

**MJVB-5**

Sample No.	Depth (m)	From	To	Sample Width (cm)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Fe (%)
1	501	28.75	27.10	35	0.019	<0.5	0.002	<0.001	<0.001	1.01
2	502	55.58	55.68	10	0.013	<0.5	0.002	0.001	0.007	4.05
3	503	58.62	56.74	12	0.019	<0.5	0.003	0.001	0.005	7.01
4	504	65.40	65.73	33	<0.001	<0.5	0.001	<0.001	<0.001	1.21
5	506	101.10	101.25	15	0.059	<0.5	0.014	<0.001	0.002	3.21
6	507	101.95	102.15	20	0.026	0.6	0.001	0.001	0.001	1.41
7	508	106.00	106.15	15	0.049	<0.5	0.003	0.002	0.003	4.56
8	509	110.43	110.75	32	0.010	<0.5	0.002	0.002	0.002	3.85
9	510	120.10	120.25	15	0.020	<0.5	0.002	0.004	0.003	7.01
10	511	142.12	142.58	46	0.041	<0.5	0.004	0.002	0.004	3.15
11	512	143.45	143.74	29	0.023	1.1	0.008	0.016	0.007	4.90
12	513	144.10	144.50	40	0.037	0.8	0.006	0.003	0.007	4.08
13	514	145.00	145.20	20	0.015	<0.5	0.003	0.002	0.003	3.66
14	516	170.50	170.80	30	0.091	0.6	0.032	0.002	0.002	5.80
15	523	194.67	194.93	26	0.013	1.1	0.005	0.005	0.007	5.54
16	517	194.97	195.12	15	0.024	<0.5	0.006	0.005	0.010	4.36
17	518	203.70	203.95	25	0.016	0.5	0.005	0.003	0.007	4.62
18	519	204.18	204.40	22	0.011	<0.5	0.005	0.004	0.008	4.73
19	520	204.70	205.00	30	0.013	0.5	0.004	0.005	0.006	4.36
20	521	263.25	263.61	36	0.020	<0.5	0.001	<0.001	0.004	3.49

**MJVB-6**

Sample No.	Depth (m)	From	To	Sample Width (cm)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Fe (%)
1	618	2.13	2.50	37	0.023	1.1	0.002	0.008	0.003	3.60
2	601	2.80	3.10	30	0.004	1.3	0.004	0.016	0.008	6.47
3	602	4.00	4.50	50	0.011	0.7	0.002	0.021	0.002	1.80
4	603Y	4.60	4.75	15	0.012	1.4	0.003	0.012	0.009	4.93
5	604	6.60	6.80	20	0.010	1.0	0.003	0.006	0.002	3.43
6	605Y	20.50	20.70	20	0.010	0.6	0.002	0.003	0.001	2.79
7	606	28.00	28.00	100	0.019	1.2	0.007	0.011	0.001	2.22
8	607	29.00	30.00	100	0.015	0.7	0.002	0.018	0.001	2.06
9	608	30.00	31.00	100	0.012	0.7	0.002	0.013	0.001	1.66
10	609	31.00	32.00	100	0.020	0.8	0.003	0.012	0.001	1.60
11	610	32.00	33.00	100	0.028	<0.5	0.003	0.007	0.001	2.53
12	611	33.00	34.00	100	0.044	1.0	0.003	0.011	0.001	1.41
13	612	34.00	35.00	100	0.038	0.7	0.011	0.015	0.001	2.87
14	613	35.00	36.35	135	0.025	1.0	0.004	0.007	0.001	1.91
15	614	36.35	36.55	20	0.014	1.1	0.005	0.009	0.001	3.60
16	615Y	36.55	37.50	95	0.015	0.5	0.003	0.006	0.002	3.15
17	616	37.50	38.10	60	0.040	0.9	0.005	0.009	0.004	3.32
18	617	54.35	55.25	90	0.081	0.8	0.004	0.003	0.005	4.59
19	618Y	68.05	68.15	10	0.107	1.3	0.001	0.001	<0.001	0.79
20	620Y	90.80	90.95	15	0.046	0.5	0.006	0.005	0.012	10.39
21	621	96.40	96.55	15	0.012	0.9	0.003	0.003	0.005	4.17
22	622	108.15	108.40	25	0.031	0.7	0.005	0.006	0.008	13.43
23	624	168.63	168.80	17	0.015	<0.5	0.003	0.003	0.006	3.94
24	625	173.05	173.40	35	0.018	<0.5	0.003	0.004	0.005	4.45
25	626	186.95	187.70	75	0.013	<0.5	0.002	0.003	0.005	4.19
26	627	188.20	188.73	53	0.023	0.5	0.005	0.003	0.006	4.05
27	628	190.10	190.30	20	0.205	<0.5	0.002	0.003	0.004	3.26
28	629	258.75	259.20	45	0.011	<0.5	0.001	0.001	0.003	2.81
29	630	279.72	280.30	58	0.012	0.7	0.003	0.005	0.009	5.63

Fig. 2-12 Geologic Section along the Drill Holes (MJVB-5 and MJVB-6)

Assay Results

Ser No.	Sample No.	Depth (m)		Sample Width (cm)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Fe (%)
		From	To							
	<b>MJVB-5</b>									
1	501	26.75	27.10	35	0.019	<0.5	0.002	<0.001	<0.001	1.01
2	502	55.58	55.68	10	0.013	<0.5	0.002	0.001	0.007	4.05
3	503	56.62	56.74	12	0.019	<0.5	0.003	0.001	0.005	7.01
4	504	65.40	65.73	33	<0.001	<0.5	0.001	0.001	<0.001	1.21
5	506	101.10	101.25	15	0.059	<0.5	0.014	<0.001	0.002	3.21
6	507	101.95	102.15	20	0.026	0.6	0.001	0.001	0.001	1.41
7	508	106.00	106.15	15	0.049	<0.5	0.003	0.002	0.003	4.56
8	509	110.43	110.75	32	0.010	<0.5	0.002	0.002	0.002	3.85
9	510	120.10	120.25	15	0.020	<0.5	0.002	0.004	0.003	7.01
10	511	142.12	142.58	46	0.041	<0.5	0.004	0.002	0.004	3.15
11	512	143.45	143.74	29	0.023	1.1	0.008	0.016	0.007	4.90
12	513	144.10	144.50	40	0.037	0.8	0.006	0.003	0.007	4.08
13	514	145.00	145.20	20	0.015	<0.5	0.003	0.002	0.003	3.66
14	516	170.50	170.80	30	0.091	0.6	0.002	0.002	0.002	5.80
15	523	194.67	194.93	26	0.013	1.1	0.005	0.005	0.007	5.54
16	517	194.97	195.12	15	0.024	<0.5	0.006	0.005	0.010	4.36
17	518	203.70	203.95	25	0.016	0.5	0.005	0.003	0.007	4.62
18	519	204.18	204.40	22	0.011	<0.5	0.005	0.004	0.008	4.73
19	520	204.70	205.00	30	0.013	0.5	0.004	0.005	0.008	4.36
20	521	263.25	263.61	36	0.020	<0.5	0.001	<0.001	0.004	3.49

Lithology

Log

Depth (m)

0  
 Alternation of sandstone & schist (C3ts1)  
 ① Quartz zone (26.75~27.10m)  
 ② Quartz zone (55.58~56.86m)  
 ③ Quartz zone (65.40~65.73m)  
 ④ Quartz zone (96.75~102.15m)  
 ⑤ Quartz zone (106.00~107.49m)  
 -100  
 ⑥ Quartz zone (142.15~145.20m)  
 Alternation of sandstone & schist (C3ts1)  
 ⑦ Quartz zone (203.70~205.00m)  
 Sandstone with intercalation of schist layers (C3ts1)  
 -200  
 215.00  
 300

Fig. 2-13 Summary of Drill Log and Analytical Results of Core Samples (MJVB-5)

Assay Results

Ser No.	Sample No.	Depth (m)		Sample Width (cm)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Fe (%)
		From	To							
	<b>MJVB-6</b>									
1	618	2.13	2.50	37	0.023	1.1	0.002	0.008	0.003	3.60
2	601	2.80	3.10	30	0.034	1.3	0.004	0.016	0.006	6.47
3	602	4.00	4.50	50	0.011	0.7	0.002	0.021	0.002	1.80
4	603Y	4.60	4.75	15	0.012	1.4	0.003	0.012	0.009	4.93
5	604	6.60	6.80	20	0.010	1.0	0.003	0.006	0.002	3.43
6	605Y	20.50	20.70	20	0.010	0.6	0.002	0.003	0.001	2.79
7	606	28.00	29.00	100	0.019	1.2	0.007	0.011	0.001	2.22
8	607	29.00	30.00	100	0.015	0.7	0.002	0.016	0.001	2.08
9	608	30.00	31.00	100	0.012	0.7	0.002	0.013	0.001	1.66
10	609	31.00	32.00	100	0.020	0.8	0.003	0.012	0.001	1.60
11	610	32.00	33.00	100	0.028	<0.5	0.003	0.007	0.001	2.53
12	611	33.00	34.00	100	0.044	1.0	0.003	0.011	0.001	1.41
13	612	34.00	35.00	100	0.039	0.7	0.011	0.015	0.001	2.67
14	613	35.00	36.35	135	0.025	1.0	0.004	0.007	0.001	1.91
15	614	36.35	36.55	20	0.014	1.1	0.005	0.009	0.001	3.60
16	615Y	36.55	37.50	95	0.015	0.5	0.003	0.006	0.002	3.15
17	616	37.50	38.10	60	0.040	0.9	0.005	0.009	0.004	3.32
18	617	54.35	55.25	90	0.081	0.8	0.004	0.003	0.005	4.59
19	619Y	68.05	68.15	10	0.107	1.3	0.001	0.001	<0.001	0.79
20	620Y	90.80	90.95	15	0.046	0.5	0.006	0.005	0.012	10.39
21	621	96.40	96.55	15	0.012	0.9	0.003	0.003	0.005	4.17
22	622	108.15	108.40	25	0.031	0.7	0.005	0.006	0.008	13.43
23	624	168.63	168.80	17	0.015	<0.5	0.003	0.003	0.006	3.94
24	625	173.05	173.40	35	0.018	<0.5	0.003	0.004	0.005	4.45
25	626	186.95	187.70	75	0.013	<0.5	0.002	0.003	0.005	4.19
26	627	188.20	188.73	53	0.023	0.5	0.005	0.003	0.006	4.05
27	628	190.10	190.30	20	0.205	<0.5	0.002	0.003	0.004	3.26
28	629	258.75	259.20	45	0.011	<0.5	0.001	0.001	0.003	2.81
29	630	279.72	280.30	58	0.012	0.7	0.003	0.005	0.009	5.63

Fig. 2-14 Summary of Drill Log and Analytical Results of Core Samples (MJVB-6)

## 1-5 Mineralization and Hydrothermal Alteration

### 1-5-1 Da Mai Area

Two holes totaling 600.00 m were drilled in the central to the western part of the Da Mai-Khe Dui prospect in the third phase. As was described in the previous section, a significant amount of gold-bearing quartz veins were intersected in these drill holes. They were classified into several groups of veins in each hole on the basis of the vein nature (similarity of ore, gangue and alteration mineralogy, morphological and spatial closeness).

**MJVB-3:** This drill hole is located at the upper reaches of Khe Dui creek in the Da Mai-Khe Dui prospect. The main purpose of this hole was to investigate the lower extension of the Group B veins at the eastern side of the Da Mai-Khe Dui prospect. A total of eight major groups of veins were caught in this hole. Several significant assay results of Au, though not wide, were obtained in this drill hole. The outline of the mineralization and hydrothermal alteration is summarized as follows.

(1) 31.35 – 32.45 m: Quartz veinlet zone, consisting of several white/light gray quartz veinlets (0.5 to 3 cm wide each) with small amount of pyrite and limonite. Clayey. Several gold grains (fine to medium carat) were found in slime of drilling.

(2) 79.23 – 85.40 m: Quartz vein/veinlet zone, consisting of 4 white to light gray quartz veins/veinlets (7 to 43 cm each). Calcite is associated with quartz in some part. Pyrite and limonite are disseminated moderately (strongly in some part). A tiny grain of native gold was found at about 80 m in drill cores. Several gold grains (fine carat) were detected in slime of drilling. A significant assay result of **75.600 g/t Au and 3.0 g/t Ag at 35 cm in width (79.85 – 80.20 m)** was obtained in this zone.

