Part III Detailed Description of Exploration on Phase II

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Chapter 1 Geological Investigation

1-1 Methodology

Geological base maps showing the traverse routes with the total length of 3.9km were prepared using the 1 to 5,000 scale topographic maps that were produced for the current year's exploration. Mineralized outcrops and their surroundings were surveyed using a pocket compass in order to correlate them to the reference points in the topographic maps. Mineralized outcrops were sketched, photographed and sampled for chemical analysis and other laboratory tests.

The geological plan and cross-sections of the project area are shown in FigureIII-1-1.

1-2 Geology and Geological Structure

1-2-1 Geology

Triassic limestone distributes in the eastern part and the western periphery of the Project Area, while syenite and its altered-mineralized equivalent occupy the most part of the remaining area. A number of minor minette dikes intrude the syenite. The Quaternary System is developed along the Dong Pao River in the southern part.

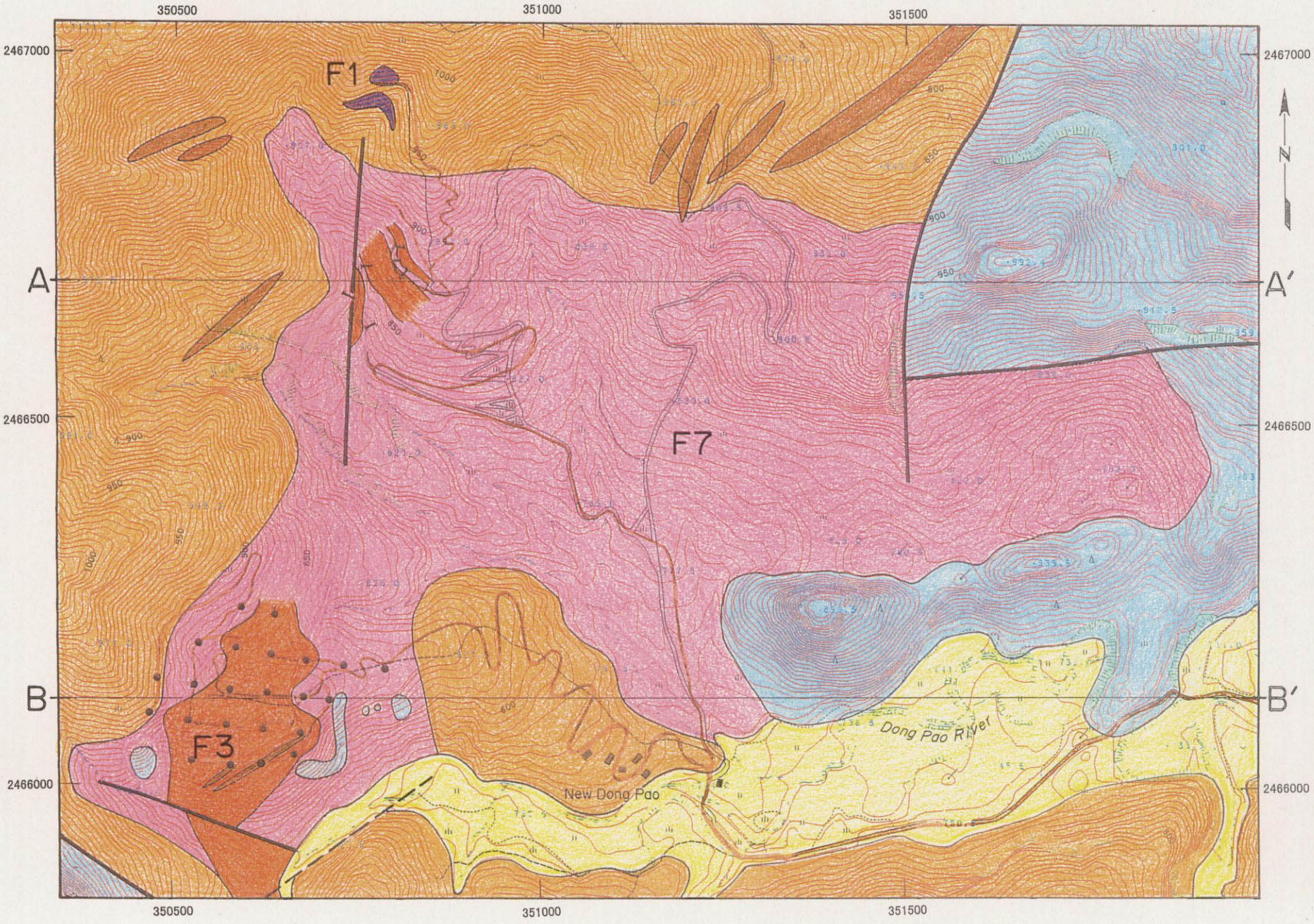
The limestone is mostly dark gray to gray, fine grained and compact, but is brecciated in the vicinity of the contact to the syenite where it presents light grayish brown color due to weak mineralization of rare earths, barite and fluorite. Blocks and boulders of limestone are scattered in the syenite in the southwestern part and are gray in color and microcrystalline, containing pyrite, rare earth minerals, barite and fluorite.

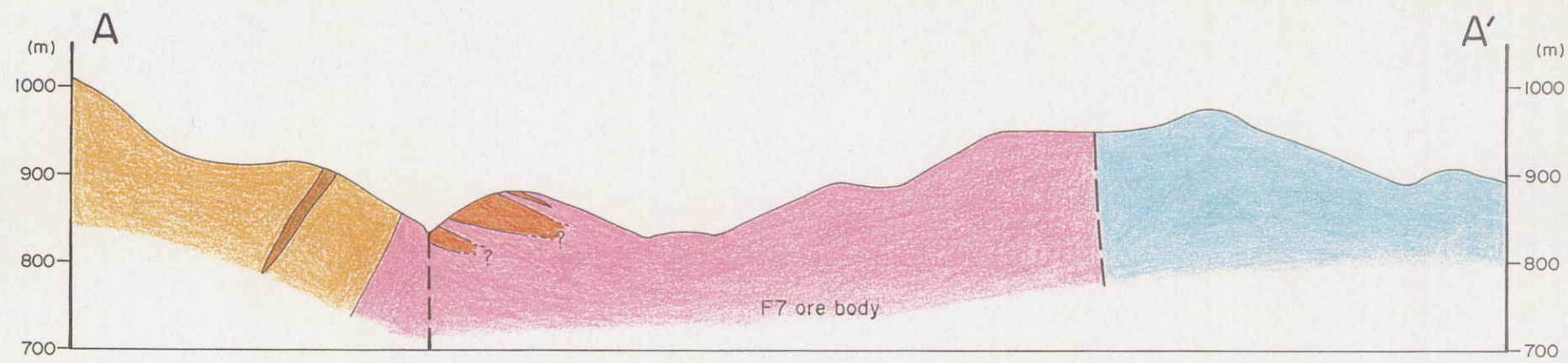
The syenite is light brown to brown and intensely weathered. It contains bleached feldspar phenocrysts in weakly weathered parts remained in the syenite body. However, it is largely turned into soil in the surface.

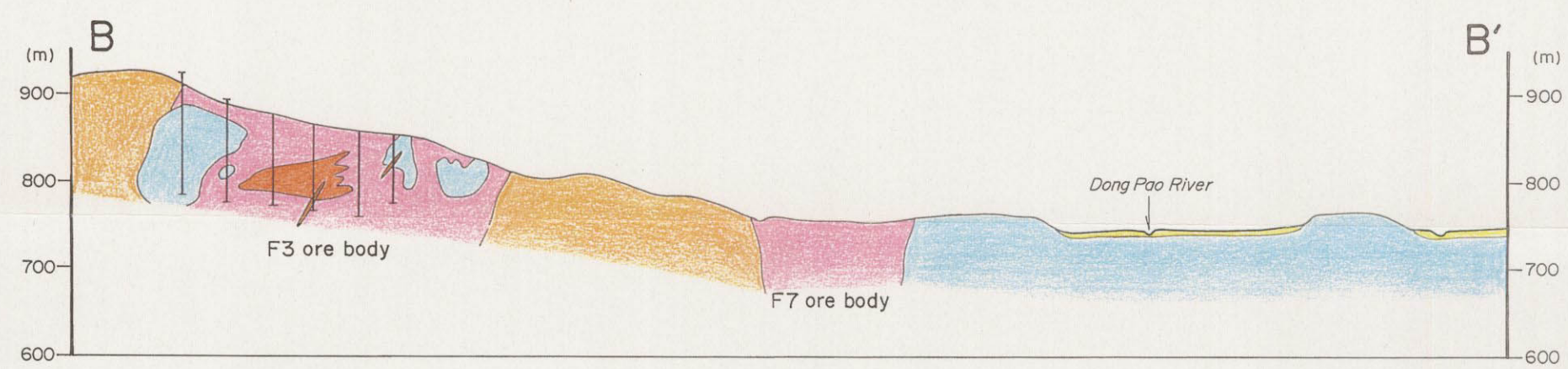
Zones of rare earth mineralization is difficult to be defined because they grade into unmineralized syenite.

1-2-2 Geological Structure

Although structures trending in the NW-SE direction are dominated in a regional scale, the syenite, including the mineralization, contacts the limestone with the N-S and E-W trending faults in the northeastern part. Minor faults trending in the N-S direction crosscut the mineralized zone in the northwestern part. NW-SE and WNW-ESE trending







LEGEND

- Quaternary
- Paleogene syenite and quartz syenite
- Anisian limestone, marble
- Minette dike
- Fluorite ore
- High grade rare earth ore (TREO >about 5%)
- Rare earth mineralization zone

- Lineament
- Fault
- Drill hole
- Trench
- Drill

Figure Ⅲ-1-1 Geological map of the F3 and F7 orebody in the Dong Pao area

lineaments are developed in the southwestern margin of the Area. No other structure is clearly observed.

1-3 Mineralization

The Project Area includes two ore bodies, namely the F3 ore body, located in the southwestern part, having the dimension of approximately 300m X 500m, and the F7 ore body, located to the northeast of the F3 ore body, being 1.2km long in the east-west and 0.5km wide in the north-south.

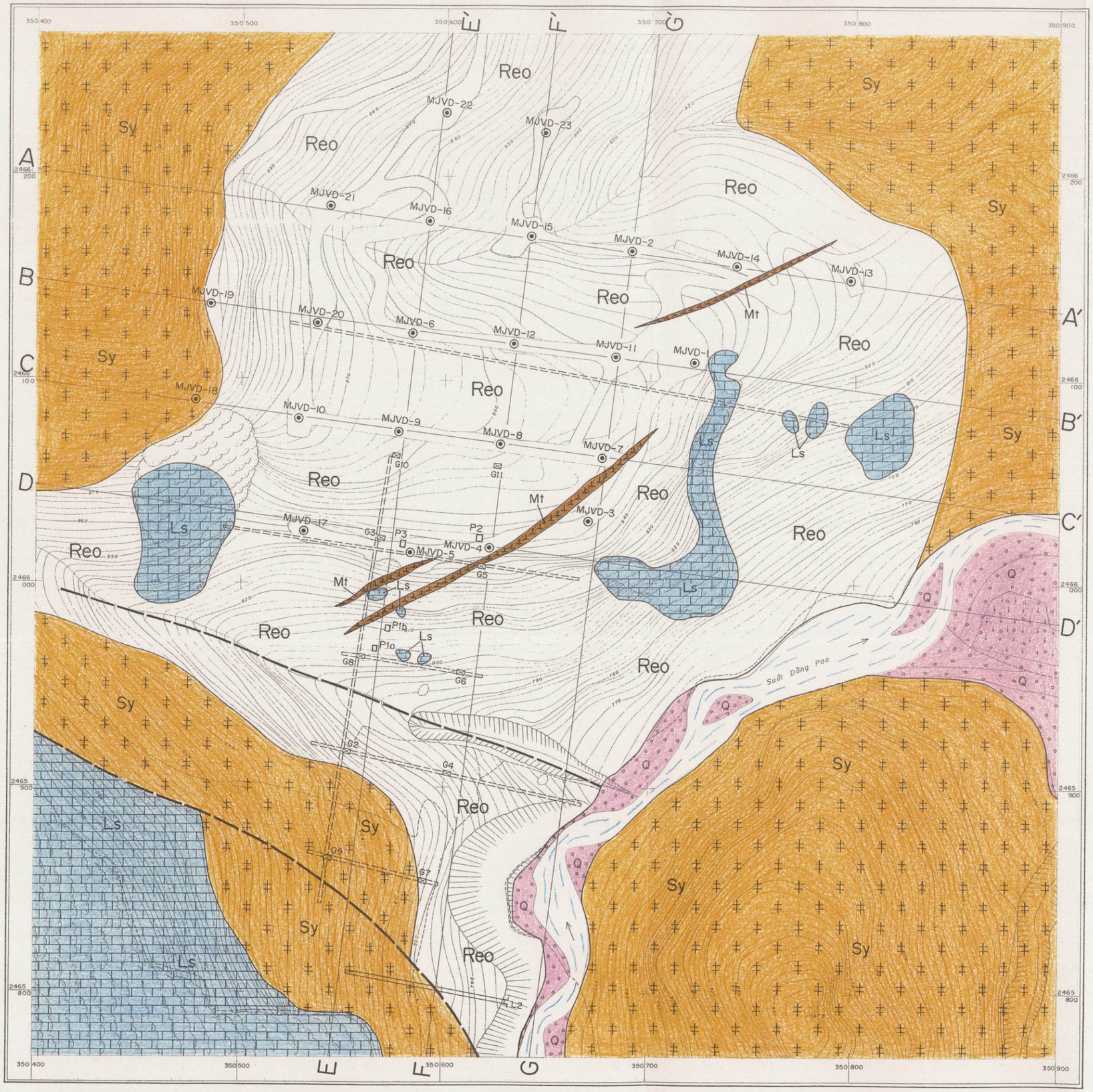
1-3-1 F3 Ore Body

A total of 23 holes with the aggregated length of 2,300m, 16 holes with the total length of 1,480m in the 1st Year Campaign and 7 holes with the total length of 820m in the 2nd Year Campaign, were drilled for the F3 Ore Body (Figure III-1-2). Of the 23 holes, 10 holes intersected rare earth mineralization including sections that indicated 10% RE_2O_3 or better. Limestone sections that were encountered in the holes drilled in the eastern and western parts of the F3 Ore Body are blocks or boulders captured in the syenite. They are partly brecciated, with matrices weakly mineralized. Weak mineralization of barite and fluorite is also observed in limestone blocks.

Outcrops significantly mineralized with rare earths, barite and fluorite were located on the road cuttings in the vicinity of the holes, MJVD-4 and-5, which had been drilled and geologically logged in the 1st Year Campaign. The outcrops continued to the drill site for the hole, MJVD-17, along the road that was extended during the current year campaign.

Samples were collected from these outcrops and submitted for chemical analysis. Their locations and analytical results are shown in FigureIII-1-3, and the outcrop sketches, in FigureIII-3-4. The significant concentrations of rare earths, barite and fluorite form a number of small irregular lenses aligned in wavy attitude with gentle inclinations in these outcrops. The best assay results of TR_2O_3, $BaSO_4$ and CaF_2 for 1m sampling sections are 29.00%, 72.40% and 70.90% respectively. The contents of these minerals vary considerably from place to place.

