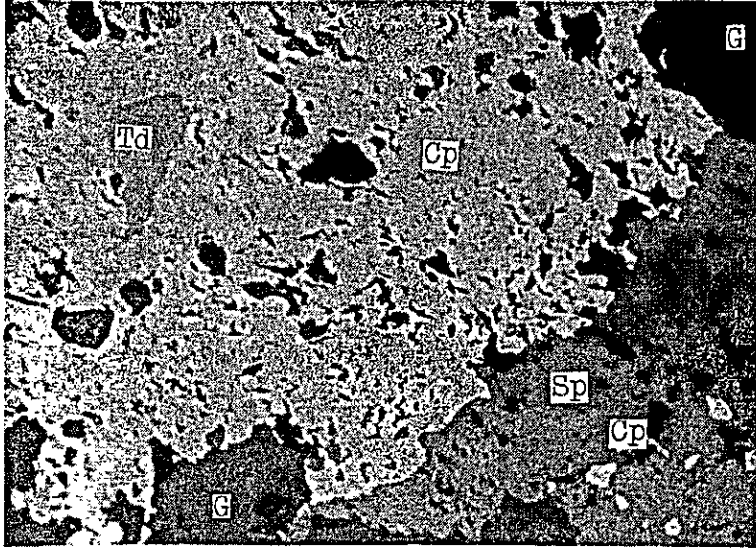


Sample No. 1097

Ore minerals:  
Chlcopyrite, pyrite  
and sphalerite

0.25 mm





Sample No. 2173

Ore minerals:

Chalcopyrite, tetrahedrite  
and sphalerite

0.25 mm



Sample No. 3115

Ore minerals:

Chalcopyrite, pyrite

0.25 mm







Sample No. 3106

Ore minerals:

Sphalerite, chalcopyrite

0.25 mm



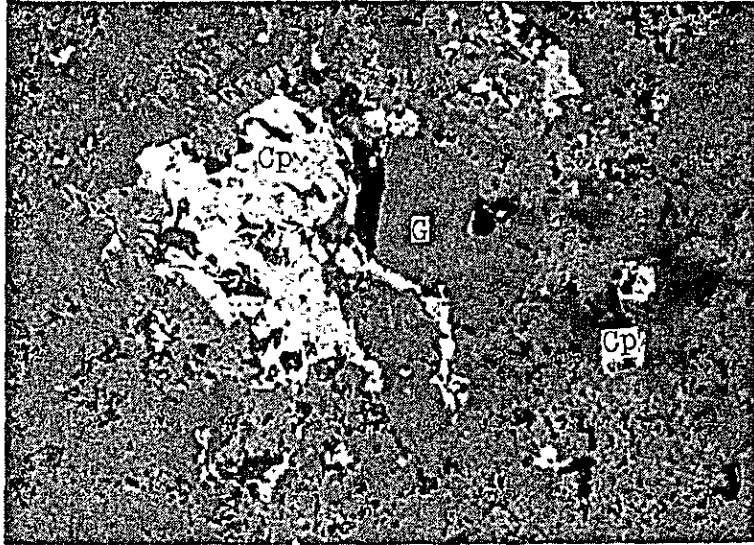
Sample No. 3124

Ore minerals:

Chalcopyrite, sphalerite

0.25 mm



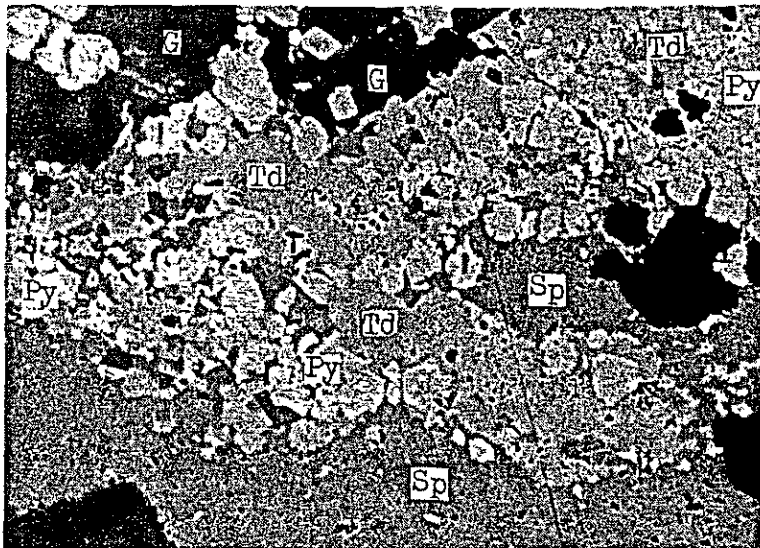


Sample No. 3124

Ore mineral:

Chalcopyrite

0.25 mm



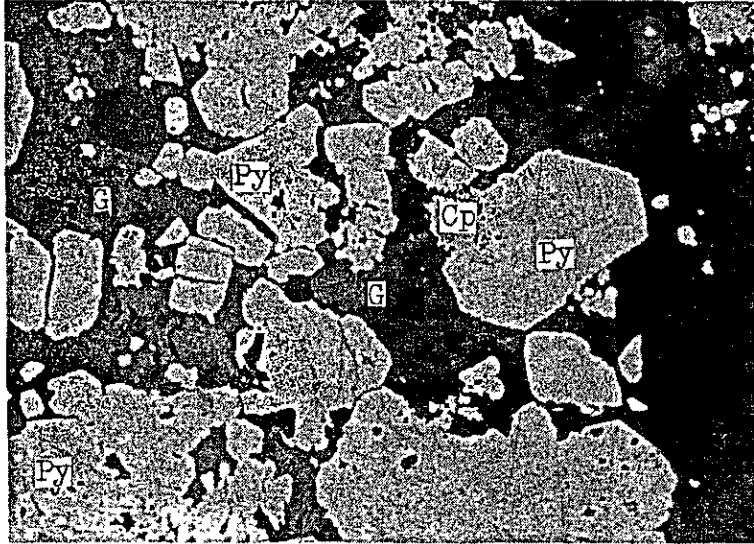
Sample No. 4090

Ore minerals:

Sphalerite, tetrahedrite  
and pyrite

0.25 mm



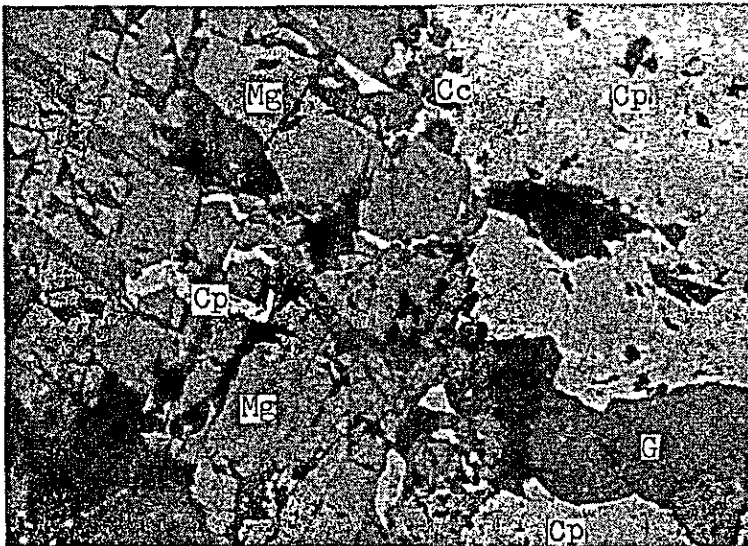


Sample No. 7087

Ore minerals:

Chalcopyrite, pyrite

0.25 mm



Sample No. 7091

Ore minerals:

