3). The other drillholes did not hit quartz veins. Detailed grade distribution in vertical direction has not been clarified as the number of boreholes so far drilled is so small. However, possibility of continuation of the ore deposit into the deep has increased since grades and nature of primary ore show little change between the surface and 50m deep.

The survey findings are demonstrated in the geological section along with the drillholes(Fig.II-1-3～5), Whilst the results of geological analysis is in the Fig.II-1-6, respectively.

i) MJMU-1 (location: X=0.47m, Y=54.23m, Z=1,208.2m)

0.00-3.50m	Weathered sandstone
3.50-6.10m	Bluish green-colored, fine-grained sandstone
6.10-7.00m	Dark green-colored, fine-grained diorite
7.00-20.55m	Bluish green-colored, fine-grained sandstone, siltstone and shale(brecciated/argrillized between 17.80m and 20.00m)
20.55-46.80m	Dark greenish grey-colored, fine-grained diorite, with a red-colored alteration zone rich in hematite and limonite (20.60-21.00m and 37.00-37.60m) and coarse-grained pyrite dissemination(41.60-43.85m and 46.20-46.60m)
46.80-48.20m	Hematitized network quartz vein zone rich in altered breccia; vein ratio 50%
48.20-48.70m	White-colored clay containing pyrite; intersectional angle 50°
48.70-49.90m	Network quartz vein zone; vein ratio 35%
49.90-52.10m	Milky white-colored quartz vein
52.10-53.55m	Dark greenish grey-colored diorite disseminated with coares-graind pyrite and fine-grained pyrite
53.55-64.30m	Greenish grey-colored, fine-grained sandstone with a brecciated zone rich in hematite(54.00-55.20m)
64.30-66.60m	Milky white-colored quartz vein zone containing greenish grey-colored, fine-grained sandstone(gangue rock); vein ratio 59%

66.60-68.30m Dark greenish qrey-colored, fine-graind diorite

68.30-74.30m Milky white-colored quartz vein

74.30-84.80m Milky white-colored quartz vein zone; vein ratio 34%

84.80-87.60m Dark green-colored, fine-grained diorite

87.60-88.40m Milky white colored quartz vein zone; vein ratio 56%

88.40-146.20m Dark greenish grey-colored, fine-grained diorite with fault breccia zone(104.30-108.70m); intersectional angle 70-75°

146.20-148.70m Dark green colored fine-grained diorite, epdotized

148.70-151.40m Epidotized, dark green-colored, fine-grained diorite

ii) MJMU-2 (location:X=29.91m, Y=40.86m, Z=1,206.6m)

0.00-19.40m Dark greenish grey-colored, fine-grained diorite; brecciated(0.00-2.70m); a sheared zone with partially schistose(9.60-12.00m); quartz-calcite vein(9.00-9.20 m) and, rich in joints filled with hematite and limonite(11.00-14.40m).

19.40-31.60m Composed of silicified, fine-grained sandstone, with quartz veinlets rich in hematite and limonite(19.40-21.10m); and with reddish brown-colored alteration zone rich in hematite and limonite veinlets(22.30-31.60m).

31.60-46.65m Reddish brwon-colored, altered, fine-grained diorite, with a reddish brown-colored alteration zon rich in hematite and limonite veinlets(31.60-35.20m and 36.80-38.80m); a network quartz vein zone of 60cm in the max. depth(35.20-36.80m; vein ratio 55%); and also a network quartz vein zone(Intersectional angles :40° - 70°) having a max. 20cm-wide quartz vein(40.50-46.65 m).

46.65-50.80m Altered beds of fine-grained sandstone and shale, with a network quartz vein zone(46.65-48.00m; vein ratio 70%; intersectional angles: 50° - 60°); milky white-colored quartz veins(48.00-49.10m; intersectional angles :35° - 60°); and, a network quartz vein zone(49. 10-50.20m; vein ratio 50%; intersectional angles: 35° - 65 °).

50.80-54.60m Milky white-colored quartz vein; intersectional angles : 10° - 45° .

54.60-80.80m Greenish gry-colored, altered, fine-grained diorite, with network quartz vein zones(54.60-55.55m; vein ratio 45%, intersectional angles: 40° - 50°), a reddish brown-colored alteration zone disseminated with coarse-grained pyrite(55.55-56.20m); and a reddish brown-colored alteration zone rich in hematite and limonite veinlets, accompanied by quartz veins of max. 10cm in width(63.10-65.50m),

80.80-82.60m Trachyte dike(intersectional angle: 60°)with numerous gas pores with diameters below 5mm,

82.60-110.70m Dark greenish grey-colored, fine-grained diorite.

iii) MJMU-3 (Location: X=150.14m, Y=-16.32m, Z=1,207.9m)

0.00-8.50m Weathered biotite-hornblende-trachyte dike (ϕhb<3mm, ϕbi,2mm)

8.50-24.00m Reddish brown-colored, fine-grained diorite, rich in hydrofracturing and in hematite-quartz network veinlets(16.30-28.80m; intersectional angles: 25° - 70°).

24.00-92.20m Greenish grey/bluish grey-colored, medium-grained sandstone, with occasional intercalation of thin beds of bluish green-colored pelitic schist. This section is accompanied by hydrofracturing and network veinlet zones(45°) of hematite-quartz(24.00-28.00m), hydrofracturing-hematite network veinlet zone(39.10-41.70 m), hematite-limonite-quartz network veinlet zone (65.00-69.00m; intersectional angles: 40° - 60°); and silicified zones with hematite-limonite-quartz network veinlets of 3mm or less in width(70.20-83.80m; intersectional angles: 40° - 60°).

92.20-100.60m Dark greenish grey-colored, fine-grained diorite accompanied by quarta veinlets of 0.8cm or less in width.

iv) MJMU-4 (Location: X=280.14m, Y=74.50m, Z=1,203.1m)

0.00-8.90m Blush grey-colored, medium-grained sandstone, silicified on the whole; network of hematite-limonite-quartz veinlets(0.00-7.80m); somewhat fine-grained and phyllitic schitose(7.80-8.40m).

8.90-20.40m Dark green-colored, fine-grained diorite; schistose

(8.90-11.50m). This section is accompanied by some limonite and quartz veins

20.40-72.60m Bluish grey/greenish grey/light grey-colored, medium-grained sandstone; alternated beds of fine-grained sandstone and siltstone(around 34.80m and 39.60-40.80 m); rich in quartz and limonite films(20.40-34.60m); a 5cm-wide quartz vein(31.00-31.05m; intersectional angle 60°); 0.3-0.5cm-wide quartz veinlets(near around 25.90m and 26.90m); sheared zones(46.30-46.50m, 50.50-50.70m, 55.70-55.90m and 72.50-72.75m; intersectional angles: 40° - 60°).

72.60-76.60m Brownish grey-colord, porous hornblende-biotite-trachyte dike, which is partially hydrofractured and cemented with hematite.

76.60-79.50m Light bluish grey-colored, medium to finegrained sandstone, with sheared zone(76.60-77.30m; intersectional angle: 45°).

79.50-81.20m Brownish grey-colored, porous hornblende-biotite-trachyte dike(intersectional angles: 45° - 60°), partially hydrofractured and cemented with hematite,

81.20-87.70m Light grey-colored, medium to fine-grained sandstone; with sheared zones(81.20-83.50m and around 84.40m; intersectional angles:45° - 60°).

87.70-93.60m Light grey/light green-colored siltstone; with seared zones(89.50-89.70m and 91.25-91.40m; intersectional angles: 60° and 40°

93.60-97.70m Dark green-colored, fine-grained diorite, which, on the whole, is accompanied by some calcite - quartz veinlets.

97.70-100.80m Greenish grey/bluish grey-colored siltstone. Over the whole section, schistosity(intersectional angles: 50° - 55°) develops and it is phyllitic.

v) MJMU-5 (Location: X=582.00m, Y=35.94m, Z=1,197.7m)

0.00-21.60m Fine-grained diorite, dark green-colored(0.00-6.30m), with hematitized and carbonitized red altered rock (6.30-9.50m); wholly silicified and bleached, looking red/brown due to hematite and limonite(9.50-21.60m).

21.60-31.70m Hornblende-biotite-trachyte, epidotized, intersectional angle 35° . On the whole, the deeper, the more strongly altered, and the color changes from brown, brownish grey, grey to violet grey in descending order. Between 31.30 and 31.70m there is light grey-colored, hydrothermal alteration fault clay.

31.70-48.40m Fine-grained diorite, with highly silicified rock rich in hematite and limonite(34.10-35.50m and 36.90-39.15-40.50m). Around 43.25m, a 5cm-wide quartz vein(intersectional angle : 30°) is found.

48.40-100.10m Bluish grey/greenish grey/colored, medium to fine-grained sandstone; sheared, hematitized and altered in red color(48.80-51.10m). Between 64.20 and 79.70m, there appeared many fault fracture zones (intersectional angles: 50° - 80°), presumed to be a part of Olon-ovoot fault, the center of which is considered to lie within the range of 73.90-79.70m.

100.10-100.40m Fine-grained, dark green-colored and epidotized.

vi) MJMU-6 (Location: X=1,551m, Y=1,340m, Z=1,176m)

0.00-6.00m Tuff breccia of biotite trachyte,diameters of which are 30cm or less, light greenish grey-colored, rich in biotite having diameters of 3mm or less.

6.00-49.80m Light greenish grey/light brownish grey-colored, compact biotite trachyte, diameters of which are 2mm or less; autobrecciated(10.20-10.50m); gas pore(10.50-14.00, 16.00-19.50m, 23.00-24.50m and 47.50-49.50m); calcite veinlet zone(44.80-49.80m; intersectional angles:5° - 30°

49.80-50.60m Light brownish grey-colored, compact tuff breccia of biotite trachyte, diameters of biotites are 2mm or less.

50.60-51.60m Red-colored, compact fossilized soil originated in tuff breccia of biotite trachyte, containing biotite of 2mm or less in diameter.

51.50-52.90m Red-colored, compact tuff breccia cotaining porous trachybasalt breccia. The metrix is somewhat weathered and red-colored.

52.90-81.50m Grey/dark grey-colored, porous trachybasalt lava;

brownish grey-colored, porous tuff breccia of trachybasalt(62.80-64.30m and 77.20-79.00m). In the gas pores of the trachybasalt lava, chrystals of calcite and gypsum are commonly observed, as well as manganese oxide films.

81.50-83.80m Dark grey-colored tuff breccia of trachybasalt. Trachybasalt breccia is porous.

83.80-91.00m Brown/grey-colored, compact volcanic breccia, diameters of which are 20cm or less. Breccia is composed of biotite trachyte, trachyandesite and trachybasalt. Dip of the bed indicated by fine grain parts is 30° .

vii) MJMU-7 (Location: X=-29.98m, Y=58.84m, Z=1,206m)

0.00-17.60m Bluish grey/greenish grey-colored, fine-grained sandston; bluish green-colored siltstone(12.90-13.80m and 14.40-14.70m). The intersectional angles of the bedding plane and the core are 70° - 80°

17.60-54.65m Dark greenish grey-colored, fine grained diorite; pyritized, carbonatized and hematitized, and contaminated with limonite(19.20-20.20m, 25.60-27.50m and 50.40-54.65m).

54.65-72.45m Fine-grained sandstone. This section represents the network quartz vein zone corresponding to the west part of Tsagaan-tolgoi deposit. More than 15 quartz veins, including the one which has max. width of 1.1m (intersectional angles: 30° - 70° , $\Sigma V \geq 6m$) are found.
This section is therefore pyritized and carbonatized, and its fresh parts are bluish grey-colored while oxidized parts turn reddish brown.

72.45-94.85m Dark greenish grey-colored, altered, fine-grained diorite; fine-grained sandstone as xenolith is observed (78.30-78.80m); network quartz vein zones (72.45-75.55 m and 92.15-94.85m); prominent pyrite dissemination (78.30-75.55m, 78.30-81.00m and 87.70-94.80).

94.85-103.50m Dark greenish grey-colored, fine-grained sandstone; a dark greenish grey-colored, altered, fine-grained diorite dike(96.95-98.50m); network quartz vein zones containing max. 40cm-wide quartz veins (94.80-97.32m); and fine pyrite dissemination(98.90-100.20m).

viii) MJMU-8 (Location: X=-30m, Y=0m, Z=1,208.77m)

0.00-2.60m Brownish grey-colored, fine-grained diorite, somewhat weathered. The core is fractured due to dry drilling.

2.60-5.75m Grey-colored, fine-grained sandstone; with carbonate-minerals veinlets of 0.5cm in width, around 4.75m (intersectional angle: 30°).

5.75-25.90m Dark greenish grey/green-colored, altered, fine-grained diorite; with milky white-colored quartz veins (19.70-20.10m, 22.70-23.20m and 24.60-24.80m); pyrite dissemination is observed(23.00-25.90m).

25.90-41.90m Alternated beds of altered siltstone and sandstone, hydrothermally hematitized and limonitized.
Siltstone is sericite-schistozed; Trachyte dikes are observed(28.30-29.20m; intersectional angles: 60° - 80°).

41.90-44.70m Brown/dark greenish grey-colored, altered, fine-grained diorite.

44.70-48.55m Brown-colored, porous trachyandesite-trachy-basaltic andesite dikes; a fault breccia zone(47.90-48.55m; intersectional angle: 60°).

48.55-50.50m Grey-colored, compact trachyte; with fault breccia zone(49.40-49.80m; intersectional angl: 45°); a quartz vein of 1cm in width is observed around 50.50m (intersectional angles: 85° - 90°).

50.50-51.10m Hydrothermally bleached siltstone; with a breccia dike (50.75-50.80m; intersectional angle:80°).

51.10-54.80m Brown-colored, porous trachyandesite/trachy-basaltic andesite dikes, which include plagio-clase (ϕ 4m) and hornblende (ϕ 2mm or less).

54.80-59.50m Hydrothermally bleached, light grey-colored sandstone; rich with hydrofracturing(56.50-59.50m)
where sandstone is whittened and fractures are filled with hematite

59.50-71.20m Dark greenish grey-colored, altered, fine-grained diorito.

71.20-73.00m Greenish grey-colored, fine-grained sandstone, which

Table II-1-3 Major Ore Zones caught by the Drillings

NAME	ORE ZONES (m)	WIDTH (m)	ORE GRADE(g/t)		NOTE
			Au	Ag	
MJMU-1	41.20 ~54.10	12.90	2.18	<0.2	Qzv +host r.
	64.30 ~87.60	23.30	2.71	<0.2	Qzv +host r.
	(65.00 ~85.80	20.80	2.97	<0.2	higher grade part)
	(66.60 ~70.00	3.40	5.32	0.3	ditto)
MJMU-2	35.20 ~55.55	20.35	2.79	<0.2	Qzv +host r.
	(40.50 ~49.10	8.60	4.20	<0.2	ditto)
MJMU-7	70.70 ~81.00	10.30	4.56	0.2	Qzv +host r.
	(70.70 ~75.55	4.85	7.89	0.2	ditto)
	87.70 ~94.80	7.10	5.25	<0.2	Qzv +host r.
MJMU-8	22.70 ~26.80	4.10	2.36	<0.2	Qzv +host r.
	(22.70 ~24.80	2.10	3.64	<0.2	ditto)

Abbreviations:

Qzv: Quartz vein, host r.: host rock

is so highly schitosed that no original rock structure remains.

73.00-103.30m Dark greenish grey-colored, altered, fine-grained diorite; with chlorite, quartz veins or muscovite-quartz veeins(78.75-78.85m and 79.65-79.70m); coarse-grained pyrite dissemination(86.80-89.00m).

1-3-2 Mineralization

1) State of mineralization

The mineralized portiones captured by the drilling survey are indicated in Table II-1-3.

Handpicked samples from coarse-grained pyrite disseminating in fine-grained diorite showed 791ppm of Au and 5.5ppm of Ag. It was also known that coares-grained pyrite disseminating in fine-grained diorite contains highly concentrated gold. Quartz veines are not always accompanied by gold, whilst portions of wall rock where coarse-grained pyrite is densely concentrated tend to have high gold content.

Microscopic observations of the pyrite revealed that it contains minute native gold grains.

2) Mineralization stage

K-Ar dating of unweathered core samples was as follows:

Boreholes	Depth(m)	Rock Type	Dating(Ma)	Geo Time	Remarks
MJMU-1	48.50	white clay	246±12	lower Triassic	Fine-grained pyrite, poor Au content
MJMU-7	87.70-89.70	altered diorite	284±14	lower Permian	Auriferous coarse-grained pyrite
MJMU-8	96.20-96.50	diorite	326±16	lower Carboniferous	Unaltered

3) Homogenization temperature

The homogenization temperatures of fluid inclusion at the portions of gold concentration in Tsagaan-tolgoi ranges from 170 to 250℃

4) Alteration

Wall rock alteration around Tsagaan-tolgoi Ore Body is composed mainly of combinations of sericite and quartz/sericite and chlorite, accompanied by some kaolinite.

1-4 Comments

1-4-1 Olon-ovoot deposite

As the result of drilling survey of Tsagaan-tolgoi Ore Body, it was

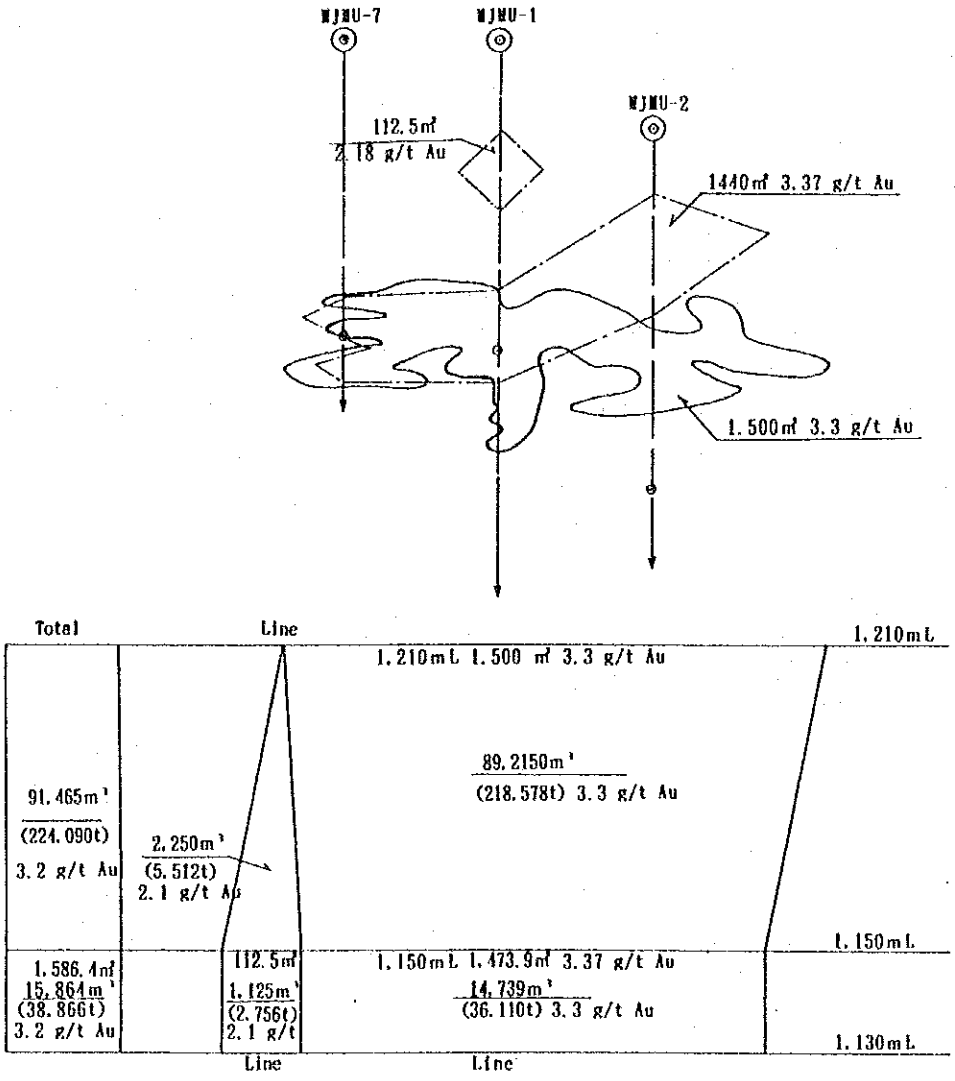


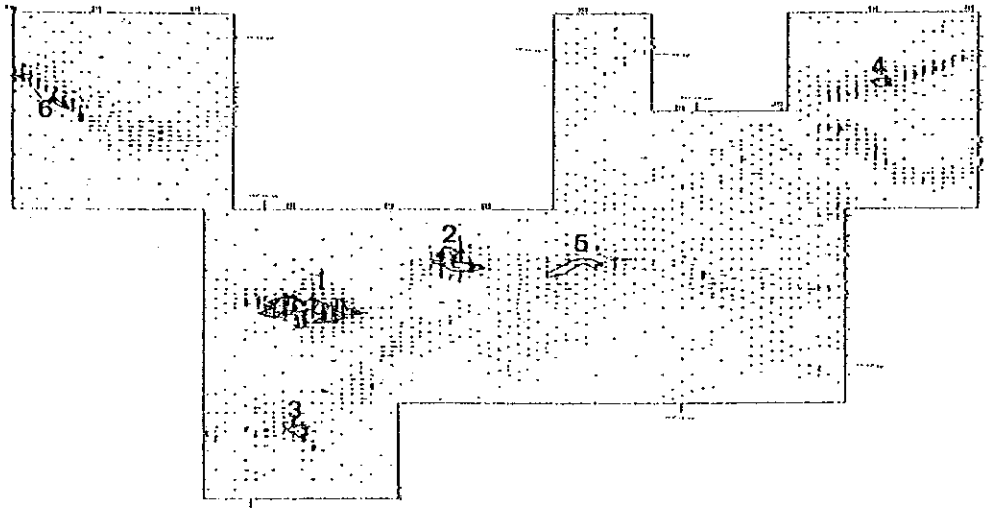
Fig. II-1-6 Ore-blocks of Tsagaan-tolgoi Ore Body

Table II-1-4 Ore-blocks and Ore-grade of the Olon Ovoot Deposit

Block No.	AREA SURFACE m²	SURFACE g/t Au	1150mL m²	1150mL g/t Au	1130 mL m²	1130 mL g/t Au	BLOCK Surface-1150 mL m³ (t)	Surface-1150 mL g/t Au	1150mL-1130mL m³ (t)	1150mL-1130mL g/t Au	TOTAL	NOTE
1	1,500	3.3	1,557	3.2	Line	3.2	91,700 (224,700)	3.2	15,500 (38,000)	3.2	107,200m³ 262,700t 3.2g/t	Tsagaan-tolgoi
2	500	2.3	N.D									
3	140	7.3	N.D									
4	90	1.9	N.D									
5	250	2.0	N.D									
6	50	2.1	N.D									
TOTAL	2,530	3.2									369,900t, 3.2g/tAu	

Note;
① Surface level of No.1 ore-block: 1,210 m
② Bulk specific gravity of ore: 2.45 (assumption)
③ Abbreviation; N.D.: not determined
④ Ore-blocks (blocked out by the geochemical survey data in 1992);
1: Tsgaan-tolgoi 2: 150 m west from Tsagaan-tolgoi 3: 130 m south from Tsagaan-tolgoi 4: 630m northwest from Tsagaan-tolgoi 5: 280m east from Tsagaan-tolgoi 6: 250m～330 m northwest from Tsagaan-tolgoi
⑤ Potential ore reserve; Assuming that the ore bodies captured by geochemical survey continue 110m down from the outcrops, potential ore reserve will be estimated about 700,000tons.

