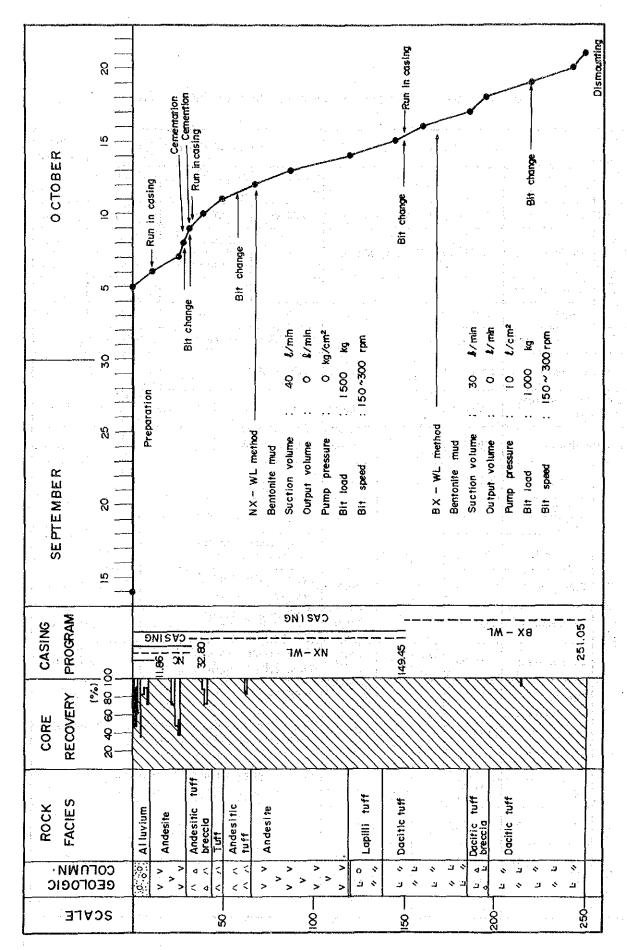
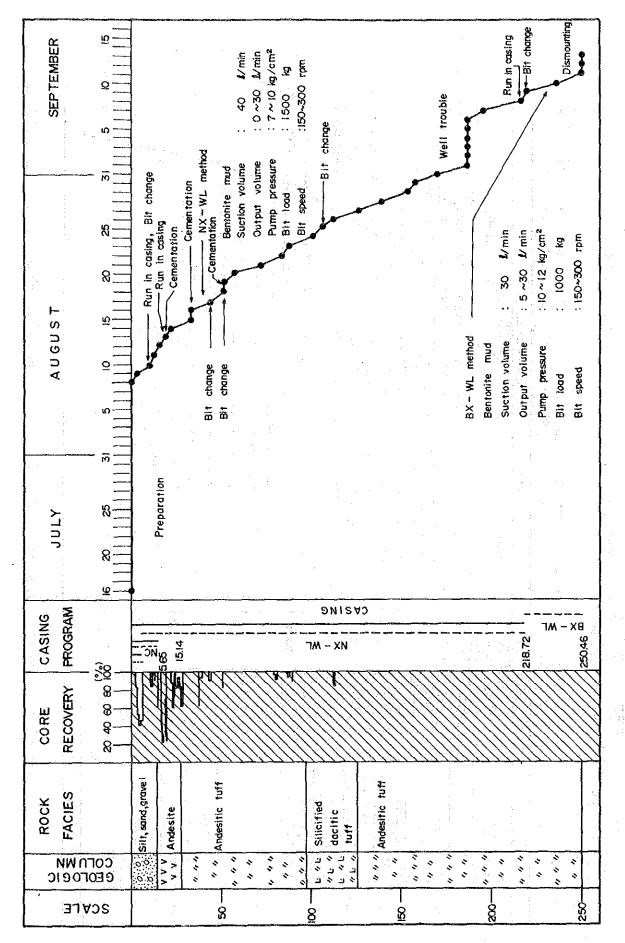
Apx. 28 (5) Summary of Drilling Results (MJP-15)

		Working Period			I Item of Working Period				Total Number	
	Period		Number of Days	Actual Working Days		No Wo	No Working O Days Work			
	Preparation	4th Aug	g. '87—30th	Aug. '87	27days	27	7days	Oda	ıys	481 mans
g period	Drilling	31th Ai	ug, '87–2th	Oct. '87	33		ling 28	0		479.5 85.5
Working	Dismounting			<del></del>				<del> </del>	<u> </u>	<b> </b>
WC	Total	4th Au	g, '87-2th	Oct '87	60		60			1,046
	L	ing length,				recover	y for eac	<del></del>		l
Plann	ed length	200,00m	Over burden	23.45m			Secti			<b>Fotal</b>
Increa	ase or decrease	0,35m	Core length	189.95m	0 ~ 10	0m	91,2	2		91,2
Lengt	th drilled	200,35m	Core recovery	94.8%	100 ~ 200	).35m	98,	5		94.8
	Drilling	203° 20′	29.7%	20.4%					<u> </u>	
, :	Hoisting & lowering rod casing	387° 40′	56,7	38.9	Drilling eff		illing effi	ciency		
1	Repairing	93° 00′	13,6	9.3	1	Total drilling length / Working Period  Total drilling length / Net working days  Total drilling length / Net drilling days			6.07m/day	
z time	Sub total	684° 00′	100.0	68.6	1				6.0	7m∕day
Working	Preparations	302° 00′		30.3	1				7.1	6m/day
Α	Dismounting	11° 00′	: :	1,1	Total drillin Total drillig				0.4	2man/m
	Others				Remarks					: 1
	Total	997° 00'		100.0	Preparation machines a				tran	sfer of
pipe	Pipe size & inserted length (m)	Inserted length Drilling le ×100 (	ngth casing	ery of pipe (%)	Core recove	ery incl	ludes ove	rburden	·	• .
casing	NC × 29,70	14.8		100						
Inserting	NX × 111.10	55.5		100				•		
Ins				-			.** .			

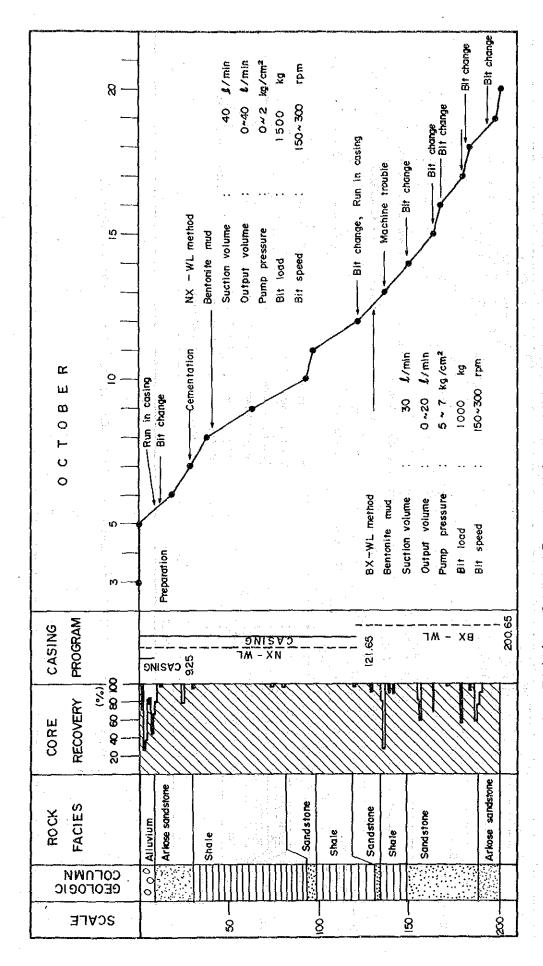


Area (MJP-11) Colpar Apx.29(1) Drilling Progress of the

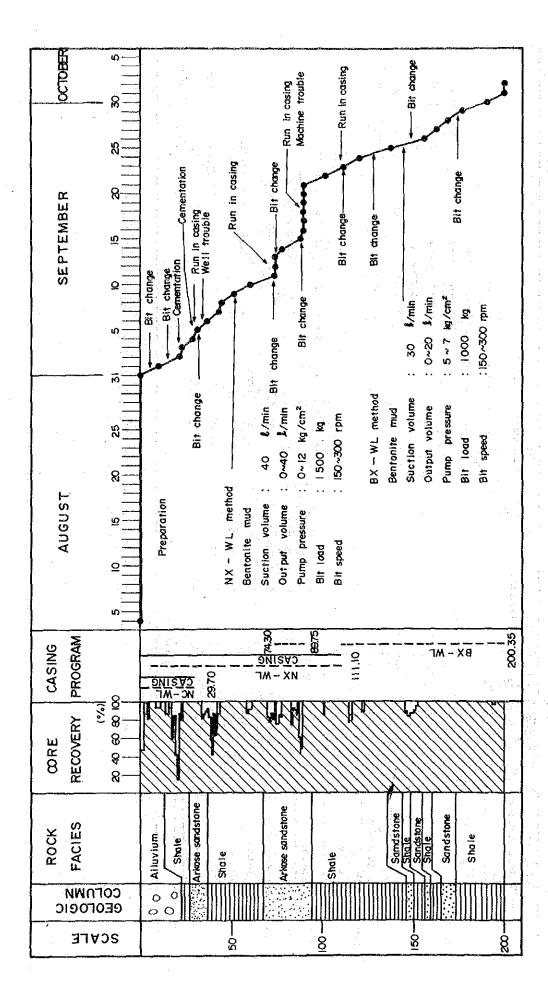


Colpar Area (MJP-12) Drilling Progress of the Apx.29(2)

Apx.29(3) Drilling Progress of the Colpar Area (MJP - 13)



Area (MJP - 14 the Marcamalata ŏ Drilling Progress Apx.30(1)



Area (MJP-15 the Marcamalata ₽ Progress Drilling Apx. 30(2)

Apx. 31 Drilling Equipment (MJP-11, 12)

Article	Model	Specification	Quantity
Drilling machine	Model "L-44" (LONGYEAR)	Capacity: NX 730m, BX 945m Inner diameter of spindle: 76mm Spindle speed: 700rpm Weight: 2,200kg	lset :
Motor	353	Diesel engine : 4cycle Revolution : 2,200rpm Related power : 60ps	1set .
Drilling pump	BEAN ROYAL420 (BEAN ROYAL)	Type: 3cylinders—single acting Capacity (max): 75 l/min Pressure (max): 49kg/c nf	lset
Motor	TJD (TELEDYNE WISCONSIN MOTOR)	Diesel engine: 4cycle Revolution: 1,800rpm Related power: 32ps	1set
Water supply pump	BEAN ROYAL 435 (BEAN ROYAL)	Type: 3cylinders—single acting Capacity (max): 135 l/min Pressure (max): 56kg/c m	lset
Motor	TJD (TELEDYNE WISCONSIN MOTOR)	Gasoline engine: 4cycle Revolution: 1,800rpm Related power: 32ps	1set
Wire line hoist		Attached to drilling machine	1set
Derrick		Pipe structual derrick	lset
Generator	392 (MILWAUKEE WISCONSIN MOTOR)	Gasoline engine: 4cycle Revolution: 3,600rpm Related power: 10ps	lset
Drill rod	Wire line rod	NC 20m NX 250m BX 250m	
Water tank		0.5 m 2sets	

Apx. 32 Drilling Equipment (MJP-13)

Article	Model	Specification	Quantity
Drilling machine	Model "L-38" (LONGYEAR)	Capacity: NX 525m, BX 660m Inner diameter of spindle: 76mm Spindle speed: 700rpm Weight: 1,650kg	1set
Motor	353	Diesel engine: 4cycle Revolution: 2,200rpm Related power: 51ps	1set
Drilling pump	BEAN ROYAL 420 (BEAN ROYAL)	Type: 3cylinders—single acting Capacity (max): 75 l/min Pressure (max): 49kg/c m²	1set
Motor	TJD (TELEDYNE WISCONSIN MOTOR)	Diesel engine: 4cycle Revolution: 1.800rpm Related power: 32ps	lset
Water supply pump	BEAN ROYAL 435 (BEAN ROYAL)	Type: 3cylinders—single acting Capacity (max): 135 l/min Pressure (max): 56kg/c m²	lset
Motor	TJD (TELEDYNE WISCONSIN MOTOR)	Gasoline engine: 4cycle Revolution: 1,800rpm Related power: 32ps	1set
Wire line hoist		Attached to drilling machine	1set
Derrick		Pipe structual derrick	1set
Generator	392 (MILWAUKEE WISCONSIN MOTOR)	Gasoline engine: 4cycle Revolution: 3,600rpm Related power: 10ps	lset
Drill rod	Wire line rod	NC 50m NX 250m BX 250m	
Water tank		0.5 m² 2sets	,

