

CHART NO. NC-01 RIGAU CHART NO. NC-01 RIGAU CHART NO. NC-01 RIGAU CHART NO. NC-01 RIGAU CHART NO. NC-01

X-Ray Diffractometer

Sample No.	T 1011
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	600 CPS
Time Constant	0.5 Sec
Scanning Speed	4 °/Min
Chart Speed	4 mm/min
Divergency	1 °
Receiving Slit	0.15 mm
Detector	S. C
Date	2. 1988

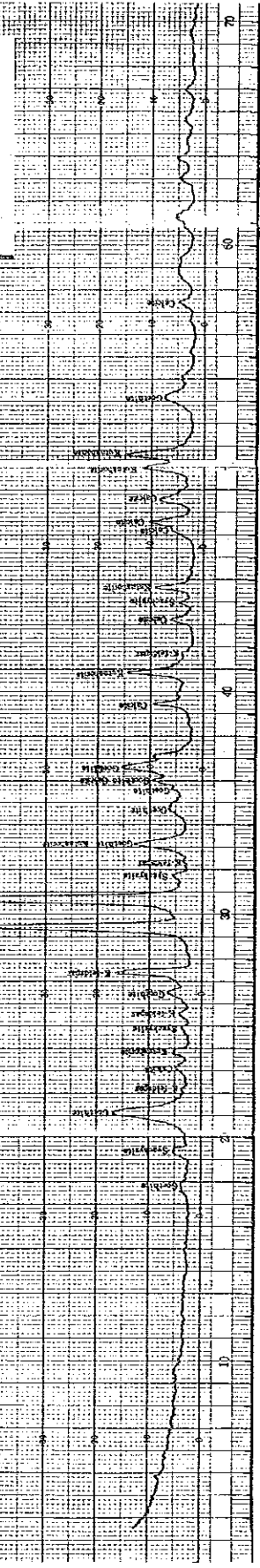
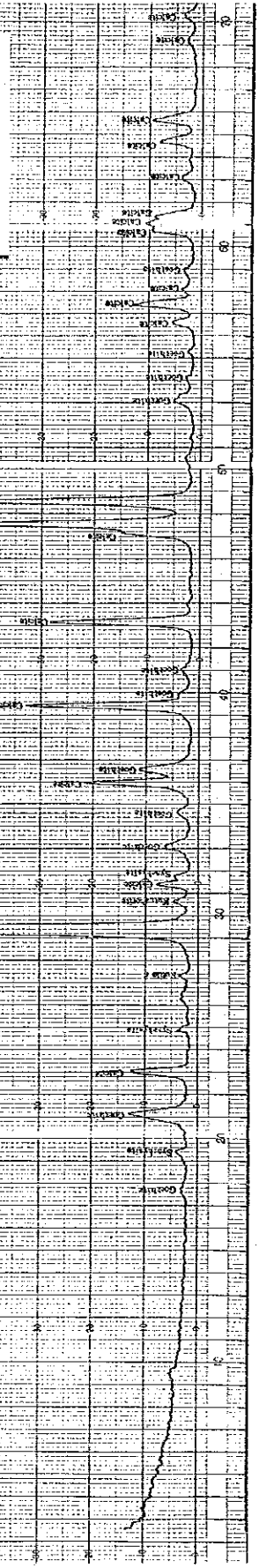


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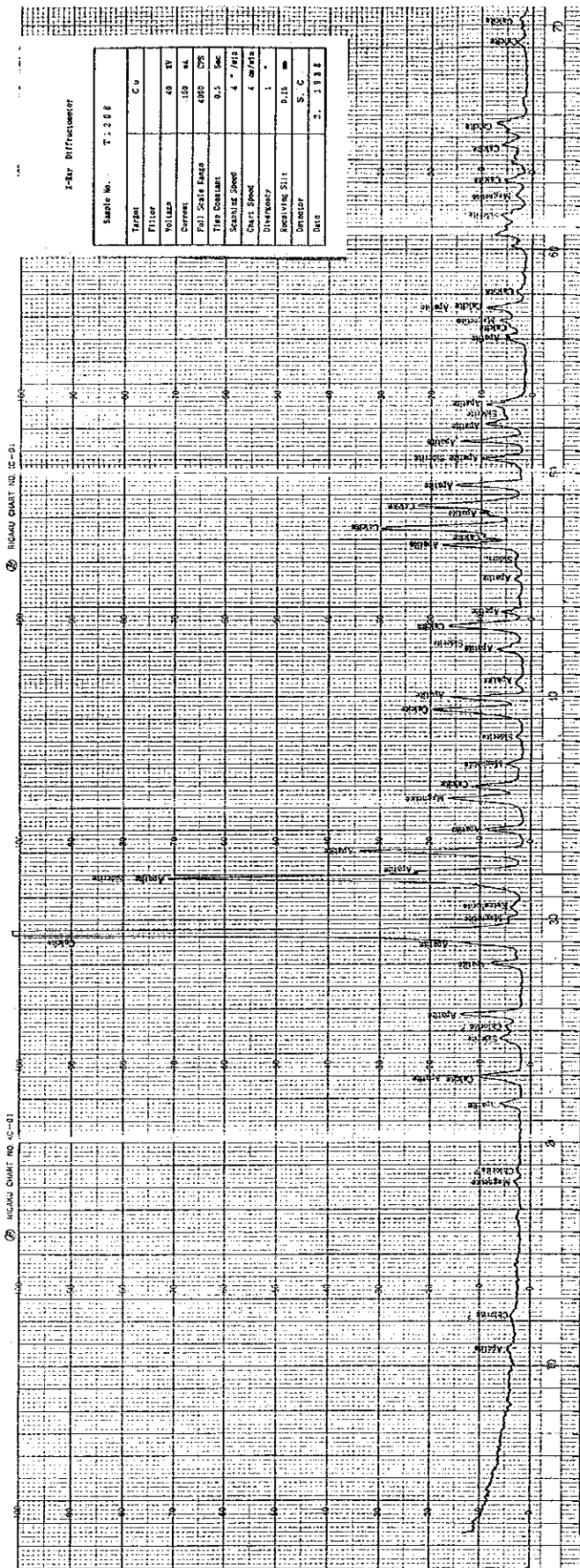
X-Ray Diffractometer

Sample No.	T 1108
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	600 CPS
Time Constant	0.5 Sec
Scanning Speed	4 °/Min
Chart Speed	4 mm/min
Divergency	1 °
Receiving Slit	0.15 mm
Detector	S. C
Date	2. 1988