INDEX MAP OF ORAE BLOCKS



confirmed that the deposit does not decline to a depth of 50-60m from the surface, in terms of vein size and ore grade, which indicates that the deposite presumably continues further down to the deep.

Although the quartz veins on the surface were not captured at the boreholes MJMU-3, -4 and -8, it is considered to be highly probable that continuity of the deposit into the deep could be confirmed only if plunges of the quartz veins come to be known. From the above mentioned facts, Olon-ovoot Deposit is considered to reach further to the depth. Tsagaan-tolgoi Ore Body was proved to continue more than 50m down from the outclop by 3 drillings in this survey, and the total prospective ore reserve is assumed to be 262,800 tons(3.2 g/t Au).(Fig.II-1-5,Table II-1-4)

It is somewhat difficult to estimate the total potential ore reserve of Olon-ovoot Deposit only by the drilling data of this year, but 700,000 tons of reserve at gold grade of about 3 g/t will be prospected supposing that the deposit is twice as long as the confirmed vertical length at Tsagaan-tolgoi in this survey. And by further exploration of ore-indications and geophysical anomalies around there, the amount will be expected to inclease.

1-4-2 Geophysical anomalies

1) High resistivity anomalies south of Tsagan-tolgoi

Since none of the MJMU-1, -2 and -7 reached the core portion of the anomaly zone, the high resistivity anomalies remained unconfirmed. To confirm it, 300m-long drilling is required.

2) Low resistivity-high magnetic anomalies in the northeast of geophysical survey area.

The drilling survey revealed that, in the section between 52.90m and 83.80m which corresponds to the low resistivity anomaly zone, lavas of porous trachbasalt continues. The lavas' gas pores are filled with water, where minerals such as gypsum, calcite and manganese oxides are observed. The lavas are highly magnetic. From these facts, it can be concluded that the geophysical anomalies are originated from the Jurassic porous trachybasalt lavas filled with saline ground-water.

1-4-3 Potentialities of occurence of gold deposits in Govi area, Mongolia

The survey findings indicate that gold mineralization took place in Late Paleozoic period in the Govi area. It is therefore considered significant to implement further prospecting/exploration of gold deposits in the Govi area. A number of gold indications found in Ulziit District during the second year's survey of Uudam Tal Area could be objects of future prospecting /exploration.

In order to utilize the information thus far obtained by this survey for future development of mineral resources in Mongolia, regional surveys aimed at gold resources in the Govi area, in the east-west direction, would be a theme worthy of consideration.

Part III CONCLUSIONS AND RECOMMENDATIONS

Chapter 1 Conclusions

Results of the year's survey will be summalized as follows

1) Olon-ovoot Deposit has gold concentration both in a part of the quartz veins and in wall rock.

2) The deposit shows no decline in size and grade to a depth of 50m from the surface; therefore, the deposit is highly likely to continue further into the deep.

3) Consequently, the potential ore reserves of Olon-ovoot Deposit has a high possibility to reach 700,000 tons or more at a grade of Au 3g/t. supposing that the deposit is twice as long as the confirmed vertical length at Tsagaan-tolgoi in this survey. And by further exploration of ore-indications and geophysical anomalies around there, the reserve will be expected to inclease.

4) A substantial portion of its ore reserves is amenable to open pit mining; accordingly, the deposit, though small in size, is likely to be worked on a profitable basis.

5) The genetic age of the deposit was revealed to Early Permian by potassium-argon dating.

6) It was confirmed that grades of primary gold ore of the deposit are hith enough, which suggests possibility of occurrence of similar deposits anywhere in the wide area of Govi.

7) The low-resistivity, high-magnetic zone captured by geophysical prospecting 2.5km northeast of Olon-ovoot Deposit was found to be originated in saline water contained in the Jurassic porous lavas, which excludes possibility of occurrence of a sulfide deposit of skarn-type containing pyrrhotite.

Chapter 2 Recommendations

From the above mentioned facts, following survey items are recommendable as the future subjecys.

1) With respect to Olon-ovoot Deposit, it is recommended that further drilling surveys should be conducted to clarify its occurrence, that gold heap leaching tests should be made, and that, on the basis of results of these surveys and tests, feasibility study on the deposit should be conducted.

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Appendix

Appendix 1 Results of Laboratory Works

Appendix 1- 1 List of Laboratory Works

Boring No.	Laboratopry Works							Total	Notes
	Testing Items								
	TS	PS	WRCA	OA	XRD	K-Ar	FI		
MJMU-1	3	1	2	41	7	1	5	60	
MJMU-2	-	-	-	31	4	-	1	36	
MJMU-3	1	-	-	30	1	-	-	32	
MJMU-4	1	-	-	17	1	-	-	19	
MJMU-5	-	-	-	21	3	-	-	24	
MJMU-6	2	-	1	0	1	-	-	4	
MJMU-7	2	1	1	34	1	1	1	41	
MJMU-8	1	1	1	27	2	1	3	36	
Total	10	3	5	201	20	3	10	252	

Notes:

TS: Thin section, PS: Polished section, WRCA: Whole rock chemical analysis,
OA: Ore analysis (Au,Ag), XRD: X-ray diffraction test, K-Ar: K-Ar dating
FI: Fluid inclusion study

Appendix 1-2 Microscopic Observations of the Thin Sections(1)

(1)
Sample No. : URS001
Boring No. : MJMU-1
Depth(m) : 42.50
Rock name : Meta-diorite
Observation note :
This specimen is light greenish gray, medium grained carbonatized diorite. It consists of plagioclase, calcite, chlorite, pyrite, opaque mineral, quartz and muscovite in a decreasing order. Plagioclase is subhedral, up to 2mm in length, and includes many sericite. Calcite is subhedral, up to 0.3mm in size. Pyrite is euhedral, up to 2mm in size and includes plagioclase and quartz.

(2)
Sample No. : URS002
Boring No. : MJMU-1
Depth(m) : 76.00
Rock name : Meta-diorite
Observation note :
This specimen is light greenish gray, medium grained carbonatized diorite. It consists of plagioclase, sericite, calcite, chlorite, pyrite, quartz, opaque mineral and muscovite in a decreasing order. Plagioclase is subhedral, up to 1.6mm in length, and includes many sericite. Sericite is subhedral, needle shape, 0.01mm in length. Pyrite is broken into small grains.

(3)
Sample No. : URS003
Boring No. : MJMU-1
Depth(m) : 120.00
Rock name : Meta-microdiorite
Observation note :
This specimen is dark greenish gray porphyritic microdiorite. Phenocrysts consist of plagioclase, chlorite, pyrite, quartz, opaque mineral and calcite in a decreasing order. Plagioclase is subhedral, up to 2.8mm in length. Chlorite is anhedral, showing irregular shape, up to 0.6mm in size. Pyrite is euhedral, up to 0.1mm in size. Quartz(xenocrysts?) is anhedral, up to 1.8mm. Groundmass consists of plagioclase, epidote and quartz.

(4)
Sample No. : URS004
Boring No. : MJMU-3
Depth(m) : 85.00
Rock name : Sandstone-schist
Observation note :
This specimen is light greenish gray, fine grained sandstone-schist. It consists of quartz, sericite, lithic fragments, chlorite, feldspar and muscovite in a decreasing order. Quartz is subangular, poor sorted, up to 0.4mm and 0.13mm in average in size.

Appendix 1-2 Microscopic Observations of the Thin Sections(2)

(5)
Sample No. : URS005
Boring No. : MJMU-4
Depth(m) : 75.00
Rock name : Trachyte
Observation note :
This specimen is reddish brown trachyte with biotite phenocryst. Phenocrysts consist of alkali feldspar, biotite and apatite in a decreasing order. Alkali feldspar is euhedral mega-phenocryst, up to 5.5mm in length, showing corroded form and contains biotite and apatite. Apatite is subhedral columnar shape, up to 1.3mm. Biotite is euhedral, up to 1.0mm. Groundmass consists of plagioclase, alkali feldspar, opaque mineral, biotite and apatite in a decreasing order.

(6)
Sample No. : URS006
Boring No. : MJMU-6
Depth(m) : 30.80
Rock name : Phonolite
Observation note :
This specimen is light gray. Phenocrysts consist of augite, biotite, apatite and hypersthene in a decreasing order. Augite is euhedral, up to 1.4mm in size. Biotite is euhedral, up to 1.2mm in size and is opacitized. Apatite is euhedral, showing hexagonal columnar shape, up to 1.0mm in length. Groundmass consists of nepheline, opaque mineral, phlogopite, augite and apatite in a decreasing order. Nepheline is the major constituent of the groundmass.

(7)
Sample No. : URS007
Boring No. : MJMU-6
Depth(m) : 68.20
Rock name : Alkali basalt
Observation note :
This specimen is light reddish gray and drusy. Phenocrysts consist of augite, apatite and biotite in a decreasing order. Augite is subhedral, up to 1.5mmin size and altered. Apatite is euhedral, up to 0.5mm in length and showing reddish brown or brown color. Biotite is subhedral, up to 0.6mm. Groundmass consists of plagioclase, opaque mineral, phlogopite, augite, apatite and alkali feldspar in a decreasing order. Druses are filled with euhedral zeolite.

Appendix 1-2 Microscopic Observations of the Thin Sections(3)

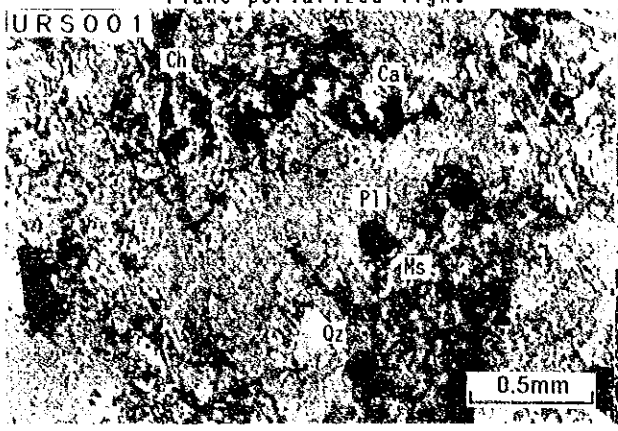
(8)
Sample No. : URS008
Boring No. : MJMU-7
Depth(m) : 64.00
Rock name : Sericite-carbonate rock
Observation note :
This specimen is light grayish green, showing obscure schistosity. It consists of sericite, opaque mineral, epidote, chlorite, calcite, quartz and hematite in a decreasing order. All minerals are anhedral, fine grained. Most grains are smaller than 0.08mm in size.

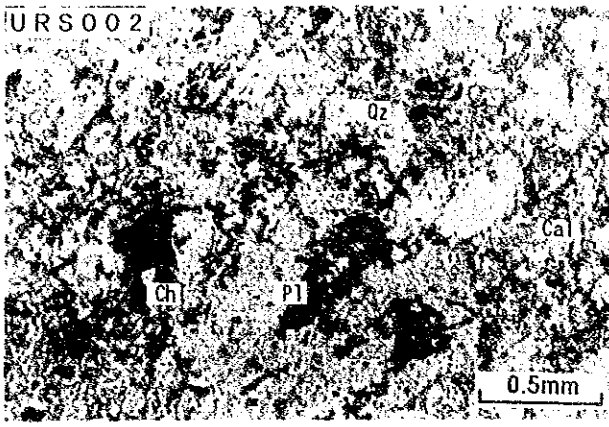
(9)
Sample No. : URS009
Boring No. : MJMU-7
Depth(m) : 87.80
Rock name : Meta-diorite
Observation note :
This specimen is light greenish gray, medium grained carbonatized diorite. It consists of plagioclase, sericite, calcite, chlorite, pyrite, quartz, opaque mineral and muscovite in a decreasing order. Plagioclase is subhedral, up to 1.2mm in length, and includes many sericite. Sericite is subhedral, needle shape, 0.01mm in length. Quartz is anhedral, up to 1.0mm in size. Pyrite is euhedral, up to 5mm in size.

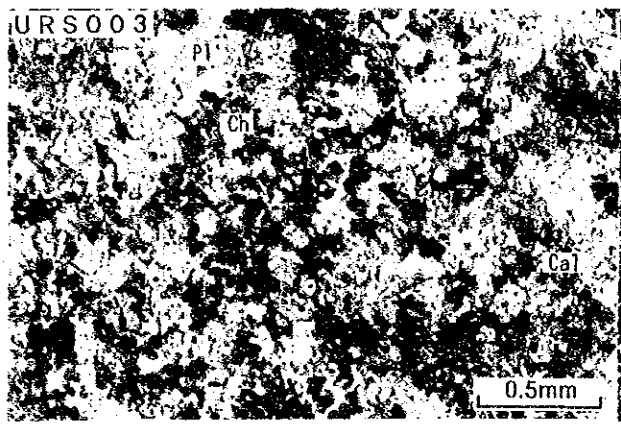
(10)
Sample No. : URS010
Boring No. : MJMU-8
Depth(m) : 96.00
Rock name : Meta-microdiorite
Observation note :
This specimen is dark grayish green. It consists of plagioclase, chlorite, opaque mineral and calcite in a decreasing order. Plagioclase is subhedral, up to 1.6mm in length. Chlorite is anhedral irregular shape. Opaque mineral is irregular grained, 0.1mm in average. Calcite is showing irregular shape, up to 0.4mm in size.

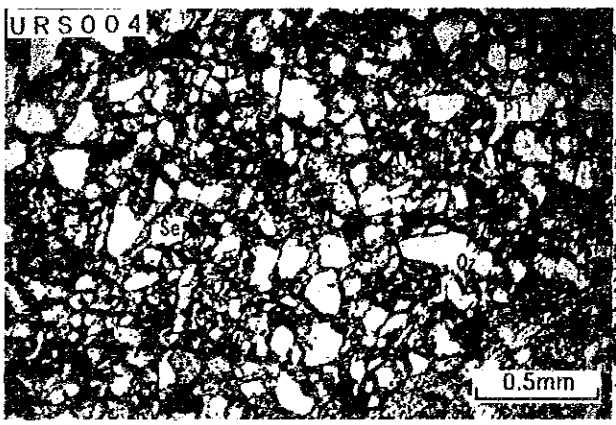
Appendix 1-3 Photomicrographs of the Thin Sections(1)

Plane porlarized light

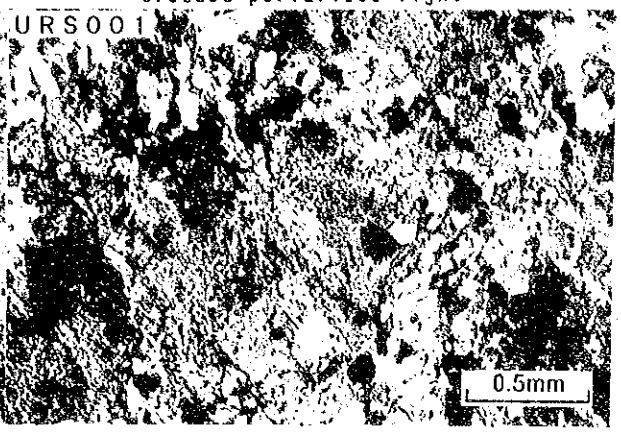


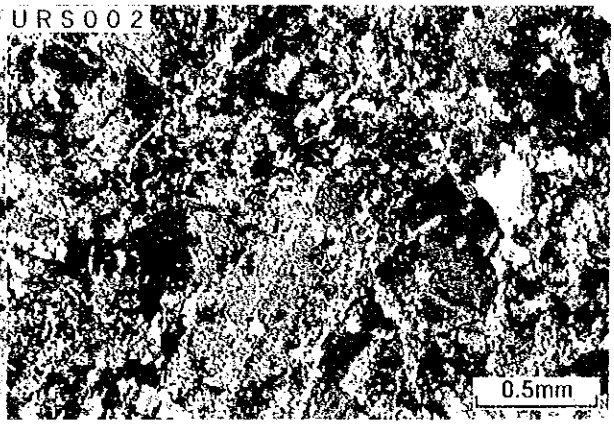


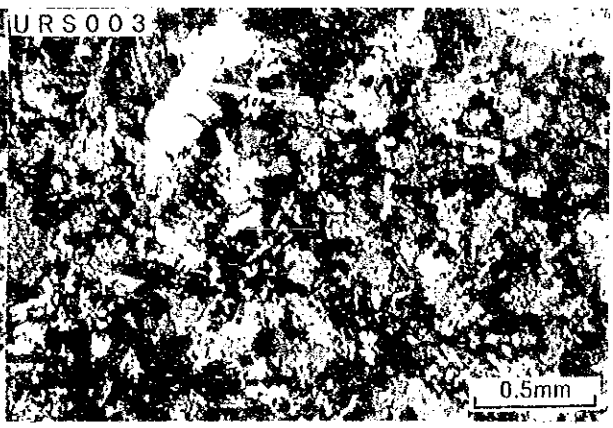


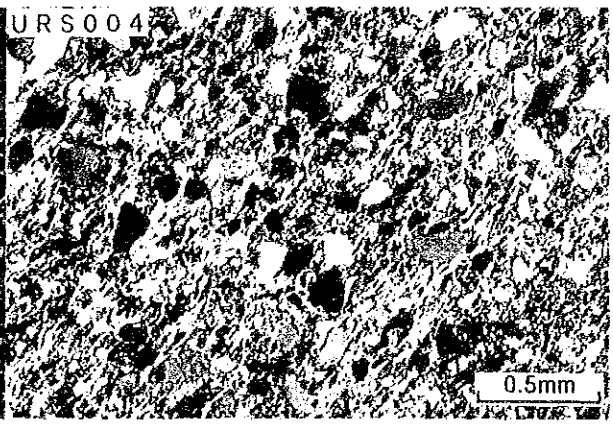


Crossed porlarized light





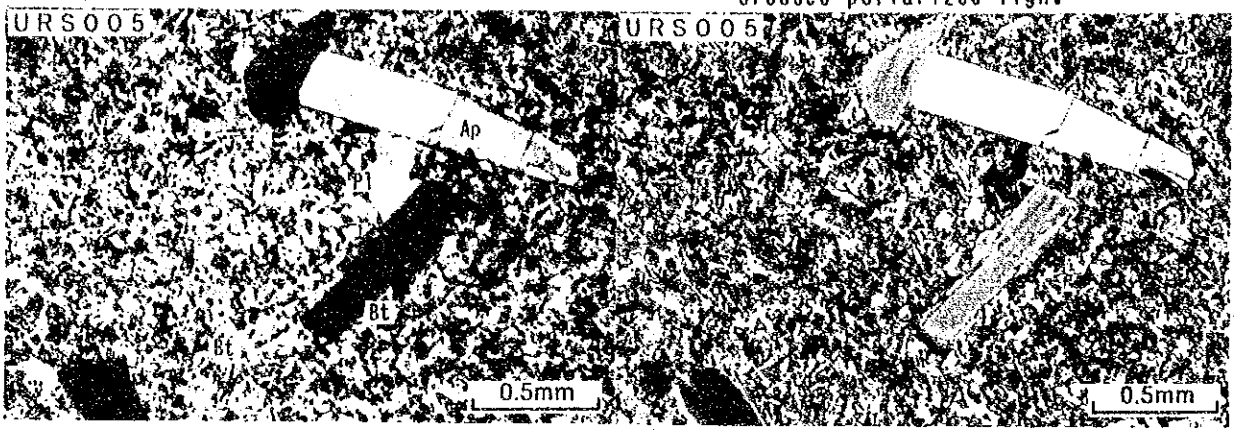


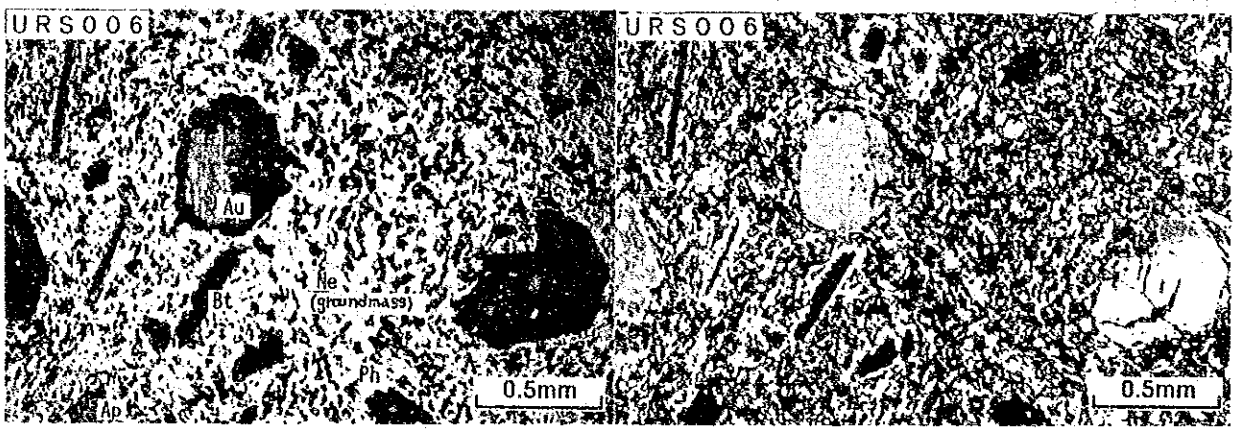


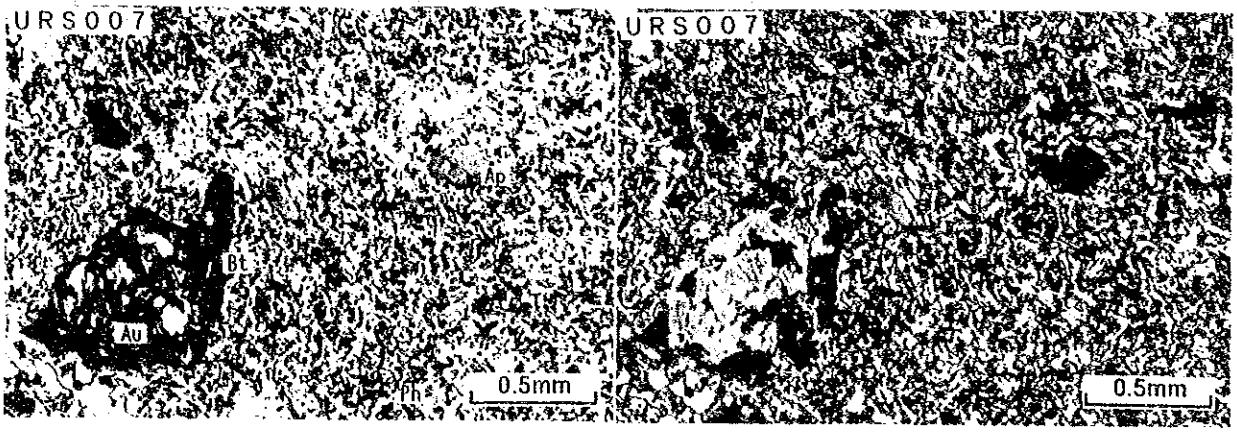
Appendix 1 - 3 Photomicrographs of the Thin Sections(2)