(3) 109.25 – 110.15 m: Quartz veinlet/network zone, consisting of white to light gray quartz veinlets and network (a few cm wide). Partly chloritized. Pyrite is disseminated weakly.

(4) 131.52 – 133.15 m: Four white/light gray quartz veins/veinlets, a few cm to 33 cm. Two categories of quartz were distinguished; earlier deposited gray quartz and later white quartz. Chlorite and a clay mineral (yellowish color) are associated with quartz. Pyrite and arsenopyrite are disseminated weakly. A small amount of chalcopyrite, sphalerite, galena and pyrrhotite were observed under the microscope. Several gold grains (fine carat) were detected in slime of drilling.

(5) 140.95 – 147.93 m: Quartz vein/network zone, consisting of white to light gray quartz veins and network (12 to 33 cm wide each). Chlorite and calcite are associated with quartz. Pyrite is disseminated moderately to strongly. An assay result of **1.770 g/t Au at 33 cm in width (147.60 - 147.93 m)** was returned from one of the quartz network.

(6) 180.95 – 183.75 m: Quartz vein/veinlet zone, consisting of 5 white/light gray quartz veins/veinlets (1 to 25 cm wide each) with pyrite-arsenopyrite dissemination. Chlorite is partly associated with quartz.

(7) 230.52 – 232.37 m: Quartz vein/breccia zone, consisting of 5 white/light gray quartz-calcite

veinlets/breccias (a few cm to 37 cm wide each). Pyrite and arsenopyrite are disseminated partly. An assay result of **0.570 g/t Au at 37 cm in width** (230.77 – 231.14 m) was returned.

(8) 244.23 – 254.37 m: Quartz veinlet/network zone, consisting of more than 30 white/light gray quartz veinlets/breccias (a few cm up to 47 cm wide each). Pyrite and arsenopyrite are disseminated partly (weakly in general). A small amount of chalcopyrite and sphalerite were observed under the microscope. Silicification in almost all the zone. Chloritization was observed in some part.

**MJVB-4:** This drill hole is located at the upper reaches of Khe Dui creek in the Da Mai-Khe Dui prospect. The main purpose of this hole was to investigate the lower extension of the Group C veins at the eastern side of the Da Mai-Khe Dui prospect. Eight major groups of veins were caught in this hole in total. A significant assay result of Au, though also narrow, was obtained at the shallow part of this drill hole. The outline of the mineralization and hydrothermal alteration is summarized as follows.

(1) 38.40 – 40.37 m: Light gray quartz veins (40 and 27 cm wide each) with some calcite and chlorite. Pyrite is disseminated weakly in quartz. A small amount of arsenopyrite, chalcopyrite, sphalerite, galena and pyrrhotite were observed under the microscope.

(2) 53.93 – 64.25 m: White quartz-calcite veinlet zone, consisting of 15 white quartz veinlets (2 to 7 cm wide each). Quartz is coarse grain, sometimes appears drusy. Pyrite, arsenopyrite and chalcopyrite are disseminated in quartz. More than ten gold grains (coarse to medium carat) were recovered in slime of drilling by panning. An assay result of **12.400 g/t Au at 45 cm in width** (60.15 – 60.60 m) was returned.

(3) 74.45 – 75.10 m: White quartz-calcite veinlets (a few to 8 cm wide each) occurs. Pyrite and arsenopyrite are disseminated moderately.

(4) 101.85 – 106.50 m: White quartz-calcite vein/network zone, consisting of several white quartz veins/networks (1 to 49 cm wide each). Pyrite is disseminated in general. A small amount of sphalerite (light yellowish color) is spotted at about 106 m. A small amount of chalcopyrite, galena and pyrrhotite were observed under the microscope.

(5) 115.20 – 120.30 m: White quartz-calcite vein/network zone, consisting of more than 10 white quartz-calcite veins/networks (1 cm up to over 1 m wide each). Five significant quartz veins/networks were caught in this zone: 115.48 – 115.64, 116.67 – 117.95, 118.55 – 118.95, 119.08 – 119.60, and 119.95 – 120.30 m. Chlorite was observed partly. In these quartz veins/networks, a significant amount of pyrite and arsenopyrite are disseminated. These sulfide minerals are aggregated into small patches. A small amount of chalcopyrite and pyrrhotite were also found. Several grains of gold (some are coarse carat) were detected in slime of drilling.

(6) 126.25 – 132.10 m: White quartz-calcite vein/network zone, consisting of more than 10 white quartz-calcite veins/veinlets and networks (1 to 105 cm wide each). Two significant quartz veins/networks were caught in this zone: 126.25 – 127.30 m, and 131.65 – 132.10 m. In these quartz veins/networks, a significant amount of pyrite and arsenopyrite were observed. A small amount of

chalcopyrite, sphalerite and pyrrhotite were observed under the microscope.

(7) 143.12 – 153.98 m: White quartz-calcite vein/network zone, consisting of more than 20 white quartz-calcite veins/networks or breccias (1 cm up to around 1 m wide each). Six significant quartz veins/networks were caught in this zone: 143.40 – 143.75, 145.53 – 145.88, 146.00 – 146.65, 147.00 – 147.55, 148.10 – 149.08, and 153.04 – 153.53 m. Chlorite was observed partly. In these quartz veins/networks, a significant amount of pyrite and arsenopyrite are disseminated (as patches). A small amount of chalcopyrite, galena and pyrrhotite were observed under the microscope. Several grains of gold (fine carat) were detected in slime of drilling.

(8) 254.00 – 256.40 m: Light gray quartz vein/network zone, consisting of light gray quartz-calcite veins/veinlets or networks (a few cm to 11 cm wide). Host rocks are generally silicified, occasionally clayey. Pyrite is weakly disseminated. Galena was observed in quartz.

## 1-5-2 Ngan Me Area

Two holes totaling 600.00 m were drilled in the central to the western part of the Ba Khe prospect in the third phase. As was described in the previous section, a significant amount of quartz veins were intersected in these drill holes. They were classified into several groups of veins in each hole on the basis of the vein nature (similarity of ore, gangue and alteration mineralogy, morphological and spatial closeness). No significant gold assay has been returned in these drill holes.

**MJVB-5:** This drill hole is located at the upper reaches of Na Hon creek in the Ba Khe prospect. The main purpose of this hole was to investigate the lower extension of the Na Hon Group veins of the Ba Khe prospect. Seven major groups of veins were caught in this hole in total. The outline of the mineralization and hydrothermal alteration is summarized as follows.

- (1) 26.75 – 27.10 m: Light gray quartz vein with a small amount of limonite. Several gold grains of medium to fine carat were found in slime of drilling.
- (2) 55.58 – 56.86 m: Quartz veinlet zone, consisting of 9 white/light gray quartz veinlets (1 to 4 cm each). Limonite is partly disseminated. Several gold grains of medium to fine carat were found in slime of drilling.
- (3) 65.40 – 65.73 m: White quartz vein. Limonite is disseminated. A small amount of chalcopyrite, covellite and pyrrhotite were observed under the microscope.
- (4) 96.75 – 102.15 m: Quartz vein/veinlet zone, consisting of 7 light gray quartz veins/veinlets (2 to 20 cm wide each) with occasional pyrite dissemination.
- (5) 106.00 – 107.49 m: Quartz veinlet/breccia zone, consisting of 4 light gray quartz veinlets/breccias (1 to 15 cm wide each). Pyrite is disseminated strongly in some part.
- (6) 142.12 – 145.20 m: Quartz vein/veinlet zone, consisting of several white/light gray quartz veins/veinlets (7 to 46 cm wide each). Pyrite is disseminated. A small amount of chalcopyrite was observed under the microscope. Partly clayey. Chloritization and silicification were observed.
- (7) 203.70 – 205.00 m: Quartz vein/network zone, consisting of 3 white/light gray quartz-calcite (-ankerite) veins/networks (15 to 30 cm wide each). Pyrite is disseminated partly. A small amount of chalcopyrite, sphalerite, galena and pyrrhotite were observed under the microscope.

**MJVB-6:** This drill hole is located at the upper reaches of Ba Khe creek in the Ba Khe prospect. The main purpose of this hole was to investigate the lower extension of the Ba Khe Group veins of the Ba Khe prospect. Five major groups of veins were caught in this hole in total. No significant assay result of Au was obtained in this drill hole. Three old workings were caught in shallow parts of this hole. The outline of the mineralization and hydrothermal alteration is summarized as follows.

- (1) 2.13 – 6.80 m: Quartz vein/silicified zone, consisting of 6 light gray broken quartz veins/silicified

zones within weathered schist (saprolite). Limonite is disseminated in quartz. Several gold grains of coarse to fine carat were found from slime of drilling.

(2) 28.00 – 38.10 m: Light gray/brown clayey zone, containing quartz veins/veinlets in weathered schist. Most significant quartz vein occurs at 36.35 – 36.55 m. Several gold grains (coarse to fine carat) were found in slime of drilling.

(3) 54.35 – 55.25 m: Light gray quartz veins and old adit. Broken quartz of 25 cm in length was returned as cores.

(4) 90.80 – 96.55 m: Quartz vein/veinlet zone, consisting of 5 light gray quartz veins/veinlets (1 to 15 cm wide each). A small amount of pyrite is disseminated. A small amount of chalcopyrite was observed under the microscope.

(5) 186.95 – 190.30 m: Quartz veinlet/network zone, consisting of 3 white quartz veinlets/networks (a few to 53 cm wide each). Pyrite is significantly disseminated in some part. Galena and chalcopyrite were observed partly by naked eye. A small amount of pyrrhotite was observed under the microscope.



## **1-6 Fluid Inclusion Studies**

### **1-6-1 Methodology**

Quartz chips were collected, and provided for fluid inclusion studies. Ten quartz chips were sampled from drill cores. The breakdown is: 7 from MJVB-3 and 4 in the Da Mai area, and 3 from MJVB-5 and 6 in the Ngan Me area. All samples were taken from quartz veins.

The observation of quartz chips was made in the field according to the description criteria usually required in the field survey. The observation of fluid inclusions under the microscope was undertaken in the laboratory.

Most of the important samples were micro-photographed on the microscopic observation.

Measurements of homogenization temperature of liquid-gas and polyphase inclusions were made with the heating-stage under the microscope. An arithmetic mean was adopted as the representative value of homogenization temperature for each sample. The results of homogenization temperature measurements were plotted on the map and examined geologically. Measurements of salinity of liquid-gas and polyphase inclusions were made with the freezing-stage under the microscope.

### **1-6-2 Results of Studies**

The total number of fluid inclusions which were investigated under the microscope was 243. More than eighty percents of them are liquid-rich two-phase inclusions. Gas-rich two-phase inclusions are less than 20 % of them. This result may indicate that the boiling of fluid has occurred locally during the formation of quartz vein.

Polyphase inclusions were found in 4 samples. The solid phase looked like halite, but it was difficult to identify because the fluid inclusions were very small.

#### **Homogenization Temperature**

Values of homogenization temperature of each fluid inclusion are distributed from 142°C to 386°C. Most of them fall into a range of 180° ~ 300°C with a peak value of around 200°C.

## Salinity

Samples for the measurement of freezing temperature were selected from quartz chips of which homogenization temperature was measured. Eight measurements on salinity for 4 fluid inclusions from the drill cores MJVB-3, 4 and 5 were made in this study.

Salinity calculated from the freezing temperatures of fluid inclusions ranges from 1.6 to 6.3 wt. % NaCl equivalent. The arithmetic mean of three salinity values is 4.0 wt. % NaCl equiv.

## 1-7 Discussion

In the second phase, two holes totaling 600 m were drilled in the western part of the Da Mai-Khe Dui prospect. Many significant intersections of gold-bearing quartz veins were caught in these reconnaissance drill holes. The geology of drill holes is composed of sandstone and schist of the Mo Dong Formation. In MJVB-1, the upper part of the drill hole consists of an alternating bed of sandstone and schist. The lower part, however, consists mainly of sandstone. In MJVB-2, geology of whole drill hole consists of sandstone.

In MJVB-1, thirteen major groups of quartz veins were caught in total. Although native gold was observed in drill cores and slime of drilling at several depths in the field, no significant assay result was obtained.

In MJVB-2, thirteen major groups of quartz veins were intersected, and several significant intersections were returned as follows: 56.640 g/t Au and 9.0 g/t Ag at 28 cm in width (51.24 – 51.52 m), 1.880 g/t Au and 2.0 g/t Ag at 40 cm in width (137.38 – 137.87 m), 1.020 g/t Au at 11 cm in width (181.00 – 181.11 m), 10.815 g/t Au at 10 cm in width (181.22 – 181.32 m), and 1.400 g/t Au at 12 cm in width (256.67 – 256.79 m).