Chalcopyrite, chalcocite  
and magnetite

0.25 mm

Table I-4 Results of X-ray diffraction test

⊙ Most  
 ⊙ Much  
 ○ Common  
 △ Rare  
 × Very Rare

Minerals	Location	Vueltas del Rio Sector															Minitas Sector						Pueblo Nuevo Sector		
	Sample No.	1050	1097	2050	2173 A B	3020	3050	3057	4068	4083	4090	5007	5050	5056	5072	5098	7082	7091	7095	7113	71705	80205	80306	81901	82409
	DDH No.	53-1	53-1	53-2	53-2	53-3	53-3	53-3	53-4	53-4	53-4	53-5	53-5	53-5	53-5	53-5	53-7	53-7	53-7	53-7					
	Depth (m)	26	97	50	173	20	50	57	68	83	90	7	50	56	72	98	82	91	95	113					
Quartz		⊙	⊙	⊙	⊙ △	⊙	⊙	⊙	⊙	⊙	○	⊙	⊙	⊙	⊙	○	△		△	△	△			⊙	⊙
Calcite			⊙		○						△					△	○		○	△					△
Dolomite																									
Chlorite																			○	⊙					
Kaolinite		○		○		⊙	△	△	○		△	△	○	△	×										
Sericite		○		△		△	△	△	○	○		○	○	△	○										
Ankerite		○			⊙ △																				
Cronstedtite					○																				
Illite		△																							
Talc																	△								
Garnet (Andradite)																	⊙	⊙	○	△	⊙		⊙		○
Epidote			○	○															○	△	⊙				
Pyroxene (Diopside?)										△							△								
Galena					×																				
Sphalerite			○								⊙						△								
Tetrahedrite											△														
Chalcopyrite			⊙		⊙																				
Malachite																								△	△
Azurite																								△	△
Pyrite		△	○		○	△			△	△	△	△		△	△	⊙				⊙					
Magnetite																									
Hematite																			○	△			○	⊙	○
Siderite		○					△	○											△	△			△		○
Grossularite					×																				

—

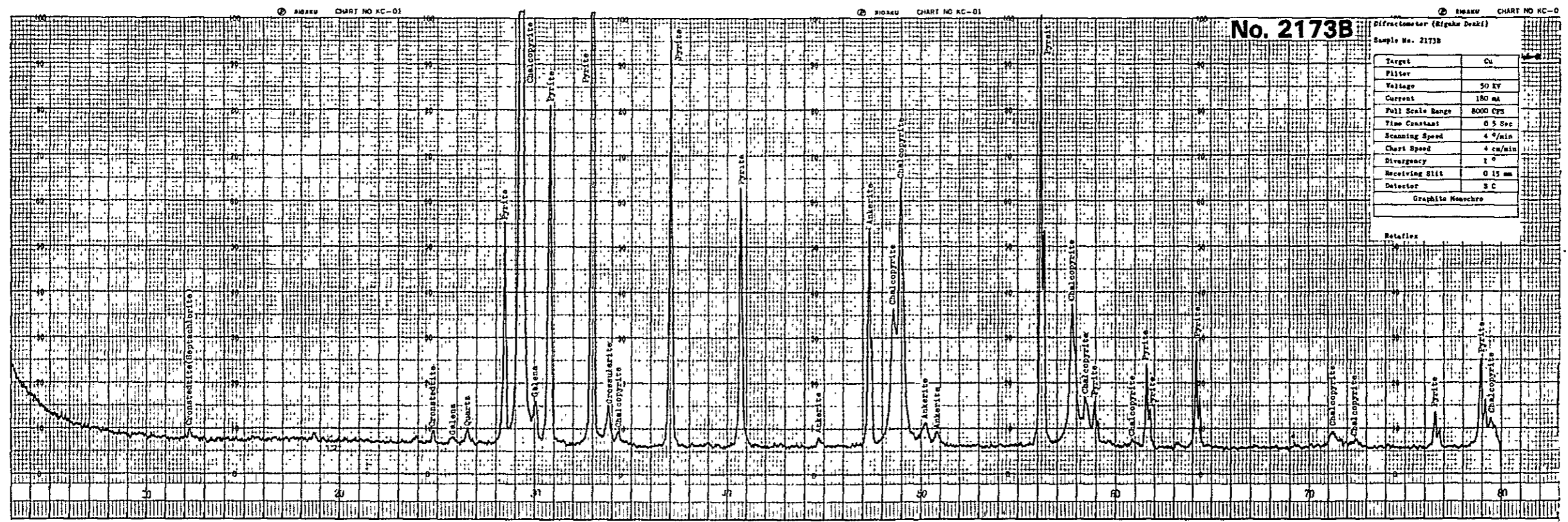
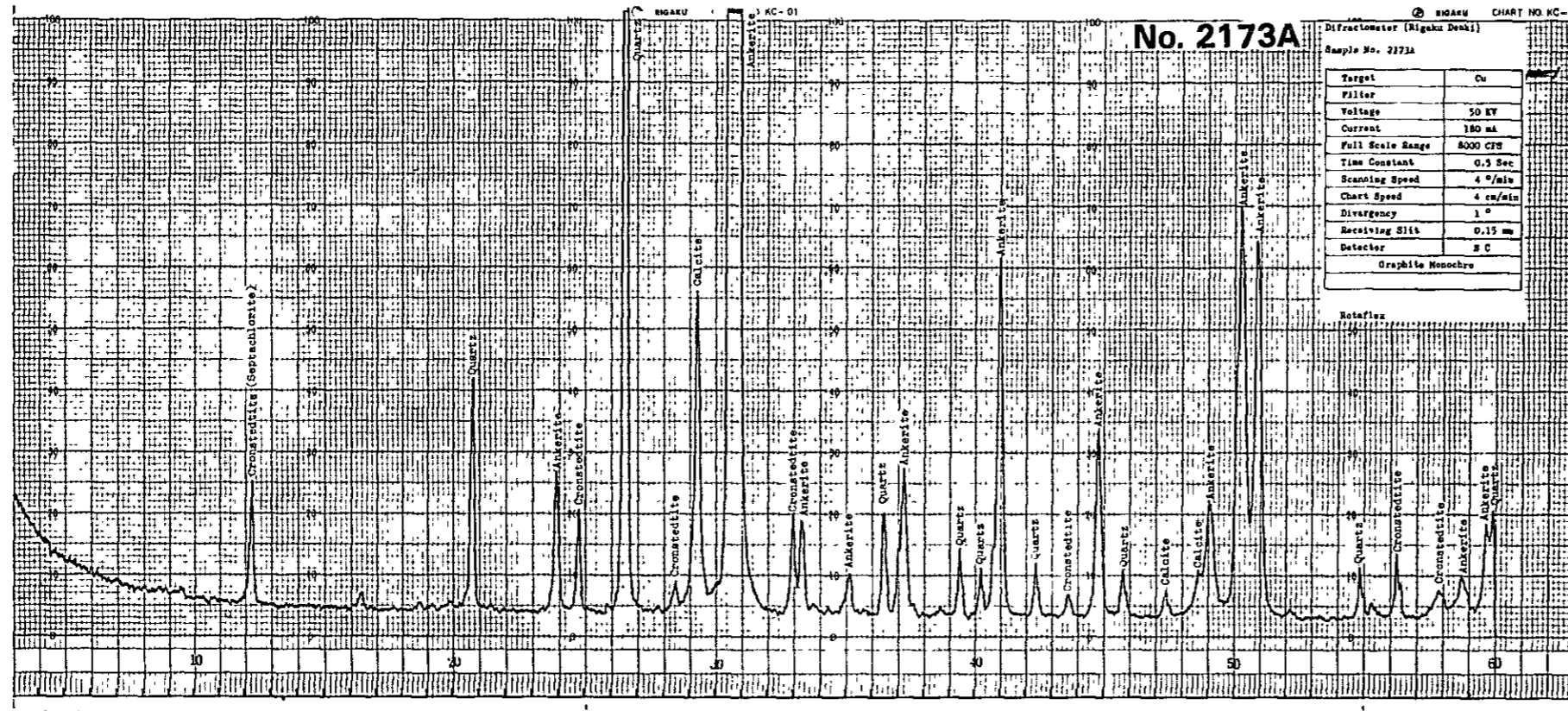
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**Table I—5 Chart of X-ray diffraction test**