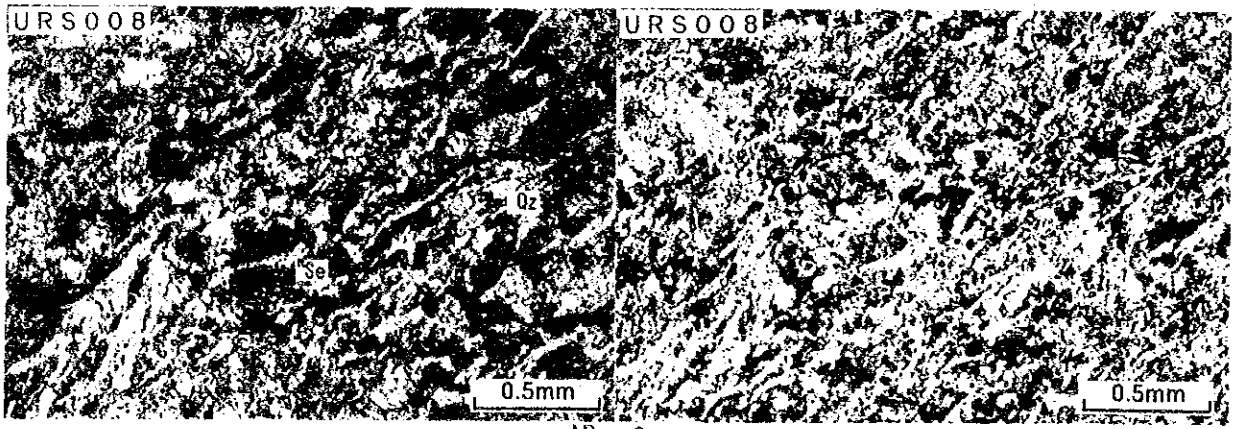
Plane porlarized light

Crossed porlarized light



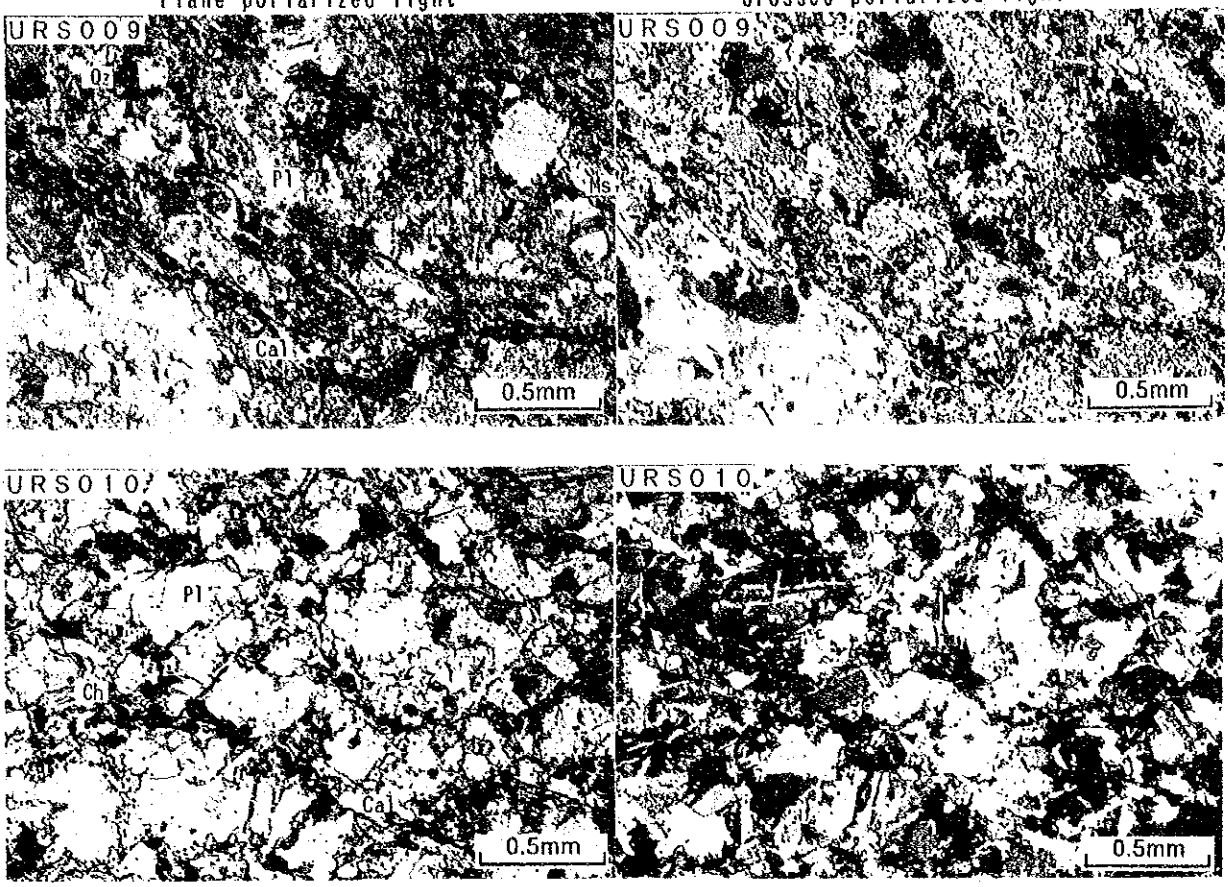






Appendix 1-3 Photomicrographs of the Thin Sections(3)

Plane porlarized light　　Crossed porlarized light



ABBREVIATIONS

Ap : Apatite
Au : Augite
Bt : Biotite
Cal : Calcite
Ch : Chlorite
Ms : Mscovite
Ne : Nepheline
Ph : Phlogopite
Pl : Plagioclase
Qz : Quartz
Se : Sericite

Appendix 1- 4 Microscopic Observations of the Polished Sections(1)

No.	Sample No.	Boring No.	Depth (m)	Mineral / Rock Name	Py	Go	Ccp	Sph	El	Ti	Uk1	Uk2	Uk3					Note
1	UPS001	MJMU-1	78.50	Csg py rich qz v	◎	○				△								
2	UPS002	MJMU-7	73.10	Csg py zone along qz v	◎	○	・		・	△								
3	UPS003	MJMU-8	88.00	Blk sulfide-qz v	○		○	○		・								
4	UPS004	MJMU-7	87.70	Py conc. by hand picking	◎		・		・	△	・	・	・					Abbreviations: Py: pyrite; Go: Goethite; Ccp: Chalcopyrite; Sph: Sphalerite; El: Electrum; Ti: TiO2 mineral; Uk1: Unknown mineral 1 Uk2: Unknown mineral 2 Uk3: Unknown mineral 3

◎: Abundant ○: Common △: Poor ・: Rare

Appendix 1- 4 Microscopic Observations of the Polished Sections(2)

(1)

Sample No. : UPS001

Boring No. : MJMU-1 Depth : 78.50m

Observation note :

This sample was taken from a pyrite rich quartz vein. As a primary ore mineral, only pyrite can be observed. Pyrite crystals are up to 0.5mm in length, forming euhedral crystals and partly replaced by goethite. As secondary ore minerals, goethite and TiO_2 mineral can be observed. Goethite forms veinlets along the crucks of gangue minerals. Grains of TiO_2 mineral of up to 0.1mm in diameter frequently occurs in pyrite crystals.

(2)

Sample No. : UPS002

Boring No. : MJMU-7 Depth : 73.10m

Observation note :

This sample was taken from a pyrite zone of quartz vein. As primary ore minerals, abundant pyrite small amount of chalcopyite and rare electrum were observed. Pyrite forms euhedral crystals of up to 2.5mm in length. Chalcopyrite grain of up to 0.05mm in diameter was observed in pyrite and gangue minerals. Small grains of electrum , up to 0.05mm in diameter, are rarely observed in pyrite and gangue minerals. As secondary minerals, goethite and TiO_2 mineral can be seen. Goethite forms veinlets along the cruck in pyrite and gangue minerals. Grains of TiO_2 mineral of up to 0.1mm in diameter are scattered in pyrite crystals.

(3)

Sample No. : UPS003

Boring No. : MJMU-8 Depth : 88.00m

Observation note :

This sample was taken from a sulfide-quarts vein. Primary ore minerals are pyrite, chalcopyrite and sphalerite. Pyrite forms euhedral crystals of up to 0.1mm in length. Chalcopyrite is observed as anhedral crystals of up to 0.5mm in diameter. Sphalerite forms anhedral crystals of up to 0.15mm in length and closely associates

with chalcopyrite. As a secondary mineral, TiO_2 mineral can be seen. TiO_2 mineral of up to 0.1mm in length rarely occurs in gangue minerals.

(4)

Sample No. : UPS004

Boring No. : MJMU-7 Depth : 87.80m

Observation note :

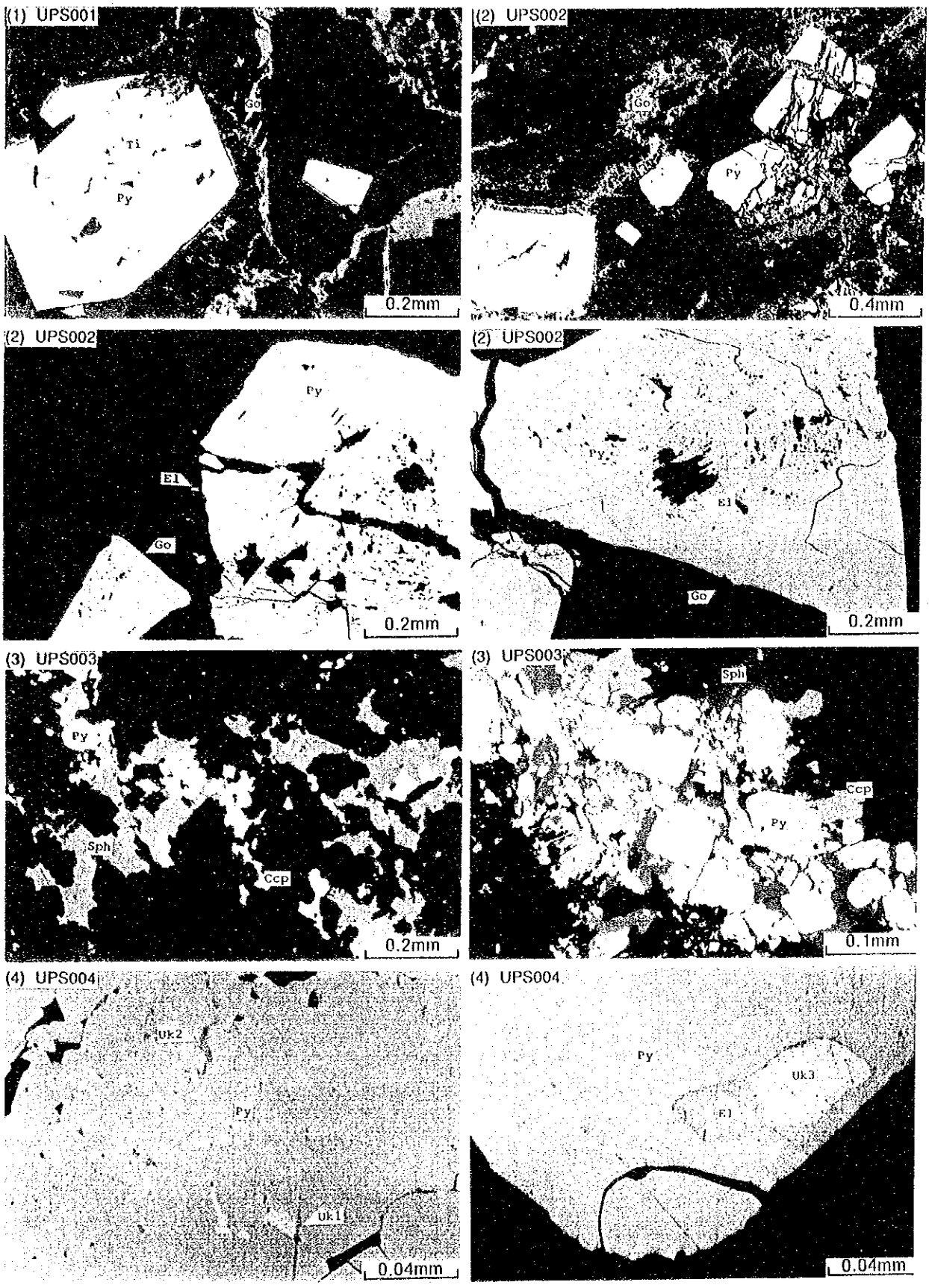
This sample is pyrite concentrate obtained by hand picking from pyritizated diorite. It consists principally of pyrite and a small amount of TiO_2 mineral, chacopyrite, electrum and three kinds of unknown minerals. Pyrite forms euhedral crystals of up to 1.5mm in length. Small amount of TiO_2 mineral of up to 0.1mm in diameter, occurs in pyrite crystals, which is probably formed as a secondary mineral. Grain of chalcopyrite of up to 0.05mm in diameter, rarely occurs in pyrite crystals. Electrum dots of up to 0.06mm in diameter are rarely presents in pyrite crystals. Unknown mineral 1 of up to 0.04mm in diameter, forming anhedral crystals is present in pyrite crystals. It shows yellowish grey color and weak anisotropism, but does not show bireflectance and internal reflection. Unknown mineral 2, up to 0.01mm in diameter, forming anhedral crystals is present in pyrite crystals, which shows bluish grey color, but does not show anisotropism, bireflectance and internal reflection. Only one crystal of unknown mineral 3 which is 0.05mm in length, can be observed in pyrite crystal. It shows grey color and weak anisotropism ,but does not show bireflectance and internal reflection. Unknown mineral 3 closely closely associated with electrum.

Appendix 1- 4 Microscopic Observations of the Polished Sections(4)

Abbreviations

Py :	Pyrite
Go :	Goethite
Ccp :	Chalcopyrite
Sph :	Sphalerite
El :	Electrum
Ti :	TiO_2 mineral
Uk1 :	Unknown mineral 1
Uk2 :	Unknown mineral 2
Uk3 :	Unknown mineral 3

Appendix 1- 5 Photomicrographs of the Polished Sections



Appendix 1- 6 Results of Whole Rock Chemical Analyses

No.	SAMPLE No.	BORING No. DEPTH(m) ROCK NAME	SiO2	TiO2	Al2O3	Fe2O3	FeO	MnO	MgO	CaO	Na2O	K2O	P2O5	LOI	Total
1	UWA001	MJMU-1 42.50-42.68 Microdiorite	47.69	1.06	12.78	5.08	6.43	0.16	4.10	6.24	2.76	1.37	0.14	9.23	97.04
2	UWA002	MJMU-6 30.80-30.90 Trachyte	54.68	1.20	14.97	4.84	0.87	0.08	3.80	5.93	4.46	5.19	0.99	0.83	97.84
3	UWA003	MJMU-7 87.80-87.86 Microdiorite	47.50	1.29	12.56	5.19	6.57	0.19	3.56	5.42	3.40	1.07	0.14	7.89	94.78
4	UWA004	MJMU-8 96.00-96.10 Microdiorite	44.37	1.70	16.81	5.37	8.14	0.20	4.10	4.58	6.50	0.14	0.31	6.90	99.12
5	UWA005	MJMU-1 48.50 White clay	38.50	1.48	18.43	3.13	4.10	0.20	3.89	8.19	1.34	2.71	0.08	15.81	97.86

Appendix 1-7 Chemical Compositions and CIPW Norms of the Rocks

No.	1	2	3	4	5
SAMPLE No.	UWA001	UWA002	UWA003	UWA004	UWA005
BORING No.	MJMU-1	MJMU-6	MJMU-7	MJMU-8	MJMU-1
DEPTH(m)	42.50-42.68	30.80-30.90	87.80-87.86	96.00-96.10	48.50
ROCK NAME	Microdiorite	Trachyte	Microdiorite	Microdiorite	White clay
SiO2	47.69	54.68	47.50	44.37	38.50
TiO2	1.06	1.20	1.29	1.70	1.48
Al2O3	12.78	14.97	12.56	16.81	18.43
Fe2O3	5.08	4.84	5.19	5.37	3.13
FeO	6.43	0.87	6.57	8.14	4.10
MnO	0.16	0.08	0.19	0.20	0.20
MgO	4.10	3.80	3.56	4.10	3.89
CaO	6.24	5.93	5.42	4.58	8.19
Na2O	2.76	4.46	3.40	6.50	1.34
K2O	1.37	5.19	1.07	0.14	2.71
P2O5	0.14	0.99	0.14	0.31	0.08
LOI	9.23	0.83	7.89	6.90	15.81
Total	97.04	97.84	94.78	99.12	97.86
FeO*	11.00	5.23	11.24	12.97	6.92
FeO*/MgO	2.68	1.38	3.16	3.16	1.78
SOLODIFY INDEX	21.32	20.35	18.47	17.29	
CIPW NORM					
Q	7.00	0.00	6.55	0.00	0.00
C	0.00	0.00	0.00	0.00	0.00
or	8.10	30.67	6.32	0.83	16.02
ab	23.35	33.48	28.77	38.99	11.05
an	18.44	5.50	15.85	16.28	36.27
lc	0.00	0.00	0.00	0.00	0.00
ne	0.00	2.31	0.00	8.67	0.15
kp	0.00	0.00	0.00	0.00	0.00
ac	0.00	0.00	0.00	0.00	0.00
tr-wo	0.00	0.00	0.00	0.00	0.00
di-wo	4.85	7.11	4.23	1.85	1.61
di-en	2.87	6.14	2.41	1.00	1.13
di-fs	1.73	0.00	1.63	0.79	0.34
hy-en	7.34	0.00	6.45	0.00	0.00
hy-fs	4.42	0.00	4.37	0.00	0.00
fo	0.00	2.33	0.00	6.46	6.00
fa	0.00	0.00	0.00	5.63	1.96
cs	0.00	0.00	0.00	0.00	0.00
mt	7.37	0.00	7.53	7.79	4.54
hm	0.00	4.84	0.00	0.00	0.00
il	2.01	2.01	2.45	3.23	2.81
ru	0.00	0.00	0.00	0.00	0.00
ap	0.33	2.34	0.33	0.73	0.19
Σfemic	30.93	24.77	29.41	27.48	18.57
D.I.	38.46	66.46	41.65	48.49	
SERIES	TH	CA	TH	TH	

Appendix 1- 8 Assay Results of the Au, Ag Analyses (1)

No. 1

No.	sample No.	Rock Name	Locality			Au ppb	Ag ppm	Notes
			Boring No.	Depth(m)	Width(m)			
1	UOA001	argil-alt ss.	MJMU-1	17.30-19.30	2.00	4	< 0.2	
2	UOA002	hema-limo alt red ss.	MJMU-1	19.30-20.90	1.60	1055	< 0.2	
3	UOA003	blu-grn alt microdio	MJMU-1	35.00-37.00	2.00	18	< 0.2	
4	UOA004	alt microdio, py rich	MJMU-1	37.00-37.60	0.60	320	< 0.2	
5	UOA005	alt microdio, py rich	MJMU-1	37.60-39.60	2.00	5	< 0.2	
6	UOA006	dk-grn-gry alt microdio	MJMU-1	39.60-41.20	1.60	18	< 0.2	
7	UOA007	blu-grn alt microdio, py	MJMU-1	41.20-43.20	2.00	2390	< 0.2	
8	UOA008	blu-grn alt microdio, py	MJMU-1	43.20-43.85	0.65	27	< 0.2	
9	UOA009	blu-grn alt microdio	MJMU-1	43.85-46.20	2.35	1920	< 0.2	41.20-54.10
10	UOA010	white alt clay, py-rich	MJMU-1	46.20-46.85	0.65	463	< 0.2	(12.90 m)
11	UOA011	alt-brec rich qz v	MJMU-1	46.85-48.20	1.35	950	< 0.2	Au 2.18 g/t
12	UOA012	qz-network zone	MJMU-1	48.20-49.90	1.70	4670	< 0.2	
13	UOA013	milky white qz v	MJMU-1	49.90-51.00	1.10	766	< 0.2	
14	UOA014	milky wihte qz v	MJMU-1	51.00-52.10	1.10	585	< 0.2	
15	UOA015	pale-grn alt microdio	MJMU-1	52.10-54.10	2.00	3910	< 0.2	
16	UOA016	grn-gry alt fng ss	MJMU-1	54.10-56.10	2.00	30	< 0.2	
17	UOA017	grn-gry alt fng ss	MJMU-1	56.10-58.10	2.00	8	< 0.2	
18	UOA018	grn-gry alt fng ss	MJMU-1	58.10-60.10	2.00	8	< 0.2	
19	UOA019	grn-gry alt fng ss	MJMU-1	60.10-62.10	2.00	59	< 0.2	
20	UOA020	grn-gry alt fng ss, py	MJMU-1	62.10-64.30	2.20	200	< 0.2	
21	UOA021	milky white qz v	MJMU-1	64.30-65.00	0.70	948	< 0.2	
22	UOA022	milky white qz v	MJMU-1	65.00-66.60	1.60	2740	0.2	
23	UOA023	alt icrodio with qz-net	MJMU-1	66.60-68.30	1.70	7820	0.4	64.30-87.60
24	UOA024	milky white qz v	MJMU-1	68.30-69.30	1.00	3110	0.3	(23.30 m)
25	UOA025	alt microdio, csg-py	MJMU-1	69.30-70.00	0.70	5150	< 0.2	Au 2.71 g/t
26	UOA026	milky white qz v	MJMU-1	70.00-71.40	1.40	1895	< 0.2	
27	UOA027	milky white qz v	MJMU-1	71.40-71.90	0.50	1800	0.3	
28	UOA028	milky white qz v	MJMU-1	71.90-72.90	1.00	482	0.2	65.00-85.80
29	UOA029	milky white qz v	MJMU-1	72.90-74.30	1.40	8700	< 0.2	(20.80 m)
30	UOA030	alt microdio, csg-py	MJMU-1	74.30-76.30	2.00	2960	0.2	Au 2.97 g/t
31	UOA031	qz-net w. in alt dio	MJMU-1	76.30-77.30	1.00	1440	< 0.2	
32	UOA032	qz-net w. in alt dio	MJMU-1	77.30-78.70	1.40	487	< 0.2	
33	UOA033	dk-grn alt microdio	MJMU-1	78.70-80.55	1.85	524	< 0.2	66.60-70.00
34	UOA034	qz-net w. in alt dio	MJMU-1	80.55-82.55	2.00	2940	< 0.2	(3.40 m)
35	UOA035	milky qz v / alt dio	MJMU-1	82.55-83.75	1.20	2790	< 0.2	Au 5.32 g/t
36	UOA036	milky white qz v	MJMU-1	83.75-84.80	1.05	1740	< 0.2	
37	UOA037	dk-grn alt microdio	MJMU-1	84.80-85.80	1.00	1195	< 0.2	
38	UOA038	dk-grn alt microdio	MJMU-1	85.80-87.60	1.80	660	< 0.2	
39	UOA039	milky qz v / alt dio	MJMU-1	87.60-88.40	0.80	242	< 0.2	
40	UOA040	dk-grn alt microdio	MJMU-1	88.40-90.30	1.90	211	< 0.2	