In addition, intensely weathered, gray to dark gray, mineralized outcrops are observed along the drill-site access road in the vicinities of the holes, MJVD-1 and-2, to the north of the F3 ore body and along the roads from the holes, MJVD-6 to-16, and from MJVD-22 to-19, to the northwest of the ore body. A sample was collected from a 0.9m section of a intensely weathered, black mineralized outcrop at the north end of the drill-site access road and returned assay results of 1.98% TR_2O_3, 12.12%$BaSO_4$ and 1.17% CaF_2.



N

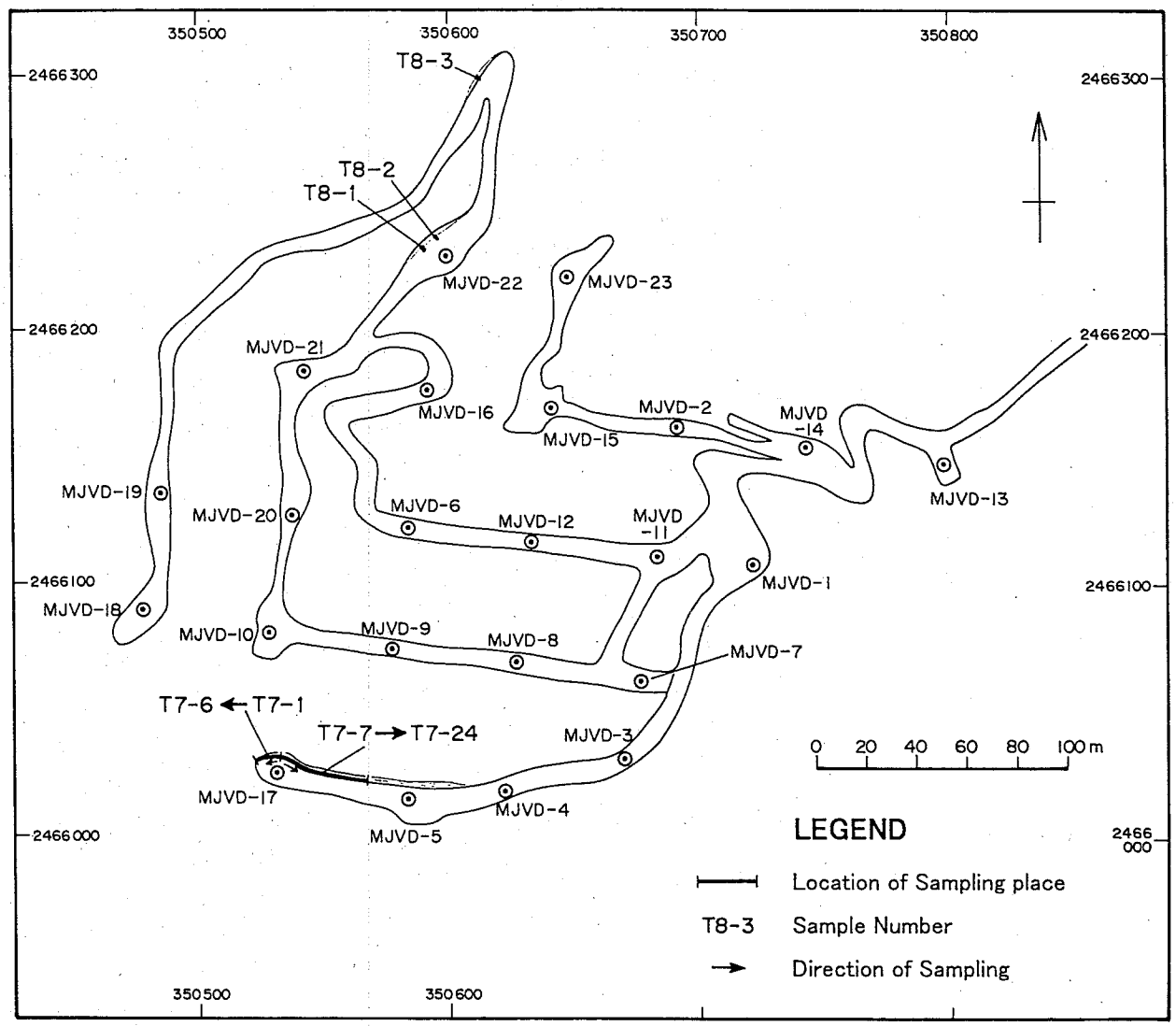
LEGEND

- Q — Gravel and sand (quaternary)
- Sy — Syenite, Quartz syenite (paleogene?)
- Ls — Limestone (triassic)
- Mt — Minette (Dike)
- Reo — Rare earth-barite-fluorite mineralization zone
- Fault
- Drilling site
- Pit site
- Tunnel
- G2 — Old pit
- Old trench

Scale 1 : 2,000

0 50 100m

Figure Ⅲ-1-2 Geological map of the F3 orebody



Sample No.	Width(m)	TRE_2O_3 %	$BaSO_4$ %	CaF_2 %	Description
T7-1	1.50	11.85	40.50	32.90	barite -fluorite - bastnaesite ore
T7-2	1.50	13.38	45.74	33.89	barite -fluorite - bastnaesite ore
T7-3	1.50	9.09	42.71	39.15	fluorite - barite-bastnaesite ore
T7-4	1.50	5.56	53.18	28.64	fluorite - barite-(bastnaesite) ore with black ore
T7-5	1.50	13.46	39.65	37.59	fluorite - barite-bastnaesite ore with black ore
T7-6	1.50	9.90	15.50	70.90	bastnaesite-fluorite ore
T7-7	1.50	9.64	64.32	9.54	light yellow barite-bastnaesite ore
T7-8	1.50	10.66	66.07	0.97	banded ore of bastnaesite and black ore
T7-9	1.50	10.31	57.00	1.36	mixed ore of brown, black and light yellow ore
T7-10	1.50	5.33	62.31	1.17	mainly black ore
T7-11	1.50	3.48	72.40	1.36	black ore with barite
T7-12	1.50	9.47	68.02	1.36	banded ore of black part and white barite rich part
T7-13	1.50	5.94	53.94	1.17	banded ore of black, yellowwhite and white part
T7-14	1.50	3.90	60.98	18.12	mixed ore of barite- fluorite ore
T7-15	1.50	17.17	51.10	1.56	mixed ore of bastnaesite-barite-fluorite
T7-16	1.50	18.78	43.72	1.17	mainly black ore with lenticular and breccia of bastnaesite
T7-17	1.20	23.46	39.06	1.56	mainly black ore with breccia (size of 2-10 cm)of bastnaesite
T7-18	1.50	29.00	30.49	3.50	banded ore of yellow bastnaesite and black ore
T7-19	1.50	8.59	28.26	37.20	banded ore of black ore, yellow barite-bastnaesite and fluorite
T7-20	1.50	10.43	51.90	12.27	banded ore of yellow bastnaesite,black ore,barite and fluorite
T7-21	1.20	12.34	38.02	29.99	banded ore of yellow bastnaesite,black ore,barite and fluorite
T7-22	1.50	6.81	41.72	30.97	banded ore of black ore, yellow barite-bastnaesite and fluorite
T7-23	1.50	22.42	43.04	13.05	upper part is banded ore, under part is bastnaesite rich ore
T7-24	1.50	14.65	48.04	12.85	upper part is banded ore, under part is fluorite rich ore
Average	1.50	11.90	48.24	17.59	

Sample No.	Width(m)	TRE_2O_3 %	$BaSO_4$ %	CaF_2 %	Description
T8-1	1.00	0.32	0.02	0.97	brown altered syenite with breccia
T8-2	1.20	1.27	74.68	0.97	black ore with barite
T8-3	0.90	1.98	12.12	1.17	black ore

Figure Ⅲ-1-3 Location map of the sampling point and the assay results

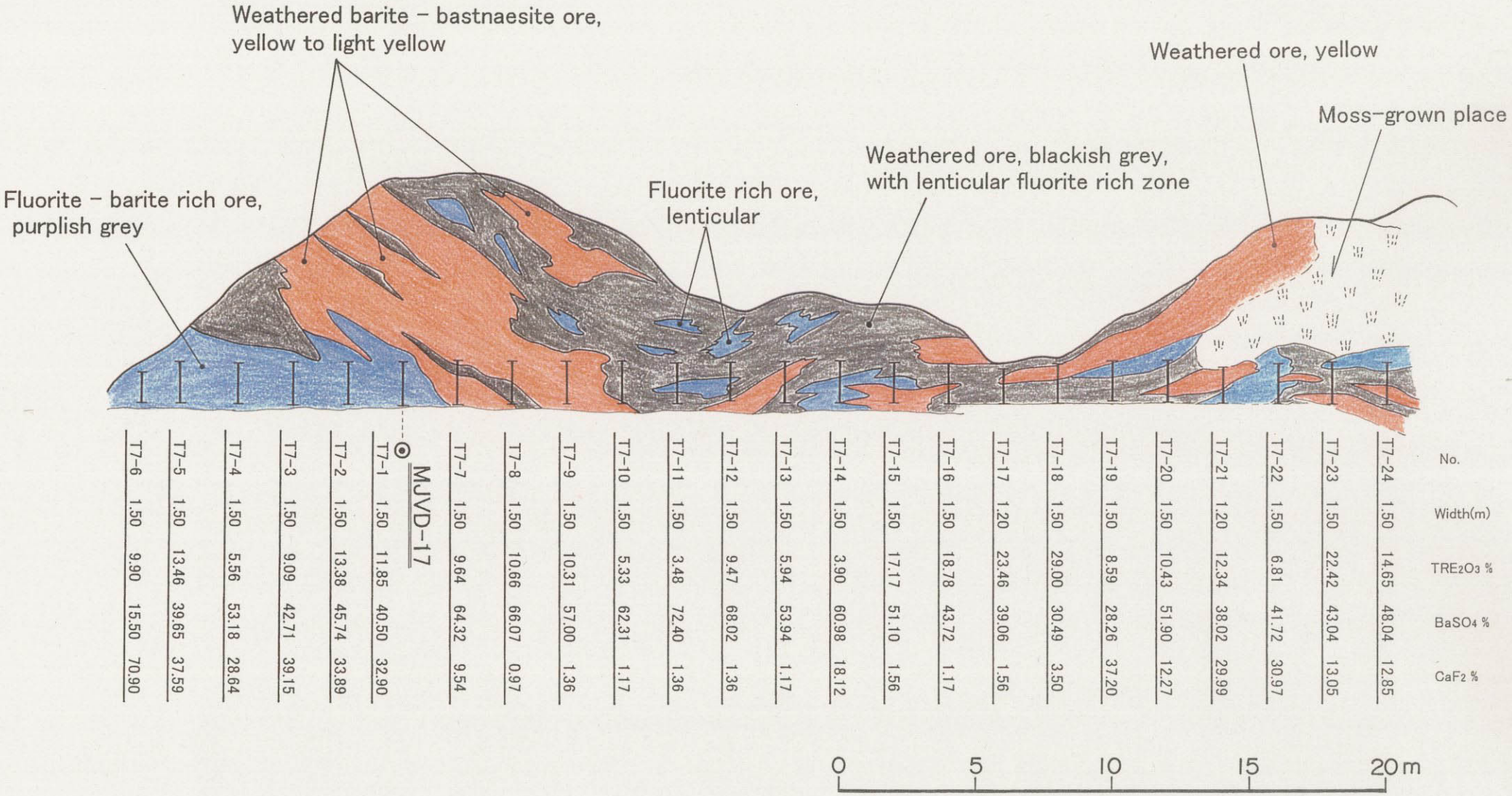
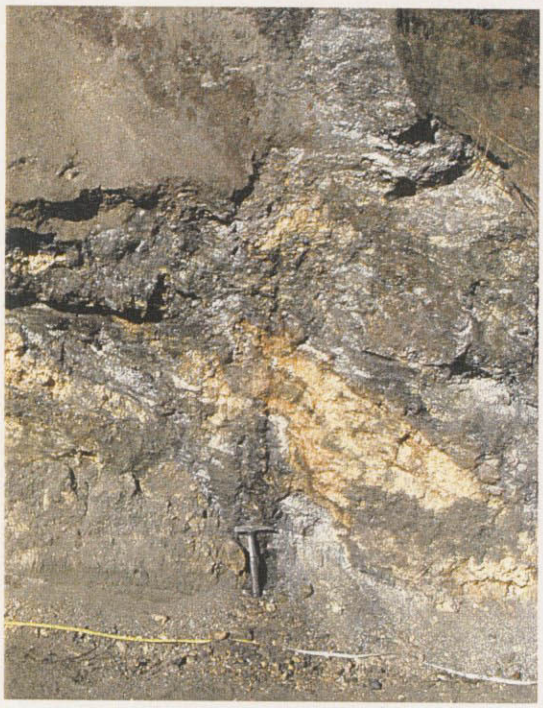
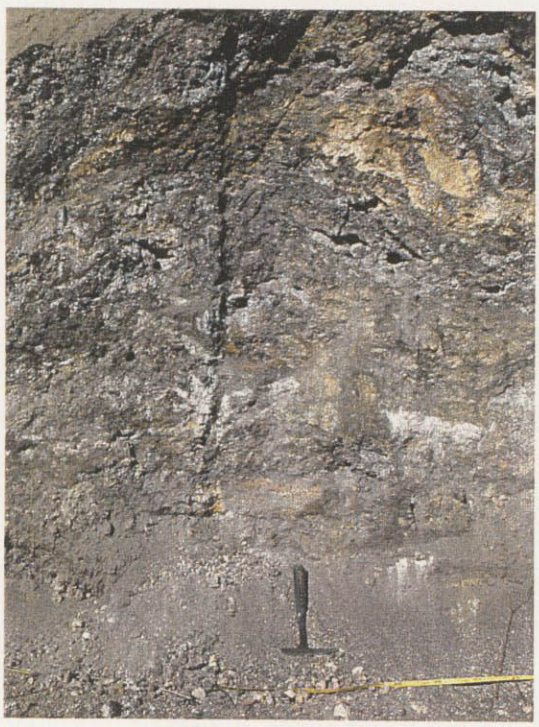


Figure Ⅲ-1-4 Sketch of the outcrop and assay results

Outcrop of banded ore
near MJVD-17 boring site



Outcrop of lenticlar bastnaesite ore
near MJVD-17 boring site



Outcrop of ore near
MJVD-17 boring site

Figure Ⅲ-1-5 Photograph of the outcrop near the MJVD-17 drill hole

The F3 ore body will be described in detail in Chapter 4 Drilling Investigation.

1-3-2 F7 Ore Body

The soil geochemical prospecting that was conducted in the 1st Year Campaign outlined an extensive geochemical anomaly exceeding 1% TR_2O_3. The syenite around the F7 ore body are intensely weathered and forms a gentle slope in geomorphology. In contrast, steep cliffs are formed in the limestone terrain to the northeast and southwest of the ore body. The mineralized syenite near the contact with the limestone contains numerous limestone breccias.

The mineralized syenite including the F7 ore body is bounded by the N-S trending fault to the east against the limestone terrain. To the south, a gentle slope is developed and covered by soil, where an extensive geochemical anomaly (about 150 x 150m) is outlined, containing more than 5% T-RE_2O_3 (Figure III-1-6).

A mineralized outcrop, containing bastnaesite, is located along a trail near the center of the ore body. Another significantly mineralized outcrop is also identified at the west end of the ore body. There will be a possibility for the F7 ore body to become a rare earth resource of a substantial scale if adequately explored.

Notable mineral occurrences were revealed in the western part of the F7 ore body by the current year trench-prospecting. The mineral occurrences will be described in details in Chapter 3 Trench-Prospecting.