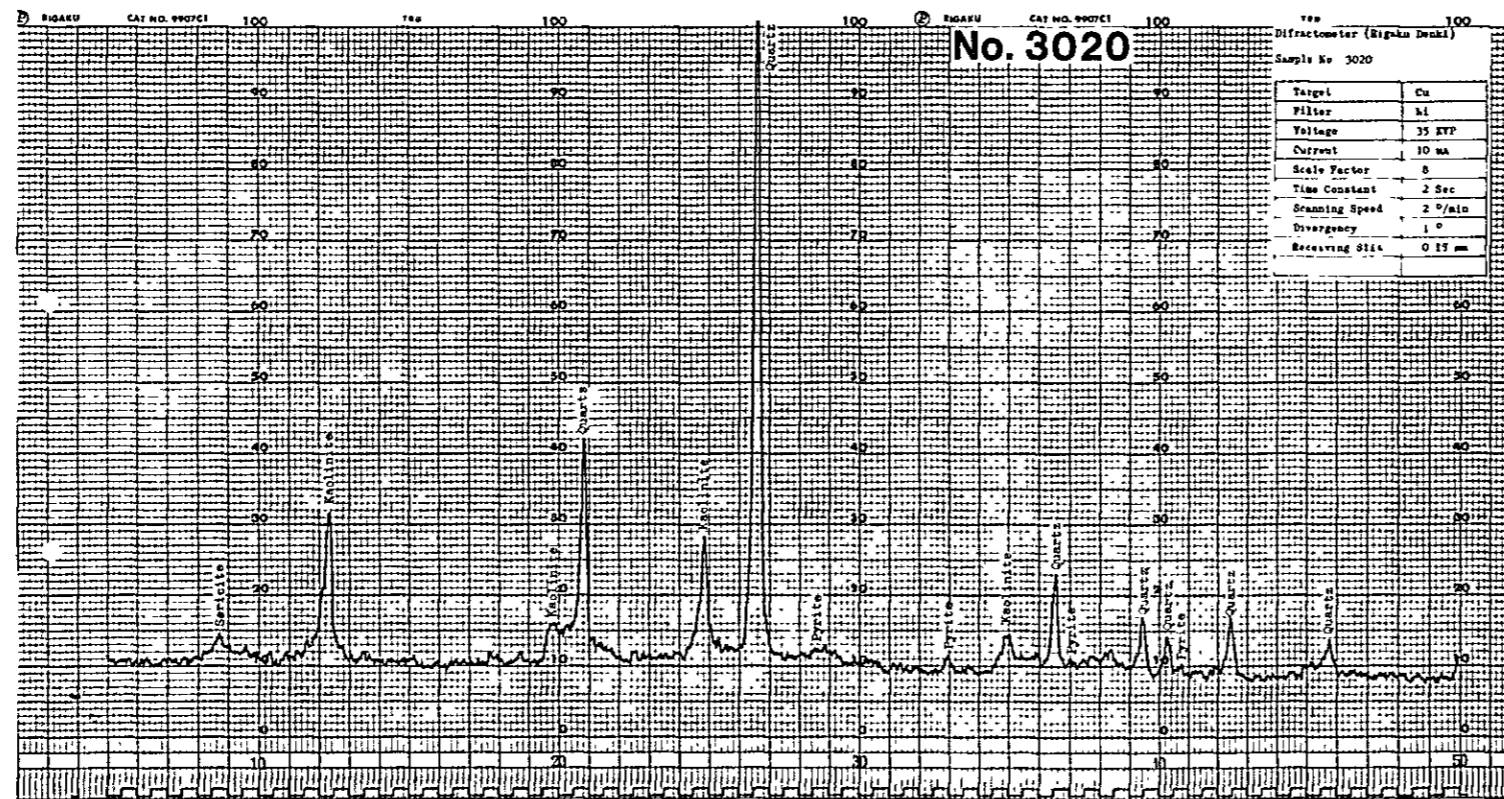
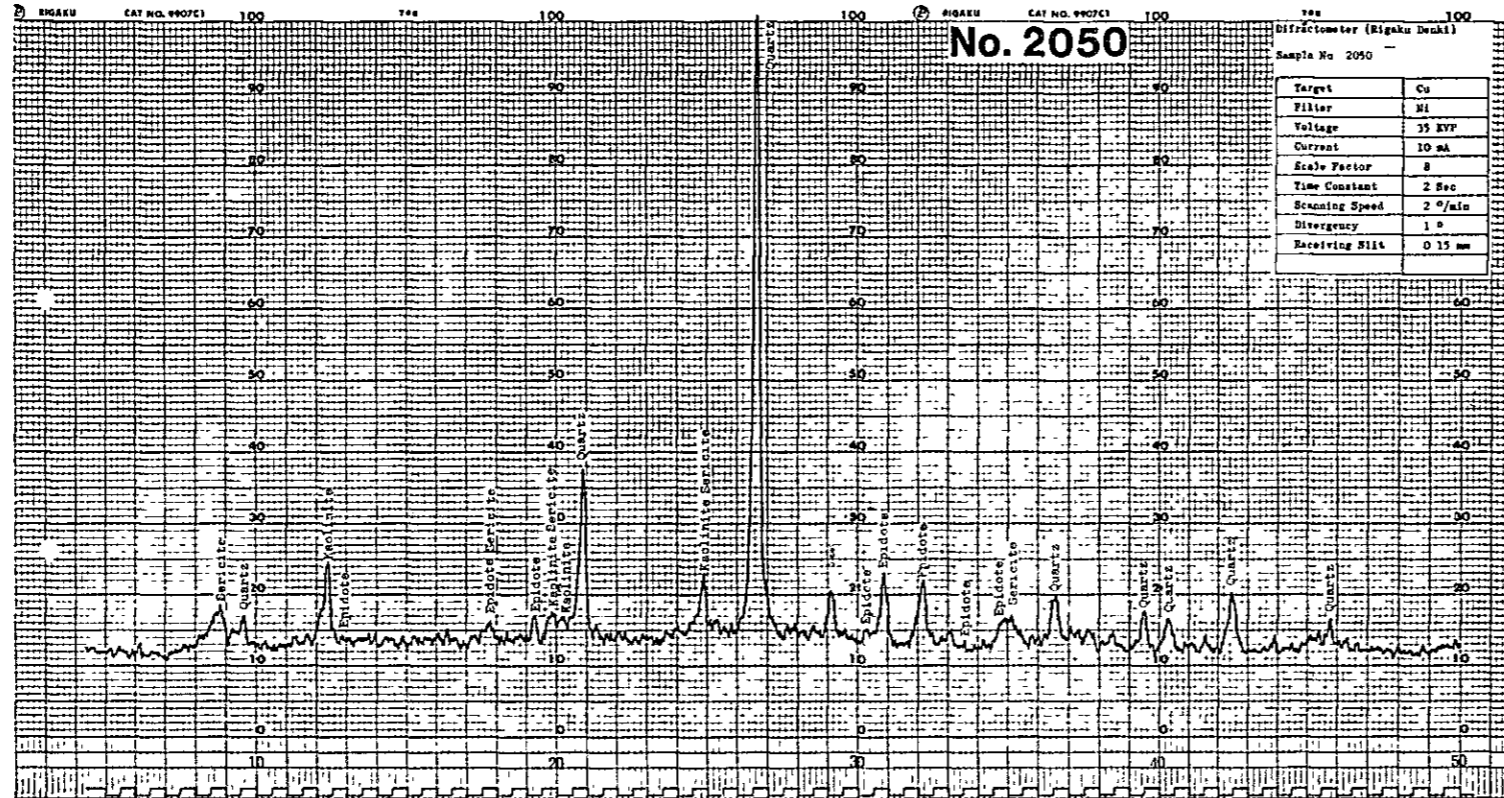
Sector	Sample No.	Rock name
Vueltas del Rio	No. 2173A	Tuff breccia
"	No. 2173B	Tuff breccia with Cu ore
"	No. 1050	Tuff
"	No. 2050	Tuff
"	No. 3020	Welded tuff
"	No. 3050	Welded tuff
"	No. 4083	Silicified tuff
"	No. 4090	Tuff
"	No. 5072	Dacite porphyry
Minitas	No. 7082	Garnet skarn
"	No. 7095	Epidote fluorite skarn
Pueblo Nuevo	No. 81901	Limestone with Cu ore
"	No. 82409	Liparite with Fe-Cu-Zn ore
:		