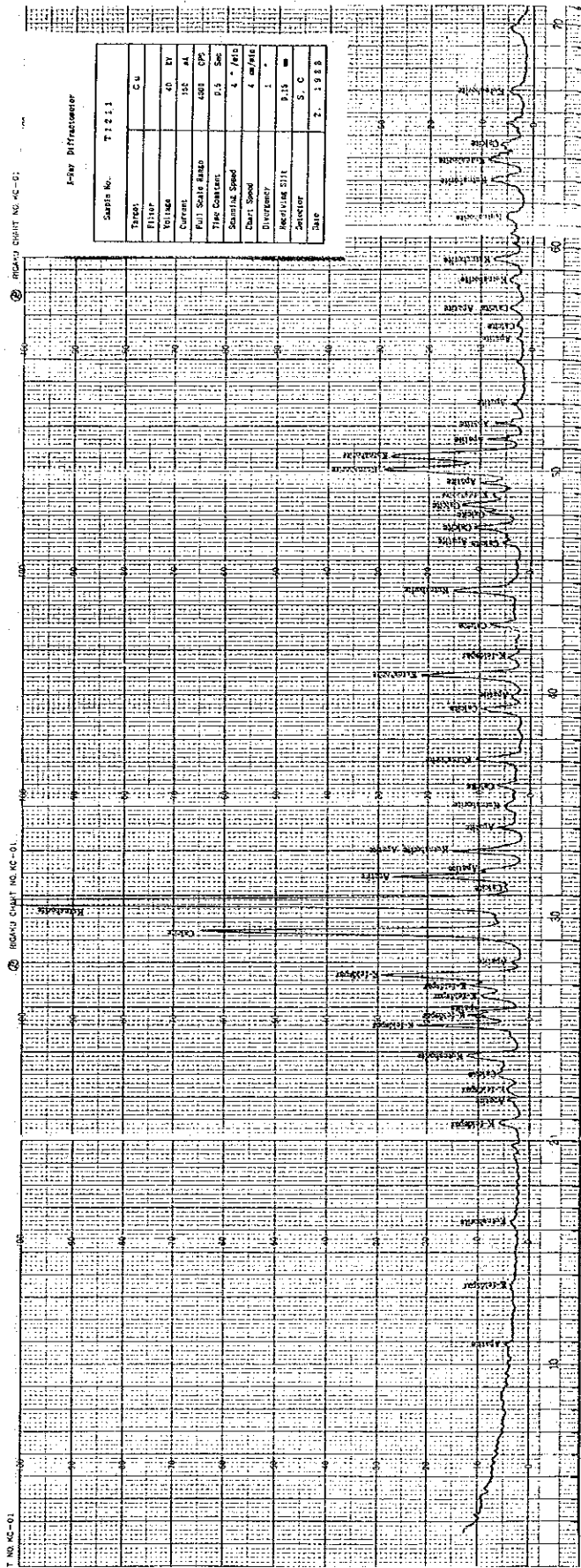
3-Bar Diffractometer

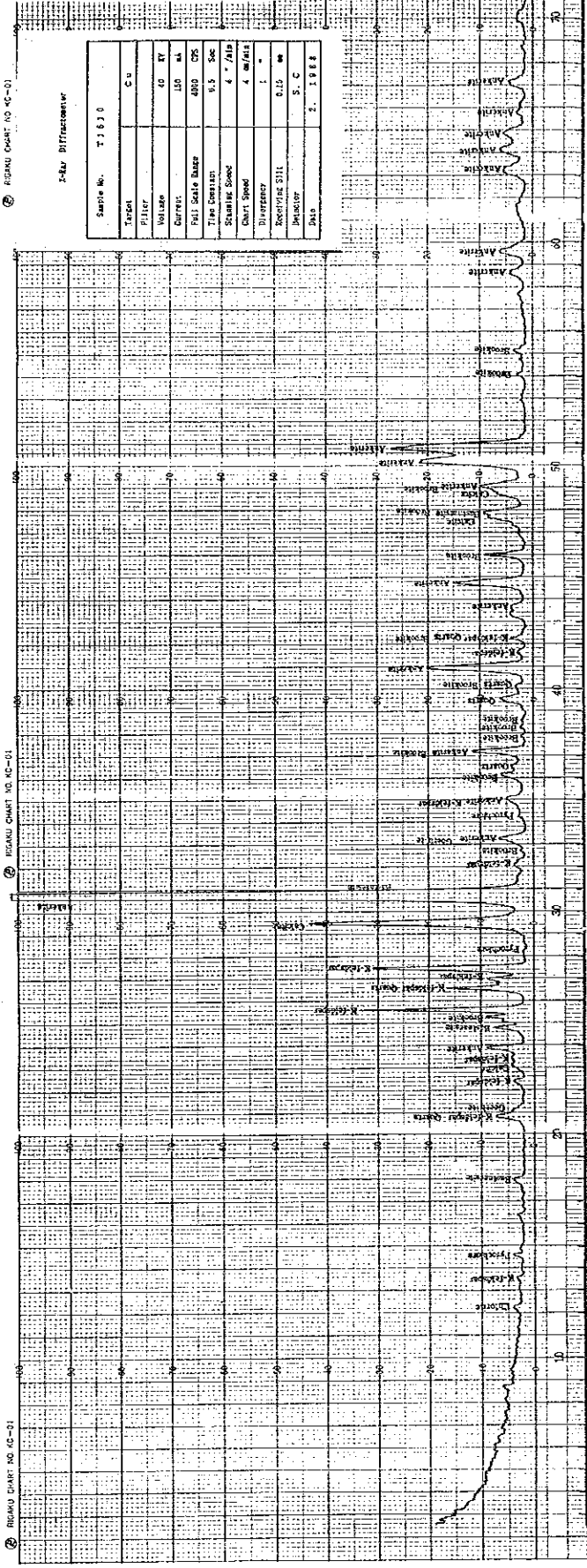
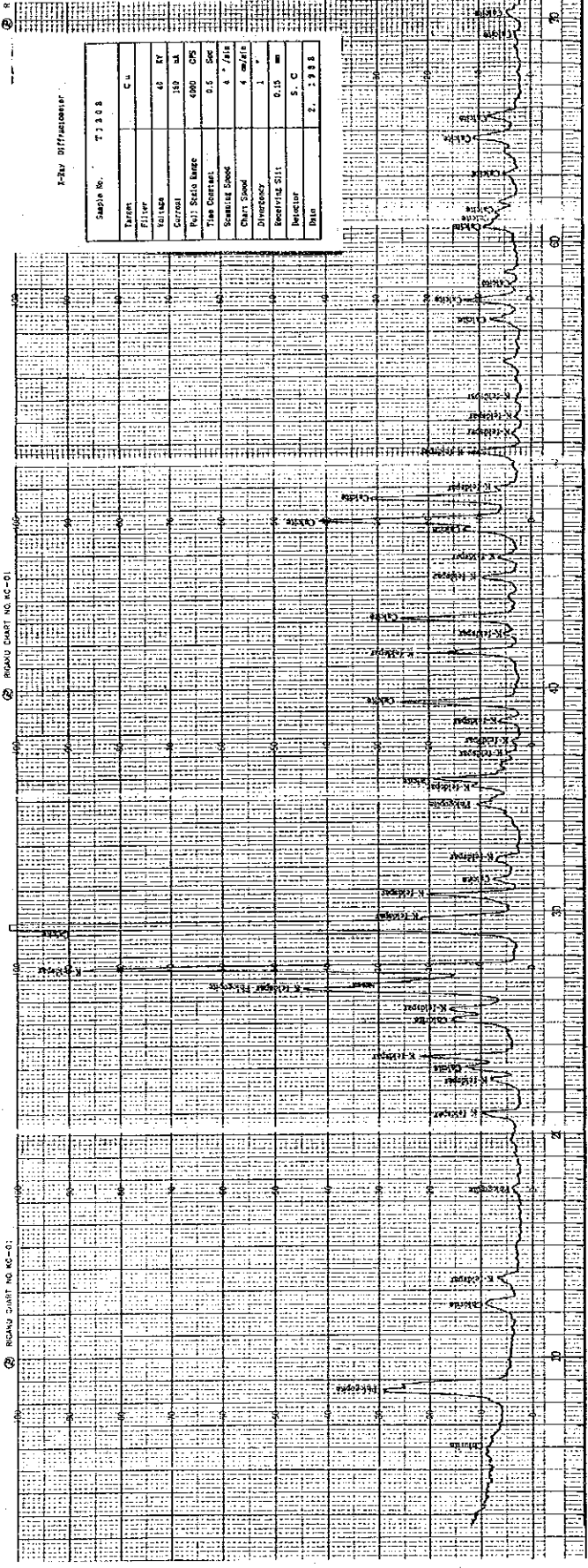
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Target	Cu
Filter	
VOLTAG	40 KV
CURRENT	150 mA
Full Scale Range	600 CPS
Time Constant	0.5 Sec
Scanning Speed	4 °/MIN
Chart Speed	4 cm/Min
Divergency	1 °
Receiving slit	0.15 mm
Detector	S. C
Date	2. 1988