In the third phase, drilling exploration continued as looking for bonanzas of gold in the Da Mai and Ngan Me areas by a clue of some significant IP anomalies detected in the second phase survey.

In the eastern part of the Da Mai-Khe Dui prospect, two holes totaling 600 m were drilled. A couple of significant intersections of gold-bearing quartz veins were caught in these drill holes. The geology of drill holes is composed of alternation of sandstone and schist of the Mo Dong Formation.

In MJVB-3, eight major groups of quartz veins were caught in total, and a few significant intersections was returned as follows: 75.600 g/t Au and 3.0 g/t Ag at 35 cm in width (79.85 – 80.20 m), 1.770 g/t Au at 33 cm in width (147.60 – 147.93 m).

In MJVB-4, eight major groups of quartz veins were intersected. Although native gold was observed in drill cores and slime of drilling at several depths in the field, only one significant assay result was obtained as follows: 12.400 g/t Au and 0.6 g/t Ag at 45 cm in width (60.15 – 60.60 m).

In the Ba Khe prospect, two holes totaling 600 m were drilled. The geology of drill holes is composed of alternation of sandstone and schist of the Tan Sa and Mo Dong Formations. The results were disappointing; no significant intersection of gold-bearing quartz veins was caught in these drill holes, although the development of quartz veins was significant.

Gold-bearing quartz veins were formed in fissures of a tensile nature. Swarm of veins

occurs in zones generally running E-W on the wing of the Bo Cu anticline. Each vein is not long. It extends at most a few hundred meters. Most of the veins continue for tens of meters, then become thin, and disappear.

Gold occurs mainly as free native gold in quartz veins in this area. This is the main reason why the gold grade shows an very erratic nature. High grades of Au were returned from some part, while other part showed no significant value of Au even where visible gold was observed. Gold grade tends to be higher in a part where is relatively rich in sulfide minerals.

The drilling this year was carried out aiming at the high chargeability anomaly zones based on the IP geophysical exploration done in the second phase. The laboratory tests and examination using drill core samples were made about the relationship between sample properties and the distribution of chargeability, and the following results were obtained:

(1) The drilling this year penetrated through the central part of the high chargeability zone (>30mV/V) in every hole. The chargeability of quartz vein samples was measured by using the drill cores, and very high chargeability values were indicated (up to 356mV/V).

(2) These quartz veins contain a lot of sulfide minerals (pyrite and arsenopyrite).

(3) Chargeability were low (at around several mV/V) in sandstone, schist and quartz vein of relatively poor in sulfide content.

(4) As the distribution of chargeability and the distribution of quartz veins are concerned in detail, there were several discrepancies. Because most of the quartz veins are thin; they show irregularly in the distribution. It is natural that they don't meet perfectly.

Thus, it was thought to be confirmed by these tests that the overall distribution of IP anomalies has been explained by the distribution of quartz veins in drill holes. It was also confirmed that the high chargeability anomalies were originated, not all but at least partially, from the distribution of quartz veins which contain a certain amount of sulfide minerals.

The next table is the summary of laboratory tests by drill core samples.

Sample No.	Drill Hole	Depth (m)	Chargeability (mV/V)	Resistivity (ohm-m)	Rock Name	Sulfide Dissemination
305J	MJVB-3	79.37 - 79.50	3.7	9019	Qz Vein	Trace
318J	MJVB-3	230.77 - 231.14	6.4	9394	Qz-Cal Vein	Trace
406J	MJVB-4	100.00 - 100.15	35.3	674	Black Schist	Little
414J	MJVB-4	138.20 - 138.38	356.7	322	Qz-Cal Vein	Strong
420J	MJVB-4	148.10 - 149.08	51.2	2489	Qz-Cal Vein	Strong
511J	MJVB-5	142.12 - 142.58	152.0	4558	Qz Vein	Strong
515J	MJVB-5	150.10 - 150.25	13.4	1266	Gray Psammite	Trace
626J	MJVB-6	186.95 - 187.70	12.9	15304	Qz Vein	Trace

Thus, the gold deposit in the Bo Cu area is estimated to be not large scale but rather small one. It is likely that some quartz veins may contain very rich gold. The ore body of something like a dimension of several hundred meters by several hundred meters in the length and in the depth with width of 1 to 2 meters, and several tens g/t Au in ore grade has been targeted in the Bo Cu area. However, the result of drilling this phase was rather disappointing. The ore potentials in the Da Mai and Ngan Me areas were presumed to be less than what were expected.

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## **PART III CONCLUSIONS AND RECOMMENDATIONS**





## PART III CONCLUSIONS AND RECOMMENDATIONS

### Chapter 1 Conclusions

On the basis of the results of the third phase works comprising reconnaissance drilling survey, the following conclusions are obtained.

#### (1) Geology and Geologic Structure

As a result of exploration for three years, significant gold mineralization which is represented by the distribution of extensive outcrops of quartz veins/networks and was outlined by the distribution of distinctive geochemical and geophysical anomalies has been surveyed in the Da Mai and Ngan Me areas. The type and conditions of gold mineralization in this area were discussed on the basis of petrology, mineralogy, hydrothermal alteration and fluid inclusion studies. It was interpreted that the gold mineralization was formed under mesothermal conditions. The gold-bearing quartz veins are hosted by sandstone and schist of the Cambrian Mo Dong and Tan Sa Formations. The prospects are located either on the crest or on the southwestern wing of the Bo Cu anticline. This geological setting is probably a crucial factor for the formation of gold-bearing quartz veins.

#### (2) Da Mai Area

The overall distribution of gold mineralization in the Da Mai-Khe Dui prospect is approximately 200-300 m wide and more than 1,500 m long. Gold-bearing quartz veins in the Da Mai-Khe Dui prospect are subdivided into several groups of veins mainly running E-W with dips of steep S or N. Numerous people's mining shafts, adits and prospecting pits are distributed in the prospect. Visible gold was frequently observed in quartz veins in Khe Dui creek. Assay results such as 55.704 g/t Au at 8 cm in width and 13.385 g/t Au and 4.0 g/t Ag at 45 cm in width were obtained through the previous detailed survey. A couple of distinctive IP anomalies -- strong one in Khe Dui creek and weak one in West Da Mai-Da Mai creek -- were delineated by the geophysical survey. It has been expected for an exploration target that high-grade gold ores of a dimension of several hundred meters by several hundred meters in the length and in the depth with a width of 1 to 2 meters might be existed in the Da Mai-Khe Dui prospect.

In the second and third phases, four holes totaling 1,200 m were drilled in the Da Mai-Khe Dui prospect in the Da Mai area. Several intersections of gold-bearing quartz veins were caught in these drill holes.

In MJVB-1, thirteen major groups of quartz veins were caught in total. Although native gold was observed in drill cores and slime of drilling at several depths in the field, no significant assay result was obtained.

In MJVB-2, thirteen major groups of quartz veins were intersected, and several significant intersections up to 56.640 g/t Au at 28 cm in width (51.24 – 51.52 m) were returned.

In MJVB-3, eight major groups of quartz veins were caught in total, and a few significant intersections up to 75.600 g/t Au at 35 cm in width (79.85 – 80.20 m) were obtained.

In MJVB-4, eight major groups of quartz veins were intersected. Although native gold was observed in drill cores and slime of drilling at some depths in the field, only one significant assay result (12.400 g/t Au at 45 cm in width, 60.15 – 60.60 m) was obtained.

Although ore bodies of a significant dimension had been targeted in this area, the results of drilling were disappointing. The ore potentials were presumed to be less than what were expected.

### (3) Ngan Me Area

In the Ba Khe prospect in the Ngan Me area, two holes totaling 600 m were drilled in the third phase. The results were disappointing. No significant intersection of gold-bearing quartz veins was encountered in these drill holes, although the development of quartz veins was significant.

## Chapter 2 Recommendations for the Future Exploration

### Da Mai Area

Exploration for gold ores of a certain size and of high grade has been carried out for three years in the Da Mai area. Despite the occurrences of high-grade gold ores in some part of the quartz veins, the dimension seems to be small for our exploration target. Therefore, no further work is recommended in the Da Mai area.

### Ngan Me Area

The results of exploration in the Ngan Me area were similar to those in the Da Mai area. Therefore, no further work is recommended in the Ngan Me area.

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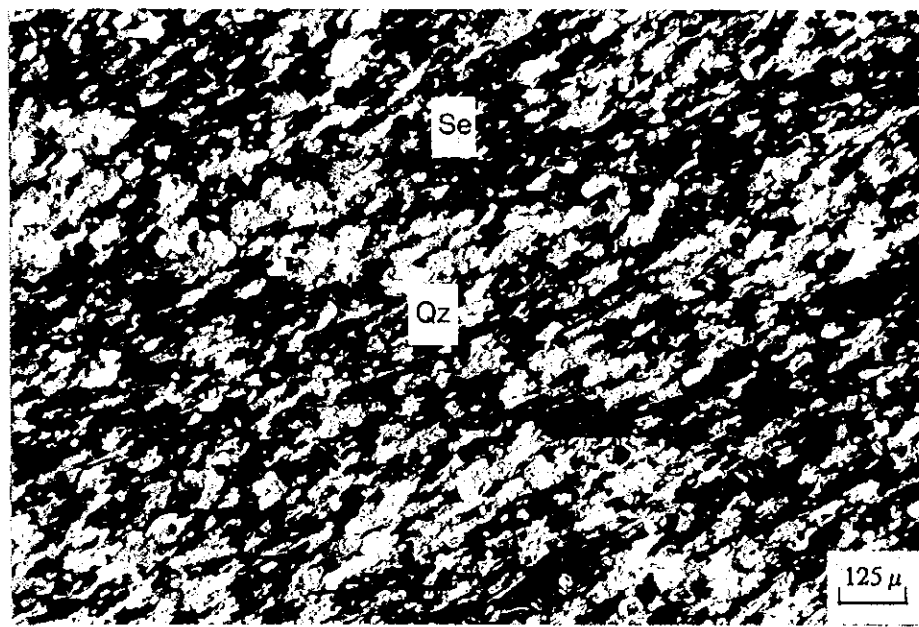
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# PHOTOGRAPHS

**Photo. 1 Photomicrographs of Thin Sections**



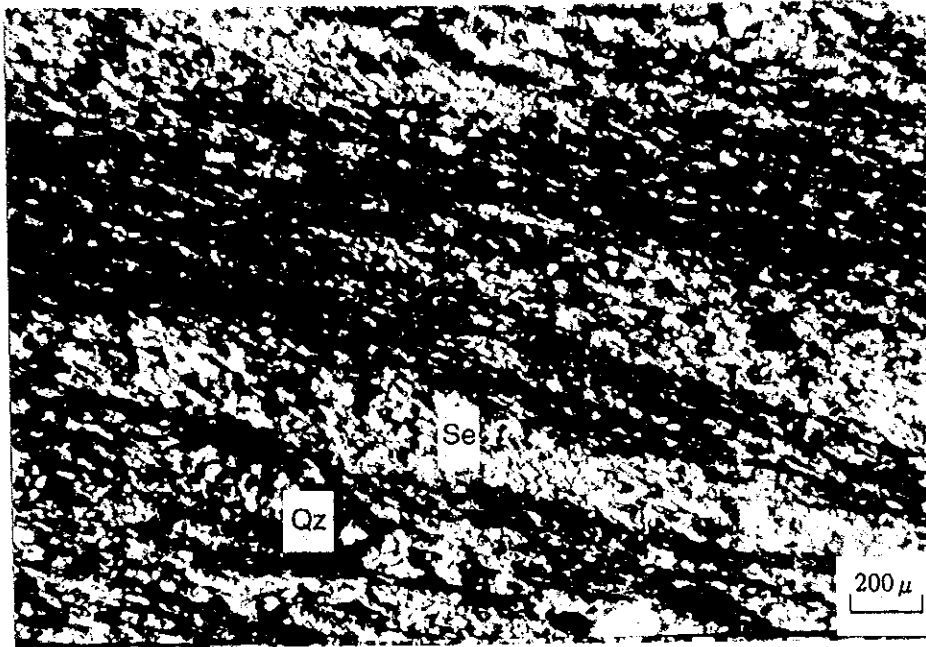
Rock Name : Alt. SS/Schist (C<sub>ind</sub>)  
Sample No. : 304T  
Locality : MJVB-3 (Khe Dui)  
(Crossed Nicols)