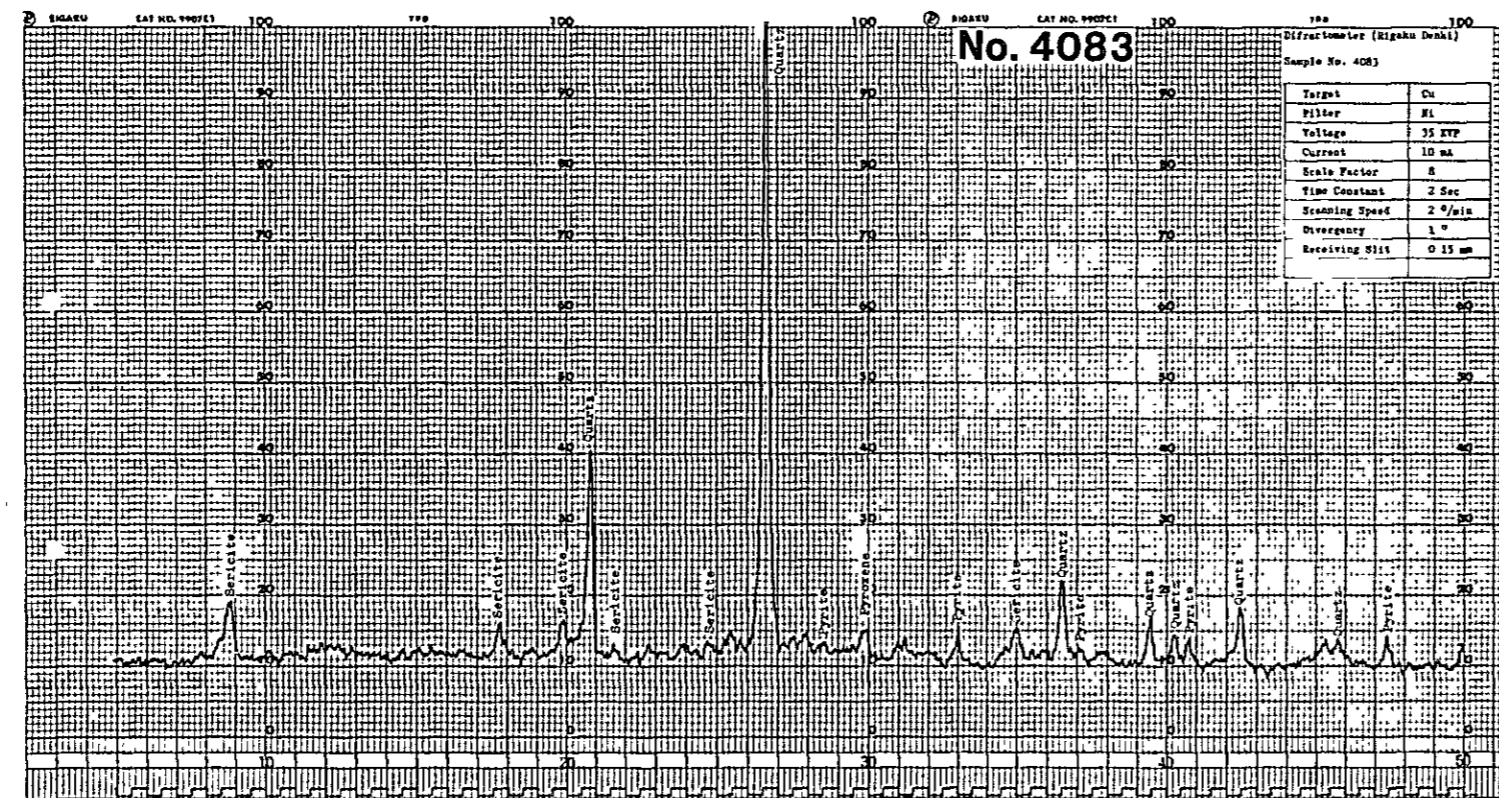
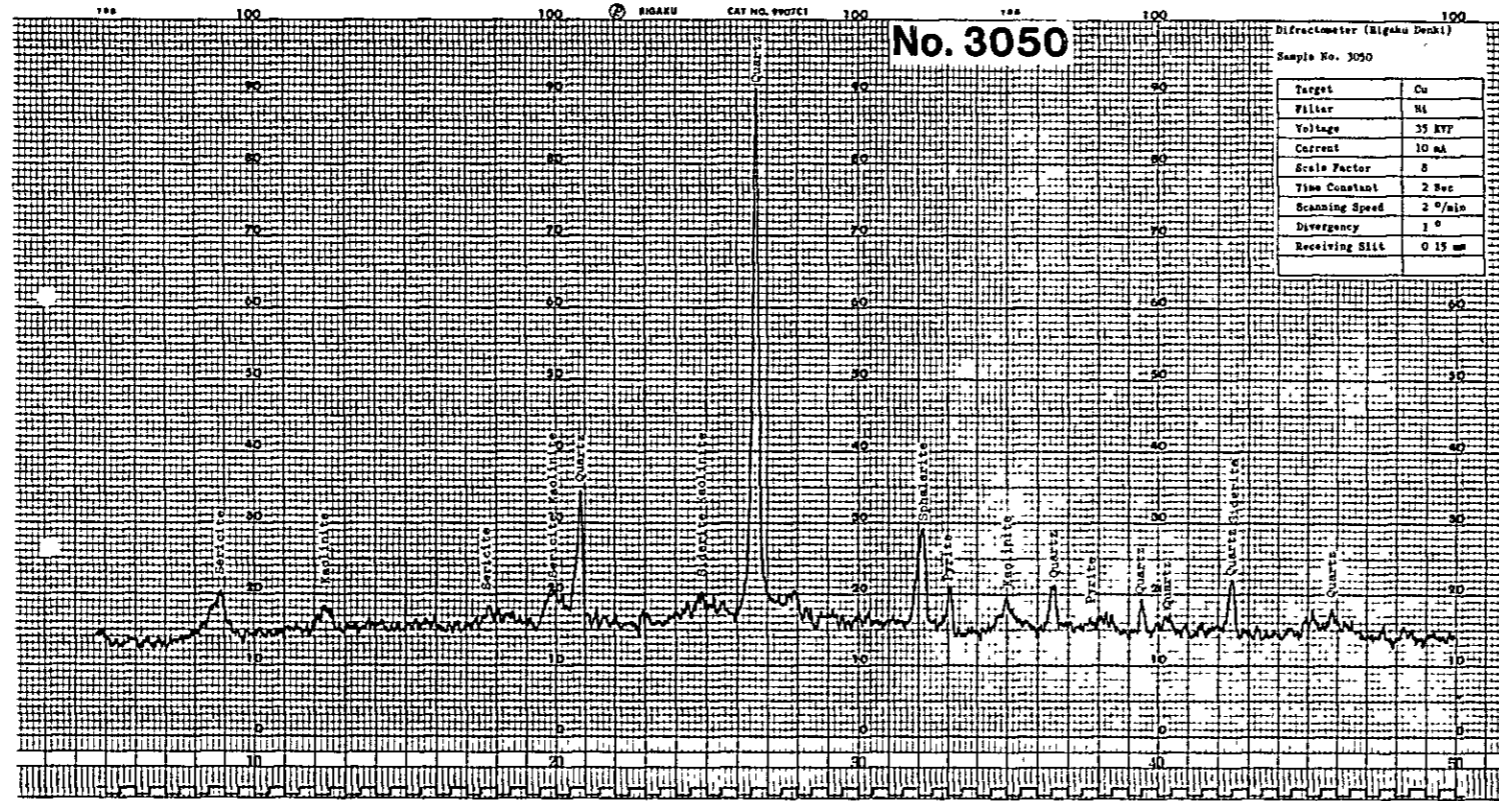