Apx. 33 Drilling Equipment (MJP-14, 15)

Article	Model	Specification	Quantity
Drilling machine	Model "L-38" (LONGYEAR)	Capacity: NX 525m, BX 660m Inner diameter of spindle: 76mm Spindle speed: 700rpm Weight: 1,650kg	lset
Motor	353	Diesel engine: 4cycle Revolution: 2,200rpm Related power: 51ps	lset
Drilling pump	BEAN ROYAL 420 (BEAN ROYAL)	Type: 3cylinders—single acting Capacity (max): 75 l/min Pressure (max): 49kg/c m²	lset
Motor	TJD (TELEDYNE WISCONSIN MOTOR)	Diesel engine: 4cycle Revolution: 1,800rpm Related power: 32ps	lset
Wire line hoist		Attached to drilling machine	lset
Derrick		Pipe structual derrick	lset
Generator	392 (MILWAUKEE WISCONSIN MOTOR)	Gasoline engine: 4cycle Revolution: 3,600rpm Related power: 10ps	1set
Drill rod	Wire line rod	NC 50m NX 150m BX 200m	
Water tank		0.5 m² 2sets	

Working Time and Efficiency of Drillings (MJP-11~MJP-15) Apx. 34

Lenght	(B)	0~251.05	0~250.46	0~250.20	0~200.65	0~200.35
er of. Workers	Man /m	1.40	3.25	1.25	1.50	2.82
Number of Works	Total Number of Workers	351	815	313	301.5	565
tal	H/M	1.48	2.81	2.75	1.72	3.41
Sub Total	Total Time	371° 00′	705° 00′	687° 00′	345°00′	684° 00′
gu	H/M	0.19	0.74	0.58	0.16	0.46
Repairing	Total Time H/M Total Time H/M	48° 00′	186° 00′	144° 00′	32° 00′	93°00′
Rod,	н/м	0.58	1.07	1.29	0.77	1.93
Hoisting and Lowering Rod, Casing	Total Time H/M Total Time H/M	144° 45′	268° 30′	323° 30′	154° 10′	387° 40′
	H/M	0.71	1.00	0.88	0.79	1.01
Drilling	Total Time	178° 15′	250° 30′	219° 30′	158°50′	203°20′
Working Time and Efficiency	Drill Holl	MJP-11	MJP-12	MJP-13	MJP-14	MJP-15

# Apx. 35 Results of Bit works (MJP-11, 12, 13)

MJ	P-	ι
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	Depth (m)			149.45~251.05	
	Item	0~32.80	32.80~149.45	149,45~251,05	
Circu	lating water	Bentonite mud	Bentonite mud	Bentonite mud	
Chang	ge bil	Cutter crown NC1 Diamond NC2	Diamond NX0 Impregnated NX2	Diamond BX1 Impregnated BX1	
	Pressure (kg/c of)	0~2	0	10	
Pomp	Suction volume (1/min)	70	40	30	
	Output volume (2/min)	0~70	0	0	
	Load (kg)	500	1500	1000	
Bit	Speed (rpm)	100~200	150~300	150~300	
i Core	recovery (%)	89.3	99,6	99.9	

MJP -- (2

	Depth (m)	0~15.14	15.14~218.72	218.72~250.45	
Circu	lating water	Bentonite mud	Bentonite mud	Bentonite mud	
Chan	ge bit	Culter crown NC1 Diamond NX1 Tricon 43/4' 1	Diamond NX1 Impregnated NX2	Impregnated BX1	
٠.	Pressure (kg/c nf)	0~2	7~10	10~12	
Ропр	Suction volume (#/min)	70	40	30	
	Output volume ( t/min)	0~30	0~30	5~30	
	Load (kg)	500	1500	1000	
Bit	Speed (rpm)	100~200	150~300	150~300	
Cois	recovery (%)	84.5	97.8	100	

MIP-13

Depth (m)		0~41.15	41,15~126.25	126.25~250.20	
Circu	lating water	Bentonite mud	Bentonite mud	Bentonite mud	
Chang	ge bit		Diamond NX2 Impregnated NX4	Diamond BX1 Impregnated BX1	
	Pressure (kg/c al)	0~2	0	10	
Pump	Suction volume (1/min)	70	40	30	
	Output volume ( t/min)	0~70	0	0	
	Load (kg)	500	1.500	1.000	
Bit	Speed (rpm)	100~200	150~300	150~300	
Core	recovery (%)	73.6	90.4	97.8	

X Core recovery includes overburden.

Apx. 36 Results of Bit works (MJP-14, 15)

MJP - 14

	Depth (m)	0~9,25	9.25~121,65	121.65~200.65	
Çircu	lating water	Bentonite mud	Bentonite mud	Bentonite mud	
Chan	ge bit	Cutter crown NC1 Diamond NX1	Diamond NX0 Impregnated NX1	Diamond BX4 Impregnated BX3	
Pump	Pressure (kg/c m²)	0~2	0~2	5~7	
	Suction volume ( £ /min)	70	40	30	
	Output volume (2/min)	0~70	0~40	0~20	
	Load (kg)	500~800	1,500	1,000	
Bit	Speed (rpm)	100~200	150~300	150~300	
Core	recovery (%)	75.4	99.2	94.5	

MJP - 15

Depth (m)		0~29.70	0~29,70 29,70~111.10		
Circu	lating water	Bentonile mud Bentonite mud Bento		Bentonite mud	
	ge. bit	Cutter crown NC1 Diamond NX1 Impregrated NX1	Diamond NX2 Impregrated NX1	Diamond BX4 Impregrated BX1	
	Pressure (kg/c d)	0~2	0~2	5~7	
Pump	Suction volume (£/min)	70	40	30	
	Output volume (2/min)	0~70	0~40	0~20	
	Load (kg)	500~800	1,500	1.000	
Bit	Speed (rpm)	100~200	150~300	150~300	
Core	recovery (%)	87.7	93.4	98.4	

 $<sup>\</sup>divideontimes$  Core recovery includes overburden.

Apx. 37 Consumed Materials (MJP-11~MJP-15)

Article	Specification	Unit	Quantity					
Article	Specification	Uiiii	MJP-11	MJP-12	MJP-13	MJP-14	MJP-15	Total
Diesel	Drilling machine and drilling pump	e	3,650	5,300	5,200	3,000	4,650	21,800
Gasoline	Water supply pump and generator	l	2,230	2,750	2,800	320	600	8,700
Diesel	Truck	l	-	_	<del>-</del>			7,400
Gasoline	Truck and jeep	l	_	_				6,300
Engine oil	Drilling machine, drilling pump and water supply pump	l	50	120	. 80	50	100	400
Cylinder oil Gear oil	Drilling machine, drilling pump and water supply pump	l	90	160	120	100	130	600
Grease		kg	40	60	40	40	60	240
Bentonite		kg	2,775	3,525	7,525	1,375	2,925	18,125
Cement		sx	10	8	11	2	19	50
CMC		kg	10	3	-	6	25	44
	NC	pcs	2		1		_	3
Diamond bit	NX	pcs	- 2	4	6	2	5	19
	BX	pcs	2	1	2	7_	5	17
Diamond	NC	pcs	_	-	1		-	.1
reaming	NX	pcs	1	1	2	1	1	. 6
shell	BX	pcs	_	1	1	11	2	5
Coning abou hit	NC	pcs	1	1	1	1	1	5
Casing shoe bit	NX	pcs		1	1	_	1	3
	NC	pcs		• 1	1		1	3
Core barrel	NX	pcs	-	2	2		2	6
	BX	pcs		2	2		2	6
	NC	m		20	50		50	120
Drill rod	NX	m		250	250		150	650
	BX	m		250	250		200	700
	NC	pcs	1	_	1			2
Core lifter	NX	pcs	1	2	3	1	2	9
	BX	pcs	1	1	1	3	3	9
	NC	pcs	1				~- '	1
Core lifter case	NX	pcs	1	2	3	11	2	9
	BX	pcs	1	1	1	2	3	8
Chuck piece		pcs		1	1		1	3
Wire	4mm	m		280	280		230	790
17 H C	12mm	m		15	15		15	45
Lost circulation materials		kg	25	20	20	10	25	100

### Apx. 38~42 Geological Section of Drilling Holes

#### Abbreviations

an : andesite

an-tf : andesitic tuff

an-tf-br : andesitic tuff breccia

dc-tf : dacitic tuff

dc-lap-tf: dacitic lapilli tuff

dc-tf-br : dacitic tuff breccia

grn-pt : green patch

s.s : Sandstone

sh : Shale

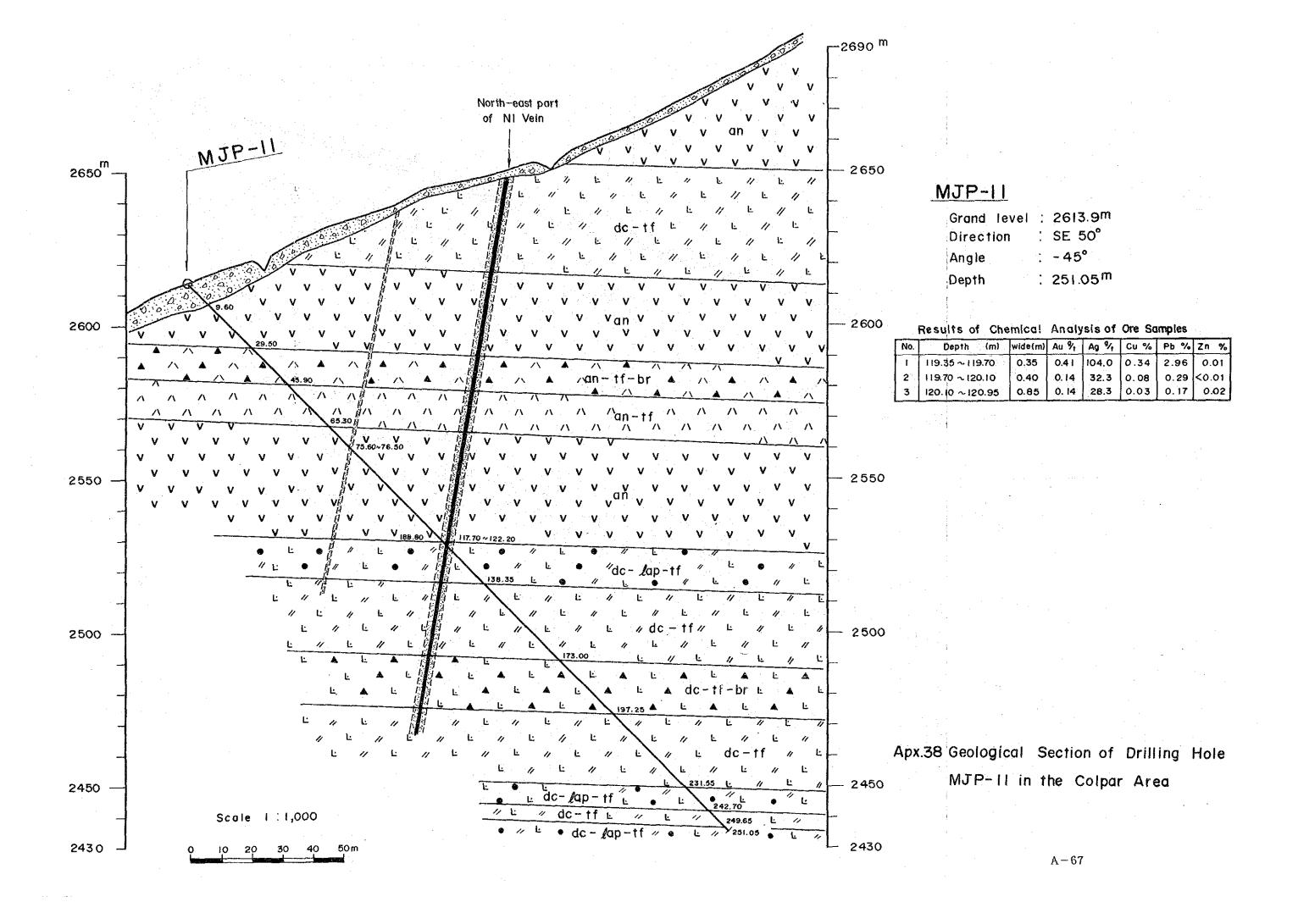
alt-s.s.-sh: alternation of sandstone and shale