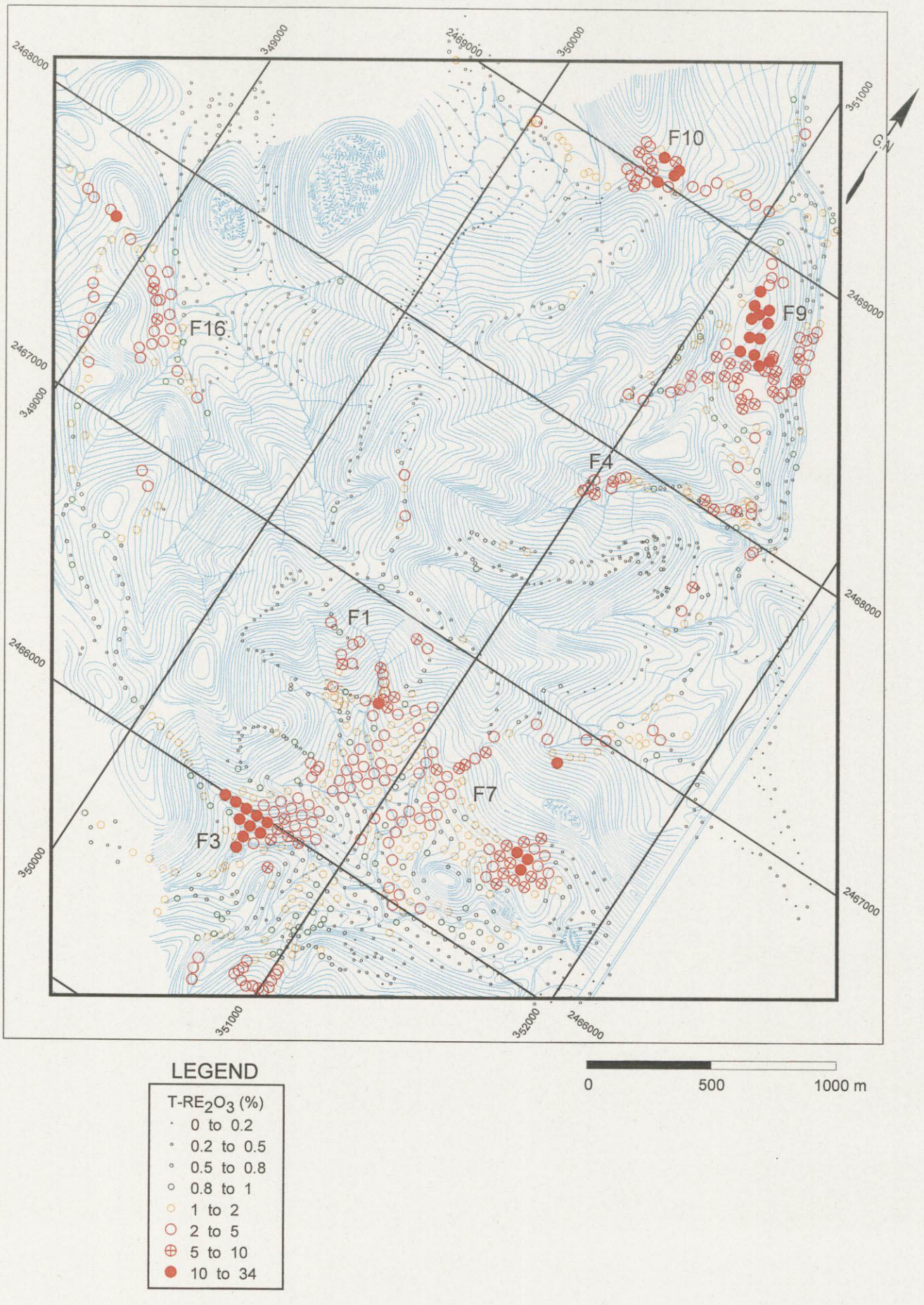


Figure Ⅲ-1-6 Rare earth elements distribution map in Dong Pao area

Chapter 2 Environmental Baseline Study

The environmental baseline study was carried out in order to collect basic data for assessment of the present environmental state in the Project Area. The study included the hydrological investigation and the meteorologic observation.

2-1 Hydrological Investigation

2-1-1 Objectives

The investigation was conducted to acquire water quality and flow rate data in order to comprehend the background state of the drainages in the Project Area prior to the mine exploitation. The entire flow of the Dong Pao River, which runs through to the south side of the F3 ore body, infiltrates underground at its 500m downstream from the ore body. Therefore, a tracer test was attempted in order to examine underground courses of infiltrated water and to identify its outlets. The data acquired through the current investigation for the background of the drainages will be indispensable for comparison of the changes in the environment prior to and post exploitation. They can be also utilized for the ecological assessment.

2-1-2 Outline of the Drainage System

The Project Area is extensively underlain by limestone, which forms characteristic karst geomorphology. A number of dolines of small sizes are located along rivers and streams, surface flows of which are often infiltrated at various locations. Therefore, underground streams are well developed. There are 2 major drainage systems which have surface water flows all year round. They are briefly described below (Figure III-2-1).

(1) Dong Pao Drainage System

The Dong Pao River runs through from WSW to ENE to the south side of the F3 ore body. It originates from a spring at its head water and flows down to 500m downstream from the F3 ore body, where the flow infiltrates underground. The infiltrated flow may possibly form underground streams and outlet elsewhere in the area. Some tributaries join the main Dong Pao but has no surface flows except one where a water observation station (DW14) was located. The flows either infiltrate or are dried out in the most tributaries.

(2) Nam Hon Drainage System

The Nam Hon River, originating from outflow of an underground stream in a cave, runs through from NE to SW in the eastern part of the Project Area. Some tributaries join the main Nam Hon. It is observed that hot spring outflows in the vicinity of the Ban

Tam village. There are a number of villages along the River, from which irrigation and domestic water is discharged to the River. This River has a confluence with the Nam Mu River near the Ban Hon village to the north of the Project Area.

2-1-3 Methodology

The tracer test and hydrological investigation were carried out in the period from November 17th to 26th during the field operation of the current year. The field operation was proceeded under fine weather without any rainfall through the period. The methodology is described below.

(1) Hydrological Investigation

Tributaries that were identified on the 1 to 50,000 scale topographic maps, were examined for their morphological features, water quality and flow rates. The examinations were made at 14 observation stations as shown in Figure III-2-1.

On-site measurements were made for pH, water temperature, atmospheric temperature, conductivity and flow rate at each observation station. Water samples amounting 1.5 litres each were collected for water quality analysis. Water temperature and pH were measured using a pH meter, HM 21P, and conductivity, using a conductivity meter, CM-21P, both manufactured by Toa Dempa Industry Ltd. An average flow velocity for 20 seconds was measured, using a current meter, LRT-200-20, manufactured by Kenec

Ltd. The stream section for the flow rate measurement was divided into a number of subsections for the measurement of the average flow velocity. The flow rate for each subsection was estimated by multiplying the measured average velocity by the cross-section area of the subsection. The flow rates of the subsections were integrated for the total flow rate of the stream section concerned (velocity-area method).

The water quality analysis was made to determine pH, conductivity and the contents of Na, Ca, K, Mg, Cl, HCO_3, CO_3, SO_4, SS (suspended solid), COD, As, Cd, Pb, Cu, Zn, Mn, Fe, Hg, F and sulfide. The analysis was conducted at National Research Institute of Mining and Metallurgy, Ministry of Industry in Hanoi.

(2) Tracer Test

The tracer test was carried out in order to trace the groundwater flow infiltrated from the Dong Pao River at the point 500m downstream from the F3 ore body. Fluorescent sodium that would be decomposed in a short period was selected as a tracer taking its environmental effect into consideration. The tracer was input at the DW10 station where the Dong Pao flow infiltrated underground, and was recovered at the S-1(DW-04), station where cave water outlet forming the source of the Nam Hon River and at the S-2 (DW-04) station where the hot spring was located. Two tracer tests were

conducted. The conditions applied to each test were as follows;

Test 1: About 90g of fluorescent sodium for the flow rate of 7.46 m^3/min was input in 10 minutes. A 1.5L water sample was collected every 6 hours after each input of fluorescent sodium. The test continued for 5 days and collected a total of 17 water samples.

Test 2: About 50g of fluorescent sodium for the flow rate of 8.15 m^3/min was input in 10 minutes. A 1.5L water sample was collected every 1 hour after each input of fluorescent sodium. The test continued for 5 hours and collected a total of 4 water samples.

The collected samples were analyzed using a fluorescent photometer at Vietnam National Center for National Science and Technology in Hanoi to determine presence of fluorescent sodium. Visual determination of fluorescent sodium was also attempted on-site. Charcoal was placed, as an adsorbent, in water at the sampling stations, and was tested, after recovery, for presence of fluorescent sodium using a UV lamp.

2-1-4 Result

(1) Hydrology

The water sampling locations and the drainage systems are shown in Figures III-2-1 and II-2-2 respectively. The drainage map was prepared based on the topographic map and modified according to the on-site survey. The streams in which water flows were observed during the field operation are distinguished by color. Water quality and flow rate of each observation station are shown in Table III-2-1.

The pH indicates neutral to alkaline nature of water, ranging between 6.98 and 8.53. Water of the Dong Pao and the Main Nam Hon Rivers tends to be high in pH, suggesting influence of human activities, that is, discharge of irrigation and domestic water. The uppermost stream of the Dong Pao River (DW11-13) and the tributary running below the trench, T-2, appear to be least contaminated with discharge from human activities, indicating pH ranging between 7.70 and 7.90 that is considered as the natural background in the Project Area. The low pH at DW-05, a tributary of the Nam Hon River, may be explained by influence of acid hydrothermal solutions because kaolinite is developed in he rocks along the tributary.

The conductivity ranges from 242 to 645 μS/m and tends to be low in the major streams such as the Dong Pao and Nam Hon Rivers. However, no distinct correlation is observed between the conductivity and the pH or the flow rate. The water in the Project Area is generally neutral to alkaline in pH and has a conductivity in the magnitude of several hundred μ S/m, suggesting regional influence of limestone distributing

extensively.

The result of water quality analysis is shown in Table III-2-2.

No balance between cations and anions is maintained in any analyzed samples. The sample collected at the same location in the previous year returned a totally different result from the last year's. There appears to be problems in analytical procedures. As aforementioned, the water quality analysis is indispensable for the environmental impact assessment. Therefore, re-sampling and re-analysis will be required.

(2) Tracer Test

Visual Determination of Tracer on Charcoal

The charcoal samples were recovered at the S-1 and S-2 stations and tested using a UV lamp on site. Yellow fluorescence of the tracer was detected in cracks on the surface of the charcoal sample recovered at the S-1 station, although it was very weak. However, no fluorescence were observed in the charcoal sample recovered at the S-2 station.

Fluorescence Photometer Analysis

The results of the fluorescence photometer analysis for the charcoal samples of the S-1 and S-2 stations are shown in Figures III-2-3 and III-2-4. Figure III-2-4 includes the fluorescence of the input tracer and that of the river water at the input station, DW-10. The ordinate indicates strength of fluorescence against its wave length on the abscissa in the graph. The tracer, fluorescent sodium, has its peak strength in the wave length range between 510 and 520nm.

The tracer was first detected in the water sample collected at the S-1 station 12 hours after the tracer input and continued to be detected to the sample collected 60 hours after the tracer input. The strongest fluorescence was recorded in the sample collected 18 hours after the tracer input. According to the test result, it is apparent that infiltrated water of the Dong Pao River flows through underground caves and outlets to the headwater of the Nam Hon River. It is also witnessed by the local residents that when the Dong Pao River is turbid, the Nam Hon River will become muddy some hours later.

Among the water samples collected at the S-2 station, the one collected 36 hours after the tracer input indicated the strongest fluorescence. However, it is considered that the analytical result was caused by contamination of fluorescent sodium in the laboratory with the following reasons. First, the sample indicated a sharp peak in the fluorescence strength, as observed in pure fluorescent sodium, instead of a broad spectral pattern as observed in naturally diluted water such as the water samples collected at the S-1 station. Secondly, it appears to be unlikely that the water at the