Appendix 1- 8 Assay Results of the Au, Ag Analyses (2)

No. 2

No.	sample No.	Rock Name	Locality			Au	Ag	Notes
			Boring No.	Depth(m)	Width(m)	ppb	ppm	
41	UOA041	dk-grn alt microdio	MJMU-1	90.30-92.30	2.00	637	< 0.2	
42	UOA042	grn alt microdio	MJMU-2	11.00-13.00	2.00	13	< 0.2	
43	UOA043	grn alt microdio	MJMU-2	13.00-14.40	1.40	2	< 0.2	
44	UOA044	grn-gry alt ss/qz net	MJMU-2	19.40-21.10	1.60	18	< 0.2	
45	UOA045	dk-grn-gry alt ss	MJMU-2	21.10-22.30	1.20	2	< 0.2	
46	UOA046	hema-red-brn fng ss,	MJMU-2	22.30-24.30	2.00	1	< 0.2	
47	UOA047	red-brn alt fng ss,	MJMU-2	24.30-26.30	2.00	2	< 0.2	
48	UOA048	dk gry-brn alt fng ss	MJMU-2	26.30-28.30	2.00	< 1	< 0.2	
49	UOA049	dk gry-brn alt fng ss	MJMU-2	28.30-30.30	2.00	3	< 0.2	
50	UOA050	red-brn alt fng ss/dio	MJMU-2	30.30-32.30	2.00	< 1	< 0.2	
51	UOA051	blu-gray alt microdio	MJMU-2	32.30-34.50	2.20	42	< 0.2	
52	UOA052	red-brn alt microdio	MJMU-2	34.50-35.20	0.70	740	< 0.2	
53	UOA053	qz-v zone in microdio	MJMU-2	35.20-36.80	1.60	2940	< 0.2	┌ 35.20-55.55
54	UOA054	hema-red alt microdio	MJMU-2	36.80-38.80	2.00	2390	< 0.2	│ (20.35 m)
55	UOA055	blu-gray alt microdio	MJMU-2	38.80-40.50	1.70	148	< 0.2	│ Au 2.79 g/t
56	UOA056	qz-v zone in microdio	MJMU-2	40.50-42.50	2.00	7810	< 0.2	│
57	UOA057	qz-v zone in microdio	MJMU-2	42.50-44.50	2.00	2780	< 0.2	│
58	UOA058	qz-v zone in microdio	MJMU-2	44.50-46.65	2.15	936	< 0.2	│ 40.50-49.10
59	UOA059	qz-netw in altn ss/sh	MJMU-2	46.65-48.00	1.35	4090	< 0.2	│ (8.60 m)
60	UOA060	milky white qz v	MJMU-2	48.00-49.10	1.10	6740	< 0.2	│ Au 4.20 g/t
61	UOA061	qz-netw in altn ss/sh	MJMU-2	49.10-50.20	1.10	186	< 0.2	│
62	UOA062	red-brn alt mdg ss	MJMU-2	50.20-50.80	0.60	4790	< 0.2	│
63	UOA063	milky white msv qz v	MJMU-2	50.80-52.80	2.00	301	< 0.2	│
64	UOA064	milky white msv qz v	MJMU-2	52.80-54.60	1.80	172	< 0.2	│
65	UOA065	qz netw in alt microdio	MJMU-2	54.60-55.55	0.95	7220	< 0.2	└
66	UOA066	red alt microdio, py	MJMU-2	55.55-56.20	0.65	716	0.3	
67	UOA067	grn-gry alt microdio	MJMU-2	56.20-58.20	2.00	240	< 0.2	
68	UOA068	grn-gry alt microdio	MJMU-2	58.20-60.20	2.00	1320	< 0.2	
69	UOA069	grn-gry alt microdio	MJMU-2	60.20-62.20	2.00	161	< 0.2	
70	UOA070	grn-gry alt microdio	MJMU-2	62.20-63.10	0.90	10	< 0.2	
71	UOA071	hema-red alt microdio	MJMU-2	63.10-65.00	1.90	221	< 0.2	
72	UOA072	grn-gry alt microdio, py	MJMU-2	108.90-110.70	1.80	34	< 0.2	
73	UOA073	kahki weath trachyte	MJMU-3	0.00-2.00	2.00	5	< 0.2	
74	UOA074	red-brn weath trachyte	MJMU-3	2.00-4.00	2.00	< 1	< 0.2	
75	UOA075	red-brn weath trachyte	MJMU-3	4.00-6.00	2.00	< 1	< 0.2	
76	UOA076	red-brn alt microdio	MJMU-3	6.00-8.00	2.00	9	< 0.2	
77	UOA077	red-brn alt microdio	MJMU-3	8.00-10.00	2.00	10	< 0.2	
78	UOA078	hema-chl alt microdio	MJMU-3	10.00-12.00	2.00	62	< 0.2	
79	UOA079	hema-chl alt microdio	MJMU-3	12.00-14.00	2.00	7	< 0.2	
80	UOA080	hema-chl alt microdio	MJMU-3	14.00-16.30	2.30	< 1	< 0.2	

Appendix 1- 8 Assay Results of the Au, Ag Analyses (3)

No. 3

No.	sample No.	Rock Name	Locality			Au ppb	Ag ppm	Notes
			Boring No.	Depth(m)	Width(m)			
81	UOA081	hema-qz net in microdio	MJMU-3	16.30-18.30	2.00	< 1	< 0.2	
82	UOA082	hema-qz net in microdio	MJMU-3	18.30-20.30	2.00	1	< 0.2	
83	UOA083	hema-qz net in microdio	MJMU-3	20.30-22.30	2.00	188	< 0.2	
84	UOA084	hema-qz net in microdio	MJMU-3	22.30-24.30	2.00	212	< 0.2	
85	UOA085	hema-qz net in ss	MJMU-3	24.30-26.30	2.00	4	< 0.2	
86	UOA086	hema-qz net in ss	MJMU-3	26.30-28.80	2.50	25	< 0.2	
87	UOA087	hema net gray ss	MJMU-3	39.10-41.70	2.60	1	< 0.2	
88	UOA088	hema-limo net in sil ss	MJMU-3	47.10-49.10	2.00	6	< 0.2	
89	UOA089	hema-limo net in sil ss	MJMU-3	49.10-51.10	2.00	< 1	< 0.2	
90	UOA090	hema-limo net in sil ss	MJMU-3	51.10-53.10	2.00	< 1	< 0.2	
91	UOA091	hema-limo net in sil ss	MJMU-3	53.10-55.10	2.00	< 1	< 0.2	
92	UOA092	hema-limo net in sil ss	MJMU-3	55.10-56.50	1.40	< 1	< 0.2	
93	UOA093	hema-limo net in sil ss	MJMU-3	65.00-67.00	2.00	< 1	< 0.2	
94	UOA094	blu-gry alt mdg ss	MJMU-3	67.00-69.00	2.00	11	< 0.2	
95	UOA095	blu-gry alt mdg ss	MJMU-3	69.00-70.20	1.20	< 1	< 0.2	
96	UOA096	hema-limo net in sil ss	MJMU-3	70.20-72.20	2.00	2	< 0.2	
97	UOA097	hema-limo net in sil ss	MJMU-3	72.20-74.20	2.00	6	< 0.2	
98	UOA098	hema-limo net in sil ss	MJMU-3	74.20-76.20	2.00	49	< 0.2	
99	UOA099	hema-limo net in sil ss	MJMU-3	76.20-78.20	2.00	3	< 0.2	
100	UOA100	hema-limo net in sil ss	MJMU-3	78.20-80.20	2.00	25	< 0.2	
101	UOA101	hema-limo net in sil ss	MJMU-3	80.20-82.20	2.00	16	< 0.2	
102	UOA102	hema-limo net in sil ss	MJMU-3	82.20-83.80	1.60	9	< 0.2	
103	UOA103	blu-gry sil ss	MJMU-4	0.00-2.00	2.00	6	< 0.2	
104	UOA104	blu-gry sil ss	MJMU-4	2.00-4.00	2.00	8	< 0.2	
105	UOA105	qz netw in gry sil ss	MJMU-4	4.00-6.00	2.00	6	< 0.2	
106	UOA106	qz netw in gry sil ss	MJMU-4	6.00-7.80	1.80	3	< 0.2	
107	UOA107	blu-grn-gry phyll shc	MJMU-4	7.80-8.40	0.60	< 1	< 0.2	
108	UOA108	limo- sil ss & microdio	MJMU-4	8.40-10.00	1.60	3	< 0.2	
109	UOA109	dk-grn alt microdio	MJMU-4	10.00-12.00	2.00	7	< 0.2	
110	UOA110	dk-grn alt microdio	MJMU-4	12.00-14.00	2.00	7	< 0.2	
111	UOA111	dk-grn alt microdio	MJMU-4	14.00-16.00	2.00	< 1	< 0.2	
112	UOA112	dk-grn gry alt microdio	MJMU-4	16.00-18.00	2.00	11	< 0.2	
113	UOA113	dk-grn gry alt microdio	MJMU-4	18.00-20.40	2.40	5	< 0.2	
114	UOA114	qz film rich gry mdg ss	MJMU-4	20.40-22.40	2.00	2	< 0.2	
115	UOA115	qz film rich gry mdg ss	MJMU-4	22.40-24.60	2.20	8	< 0.2	
116	UOA116	brn-gry porous trachyte	MJMU-4	72.60-74.60	2.00	< 1	< 0.2	
117	UOA117	brn-gry porous trachyte	MJMU-4	74.60-76.60	2.00	< 1	< 0.2	
118	UOA118	light blu-gry mdg ss	MJMU-4	76.60-79.50	2.90	< 1	< 0.2	
119	UOA119	brn-gry porous trachyte	MJMU-4	79.50-81.20	1.70	< 1	< 0.2	
120	UOA120	dk grn alt microdio	MJMU-5	0.00-2.00	2.00	< 1	< 0.2	

Appendix 1- 8 Assay Results of the Au, Ag Analyses (4)

No. 4

No.	sample No.	Rock Name	Locality			Au ppb	Ag ppm	Notes
			Boring No.	Depth(m)	Width(m)			
121	UOA121	dk grn alt microdio	MJMU-5	2.00-4.00	2.00	3	< 0.2	
122	UOA122	dk grn alt microdio	MJMU-5	4.00-6.30	2.30	4	< 0.2	
123	UOA123	hema-red alt microdio	MJMU-5	6.30-8.30	2.00	4	< 0.2	
124	UOA124	carbo-hema alt microdio	MJMU-5	8.30-10.30	2.00	11	< 0.2	
125	UOA125	sil-hema alt microdio	MJMU-5	10.30-12.30	2.00	10	< 0.2	
126	UOA126	sil-hema alt microdio	MJMU-5	12.30-14.30	2.00	< 1	< 0.2	
127	UOA127	sil-hema alt microdio	MJMU-5	14.30-16.30	2.00	1	< 0.2	
128	UOA128	sil-hema alt microdio	MJMU-5	16.30-18.30	2.00	23	< 0.2	
129	UOA129	sil-hema alt microdio	MJMU-5	18.30-20.30	2.00	51	< 0.2	
130	UOA130	sil-hema alt microdio	MJMU-5	20.30-21.60	1.30	10	< 0.2	
131	UOA131	hema-red alt microdio	MJMU-5	32.00-34.10	2.10	152	< 0.2	
132	UOA132	limo-hema sil alt r.	MJMU-5	34.10-35.50	1.40	< 1	< 0.2	
133	UOA133	grn-gry alt microdio	MJMU-5	35.50-36.90	1.40	4	< 0.2	
134	UOA134	limo-hema sil alt r.	MJMU-5	36.90-39.15	2.25	< 1	< 0.2	
135	UOA135	dk-grn alt microdio	MJMU-5	39.15-41.15	2.00	< 1	< 0.2	
136	UOA136	dk-grn alt microdio	MJMU-5	41.15-43.15	2.00	5	< 0.2	
137	UOA137	dk-grn alt microdio	MJMU-5	43.15-45.15	2.00	< 1	< 0.2	
138	UOA138	dk-grn alt microdio	MJMU-5	45.15-47.15	2.00	< 1	< 0.2	
139	UOA139	dk-grn alt microdio	MJMU-5	47.15-48.80	1.65	2	< 0.2	
140	UOA140	red-brn alt ss	MJMU-5	48.80-51.10	2.30	2	< 0.2	
141	UOA141	sil-carbo alt microdio	MJMU-7	19.20-20.20	1.00	< 1	< 0.2	
142	UOA142	hema-limo alt microdio	MJMU-7	50.40-52.40	2.00	59	< 0.2	
143	UOA143	hema-limo alt microdio	MJMU-7	52.40-54.40	2.00	1045	< 0.2	
144	UOA144	blu-gry fng ss, py-rich	MJMU-7	54.40-56.40	2.00	37	< 0.2	
145	UOA145	qz-v zone in ss	MJMU-7	56.40-57.20	0.80	24	< 0.2	
146	UOA146	blu-dk gry fng ss	MJMU-7	57.20-59.40	2.20	7	< 0.2	
147	UOA147	qz-v zone in ss	MJMU-7	59.40-60.70	1.30	< 1	< 0.2	
148	UOA148	qz-v zone in ss	MJMU-7	60.70-62.50	1.80	31	< 0.2	
149	UOA149	milky white qz-v	MJMU-7	62.50-63.60	1.10	248	< 0.2	
150	UOA150	qz-v zone in ss	MJMU-7	63.60-65.60	2.00	327	< 0.2	
151	UOA151	qz-v zone in ss	MJMU-7	65.60-67.60	2.00	507	< 0.2	
152	UOA152	qz-v zone in ss	MJMU-7	67.60-68.60	1.00	232	< 0.2	
153	UOA153	qz-vlets bearing ss	MJMU-7	68.60-70.70	2.10	315	< 0.2	
154	UOA154	milky white qz-v	MJMU-7	70.70-71.70	1.00	3160	0.2	┐ 70.70-81.00
155	UOA155	qz-v zone in microdio	MJMU-7	71.70-73.00	1.30	5120	0.3	(10.30 m)
156	UOA156	dk grn alt microdio	MJMU-7	73.00-73.85	0.85	3260	0.2	Au 4.56 g/t
157	UOA157	qz-v zone in microdio	MJMU-7	73.85-75.55	1.70	15100	< 0.2	
158	UOA158	dk grn alt microdio, py	MJMU-7	75.55-77.55	2.00	473	< 0.2	70.70-75.55
159	UOA159	dk grn alt microdio, py	MJMU-7	77.55-79.55	2.00	970	< 0.2	(4.85 m)
160	UOA160	dk grn alt microdio, py	MJMU-7	77.55-81.00	1.45	4030	< 0.2	┘ Au 7.89 g/t

Appendix 1- 8 Assay Results of the Au, Ag Analyses (5)

No. 5

No.	sample No.	Rock Name	Locality			Au	Ag	Notes
			Boring No.	Depth(m)	Width(m)	ppb	ppm	
161	UOA161	dk grn alt microdio, py	MJMU-7	81.00-83.00	2.00	15	< 0.2	
162	UOA162	dk grn alt microdio	MJMU-7	83.00-85.00	2.00	2	< 0.2	
163	UOA163	dk grn alt microdio	MJMU-7	85.00-87.00	2.00	13	< 0.2	
164	UOA164	dk grn alt microdio	MJMU-7	87.00-87.70	0.70	84	< 0.2	
165	UOA165	csg-py alt microdio	MJMU-7	87.70-89.70	2.00	6440	< 0.2	┐ 87.70-94.80
166	UOA166	csg-py alt microdio	MJMU-7	89.70-91.25	1.55	2730	< 0.2	(7.10 m)
167	UOA167	milky qz-v in microdio	MJMU-7	91.25-92.65	1.40	1620	< 0.2	┘ Au 5.25 g/t
168	UOA168	milky qz-v in microdio	MJMU-7	92.65-94.80	2.15	8320	< 0.2	
169	UOA169	milky white qz-v	MJMU-7	94.80-95.20	0.40	76	< 0.2	
170	UOA170	milky qz-v in microdio	MJMU-7	95.20-97.32	2.12	960	< 0.2	
171	UOA171	dk-grn alt microdio/ss	MJMU-7	97.32-99.32	2.00	470	< 0.2	
172	UOA172	dk-grn mdg ss	MJMU-7	99.32-101.32	2.00	18	< 0.2	
173	UOA173	dk-grn mdg ss	MJMU-7	101.32-103.50	2.18	7	0.2	
174	UOA174	brn-gry alt microdio	MJMU-8	0.00-2.50	2.50	3	< 0.2	
175	UOA175	gry fng ss	MJMU-8	2.50-5.00	2.50	< 1	< 0.2	
176	UOA176	gry fng ss & microdio	MJMU-8	5.00-7.50	2.50	1	< 0.2	
177	UOA177	dk-grn alt microdio	MJMU-8	7.50-10.00	2.50	6	< 0.2	
178	UOA178	dk-grn alt microdio	MJMU-8	10.00-12.50	2.50	1	< 0.2	
179	UOA179	dk-grn alt microdio	MJMU-8	12.50-15.00	2.50	9	< 0.2	
180	UOA180	brn weath alt microdio	MJMU-8	15.00-17.00	2.50	30	< 0.2	
181	UOA181	pale grn alt microdio	MJMU-8	17.00-19.70	2.20	7	< 0.2	
182	UOA182	milky white mono-qz v	MJMU-8	19.70-20.10	0.40	105	< 0.2	
183	UOA183	pale grn alt microdio	MJMU-8	20.10-22.70	2.60	439	< 0.2	
184	UOA184	py-bearing milky qz v	MJMU-8	22.70-23.20	0.50	8930	0.2	┐ 22.70-24.80
185	UOA185	py-dissem alty microdio	MJMU-8	23.20-24.60	1.40	979	< 0.2	(2.10 m)
186	UOA186	milky white qz vein	MJMU-8	24.60-24.80	0.20	8990	0.3	┘ Au 3.64 g/t
187	UOA187	mdg-py dissem dio/silts	MJMU-8	24.80-26.80	2.00	1015	< 0.2	
188	UOA188	hema-red alt silts	MJMU-8	26.80-28.30	1.50	18	< 0.2	22.70-26.80
189	UOA189	gry-brn trachyand	MJMU-8	28.30-29.20	0.90	< 1	< 0.2	(4.10 m)
190	UOA190	light-brn bdd silts	MJMU-8	29.20-31.20	2.00	5	< 0.2	Au 2.36 g/t
191	UOA191	brn-grn mdg ss / silts	MJMU-8	31.20-33.20	2.00	< 1	< 0.2	
192	UOA192	brn-grn mdg ss / silts	MJMU-8	40.60-42.60	2.00	3	< 0.2	
193	UOA193	brn-dk-grn alt microdio	MJMU-8	42.60-44.70	2.10	5	< 0.2	
194	UOA194	brn trachyand-bas. por	MJMU-8	44.70-46.70	2.00	< 1	< 0.2	
195	UOA195	trachyand-bas./trachyte	MJMU-8	46.70-48.90	2.20	< 1	< 0.2	
196	UOA196	brn trachyte / silts	MJMU-8	50.40-51.1	0.70	< 1	< 0.2	
197	UOA197	hema-alt ss, hydrofrac	MJMU-8	56.50-58.50	2.00	2	< 0.2	
198	UOA198	hema-alt ss, hydrofrac	MJMU-8	58.50-59.50	1.00	14	< 0.2	
199	UOA199	grn alt microdio/qz v	MJMU-8	78.75-79.70	0.95	28	< 0.2	
200	UOA200	alt microdio, csg-py	MJMU-8	86.50-89.25	2.75	285	< 0.2	

Appendix 1- 8 Assay Results of the Au, Ag Analyses (6)

No. 6

No.	sample No.	Rock Name	Locality			Au ppb	Ag ppm	Notes
			Boring No.	Depth(m)	Width(m)			
201	UOA201	csg pyrite conc	MJMU-7	87.70～ 89.70	2.00	791000	5.5	hand picked py
202	UOA202	milky qz-v in microdio	MJMU-7	91.25～ 92.65	1.40	1430	< 0.2	blind test sample

Appendix 1- 9 Results of X-ray Diffraction Analyses (whole rock)