3-Bar Diffractometer

Sample No.	T 1211
Target	Cu
Filter	
VOLTAG	40 KV
CURRENT	150 mA
Full Scale Range	600 CPS
Time Constant	0.5 Sec
Scanning Speed	4 °/MIN
Chart Speed	4 cm/Min
Divergency	1 °
Receiving slit	0.15 mm
Detector	S. C
Date	2. 1988

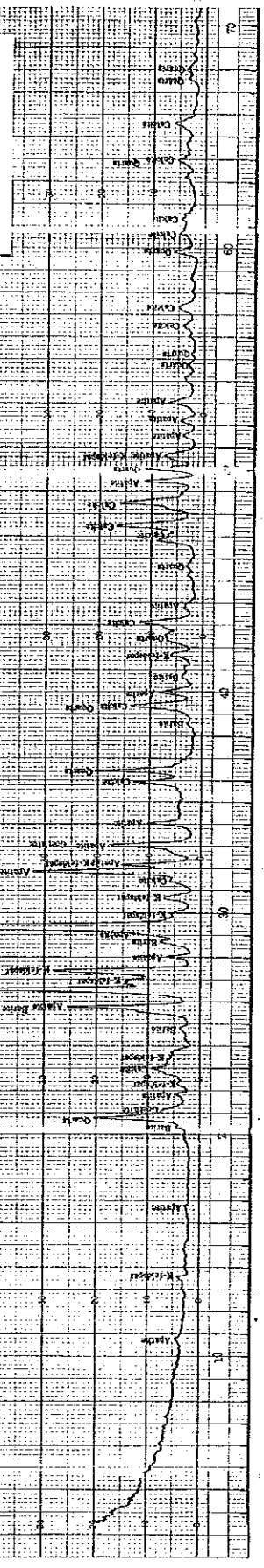




RIGAKU CHART NO. KC-01

1- $\lambda$  Diffractometer

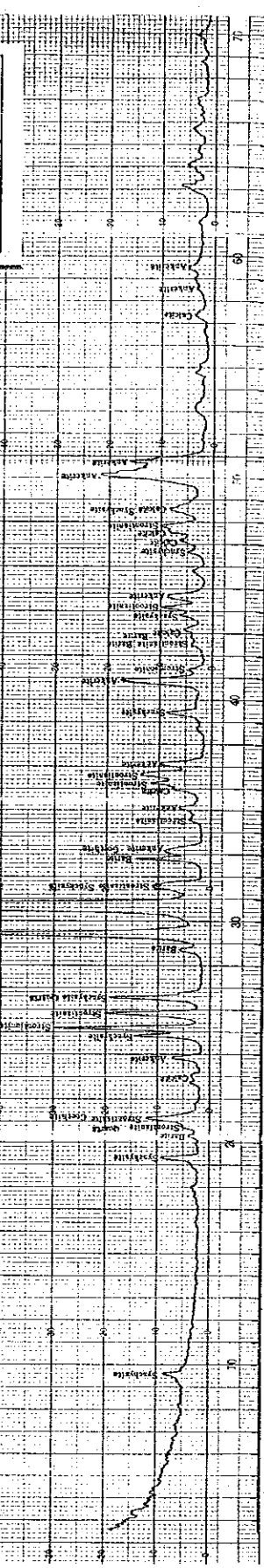
Sample No.	T 1 9 0 5
Taract	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	400 CPS
Time Constant	0.5 Sec
Scanning Speed	4 $^{\circ}$ / min
Chart Speed	1 $^{\circ}$ / min
Wavelength	0.15 nm
Detector	S. C
Date	2. 1988

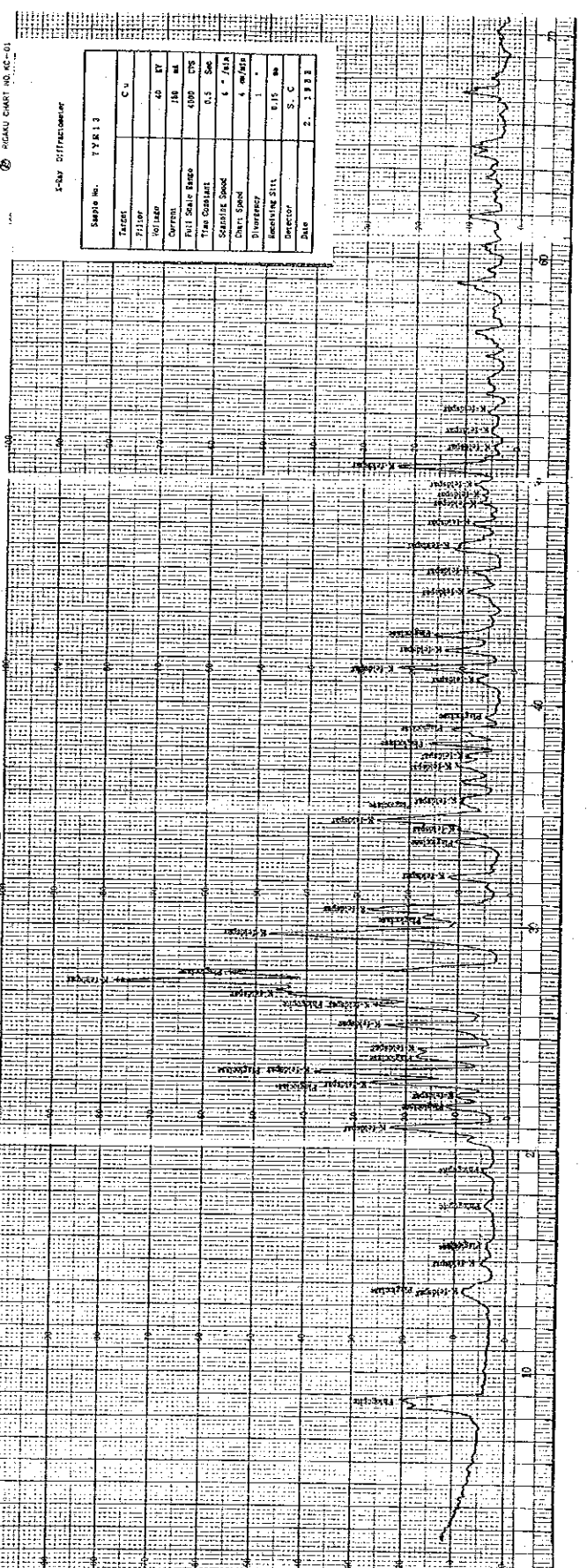
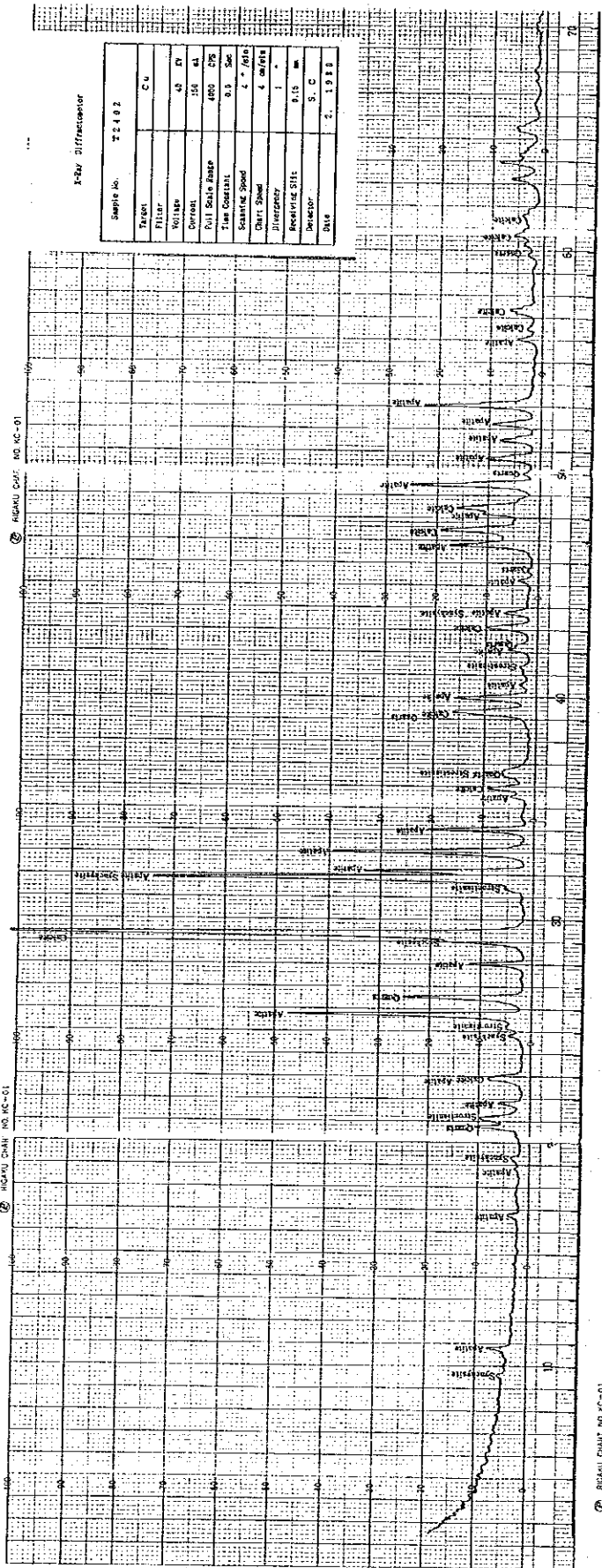