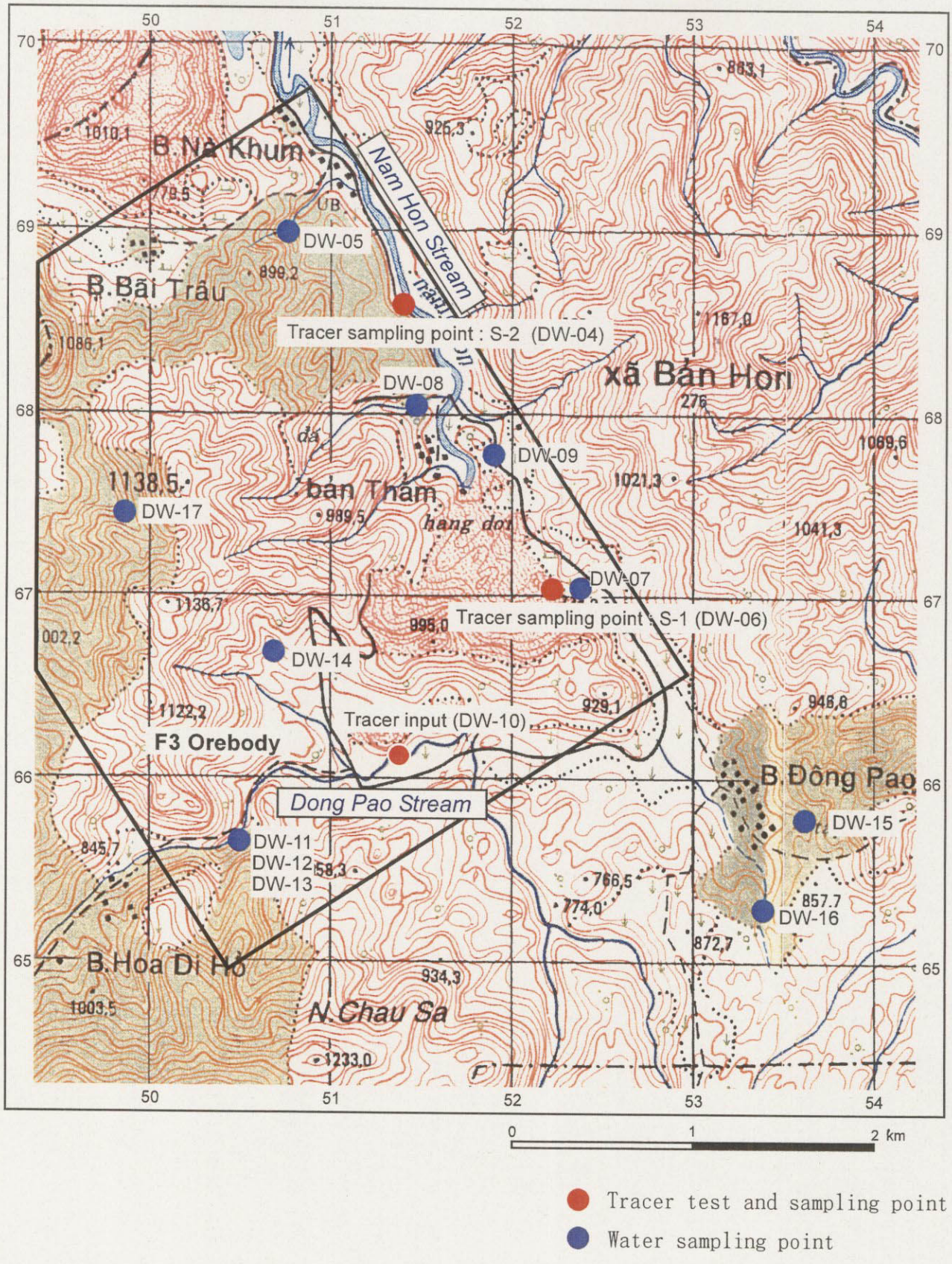


Figure Ⅲ-2-1 Location map of the sampling point and tracer test point

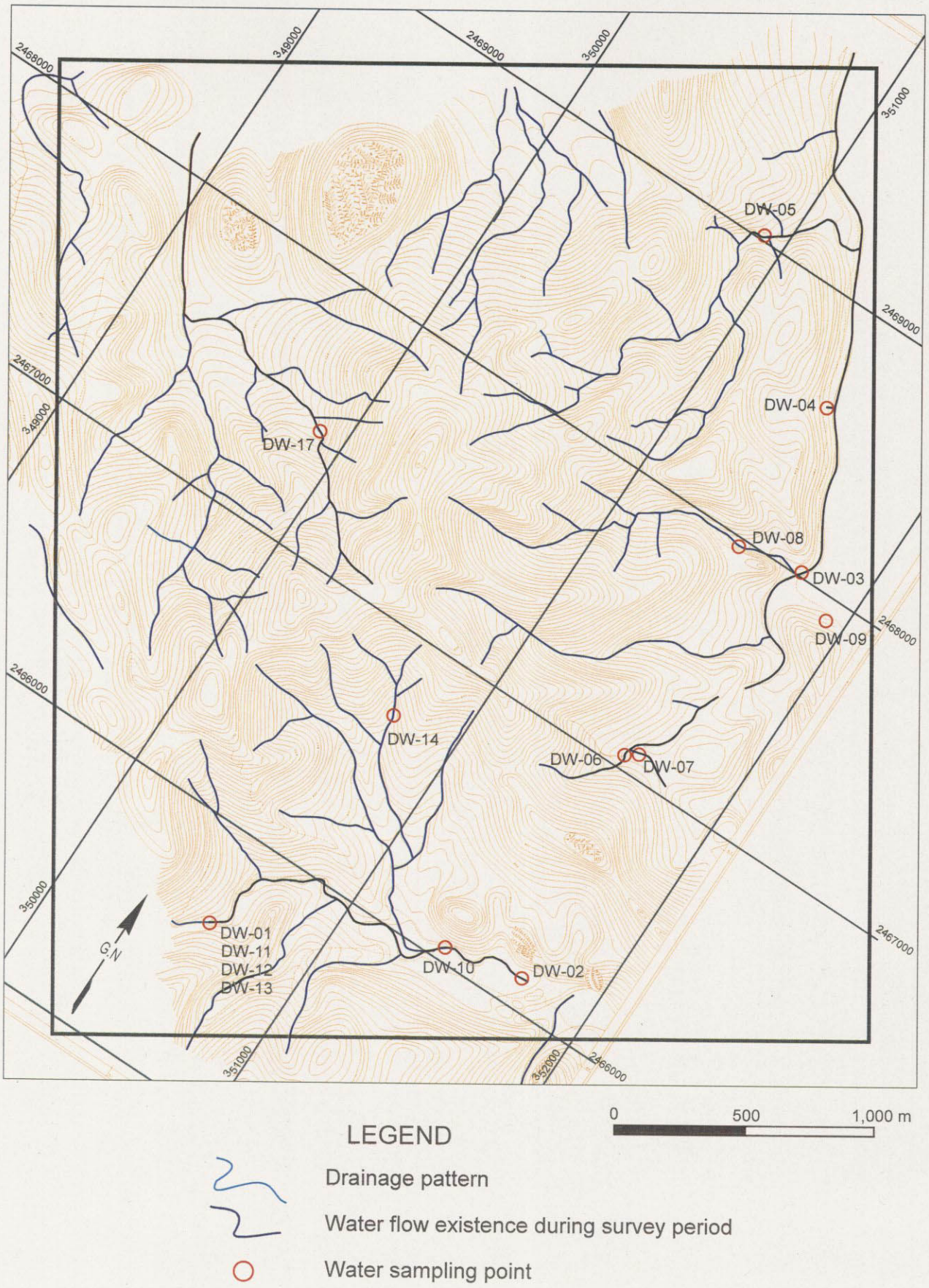


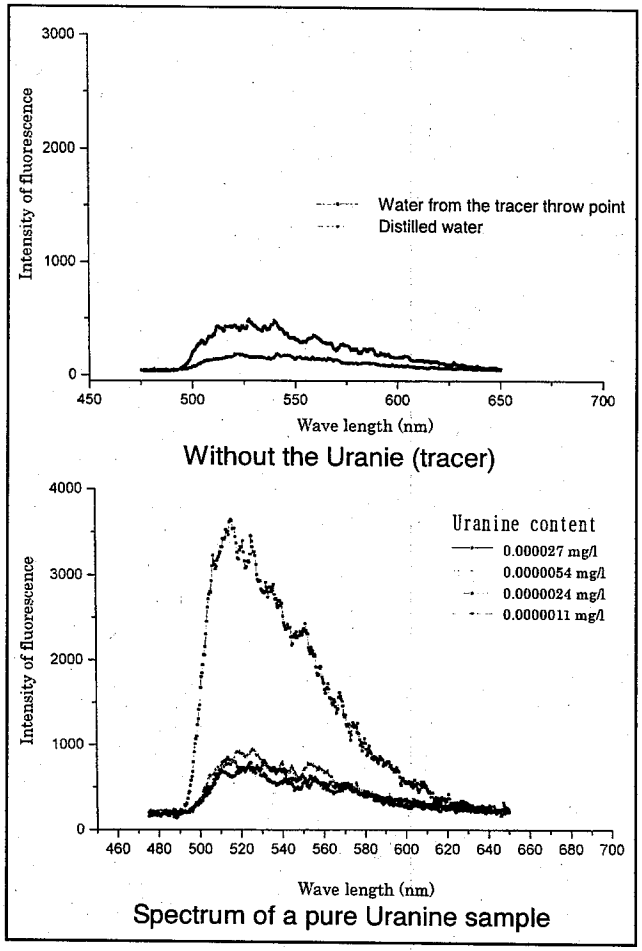
Figure Ⅲ-2-2 Drainage system of the Dong Pao area

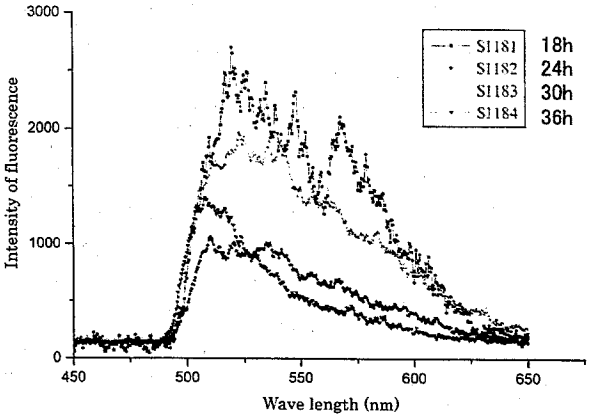
Table Ⅲ-2-1 List of water samples (Phase 2)

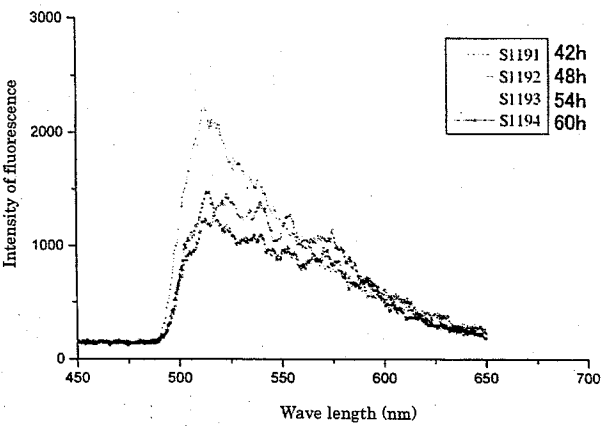
No.	Name	Easting m	Northing m	Altitude m	Flow rate m^3/min	pH	EC μS/m	Water Temp. ℃	Air Temp. ℃	Comment
1	DW-04	351489	2468600	689	2.69	7.33	619	28.0	22.4	Nam Hon, Hot spring
2	DW-05	350911	2468936	693	0.10	6.98	581	15.5	17.2	Tributary of Nam Hon stream 1
3	DW-06	352090	2467140	691	53.87	8.15	268	18.4	19.7	Tracer sampling point 1
4	DW-07	352100	2467148	691	0.29	7.91	403	18.9	19.7	Tributary near the tracer sampling point
5	DW-08	351625	2468017	688	0.12	7.12	382	13.9	14.1	Tributary of Nam Hon stream 2
7	DW-09	351961	2467887	685	1.50	7.68	362	19.5	15.8	Spring beside the road near Ban Tham
6	DW-10	351475	2466086	751	8.15	8.64	265	21.2	23.9	Dong Pao tracer injection point
8	DW-11	350604	2465629	811	0.14	7.92	246	18.0	18.9	Dong Pao upper stream, upper point
9	DW-12	350604	2465629	811	-	7.73	242	19.6	18.9	Dong Pao upper stream, spring point
10	DW-13	350604	2465629	811	7.18	7.74	240	20.0	18.9	Dong Pao upper stream, unite point
11	DW-14	350766	2466671	873	0.06	7.91	642	16.5	19.0	Downward of theT-1trench
12	DW-15	350798	2466715	785	0.09	7.54	645	14.1	-	Old Dong Pao川 01
13	DW-16	353491	2465190	808	10.50	7.81	441	14.1	-	Old Dong Pao川 02
14	DW-17	349807	2467494	742	0.29	8.53	283	15.7	12.5	Tong Pao Niew village

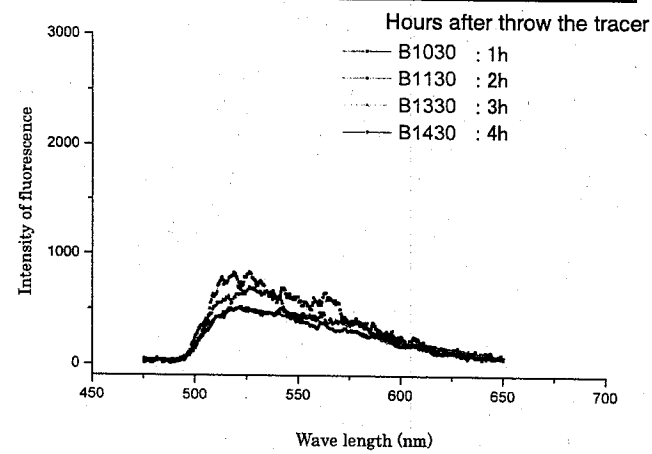
Table Ⅲ-2-2 Results of water analysis (Phase 2)

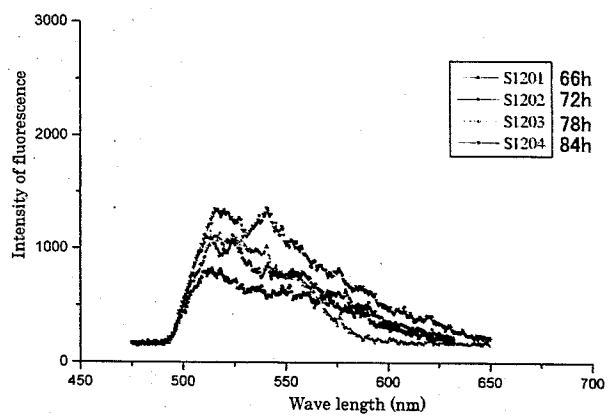
No.	Parameter		DW-04	DW-05	DW-06	DW-07	DW-08	DW-09	DW-10	DW-11	DW-12	DW-13	DW-14	DW-15	DW-16	DW-17
1	pH		7.08	6.64	7.75	7.72	6.58	7.40	8.01	7.57	7.71	7.56	6.65	6.60	6.63	7.80
2	Cond	(μS)	654	60	296	450	42	388	263	274	272	273	66	48	71	309
3	SS	(mg/l)	1	1	24	2	1	5	1	1	1	1	3	10	1	3
4	COD	(mg/l)	16	20	20	15	16	19	20	6	18	18	19	8	20	17
5	Cu	(mg/l)	0.38	0.01	0.02	0.13	0.01	0.15	0.03	0.03	0.04	0.04	0.01	0.02	0.01	0.01
6	Zn	(mg/l)	0	0	0	0.03	0	0	0	0.02	0	0.01	0	0.01	0.03	0.03
7	Mn	(mg/l)	0.2	0.3	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.1	0.2	0.2	0.5
8	F	(mg/l)	5.40	1.15	0.54	0.20	1.85	0.22	0.49	0.38	0.47	0.31	8.40	0.32	0.02	1.84
9	Cl	(mg/l)	0.01	0.02	0.05	0.05	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.02	0.03	0.04
10	Sulfide	(mg/l)	61.6	28.6	49.3	27.3	50.4	58.7	39.3	29.7	45.1	42.6	31.2	64.8	52.1	55.1
11	K	(mg/l)	4.58	2.99	1.59	1.78	2.57	1.16	1.38	0.97	1.26	1.25	2.67	1.40	0.49	0.58
12	Na	(mg/l)	4.62	0.66	1.03	1.02	0.56	1.22	0.46	0.48	0.40	0.39	0.65	1.29	0.64	1.94
13	Ca	(mg/l)	0.14	0.01	0.46	0.07	1.08	0.15	0.13	0.13	0.11	0.08	0.01	0.01	0.15	0.33
14	Mg	(mg/l)	0.01	0.76	0.01	0.01	0.32	0.04	0.34	0.58	0.01	0.01	0.79	0.87	0.96	0.12
15	Cd	(mg/l)	0.0008	0.0010	0.0010	0.0008	0.0010	0.0007	0.0010	0.0010	0.0007	0.0006	0.0008	0.0010	0.0005	0.0006
16	HCO_3	(mg/l)	151.66	30.08	110.85	179.82	15.96	166.26	114.28	131.28	121.72	119.79	30.74	9.43	13.69	155.12
17	CO_3	(mg/l)	0.34	3.12	1.15	0.18	4.04	0.54	1.72	2.72	0.28	0.21	3.26	3.57	4.31	0.88
18	SO_4	(mg/l)	270	25	37	53	1	33	1	1	1	1	1	1	12	9
19	As	(mg/l)	0.02	0.04	0.02	0.01	0.04	0.06	0.05	0.01	0.02	0.03	0.02	0.04	0.02	0.01
20	Pb	(mg/l)	0.04	0.03	0.02	0.01	0.04	0.01	0.04	0.06	0.05	0.03	0.03	0.02	0.02	0.02
21	Fe	(mg/l)	0.04	0.03	0.25	0.03	0.02	0.09	0.04	0.02	0.02	0.03	0.04	0.27	0.13	0.04
22	Hg	(mg/l)	0.0010	0.0009	0.0004	0.0004	0.0010	0.0004	0.0006	0.0002	0.0002	0.0010	0.0009	0.0004	0.0008	0.0003