No.	Sample No.	Boring No.	Depth (m)	Mineral / Rock Name	Qz	Kao	Ser	Chl	Sme	Cri	Tri	Cal	Ank	Sid	Py	Hem	Pl	Note
1	UXR001	MJMU-1	25.00	dk grn-gry alt microdio	○			○				△					◎	
2	UXR002	MJMU-1	48.50	white clay	◎	・	△						◎			・		
3	UXR003	MJMU-1	69.50	alt microdio	△	△	△						○				△	
4	UXR004	MJMU-1	89.50	grn shear fault clay	◎	△?	・	△					△	△?		・?	△	Abbreviations:
5	UXR005	MJMU-1	110.00	dk grn alt microdio	△		・	△				△			・		○	Qz: Quartz; Kao: Kaolinite;
6	UXR006	MJMU-1	130.00	dk grn alt microdio	◎			△				・	△	・?			◎	Ser: Sericite; Chl: Chlorite;
7	UXR007	MJMU-1	150.00	epidotized alt microdio	◎			△				△				・	△	Sme: Smectite; Cri: Cristobalite;
8	UXR008	MJMU-2	15.00	dk grn-gry alt microdio	◎			○				△					○	Tri: Tridymite; Cal: Calcite;
9	UXR009	MJMU-2	45.00	grn-gry ali microdio , py	○		△	△					△		・		○	Ank: Ankerite; Sid: Siderite;
10	UXR010	MJMU-2	75.00	grn alt microdio	◎		△	○					○				○	Pl: Plagioclase
11	UXR011	MJMU-2	105.00	dk grn-gry alt microdio	○		・	△				△				・	○	
12	UXR012	MJMU-3	95.00	dk grn-gry alt microdio	◎			○				△				・	○	
13	UXR013	MJMU-4	20.00	dk grn-gry alt microdio	○			○				△	・?			・	◎	
14	UXR014	MJMU-5	76.20	grn alt microdio	◎		△	○					・?				△	
15	UXR015	MJMU-6	29.85	yellow clay in trachyte	・				△	△	・?	・						
16	UXR016	MJMU-5	54.00	dk grn alt microdio	○		・	○					△				○	
17	UXR017	MJMU-5	80.00	shear fault clay	○		△	△					○		・		○	
18	UXR018	MJMU-7	20.70	csg-py imp alt microdio	◎		・	△					○			・	○	
19	UXR019	MJMU-8	60.00	bleached alt microdio	○	△	△	△					○	△?			○	
20	UXR020	MJMU-8	88.00	dk grn microdio	△			○				△				・	◎	

◎: Abundant ○: Common △: Poor ・: Rare

Appendix 1 -10 Results of Dating(K-Ar method)

No.	Sample No.	Locality		Rock	Media	^{40}Ar (scc/gm $\times 10^{-5}$)	$\%^{40}Ar$	% K	Isotopic Age Ma
		Boring No.	Depth(m)						
1	UAD001	MJMU-1	48.50	White clay (Qz-Se-Ank)	Whole rock	1.69 1.79 1.70	97.8 97.2 95.3	1.69 1.68	246±12
2	UAD002	MJMU-7	87.70-89.70	Microdiorite csg Py dissem	Whole rock	1.06 1.08	93.6 81.4	0.89 0.90	284±14
3	UAD003	MJMU-8	96.20-96.50	Microdiorite unaltered	Whole rock	0.112 0.112 0.108 0.112	49.5 68.9 50.2 48.9	0.8 0.8	326±16

Abbreviations:

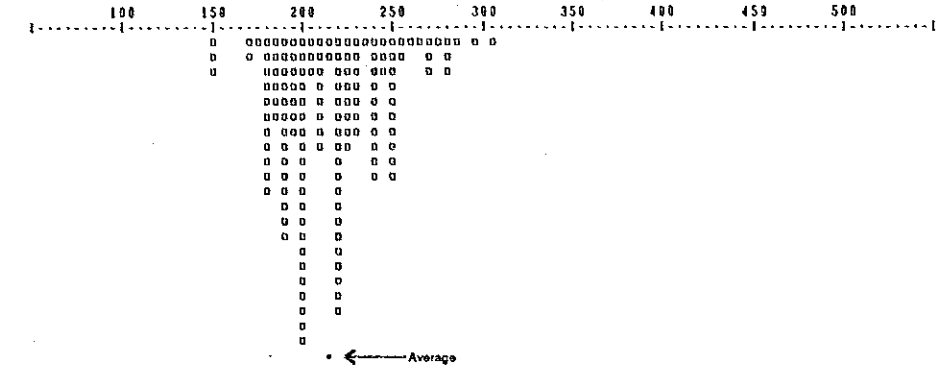
Qz: quartz Se: sericite Ank: ankerite Py: pyrite csg: coarse grained

Appendix 1-11 Homogenization Temperatures of the Fluid Inclusions(1)

No. TOTAL

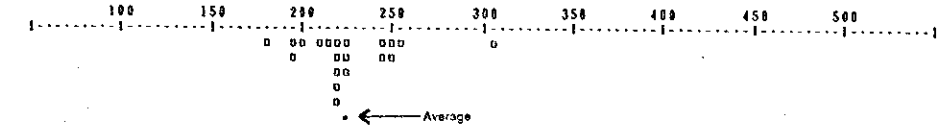
Homogenization Temp.	148	151	152	171	172	174	179	179	180	180	181	181	181	181	181	181	182	185	185	185	185	186	187			
	188	189	189	189	190	190	191	191	191	192	192	192	192	193	194	195	195	197	197	197	198	199	199	199	199	199
	199	200	200	200	200	200	201	201	201	201	202	202	202	202	203	205	205	208	208	210	210	210	211	212	212	213
	215	218	219	219	219	219	219	219	220	220	220	220	220	220	220	221	221	221	222	222	223	223	223	223	224	224	225
	225	228	228	229	229	230	230	231	235	238	238	238	239	240	241	242	242	242	242	245	246	247	248	249	251	251	251
	252	252	252	252	252	255	256	262	264	268	271	272	275	282	282	282	287	296	305								

Number of measuring 150
Minimum Temperature 148
Maximum Temperature 305
Average Temperature 216
Standard Deviation 30



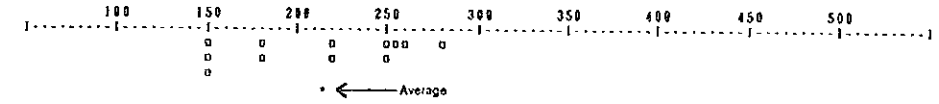
No. UFI881

Homogenization Temp. 181 194 197 200 212 215 219 219 220 220 222 223 223 224 245 246 252 252 256 305
Number of measuring 20
Minimum Temperature 181
Maximum Temperature 305
Average Temperature 226
Standard Deviation 27



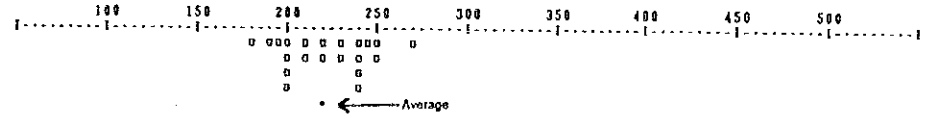
No. FI-1

Homogenization Temp. 148 151 152 179 181 221 221 251 252 255 262 282
Number of measuring 12
Minimum Temperature 148
Maximum Temperature 282
Average Temperature 213
Standard Deviation 47



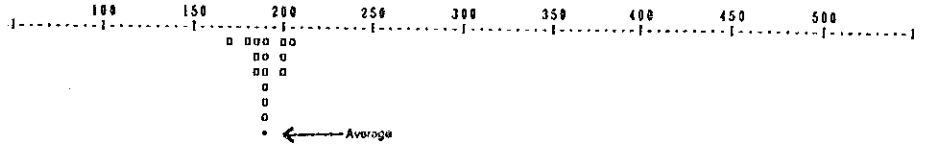
No. UFI883

Homogenization Temp. 181 192 197 200 201 201 202 210 211 219 220 228 229 238 238 239 241 247 248 251 271
Number of measuring 21
Minimum Temperature 181
Maximum Temperature 271
Average Temperature 222
Standard Deviation 23



No. UFI884

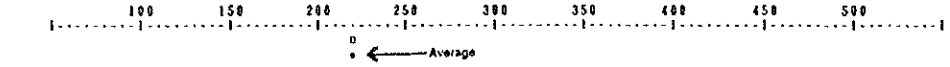
Homogenization Temp. 172 181 185 186 187 188 189 196 198 191 192 199 199 201 205
Number of measuring 15
Minimum Temperature 172
Maximum Temperature 205
Average Temperature 190
Standard Deviation 8



Appendix 1-11 Homogenization Temperatures of the Fluid Inclusions(2)

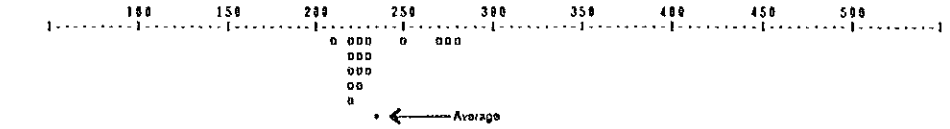
No. UFI005

Homogenization Temp.	220
Number of measuring	1
Minimum Temperature	220
Maximum Temperature	220
Average Temperature	220
Standard Deviation	0



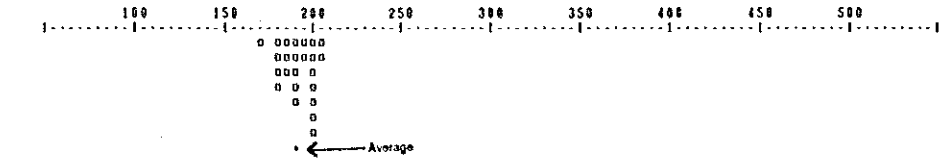
No. UFI006

Homogenization Temp.	210 219 219 220 220 221 223 224 225 225 228 230 231 251 272 275 282
Number of measuring	17
Minimum Temperature	210
Maximum Temperature	282
Average Temperature	234
Standard Deviation	21



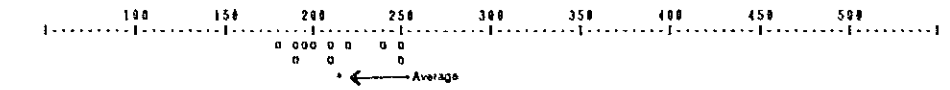
No. UFI007

Homogenization Temp.	171 179 186 180 182 185 185 185 189 191 191 191 192 195 195 199 199 199 200 200 201 202 203 205
Number of measuring	24
Minimum Temperature	171
Maximum Temperature	205
Average Temperature	192
Standard Deviation	9



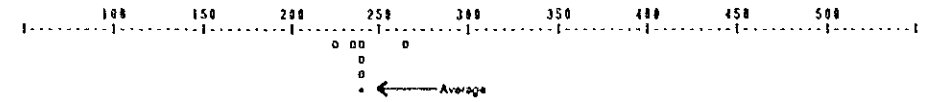
No. UFI008

Homogenization Temp.	181 189 192 197 199 208 212 222 242 249 252
Number of measuring	11
Minimum Temperature	181
Maximum Temperature	252
Average Temperature	213
Standard Deviation	24



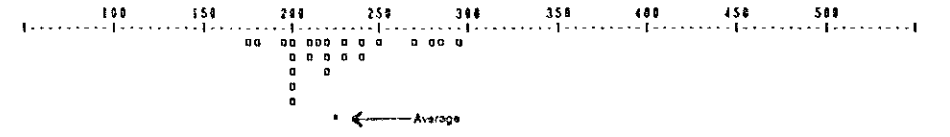
No. UFI009

Homogenization Temp.	223 235 243 242 242 264
Number of measuring	6
Minimum Temperature	223
Maximum Temperature	264
Average Temperature	241
Standard Deviation	12



No. UFI010

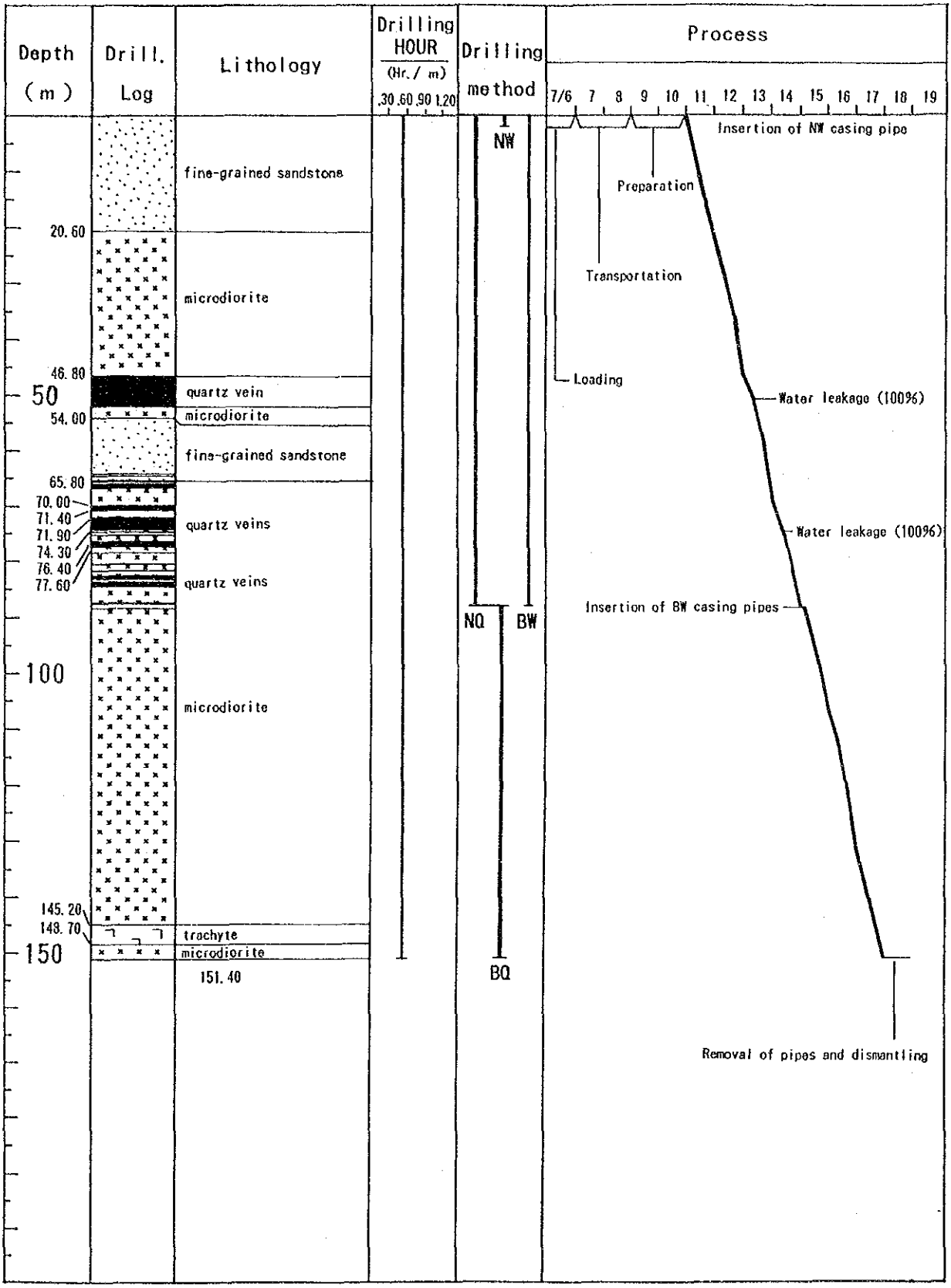
Homogenization Temp.	174 181 193 198 200 201 202 202 208 210 215 218 219 228 229 230 238 242 252 268 282 287 296
Number of measuring	23
Minimum Temperature	174
Maximum Temperature	296
Average Temperature	225
Standard Deviation	33



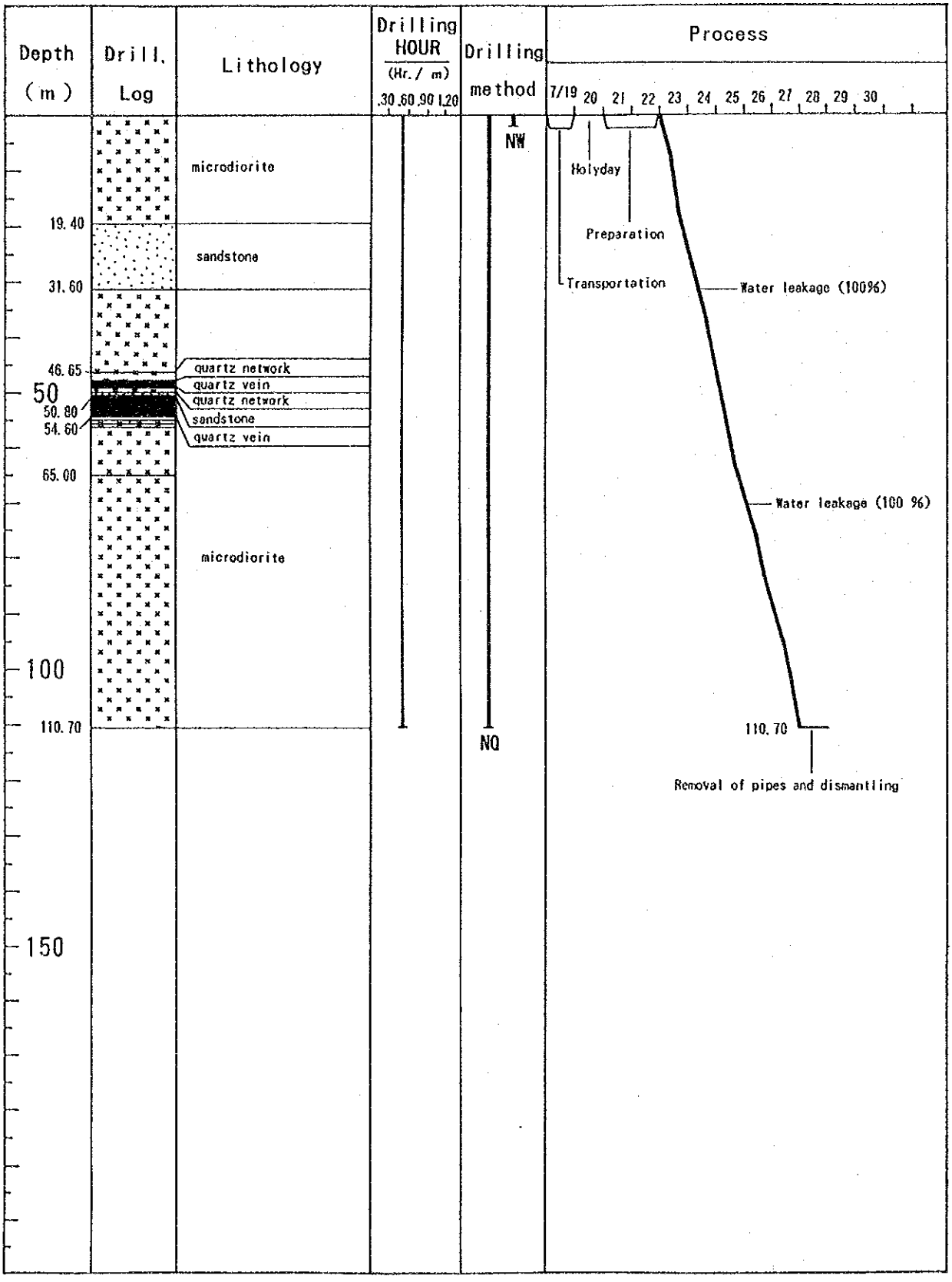
Appendix 2. Miscellaneous Data for the Drilling Survey

Appendix 2- 1 Progress Record of Diamond Drillings

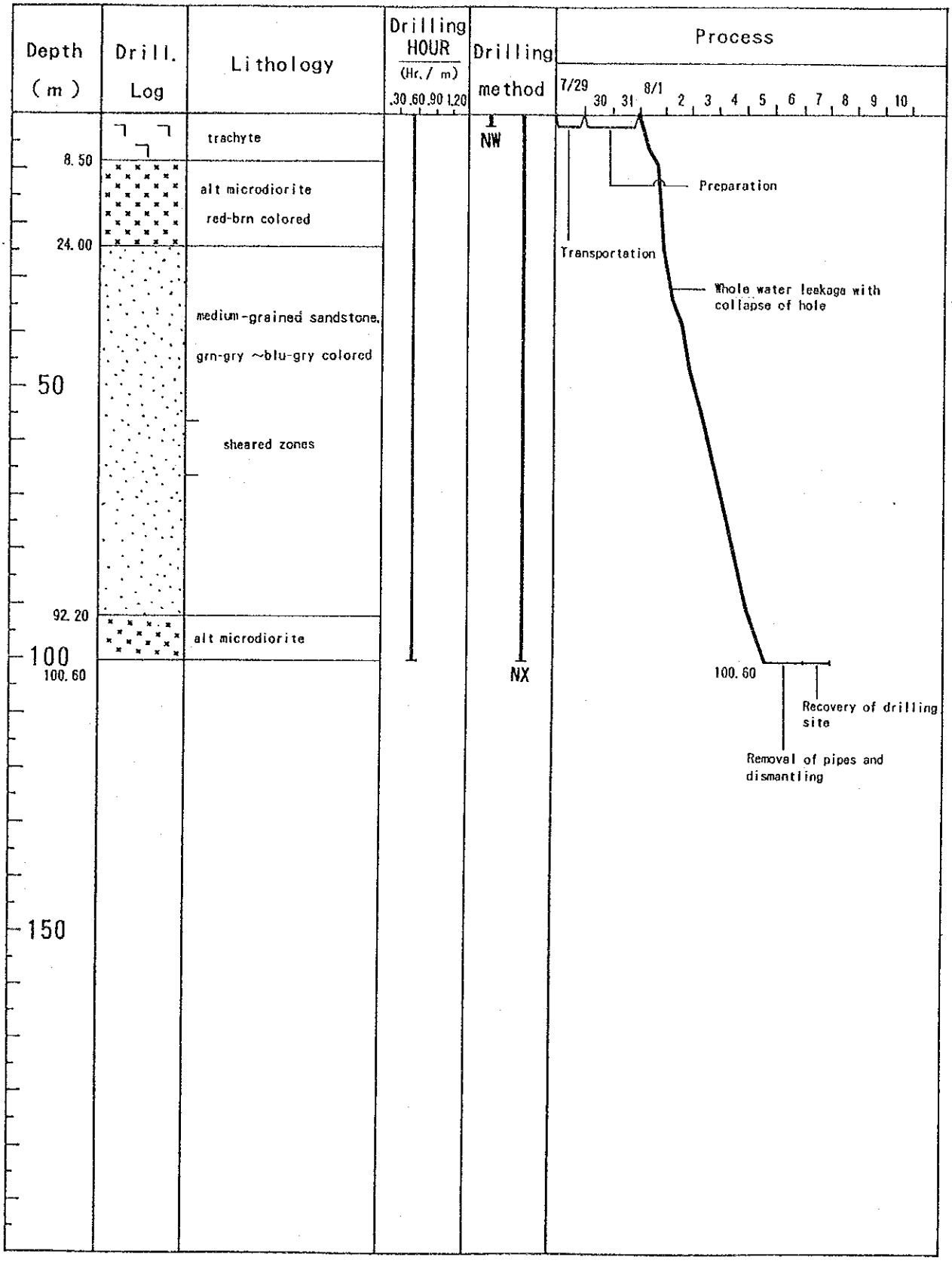
PROGRESS RECORD OF DIAMOND DRILLING MJMU-1