RIGAKU CHART NO. KC-01

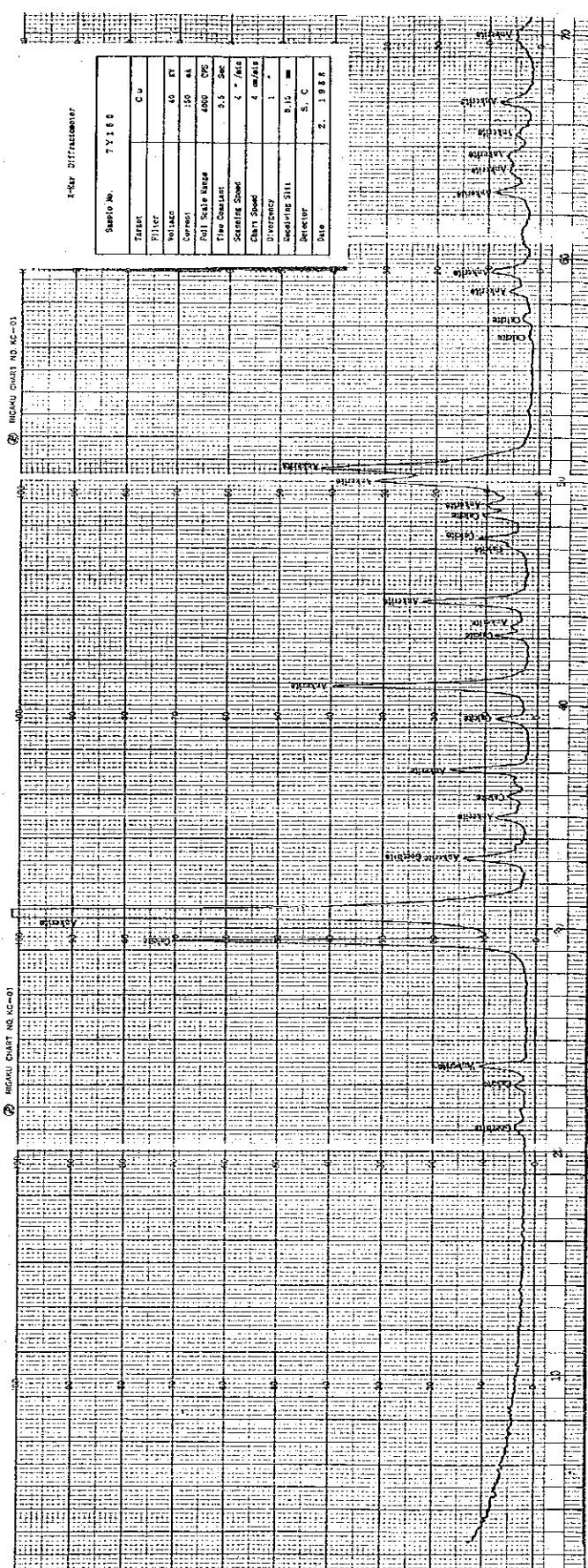
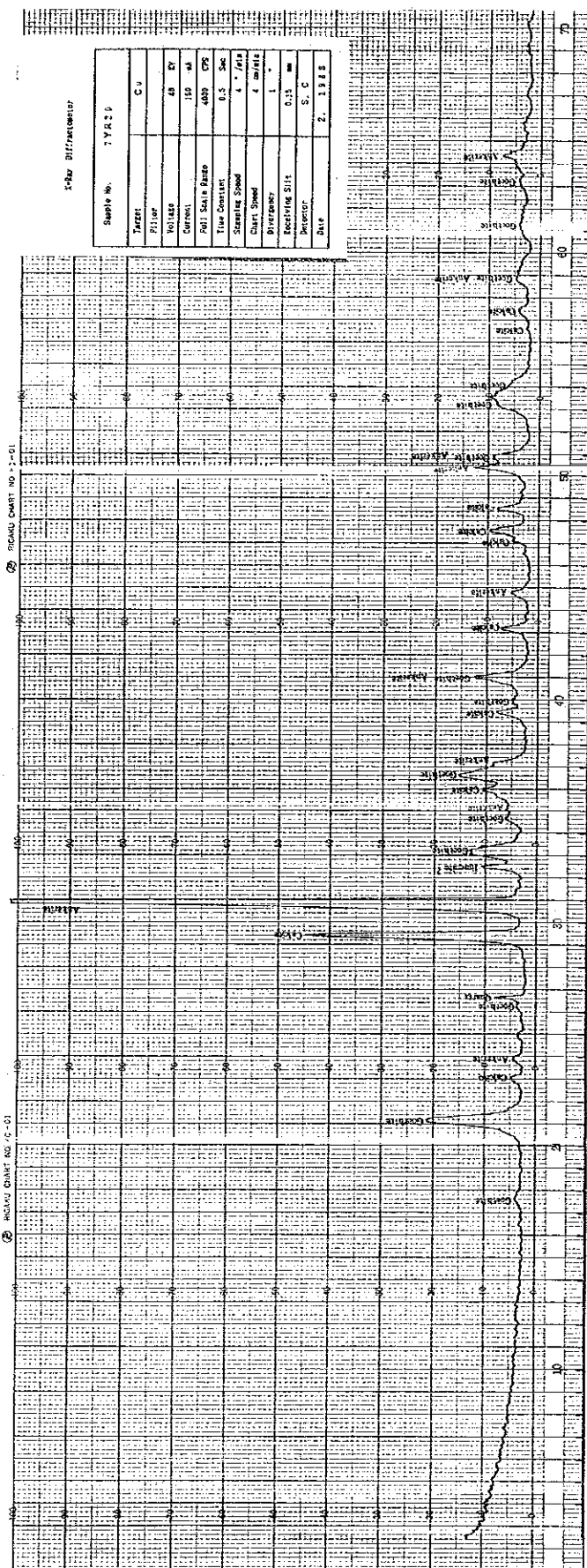
1- $\lambda$  Diffractometer

Sample No.	T 2 2 1 0
Taract	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	400 CPS
Time Constant	0.5 Sec
Scanning Speed	4 $^{\circ}$ / min
Chart Speed	1 $^{\circ}$ / min
Wavelength	0.15 nm
Detector	S. C
Date	2. 1988