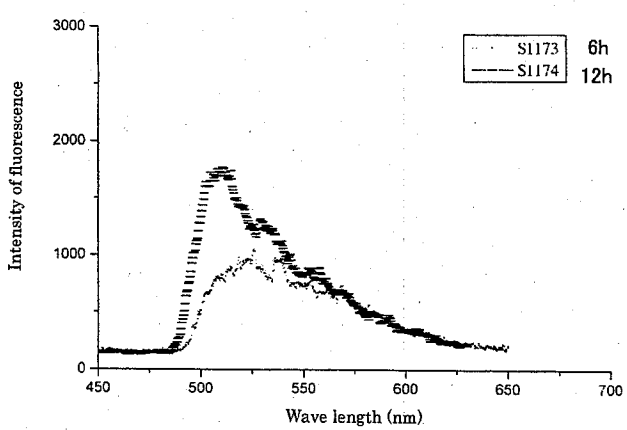












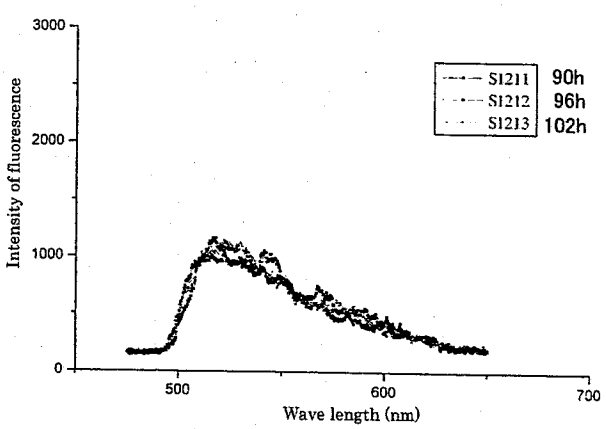


Figure Ⅲ-2-3 Results of the fluorescence photo analysis (S1)

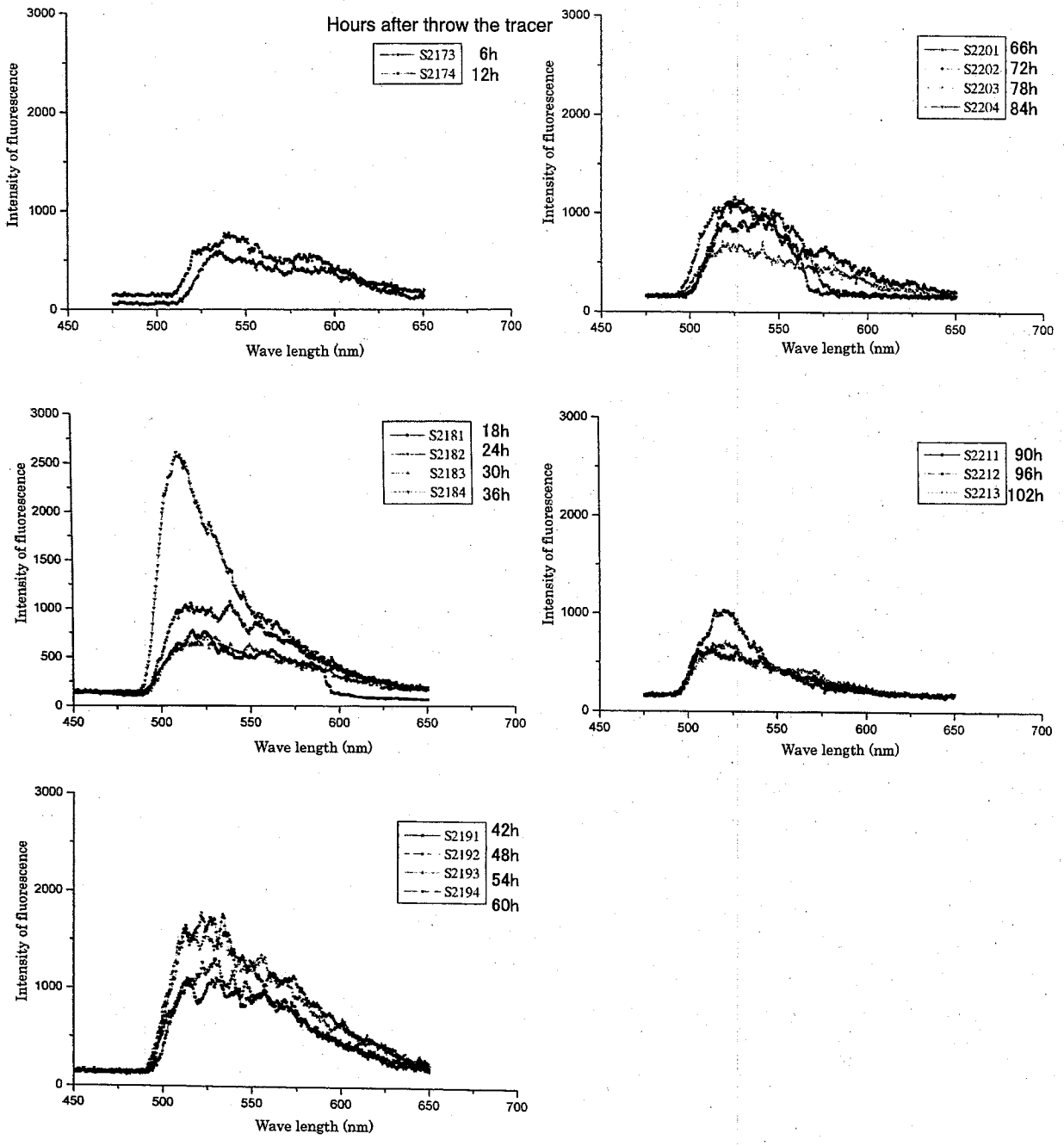


Figure Ⅲ-2-4 Results of the fluorescence photo analysis (S2)

station of tracer input flows to the station S-2, judging from the hydrological locations of the two stations and the difference in their water quality. Assuming that the stations be hydrologically continuous, it appears to be improbable that it takes 36 hours for the water of the tracer input station to reach the S-2 station. Therefore, it is reasonable that the tracer did not reach the S-2 station.

According to the above test result, it will be concluded that the infiltrated water of the Dong Pao River flows through underground and outlets in the cave at the headwater of the Nam Hon River. The result also suggests that the water of the hot spring at the S-2 station does not contain the infiltrated water of the Dong Pao River.

2-2 Meteorological Observation

2-2-1 Objectives

The meteorologic observation was carried out in order to comprehend the present state of the climatic conditions in the Project Area. The observed items are temperature, humidity, precipitation and wind direction and velocity. Precipitation is one of the important design parameters for development and production plans at the time of resource exploitation.

2-2-2 Methodology

A meteorologic observation station was installed at the end of the last year's field operation. The station is located on the roof of the guest house, owned by the People's Commissary of Phong Tho County in Tam Duong, some 20km northwest of the Project Area (Figure III-2-5). The station include a meteorologic observatory system to automatically record continuous measurements of temperature, humidity, precipitation and wind direction and velocity at an interval of one hour. The duration of the record is from 18:00 of 18th of January, 2001 to 09:00 of 5th of December, 2001.

2-2-3 Observation Result

The recorded data are collected in Appendix-1 attached. Wind direction was unable to be recorded due to failure of the installed wind vane during the period from 20:00 of 28th of July, 2001 to 09:00 of 31st of October, until the time when the field operation for the Current Year Campaign.

Figure III-2-6 shows changes in weekly averages of temperature and precipitation. Average weekly precipitations exceeding 60mm were recorded in the period from April 25th to August 5th. The highest precipitation of 154mm was recorded in the week beginning on May 20th. The recorded maximum rainfall intensity for one hour was 32mm/h on August 31st. The maximum instantaneous wind velocity was recorded at 8.0m/s on March 3rd. The highest of daily maximum temperatures was recorded at

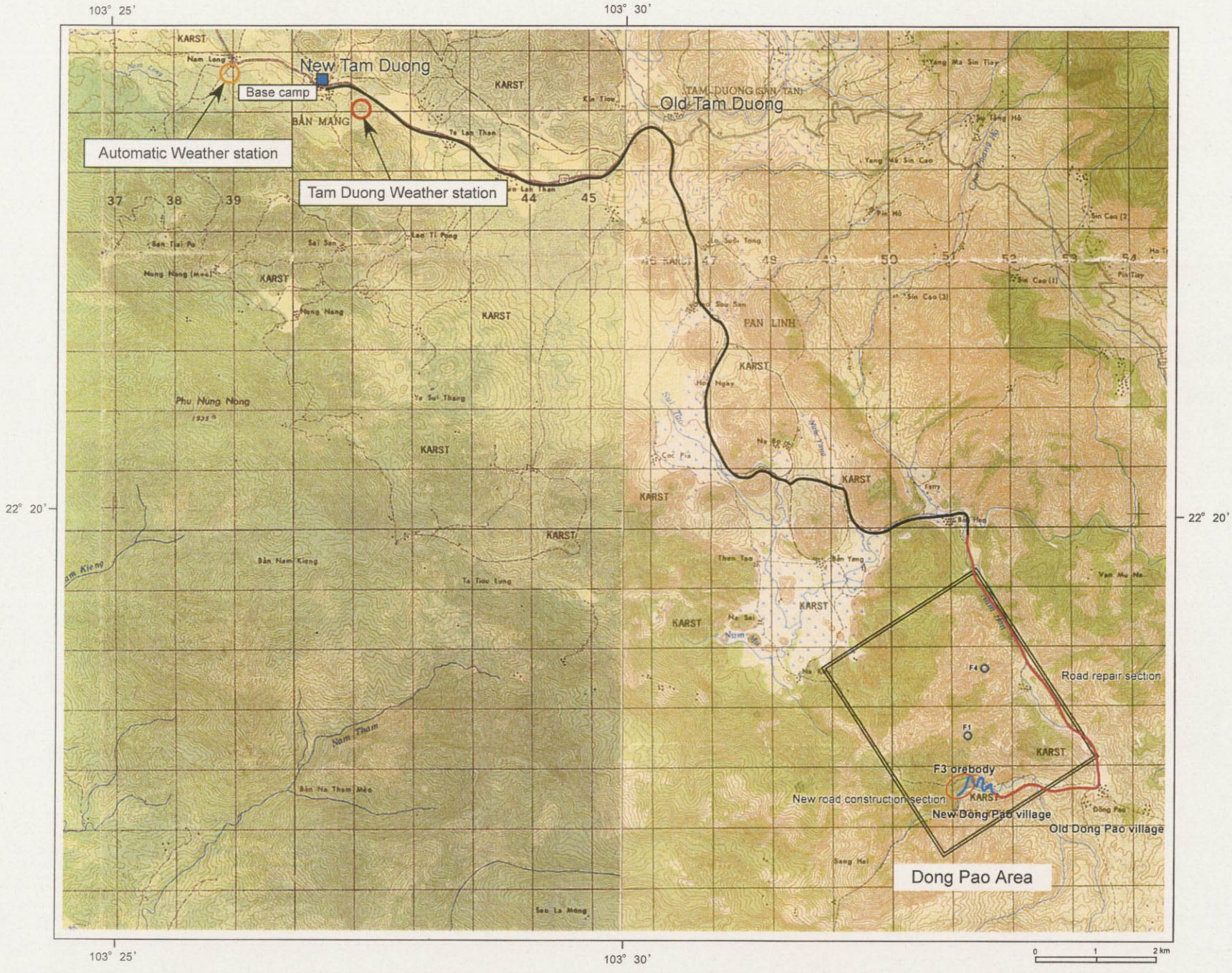
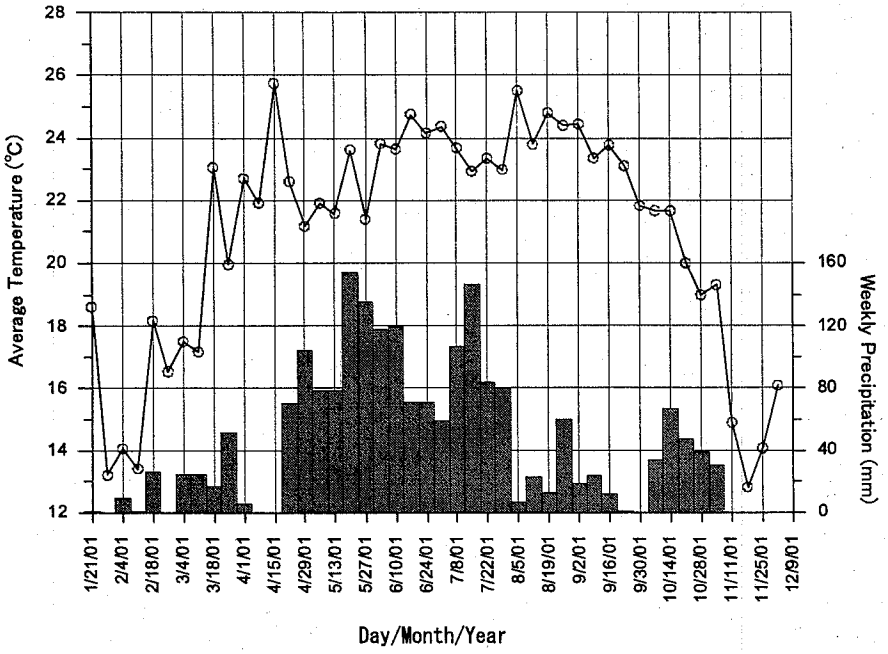


Figure Ⅲ-2-5 Location map of the weather station

Table Ⅲ-2-3 Weather data in Tam Duong for 6 years

Year/Month	Temp.(℃)	Humidity (%)	Precipitation (mm)	Wind direction-1 (%)		Wind direction-2 (%)		Wind velocity (m/s)
1996/1	14.1	77	2.7	SE	43.3	NW	33.3	5
1996/2	12.0	81	44.4	SE	53.3			6
1996/3	20.2	65	124.2	WSW	26.7			4
1996/4	20.4	77	107.9	W	56.7			8
1996/5	22.4	84	453.8	SW	40.0			6
1996/6	22.7	90	529.5	WSW	30.0			5
1996/7	22.3	93	593.1	SSW	36.7			7
1996/8	22.5	90	412.1	SSW	23.3			4
1996/9	22.2	84	78.9	NNW	50.0			3
1996/10	19.9	85	169.2	NW	40.0			4
1996/11	17.6	86	58	NW	66.7			5
1996/12	13.2	85	34.5	NW	46.7	SE	53.3	6
1997/1	13.7	81	35.9	SE	60.0	NW	50.0	4
1997/2	14.5	79	24.1	E	26.7	SE	45.4	5
1997/3	18.6	80	127.2	SW	30.0			6
1997/4	19.4	81	261.5	W	50.0			8
1997/5	23.5	75	164.3	SW	23.3	S	20.0	7
1997/6	23.4	85	390.3	WSW	36.7			8
1997/7	22.4	94	620.1	SW	33.3			5
1997/8	23.8	87	204.7	SSW	20.0			4
1997/9	20.6	89	229.4	NW	30.0			5
1997/10	20.1	88	244.1	NW	33.3			4
1997/11	17.1	82	16.3	NW	26.7	SE	26.7	5
1997/12	15.3	88	49.2	NW	36.7			4
1998/1	15.7	75	0.3	NW	50.0			3
1998/2	16.4	71	54.6	E	16.7	SE	25.0	5
1998/3	20.7	62	119.5	WSW	18.3	W	12.5	3
1998/4	21.5	77	111.5	W	19.2			7
1998/5	22.6	85	347.1	SW	21.7	WSW	15.0	3
1998/6	23.5	90	758.4	WSW	29.3			6
1998/7	22.6	94	676.8	SW	23.3	WSW	25.8	4
1998/8	23.2	90	458.3	NW	35.0			2
1998/9	22.5	82	51.5	NNW	21.7			3
1998/10	20.7	80	45.3	NW	25.0			4
1998/11	17.8	80	41.9	NW	30.8			3
1998/12	15.3	79	31.3	NW	30.0	SE	24.2	4
1999/1	13.9	82	62.5	SE	25.8	NW	29.2	3
1999/2	16.7	76	0.6	SE	20.8	E	14.2	3
1999/3	20.5	70	65.1	WSW	18.3	W	15.0	5
1999/4	21.8	81	201	W	30.8			6
1999/5	21.2	87	380.6	W	17.5	SW	15.8	6
1999/6	23.2	90	392	WSW	30.0			4
1999/7	23.0	92	760.5	SSW	24.2			5
1999/8	22.7	91	410.7	SSW	15.0			3
1999/9	22.4	86	58.3	NNW	20.0			3
1999/10	20.5	86	243.2	NW	31.7			4
1999/11	17.0	84	59.9	NW	41.7			5
1999/12	11.8	79	25.4	NW	59.2			5
2000/1	14.0	75	39.6	NW	32.3	SE	25.8	4
2000/2	14.6	80	63.8	SE	31.0	E	27.6	3
2000/3	18.8	75	36.5	WSW	38.1			4
2000/4	21.2	80	263.2	W	50.0			6
2000/5	21.4	86	307.8	SW	41.9			5
2000/6	22.1	91	468.9	WSW	46.7			4
2000/7	23.3	89	385.9	SSW	29.0			3
2000/8	23.2	89	301	SSW	35.5			3
2000/9	21.7	84	113.5	NNW	43.3			4
2000/10	20.7	86	140.4	NW	60.0			5
2000/11	16.6	80	8.8	NW	50.0			6
2000/12	15.0	85	75.4	NW	84.3			9
2001/1	15.2	79						
2001/2	15.2	83						
2001/3	18.6	81						
2001/4	22.7	74						
2001/5	21.4	88						
2001/6	23.3	89						
2001/7	22.9	91	463.7 (max)					
2001/8	23.7	87						
2001/9	22.9	85						
2001/10	20.4	89						
2001/11	15.6	79						

34.4℃ at 15:00 of August 9th, while the lowest of daily minimum, at 6℃ at 07:00 of November 19th.