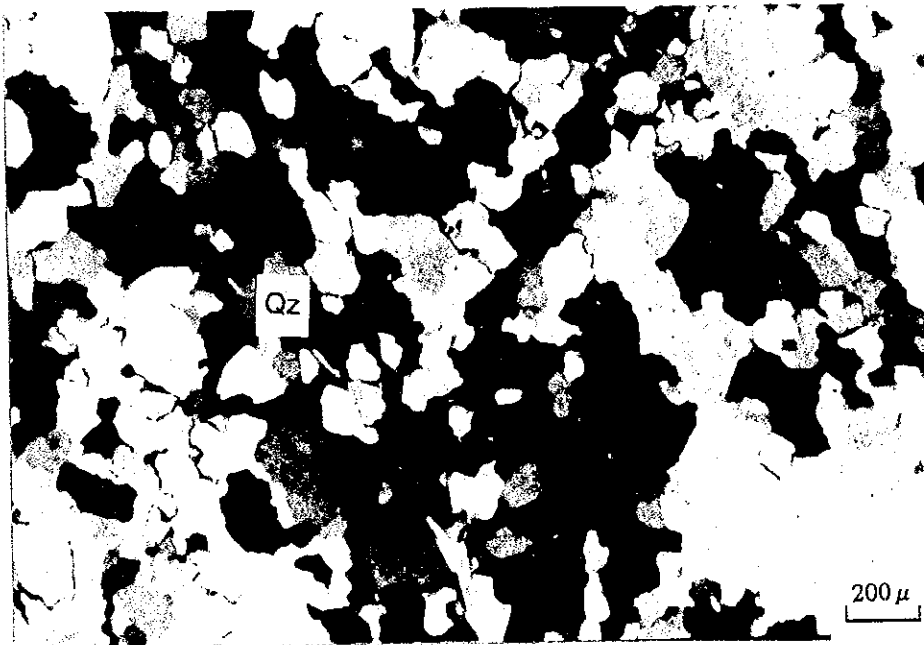
Rock Name : Black Schist (C<sub>md</sub>)  
Sample No. : 406T  
Locality : MJVB-4 (Khe Dui)  
(Crossed Nicols)

Abbreviations: Qz; Quartz, Pl; Plagioclase, Kf; Potash Feldspar  
Se; Sericite, Ch; Chlorite





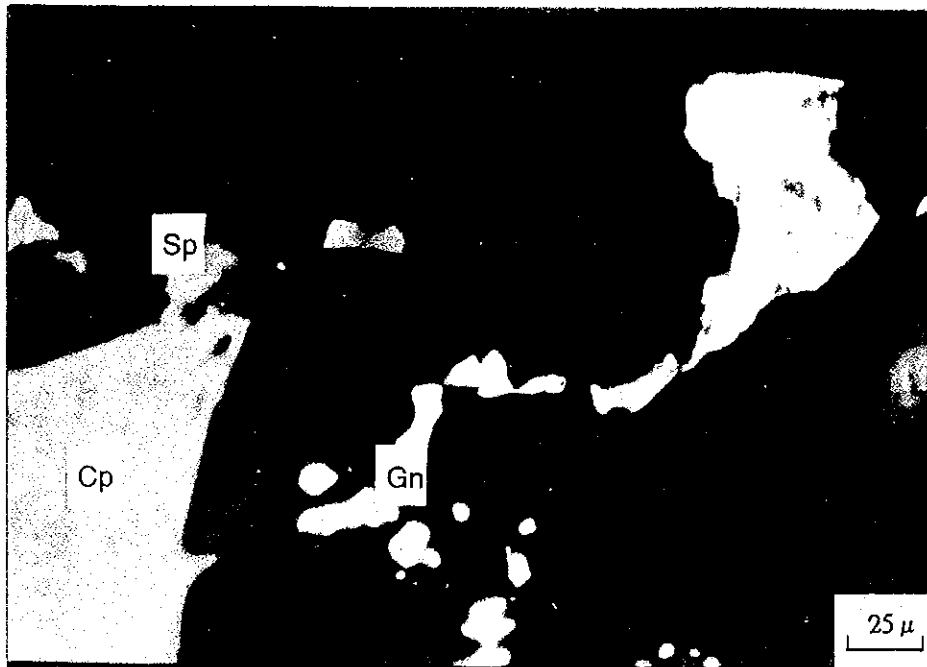
Rock Name : Black Schist (C<sub>31S1</sub>)  
 Sample No. : 505T  
 Locality : MJVB-5 (Na Hon)  
 (Crossed Nicols)



Rock Name : Quartz Vein  
 Sample No. : 621T  
 Locality : MJVB-6 (Ba Khe)  
 (Crossed Nicols)

Abbreviations: Qz; Quartz, Pl; Plagioclase, Kf; Potash Feldspar  
 Se; Sericite, Ch; Chlorite

**Photo. 2 Photomicrographs of Ores**



Minerals : Cp, Gn, Sp  
 Sample No. : 322P  
 Locality : MJVB-3 (Khe Dui)  
 (Open Nicol)

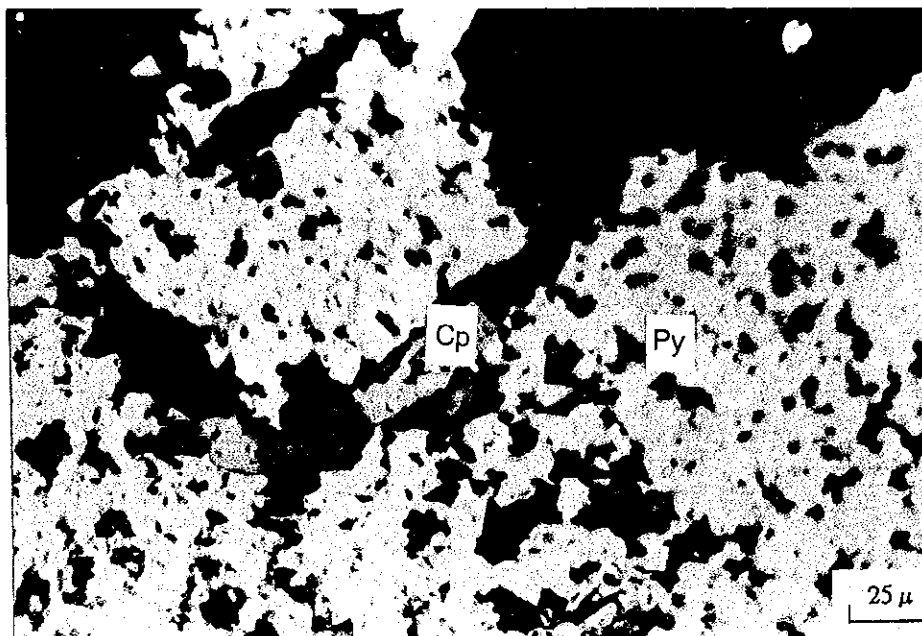


Minerals : Cp, Sp  
 Sample No. : 402P  
 Locality : MJVB-4 (Khe Dui)  
 (Open Nicol)

Abbreviations: Py; Pyrite, As; Arsenopyrite, Cp; Chalcopyrite  
 Sp; Sphalerite, Gn; Galena, Au; Native Gold



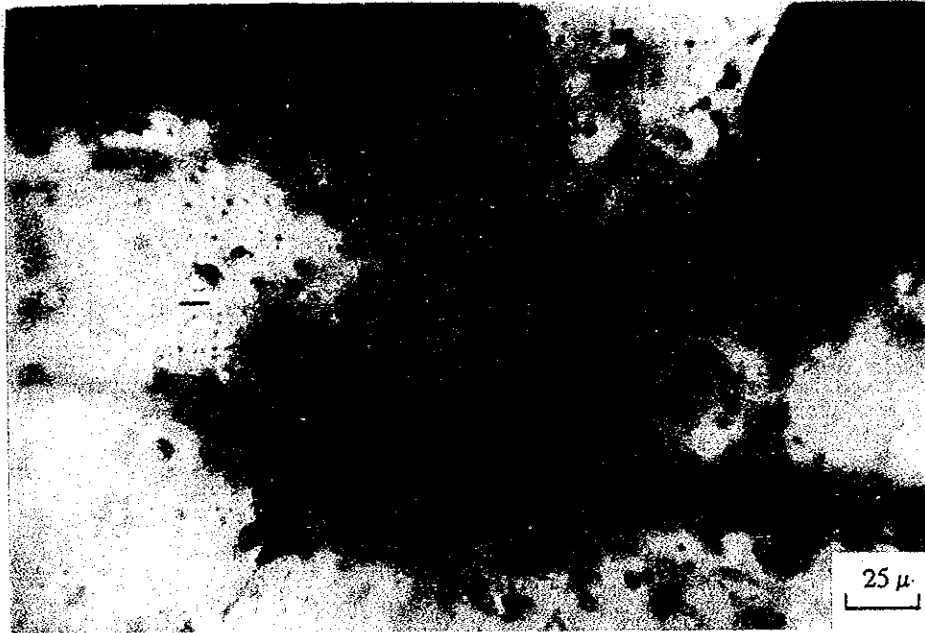
Minerals : Py, Cp  
 Sample No. : 504P  
 Locality : MJVB-5 (Na Hon)  
 (Open Nicol)



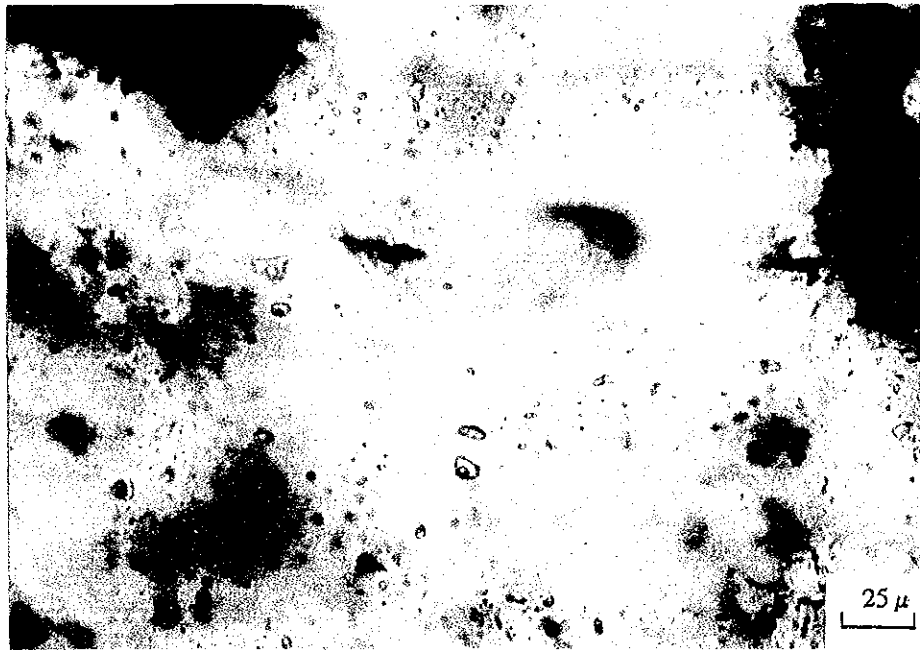
Minerals : Py, Cp  
 Sample No. : 621P  
 Locality : MJVB-6 (Ba Khe)  
 (Open Nicol)

Abbreviations: Py; Pyrite, As; Arsenopyrite, Cp; Chalcopyrite  
 Sp; Sphalerite, Gn; Galena, Au; Native Gold