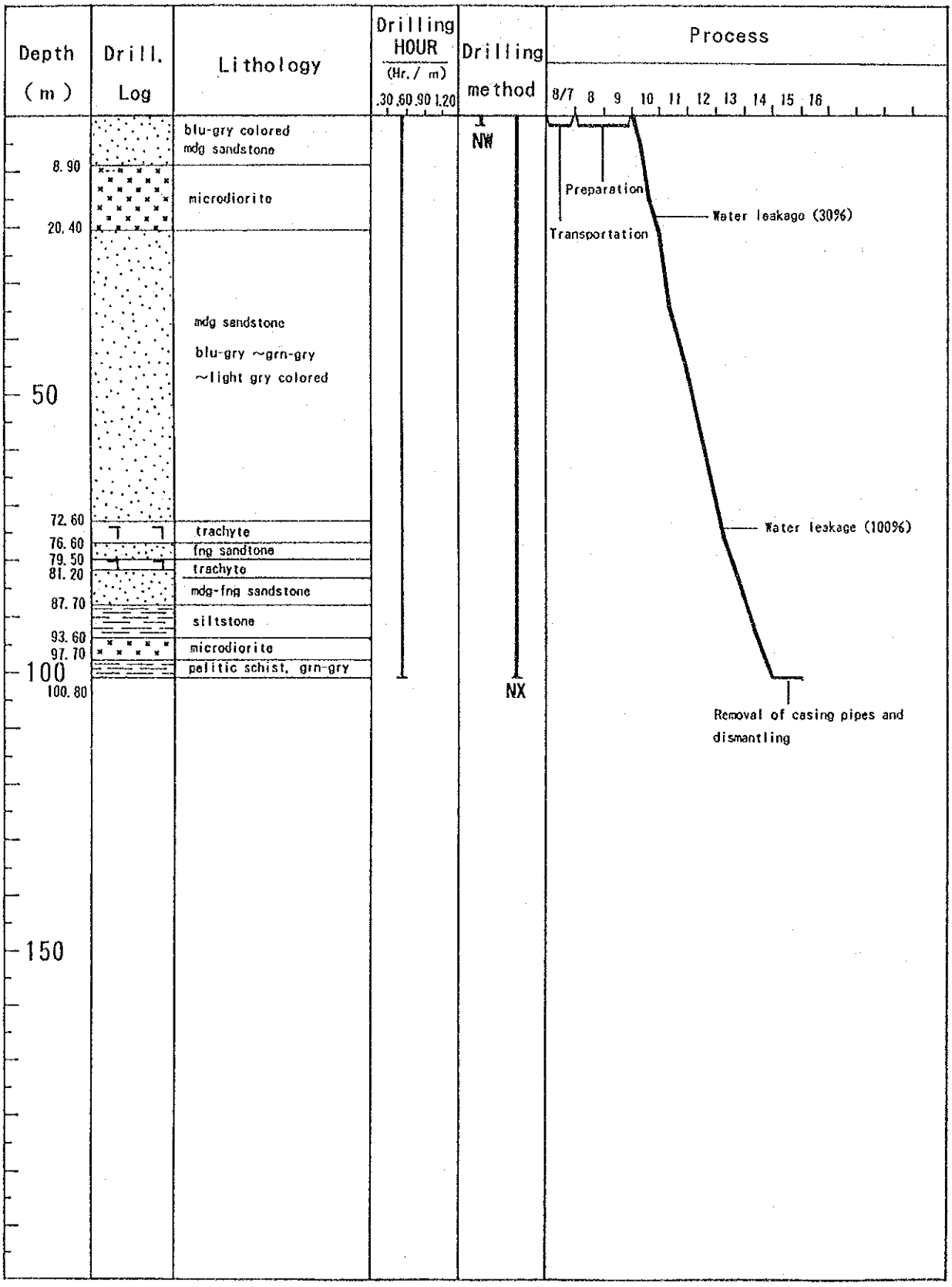
PROGRESS RECORD OF DIAMOND DRILLING MJMU-2



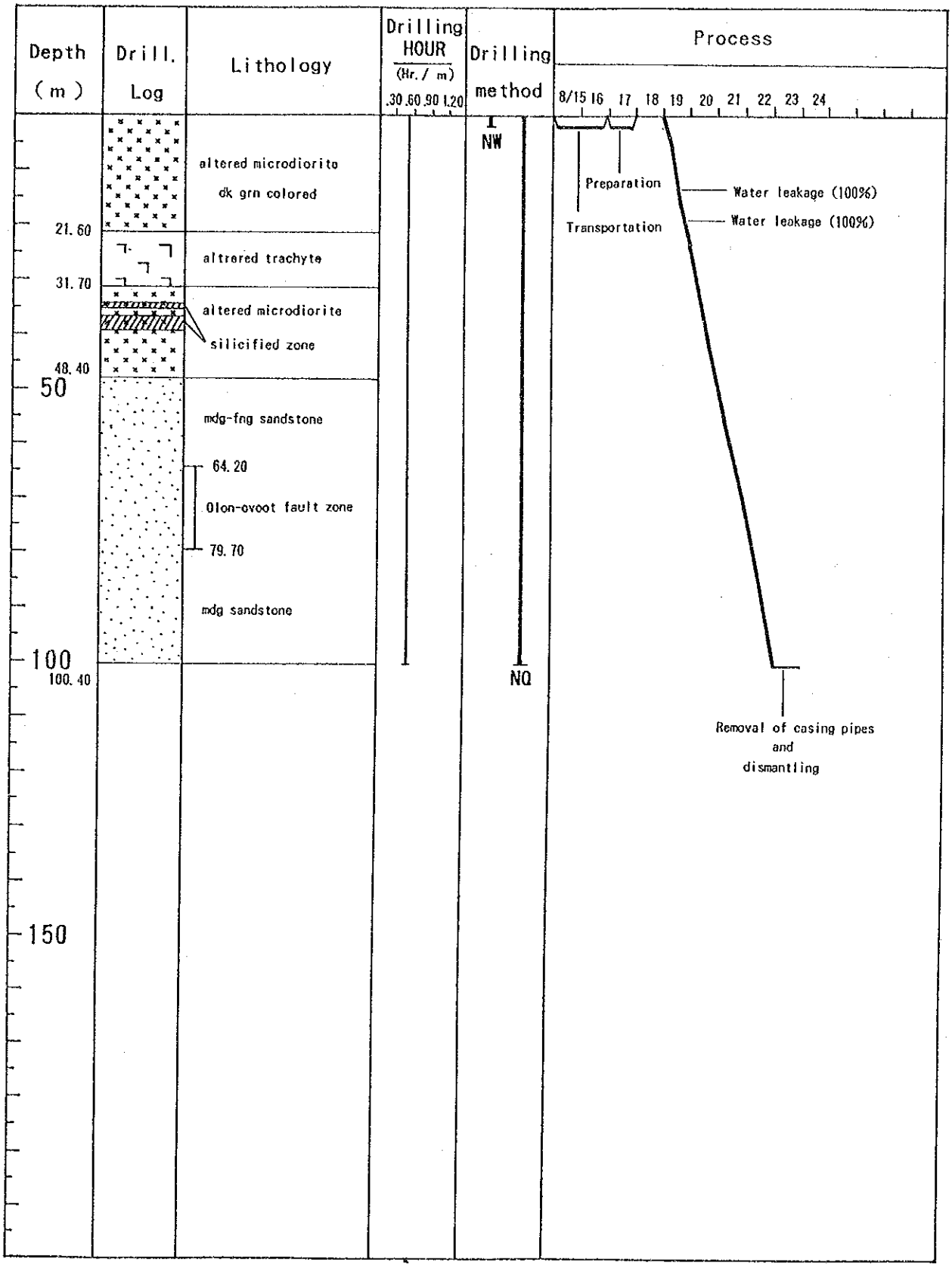
PROGRESS RECORD OF DIAMOND DRILLING MJMU-3



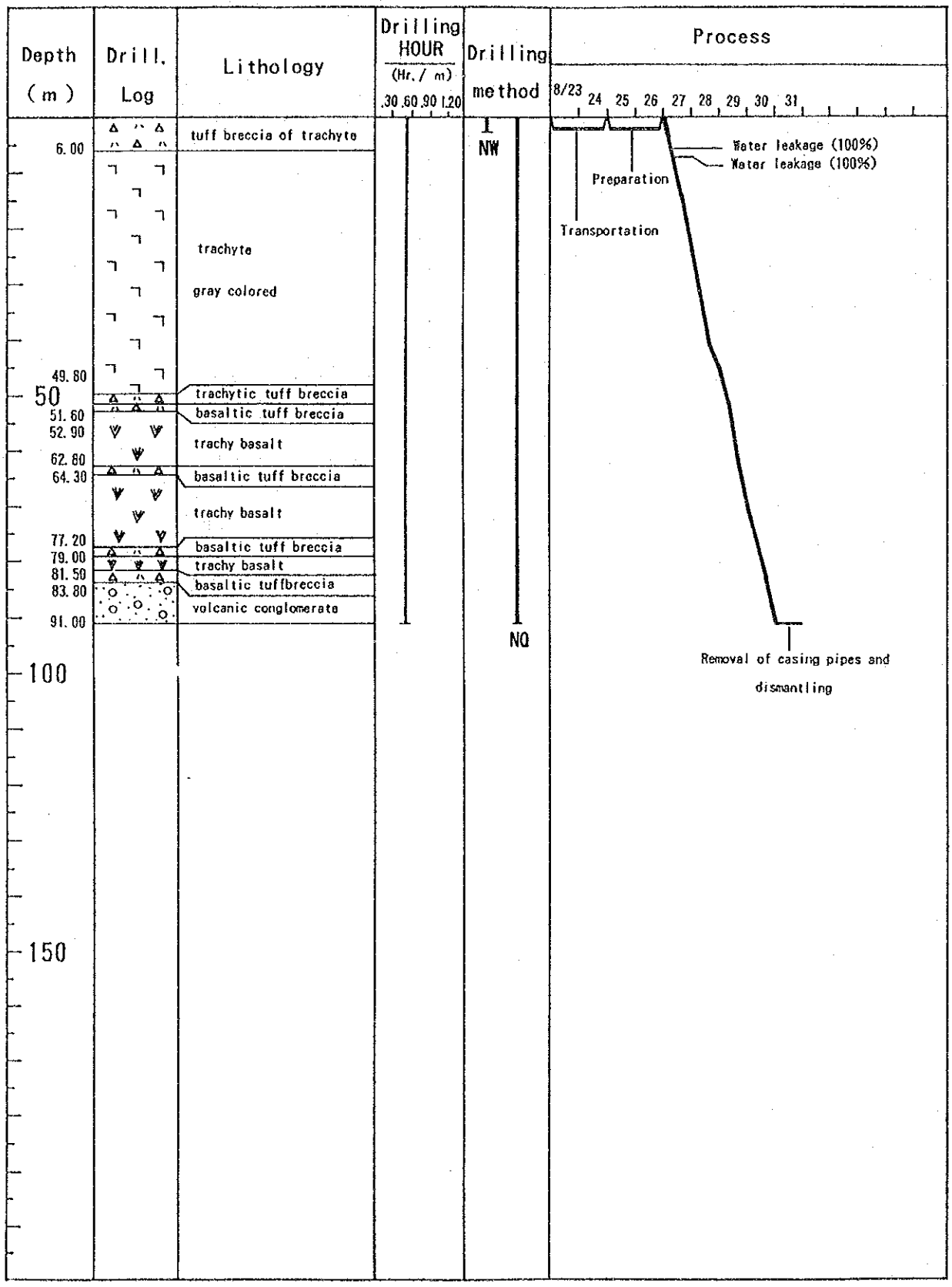
PROGRESS RECORD OF DIAMOND DRILLING MJMU-4



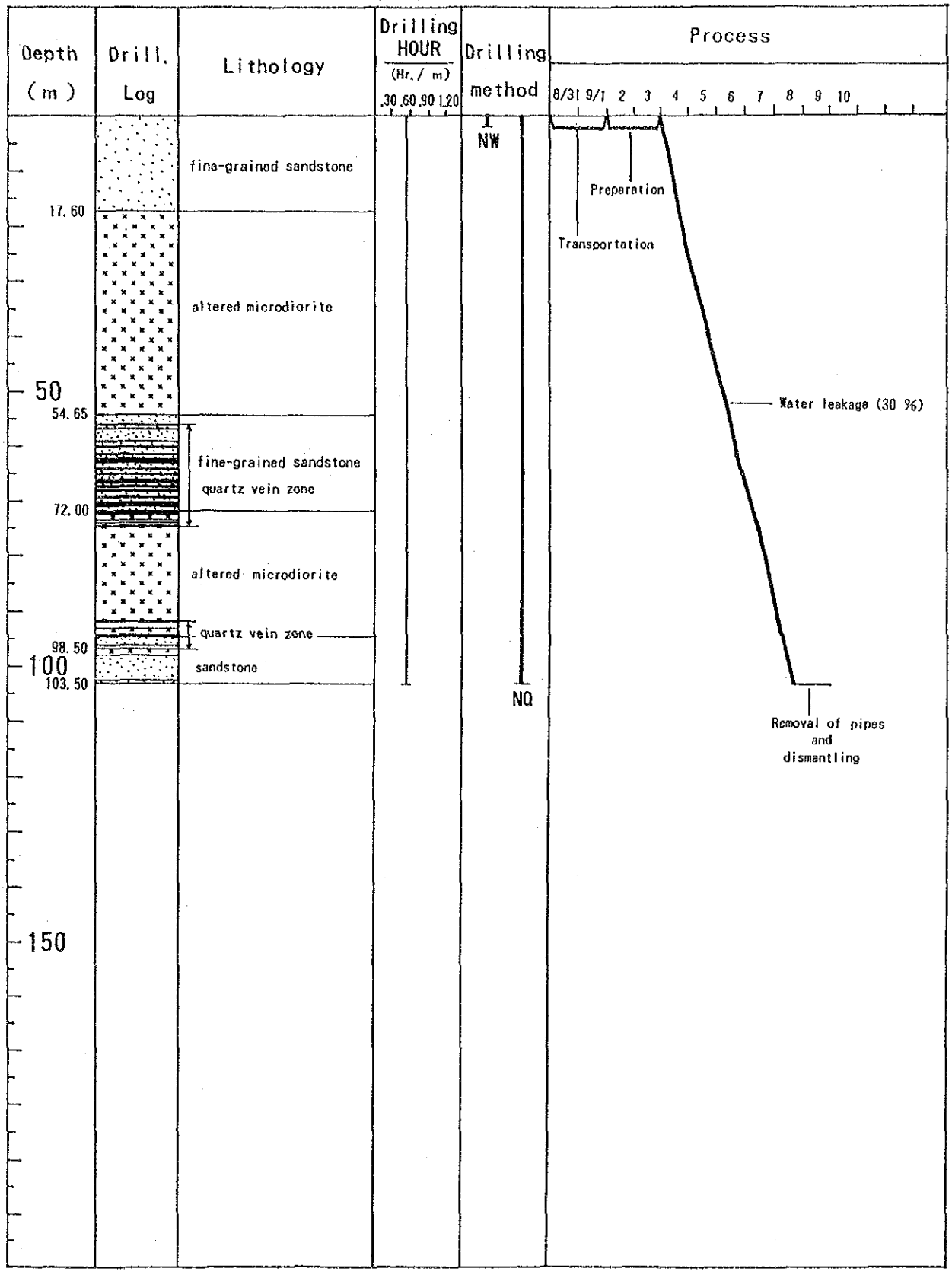
PROGRESS RECORD OF DIAMOND DRILLING MJMU-5



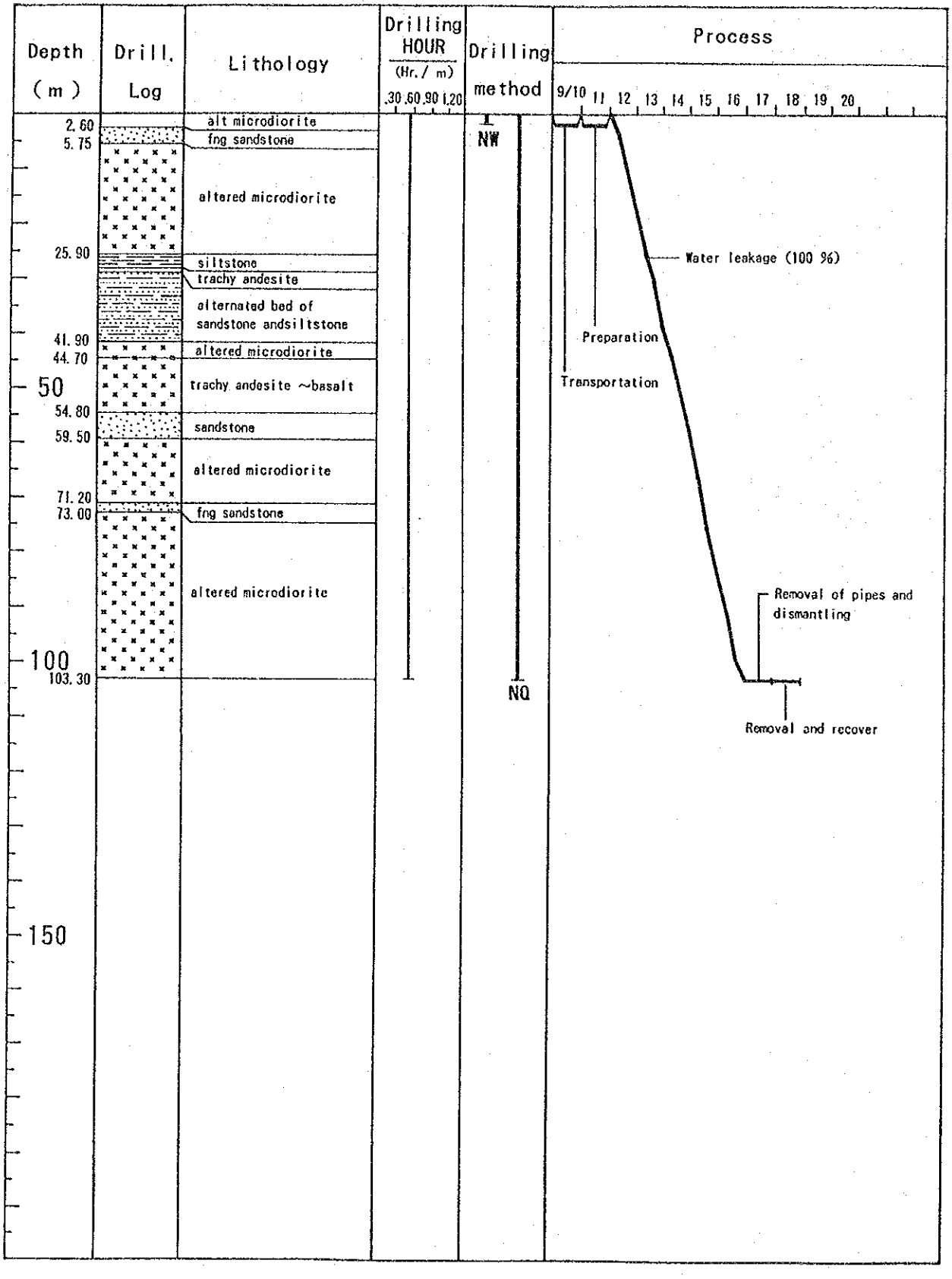
PROGRESS RECORD OF DIAMOND DRILLING MJMU-6



PROGRESS RECORD OF DIAMOND DRILLING MJMU-7



PROGRESS RECORD OF DIAMOND DRILLING MJMU-8



Appendix 2- 2 List of the Used Equipment for Drilling

Item	Model	Quantity	Capacity, Type, and Specification
Drilling Machine	L-38-98	1	Capacity NQ 565m, BQ 660m Inner Diameter of Spindle 98mm Weight (except engine)
Pump	MG-15h	1	Pistone φ68mm Capacity Pressure 22-70kg/ ㎠
Pump	ND-50D	1	Capacity 70ℓ/min 3600ppm/3.8 PS
Welder/Generator	YW-240BL	1	7.5 KVA, 3,000 rpm/200v 50/60 HZ
Hand Mixe			
Rod Holder	HD-Type	1	
	LH-Type	1	
Drill Rods	NQ-WL	40	3.00 m/pc
"	NQ-WL	1	1.50 m/pc
Drill Rods	BQ-WL	60	3.00 m/pc
"	BQ-WL	4	1.50 m/pc
Casing pipes	NW	6	1.00 m/pc
"		10	0.50 m/pc
Casing pipes	BW	30	3.00 m/pc
"	BW	6	1.00 m/pc
"	BW	4	0.50 m/pc
Inner tube	NQ-WL	2	1.50 m/pc
Inner tube	NQ-WL	2	3.00 m/pc
Outer tube	NQ-WL	2	1.50 m/pc
Outer tube	NQ-WL	2	3.00 m/pc
Inner tube	BQ-WL	2	1.50 m/pc
Inner tube	BQ-WL	2	3.00 m/pc
Outer tube	BQ-WL	2	1.50 m/pc
Outer tube	BQ-WL	2	3.00 m/pc

Appendix 2- 3 Drilling Meterage of Diamond Bits

Item	Size	Type	Bit NO.	Drilling meterage by drill hole, Unite meter							
				MJMU-1	MJMU-2	MJMU-3	MJMU-4	MJMU-5	MJMU-6	MJMU-7	MJMU-8
Bit	HX			2.00							
	NW				2.00	2.00	2.00	2.00	2.00	2.00	2.00
		NQ-WL	232001	28.90							
			232002	36.40							
			232003		35.80						
			232004			36.10					
			232005		38.20						
			232006		34.70						
			232007				31.90				
			232008			29.10					
			232009			33.40					
			232010				34.80				
			KAP1432					31.80			
			2785596					34.40			
			28744					33.10			
			28745						42.40		
			13188						27.50		
			232011							39.40	
			232012							29.00	
			232013							32.80	
			KAP1433	20.60							
			KAP1434				32.10				
			KAP1438						18.60		
			13187								36.50
			3240211								36.80
			3240212								28.00
		BQ-WL	AP4403	34.00							
			232015	29.50							
			TOtal	151.40	110.70	100.60	100.80	100.40	91.00	103.50	103.30