FigureIII-2-6 Weekly temperature and precipitation alteration graph

2-2-4 Meteorologic Data of the Local Observatory

The meteorologic data recorded at the Tam Duang Observatory were obtained as done in the 1st year's field operation. The Observatory is located some 2km west of the Project's observation station (Figure III-2-5). The data include monthly average temperature and humidity in the period from January to November, 2001, the maximum daily precipitation in each month and the precipitation records for recent years. The data, combined with those obtained in the last year, are shown in Table III-2-3. The daily maximum precipitations for the last 2 years are shown in Table III-2-4, and the weakly maximum precipitations for the last 5 years, in Table III-2-5.

Table III-2-4 Maximum precipitation per day

Year	Month	Date	Precipitation (mm)
2000	6	26	83.2
2001	7	19	97.0

Table III-2-5 Maximum precipitation per week

Year	Month	Week	Precipitation (mm)
1997	7	2nd	264.3
1998	6	3rd	332.0
1999	7	2nd	384.3
2000	7	2nd	184.4
2001	5	3rd	274.7

Chapter 3 Trench Investigation

3-1 Methodology

Six trenches were excavated and examined along the creek at the west end of the F7 ore body and along the road leading to the F1 fluorite ore body. Their locations are shown in Figure III-3-1.

These trenches were intended to reveal the expected continuations of the known mineralized outcrops. They were hand-excavated to a depth of 1m with a width of 1.5m for a slope length of 20m at six locations. These locations were thickly vegetated with various trees on steep slopes inclining at 30 to 37 degrees.

The trench walls were sketched at a scale of 1 to 100 and were sampled at their bottoms at an interval of 1m in principle but with some variations. Photos were also taken for major mineralization revealed in the trenches. The known mineralized outcrops were sketched and sampled as well. The trenches and the outcrops were surveyed using a pocket-compass and tape in order to verify their relative locations. The survey result is collected in a 1-to-1,000 scale map.

3-2 Investigation Result

3-2-1 Trench Examination

The trenches and the mineralized outcrops are shown in Figure III-3-1. The sketches of the six trenches, T1 to T6, are shown in Figures III-3-2 (1) to (6), and those of the mineralized outcrops along the creek and along the road,, in FigureIII-3-3 and in FigureIII-3-4 respectively. The average grades of the analyzed elements for each trench and outcrop are estimated with the weight of the sampling intervals.

T1 Trench (Figure III-3-2 (1)): The trench, located to the north of the mineralized outcrop along the creek, was excavated in the N-S direction roughly perpendicular to the creek. Brown to yellow-brown, intensely weathered and soft syenite is exposed in the west half of the trench. It is weaker in weathering along the steep slope close to the creek and contains bleached feldspar phenocrysts. Brown mineralized syenite is exposed below dark brown soil to the east of a small stream crosscutting the middle of the trench. The syenite is mineralized with fluorite, barite and rare earths. According to the assay result, the east end 17m section contains RE_2O_3 exceeding more than 3%, indicating the average grades of 5.96% RE_2O_3, 22.58% $BaSO_4$ and 12.15% CaF_2. The easternmost 8m section is higher in the CaF_2 grade averaging at 22.67%. The highest assay result is recorded at 7.39% RE_2O_3 in this section. Although it was judged that the rare earth mineralization would be associated with the part where fluorite was visually observed in the section between the sampling points T1-1 and T1-8, the assay result indicated that the major RE_2O_3-$BaSO_4$ mineralization was situated in the section between T1-8 and

T1-17.

T2 Trench (Figure III-3-2 (2)): This trench was situated in the opposite side of the creek against the mineralized outcrop along the creek and excavated in the N72° W direction perpendicular to the hill slope. Intensely weathered, soft syenite, containing pebbles of weakly weathered brown syenite, is exposed in the trench. Although the trench is located nearly at the same elevation as the mineralized outcrop of the opposite side of the creek, no similar mineralization is observed. Assay results range from 0.87 to 2.63% RE_2O_3, from 0.72 to 13.18% $BaSO_4$ and from 0.39 to 0.82% CaF_2, indicating very weak mineralization.

T3 Trench (Figure III-3-2 (3)): This trench was situated to the south of the mineralized outcrop along the creek and excavated in the N70° W direction perpendicular to the hill slope. Intensely weathered, soft syenite, containing pebbles of weakly weathered brown syenite, is exposed in the trench. Weakly weathered, brown syenite is also observed in part. It was expected that the trench would reveal the southern extension of the mineralized outcrop along the creek. However, the mineralization is generally weak, with the assay results of 3.04% RE_2O_3, 16.18% $BaSO_4$ and 0.90% CaF_2 for the sample collected in the west end of the trench.

T4 Trench (Figure III-3-2 (4)): This trench was situated to the south of the mineralized outcrop along the road and excavated in the N-S direction. An old trench cross-cuts its eastern end and reveals purplish-gray banded ores of barite-fluorite-RE_2O_3. This purplish-gray mineralization terminates at about 2m from the east end of the trench. The entire section is more or less mineralized with RE_2O_3 according to the assay result. The easternmost 18m section, in particular, indicated assay results ranging from 4.68% to 6.48% RE_2O_3 with an average of 5.60% RE_2O_3. It was initially interpreted from the visual observation that the section to the west of termination of the purplish-gray mineralization would comprise intensely weathered, brown least mineralized syenite. It is difficult to judge the degree of mineralization only by visual observation and requires chemical analysis of samples. The samples, four in number, which were collected from the barite-fluorite-RE_2O_3 at the east end by digging about 1m into ground, indicated average grades of 5.96% RE_2O_3, 16.71% $BaSO_4$ and 42.42% CaF_2. This portion is intensely mineralized with fluorite.

T5 Trench (Figure III-3-2 (5)):This trench was excavated in the N55° E direction, nearly perpendicular, to the hill slope to the southeast of the mineralized outcrop along the road. Light brown, intensively weathered syenite, containing pebbles of weathered syenite, is exposed under soft soil cover in the trench. Mineralization is observed in an outcrop along the road close to the southwest of the west end of this trench. However, this mineralization does not continue to the trench. The assay results of trench samples indicated 6.48% RE_2O_3, 19.46% $BaSO_4$ and 1.96% CaF_2 for the east end 2-m section of

intensively weathered syenite. The mineralization elsewhere in the trench is very weak.

T6 Trench (Figure III-3-2 (6)): This trench was excavated in the N55° E direction, nearly perpendicular to the hill slope, to the southeast of the mineralized outcrop along the road. Light brown, intensively weathered syenite is visually observed in the trench. The assay results of trench samples indicated 5.42% RE_2O_3, 15.95% $BaSO_4$ and 1.57% CaF_2 for the 8-m section(T6-13 to –20) in the western part of the trench. The mineralization to the east of this section is weak, ranging from 1.37% to 2.94% RE_2O_3. Excavated soil from an old trench is deposited along the trench in its eastern half. The deposited soil contains ores well mineralized with fluorite, which indicated assay results of 10.83% RE_2O_3, 38.95% $BaSO_4$ and 9.76% CaF_2. A zone of fluorite mineralization is concealed subsurface to the east of this trench.

Mineralized Outcrop along the Creek (Figure III-3-3): The mineralized outcrop is exposed on the eroded surface along the east side of the creek and is continuous for about 30m with the maximum height of about 12m. The assay results of 20 samples collected from the outcrop are shown in Figure III-3-3. The average grades for the 20 samples are estimated at 7.55% RE_2O_3, 48.41% $BaSO_4$ and 27.15% CaF_2. The 5-m section from F7-6 to F7-10, in the upper part of the outcrop, is well mineralized with rare earths, indicating average grades of 10.67% RE_2O_3, 57.86% $BaSO_4$ and 15.27% CaF_2. The barite grade is elevated and, in contrast, the fluorite grade is lowered for this section. Flat –lying barite and fluorite concentrations form a rhythmic alternation, giving a banded appearance in the outcrop with their contrasting colors. It was difficult to follow each layer for its continuation due to extreme steepness of the exposure and overgrown cover.

Mineralized Outcrop along the Road (Figure III-3-4) The mineralized outcrop is exposed on the cutting surface along the road leading to the F7 Ore Body. The assay results of the 7 samples that were collected from the outcrop are shown in Figure III-3-4, and are averaged at 8.46% RE_2O_3, 31.46% $BaSO_4$ and 41.74% CaF_2, indicating significant fluorite mineralization. The banded structure formed by rhythmic change in fluorite concentrations are measured at N45° W in strike and 35° NE in dip at an location close to the sampling point F7-26, approximately in the center of the outcrop.

3-2-2 Interpretation of the West Zone of the F7 Ore Body

The trenches T1 and T3 failed to expose the continuation of the mineralized outcrop along the creek as expected previously. The mineralization, in form a lens, possibly continues below the creek. The mineralization, exposed in the trench T1, is significant in fluorite concentration in the eastern half of the trench, adjoined with rare earth concentration to the west, and weakens towards the west end. This occurrence suggests that the mineralization is correlated to the mineralized outcrop along the road to the east, which is situated in the hanging wall side, rather than the continuation of

the mineralized outcrop along the creek. The trench T3 exposed only very weak mineralization, which suggests that the mineralization along the creek would continue below this trench. The trench T2, which was excavated with expectation to expose the western continuation of the mineralization along the creek, revealed only weak mineralization and failed to prove the expectation. The trench investigation result as above leads to assuming a N-S trending fault in the vicinity of this N-S running creek, the east side of which has been downthrown relative to the west side.

The expected continuation of the mineralized outcrop along the road was revealed in the trenches T1 and T6. It is interpreted that the mineralization exposed in the trench T4 and the east ends of the trenches T5 and T6 is situated in the hanging wall side of the mineralized outcrop along the road.

The investigation by the 6 trenches indicates that the west zone of the F7 Ore Body comprises three mineralized horizons, namely the mineralized outcrop along the creek, that along the road and the uppermost mineralized zone. The continuation of the mineralized outcrop along the creek is interpreted to be situated below the creek level both to the north and the south. The mineralized outcrop along the road and the uppermost zone of mineralization are left unexplored for their continuation to the southeast. The elevation difference between the mineralized outcrop along the creek and the uppermost mineralized zone is estimated at approximately 55m, which warrants further exploration for the continuations of these mineralized horizons.

The assay results of the samples collected in a part of the trenches T1 and T4, where intensely weathered syenite are visually identified, are in the range from 3.11 to 7.29% RE_2O_3, from 9.65 to 25.10% $BaSO_4$ and from 1.25 to 5.51% CaF_2. According to these assay results, there may be portions significantly mineralized with rare earths even where barite and/or fluorite mineralization is relatively weak. It is extremely difficult to visually identify rare earth mineralization in hand specimens or outcrops and requires chemical analysis.

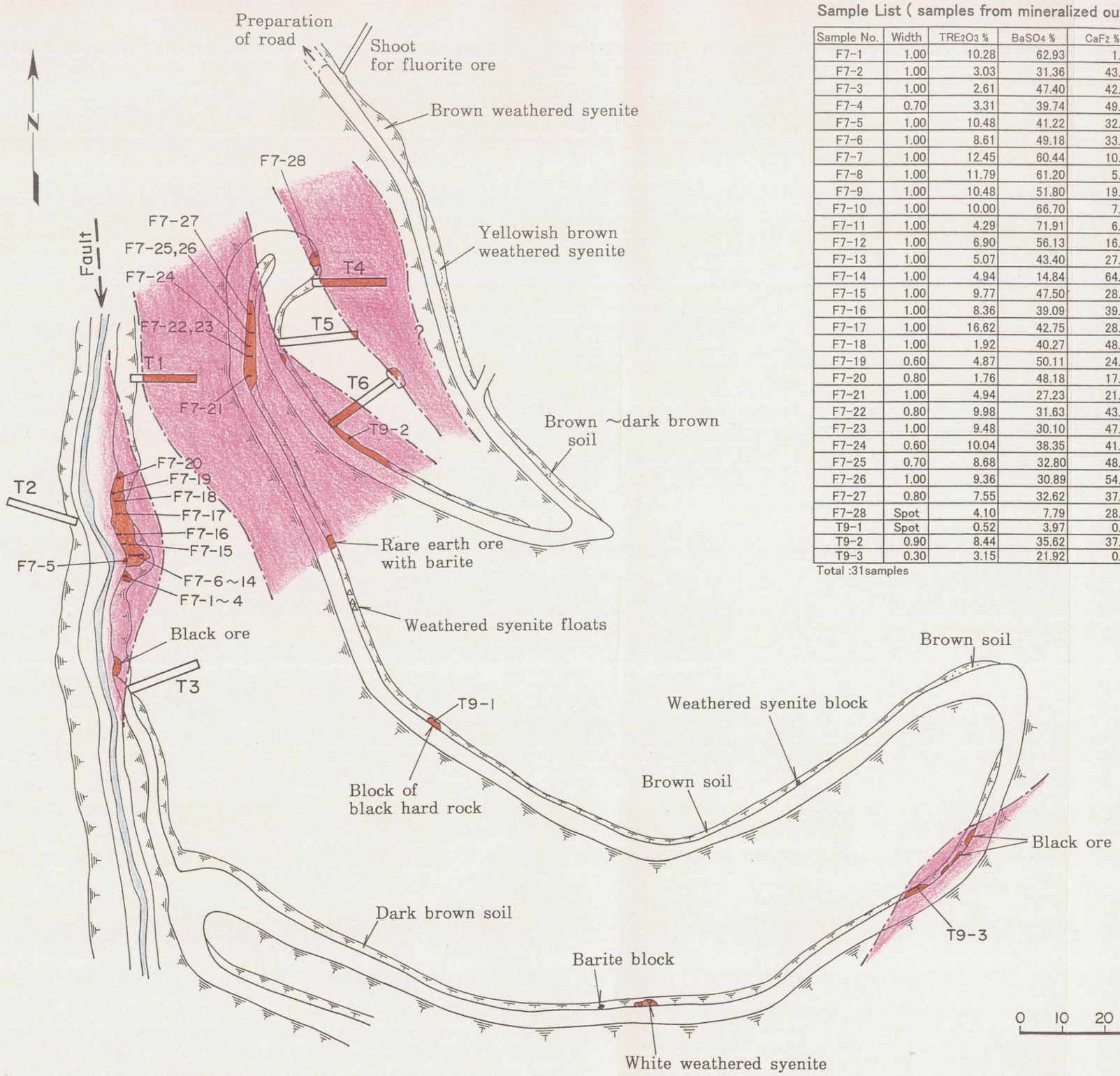
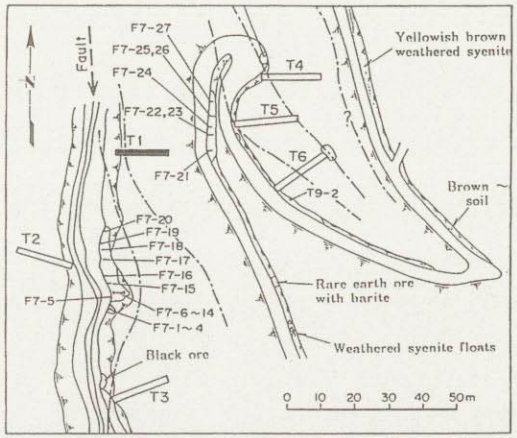