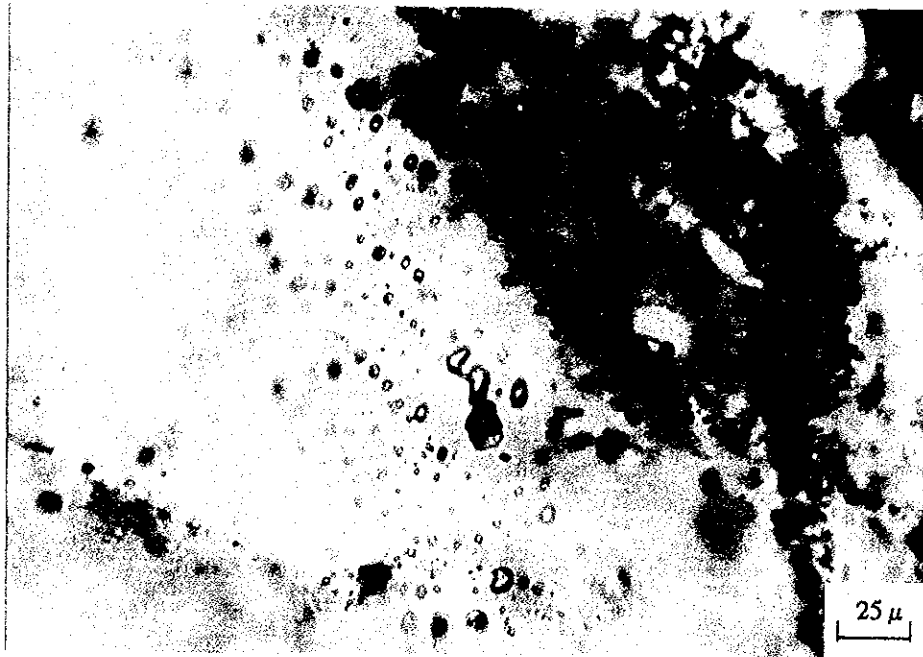
**Photo. 3 Photomicrographs of Fluid Inclusions**



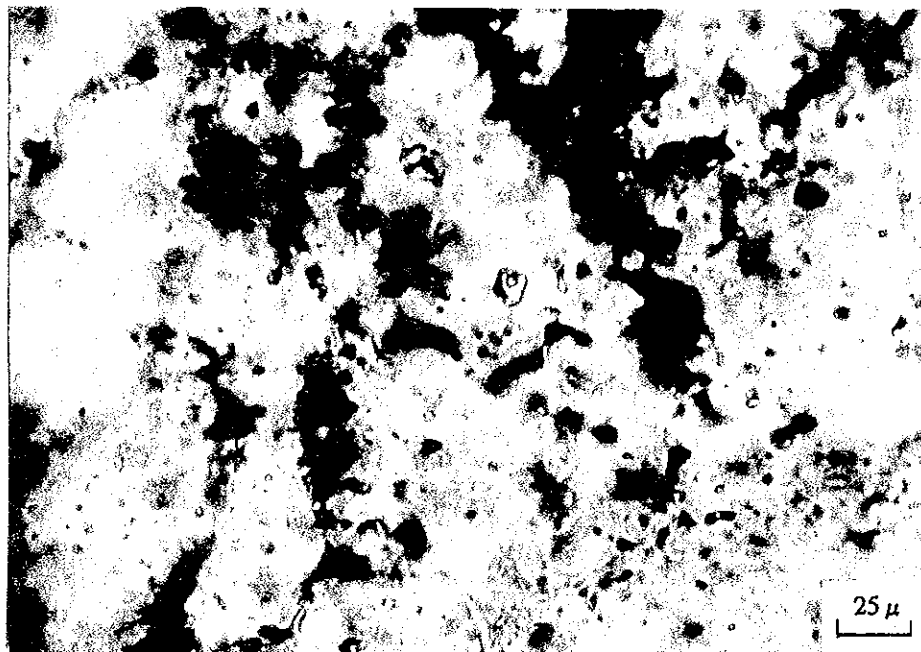
Inclusion Type : Liquid-rich  
Sample No. : 305F  
Locality : MJVB-3 (Khe Dui)



Inclusion Type : Two-phase  
Sample No. : 418F  
Locality : MJVB-4 (Khe Dui)



Inclusion Type : Two-phase  
Sample No. : 507F  
Locality : MJVB-5 (Na Hon)



Inclusion Type : Two-phase  
Sample No. : 617F  
Locality : MJVB-6 (Ba Khe)

# APPENDICES



**App. 1 Drill Log (1:200)**

**MJVB-3 (1)**

Depth (m)	Drill Log	Geological Description	Mineralization & Alteration
0		Yellow/light brown/gray saprolite (weathered sandstone - 9.00 m).	Limonite in cleavage.
10		< 20 - 35 Yellow/light brown/gray saprolite (weathered schist, 9.00 - 16.20 m).	Limonite in cleavage.
20		Yellow/light brown/gray saprolite (weathered sandstone, 16.20 - 18.80 m).	Limonite in cleavage.
20		< 20 - 35 Yellow/light brown/gray weakly weathered schist (18.80 - 22.60 m).	Weak pyritization, chloritization, sericitization; strong silicification.
30		< 20 Yellow/light gray weakly weathered schist (22.60 - 28.60 m), containing broken quartz veinlets (25.50 and 27.10 m broken veinlets 1 cm).	Limonite in cleavage.
30		Yellow/light gray weakly weathered sandstone (28.60 - 32.30 m), containing zones of broken quartz (30.80 - 30.90m and 31.35 - 31.90 m).	Limonite in cleavage.
30		Yellow/light gray weakly weathered schist (32.30 - 33.00 m), containing broken quartz zone (32.22 - 32.45 m broken quartz with limonite).	Weak sericitization. Pyrite and limonite disseminated in quartz.
40		< 20 - 35 Mainly yellow/light gray weakly weathered sandstone with thin layers of weakly weathered schist (33.00 m - )	Limonite in cleavage.
50			

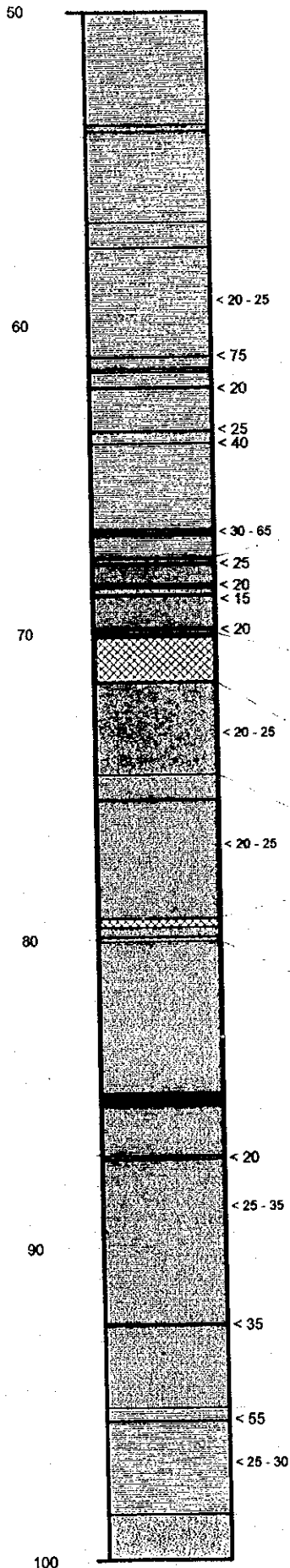
**MJVB-3 (2)**

Depth (m)

Drill Log

Geological Description

Mineralization & Alteration



Mainly light brown/gray weakly weathered sandstone with thin layers of schist/psammite ( - 67.50 m), injected by white/light brown weathered quartz veinlets/networks (53.70 - 53.80, 57.75 - 57.95, 58.20 - 58.30, 62.45 - 61-60 and 66.70 - 66.90 m networks; 56.70, 57.60, 61.15 and 63.80 m veinlets 1 - 2 cm; 62.10 and 63.50 m veinlets 5 and 1 cm).

Limonite in cleavage.

Yellowlight brown/gray weakly weathered schist/psammite (67.50 - 70.00 m), containing quartz veinlets/breccias with limonite (67.57, 67.80, 68.78, 69.90 and 70.00 m veinlets 2 - 5 cm; 68.50 - 68.60 m quartz vein with limonite 10 cm; 67.50 - 68.80 m breccias with limonite).

Weak pyritization, chloritization, sericitization and silicification.

Breccia zone (70.00 - 71.60 m): mixture of quartz breccias and silicified schist with disseminated pyrite, limonite. Partly clayey and porous.

Weak pyritization, chloritization, sericitization and silicification.

Black schist (71.60 - 74.65 m), containing quartz breccias and quartz veinlets with limonite. Partly clayey and porous.

Pyritization, sericitization and strong silicification.

Gray/dark gray psammite with layer of sandstone (74.65 - 79.25 m), injected by broken quartz veinlets.

Pyritization, sericitization and silicification.

Quartz zone (79.25 - 79.50, 79.85 - 80.20 m): mixture of white/light brown quartz-calcite veins/veinlets with pyrite, limonite and black schist.

Weak sericitization, silicification, pyritization. Pyrite and limonite disseminated. A tiny grain of native gold was found at 80.00 m.

Mainly gray fine grain psammite (80.20 - 95.20 m), some place gray quartzitic sandstone and dark gray schist, injected by white/gray/light gray quartz veins/veinlets (84.97 - 85.40 m quartz vein with pyrite and limonite 43 cm; 87.05, 87.15 m veinlets 1.5 - 2 cm; 92.55 m veinlet with pyrite 7 cm).

Weak sericitization, silicification, pyritization and chloritization. Pyrite and limonite disseminated.

Mainly gray fine grain quartzitic sandstone (95.20 - 98.50 m), some place with black schist, injected by white/light gray quartz veinlet (95.55 m quartz veinlet 1 cm).

Pyritization, weak sericitization, silicification and chloritization.

Mainly fine-banded black schist (98.50 m -).

Weak sericitization, silicification, pyritization and chloritization.

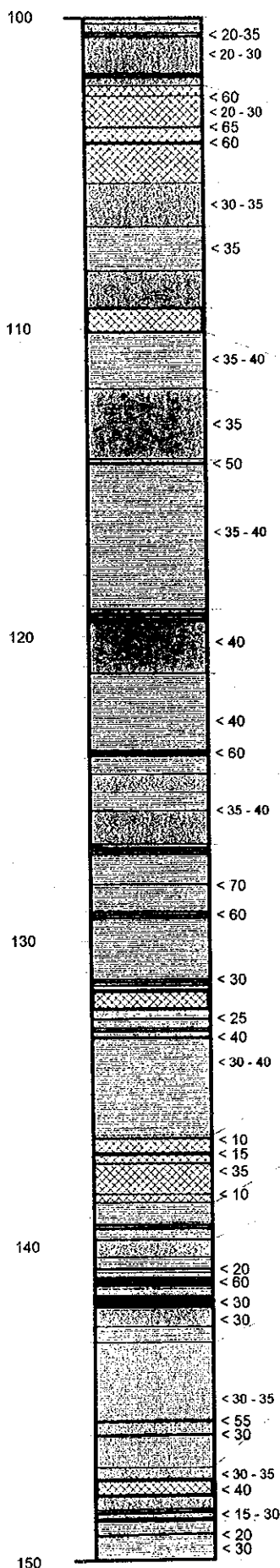
# MJVB-3 (3)

epth (m)

## Drill Log

## Geological Description

## Mineralization & Alteration



Black fine-banded schist ( - 102.25 m), injected by white/light gray quartz veinlets and networks (100.10 - 100.30, 101.90 - 102 m networks; 100.45 and 100.60 m veinlets 3 and 1 cm).

Quartzitic sandstone (102.25 - 105.30 m), injected by quartz veinlets (102.50, 103.60 m veinlets 0.5 - 1 cm; 103.90 - 104.08 m quartz vein with pyrite).

Black schist (105.30 - 106.78 m), contain quartz veinlets (< 1 cm).

Mainly quartzitic sandstone (106.78 - 108.05 m).

Black fine-banded schist (108.05 - 109.25 m).

Quartz zone (109.25 - 110.15 m): mixture of white quartz breccias, quartz veinlets and psammite.

Mainly quartzitic sandstone (110.15 - 111.90 m), injected by light gray quartz veinlets < 1 cm.

Black fine-banded schist (111.90 - 114.20 m), containing quartz veinlets < 1 cm.

Mainly quartzitic sandstone, some place with black schist (114.20 - 119.20 m), injected by light gray quartz veinlets (114.30 m veinlet 4 cm).

Black fine-banded schist (119.20 - 121.25 m), containing quartz veinlets/networks (119.30 - 119.45 m network 0.5 - 1 cm; 119.50 - 119.55 m veinlet 5 cm).

Mainly quartzitic sandstone, some place with black schist (121.25 - 124.45 m), injected by light gray quartz veinlets < 1 cm and quartz vein (123.88 - 123.95 m quartz veinlet with pyrite and arsenopyrite 7 cm).

Black fine-banded schist (124.45 - 126.80 m), injected by quartz veinlets < 0.5 cm; 125.15 - 125.75 m quartzitic sandstone.