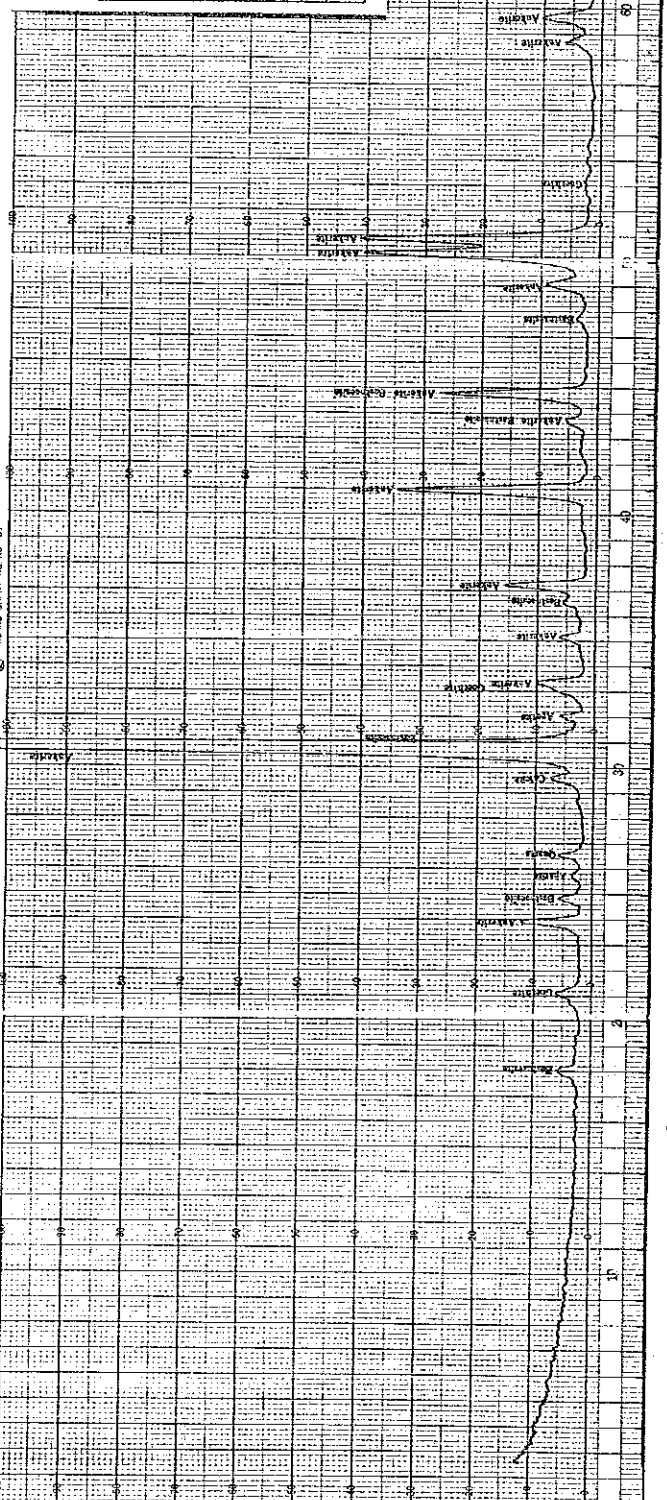




② RIGAKU CHART NO. NC-01      ② RIGAKU CHART NO. NC-01      ② RIGAKU CHART NO. NC-01

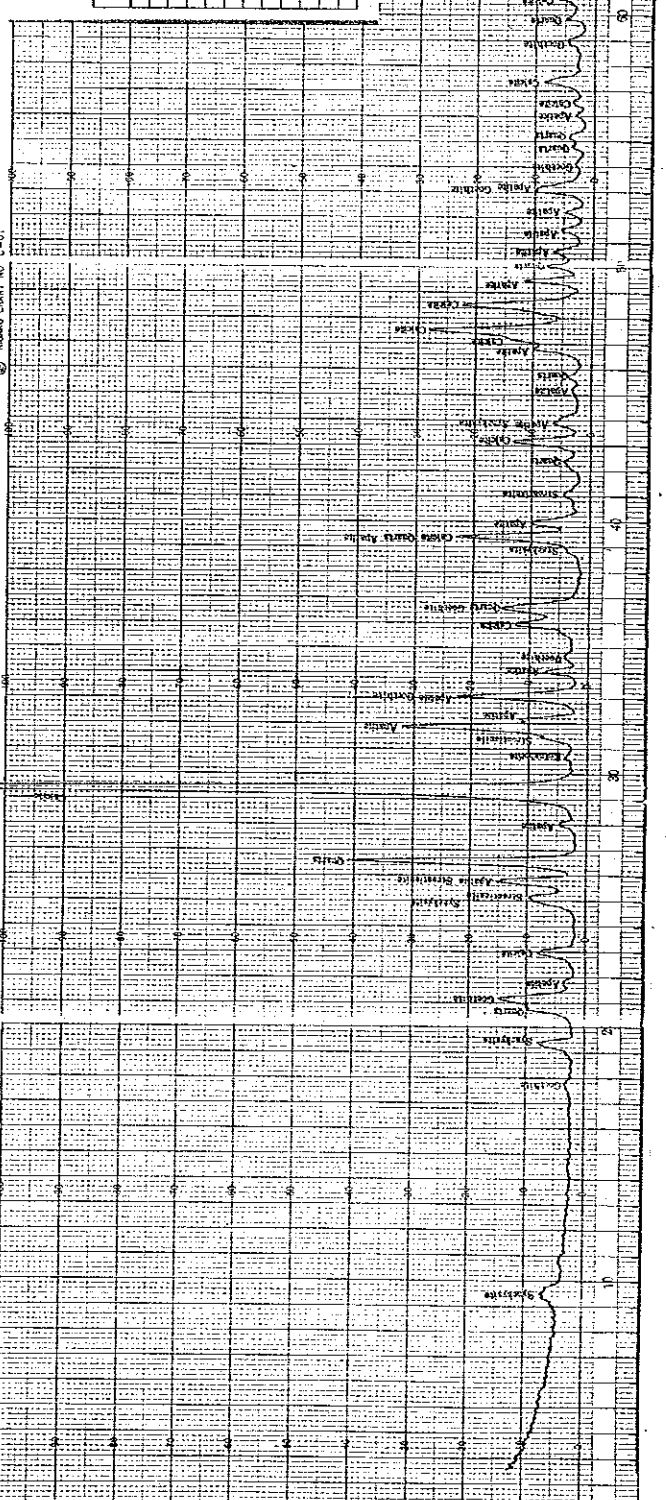
1-θ X-ray Diffractometer

Sample No.	TY176
Target	Cu
Filter	
Voltage	40 KV
Current	100 mA
Tube Constant	4000 CPS
Slit Constant	0.3 Sec
Scanning Speed	4 °/Min
Chart Speed	4 cm/Min
Divergency	1 °
Recording Sill.	0.15 mm
Detector	S. C
Date	2. 1983



1-θ X-ray Diffractometer

Sample No.	TY179
Target	Cu
Filter	
Voltage	40 KV
Current	100 mA
Tube Constant	4000 CPS
Slit Constant	0.3 Sec
Scanning Speed	4 °/Min
Chart Speed	4 cm/Min
Divergency	1 °
Recording Sill.	0.15 mm
Detector	S. C
Date	2. 1983