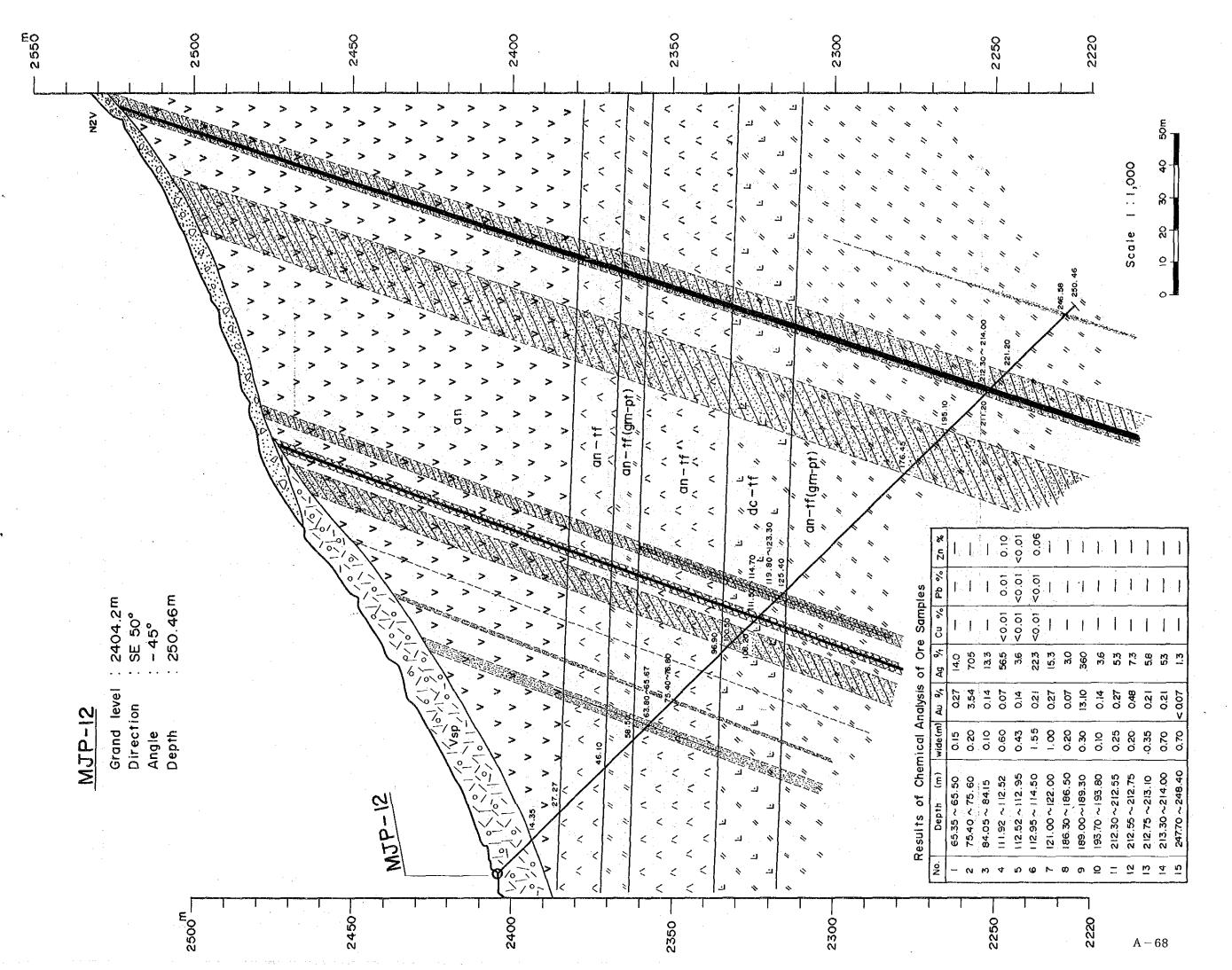
Vsp : Volcanic Sediments

al-d: Debris (gravel, sand, silt, clay)

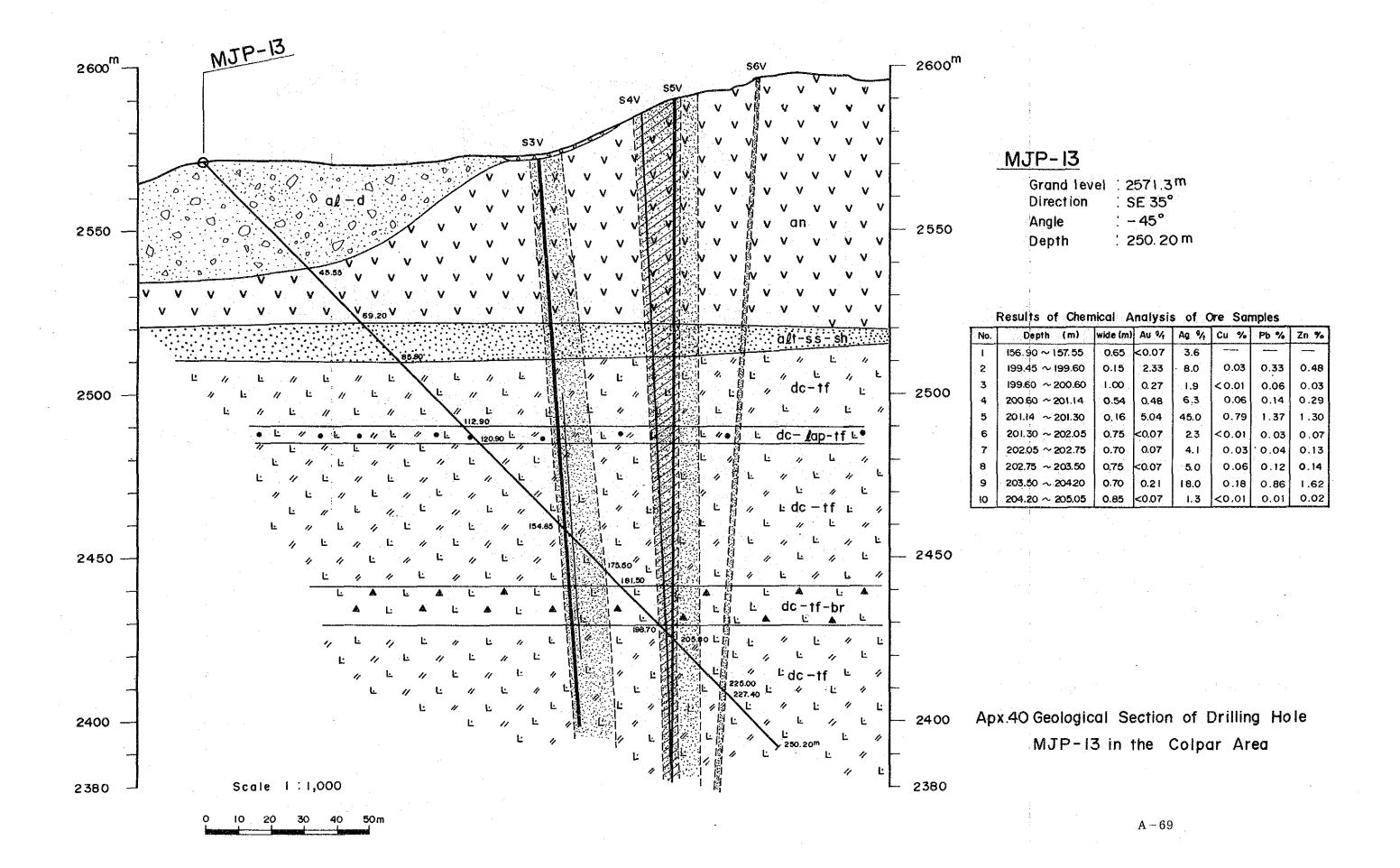
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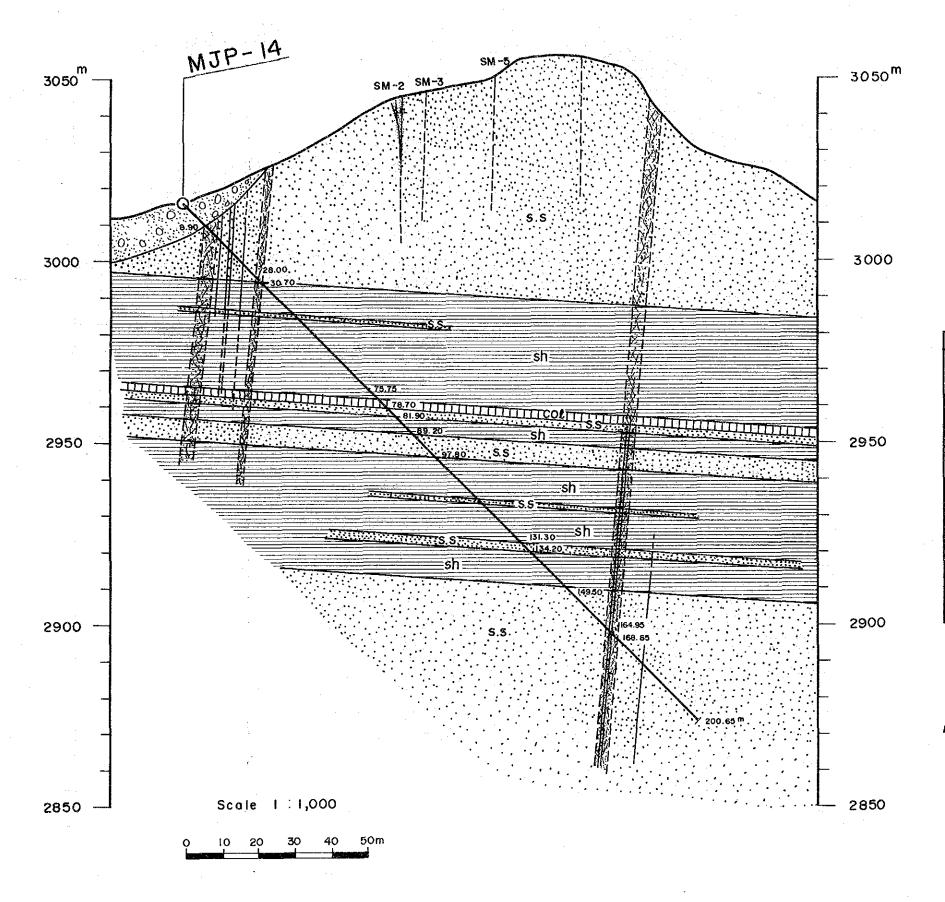
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Colpar Area in the Drilling Hole MJP-12 Section of Apx.39 Geological