Appendix 2- 4 Consumable Articles

Item	Specification	Unit	Quantity								
			MJMU-1	MJMU-2	MJMU-3	MJMU-4	MJMU-5	MJMU-6	MJMU-7	MJMU-8	Total
Wire line core barrel	NQ-WL								1		
Outer tube	NQ-WL 3.0m									1	
Outer tube	NQ-WL 1.5m							1			
Inner tube	NQ-WL 3.0m					1					
Inner tube	BQ-WL 1.5m		1								
Chuck jaws	BQ-WL						1				
Drill Rod	NQ-WL 3.0m									3	
Drill Rod	NQ-WL 1.5m				3						
Caicing Pipe	NW 1.0m								4		
Caicing Pipe	NW 0.5m								2		
Chuck wrnch					1						
Rod Hold Jaws	NQ-WL									2	
Rod Hold Jaws	BQ-WL			2							
Latch Spring	NQ-WL						2			2	
Latch	NQ-WL						2				
Thrust Ball Bearing	NQ-WL						2			2	
Core Liffer Case	NQ-WL		2	1	2	1	2	1	2	1	
Core Liffer Case	BQ-WL		2								
Core Liffer	NQ-WL		2		2		2		2		2
Core Liffer	BQ-WL		2								
Adaptor Coupling	NQ-WL					1					
Locking Coupling	NQ-WL					1					
Shear pin	NQ-WL							1		1	
Shear pin	NQ-WL									8	
V-Packing	HD W/S							14			
Core Box	NQ-WL		14	17	16	15	15	14	16	16	
Core Box	BQ-WL		6								
MG-15 V Packing										8	

Appendix 3. Geologic Core Logs of the Drillings

GEOLOGIC CORE LOG OF MJMU-1 (1/4)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS							
					Ore Analysis Au ppb	Ag ppm	XRD	T-S	F-I	WRCA	P-S	K-Ar
0		bluish gray colored sandstone medium to fragmental fine-grained 2.10m weathered red colored										
3.50		3.50m										
		bluish green colored fine-grained sandstone, 60										
6.10		50 altered microdiorite greenish gray colored										
7.00		50 dark greenish gray colored siltstone										
		80 greenish gray colored fine-grained sandstone, int-cal thin beds of siltstone										
10												
		60 breccia dike cemented by goethite Wt=1.5cm										
		60 bluish green colored siltstone int-cal thin beds of fine-grained sandstone										
		70 greenish gray colored alternated bed of ss/silt/sh										
17.80		60 shear fault clay, kahki tinted Wt=20cm	17.30	UOA001	4	< 0.2						
		fine-grained sandstone, sheared, fractured and argillized	19.30									
20				UOA002	1055	< 0.2						
		30 hematite-goethite rich altered zone	20.90									
		dark greenish gray colored altered fine-grained diorite, cut by many carbonate veinlets (calcite-siderite- ankerite)					UXR001					
30												
		5 quartz-calcite vein Wt=1cm						URS001				
		bluish green colored altered microdiorite	35.00	UOA003	18	< 0.2						
		red tinted brecciated zone	37.00	UOA004	320	< 0.2			UFI001			
		10 milky white quartzvein Wt=2cm	37.60	UOA005	5	< 0.2						
		60 quartz vein bearing brecciated zone, pyrite-hematite rich altered and brecciated zone	39.60									
40		50 silicified zone	41.20	UOA006	18	< 0.2						
		45 bluish green colored altered microdiorite, disseminated by coarse-grained pyrite $\phi_{max} \leqq 2mm$, S<0.3 % csg py	43.20	UOA007	2390	< 0.2				UWA001		
			43.85	UOA008	27	< 0.2						
			46.20	UOA009	1920	< 0.2						
46.80		80 white argillic alteration zone,	46.85	UOA010	463	< 0.2						
48.20		50 quartz vein rich in altered breccias disseminated by pyrite V_{max}=50%		UOA011	950	< 0.2	UXR002					
48.70		50 pyrite bearing white clay	48.20	UOA012	4670	< 0.2			UFI002	UWA005		UAD001
50		20 quartz network zone. V_{av}=35%	49.90									
49.90												

GEOLOGIC CORE LOG OF MJMU-1 (2/4)

DEPTH (m)	DESCRIPTION	Depth (m)	Sample No.	Ore Analysis Au(ppb)	Ore Analysis Ag(ppm)	XRD	T-S	F-I	MRCA	P-S	K-Ar
50	milky white quartz vein	51.00	UOA013	766	< 0.2						
			UOA014	585	< 0.2						
52.10	pale green colored altered microdiorite fng py tcsg py	52.10	UOA015	3910	< 0.2						
53.55	35 greenish gray colored fine-grained sandstone,	54.10	UOA016	30	< 0.2						
	40 hematite rich brecciated zone	56.10	UOA017	8	< 0.2						
	hematite films occure along joints	58.10	UOA018	8	< 0.2						
	greenish gray colored sandstone, schistose										
60		60.10	UOA019	59	< 0.2						
	silicified sandstone	62.10	UOA020	200	< 0.2						
	50 quartz vein W=2cm, limonite bearing										
	50										
	hematite pseudomorph after pyrite	64.30	UOA021	948	< 0.2			UFI003			
64.30	55 milky white quartz vein W=70cm	65.00	UOA022	2740	0.2						
	70 greenish gray colored sandstone	66.60	UOA023	7820	0.4						
66.60	70 milky white quartz vein W=25cm, 60 csg py dissem quartz vein W=40cm	68.30	UOA024	3110	0.3						
	40 quartz network zone in altered microdiorite	69.30	UOA025	5150	< 0.2	UXR003					
68.30	35 milky white quartz vein	70.00	UOA026	1895	< 0.2						
	50	71.40	UOA027	1800	0.3						
70	45 altered microdiorite, csg py dissem	71.90	UOA028	482	0.2						
	milky white quartz vein	72.90	UOA029	8700	< 0.2						
	altered microdiorite, csg py dissem	74.30	UOA030	2960	0.2		URS002				
	45 milky white quartz vein	76.30	UOA031	1440	< 0.2			UFI004			
74.30	70 red colored altered diorite fresh csg py dissem	77.30	UOA032	487	< 0.2					UPS001	
	80 green colored altered fine-grained sandstone, quartz-hematite zone	78.70	UOA033	524	< 0.2						
	40	80.55	UOA034	2940	< 0.2						
	50 dark green colored altered microdiorite	82.55	UOA035	2790	< 0.2						
	45 milky white quartz vein	83.75	UOA036	1740	< 0.2			UFI005			
78.70	Py-hema	84.80	UOA037	1195	< 0.2						
80	30 milky white quartz vein, W=25cm	85.80	UOA038	660	< 0.2						
	45 milky white quartz vein, W=15cm, py dissem	87.60	UOA039	242	< 0.2						
	40 milky white quartz vein, W=60cm	88.40	UOA040	211	< 0.2	UXR004					
	45 40 silver black? band bearing milky white quartz vein	90.30	UOA041	637	< 0.2						
84.80	40	92.30									
	dark green colored alterd microdiorite										
87.60	55 milky white quartz vein W=40cm										
88.40	milky white quartz vein W=5cm										
	50										
90	dark greenish gray shear fault clay										
	60 lost core 40cm/110cm										
	greenis gray coloredshear fault clay W=5cm										
	45 crushing										
	dark greenish gray alt microdiorite										
100	pyrite bearing quartz films										

GEOLOGIC CORE LOG OF MJMU-1 (3/4)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS							
					Ore Analysis Au(ppb)	Ore Analysis Ag(ppm)	XRD	T-S	F-I	WRCA	P-S	K-Ar
100		dark green alt microdiorite										
		dark green shear fault clay										
		75 shear fault zone										
		core loss 80cm										
		shear fault breccia										
		70										
110		mylonitized microdiorite					UXR005					
		dark green colored altered microdiorite, chloritized										
		core loss 40cm										
		dark greenish gray colored altered microdiorite (porphyritic)										
120		$\phi_{p.}$<3mm						URS003				
		calcite vein W=0.2cm										
		30										
		calcite vein W=0.2cm										
		50 calcite vein W=0.6cm										
		35										
		50										
130							UXR006					
		60 greenish gray colored schstose microdiorite										
		60 dark greenish gray colored altered microdiorite (chl-py alt)										
135.30		mylonitized										
		50										
140		50 greenish gray colored pelitic schist, hematite bearing, phyllitic										
		45										
		dark green colored altered microdiorite										
143.70		143.70	143.70									
		bleached microdiorite quartz vein W=1cm										
		50 bleached medium grained sandstone										
146.20		shear fault clay										
		80? epidotized trachyte, crushed										
148.40		core loss 70cm										
149.10		core loss 20cm										
150		80 epidotized diorite,					UXR007					

epidotized zone

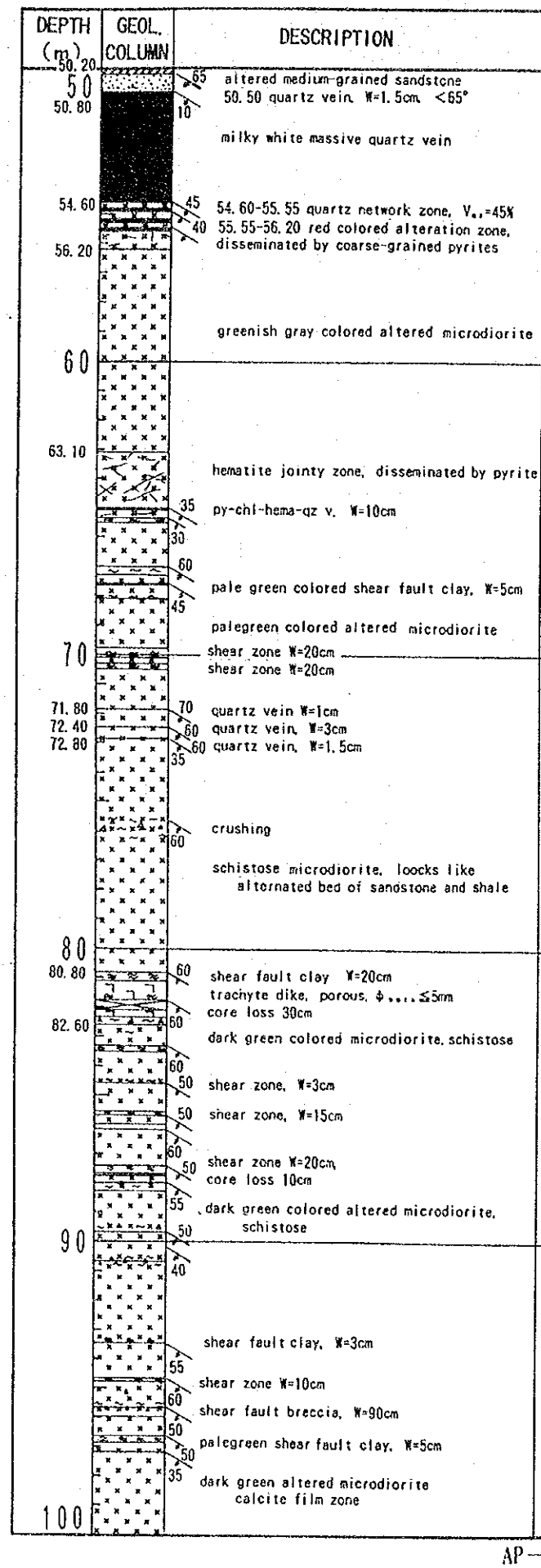
GEOLOGIC CORE LOG OF MJMU-1 (4/4)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS							
					Ore Analysis Au(ppb)	Ore Analysis Ag(ppm)	XRD	T-S	F-I	WRCA	P-S	K-Ar
150		quartz vein W=0.3 cm 35 dark green epi-chl alt fng diorite										
151.40		151.40 THE END										
160												
170												
180												
190												
200												

GEOLOGIC CORE LOG OF MJMU-2 (1/3)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS							
					Ore Analysis Au(ppb)	Ag(ppm)	XRD	T-S	F-I	WRCA	P-S	K-Ar
0		dark green altered microdiorite core is crushed.										
2.70		core loss 50cm										
		dark green altered microdiorite										
4.60		core loss 30cm										
7.10		jointy, crushed										
		9.00-9.20 quartz-calcite vein										
10		green colored altered microdiorite, schistose										
11.00		shear fault zone, partly hematite-limonite rich	11.00	UOA042	13	< 0.2						
12.00			13.00	UOA043	2	< 0.2						
		dark greenish gray colored altered microdiorite	14.40				UXR008					
		microdiorite										
19.40		shear fault breccia	19.40									
20		dark greenish gray colored sandstone, silicified and cut by quartz veinlets (network like) — sandstone		UOA044	18	< 0.2						
21.10			21.10	UOA045	2	< 0.2						
22.30		hematite bearing shear fault W=5cm	22.30	UOA046	1	< 0.2						
		hematite rich shear fault breccia	24.30	UOA047	2	< 0.2						
		fine-grained sandstone, reddish broun altered	26.30	UOA048	< 1	< 0.2						
		dark gray-broun colored altered sandstone int-cal thin beds of siltstone	28.30									
		brown sandstone, shered and limonitized		UOA049	3	< 0.2						
30		limonitized breccia dike W=30cm	30.30									
		reddish brown limonite-hematite network zone		UOA050	< 1	< 0.2						
31.60		31.40-31.60 red colored clayey shear fault	32.30									
		reddish brown colored altered microdiorite		UOA051	42	< 0.2						
		bluish gray colored altered microdiorite	34.50	UOA052	740	< 0.2						
		reddish brown colored altered microdiorite	35.20	UOA053	2940	< 0.2						
35.20		milky white quartz vein	36.80	UOA054	2390	< 0.2						
35.80		quartz network zone, five veins, Vv=25%	38.80	UOA055	148	< 0.2						
36.80		hematite pseudomorphs after pyrite are disseminating along joints	40.50	UOA056	7810	< 0.2						
38.80		bluish gray colored altered microdiorite, disseminated by fine-grained pyrites	42.50	UOA057	2780	< 0.2						
40		shear fault W=15cm, oxidized	44.50	UOA058	936	< 0.2	UXR009					
		42.15-42.35 quartz vein W=20cm	46.65	UOA059	4090	< 0.2						
		quartz vein W=1.5cm	48.00	UOA060	6740	< 0.2			UF1006			
		42.55 quartz vein W=2cm	49.10	UOA061	186	< 0.2						
		42.90-44.00 altered and weatherd brown colored microdiorite, disseminated by coarse grained pyrite										
		44.00-45.80 quartz network zone Dv=5-10cm, Vv=3%, disseminated by csg-fng pyrites										
		45.80-46.65 red colored altered microdiorite										
46.65		quartz network zone in alternated bed of sandstone and shale, V_{qz}=70%										
48.00												
49.10		milky white quartz vein										
50		quartz network zone in alternated bed of sandstone and shale, V_{qz}=50%										

GEOLOGIC CORE LOG OF MJMU-2 (2/3)



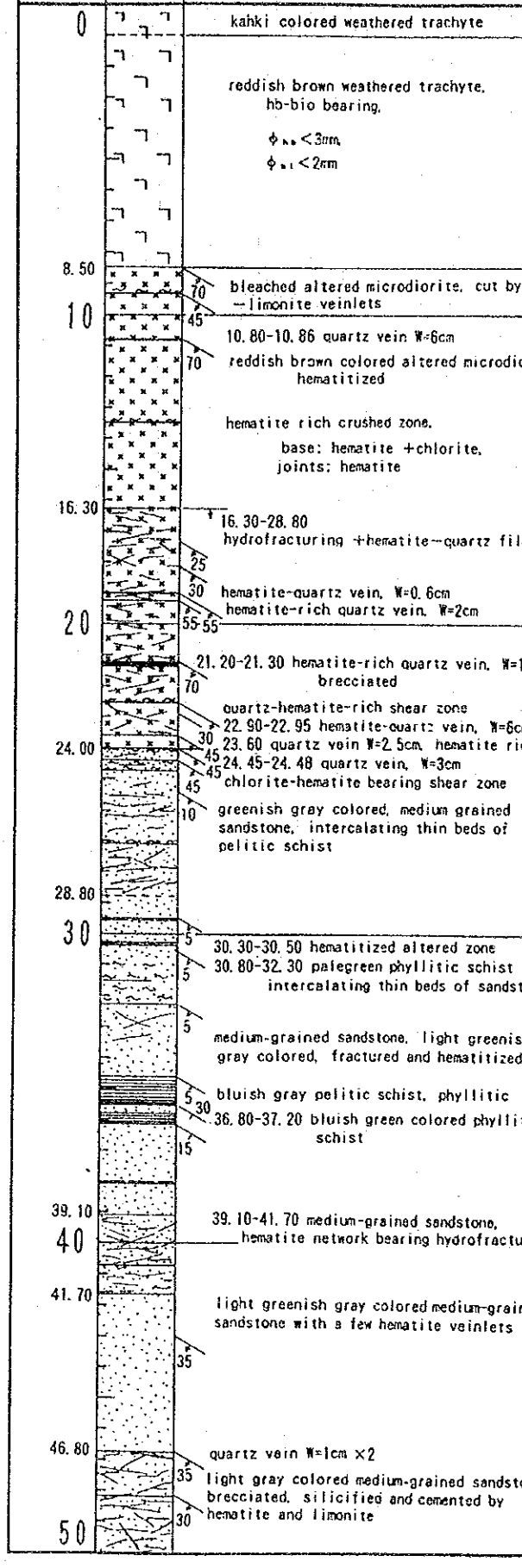
DEPTH (m)	DESCRIPTION
50.20	
50	65 altered medium-grained sandstone
50.50	quartz vein, W=1.5cm, <65°
50.80	10 milky white massive quartz vein
54.60	45 54.60-55.55 quartz network zone, V_{qz}=45%
	40 55.55-56.20 red colored alteration zone, disseminated by coarse-grained pyrites
56.20	greenish gray colored altered microdiorite
60	
63.10	hematite jointy zone, disseminated by pyrite
	35 py-chl-hema-qz v. W=10cm
	30
	60 pale green colored shear fault clay, W=5cm
	45 palegreen colored altered microdiorite
70	shear zone W=20cm
	shear zone W=20cm
71.80	70 quartz vein W=1cm
72.40	60 quartz vein, W=3cm
72.80	60 quartz vein, W=1.5cm
	35
	60 crushing
	schistose microdiorite, loocks like alternated bed of sandstone and shale
80	
80.80	60 shear fault clay W=20cm
	trachyte dike, porous, ϕ ..... $\leq$5mm
	core loss 30cm
82.60	60 dark green colored microdiorite, schistose
	60
	50 shear zone, W=3cm
	50 shear zone, W=15cm
	60
	50 shear zone W=20cm,
	core loss 10cm
	55 dark green colored altered microdiorite,
90	50 schistose
	40
	shear fault clay, W=3cm
	55
	shear zone W=10cm
	60
	shear fault breccia, W=90cm
	50
	palegreen shear fault clay, W=5cm
	50
	35 dark green altered microdiorite
100	calcite film zone

Depth (m)	Sample No.	LABORATORY TESTS: Ore Analysis Au(ppb)	Ore Analysis Ag(ppm)	XRD	T-S	F-I	WRCA	P-S	K-Ar
50.20									
50.80	UOA062	4790	< 0.2						
	UOA063	301	< 0.2						
52.80									
	UOA064	172	< 0.2						
54.60									
	UOA065	7220	< 0.2						
55.55	UOA066	716	0.3						
56.20									
	UOA067	240	< 0.2						
58.20									
	UOA068	1320	< 0.2					UPS003	
60.20									
	UOA069	161	< 0.2						
62.20									
	UOA070	10	< 0.2						
63.10									
	UOA071	221	< 0.2						
65.00									
				UXR010					

GEOLOGIC CORE LOG OF MJMU-2 (3/3)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS							
					Ore Analysis Au ppb	Ag ppm	XRD	T-S	F-I	WRCA	P-S	K-Ar
100		palegreen colored altered microdiorite fine-grained										
		60										
		dark greenish gray colored microdiorite, disseminated by fine-grained pyrite										
		60					UXR011					
		calcite vein W=0.3cm										
		50 calcite vein, W ≦2mm										
		45										
		45										
		dark green colored chloritized altered microdiorite										
		greenish gray colored altered microdiorite, pyritized and chloritized, core is crushed	108.90	U0A072	34	< 0.2						
110												
110.70m		45 110.70 THE END	110.70									
120												
130												
140												
150												

GEOLOGIC CORE LOG OF MJMU-3 (1/3)



Depth (m)	Sample No.	Ore Analysis Au(ppb)	Ore Analysis Ag(ppm)	XRD	T-S	F-I	WRCA	P-S	K-Ar
0.00									
	UOA073	5	< 0.2						
2.00									
	UOA074	< 1	< 0.2						
4.00									
	UOA075	< 1	< 0.2						
6.00									
	UOA076	9	< 0.2						
8.00									
	UOA077	10	< 0.2						
10.00									
	UOA078	62	< 0.2						
12.00									
	UOA079	7	< 0.2						
14.00									
	UOA080	< 1	< 0.2						
16.30									
	UOA081	< 1	< 0.2						
18.30									
	UOA082	1	< 0.2						
20.30									
	UOA083	188	< 0.2						
22.30									
	UOA084	212	< 0.2						
24.30									
	UOA085	4	< 0.2						
26.30									
	UOA086	25	< 0.2						
28.80									
39.10									
	UOA087	1	< 0.2						
41.70									
47.10									
	UOA088	6	< 0.2						
49.10									

GEOLOGIC CORE LOG OF MJMU-3 (2/3)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS: Ore Analysis Au (ppb)	Ore Analysis Ag (ppm)	XRD	T-S	F-I	WRCA	P-S	K-Ar
50		light gray colored medium-grained sandstone, fractured, pyritized and cemented by hematite-limonite-quartz veinlets; silicified, limonitized and hematitized	51.10	UOA089	< 1	< 0.2						
				UOA090	< 1	< 0.2						
			53.10	UOA091	< 1	< 0.2						
			55.10	UOA092	< 1	< 0.2						
56.50		56.50 bluish gray colored phyllitic schist, sheared	56.50									
		bluish gray colored sandstone										
		58.80-59.20 sheared										
60		quartz films										
		61.30-61.50 fractured, silicified and limonitized zone										
		62.30-62.50 fractured, silicified and limonitized zone										
		63.50-64.00 sheared zone										
		64.30-64.70 sheared zone										
65.00		66.30-66.70 sheared zone; silicified, limonitized and hematitized	65.00	UOA093	< 1	< 0.2						
		medium-grained sandstone, bluish gray colored	67.00	UOA094	11	< 0.2						
		69.00	69.00	UOA095	< 1	< 0.2						
70		70.20	70.20	UOA096	2	< 0.2						
		medium-grained sandstone, light gray colored	72.20	UOA097	6	< 0.2						
		silicified, hematitized and limonitized, crushed and micro-drusy	74.20	UOA098	49	< 0.2						
		75.30 quartz vein, W=2cm hematite-limonite network	76.20	UOA099	3	< 0.2						
		78.10 quartz vein, W=1cm, limonitic	78.20	UOA100	25	< 0.2						
80		80.20 quartz vein, W=1cm; silicified, limonitized and hematitized	80.20	UOA101	16	< 0.2						
		81.20 quartz vein, W=1cm	82.20	UOA102	9	< 0.2						
		81.30 quartz vein, W=2cm, <35°										
		81.45 quartz vein, W=3cm, <50°										
		81.50 quartz vein, W=1cm, <85°										
83.80		bluish gray colored sandstone	83.80					URS004				
		87.50 quartz vein, W=0.5cm										
		87.65 quartz vein W=2cm, <50°										
		87.80 quartz vein W=1cm, <50°										
		88.50 limonite vein, W=0.3cm, <35°										
90		quartz vein, W=1cm										
		90.50-90.70 phyllitic schist, bluish gray colored										
		91.20 quartz vein W=1cm										
		93.90 quartz vein W=1cm, <50°										
		dark greenish gray colored altered microdiorite					UXR012					
		calcite film W=0.1~0.2cm, <40°										
		99.40 quartz vein, W=0.4cm										
		99.60 quartz vein, W=0.8cm, <45°										
100		dark green altered microdiorite										