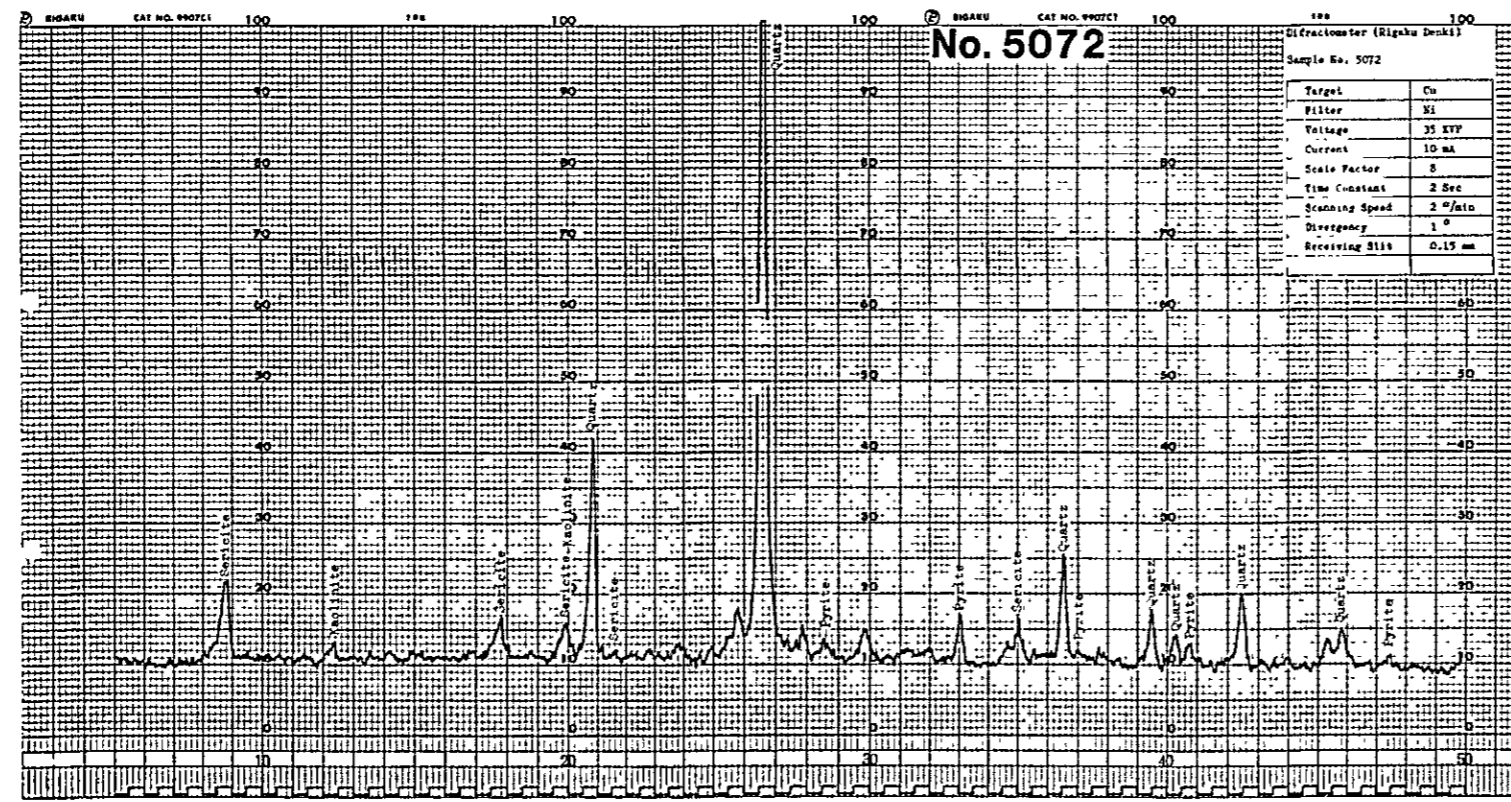
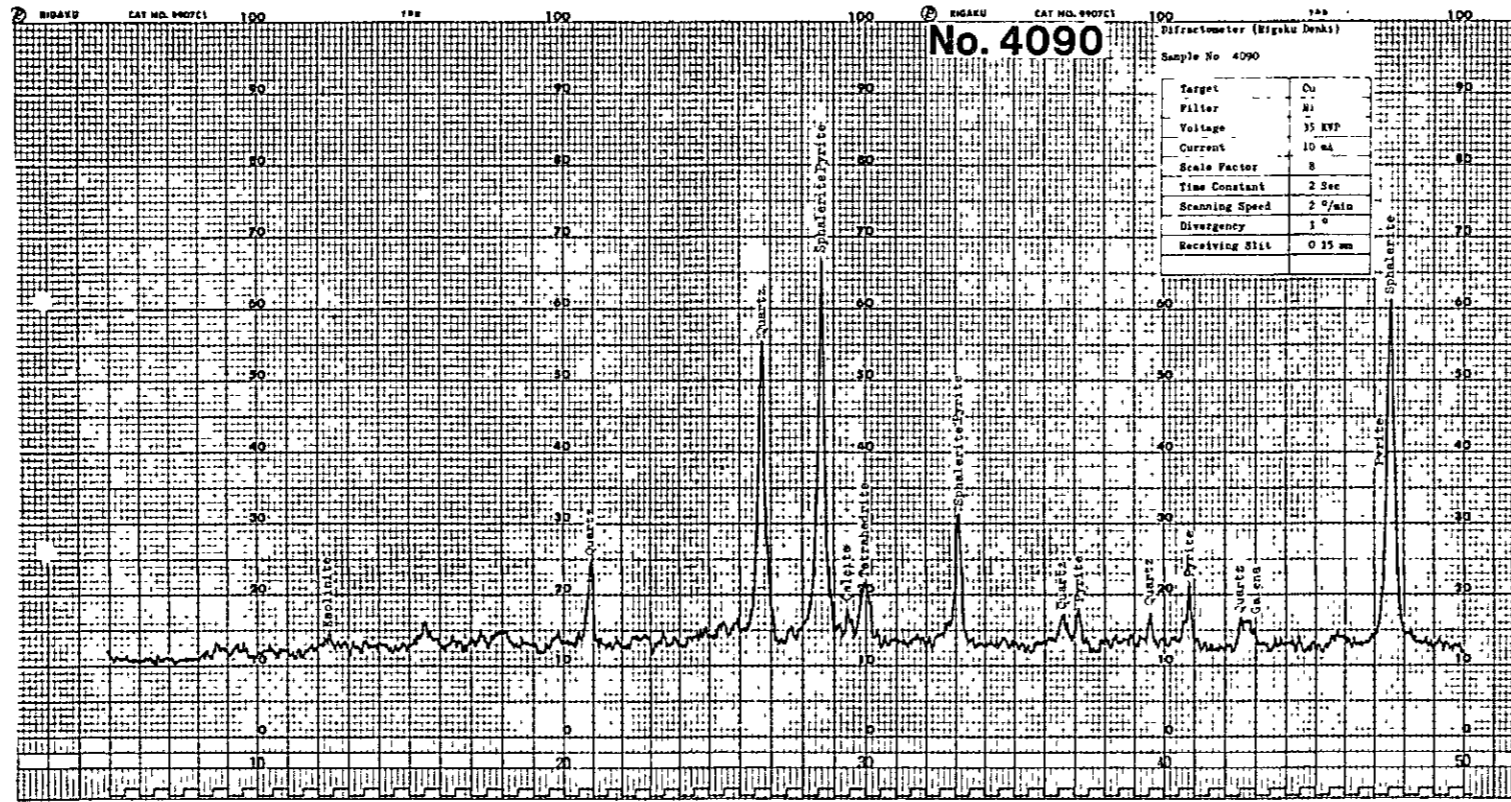
Table I-5 Chart of X-ray diffraction test