# MJP-14

Grand level: 3015.6 m

Direction: SE 20°

Angle: -45°

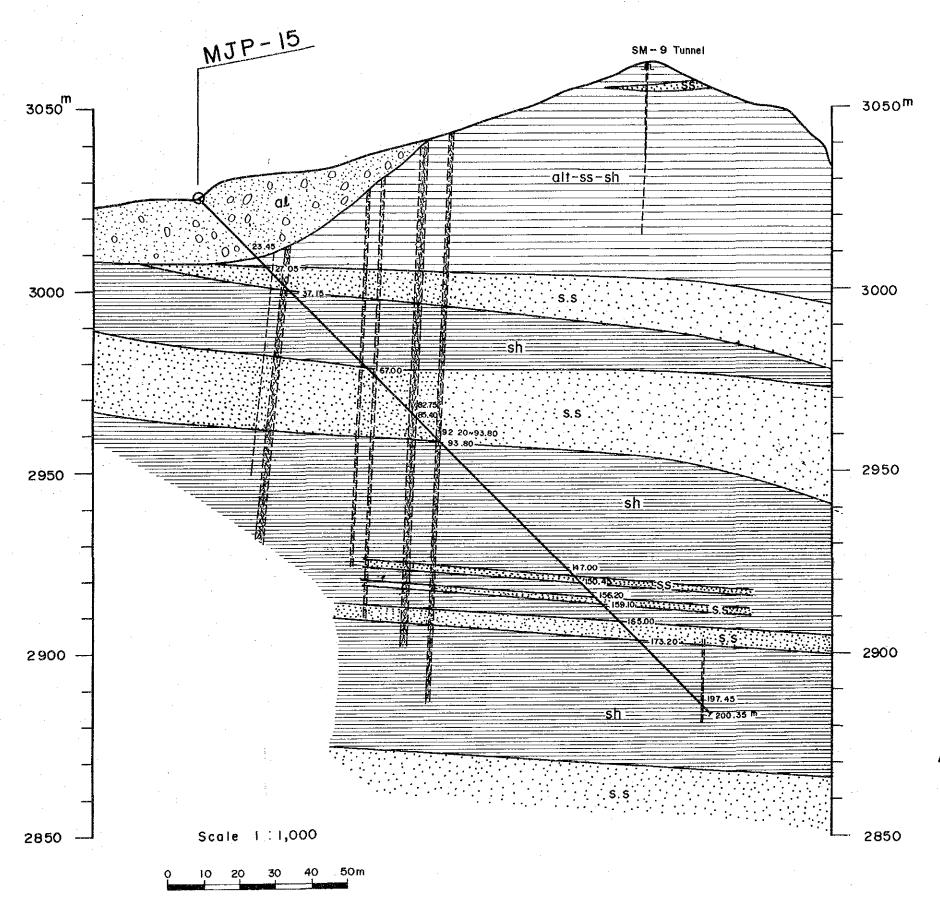
Depth: 200.65 m

Results of Chemical Analysis of Ore Samples

No.	Depth (m)	wide(m)	Au <sup>9</sup> / <sub>1</sub>	Ag 9/1
ı	8.90 ~ 10.15	1.25	< 0.07	2.3
2	10.15 ~ 11.60	1.45	< 0.07	1.9
3	11.60 ~ 12.75	1.15	< 0.07	0.3
4	14.15 ~ 14.25	0.10	< 0.07	< 0.3
5	17.40 ~ 17.50	0.10	< 0.07	0.3
6	18.40 ~ 18.47	0.07	< 0.07	0.3
7	23.15 ~ 23.25	0.10	< 0.07	0.5
8	28.50 ~ 29.65	1.15	< 0.07	0.5
9	29.65 ~ 30.70	1.05	< 0.07	3.3
10	115.40 ~ 115 60	0.20	< 0.07	2.5
11	165.30 ~ 165.70	0.40	< 0.07	2.3
12	165.70 ~ 166.55	0.85	< 0.07	2.5
13	167.30 ~ 167.85	0.55	< 0.07	0.5
14	167.85 ~ 168.55	0.70	< 0.07	0.5
15	179.22 ~179.40	0.18	0.07	2.5
13 <sub>.</sub> 14	167.30 ~ 167.85 167.85 ~ 168.55	0.55 0.70	< 0.07 < 0.07	O.5

Apx.41 Geological Section of Drilling Hole

MJP-14 in the Marcamalata Area



# MJP-15

Grand level : 3026.7m
Direction : SE 20°

Angle -45°

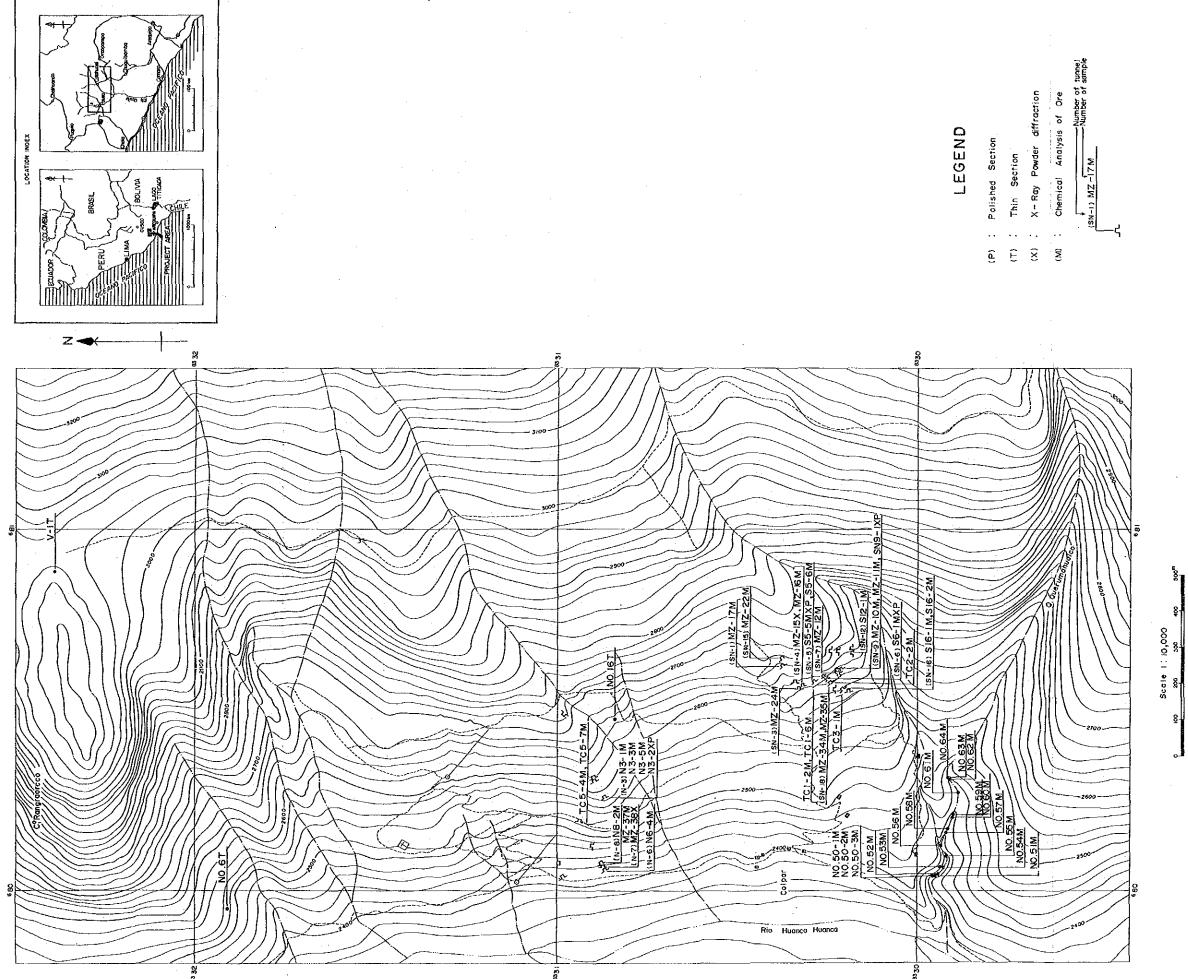
Depth : 200.35<sup>m</sup>

### Results of Chemical Analysis of Ore Samples

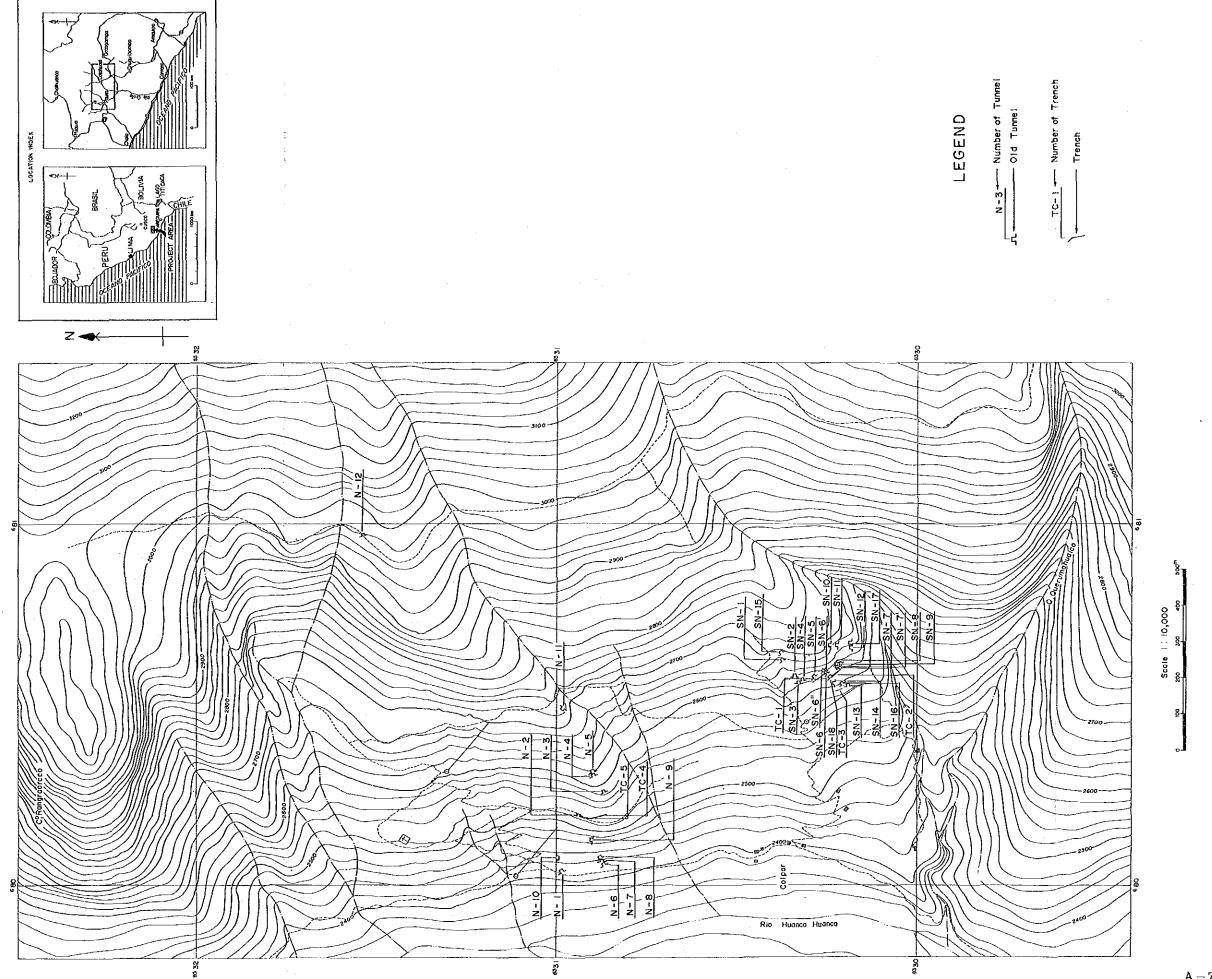
No.	Depth (m)	wide(m)	Au <sup>0</sup> / <sub>1</sub>	Ag 9/t
-	32.70 ~ 33.45	0.75	< 0.07	1.9
2	33.45 ~ 34.20	0.75	< 0.07	1.0
3	35.00 4 36.00	1.00	< 0.07	0.3
4	63.70 - 64.00	0.30	0.07	0.3
5,	68.35 ~ 69.55	1. 20	< 0.07	1.3
6	82.75~83.80	1.05	< 0.07	0.5
7	8 4.50 ~ 85.00	0.50	< 0.07	0.8
8	92.20 ~93.10	0.90	< 0.07	0.3
9	93.10 ~ 93.80	0,70	< 007	2.8
10	197.45 ~ 197.80	0.35	< 0.07	1.9