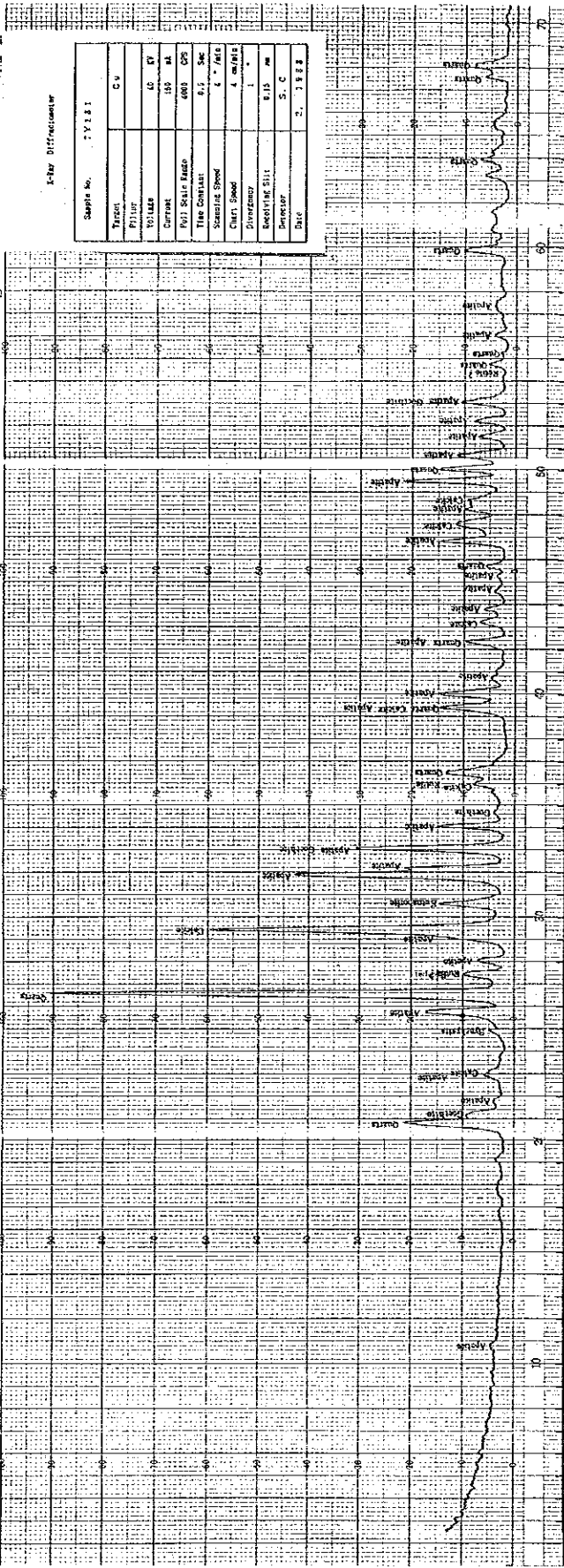
1 NO KC-01

② HIRAWA CHART NO KC-01

② HIRAWA CHART NO KC-01

X-Ray Diffractometer

Sample No.	TY211
Tarset	Cu
Filter	
Voltage	40 KV
Current	150 mA
Ball Scale Range	4000 CPS
Time Constant	0.1 Sec
Scanning Speed	4 °/Min
Chart Speed	4 cm/Min
Divisor	1
Resolution Filter	0.15 mm
Detector	S. C
Date	2. 1958



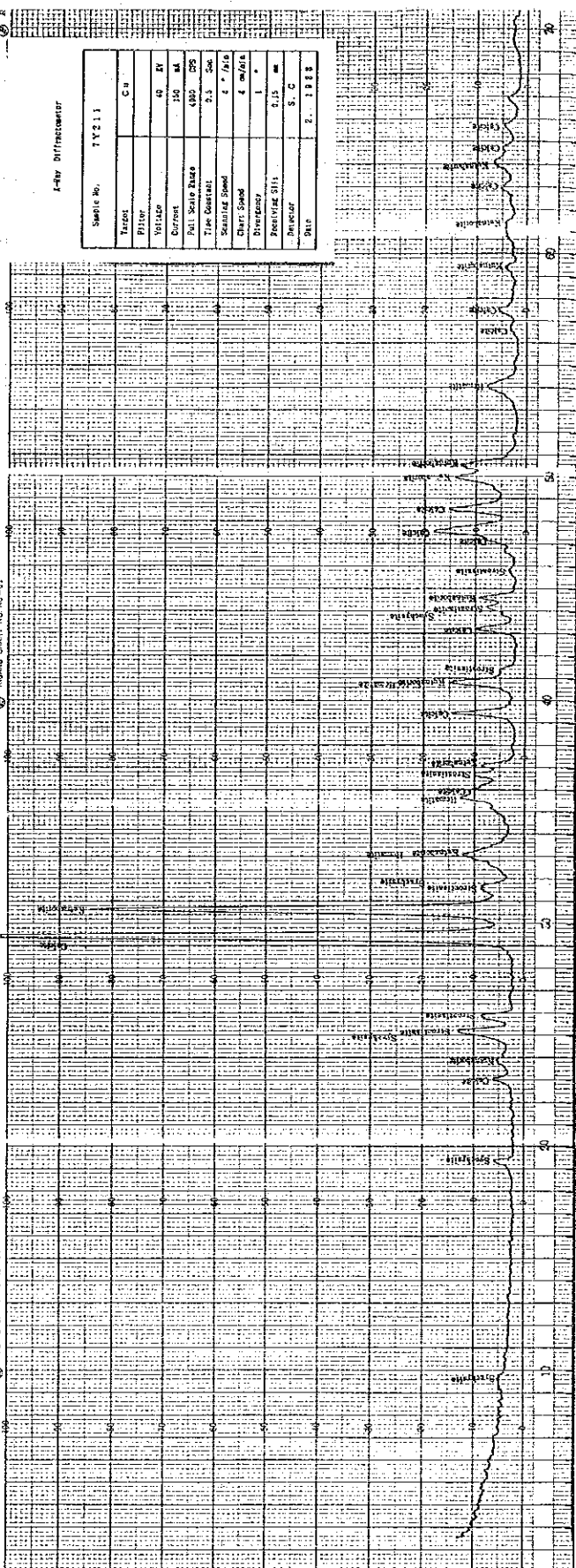
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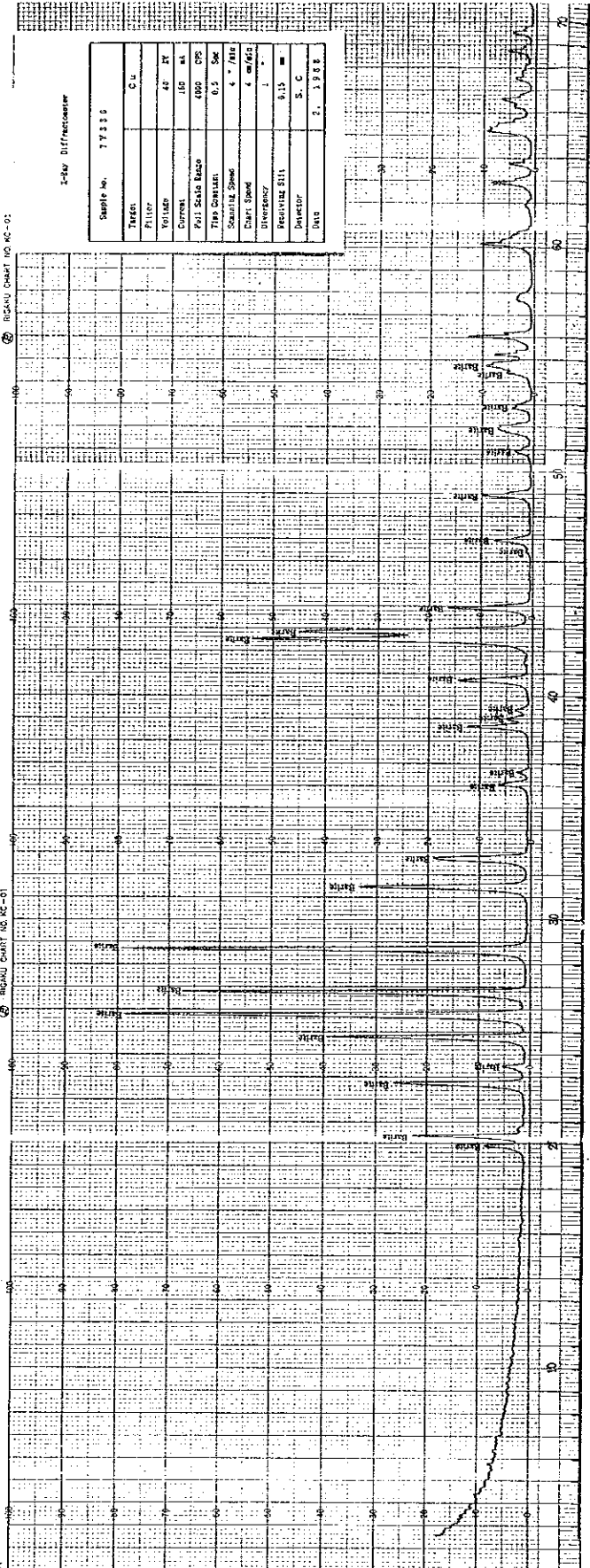
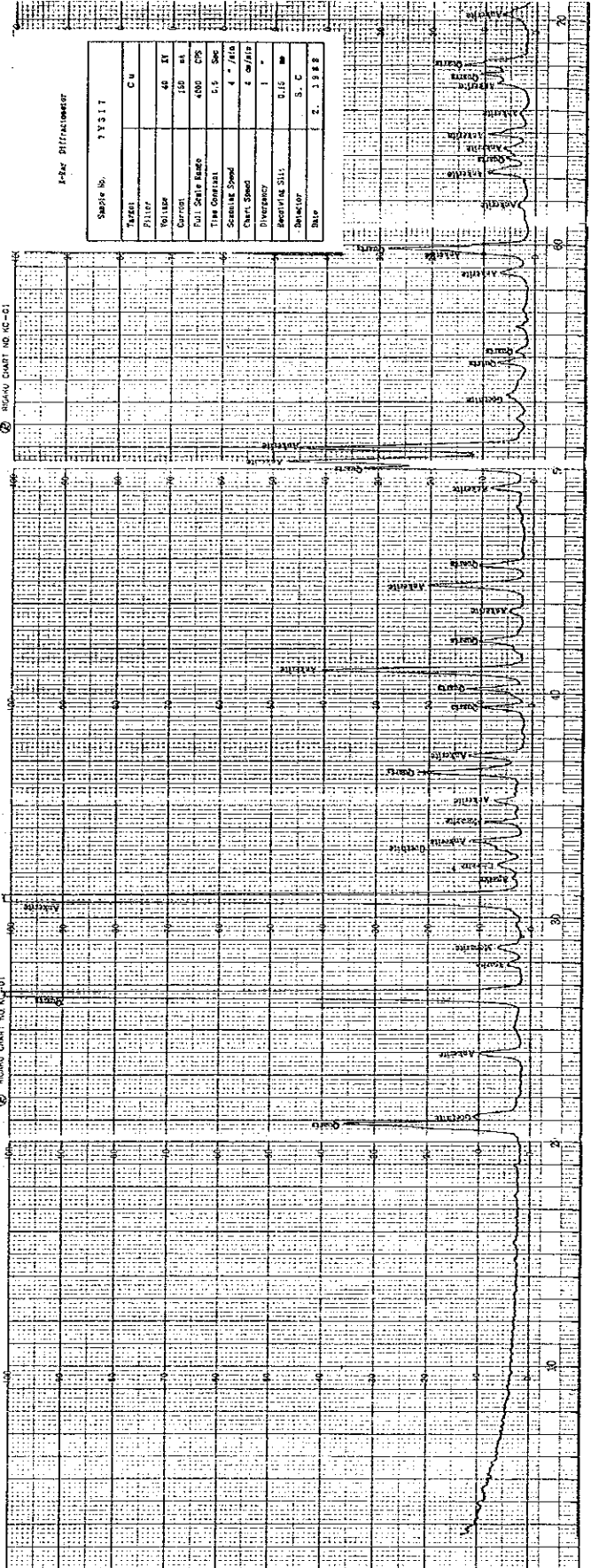
② HIRAWA CHART NO KC-01