Mainly gray fine grain quartzitic sandstone (126.80 - 136.38 m), some place with dark gray schist, and injected by white/light gray quartz-calcite veins/veinlets with pyrite and occasionally arsenopyrite (126.90 - 127.15, 129.10 - 129.25, 131.30 - 131.53 m networks; 128.20, 132.45, 132.73 and 132.96 m veinlets 1 cm; 131.70 - 132.03 m quartz-chlorite vein with pyrite and arsenopyrite; 133.10 m quartz veinlet 4 cm).

Black fine-banded schist (136.38 - 138.55 m), containing quartz veinlets (136.43, 137.33 and 138.33 m veinlets 1 - 1.5 cm; 136.93 m veinlet 4 cm).

Fine grain quartzitic sandstone (138.55 - 139.75 m), injected by light gray quartz network (139.30 - 139.40 m).

Alternation of fine grain quartzitic sandstone and black fine-banded schist (139.75 - 143.00 m), injected by light gray quartz veins/veinlets (140.68 m veinlet 2.5 cm; 140.95 - 141.10 m quartz vein 15 cm and 141.74 - 141.92 m quartz-calcite vein 15 cm).

Alternation of black fine-banded schist and fine grain quartzitic sandstone (143.00 - 147.00 m), injected by light gray quartz veinlets (146.65 m veinlet 2 cm; 147.00 m veinlet 3 cm).

Mainly black fine-banded schist, some place with dark gray schist (147.00 - 148.85 m), containing quartz zone, quartz veinlets/networks (147.60 - 147.93 m quartz-calcite-chlorite zone: mixture of quartz, quartz breccias, quartz veinlets; 148.43 - 148.17 m quartz network and 148.83 m veinlet 4 cm).

Gray fine grain quartzitic sandstone (148.85 m - ), injected by light gray quartz veinlet 2 cm (149.20 m).

Silicification; weak pyritization, chloritization and sericitization.

Pyritization, sericitization, silicification and weak chloritization. Pyrite disseminated.

Weak pyritization, sericitization and chloritization.

Weak pyritization, sericitization, and chloritization.

Weak pyritization, sericitization, silicification and chloritization.

Weak pyritization, sericitization, silicification and chloritization. Pyrite disseminated.

Weak pyritization, sericitization, and chloritization.

Strong silicification; weak pyritization, sericitization and chloritization.

Weak pyritization, chloritization, sericitization; strong silicification.

Weak pyritization, chloritization, sericitization; strong silicification. Pyrite and arsenopyrite disseminated.

Strong silicification, chloritization, sericitization; weak pyritization. Pyrite and arsenopyrite disseminated.

Strong silicification, chloritization, sericitization; weak pyritization.

Strong silicification, chloritization, sericitization and pyritization. Pyrite and arsenopyrite disseminated.

Strong silicification, chloritization, sericitization and weak pyritization.

Strong silicification, chloritization, sericitization and pyritization.

Strong silicification, chloritization, sericitization and weak pyritization.

Strong silicification, chloritization, sericitization and pyritization. Pyrite disseminated.

Strong silicification, chloritization, sericitization and pyritization.

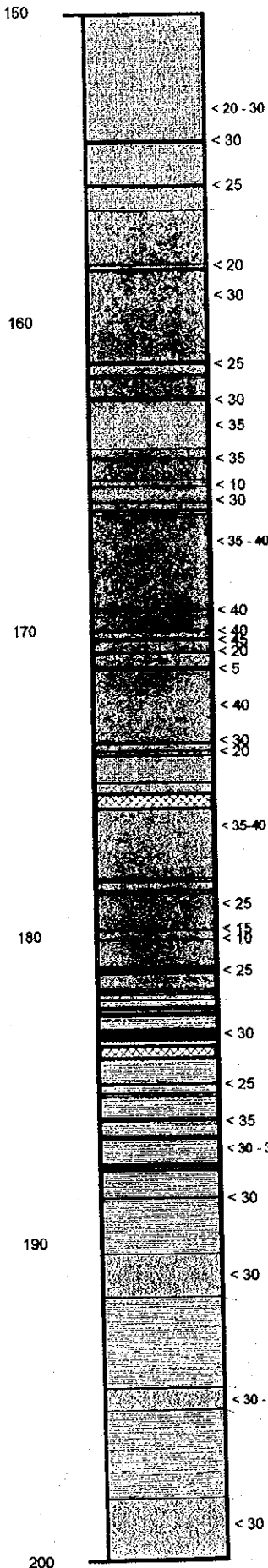
**MJVB-3 (4)**

Depth (m)

Drill Log

Geological Description

Mineralization & Alteration



Dark gray psammite ( - 156.30 m), injected by white/light gray quartz veinlets (154.10 m veinlet 7 cm and 155.60 m veinlet 5 cm).

Pyritization, sericitization, silicification and weak chloritization.

Black fine-banded schist (156.30 - 182.00 m), some place with dark gray psammite (162.35 - 164, 165.00 - 166.00 and 174.00 - 174.80 m), injected by white/light gray quartz veins, veinlets/networks and quartz zones (158.00, 164.30, 165.20, 165.70, 169.30, 169.94, 170.70, 173.80, 179.70 and 180.00 m veinlets 1 - 2 cm; 158.13, 162.48, 170.17 and 173.65 m veinlets 4 - 5 cm; 161.12 and 171.17 m veinlets 8 cm; 180.95 - 181.08 m quartz vein 13 cm; 161.63 - 162.73, 167.00 - 167.10, 178.05 - 178.15, 178.38 - 178.58, 181.60 - 181.94 m networks; and 175.32 - 175.55 m quartz zone: mixture of white quartz breccias, quartz veinlets and psammite).

Strong silicification, pyritization, sericitization and chloritization. Pyrite and arsenopyrite disseminated.

Mainly gray fine grain quartzitic sandstone (182.00 - 190.20 m), some place with dark gray schist, injected by white/light gray quartz veins/veinlets, networks and quartz zones (182.36 - 182.55, 185.00 - 185.20, 185.80 - 185.90, 186.48 - 186.60 and 181.60 - 181.94 m networks; 183.00 - 183.15 m quartz vein 15 cm; 183.50 - 183.75 m quartz zone: mixture of white quartz-calcite breccias, quartz veinlets and psammite; 184.78, 188.48 m veinlets 1 - 2 cm).

Strong silicification, chloritization, sericitization and pyritization. Pyrite and arsenopyrite disseminated.

Black fine-banded schist (190.20 - 191.70 m), injected by light gray quartz veinlets < 0.5 cm.

Strong silicification, chloritization, sericitization and pyritization.

Gray fine grain quartzitic sandstone (191.70 - 194.60 m), injected by light gray quartz veinlets < 0.5 cm.

Strong silicification, chloritization, sericitization and pyritization.

Black fine-banded schist (194.60 - 195.30 m), injected by light gray quartz veinlets < 0.5 cm.

Strong silicification, chloritization, sericitization and weak pyritization.

Gray fine grain quartzitic sandstone (195.30 - 198.00 m), injected by light gray quartz veinlets < 0.5 cm.

Strong silicification, chloritization, sericitization and pyritization. Pyrite disseminated.

Black fine-banded schist (198.00 m - ), injected by light gray quartz veinlets < 0.5 cm.

Strong silicification, chloritization, sericitization and pyritization.

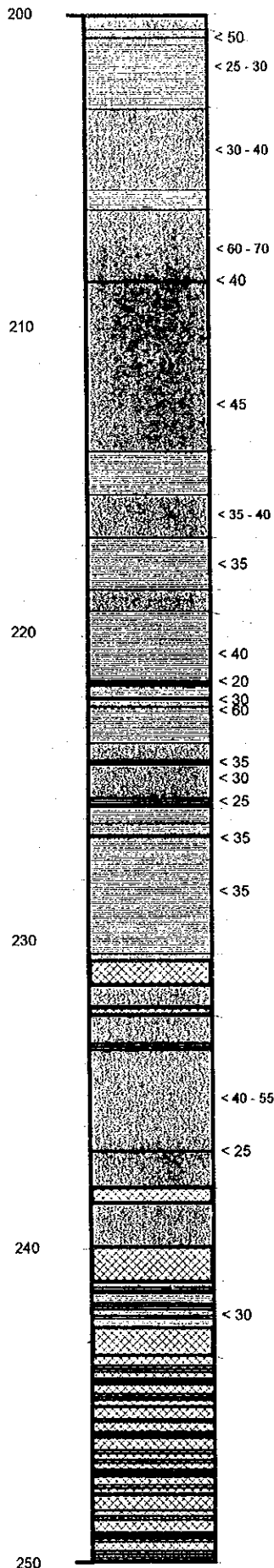
# MJVB-3 (5)

Depth (m)

Drill Log

Geological Description

Mineralization & Alteration



Black fine-banded schist ( - 200.45 m), injected by light gray quartz veinlets < 0.5 cm.

Gray fine grain quartzitic sandstone (200.45 - 203.00 m), injected by white/light gray quartz veinlets (197.10 m veinlet 1 cm).

Black fine-banded schist (203.00 - 205.50 m), injected by light gray quartz veinlets < 0.5 cm.

Gray fine grain quartzitic sandstone (205.50 - 206.20 m), injected by white/light gray quartz veinlets < 0.5 cm.

Mainly black fine-banded schist (206.20 - 214.00 m), some place with fine grain quartzitic sandstone, injected by light gray quartz veinlets < 0.5 - 1 cm (208.62 m veinlet 1 cm).

Dark gray, green gray fine grain quartzitic sandstone (214.00 - 215.40 m), injected by white/light gray quartz veinlets < 0.5 cm.

Black fine-banded schist (215.40 - 216.85 m), injected by light gray quartz veinlets < 0.5 cm.

Dark gray, green gray fine grain quartzitic sandstone, some place with psammite (216.85 - 218.40 m).

Black fine-banded schist (218.40 - 219.20 m).

Mainly fine grain quartzitic sandstone (219.20 - 223.50 m), some place with black fine-banded schist, injected by light gray quartz veins/veinlets (221.65 m quartz vein 10 cm; 223.14 m veinlet 6 cm and 223.32 m veinlet 2 cm).

Black fine-banded schist (223.50 - 225.60 m), injected by light gray quartz veinlets/ networks (224.15 m veinlet 8cm; 225.40 - 225.60 m network).

Mainly fine grain quartzitic sandstone (225.60 - 230.35 m), some place with black fine-banded schist, injected by white/light gray quartz veinlets (226.12 m veinlet 1 cm; 226.70 m veinlet 6 cm).

Black fine-banded schist (230.35 - 232.40 m) with quartz zone (230.52 - 230.56, 230.77 - 231.14 and 232.20 - 232.37 m: mixture of white/light gray quartz veins/networks, quartz breccias and schist).

Black fine-banded schist (232.40 - 237.95 m), injected by light gray quartz veinlets/networks (233.35 - 233.50 m network; 236.80 m veinlet 1 cm).

Black fine-banded schist (237.95 - 241.00 m) with quartz zones(238.05 - 238.45 and 239.95 - 241.00 m: mixture of light gray quartz veins/networks, quartz breccias and schist).

Gray fine grain quartzitic sandstone (241.00 - 243.35 m), injected by light gray quartz veinlets/networks and quartz zones (242.55 - 243.35 m: mixture of light gray quartz veins/veinlets/networks, quartz breccias and schist).

Black fine-banded schist/psammite (243.35 m - ), injected by numerous white/light gray quartz veinlets/networks and quartz breccias (244.23 - 244.42, 244.96 - 245.68, 245.92 - 245.95, 246.19 - 246.21, 246.56 - 246.58, 247.10 - 247.20, 247.55 - 248.34, 249.02 - 249.08 m quartz veins/networks). Pyrite and occasionally arsenopyrite disseminated weakly.

Strong silicification, chloritization, sericitization and pyritization.

Pyritization, sericitization, silicification and weak chloritization.

Pyritization, sericitization, silicification and weak chloritization.

Strong silicification, chloritization, sericitization and pyritization.

Strong silicification, pyritization, sericitization and chloritization.

Strong chloritization, silicification, pyritization and sericitization.

Strong chloritization, silicification, pyritization and sericitization.

Strong chloritization, silicification, pyritization and sericitization.

Silicification, pyritization and sericitization.

Strong chloritization, silicification, weak pyritization and sericitization. Pyrite disseminated.

Strong silicification, sericitization; weak pyritization and chloritization.

Strong silicification, sericitization, pyritization and chloritization. Pyrite and arsenopyrite disseminated.

Strong silicification, chloritization, sericitization and pyritization.

Strong silicification, chloritization, sericitization and pyritization.

Strong silicification, chloritization, sericitization and pyritization. Pyrite disseminated.

Strong silicification, chloritization, sericitization and pyritization.