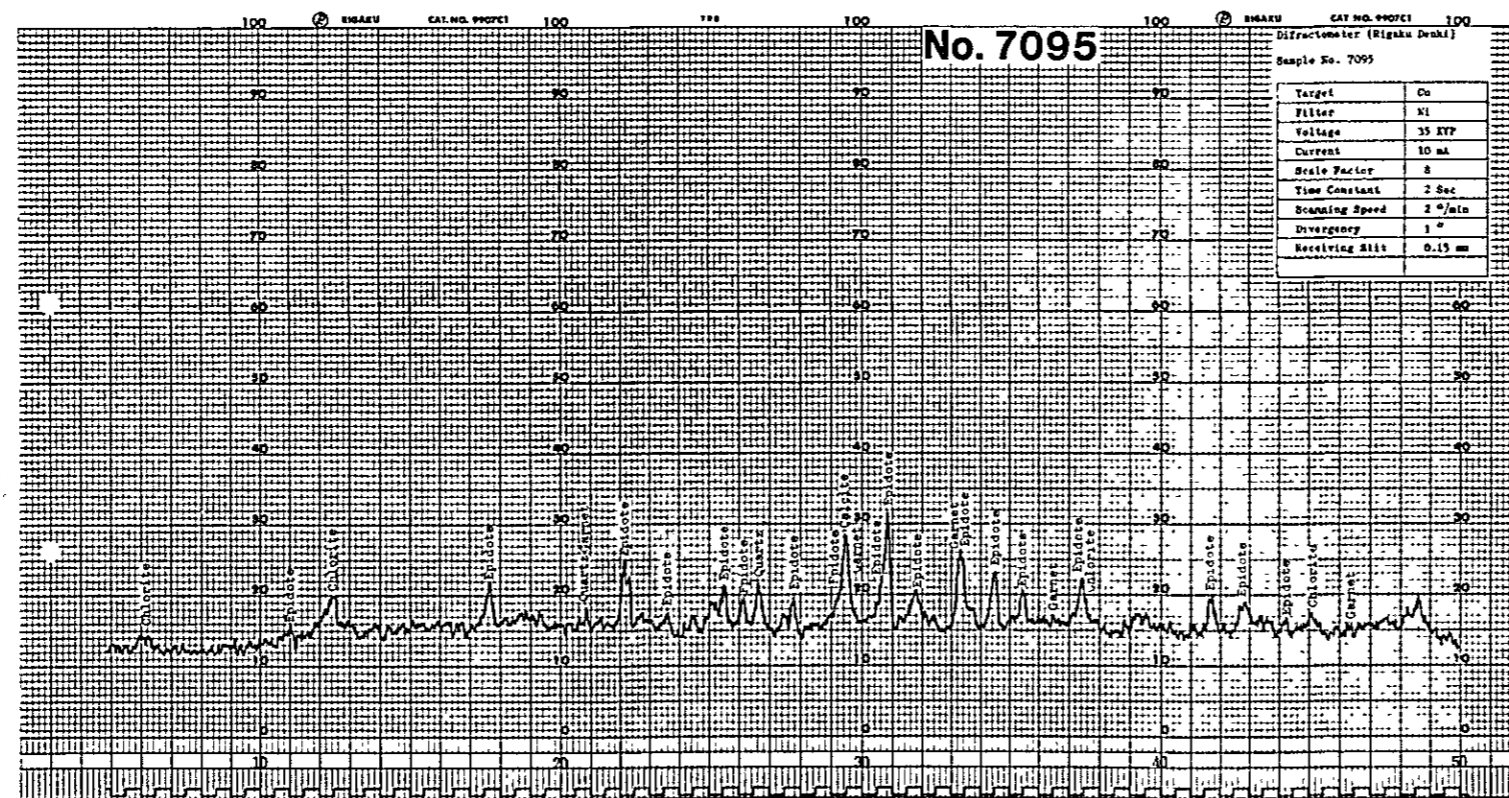
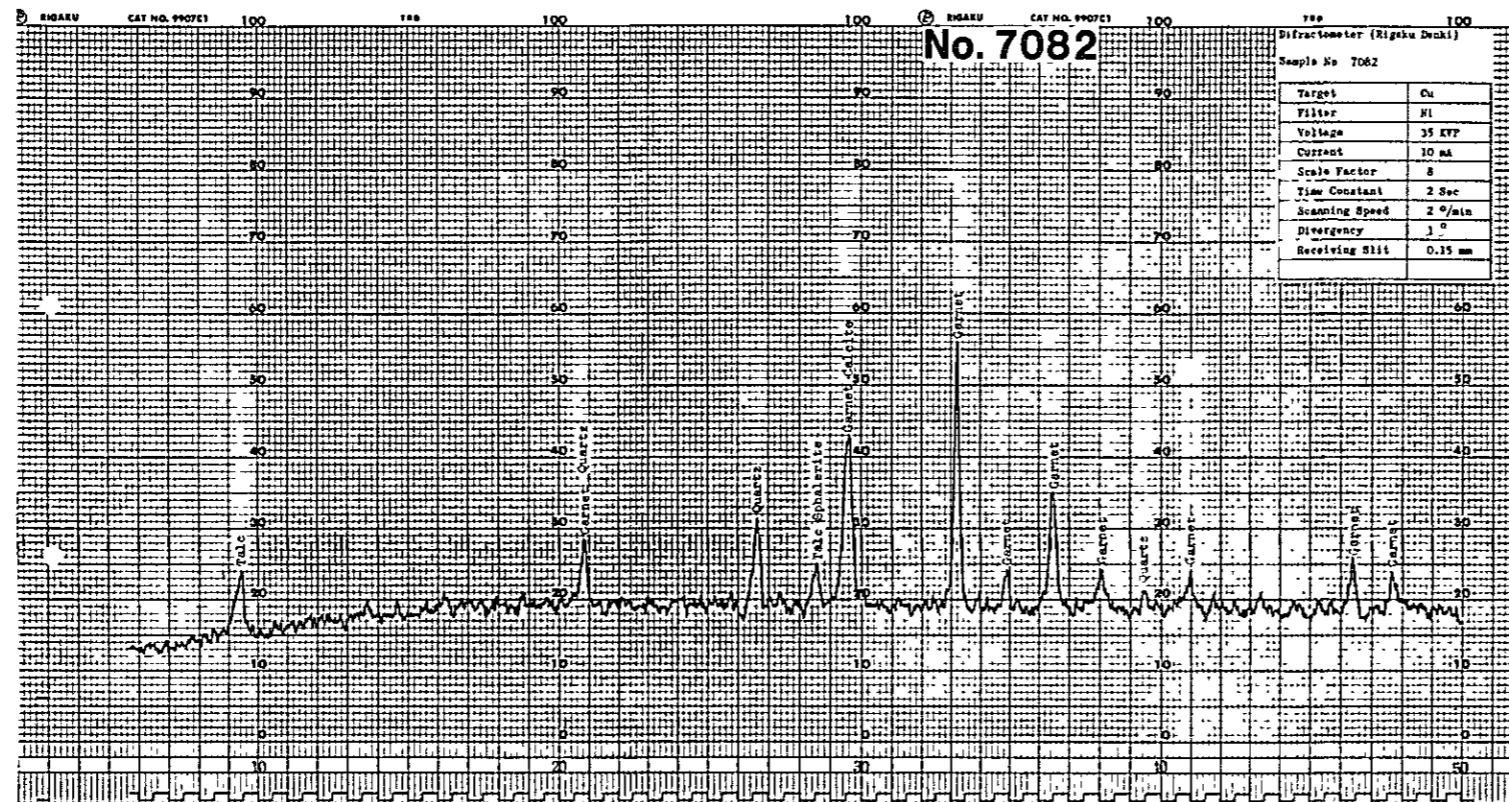