Figure Ⅲ-3-1 Location map of the trench and sampling point in the western F7 orebody

Sample List (samples from mineralized outcrops near the trench T1,T2,T3 and T4,T5,T6)

Sample No.	Width	TRE_2O_3 %	$BaSO_4$ %	CaF_2 %	Description
F7-1	1.00	10.28	62.93	1.56	black ore, white barite and light yellow bastnaesite
F7-2	1.00	3.03	31.36	43.05	black and light yellow ore with barite
F7-3	1.00	2.61	47.40	42.07	mainly black ore with white spots of barite
F7-4	0.70	3.31	39.74	49.86	fluorite rich black ore
F7-5	1.00	10.48	41.22	32.50	black ore with white spots of barite
F7-6	1.00	8.61	49.18	33.70	barite- fluorite rich ore
F7-7	1.00	12.45	60.44	10.70	black ore with many white spots of barite
F7-8	1.00	11.79	61.20	5.84	black ore with yellow bastnaesite
F7-9	1.00	10.48	51.80	19.09	light yellow ore and black ore
F7-10	1.00	10.00	66.70	7.00	black ore with white barite and a little fluorite
F7-11	1.00	4.29	71.91	6.03	light yellow ore
F7-12	1.00	6.90	56.13	16.56	fluorite and barite rich ore
F7-13	1.00	5.07	43.40	27.46	fluorite rich ore and dark brown ore
F7-14	1.00	4.94	14.84	64.48	purplish fluorite rich ore
F7-15	1.00	9.77	47.50	28.25	fluorite rich ore with spots of barite
F7-16	1.00	8.36	39.09	39.93	barite and fluorite rich ore
F7-17	1.00	16.62	42.75	28.25	black ore with spots of barite and yellow bastnaesite
F7-18	1.00	1.92	40.27	48.89	black ore with fluorite and spots of barite
F7-19	0.60	4.87	50.11	24.16	black ore with fluorite and white spots of barite
F7-20	0.80	1.76	48.18	17.34	black ore
F7-21	1.00	4.94	27.23	21.04	reddish brown ore with hematite
F7-22	0.80	9.98	31.63	43.25	white and grey ore with barite and fluorite
F7-23	1.00	9.48	30.10	47.14	white and grey ore with barite and fluorite
F7-24	0.60	10.04	38.35	41.29	grey ore with white spots of barite
F7-25	0.70	8.68	32.80	48.84	black and grey banded ore with white spots of barite
F7-26	1.00	9.36	30.89	54.15	black and grey banded ore with white spots of barite
F7-27	0.80	7.55	32.62	37.98	light grey ore with fluorite
F7-28	Spot	4.10	7.79	28.05	bkack ore and purplish grey fluorite rich ore
T9-1	Spot	0.52	3.97	0.97	black ore
T9-2	0.90	8.44	35.62	37.20	black ore with fluorite
T9-3	0.30	3.15	21.92	0.97	black ore

Total :31samples



SAMPLE No.	TRE2O3 %	BaSO4 %	CaF2 %
T1-1	6.39	23.11	10.91
T1-2	7.35	26.59	18.58
T1-3	3.51	14.63	8.77
T1-4	4.39	18.30	14.05
T1-5	5.26	23.56	27.95
T1-6	7.27	25.62	37.50
T1-7	7.39	24.14	39.25
T1-8	7.23	24.58	24.35
T1-9	6.27	23.29	4.34
T1-10	6.96	24.75	3.62
T1-11	7.04	25.10	3.00
T1-12	7.29	24.92	5.36
T1-13	6.65	24.95	2.55
T1-14	6.00	21.40	1.99
T1-15	5.82	20.73	1.73
T1-16	3.11	16.83	1.25
T1-17	3.34	21.31	1.34
T1-18	1.42	11.72	4.54
T1-19	0.89	7.98	2.82
T1-20	0.88	8.11	29.08

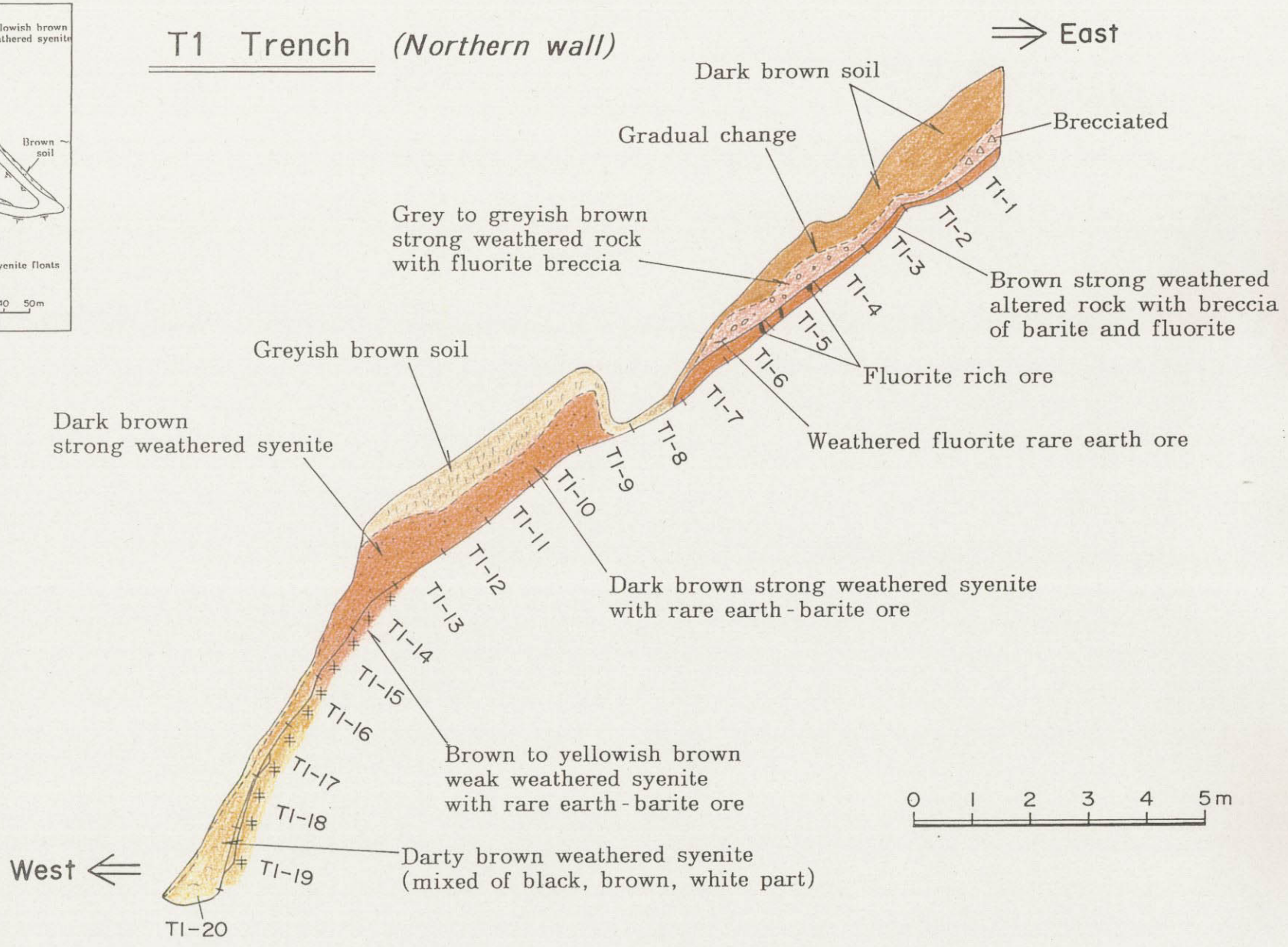
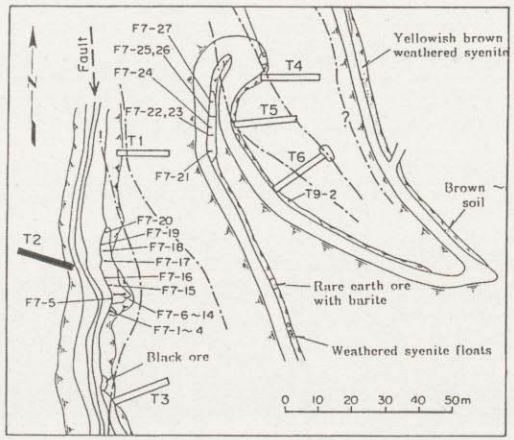


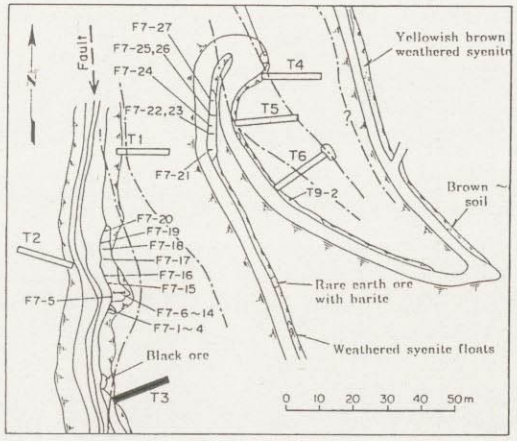
Figure Ⅲ-3-2-1 (1) Sketch of the T1 trench

SAMPLE No.	TRE2O3 %	BaSO4 %	CaF2 %
T2-1	1.40	8.87	0.66
T2-2	0.99	7.50	0.82
T2-3	2.05	13.18	0.70
T2-4	1.49	6.56	0.60
T2-5	1.53	7.32	0.68
T2-6	0.87	4.86	0.53
T2-7	1.63	5.10	0.62
T2-8	2.03	6.53	0.74
T2-9	1.56	5.88	0.49
T2-10	1.21	7.44	0.58
T2-11	1.55	7.15	0.68
T2-12	1.96	8.11	0.70
T2-13	0.90	5.68	0.53
T2-14	2.63	11.20	0.78
T2-15	2.35	9.51	0.82
T2-16	1.88	5.34	0.74
T2-17	1.47	1.69	0.62
T2-18	0.87	0.72	0.39
T2-19	1.42	1.49	0.53
T2-20	1.35	1.37	0.45



T2 Trench *(Southern wall)*

Figure Ⅲ-3-2-1 (2) Sketch of the T2 trench



T3 Trench *(Northern wall)*

SAMPLE No.	TRE2O3 %	BaSO4 %	CaF2 %
T3-1	3.04	16.18	0.90
T3-2	0.92	5.46	0.39
T3-3	0.52	2.79	0.21
T3-4	1.50	6.56	0.49
T3-5	0.78	4.19	0.33
T3-6	1.37	3.87	0.55
T3-7	0.27	2.15	0.16
T3-8	2.25	2.59	0.76
T3-9	0.55	2.02	0.16
T3-10	1.77	2.56	0.64
T3-11	1.89	3.99	0.70
T3-12	1.75	2.91	0.70
T3-13	0.52	1.19	0.16
T3-14	1.90	0.75	0.78
T3-15	1.69	1.98	0.64
T3-16	1.84	0.99	0.72
T3-17	1.30	1.08	0.74
T3-18	1.66	3.97	0.68
T3-19	1.20	2.34	0.51
T3-20	0.48	1.81	0.31

Figure Ⅲ-3-2-1 (3) Sketch of the T3 trench

SAMPLE No.	TRE2O3 %	BaSO4 %	CaF2 %
T4-1	6.04	44.61	27.95
T4-2	6.48	22.28	21.27
T4-3	6.17	15.05	3.16
T4-4	5.50	11.83	4.05
T4-5	5.13	9.65	1.68
T4-6	6.36	10.09	1.48
T4-7	5.57	12.66	2.30
T4-8	5.02	14.34	4.21
T4-9	5.37	18.49	5.51
T4-10	5.25	11.66	1.58
T4-11	4.52	10.88	2.38
T4-12	5.38	12.82	1.77
T4-13	5.86	13.11	1.95
T4-14	5.41	13.01	2.61
T4-15	5.75	13.56	1.87
T4-16	6.00	13.18	2.05
T4-17	6.26	12.79	1.97
T4-18	4.68	11.45	1.54
T4-19	2.96	6.67	1.13
T4-20	2.31	6.09	1.09
TB4-1	6.37	25.65	35.96
TB4-2	6.30	16.50	53.63
TB4-3	6.24	18.60	50.34
TB4-4	6.11	9.44	38.22