② HIRAWA CHART NO KC-01

X-Ray Diffractometer

Sample No.	TY211
Tarset	Cu
Filter	
Voltage	40 KV
Current	150 mA
Ball Scale Range	4000 CPS
Time Constant	0.1 Sec
Scanning Speed	4 °/Min
Chart Speed	4 cm/Min
Divisor	1
Resolution Filter	0.15 mm
Detector	S. C
Date	2. 1958







**Appendix 6**  
**Summarized operational data**



Working Time of Each Drill Hole

Thundulu

Drill Hole	Drilling		Shift of Workers		Number of Workers		Working Time								Grand Total
	Length Drilled	Core Length	Drilling Shift	Oil Shift	Engineer	Worker	Drilling	Out of Drilling	Regain of Accident	Sub Total	Construct	Take to Pieces	Moving of Mater	Rated Others	
JMT	m	m	S	S	man	man	H	H	H	H	H	H	H	H	
1	50.30	46.40	5	9	16	186	32°00'	28°00'	-	60°00'	27°00'	-	45°00'	132°00'	
2	50.30	49.40	5	8	8	167	36°00'	24°00'	-	60°00'	18°00'	-	9°00'	87°00'	
3	50.30	50.30	5	11	8	182	36°00'	24°00'	-	60°00'	30°00'	-	24°00'	114°00'	
4	50.30	47.90	5	10	6	242	31°00'	29°00'	-	60°00'	27°00'	-	18°00'	105°00'	
5	50.30	49.00	5	9	7	179	36°00'	24°00'	-	60°00'	22°00'	-	14°00'	96°00'	
6	50.40	49.00	5	7	7	135	38°00'	22°00'	-	60°00'	18°00'	-	-	78°00'	
7	50.20	47.00	5	8	8	126	33°00'	27°00'	-	60°00'	27°00'	-	-	87°00'	
8	50.20	48.10	5	8	7	126	31°00'	24°00'	-	55°00'	32°00'	-	36°00'	123°00'	
9	50.10	48.10	4	8	6	146	29°00'	19°00'	-	48°00'	23°00'	-	13°00'	84°00'	
10	50.10	48.40	5	9	7	138	36°00'	24°00'	-	60°00'	25°00'	-	20°00'	105°00'	
11	50.20	48.80	4	8	6	171	25°30'	22°30'	-	48°00'	24°00'	-	60°00'	132°00'	
12	50.20	47.00	4	8	7	136	26°00'	22°00'	-	48°00'	27°00'	-	9°00'	84°00'	
13	50.30	49.00	4	7	6	109	27°00'	21°00'	-	48°00'	27°00'	-	18°00'	93°00'	
14	50.20	49.90	4	6	6	85	28°00'	20°00'	-	48°00'	22°00'	-	4°00'	74°00'	
15	50.20	50.20	4	7	6	120	29°00'	19°00'	-	48°00'	27°00'	-	9°00'	84°00'	
16	50.10	49.10	5	8	8	141	34°00'	26°00'	-	60°00'	27°00'	-	27°00'	114°00'	
17	50.10	47.40	5	7	8	189	33°00'	27°00'	-	60°00'	31°00'	-	104°00'	195°00'	
18	50.10	49.80	5	8	7	126	35°00'	25°00'	-	60°00'	28°00'	-	18°00'	106°00'	
19	50.10	38.90	13.5	24	20	270	84°30'	69°30'	60°00'	214°00'	45°00'	-	4°00'	263°00'	
20	50.20	48.20	5	8	7	117	34°00'	26°00'	-	60°00'	27°00'	-	-	87°00'	
21	50.10	49.30	4	7	7	113	27°30'	20°30'	-	48°00'	27°00'	-	9°00'	84°00'	
22	50.20	41.80	5	8	9	106	35°30'	24°30'	-	60°00'	18°00'	-	-	76°00'	
23	50.20	45.70	5	7	7	131	33°30'	26°30'	-	60°00'	18°00'	-	9°00'	87°00'	
24	50.10	44.70	5	8	8	130	31°30'	28°30'	-	60°00'	27°00'	-	-	87°00'	
Total	1204.80	1143.40	121.5	208	194	3571	822°00'	623°00'	60°00'	1503°00'	624°00'	-	450°00'	2579°00'	