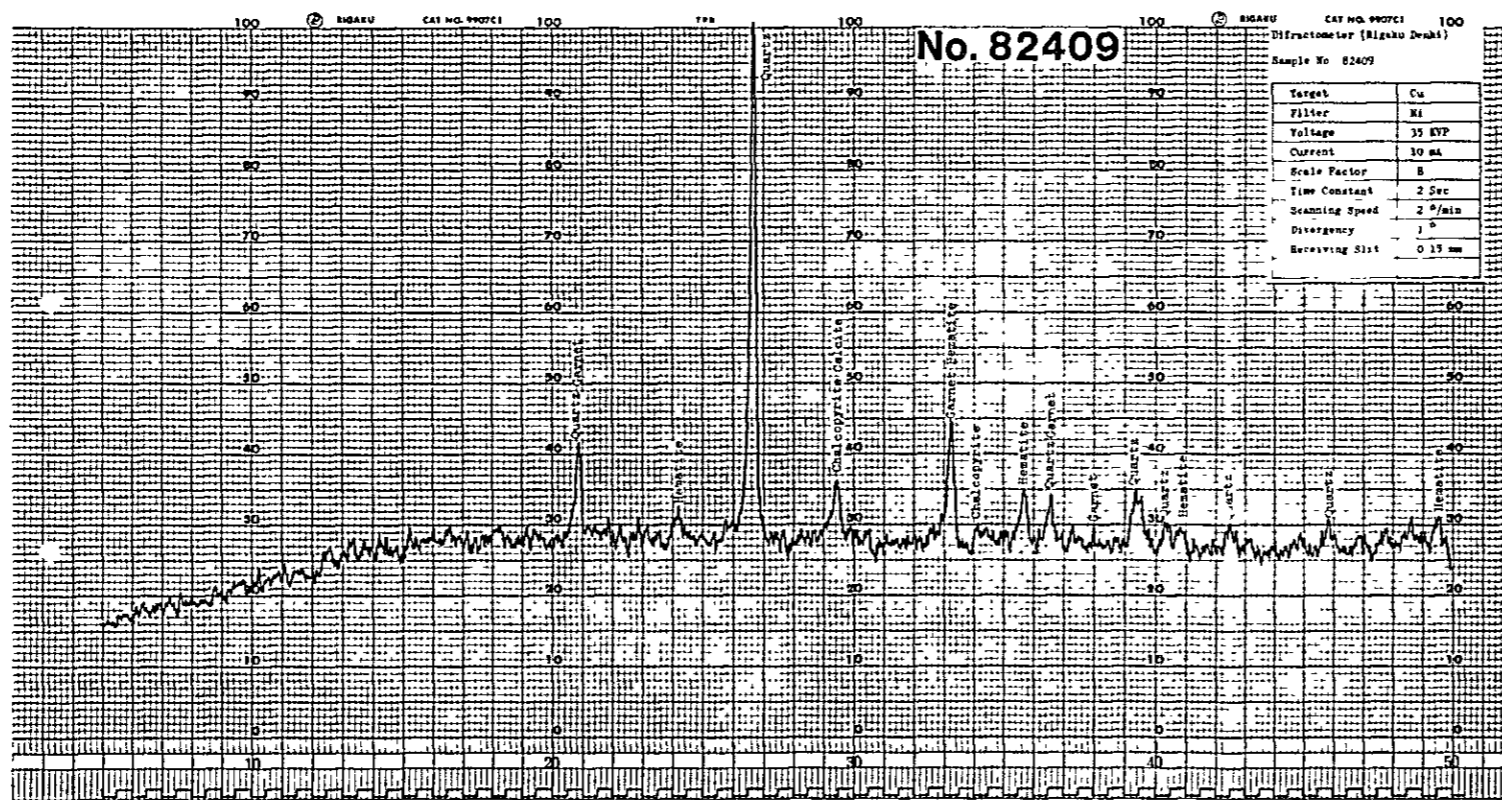
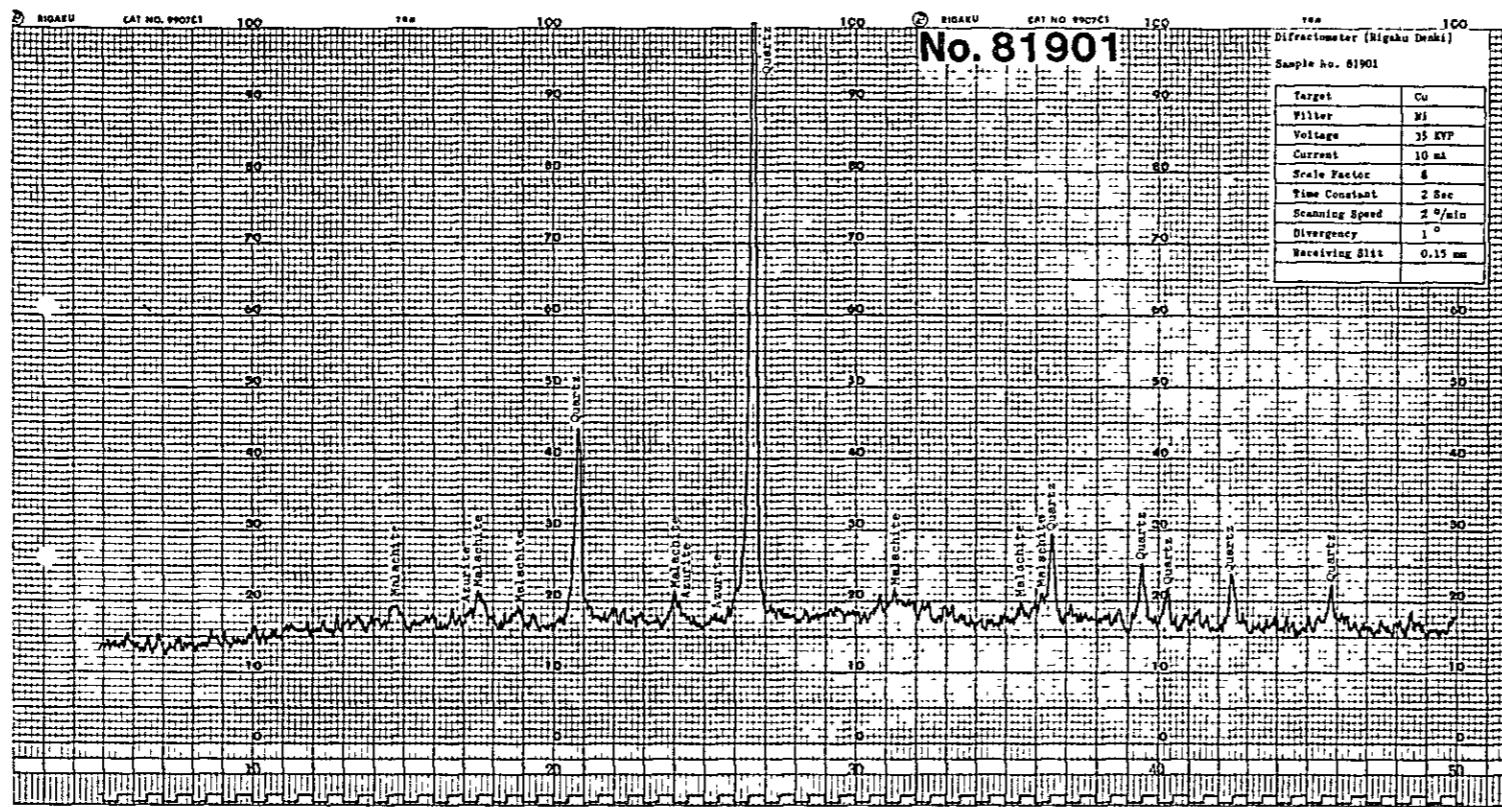
