Apx.42 Geological Section of Drilling Hole

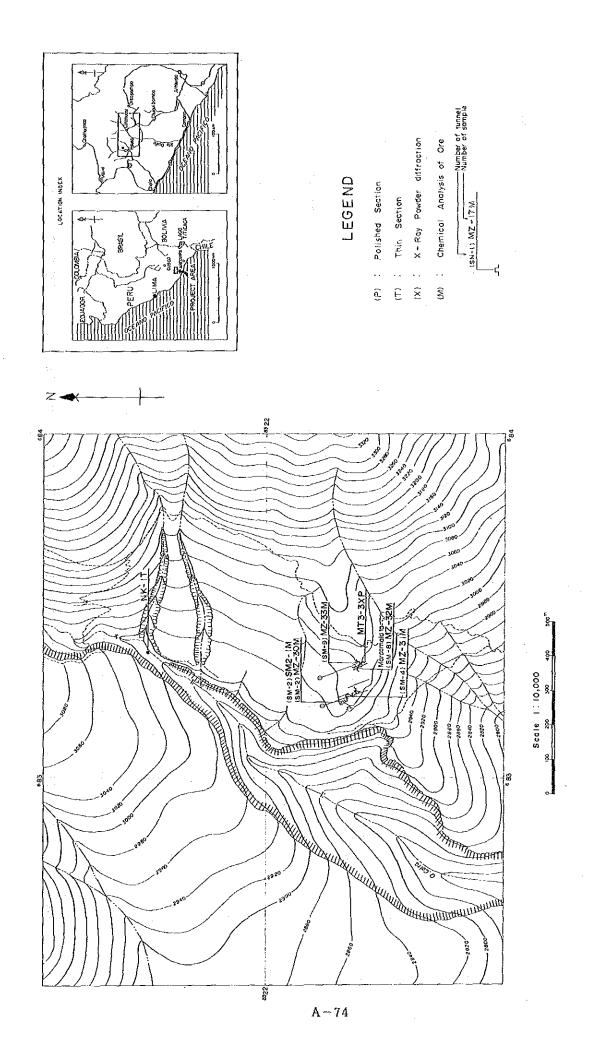
MJP-15 in the Marcamalata Area



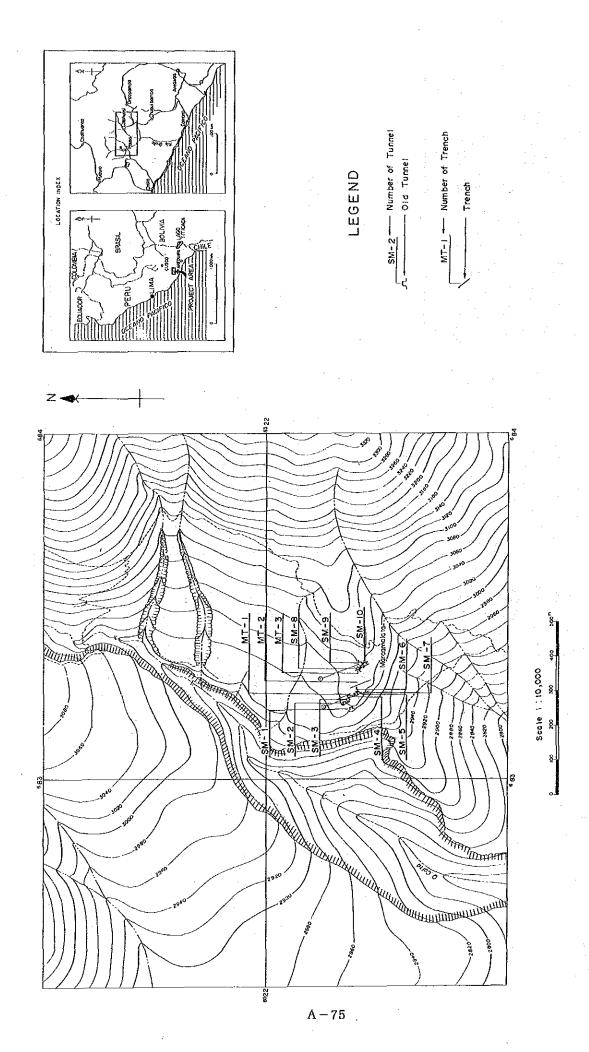
Samples of the Colpar Area Ore Location Map of Rock and Apx.43



and Trenches in the Colpar Area Tunnels Location Map of Old Apx.44



Apx. 45 Location Map of Rock and Ore Samples of the Marcamalata Area



Marcamalata Area Apx.46 Location Map of Old Tunnels and Trenches in the

MJP-11()	Direction is 50°, Angle :- 45°,	Depth   251.6	75m			MJP-11(2)	Direction   SE SO* , Anyle ! - 45" ,	Depth ; 251.05 m		MJF	>-11(3	Direction : SE 50* , Angle: - 45* ,	Depth : 251.05M		<del></del>
SCALE GEOLOGIC AND CORE ANGLE	DESCRIPTION	POSITION OF EXAMINED CORE SAMPLES	AND	ASSAY RESULTS	CORE M	SCALE GEOLOGO AND COLUMN CORE ANGLE	DESCRIPTION	POSITION OF ALTERATION EXAMINED CORE SAMPLES MINERALIZATION U > 5 3 Sam	ASSAY RESULTS CORE  RECOVERY 3  Plo Dech Widih Av Ag Cu Pp Zn As  Lini Land (2011 [97] [10] [74] [10] [74] [10] [74]	SCALE SEON	DEPTH ANO CORE ANGLE	DESCRIPTION	POSITION OF ALTERATION EXAMINED AND CORE SAMPLES MINERALIZATIO	ASSAY RESULTS	CORE W
(m) (m) (**)	0.00-9.60m. Alberium 0.00-1.50m: grey soll and small(gl-4cm) gravel 1.50-9.60m: mainly gravel (gl-10cm) with grey soil. gravel grry andstite and light gray dacits, unglar		\$ 8 2 € No	Se Deyth Width Au Ag Cu Pb Zn A jm 1m (99) 190 (90 100 100 100	2	(m) (m) t°	dark prop hard massive anderite with reddish brown rea- josides along cracks, mafie mideral changed to chlorit. 104 70 m. white clarity evidents = 0.5 cm) 105 70-105 75 m. brown transaides along many crack		9 (m) (m) (91) 1971 (tu) m) (N) (N) (N) (M) (M) (M) (M) (M) (M) (M) (M) (M) (M		Lm) (*	light green ductive tulf with light green tenticulus pairs 201.40–202.40 m: white gray weakly alreced decide to (Obrached)  Light green white gray ductive tulf with green patch and quarta grain in matrix.		No (m) (m) (9/1) (9/2) (10) (50) (10)	20 20 200 200 200 200 200 200 200 200 2
10 - V V 3 15.5	grig to greenish grey perphyritic ardesite with many fractures  9 60 - 11 50 m, 17 30 - 18 10 m,  17 60 - 28 50 m, many fracture mee				Section (Laboratory of the Control o	110 - V V	\$31,35 to, eshila reithel		110 (110 (110 (110 (110 (110 (110 (110	210	= 131 H	218.40~812.00 m: white and gray feeticular quarts valided	I I		-20 -20 -20 -20 -20 -20 -20 -20 -20 -20
20 — V V V V V V V V V V V V V V V V V V						120 — 120 —	117.00-118.80 nc. gray to light gray bleached and chile with discensiration of pyrite crystal  118.80-122.70 nc. light gray strongly altered lepith toff  119.35-119.70 nc. dark gray quarts win with recent adstrong billionid cock and discensirated action gibinide cock and discensirated neather interest (Do. Sp., Oo., Py.)  119.70-170.70 nc. light gray strong sliving of	.	19 35 035 041 1020 03 a 36 09 a 37 09 a 37 09 a 37 09 a 37 0 37 0 37 0 37 0 37 0 37 0 37 0 37	1 1 -1.4.	219 30 L	200.40 m. small (ault? grey clay (thickness 3 cm) light preen decitle luff with speel for green by 600 cm under 6 negative and decite 1 b mission, green patch, and quart			-550
30 - V V S 31 NO 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	yellowith brown weathered a scirilic tuff breezis 23,00-29,90 m. steerefy shazed some with elsy, 30.40-319,90 m. physical cone (Lony fretzur)	-	_		200 (100 (100 (100 (100 (100 (100 (100 (	130	layilli left with many quarts whiches oceated metalic maneral (5, 28 Ga, 29) 120,100-120,75 m. light gray bedrak gray Leocathed quarts with with disk gray layerise. 120,15-10,55 m. light gray strongly silvidies (50, 150,55-122 d) m. light gray strongly silvidies (50, 150,55-122 d) m. light gray strongly bleached lapilli left.		15 (2) (2) (2) (2) (2) (2) (2) (2) (2) (2)	230	r , , , , , , , , , , , , , , , , , , ,	gradual change			-530
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30.40-32.90 m. sheared roos (many fracture)  grey andesible tuff to roccia breecks: light gray peophyritic andesite (\$1-5 cm) matula: gray andesite tuff				Andreas de l'action de l'actio	- 1	light greenish grey davide haybiltidif  laybilt: ungaker be abunguher haybilti (\$0.5-2.0 cm) or  maktiz: greenish grey infl with quarte grain  das i greenish grey infl with quarte grain  das i greenish grey skittle kalpilti suffi  laybilt: green popply ritle and ektiz (\$2 zm under)  maktiz: das freenish grey bilt with quarte grain		Resident Control of Co		L C	light green dacitic la pillituff lapilli: \$2 cm under, dark green and grey andelik, while grey dailte and a little of green putch matrix: small frequents of rock and quarte grain			
47 — ^ ^ 6 350	brown to dark been a krownides abong many cracks.  42 25–42 30 m: white calcide will network  grey decide hapilit cuff with quarte grein.  hapilit: white grey decide (625–40 cm)		-			149	gradul change light gryship green decitic half with green lenticular patch and quarta grain	m1622n 21	William Control of the Control of th	٠٠٠ ا ٣	24190 6 L 24190	prendecile tuli brecite  light green decile tuli with emill (regreents (60 8 en node) of andesite and decile, and quarts grain in matrix.			-240
50 - 00 00 00 00 00 00 00 00 00 00 00 00	grey hard compact and entitle fine buff 43.30 m. while lendiscute rathin with grey and entitle termination and entitle termination between: mainly high grey porphyritic and entitle greenish grey hard compact and entitle tuff greenish grey hard compact and entitle tuff		-		Section of the sectio	150 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	151,55 m; white quarte rein (re = 0.7 cm)	_	A control of the cont	250	549 65	light green daorisc kepilli tulf			-50
- AAA ABB ABB ABB ABB ABB ABB ABB ABB AB	33 50—54 40 m, 53 50—55 50 m: green that proy and exitic tuff breezia with dissentiantion of pyrial 55 50—51 50 m dark grey hard massive and estitic fine tuff light greenish grey and estitic tuff		TE.		Section Constitution (Section Constitution C	160	light grayish green decitic tuff with small beceeds of green ardeslikt tuff, green lenticular patch and quarte grain (\$0.1 cm)		Sign of the second seco						
60 - 10	60 50 - 61 (00 ex:    Eight preside gray and stilk hall it still  63 25 m white calcite exhibit  dark gray hard massive and site matter cineral changed to chioria.		-		And Development		green decitie tuil with anni (603-04 cm) besein of green andesite > light grey decite and quarte grain lo matrix		Management of the state of the		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
70 - 7 0 0 0 0	69 00 zo: caliste veintet (# = 0 3 cm)		-		- 70	170 — 17300	* no contain lecticular green patch  ———————————————————————————————————	1 1 1	TO THE PROPERTY OF THE PROPERT						
80 - Y V	3.60-36.50 m. Sphastey weakly altered andeotic 70.00 m. Interior appriler min 72.00 m. white calcute sein (= 1.00 m.) with crystal of calcute sein (= 1.00 m.) with crystal of calcute distance andeotic with calcute veinited,		-w.Z-		- 60	180 — 11900 160 — 11900 1 1900 1 19	la pilli: unquiar, dark pren andesise, grey andesise at la pilli : unquiar pred actic (50 cm under, ren (5-7) cm) matrix: small fragments of rock and quarte grain particulated disclick till farecial breeds: 60 cm under, some hind of andesise matrix: red diagnosts and quarte grain		THE STATE OF THE S	8 -					
V V 125.80 V V V 135 \( \frac{1}{2} \)	83 20 m - 83.40 m: white caking veinlet (w = 0.4 - 0.2 cm) 83 50 m: caking vein (n = 0.5 cm) 85.50 m: caking vein (n = 0.5 cm) 85.50 m: caking veinlet 85.20 - 80.25 m: ais caking veinlets (w = 0.2 cm under) in another is	guign IT	- HH			- 0 k - 0 k - 0 03 95 - 0 k - 0 k	light great deaths line buff  pren deaths by lills buff  pren deaths by lills buff  pren to light great deaths buff brooks  brooks: 40 mm under, grey underlies white deaths etc.  marks: 100 fine penetra and quarte grain.		THE CONTRACTOR OF THE CONTRACT						
90 - V V V V V V V V V V V V V V V V V V	dark gray hard massive andesite matte mineral changed to thioxide  94.10-94.20 m: white calcite veinlet 95.10-96.40 m: calcite veinlet and netweek				- Section of the sect	190 L 2 15 15 15 15 15 15 15 15 15 15 15 15 15	white grey hard compact ductive full becomes become you make, white grey ducite matries: rock fragments and quarte grain waskly silicified rock, dissemination of pyrite		140						
- <del>y</del> y 350 %	28.10 m: white calcite vsin (w=0 5 cm) 99.90 m: calcite vsin (w=0 2 cm)		-		A CONTRACTOR	1 6 197 25	light green decitic tuff with light green leaticular patch	1   1	54,479,645 54,479,645			·			