Strong silicification, chloritization, sericitization and weak pyritization. Pyrite disseminated.

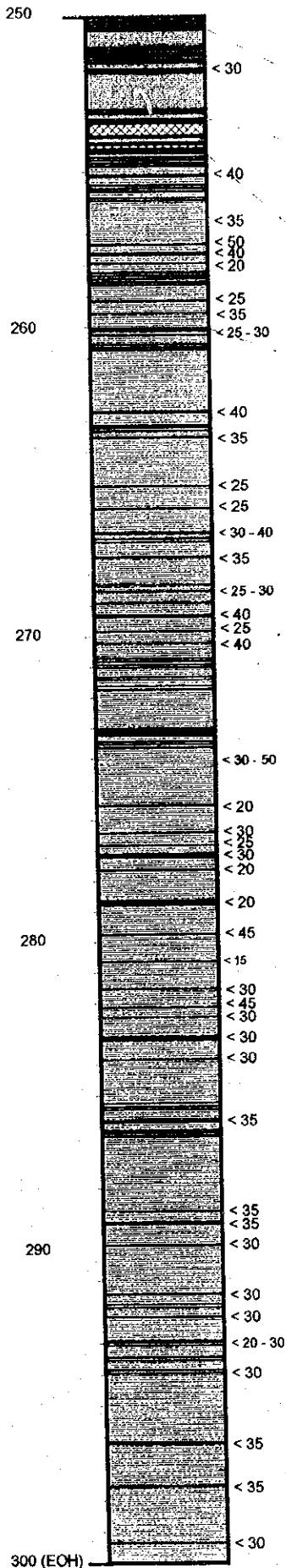
**MJVB-3 (6)**

epth (m)

**Drill Log**

**Geological Description**

**Mineralization & Alteration**



Black fine-banded schist/psammite (- 250.50 m), injected by light gray quartz veinlets/networks and quartz breccias (250.10 - 250.35 m).  
 Mainly dark gray psammite (250.50 - 253.38 m), injected by white/light gray quartz networks (251.00 - 251.10; 251.30 - 251.55; 251.80 - 251.90 and 253.00 - 253.10 m).  
 Black fine-banded schist (253.38 - 254.40 m) with quartz zone: mixture of white/light gray quartz veins/networks, quartz breccias and black schist (253.40 - 253.95, 254.16 - 254.37 m).  
 Mainly gray fine grain quartzitic sandstone (254.40 - 260.00 m), injected by white/light gray quartz veinlets/networks (254.40 - 254.85, 255.45 - 255.65, 255.80 - 255.95 and 258.30 - 258.70 m networks; 255.10, 257.67 m veinlets 5 cm; 257.36, 257.90, 259.12 and 259.60 m veinlets 1 - 2.5 cm).

Strong silicification, chloritization, sericitization and pyritization.  
 Pyritization, sericitization, silicification and weak chloritization.  
 Strong chloritization, sericitization, silicification and weak pyritization.  
 Strong silicification, chloritization, sericitization and weak pyritization.

Mainly fine-grain quartzitic sandstone (260.00 m - EOH), some place with black fine-banded schist, injected by white/light gray quartz veins/veinlets and networks (260.05, 260.20, 263.54, 265.13, 265.80, 266.70, 268.30, 268.48, 268.94, 269.80, 275.60, 276.40, 276.73, 277.60, 279.70, 280.65, 281.54, 282.36, 283.90, 288.74, 289.87, 291.45, 292.13, 293.00, 293.80, 293.95, 297.52 and 299.40 m quartz veinlets 1 - 3 cm; 262.80, 267.45, 269.36, 270.30, 282.10, 283.15, 285.85, 289.15, 292.90, 296.22 m veinlets 4 - 6 cm; 277.20 m veinlet 8 cm; 273.00 - 273.15 m light gray quartz vein 15cm; 278.70 m quartz vein 10 cm; 260.55 - 260.75, 263.15 - 263.35, 266.80 - 266.95, 270.74 - 271.05, 271.30 - 271.40, 271.65 - 271.80, 285.30 - 285.45, 286.15 - 286.35, 291.78 - 291.90 and 293.40 - 293.60 m networks).

Strong silicification, sericitization; weak pyritization and chloritization.

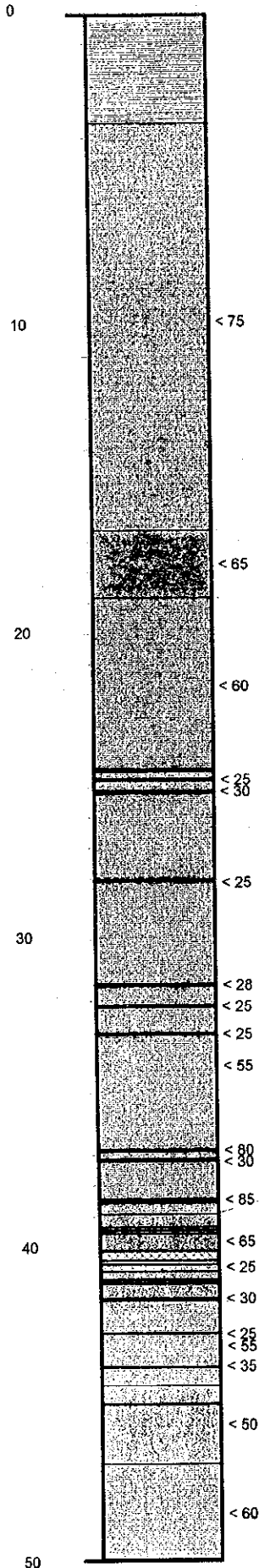
**MJVB-4 (1)**

Depth (m)

Drill Log

Geological Description

Mineralization & Alteration



Light yellow/brown/gray weathered sandstone (- 3.55 m).

Mainly light gray/green gray psammite, some place with light gray sandstone (3.55 - 16.53 m).

Gray/dark gray schist (16.53 - 18.85 m).

Mainly gray fine-banded psammite (18.85 - 38.88 m), some place with dark gray schist, injected by white/light gray quartz veinlets (24.46 and 24.72 m thickness 0.5 - 1 cm; 25.22, 28.20, 31.40, 32.20, 33.07, 36.88 and 37.20 m veinlets 1 - 2 cm; 38.40 - 38.80 m quartz-calcite vein 40 cm).

Dark gray/green schist (38.88 - 41.73 m), containing quartz zones, quartz veinlets and quartz networks (39.40 - 39.70 m network; 40.05 - 40.37 m quartz-calcite zone; 40.60, 40.80, 41.70 m veinlets 0.5 cm; 41.0 - 41.20 m network). Pyrite disseminated.

Gray/dark gray fine-banded psammite (41.73 - 44.43 m), injected by gray/light gray quartz veinlets (42.75 and 43.90 m thickness 1 cm).

Dark gray schist (44.43 - 47.00 m), containing white quartz-calcite veinlet (45.13 m veinlet 1 cm).

Gray/dark gray fine-banded psammite (47.00 m - ).

Weak pyritization, chloritization, sericitization.

Weak pyritization.

Weak sericitization, silicification, pyritization and chloritization. Pyrite disseminated.

Pyritization weak sericitization, silicification and chloritization. Pyrite disseminated.

Weak sericitization, silicification, pyritization and chloritization.

Weak sericitization, silicification, pyritization.

Weak sericitization, silicification, pyritization and chloritization.



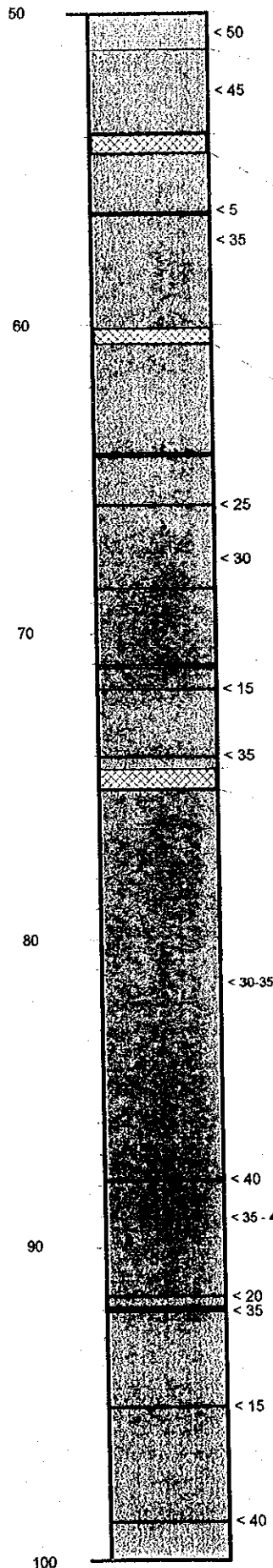
**MJVB-4 (2)**

Depth (m)

Drill Log

Geological Description

Mineralization & Alteration



Gray/dark gray fine-banded psammite (- 51.16 m).

Silicification; weak pyritization, chloritization, sericitization.

Black fine-banded schist (51.16 - 53.93 m).

Pyritization, sericitization, silicification and weak chloritization.

Quartz zone (53.93 - 54.47 m): mixture of white quartz breccias, quartz-calcite veinlets and black schist. Pyrite and arsenopyrite disseminated.

Pyritization, sericitization, and weak chloritization. Pyrite and arsenopyrite disseminated.

Black fine-banded schist (54.47 - 60.15 m), injected by white quartz-calcite veinlets (56.00 - 56.05 m veinlet 5 cm).

Pyritization, sericitization, and weak chloritization.

Quartz zone (60.15 - 60.60 m): mixture of white quartz-calcite and black schist. Pyrite, arsenopyrite and chalcocopyrite disseminated.

Strong pyritization, sericitization, and weak chloritization. Pyrite, arsenopyrite and chalcocopyrite disseminated.

Black fine-banded folded schist (60.60 - 74.45 m), injected by white quartz-calcite veinlets and networks (64.15 - 64.25 and 71.05 - 71.15 m networks; 65.87, 68.60, 71.88 and 73.10 m veinlets 0.5 - 2 cm). Pyrite and occasionally arsenopyrite disseminated.

Pyritization, sericitization; strong silicification, and weak chloritization. Pyrite and occasionally arsenopyrite disseminated.

Quartz zone (74.45 - 75.10 m): mixture of white quartz-calcite and black schist.

Strong pyritization, sericitization, and weak chloritization.

Black fine-banded schist (75.10 m - ), injected by white quartz-calcite veinlets and networks (87.88 m veinlet 5 cm; 91.50, 95.10, 98.75 m veinlets 1 cm; 92.00 m gray banded vein 10 cm). Arsenopyrite disseminated.

Pyritization, weak sericitization, silicification and chloritization. Arsenopyrite disseminated.

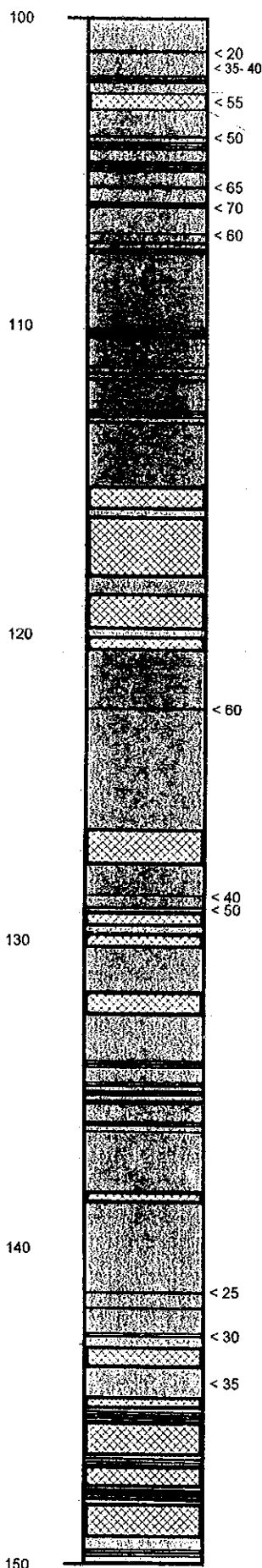
# MJVB-4 (3)

Depth (m)

Drill Log

Geological Description

Mineralization & Alteration



Black fine-banded schist (- 102.45 m), injected by white quartz-calcite veinlets and networks (101.15 m veinlet 1 cm; 101.85 - 102.15 m network).

Strong pyritization, silicification, chloritization, sericitization. Pyrite disseminated.