**Table I—6 Chemical analysis of ore and rock samples in the surveyed area**

△----- checked samples



Vueltas del Rio Sector

Sample No.	Width (m)	Elements analysed (ppm)				Sample No.	Width (m)	Elements analysed (ppm)			
		Au	Cu	Pb	Zn			Au	Cu	Pb	Zn
VR 1	1.0	0.04	78	9	8	VR 63	3.0	0.06	275	11	15
" 2	3.0	0.24	251	28	10	" 64	2.0	0.38	351	17	14
" 3	3.0	0.04	41	19	12	" 65	3.6	0.36	145	8	20
Δ " 3		0.04	42	19	12	" 66	1.2	2.24	297	12	10
" 4	3.0	0.02	165	10	11	" 67	2.3	0.16	164	10	20
" 5	3.0	0.02	48	16	15						
" 6	3.0	0.04	174	16	250						
" 7	3.0	0.01	109	14	120						
" 8	3.0	0.02	54	16	120						
" 9	3.0	< 0.01	48	13	123						
" 10	3.0	0.02	53	14	134						
" 11	3.0	0.04	31	14	159						
" 12	3.0	0.02	63	13	100						
" 13	3.0	< 0.01	39	10	89						
Δ " 13		< 0.01	40	11	89						
" 14	3.0	0.02	69	11	195						
" 15	3.0	< 0.01	24	12	101						
" 16	3.0	0.02	57	17	121						
" 17	3.0	0.01	68	17	117						
" 18	3.0	0.04	84	17	171						
" 19	3.0	0.20	57	12	130						
Δ " 19		0.20	57	12	126						
" 20	3.0	< 0.01	48	20	580						
" 21	3.0	< 0.01	54	8	129						
" 22	3.0	< 0.01	39	63	870						
" 23	3.0	< 0.01	8	7	99						
" 24	3.0	< 0.01	54	34	254						
" 25	3.0	0.20	204	767	420						
" 26	3.0	0.08	79	26	360						
" 27	3.0	0.04	170	20	80						
" 28	3.0	0.02	132	51	175						
" 29	3.0	< 0.01	59	81	730						
Δ " 29		< 0.01	59	81	740						
" 30	3.0	0.06	61	12	267						
" 31	2.0	0.06	38	21	102						
" 32	3.0	0.02	22	45	77						
" 33	3.0	< 0.01	55	49	480						
" 34	3.0	0.06	48	675	890						
" 35	3.0	< 0.01	74	9	750						
" 36	3.0	< 0.01	60	30	134						
" 37	3.0	< 0.01	34	12	64						
" 38	3.0	0.10	150	108	360						
" 39	3.0	0.08	40	43	161						
Δ " 39		0.08	38	43	173						
" 40	3.0	< 0.01	15	16	46						
" 41	3.0	0.06	10	90	146						
" 42	3.0	0.01	26	16	214						
" 43	5.0	0.82	19	15	36						
" 44	1.5	2	8	19	50						
" 45	1.5	0.06	255	645	910						
" 46	1.5	0.06	43	198	90						
Δ " 46		0.06	43	201	88						
" 47	2.0	0.04	491	230	400						
" 48	2.0	< 0.01	202	6	164						
" 50	1.5	0.52	51	73	35						
" 51	1.5	5.60	567	31	84						
" 52	1.5	0.90	28	20	65						
" 53	2.0	1.64	65	75	91						
" 54	1.5	0.66	26	18	44						
" 55	1.5	0.48	87	81	71						
" 56	1.3	1.82	92	28	66						
" 57	1.2	0.26	48	21	37						
" 58	3.0	< 0.01	166	5	15						
" 59	3.0	0.36	181	8	21						
" 60	3.0	0.58	143	8	17						
Δ " 60		0.58	148	8	15						
" 61	3.0	0.12	184	9	11						
" 62	3.0	0.10	278	6	17						



Laguna Seca Sector

Sample No.	Width (m)	Elements analysed (ppm)				Sample No.	Width (m)	Elements analysed (ppm)			
		Au	Cu	Pb	Zn			Au	Cu	Pb	Zn
LS 1	3.0	0.10	50	65	290						
" 3	3.0	0.08	142	178	96						
" 4	3.0	<0.01	62	32	81						
" 5	3.0	<0.01	95	242	830						
" 6	3.0	<0.01	290	53	129						
Δ " 6		<0.01	290	53	142						
" 7	3.0	0.10	297	94	500						
" 8	3.0	<0.01	160	23	250						
" 9		<0.01	35	44	122						
" 10	3.0	<0.01	34	35	173						
" 11	3.0	<0.01	52	31	230						
" 12	piece	0.01	50	108	197						
" 13	piece	0.08	67	103	180						
" 14	3.0	0.08	67	1,030	33						
" 15	5.0	0.04	56	62	280						
" 16	3.0	0.04	44	28	167						
Δ " 16		0.04	44	31	166						
" 18	3.0	0.18	267	51	1,490						
" 19	3.0	0.24	65	171	118						
" 20	3.0	0.14	83	22	106						
" 21	3.0	0.04	137	201	970						
" 22	3.0	0.01	31	57	360						
" 23	piece	0.12	123	91	170						
" 24	piece	0.10	220	57	100						



Minitas Sector

Sample No.	Width (m)	Elements analysed (ppm)				Sample No.	Width (m)	Elements analysis (ppm)			
		Au	Cu	Pb	Zn			Au	Cu	Pb	Zn
MS 1	3.0	<0.01	74	101	1,040						
" 2	3.0	0.02	274	37	252						
" 3	3.0	<0.01	674	31	1,020						
" 4	2.0	0.04	39	26	243						
" 5	3.0	<0.01	44	23	219						
" 6	3.0	0.14	41	26	172						
" 7	3.0	0.04	67	21	122						
" 8	3.0	<0.01	41	12	122						
Δ " 8		<0.01	40	12	120						
" 9	3.0	0.06	9	10	190						
" 10	3.0	0.02	39	38	630						
" 11	3.0	0.14	138	31	560						
" 12	3.0	0.04	390	46	380						
" 13	3.0	0.04	372	70	690						
" 14	3.0	0.10	549	78	730						
" 15	3.0	0.10	651	67	740						
" 16	3.0	0.06	202	39	264						
" 17	3.0	0.12	683	73	710						
" 18	3.0	0.20	534	86	730						
Δ " 18		0.20	539	86	730						
" 19	3.0	<0.01	17	21	90						
" 20	3.0	0.04	75	23	180						
" 21	piece	0.06	567	44	460						
" 22	2.0	<0.01	29,400	52	13,100						
" 23	1.5	0.14	60,700	125	1,910						
" 24	1.5	<0.01	65	12	147						
" 25	3.0	0.10	99	13	460						
" 26	piece	0.06	21	24	175						
" 27	2.0	0.06	4,380	117	710						
" 28	2.0	0.04	5,430	9	98						
" 29	3.0	<0.01	1,380	11	147						
Δ " 29		<0.01	1,360	12	138						
" 30	3.0	0.10	260	15	420						
" 31	3.0	0.10	26,200	32	290						
" 32	2.0	0.10	20,000	31	380						
" 33	3.0	0.10	5,620	12	117						





Pueblo Nuevo Sector

Sample No.	Width (m)	Elements analysed (ppm)				Sample No.	Width (m)	Elements and analysed (ppm)			
		Au	Cu	Pb	Zn			Au	Cu	Pb	Zn
FN 1	3.0	0.01	63	97	156						
" 2	3.0	< 0.01	73	39	340						
" 3	3.0	< 0.01	65	36	163						
" 4	3.0	< 0.01	267	490	240						
" 5	1.0	0.90	3,100	15,750	20,400						
Δ " 5		0.90	3,100	15,750	20,400						
" 6	piece	0.08	32	149	174						
" 7	2.0	0.40	22,300	67	780						
" 8	2.0	0.10	40,000	520	8,100						
" 9	2.0	0.04	7,800	144	6,200						
" 10	2.0	0.10	9,480	660	4,900						
" 11	1.5	0.04	56	58	94						
" 12	piece	0.04	267	43	1,060						
" 13	3.0	0.04	6,240	608	690						
" 14	piece	0.04	31	8	79						
" 15	piece	0.18	4,190	57	660						
" 16	piece	0.04	60	10	25						
Δ " 16		0.04	65	10	23						
" 17	piece	0.22	13,200	51	1,270						
" 18	piece	0.08	1,260	51	900						