Apx.47(I) Geological Log of Diamond Drilling Hole (MJP-II) A-76

2(1) Direction (SE50* , Angle :- 45* ,	Depth . 250.40	5 <i>m</i> ,	······································	<u></u>	IJP-12(2)	Direction : SE 50°, Angle - 45°,	Qepth : 250.	46 m	<b>.</b>		MJP-12(3)	Direction : SE SO* , Angle : -45* .	Depth : 250.46m	7
DEPTH DESCRIPTION DESCRIPTION	POSITION OF EXAMINED CORE SAMPLES	ALTERATION AND MINERALIZATION	ASSAY RESULTS CORE RECOVERY	SCALE	GEOLOGIC AND COLUMN CORE	DESCRIPTION	POSITION OF EXAMINED CORE SAMPLES	ALTERATION AND MINERALIZATIO	ASSAY RESULTS	CORE H	SCALE GEOLOGO AND CORE ANGLE	DESCRIPTION	POSITION OF ALTERATION EXAMINED AND CORE SAMPLES MINERALIZATE	ASSAY RESULYS
NGLE m) (°		SHIIC SAM Western West	role Depth Width Au Ao Cu Pb Zh As 5 (m) (m) (m) (9/1) (9/1) (54) (54) (54) (54) (54) (54) (54)	(m) (m)	ANGLE (m) (*)			SH A 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Somple Deput Width Au Ag Cu Pb Zn As	53 100 (m)	[m] (m) (*)		Suic Pr Arg	Sample Depth Width Au Ag Cu Pb Zh Ai No tent (mx 1971) 1971 134 1922 134 1340 1340
Paud Sediments silt, sand greet; silt and gand, white to tight grey tuffaccous silt and sand, white to tight grey tuffaccous silt and sand, gravel; site under 20 cm, blo-decide, light green anderite, dark grey andecide.			Secretary Secret		[20 No. 20 ]	while gray very strongly silicitized rock (decitic tuff) with ghe received of quartit grain and frantisular bi recin					新桃粉香 2011-2014 2011-2014	200 S0m deuts of histor miness?  201 22 m agazita vinites with reddish becam minessal  201 32 m white quarta win with historia  (w = 2.5 cm)  201 25 – 201 85 m quarta win with historia  201 25 – 201 85 m quarta win not more with with black  minessal  202 60 – 200 70 m; grey to white quarta win not work  (w = 1.5 cm)  102 85 – 201 (0 m; black mad reddish become with  (w = 1.5 cm)	エ	
25. A dark grey hard compact undesite with weak chloritization.			Section of the sectio	—10 ——110 —————————————————————————————	100 00 00 00 00 00 00 00 00 00 00 00 00	light prey strongly shirdined dardie tall with phaescryst of cents.  11 50–112.35 m. light gogy arey strongly shirlington with black mineral (Eq. Apt P) it has greated to 112.95–112.95 m. dark gogy quarte with with black mineral and pyrite.  11 95–114.70 m. light grey strongly shirlington cock with black mineral (Eq. Ag P) atong open crack.	rk ' =- 115 67m 2P#	1	111 21 C60 007 55 506 601 010 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	December of the second of the	2110	white gray strongly slictified and estite tuff with dots of block mineral 212 00-212 00 mt. breeria basting dark gray quarte vein 212 00-21215 on Black vein (we'r em with white water entirested) to me the state of	2-3 70 m 3P	113 113 13 13 13 13 13 13 13 13 13 13 13
18 34-19 05 m: kew n loon poider along rerads.  19 19 54-19 00 m: along ly sheared some with howen n and white city.  21.15-24 85 m: light gray weally altered andesite at 45-24 65 m: spirited some with inconnictes.  24.85-27 27 m: dark gray to light gray hard occupact hard property and prop	2100 n U	II =I		-20	11980 71 80 71 80	11380-12100m: light grey strengly silicified each with black with a long grad.  12100-12200m: grey very strong silicified each with black with a long very strong silicified each with the silicified each with the silicified and silicified each with black with along reach.	is.		19100 1W 19200 100 9,22 133	128	220	rein retwork  1:65 -1-16.7 m, leminolas black rein  7:00 62 m, 720 50 m. Mack veinlet and dot  7:00 62 m, 270 50 m. Mack veinlet and dot  7:00 52 7:21 50 m, white quarte veinlet and 2 mm  2:11 70 - 22:3 0 cm. white quarte veinlet and black  **reinlet*  2:27 55 m. kontigular black vein (w= 1.0 cm)  2:21 55 m. kontigular black vein (w= 1.0 cm)  2:24 55 m. Mack vein with pyrite (= 0.5 cm)		
25.25-25 41 es. brown iron existes  27  27  27  27  27  27  27  27  27  2			The state of the s	-30 130	anyanana (1) (2)	Fight preprint green hard compact and exists full with lensicular green patch 131.20 – 131.40 m: strongly silicified more 131.32 m: quarte veinles (= = 0.5 cm) along ceach		<b>*</b>		- 180	230 —	221.35 m. black year and pyract = 0 to em) 221.35 m. gray and black quarte with w = 1 cm) light receiving any archime silicated andesiste toff with lensicular great patch. 220 0 m. gray quarts with with reddish brown mileocal 220 0.05 m. gray quarts with with reddish brown mileocal 220 0.05 m. gray quarts with with reddish brown mileocal	=	
35.30-35.50 cs. bewanison exists along cracks and quarte veinites (#-0.5 cm)  101  102  103  104  105  105  106  107  108  109  109  109  109  109  109  109		T	Constitution of the Consti	-40 149	73.40	135,40 m; quartz veinlet (= = 0 7 cm)  light greyish green hand compact and takis told with lentifular green patch and a little breviu of anderite lift to	o- 13982a ST	-		State	247 - 333 60	23.5.50-23.5.05 m. white quarts voin network  Triple Press hard compact and mile tuff with hydricular  Triple Press hard compact and mile tuff with hydricular  Triple Press park and small better or of grey and mile.		
22 act.  43 54-45 10 m: herweith grey surrogly sheared stoce  10 greecity grey hard-moused and citie toff with lensindar grees past hand a little freecid of matchie (§4-3 cm), yellowith hero a time oriested shang crack.		1	23 and All And	-   ·		: 148.97 m: black mineral (Sp. Ag <sup>9</sup> ) and (Patong orack			-	And the control of th	THE WAY	346 58-246 78 m. grsy quarts feldspar rein 24770-248, 10 m. white quarts stin network		13 M 2817 0 C 0 07 13
pellowish two on iron orides along crack.			Age of Control of Cont	-50 150 —	50 177 40 103 50 - 50 11 10 103 - 50 11 10 103 - 50 11	191.55 m; white calcite related to = 0.2 cm) 152.10-152.20 m; preyelsy with with pyrite vein (w = 92-0.5 cm)  [this precasion pay sill-infeed and earlie to III with Izanikultar green patch		T		-150.	250	245 40-249 00 m. andesiiki tull breeis		
53 No. 20 20 light greenish grey hard compact underlike tuff with a little beset in a frey nederlike (\$1 - 3 un)  63 80 - 65 67 ur grey lo light grey strongly a litelited rock with discentionation of grafts.			And a few control of the control of	-60: I60 -	3130 (I)	158 00-158.05 m: white grey strongly shelfed none.  154.50 m: white quarts - cakeing win (w = 0.5 cm)				FIRST CONTROL TO SERVICE CONTROL CONTR				
Fight greetiith grey hand compact and eith small beccla (\$60.0 cm) of grey undeside.		1-1	\$5320 0.15 027 140	-70	S	185 85 m. while quate - calcin win   w + 0 1 cm) 185 80 m. white quarte win (w + 0.5 − 10 cm) 187 12 m. white quarte win (w ≠ 0.5 cm) 178 30 m. white quarte win (w ≠ 0.5 cm)				Transfer of the second	1 1 1			
13 12 13 14 15 15 16 17 15 18 12 15 16 17 17 18 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18	an 23 477 - 18		73.50 0.30 354 703	-80 I50		176.45 m: quanta veinitel (w = 0.1 cm) light grey medium to strongly silicisted and activite (off, bleached.		† †		- 180				
34 05-84 14 m; while gray quarte rain		1	× 8403 0 10 0 14 13 3		11.35 11.35 11.30	180 77 - 184 10 m. attengly sheared none with gray thy along crack. 181.50 m: fault berecia with gray elay  185.30 m: block mineral IME, Splittegylar vein 185.30-193 70 m. dots and veinlet of their mineral			105 to 10					
38.00-48.08 cc. grey quarte vein 38.61-58.75 cc. grey quarte vein 39.02 cc. dark grey proceds were with a little Cp. and cany greits crystals 39.65 or black pitters and greyts along crack.			1	11 7		189 20 m: black mineral (Sp. Mg. Mo?, Py) lenticular vein (w = 3 cm)			92 199 20 0 30 13 19 150	-190				