GEOLOGIC CORE LOG OF MJMU-3 (3/3)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS							
					Ore Analysis Au(ppb)	Ore Analysis Ag(ppm)	XRD	T-S	F-I	WRCA	P-S	K-Ar
100		dark green altered microdiorite										
		100.60 THE END										
110												
120												
130												
140												
150												

GEOLOGIC CORE LOG OF MJMU-4 (1/3)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS: Ore Analysis Au (ppb)	Ore Analysis Ag (ppm)	XRD	T-S	F-I	WRCA	P-S	K-Ar
0		bluish gray colored medium-grained sandstone, silicified	0.00									
		0-2.00m limonite rich, crushed quartz vein W=0.8cm-1.5cm	2.00	UOA103	6	< 0.2						
		5		UOA104	8	< 0.2						
		3.50-4.00 quartz network zone	4.00	UOA105	6	< 0.2						
6.30		5.50-7.80 quartz network zone, Vv≦2%, hematite-limonite film rich	6.00	UOA106	3	< 0.2						
		bluish-greenish gray colored phyllitic schist	7.80	UOA107	< 1	< 0.2						
8.90		8.40-8.90 silicified sandstone, rich in limonite veinlets	8.40	UOA108	3	< 0.2						
10		60	10.00	UOA109	7	< 0.2						
		schistose microdiorite	12.00	UOA110	7	< 0.2						
		dark green colored altered microdiorite	14.00	UOA111	< 1	< 0.2						
		limonite-quartz vein, W=0.2cm	16.00	UOA112	11	< 0.2						
		40	18.00	UOA113	5	< 0.2	UXR013					
		limonite-quartz vein, W=0.1cm	20.40									
		40		UOA114	3	< 0.2						
		dark greenish gray colored altered microdiorite	22.40	UOA115	8	< 0.2						
20			24.60									
20.40		dark greenish gray colored shear fault clay, W=2cm										
		60										
		medium-grained sandstone, gray colored quartz-limonite filmrich zone										
		quartz vein, W=0.5cm										
		3										
		quartz vein, W=0.3cm										
		2										
		limonite films										
		45										
30		31.00-31.05 quartz vein, W=5cm										
		60										
		medium-grained sandstone, gray colored										
		siltstone										
		45										
		37.60-37.80 epidote-quartz rich vein along sheared zone										
		60										
40		60										
		alternated bed of fine-grained sandstone and siltstone, bluish gray colored										
		41.20 shear fault, W=2cm										
		35										
		medium-grained sandstone, bluish gray colored										
		50										
		45										
		light greenish gray clay, swelling, montmorillonite?										
		50										
		light greenish gray colored sandstone, argillic alteration										
50												

GEOLOGIC CORE LOG OF MJMU-4 (2/3)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS							
					Ore Analysis Au(ppb)	Ag(g/t)	XRD	T-S	F-I	WRCA	P-S	K-Ar
50		shear fault<?										
		light gray colored medium-grained sandstone										
		54.70-58.10 cemented old fault breccia zone										
		55.70-55.90 shear zone										
		56.20-56.25 light green-gray colored shear fault clay										
		gray colored medium-grained sandstone										
60		shear fault clay, W=3cm										
		greenish gray colored medium-grained sandstone										
		64.90 brown siltstone										
		brown siltstone										
		gray colored medium-grained sandstone										
70		light greenish gray colored medium-grained sandstone										
72.60		72.50-72.75 dark green colored shear fault	72.60									
		brownish gray colored hb-bi trachyte, porous		U0A116	< 1	< 0.2						
		$\phi_{phenocryst}$ <3mm, $\phi_{groundmass}$ <1cm	74.60					URS005				
		fractured and hematitized trachyte		U0A117	< 1	< 0.2						
76.60		light bluish gray colored medium to fine-grained sandstone	76.60	U0A118	< 1	< 0.2						
79.50		light gray colored fine-grained sandstone, bleached and sheared	79.50									
80				U0A119	< 1	< 0.2						
81.20		sheared, crushed and bleached	81.20									
		shear fault W=5cm										
		medium grainsized sandstone, light gray colored										
87.70		light gray to brown colored siltstone (pelitic schist)										
		light gray shear fault clay										
90		91.25-91.40 shear fault clay										
		light green colored siltstone (schistose)										
93.60		milky white calcite-quartz vein										
		calcite vein, W=0.5cm										
		dark green colored fine-grained diorite										
		calcite veinlet W=0.2cm										
97.70		greenish gray colored pelitic schist										
100		bluish green colored pelitic schist										

GEOLOGIC CORE LOG OF MJMU-4 (3/3)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS							
					Ore Analysis Au(ppb)	Ore Analysis Ag(ppm)	XRD	T-S	F-I	WRCA	P-S	K-Ar
100		bluish-green colored pelitic schist										
100.80m		THE END										
110												
120												
130												
140												
150												

GEOLOGIC CORE LOG OF MJMU-5 (1/3)

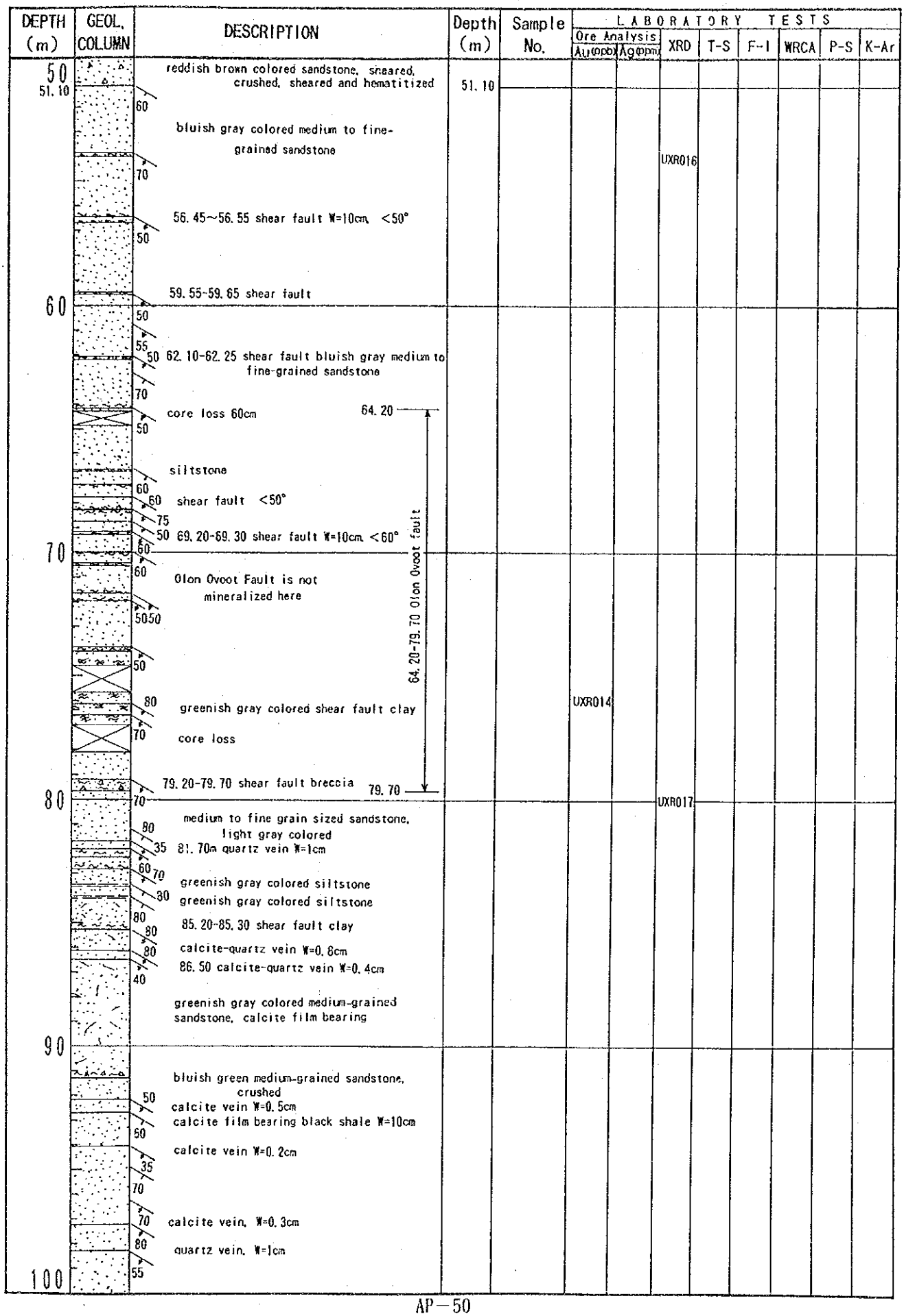
DEPTH (m)	GEOL. COLUMN	DESCRIPTION
0		crushed core by dry boring
		dark green colored altered microdiorite
		calcite vein W=0.2cm
	60	5.00-5.30 sheared and crushed microdiorite
		calcite vein W=0.3cm
6.30	60	6.30
		calcite vein W=1cm
	80	calcite vein W=2.2cm
	55	carbonate-hematite altered microdiorite
9.50		9.50 black silicified rock W=2cm
10	30	silicified, hematitized, altered microdiorite
	40	12.40m red-kahki colored ring str.
		6.30-21.60 hematite-carbonate bearing altered microdiorite, red colored
	45	
		silicified and hematitized altered microdiorite
	35	
20		
21.60	35	kahki
		altered hb-bio trachyte, epidotized
		brownish gray
		gray
		purplish gray
30		29.80-31.30 brownish gray colored sheared trachyte
31.70	50	31.30-31.70 light gray fault clay, hydrothermally altered
	60	red-yellow ocher colored fault clay
	75	32.00-39.15 pyritized, limonitized, hematitized and silicified microdiorite
34.10		
	55	34.10-35.50 altered rock, limonitized, hematitized and silicified
35.50		
	70	35.50-36.90 light greenish gray colored altered rock, shered, pyritized, hematitized
36.90		quartz vein W=0.8cm, <50°
	50	altered rock, sheared, silicified, hematitized, limonitized
39.15		
40	60	dark green colored altered microdiorite
		epidotized and pyritized
		calcite vein, W=0.3cm
	35	dark green colored altered microdiorite
		quartz vein, W=5cm
	30	calcite veinlets ~films are sporadically distributed
45.50		bleached microdiorite
48.40	80	
50	80	48.80-51.10 altered sandstone, sheared, crushed, hematitized
	80	

hematitized

silicified

Depth (m)	Sample No.	LABORATORY TESTS: Ore Analysis Au (ppb)	Ore Analysis Ag (ppm)	XRD	T-S	F-I	WRCA	P-S	K-Ar
0.00	UOA120	< 1	< 0.2						
2.00	UOA121	3	< 0.2						
4.00	UOA122	4	< 0.2						
6.30	UOA123	4	< 0.2						
8.30	UOA124	11	< 0.2						
10.30	UOA125	10	< 0.2						
12.30	UOA126	< 1	< 0.2						
14.30	UOA127	1	< 0.2						
16.30	UOA128	23	< 0.2						
18.30	UOA129	51	< 0.2						
20.30	UOA130	10	< 0.2						
21.60									
32.00	UOA131	152	< 0.2						
34.10	UOA132	< 1	< 0.2						
35.50	UOA133	4	< 0.2						
36.90	UOA134	< 1	< 0.2						
39.15	UOA135	< 1	< 0.2						
41.15	UOA136	5	< 0.2						
43.15	UOA137	< 1	< 0.2						
45.15	UOA138	< 1	< 0.2						
47.15	UOA139	2	< 0.2						
48.80	UOA140	2	< 0.2						

GEOLOGIC CORE LOG OF MJMU-5 (2/3)



GEOLOGIC CORE LOG OF MJMU-5 (3/3)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS							
					Ore Analysis Au(ppb)	Ag(ppm)	XRD	T-S	F-I	WRCA	P-S	K-Ar
100		medium-grained sandstone 45 dark green colored microdiorite, epidotized 100.40m. THE END										
110												
120												
130												
140												
150												

GEOLOGIC CORE LOG OF MJMU-6 (1/2)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS							
					Ore Analysis Au(ppb)	Ag(ppm)	XRD	T-S	F-I	WRCA	P-S	K-Ar
0		tuff breccia of light brown to gray colored trachyte, φbrec<30cm light green-gray colored tuffbreccia of biotite trachyte φbio <3mm										
6.00		45 light greenish gray colored biotite trachyte, compact lava										
10												
10.20 10.50		40 light greenish gray colored tuffbreccia of biotite trachyte, (autobrecciated lava ?)										
20		gray colored biotite trachyte lava φpl<3mm φbio <3mm										
22.90		40 RQD=100, Dj=20~100cm					UXR015					
30		gray colored biotite trachyte RQD=100, Dj=25 ~150cm						URS006		UKA002		
40		fissure <30cm 30										
44.80		5 quartz-calcite vein, W=1cm										
45.20		calcite film W=1~2mm 30 calcite films 0-10 calcite vein W=0.2cm 30										
50		49.80										

GEOLOGIC CORE LOG OF MJMU-6 (2/2)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS: Ore Analysis Au(ppb)	Ore Analysis Ag(ppm)	XRD	T-S	F-I	WRCA	P-S	K-Ar
50												
50.60		red colored fossilized soil										
51.60		red colored tuff breccia compact										
52.90		35 calcite film W=0.2cm gray colored trachybasalt, porous. calcite, gypsum, Mn-oxide are seen in gas pores, porosity =10~25%										
60												
62.80		brownish gray colored tuff breccia of trachybasalt										
64.30		dark gray colored lava of trachybasalt plosity 15%~25%. calcite, gypsum, Mn-oxide are formed in gas pores						URS007				
70												
77.20		70 brownish gray colored tuff breccia of trachybasalt										
79.00		dark gray colored porous lava of trachybasalt										
80												
81.50		dark gray colored tuffbreccia of trachybasalt, porous										
83.80		30 brown to gray colored volcanic conglomerate. breccia: biotite trachyte trachyandesite trachybasalt										
90												
91.00		91.00 THE END										
100												

GEOLOGIC CORE LOG OF MJMU-7 (1/3)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS							
					Ore Analysis Au ppb	Ag ppm	XRD	T-S	F-I	WRCA	P-S	K-Ar
0		pale green colored fine-grained sandstone, crushed by dry boring					UXR018					
		core loss 1.0m										
		share zone 45										
		crushing										
		bluish gray colored fine-grained sandstone										
10		thin bed of blue siltstone 70										
12.90		bluish green colored siltstone										
13.80		35 bluish gray colored fine-grained sandstone										
		14.40-14.70 bluish green colored siltstone 80										
		bluish gray colored fine-grained sandstone network of carbonate 70 35										
17.60		epidote-carbonate bearing altered microdiorite 40										
		45 18.80-18.90 shear fault breccia W=10cm	19.20	UOA141	< 1	< 0.2						
20		50 sheard zone filled by quartz and carbonate W=3cm	20.20									
		19.20-20.20 silicified and carbonatized bluish gray colored altered microdiorite carbonate-veinlets bearing										
		calcite vein W=3mm <15°										
		15 70 23.80 shear W=5cm, <70°										
		24.05 calcite-quartz vein W=0.6cm 35										
		quartz vein W=1cm microdiorite										
		dark greenish gray colored altered										
		50 iron oxide bering after carbonate minerals										
		chlorite-hematite-carbonate										
		calcite-siderite?-ankelite?										
		28.40 quartz-calcite vein W=0.8cm										
		65 29.40 quartz-calcite vein W=0.2cm										
30		35 hematite rich red colored shear zone										
		50 30.40 calcite vein W=0.4cm <55°										
		45 33.30 calcite vein W=0.5cm <45°										
		33.80 calcite vein W=1cm <70° 70										
		dark greenish gray colored altered microdiorite										
		epidotized along old fissures										
		39.20 calcite vein W=0.2cm <35° — 39.00 —										
40		35										
		dark greenish gray colored altered microdiorite jointy zone, <40° ~80°										
		— 45.00 —										
		30										
		46.70 ~47.20 bleached and sheared zone										
		45 46.70 quartz-calcite vein, W=2cm										
		45 46.72 quartz vein W=0.3cm, <45°										
		55										
50												

GEOLOGIC CORE LOG OF MJMU-7 (2/3)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS						
					Ore Analysis Au(ppb)	Ag(ppm)	XRD	T-S	F-I	WRCA	P-S	K-Ar
50		50 light gray colored clay W=0.5cm, shear zone, W=5cm; 70 51.50 quartz vein, W=5cm, <70°; 51.70 quartz vein, W=0.5cm, <50°; 55 pyrite rich; pyrite-hematite-limonite altered	50.40									
52.50		52.85 pyrite rich quartz vein W=2.5cm zone; 10 30 53.05 quartz vein W=1.5cm; 50 53.75 quartz vein W=1cm; microdiorite / sandstone	52.40	UOA142	59	< 0.2						
54.65		siltstone; 70 56.40-56.70 quartz vein W=30cm, <40°; 70 40 56.90-70.20 quartz vein W=30cm, <40°; 40 bluish dark gray colored fine-grained sandstone; 59.40-59.68 quartz vein W=20cm, <35°; 35	54.40	UOA143	1045	< 0.2						
56.40			56.40	UOA144	37	< 0.2						
57.20			57.20	UOA145	24	< 0.2						
59.40			59.40	UOA146	7	< 0.2						
60		50 shale bed; 30 61.60-61.70 quartz vein W=60cm, <30; 61.50 quartz vein W=1cm, <60; 45 61.75-62.05 quartz vein W=30cm, <30°; 40 fine-grained sandstone; 40 63.00-63.10 red colored sandstone, pyritized dark green colored sandstone; 45 64.30-64.75 quartz vein W=45cm, <45° ~50°; 50 64.75-65.35 red colored altered sandstone; 70 65.35-65.80 quartz vein W=45cm, <70° ~60°; 60 55 66.45 quartz vein W=4cm, <50°; 30 66.70-67.10 quartz vein W=40cm, <30° ~40°; 67.50-67.55 quartz vein W=5cm, <60°; 68.60 50 67.80-67.90 quartz vein W=10cm, <?crushed; 68.25-68.60 quartz vein W=35cm, <50° ~60°; 60 30 69.30 quartz vein W=1cm, <30°; 70 40 69.65 quartz vein W=3cm, <40°	60.70	UOA147	< 1	< 0.2						
				UOA148	31	< 0.2						
			62.50	UOA149	248	< 0.2						
			63.60	UOA150	327	< 0.2		URS008				
			65.60	UOA151	507	< 0.2						
			67.60	UOA152	232	< 0.2						
			68.60	UOA153	315	< 0.2						
70			70.70	UOA154	3160	0.2			UFI007			
70.70		red colored altered sandstone, quartz veinlets bearing; 60 55 70.70-71.70 quartz vein W=1m, <50° ~55°; 72.45 60 72.00-72.20 quartz vein W=20cm, <60°; 73.00 60 40 72.30-72.45 quartz vein W=15cm, <40°; 72.75-73.00 quartz vein W=25cm, <40°; 73.85-74.00 quartz vein W=15cm, <50°; 50 74.25-74.30 quartz vein W=5cm, <50°; 50 74.55-74.65 quartz vein W=10cm, <60°; 75.55 40 40 74.95-75.00 quartz vein W=5cm, <50°; 75.10 quartz vein W=1.5cm, <40°; 75.40 quartz vein W=5cm, <40°; 75.55 quartz vein W=5cm, <40°; 78.30 60 dark green colored altered microdiorite, quartz veinlets bearing Dj=5-30cm; 78.80 50 78.30 xenolith of fine-grained sandstone	71.70	UOA155	5120	0.3						
72.45			73.00	UOA156	3260	0.2					UPS002	
73.00			73.85	UOA157	15100	< 0.2						
75.55			75.55	UOA158	473	< 0.2						
78.30			77.55	UOA159	970	< 0.2						
78.80			79.55									
80		pyrite-quartz vein W=1cm, <40°; 40; dark greenish gray colored altered microdiorite, quartz-veinlets bearing; Dj=3-20cm; 87.00 quartz vein W=7cm, <60° Vv≦2 %; 60 87.70 pyrite disseminating; coarse grain sized pyrite disseminating Py=0.5~0.8 %, φ≦5mm	81.00	OUA160	4030	< 0.2						
				UOA161	15	< 0.2						
			83.00	UOA162	2	< 0.2						
			85.00	UOA163	13	< 0.2						
			87.00	UOA164	84	< 0.2						
			87.70	UOA165	6440	< 0.2		URS009		UWA003	UPS004	UAD002
90			89.70									
		90.80 quartz vein W=1.5cm, <35°; 35 92.15-92.65 milky white quartz vein W=50cm, <55°; 55 93.55-93.70 quartz vein W=15cm, <40°; 45 40 94.80 boundary; 80 94.80-95.20 quartz network zone W=40cm, <30°; 30 medium grained sandstone, dark green colored; 96.60-96.95 quartz vein W=35cm, <40°, py rich; 45 97.25-97.32 quartz vein W=7cm, <40°; 98.50 boundary; pyrite-bearing dark green colored sandstone, medium-grained and disseminated by fine grained pyrites	91.25	UOA166	2730	< 0.2						
92.15			92.65	UOA167	1620	< 0.2						
94.85			94.80	UOA168	8320	< 0.2						
96.95			95.20	UOA169	76	< 0.2						
98.50			97.32	UOA170	960	< 0.2						
100			99.32	UOA171	470	< 0.2						

GEOLOGIC CORE LOG OF MJMU-7 (3/3)

DEPTH (m)	GEOL. COLUMN	DESCRIPTION	Depth (m)	Sample No.	LABORATORY TESTS							
					Ore Analysis Au ppb	Ag ppm	XRD	T-S	F-I	WRCA	P-S	K-Ar
100		100.25 quartz vein W=2cm, <30°		UOA172	18	< 0.2						
		30 greenish gray colored fine-grained sandstone, epidotized and silicified	101.32									
		103.00-103.25 epidote-quartz vein W=25cm, <70°		UOA173	7	0.2						
103.50m		70 103.50 THE END	103.50									
110												
120												
130												
140												
150												