Working Time of Each Drill Hole

Songve

Drill Hole	Drilling		Shift of Workers		Number of Workers		Working Time										
	Length Drilled	Core Length	Drilling Shift	Oil Shift	Engineer	Worker	man	man	Drilling	Out Drilling	Regain of Accident	Sub Total	Construct	Take to Pieces	Moving of Water	Rated Others	Grand Total
JMS	m	m	S	S					H	H	H	H	H	H	H	H	H
1	50.45	48.95	5	8	33	262	262	35°00'	16°00'	-	51°00'	22°00'	76°00'				149°00'
2	50.10	47.50	10	15	21	205	205	51°00'	69°00'	-	120°00'	27°00'	27°00'				174°00'
3	58.00	55.90	8	13	13	179	48°00'	48°00'	-	96°00'	31°00'	31°00'	9°00'				136°00'
4	53.30	50.80	6	10	10	197	37°00'	35°00'	-	72°00'	36°00'	36°00'	-				108°00'
5	53.20	51.30	6	10	10	190	32°00'	40°00'	-	72°00'	36°00'	36°00'	63°00'				171°00'
6	50.10	43.20	7.5	14	14	296	42°00'	48°00'	-	90°00'	30°00'	30°00'	27°00'				147°00'
7	50.10	40.90	6	9	9	145	33°00'	39°00'	-	72°00'	39°00'	39°00'	18°00'				129°00'
8	42.20	38.35	5	9	9	191	26°00'	34°00'	-	60°00'	27°00'	27°00'	9°00'				96°00'
9	50.20	44.30	6	10	10	203	32°00'	40°00'	-	72°00'	27°00'	27°00'	27°00'				126°00'
10	51.00	47.10	5	9	9	150	40°00'	32°00'	-	72°00'	24°00'	24°00'	21°00'				117°00'
11	50.20	42.40	6	10	15	284	29°00'	43°00'	-	72°00'	36°00'	36°00'	-				108°00'
Total	558.85	510.70	70.5	117	153	2302	405°00'	444°00'	-	849°00'	335°00'	335°00'	277°00'				1461°00'

Efficiency of Each Drill Hole

Hole No.	Depth of Hole			Core Recovery 0 ~ 50	Size of Drilling				Efficiency		
	Planned Length m	Increase or Decrease Length m	Length Drilling m		Core Length m	73mm		56mm		Drilling Period m/day	Drilling Shift m/s
						Length Drilling m	Core Length m	Length Drilling m	Core Length m		
JMT-1	50.00	0.30	50.30	46.40	3.90	0.00	46.40	46.40	16.76	10.06	
2	50.00	0.30	50.30	49.40	1.80	0.90	48.50	48.50	16.76	10.06	
3	50.00	0.30	50.30	50.30	1.80	1.80	48.50	48.50	16.76	10.06	
4	50.00	0.30	50.30	47.90	1.80	0.30	48.50	47.60	16.76	10.06	
5	50.00	0.30	50.30	49.00	1.80	0.50	48.50	48.50	16.76	10.06	
6	50.00	0.40	50.40	49.00	1.80	0.60	48.60	48.40	16.80	10.08	
7	50.00	0.20	50.20	47.00	2.80	0.00	47.40	47.00	16.73	10.04	
8	50.00	0.20	50.20	48.10	2.10	0.80	48.10	47.30	16.73	10.04	
9	50.00	0.10	50.10	48.10	1.80	0.50	48.30	47.60	16.70	12.52	
10	50.00	0.10	50.10	48.40	1.80	0.30	48.30	48.10	16.70	10.02	
11	50.00	0.20	50.20	48.80	1.80	0.80	48.40	48.00	16.73	12.55	
12	50.00	0.20	50.20	47.00	3.80	0.60	46.40	46.40	16.73	12.55	
13	50.00	0.30	50.30	49.00	1.80	0.50	48.50	48.50	16.76	12.57	
14	50.00	0.20	50.20	49.90	1.60	1.60	48.60	48.30	25.10	12.55	
15	50.00	0.20	50.20	50.20	1.90	1.90	48.30	48.30	25.10	12.55	
16	50.00	0.10	50.10	49.10	1.80	0.80	48.30	48.30	16.70	10.02	
17	50.00	0.10	50.10	47.40	1.80	0.20	48.30	47.20	16.70	10.02	
18	50.00	0.10	50.10	49.80	1.90	1.70	48.20	48.10	16.70	10.02	
19	50.00	0.10	50.10	38.90	3.30	0.00	46.80	38.90	3.85	3.71	

Hole No.	Depth of Hole				Core Recovery 0 ~ 50 %	Size of Drilling				Efficiency	
	Planned Length m	Increase or Decrease Length m	Length Drilling m	Core Length m		73mm		56mm		Drilling Period m/day	Drilling Shift m/s
						Length Drilling m	Core Length m	Length Drilling m	Core Length m		
JMT-20	50.00	0.20	50.20	48.20	99.2	1.90	0.30	48.30	47.90	16.73	10.04
21	50.00	0.10	50.10	49.30	98.4	2.00	2.00	48.10	47.30	16.70	12.52
22	50.00	0.20	50.20	41.80	86.4	2.00	0.20	48.20	41.60	16.73	10.04
23	50.00	0.20	50.20	45.70	95.4	2.30	0.00	47.90	45.70	16.73	10.04
24	50.00	0.10	50.10	44.70	91.6	1.80	0.50	48.30	44.20	16.70	10.02
Total	1200.00	4.80	1204.80	1143.40	94.9	51.10	16.80	1153.70	1126.60	15.06	9.91

Efficiency of Each Drill Hole

Hole No.	Depth of Hole			Core Recovery 0 ~ 50	Size of Drilling						Efficiency	
	Planned Length m	Increase or Decrease Length m	Length Drilling m		Core Length m	73mm		56mm		Drilling Period m/day	Drilling Shift m/s	
						Length Drilling m	Core Length m	Length Drilling m	Core Length m			
JMS-1	50.00	0.45	50.45	48.95	1.80	1.40	48.65	47.55	12.61	10.09		
2	50.00	0.10	50.10	47.50	1.90	0.50	48.20	47.00	8.35	5.01		
3	50.00	8.00	58.00	55.90	2.90	1.00	55.10	54.90	14.50	7.25		
4	50.00	3.30	53.30	50.80	1.80	1.60	51.50	49.20	17.76	8.88		
5	50.00	3.20	53.20	51.30	1.90	0	51.30	51.30	17.73	8.86		
6	50.00	0.10	50.10	43.20	5.60	0.00	44.50	43.20	12.52	6.68		
7	50.00	0.10	50.10	40.90	2.00	0.40	48.10	40.50	16.70	8.35		
8	50.00	7.80	42.20	38.35	2.00	0.30	40.20	38.05	14.06	8.44		
9	50.00	0.20	50.20	44.30	1.80	0.80	48.40	43.50	16.73	8.36		
10	50.00	1.00	51.00	47.10	2.80	0.50	48.20	46.60	17.00	10.20		
11	50.00	0.20	50.20	42.40	1.80	1.10	48.40	41.30	10.04	8.36		
Total	550.00	8.85	558.85	510.70	26.30	7.60	532.55	503.10	14.33	7.92		