Apx.47(2) Geological Log of Diamond Drilling Hole (MJP-12) A-77

ОЕРТН	Direction SE35* Angle -45*	POSITION OF ALTERATION	ASSAY RESUL	I TC	CORE	]   [ -	0EPT		POSITION OF ALTERATION	A\$SAY F	Seculits	CORE ω		нтезо		POSITION OF	ALTERATION	ASSAY RESULTS	S
EOLOGIC AND CORE ANGLE	OESCRIPTION	EXAMINED AND CORE SAMPLES MINERALIZATION		a Cu Pb Zh	RECOVERY S	SCALE (m)	GEOLOGIC AND COLUMN CORE ANGLI	DESCRIPTION	EXAMINED AND CORE SAMPLES MINERALIZATION		Ag Cu Pb Zn	RECOVERY	ł	GEOLOGIC AND COLUMN CORE ANGLE	DESCRIPTION	EXAMINED CORE SAMPLES M	AND	Sample Depth Width Au Ag (	Cu Pb Zn As
4 00 10 10 00 00 00 00 00 00 00 00 00 00	Allovium  000-1.00 m; grey sand and pubble gravel of dails; 100-3.00 m; pubble gravel of dails and grey soil 300-8.00 m; cobble and pubble gravel of fight grey davite, > shyolite, and estitictus.	900442	100 (00)		2 100 mm m	100	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	light geeraich grup dieitik tuff wich green leaticulur green patch (g) cm x 0.3 cm) and quarti grain 103,69 - 184,60 m: Light geen deritie fine tuff	K-ibraba ST				\$00 (w)	200 52 10 11 12 12 12 12 12 12 12 12 12 12 12 12	white party storage after deach 2005 On the state clear visit of the 2005 On the state care visit on \$50, Cp. (is and P.). 201, 14-201 30 m. white quarte visit on extract with the 201 20-10 25 m. "5p. 60-20 Cp." Py min 201 20-203 50 m. storagely stated rook with party resolution of the state of the party resolution of the state of the party resolution of the state of the party resolution	th distance of the state of the	*   =	3	001 005 003 008 014 070 019 17 150 001 003 001 003 004 013 018 086 1.62 018 086 1.62
9000 9000 9000	8 40 ~ 8 90 m; grey sand and granule  8 90 ~ 13 55 m; cobble gravel of decide tapilit tuff and parplish grey dayle.					1 110						-112	210 -		partly black vein network  gradual change white to light grey massive altered (bleached) daritie tull with dissemination of go (ite, quarte grain	1 1			
9000 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1355~1840 m: block of light grey to light brownish grey darite				— — — — — — — — — — — — — — — — — — —		a L	gradual change  light green massive decitic laydili tull with benticular green patch (41 - 3 cm) and quarta grein				Service Services		218 50	212 99-213.00 m: black vhinlet with Sgd-Ga>Cp				
28 28 28 28 28 28 28 28 28 28 28 28 28 2	18.40–28.10 m: boulder (max. \$50 cm) and cobble gravel of grey and sales, yellowish grey dacite and hight grey dacite					120 —	120 90 1 120 90	ight green dacitic toff with green patch (c) cmx03cm and	=			TIED	250 —	, ,	light grey wouldy attered ducitic tulf with breecia of light green lensicular andesite (\$1 - 3 mm) and partly white quanta veroles	9			
246 0	25.10-29.50 m: block and pebble gravel of dacite				The state of the s		12625 - L 12625	light green decision time toff				2000 100 100 100 100 100 100 100 100 100		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	225 00 ~ 277.40 m: dissemination of pyrite and black fine veialet		Ī		
1000	29:50-35:25 m: pebble gravel of light grey ducite, greenish grey andesite and parplish grey ducite (max. \$\dagger 20 cm).					130	130 50	light green docitie unit with a little small green pateh				Colored Colore	230	- \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	light grey weakly altered bleached electric tuff with light green and eithe and quarte grain, partly white quarte veint * sometimes contain breccia (\$2 cm) of green peoply title and electric	,,			
700 0 700 0	38.25—38.06 m: bbeek of purplish gray ducite 38.05—86.5 m: pobble of gray undenite and a little b of purplish ducite	w				teo —	13575	product change  light green destite that with preceptude and and entire breeze  (\$0.4 cm under) of grey prece light between  destite layell that which quarte grain  hapilit of New under, 1970 the destite  hapilit of New under, 1970 the destite			A de la companya de l	Lagrange -	240 —	L 340 33 MI	2:0 25 io, 240 35 m: white quarts winles (n = 0.8 - 0.3 cm)		-		
0000	\$3.95-44.95 m; grey soil and public gravel  dark grey with hy weathered and soile with repolith of gree and saile (65 cm).	en .						hipitif: \$3 cm under, hipitii of andesite  light green massive ducitie bull with a little breecia (\$1 cm d of white ducite and green andesite.				CONTRACTOR OF	-		light grey weakly altered deritic tuff with quarte grain and soual! (61 ~3 mm) light green andesite.				
V V V V V V V V V V V V V V V V V V V	48.35-48.65 m: grey clay with small chips of andesit	te			_s	0 150 -	1 1 1 1					(150)	250 —	7 23920		-			
v v 33 35 35 35 35 35 35 35 35 35 35 35 35	dată grey parphintiis andesile with many cracks, phenorr, of plaginclase (\$0.5 cm.)	yat	-				13485 2733 WELLS	- gradusi chunge - white gray bleached decitie toll with quarte grain  156,90-157,55 m: dark frey streegly alsered cock with white quarts velicits network and gray clay		FN 13692	7 36	10 (10 (10 (10 (10 (10 (10 (10 (10 (10 (	-				į		
V V V V V V V V V V V V V V V V V V V	6) 15-61.95: stime of gety and cuite				Section of the sectio	160 -	00 20 10 10 10 10 10 10	using quarter regular three was properly they  159.00—160 (I m: radifiable which publics actions);  160.10—160.40 m; date prepared public absent rock with  white quarter values not wast.  white gray bleached daddic tot! with white lenticular parch				140							
V V 2 6735 V V 2 6929	dark beywaith grey tolleccout shale with many fracture.				The state of the s	5 170		and quarts grain				120 120 120 120 120 120 120 120 120 120							
75 50	gray tollaceous course grained sandatone				The state of the s		175 50	gradual change				A CONTRACTOR OF THE CONTRACTOR					İ		
78 45 78 45 78 45 78 45	dark beautish gray tuffaceous shall with many fracture gray tuffaceous coarse to fine grained sandstook with thin bedded brownish gray shale 29.55-50.650 m. gray tuffaceous conglomerate pebble subangulus, \$ = 1 cm2	40795 2T			Appropriate Approp	n :   180	28150	quarte grain				(7) 190 (7) 19	-						
F	brownish grey shate with dark grey leolicular standstone light green line dutitio tuff, weakly argilization	_		***	Section 1997	17,11	4 L	Fight greenish grey dactic toff bereen breecis: \$2-5 cm, ungelst, breecis of green and brown andesite, purply risk a reletite and decide. matrix: "small frequents of andesite and quarte grain				A Company of the Comp	-						
	light prey massive dealist tull with green lendicular patch and quarte grain.  green patch. Olem × 0.3 cm under, tenticular gueste grain: \$0.2 cm 2.  92.90 m. brown iron oxides along crack.				1923 company and the company a	c 190 —	د ک د د	100 10	6- 19360+ 4T			190 2							
E 33.00 20 20 20 20 20 20 20 20 20 20 20 20 2	93.10-95.75 ar weakly argillization 93.50-93.50 cm: decitie toll with brown iron oxides along crack architecture.	ı			A Constitution of the Cons		1 a 1 12423	196.35 m: white quarts ratin (w=0.5 cm)  gradual change  white gray atmosfly altered rock  199.05 m; 99.05 m; white quarts vainlet,  199.45-199.60 m; white quarts vainlet,  saystal of Op. 55 pe of this black mineral  caystal of Op. 55 pe of this black mineral				A Company of the Comp		1					

black carbon bearing black shale 77.30~78.50 m: black coal

87.60~87.70 m: pyrite veinlet

dark grey massive shale

80

90 ~

alternation of black shale and grey fine to medium grained sandstone

mainly black shale, partly intercalated with very thin bedded fine sandstone and lenticular sandstone

alternation of black shale and grey to dark grey sandstone 92.95~93.15 m: grey sandstone with many pyrite grey to dark grey medium grained sandstone with calcite

		10140	dark grey massive shate black massive shate with thin calcite veinlet															
110		107.10	grey massive shate							-						A STATE OF THE STA	- lio	
		117.00 117.50 115.70 115.70 115.20 115.40 4115.50	dark grey massive shale 113.70-114.30 m; alternation of black shale and grey sandstone 114.30-116.20 m; grey fine to medium grained sandstone with thin bedded black shale 115.40-115.60 m; grey shale with many pyrite			 	<u>\108</u>	11540 11560	020	<007	2.5		_=	1	=7	12 (15 (15 (15 (15 (15 (15 (15 (15 (15 (15	_	
150		121 90 127 80 123 30	dark grey massivo shale						-								- 120	,
130		187.15 187.25*12815 188.45 150.30	127.25~128.15 m: dork grey shate with many pyrite veintet network			T.											- I3X	)
	-	131 30 139 15 134 20	grey to dark grey line grained sandstone with very thin bedded black shale 133.15 m: brown iron oxides along crack black to dark grey massive shale															
140		139 40 let 03 let 35 let 35 141,70	141.35~141.20 m: grey fine grained sandstone 141.50—141.60 m: concentrated pyrite black to dark grey massive shale			ı				<u></u>							- 148	)   
150		149 50 150 50 150 50 151 35 152 10 155 00-155 20	146.75~146.90 m: dissemination and veinlet of pyrite  148.60~148.65 m: black carbon bearing black shale  grey to dark grey fine sandstone with pyrite along crack 159.30 m, 151,35 m: quarta veinlet  151.45~152.10 m: black shale with a little carbon stain and thin bedded sandstone  153.00~153.20 m: disseminated pyrite			T.											- 150	
160	4	156 45 156 83	grey hard massive medium grained sandstone with white quartz veinlet (w. <0.5 cm)  161.95~162.05 m; white quartz vein network with brown iron oxides along creck			†  -			Andreas and a second								- 180	)   
170	20000000 C 20000000000000000000000000000	164.95 1838 - E45 16730 - E 16730 - E 16730 - E 168.65 - T 171.40 - E 171.40 - E 171.40 - E 171.40 - E	165.40 - 165.70 m: light grey strongly silicified sandstone 165.70 - 166.40 m: light grey and light brown very strongly silicified sandstone with quartz vein network 166.40 - 166.55 m: white quartz vein with druse 166.55 - 167.30 m: grey to light grey silicified sandstone with white quartz veinel, 167.30 - 167.85 m: light brown very strongly silicified sandstone with avartz veintel.	a- 165 50 m IP q. 167 60 m 2PX Y- 172 85 m IT	<b>T</b>		13.66	16765	0.55	<007 <007 <007 <007	23 25 05 05			-			- 170	·
180		179 22\17940 180.00 (41	\$\frac{168.85 \text{m: light grey silicified sandstone}}{\text{with white quartz veinlet.}}\$\$\$ grey hard massive medium grained sandstone 171.40 \text{m: white quartz vein network (w = 1 \text{cm}) 171.80 \text{m: white quartz vein (w = 2 \text{cm}) 179.22 \text{-179.40 \text{m: white and grey quartz vein 179.40 \text{-180.00 m: light grey silicified sandstone with white quartz veinlet}\$		<b>煮</b> 干		\15µ.	17922 17940	016	0.07	2.5			=			- 180	
190		185.50 A-5 185.75 A-7 457 457	183.60 m: white quartz vein (w = 0.5 cm) 184.75 m: white quartz vein (w = 0.5 cm)		_						e du com			2000			- 190	);
200		200 65	white grey hard massive fine grained arkose sandstone 200.40~200.50 m: white quartz veinlet network		<u></u>												200	2
	Арх.	47(4	1) Geological Log	of Di	amo	nd	Dr	ill	ing	]	Но	le	(N	ΛJ	P-	14)		