Quartz zone (102.45 - 102.94 m): mixture of white quartz-calcite, breccias, veinlets and black schist.

Pyritization, sericitization, silicification and weak chloritization. Pyrite disseminated.

Black fine-banded schist (102.94 - 115.20 m), injected by white quartz-calcite veins/veinlets and networks (103.80, 105.40, 106.95, 114.50 m veinlet 1 - 2 cm; 104.00 - 104.30, 104.70 - 104.95, 105.90 - 106.20, 107.15 - 107.55, 116.05 - 116.12, 116.25 - 116.35, and 112.70 - 113.00 m networks). Pyrite disseminated; sphalerite spotted (106 m).

Strong pyritization, silicification, chloritization, sericitization. Pyrite and sphalerite disseminated.

Black fine-banded schist (115.20 - 120.40 m), containing quartz zones: mixture of white quartz-calcite, breccias, veinlets and black schist (115.20 - 115.25, 115.37 - 115.44, 115.48 - 115.64, 115.71 - 115.75, 115.79 - 115.80, 116.08 - 116.12, 116.25 - 116.35, 116.67 - 117.95, 118.55 - 118.95, 119.08 - 119.60, 119.95 - 120.30 m).

Strong pyritization, chloritization, sericitization, silicification. Pyrite and arsenopyrite disseminated.

Black fine-banded schist (120.40 - 126.30 m), containing white quartz-calcite veinlets (122.45 m veinlet 5 cm).

Pyritization, sericitization, and chloritization.

Black fine-banded schist (126.30 - 132.25 m), containing quartz zones: mixture of white quartz-calcite, breccias, veinlets and black schist (126.25 - 127.30, 128.37 - 128.40, 128.75 - 128.80, 129.04 - 129.07, 129.20 - 129.35, 129.72 - 129.80, 130.00 - 130.10, 131.30 - 131.35 and 131.65 - 132.10 m).

Strong pyritization, sericitization, silicification and chloritization. Pyrite and arsenopyrite disseminated.

Black fine-banded schist (132.25 - 143.10 m), containing white quartz-calcite veinlets, networks and quartz zones (133.80 - 134.00, 134.60 - 135.35, 135.85 - 136.20 and 142.70 - 142.75 m networks; 138.20 - 138.38 m quartz zone: mixture of white quartz-calcite, breccias, veinlets and black schist; 141.45 and 141.70 m veinlets 1.5 cm).

Strong silicification, pyritization, chloritization and sericitization. Pyrite and arsenopyrite disseminated.

Black fine-banded schist (143.10 m -), containing white quartz-calcite zones, veins/veinlets, networks (143.12 - 143.32, 143.40 - 143.75, 144.90 - 145.10, 145.40 - 145.50, 145.53 - 145.88, 146.00 - 146.65, 146.82 - 146.98, 147.00 - 147.55, 147.76 - 147.88, 148.10 - 149.08 and 149.70 - 149.82 m).

Strong silicification, pyritization, chloritization and sericitization. Pyrite and arsenopyrite disseminated.

**MJVB-4 (4)**

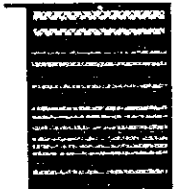
Depth (m)

Drill Log

Geological Description

Mineralization & Alteration

150

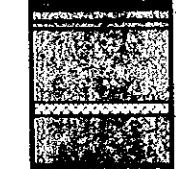


< 35- 40

Black fine-banded schist (~155.40 m), containing white quartz-calcite zones (150.00 - 150.05, 150.12 - 150.20, 150.28 - 150.34, 150.48 - 150.60, 151.04 - 151.22, 152.15 - 152.31, 152.57 - 152.65, 153.04 - 153.53, 153.65 - 153.75, 153.90 - 153.98 m).

Strong pyritization, silicification, chloritization, sericitization. Pyrite and arsenopyrite disseminated.

160



< 30

< 35

< 25

< 35- 50

< 25

Black fine-banded schist (155.40 - 157.70 m), injected by white quartz-calcite veinlets (155.57 m veinlet 2 cm; 155.70 m veinlet 1 cm).

Strong pyritization, chloritization, sericitization, silicification.

Quartz zone (157.70 - 158.03 m): mixture of white quartz-calcite, breccias, veinlets and black schist.

Strong pyritization, silicification, chloritization, sericitization.

170



< 40

< 45

< 35- 40

< 45- 50

< 55

Black fine-banded, partly folded schist (158.03 - 192.80 m), injected by white/light gray quartz veins/veinlets and networks (159.43 m veinlet 5 cm; 161.00, 168.15, 172.73, 173.73 and 174.35 m veinlets 1 - 3 cm; 161.23 - 161.40 m white quartz vein 17 cm; 165.65 - 165.80 m network; several other quartz veinlets < 0.5 cm).

Strong pyritization, chloritization, sericitization, silicification.

180



< 60- 55

< 65

< 75

< 40- 45

Quartz zone:(192.80 - 193.40 m): fine-banded strongly folded gray quartz/black schist with pyrite.

Strong silicification; weak sericitization, chloritization, and pyritization.

190



< 45- 55

< 30

< 35- 45

Black fine-banded schist (193.40 m - ), containing white/light gray quartz networks and quartz zones, some place containing quartz veinlets < 0.5 cm. (194.00 - 194.20 m networks; 196.35 - 196.52 m quartz zone: mixture of white quartz, quartz breccias, quartz veinlets and black schist).

Strong silicification, pyritization, chloritization and sericitization. Pyrite disseminated.

200



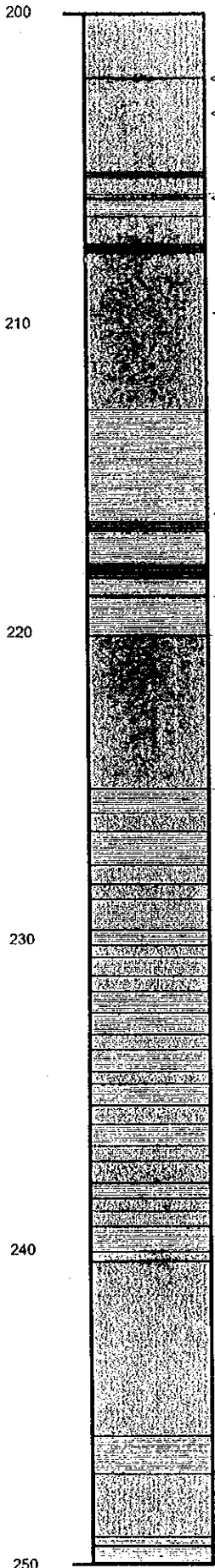
**MJVB-4 (5)**

Depth (m)

Drill Log

Geological Description

Mineralization & Alteration



Black fine-banded schist ( - 205.80 m), containing white/light gray quartz veins/networks, injected by quartz veinlets < 0.5 cm (202.10 m veinlet 2 cm and 205.10 - 205.20 m network).

Strong pyritization, silicification, chloritization, sericitization.

Gray fine grain quartzitic sandstone (205.80 - 206.47 m) containing white quartz veinlet 1 cm (205.90 m).

Weak pyritization, chloritization, sericitization, silicification.

Black fine-banded schist (206.47 - 212.55 m), containing white/light gray quartz networks and injected by white/light gray quartz veinlets < 0.5 cm (207.50 - 207.70 m network).

Strong pyritization, silicification, chloritization, sericitization.

Gray fine grain quartzitic sandstone (212.55 - 220.00 m), containing white quartz veinlets/networks (216.40 - 216.70, 217.80 - 218.20 m networks; 218.17 m veinlet 1 cm).

Strong pyritization, chloritization, sericitization, silicification.

Black fine-banded folded schist (220.00 - 225.00 m), some place injected by white/light gray quartz veinlets < 0.5 cm.

Pyritization, chloritization, sericitization, silicification.

Alternation of black fine-banded, folded schist, gray fine grain quartzitic sandstone and dark gray psammite (225.00 - 240.00 m), injected by white/light gray quartz veinlets < 0.5 cm.

Weak pyritization, chloritization, sericitization, silicification.

Black fine-banded schist (240.00 - 245.80 m), containing gray quartz veinlet (240.35 m veinlet 1 cm) and injected by veinlets < 0.5cm.

Strong silicification; weak sericitization, chloritization, and pyritization.

Gray fine grain quartzitic sandstone (245.80 - 247.10 m) containing white quartz veinlets < 0.5 cm.

Silicification, pyritization, chloritization and sericitization.

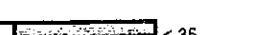








Black fine-banded schist (247.10 - 249.10 m), injected by white/light gray quartz veinlets < 0.5 cm.

Silicification, pyritization, chloritization and sericitization.

Gray fine grain quartzitic sandstone (249.10 m - ), containing light gray veinlets 2 - 3 cm (249.53 m), and injected by white quartz veinlets < 0.5 cm.

Strong chloritization, silicification, sericitization and weak pyritization.

**MJVB-4 (6)**

Depth (m)	Drill Log	Geological Description	Mineralization & Alteration
250			
	< 35		
	< 40		
	< 35 - 45		
	< 20		
	< 60		
			
	< 35 - 60	Gray fine grain quartzitic sandstone ( - 267.65 m), containing white/light gray quartz veins/veinlets, networks (250.32, 255.94, 265.15, 266.47 and 266.63 m veinlets 1 - 3 cm; 251.68 m veinlet 8 cm; 252.65 - 252.85, 253.75 - 253.90, 254.10 - 254.36, 265.40 - 265.65 m networks; 256.29 - 256.40 m light gray quartz vein 11 cm and 260.75, 262.78 m veinlet 4 cm).	Strong chloritization, silicification, sericitization and weak pyritization. Pyrite and galena disseminated.
260			
	< 10		
	< 10		
	< 75		
	< 65		
	< 20		
	< 20		
	< 40		
270			
	< 40 - 55		
	< 40		
	< 55		
			
	< 30 - 50	Black fine-banded schist, some place with gray quartzitic sandstone (267.65 - 285.60 m), containing white quartz veinlets (268.70, 271.65 and 273.20 m veinlet 1 cm), injected by quartz veinlets <0.5 cm.	Strong chloritization; weak pyritization, sericitization and silicification.
280			
	< 40 - 45	Dark gray fine-banded psammite (285.60 - 292.00 m), injected by quartz veinlets < 0.5 cm.	Strong silicification, sericitization, pyritization , and weak chloritization
290			
	< 40 - 70	Black fine-banded schist (292.00 - 294.95 m), containing white/light gray quartz veinlet 2 cm (294.75 m) and injected by several quartz veinlets < 0.5 cm.	Strong silicification; weak sericitization, chloritization, and pyritization.
	< 40		
			
	< 35 - 45	Gray fine grain quartzitic sandstone (294.95 m - EOH), containing white quartz veinlets with pyrite < 0.5 cm.	Strong silicification, pyritization, chloritization and sericitization.
300 (EOH)			

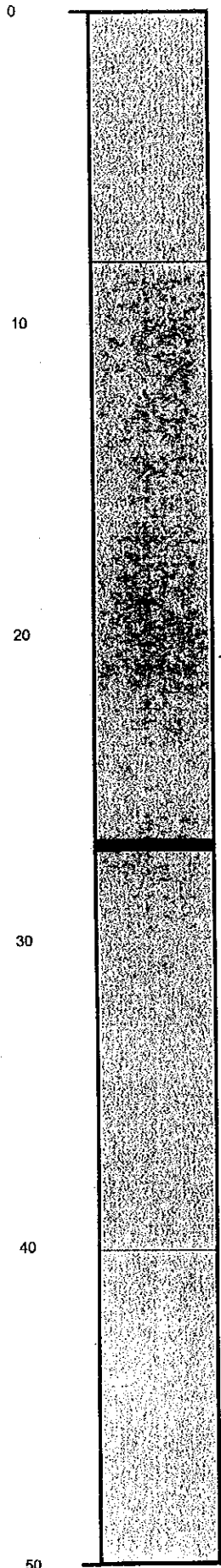
**MJVB-5 (1)**

Depth (m)

Drill Log

Geological Description

Mineralization & Alteration



Yellow/light brown/gray saprolite (weathered schist, - 8.00 m).

Limonite in cleavage.

< 20 - 30

Yellow/light brown/light gray fine-banded weakly weathered schist (8.00 - 40.00 m), containing light gray quartz vein (26.75 - 27.10 m quartz vein 35 cm with limonite in druse).

Limonite in cleavage.

Mainly yellow/light gray weakly weathered schist (40.00 m - )

Limonite in cleavage.