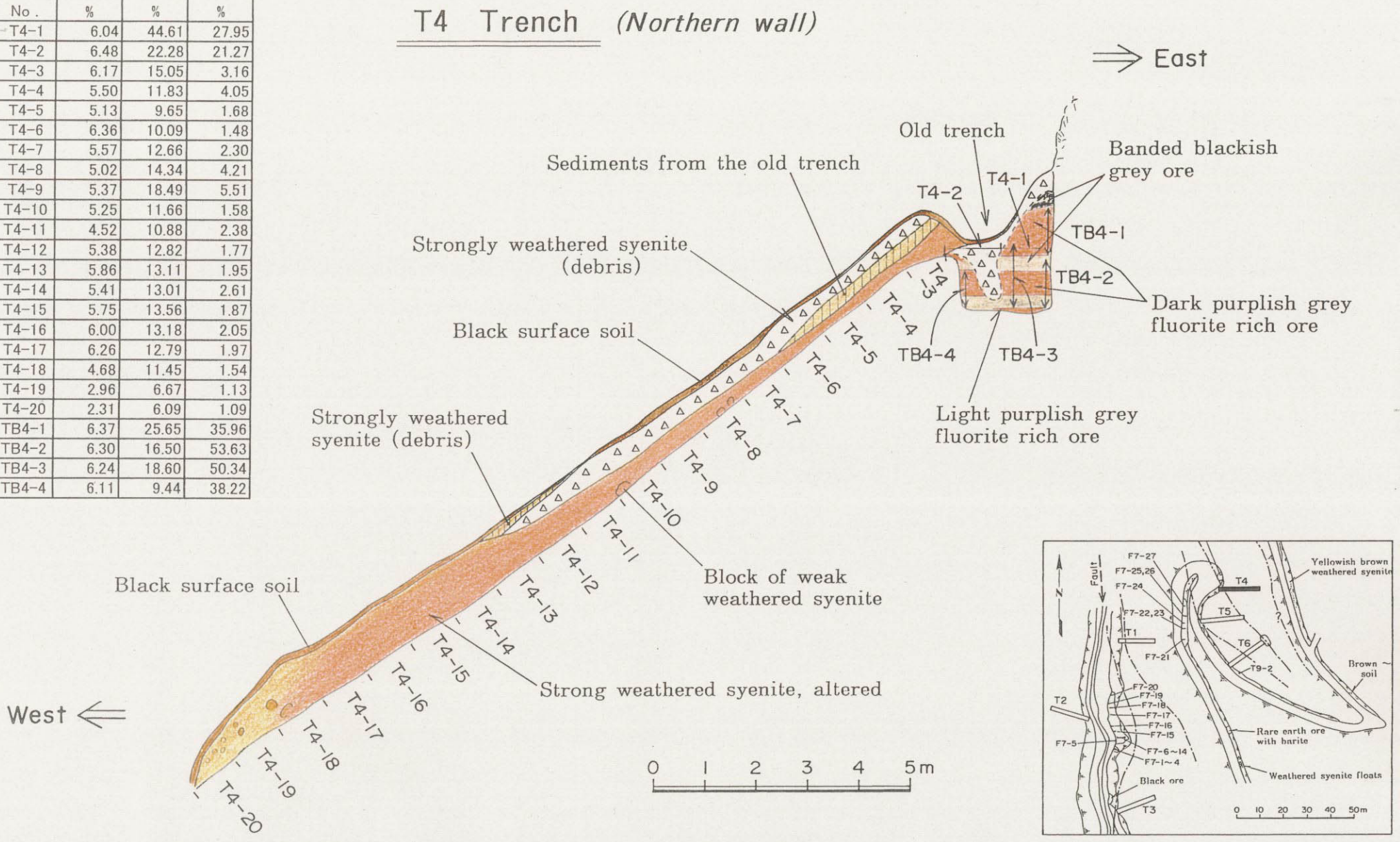
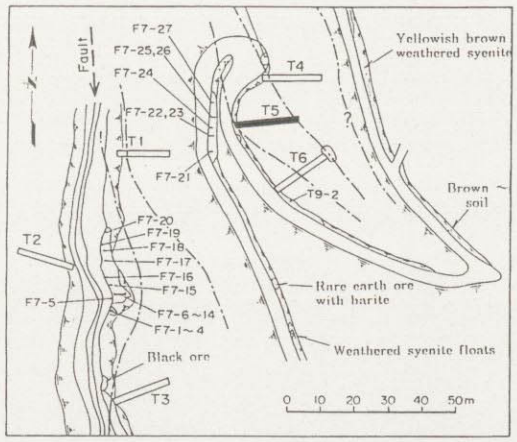


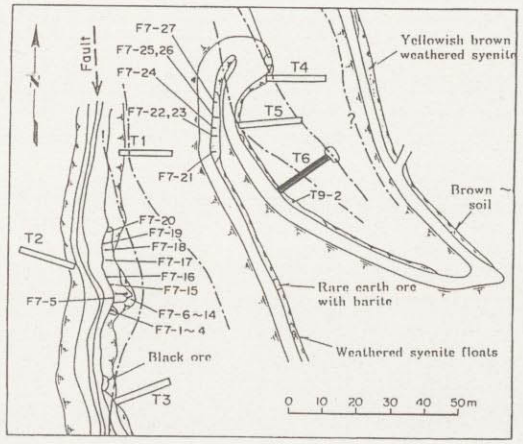
Figure Ⅲ-3-2-1 (4) Sketch of the T4 trench



T5 Trench *(Northern wall)*

Figure Ⅲ-3-2-1 (5) Sketch of the T5 trench

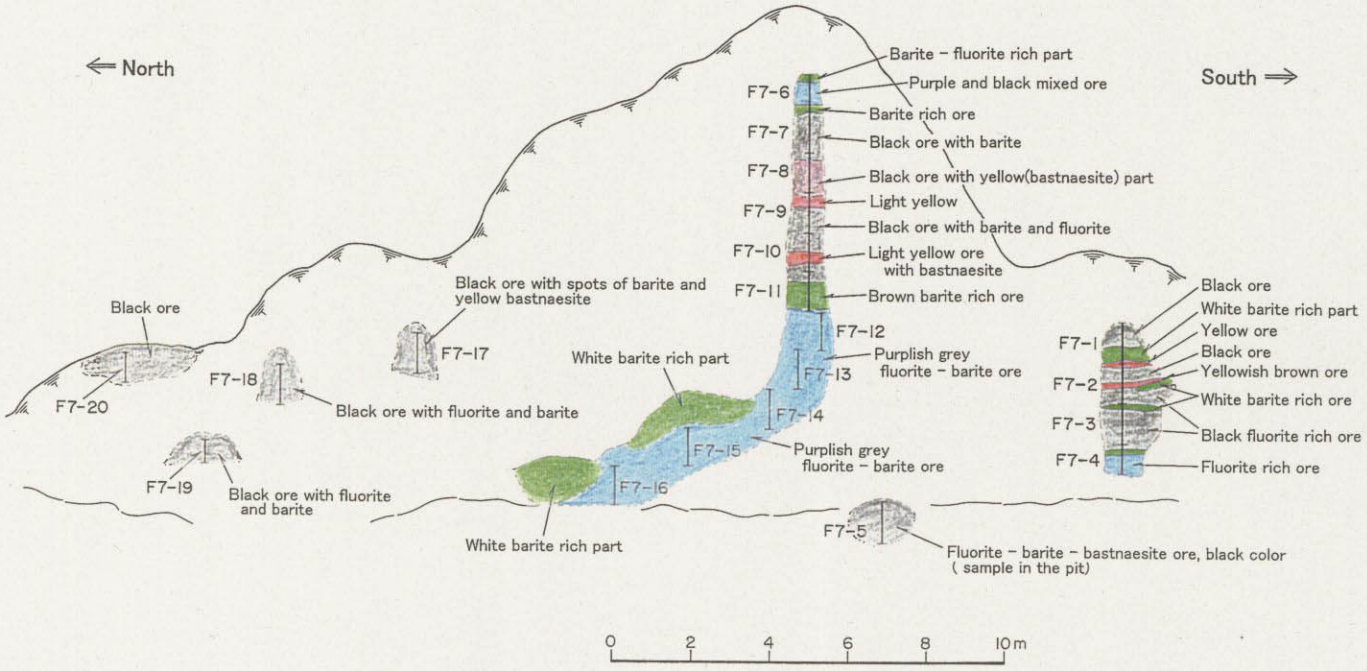
SAMPLE No.	TRE2O3 %	BaSO4 %	CaF2 %
T5-1	6.45	18.60	1.81
T5-2	6.50	20.32	2.10
T5-3	2.52	8.86	1.34
T5-4	0.49	3.81	0.51
T5-5	0.76	4.49	0.35
T5-6	0.86	2.42	0.43
T5-7	0.50	1.23	0.33
T5-8	0.35	0.75	0.29
T5-9	0.31	0.61	0.25
T5-10	0.36	0.56	0.27
T5-11	0.37	0.56	0.29
T5-12	0.39	0.43	0.31
T5-13	0.43	0.44	0.35
T5-14	0.58	0.55	0.39
T5-15	0.30	0.40	0.25
T5-16	0.27	0.32	0.25
T5-17	0.38	0.23	0.27
T5-18	0.33	0.24	0.27
T5-19	0.46	0.24	0.29
T5-20	0.21	0.45	0.23
T5-21	0.55	0.73	0.31



T6 Trench *(Northern wall)*

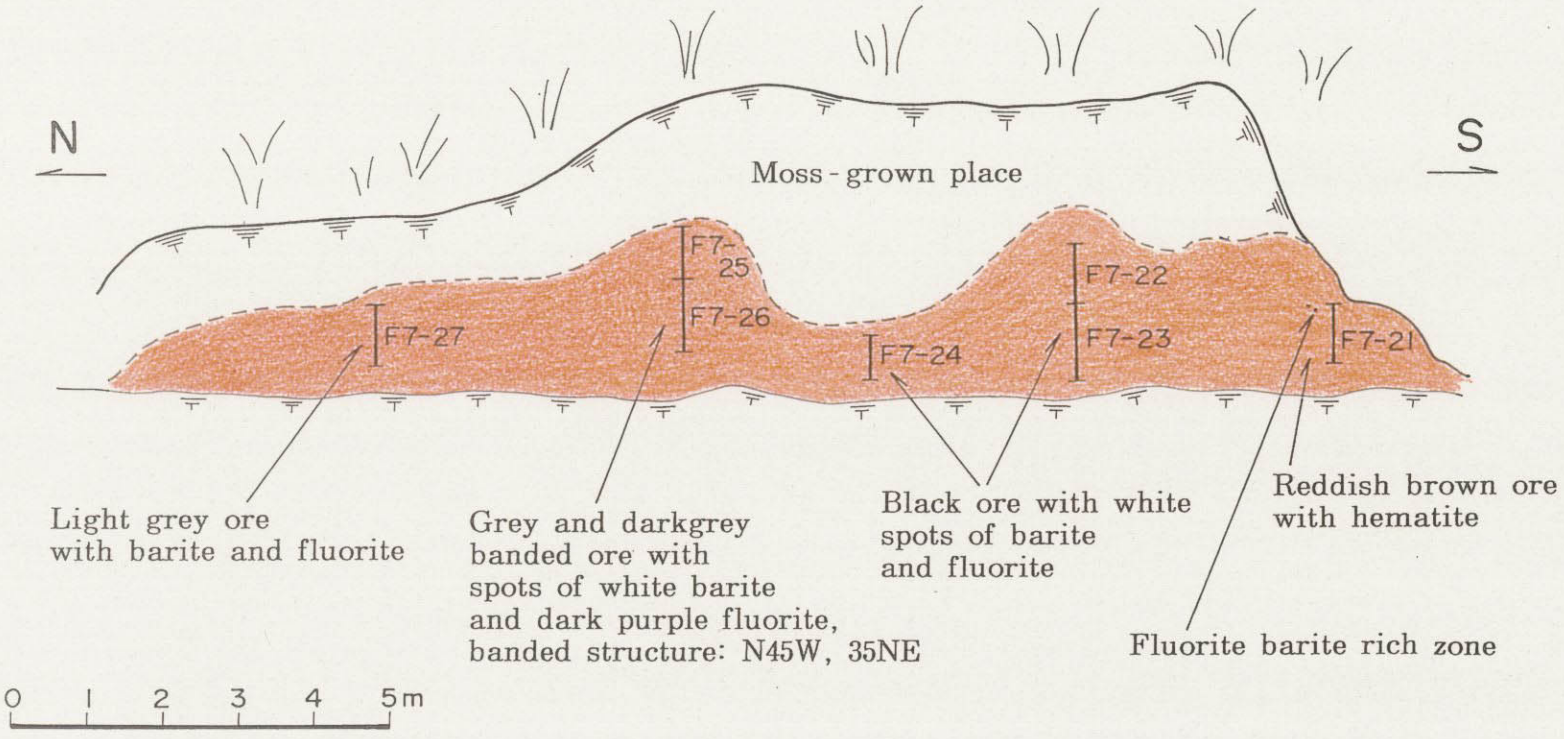
SAMPLE No.	TRE2O3 %	BaSO4 %	CaF2 %
T6-1	1.37	1.89	0.90
T6-2	2.09	0.91	0.88
T6-3	2.40	1.13	0.90
T6-4	2.56	1.77	0.99
T6-5	2.32	3.12	0.92
T6-6	2.44	3.09	1.03
T6-7	2.32	2.22	0.99
T6-8	2.37	2.18	1.03
T6-9	2.64	2.57	1.05
T6-10	2.74	3.67	1.15
T6-11	2.94	5.01	1.03
T6-12	2.67	5.16	1.05
T6-13	3.32	8.10	1.13
T6-14	4.12	11.36	1.29
T6-15	5.35	18.07	1.32
T6-16	5.21	16.00	1.50
T6-17	5.56	18.01	1.68
T6-18	4.89	14.32	1.56
T6-19	7.47	20.26	2.18
T6-20	7.44	21.48	1.91
T6-21	10.83	38.95	9.76
T6-22	1.46	4.51	0.78

Figure Ⅲ-3-2-1 (6) Sketch of the T6 trench



Sample No.	Width	TRE_2O_3 %	$BaSO_4$ %	CaF_2 %	Description
F7-1	1.00	10.28	62.93	1.56	black ore, white barite and light yellow bastnaesite
F7-2	1.00	3.03	31.36	43.05	black and light yellow ore with barite
F7-3	1.00	2.61	47.40	42.07	mainly black ore with white spots of barite
F7-4	0.70	3.31	39.74	49.86	fluorite rich black ore
F7-5	1.00	10.48	41.22	32.50	black ore with white spots of barite
F7-6	1.00	8.61	49.18	33.70	barite– fluorite rich ore
F7-7	1.00	12.45	60.44	10.70	black ore with many white spots of barite
F7-8	1.00	11.79	61.20	5.84	black ore with yellow bastnaesite
F7-9	1.00	10.48	51.80	19.09	light yellow ore and black ore
F7-10	1.00	10.00	66.70	7.00	black ore with white barite and a little fluorite
F7-11	1.00	4.29	71.91	6.03	light yellow ore
F7-12	1.00	6.90	56.13	16.56	fluorite and barite rich ore
F7-13	1.00	5.07	43.40	27.46	fluorite rich ore and dark brown ore
F7-14	1.00	4.94	14.84	64.48	purplish fluorite rich ore
F7-15	1.00	9.77	47.50	28.25	fluorite rich ore with spots of barite
F7-16	1.00	8.36	39.09	39.93	barite and fluorite rich ore
F7-17	1.00	16.62	42.75	28.25	black ore with spots of barite and yellow bastnaesite
F7-18	1.00	1.92	40.27	48.89	black ore with fluorite and spots of barite
F7-19	0.60	4.87	50.11	24.16	black ore with fluorite and white spots of barite
F7-20	0.80	1.76	48.18	17.34	black ore
Total	19.10				
Average	0.96	7.55	48.41	27.15	

Figure Ⅲ-3-3 Sketch of the outcrop along the stream in the western part of F7 orebody



Assay results

Sample No.	Width	TRE_2O_3 %	$BaSO_4$ %	CaF_2 %	Description
F7-21	1.00	4.94	27.23	21.04	reddish brown ore with hematite
F7-22	0.80	9.98	31.63	43.25	white and grey ore with barite and fluorite
F7-23	1.00	9.48	30.10	47.14	white and grey ore with barite and fluorite
F7-24	0.60	10.04	38.35	41.29	grey ore with white spots of barite
F7-25	0.70	8.68	32.80	48.84	black and grey banded ore with white spots of barite
F7-26	1.00	9.36	30.89	54.15	black and grey banded ore with white spots of barite
F7-27	0.80	7.55	32.62	37.98	light grey ore with fluorite
Average	0.84	8.46	31.46	41.74	

Figure Ⅲ-3-4 Sketch of the outcrop along the road in the western part of F7 orebody