SCALE	GEOLOGIO COLUMN	CORE	DESCRIPTION	POSITION OF EXAMINED CORE SAMPLES	ALTERATION AND MINERALIZATION		ASSAY (	RESULTS		CORE RECOVERY	SCALE	SCAL	e geologic Column	CORE	DESCRIPTION	POSITION OF EXAMINED CORE SAMPLES	ALTERATION AND MINERALIZATION		ASSAY	RESULTS		CORE RECOVERY	SCALE
Lm		ANGLE			Sitic Oz-v Arg		th Width Au Local Cook Co			1924	(m)	10	n)	(m) (°)		<b>!</b> 	Sitie 92-V Arg	Sampte Depti			Zn As 4) (%) (%)	0 50 100	; (m)
.0	V. 25.		Altuvium light brownish grey soil (grey silt and sand)							A certical Secretarion of the	0	100		101 40	light grey to grey shale grey to dark grey shale with many fracture							(4) (4) (4) (4) (4) (4) (4) (4) (4) (4)	100
10 -		6 10	gray soil contained gravel (4) - 5 cm) of black shele, gray andesite, green andesite and tuff.								10	110 -		120 1D	105.85-106.00 m: black carbon bearing black shale 106.80-108.10 m: pyrite along fracture 107.20-107.40 m: black carbon bearing black shale blackish grey shale		I						-110
			light brownlah grey soil with a little gravel					11100			-			111.45 111.45 112.75 113.35	111.10~111.45 m: black carbon bearing black shale  mainly grey massive shale, partly light grey massive								
80	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	25.00 23.45	17.15—18.05 m: gravel of grey to brownish grey andesite 18.05—18.65 m: grey sand 18.55—19.45 m: light brown soil 19.45—20.20 m: gravel of black shale and andesite 20.20—23.00 m: gravel of greenish grey diorite and grey sand grey sand gravel of brown shale and white sandstone greyish trown shale								- 20	120 -		12605									- 130
30 -	× 1	2705 281542900	white grey argillaceous weathered shale light grey to white grey hard compact arkoze sandstone with brown to reddish brown iron oxides along crack. 28.75~29.00 m: white quartz veinlet network 32.70~34.20 m: grey hard compact siticified arkose sandstone with white quartz vein network and black patch of pyrite 34.60 m: grey clay (w = 1 cm) 35.00~37.15 m: grey arkose sandstone with brown iron		_						-30	130 -		A.5:	grey to dark grey massive shale								-130
40 -		37.15 37.45	oxides along crack  grey clay  37.45~37.65 m: grey arkose sandstone  fight grey to grey shale with yellow, brown and reddish brown iron oxides along crack.		<b>3</b> 5	3 M 386	100 < 00	0.3			- 10	149 -		136.29 136.90 140.90 141.52				Principle State St					- 140
50 -		46 50 50 80 51 70	light grey to grey massive shale								-50	150 -		146 67 147 00 148 40 150 45 45	146.65-147.00 m; grey silt stone grey to dark grey sandstone with thin bedded black shale and pyrite along crack 148.40 m; crystal quartz veinlet (w=0.1 cm) along crack black massive shale 154.30~154.60 m; dissemination of pyrite							A Particular de Caracteria de	- 150
60 -		35 30 35 30 35 30 35 30	56,30-56.80 m: grey shale light grey to grey massive shale				7,000				-æ	160 -		134 30 (b) 134 80 30 137 63	154.50~154.80 m; black carbon bearing black shale althroation of dark grey sandstone and black shale black shale and lenticular grey sandstone with pyrite black shale with thin besided dark grey sandstone and thin lenticular sandstone		= 1						- 160
70 -		67.00 67.60 68 33 69 33	63.35 – 63.65 m: reddish brown iron oxides along crack with dissemination of pyrite 63.95 – 67.00 m: grey shale with pyrite veinlet and dissemination, weakly silicity and dissemination of grey shale and light grey sandstone 67.00 – 68.35 m: reddish brown iron oxides along crack. 68.35 – 69.55 m: dark grey arkose sandstone with pyrite and black mineral		I	683	70 00 030 00 335 120 <00				- 70	170 -		165 00 163 80 167 70 167 70	grey medium grained sandalone with veinlet and dissemination of pyrite 155.40 - 165.80 m, 166.20 - 166.30 m, 167.20 - 167.70 m: black shafe		Ī	11. 11. 11. 11. 11. 11. 11. 11. 11. 11.				स्था स्थानक व्यवस्था स्थानक स्थान स्थानक स्थानक	- 170
		7035,7085	70.35~70.45 m: grey shale 70.75~70.85 m: white quarks vein and yellowish brown clay (w=5 cm) 74.80~85.00 m: fron oxides along crack grey to light grey arkose sandslone, hard compact.								-			171 55 69 173 20 773 93 174 50 177.49 128 00 170 6 5	dark grey fine grained sandstone dark grey to black massive shale 177.40 m: tenticular pyrite vein		-						
80 -		5720 ~ 9240 5775 55 50 6450+ 6300 65 25+ 8540 33.40	82.20-82.40 m: white quarta vein network 82.75-85.80 m: white quarta vein network and crystal quarta slong open crack 84.50-85.00 m: quarta vein (w=2cm) × 6 85.25-85.40 m: white quarta vein network white grey arkose sandstone with brown to reddish brown		T '	6 M B3	75 80 105 <00 0 050 <00	7 0.5 —	= = = = = =		-80	180 -		18:80 18:63 18:60 18:70 18:50 18:71	181.80~182.60 m; strongly sheared zone 185.70 m; crystal of pyrite along crack		_					o divina di Come della come di	- 180
90 -	12. %	59 25 90 30 91 50 92 20 Mi 93 43 93 55 93 80 93 80 94 60 95 A 0	iron oxides along crack  91.85 m: reddish brown iron oxides  92.20-93.80 m: white to greyish white strongly silicified arkose sandstone with veinlet and spot of pyrite  93.86-93.65 m: yellowish brown and reddish brown veinlet network of iron oxides grey to light grey clay with pyrite black earbon bearing black shale	- 93 ≤0a IP	I.	92 8M 93 9M 93	20 10 0 90 < 00 90 0 70 < 00	7 03 —			-90	190 -		69.90 19410 19480 1953 55	188.50 m: pyrite along crack  dark grey to black massive shale  194.10~194.12 m: pyrite veinlet network (w=2 cm) 194.80 m: pyrite		± = =						- I9O
000			black carpon bearing plack snate dark grey shale with pyrite along crack light grey to grey shale								100	200 -	Z Z	195 55 195 60 197 43197 60 198 25 99 13 159 80 200 35	197.45~197.80 m: pyrite veinlet network		<u> </u>	1974 1978	0 35 <	007 1.9		が を では では では では では では では では では では	-20G

## Apx. 48 X-ray Powder Diffraction Charts

#### Abbreviations

### <u>Mineral</u>

Qz: quartz An: anhydrite

Se : sericite Gy : gypsum

Ch : chlorite Ja : jarosite

Am: amesite Py: pyrite

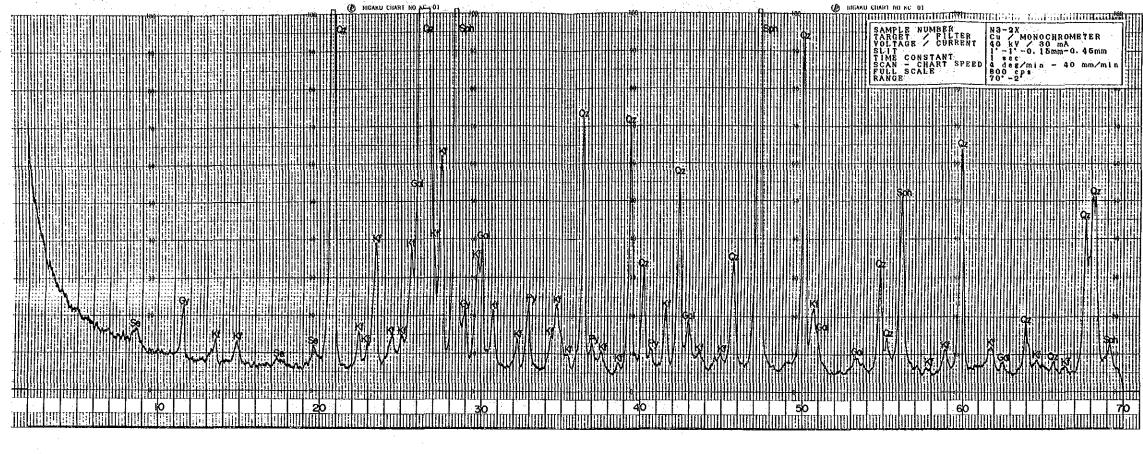
Kf: potassium feldspar Go: goethite

Cal: calcite Gal: galena

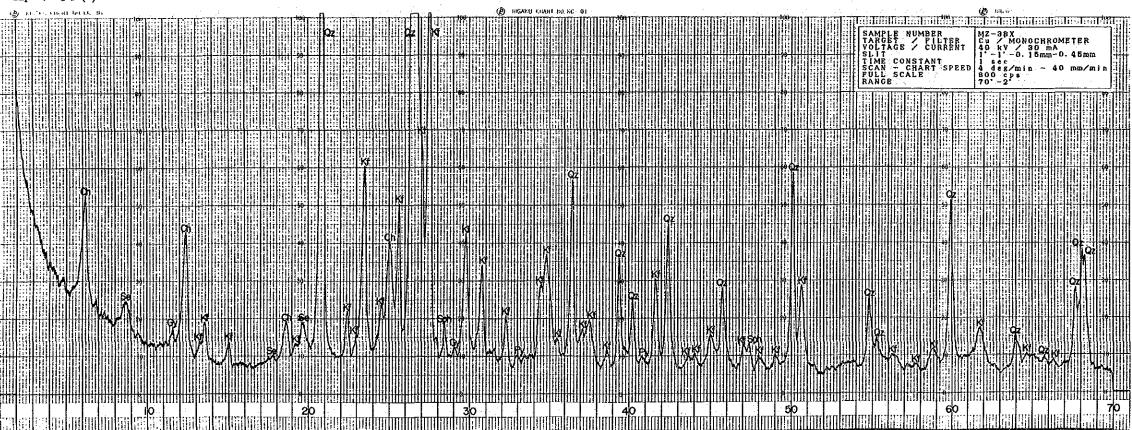
Do : dolomite Sph: sphalerite

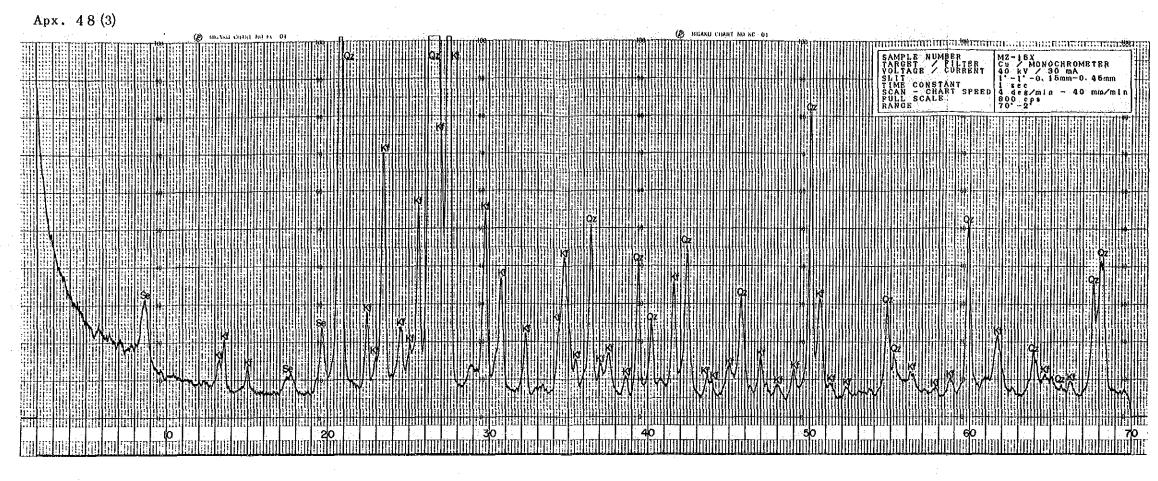
Ag : Ag mineral

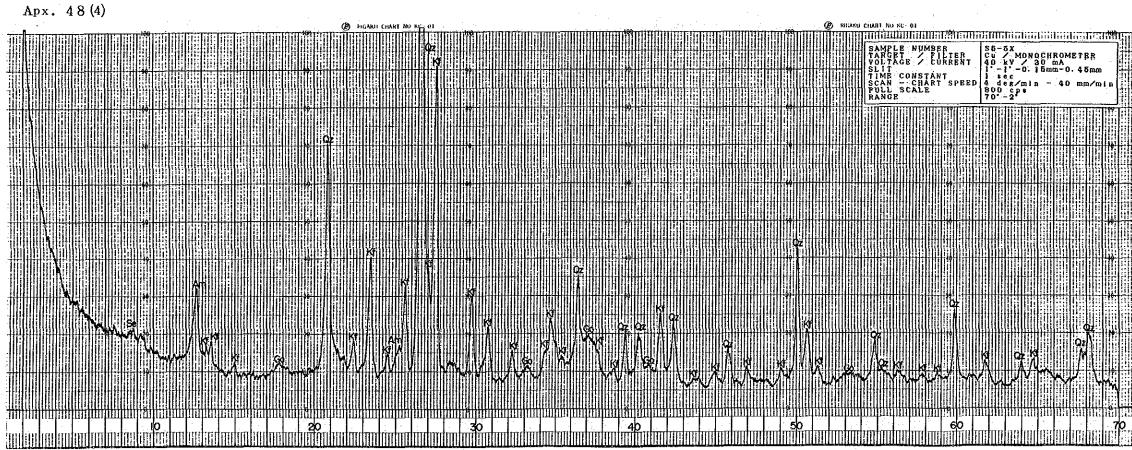




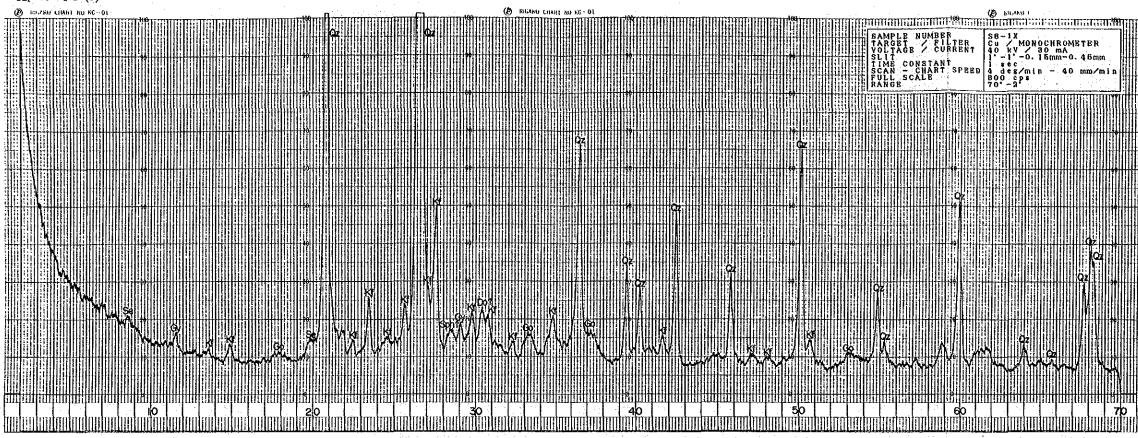












#### Apx. 48 (6)

