2-2 Potentialities of occurrence of ore deposits

2-2-1 Potentialities

2-2-1-1 Central District

Occurrence and continuity of the ore bodies are related with the skarn and dikes in ore deposits in the central district of the Altyn-Jylga ore field. The No.3 Ore Body, Southern Deposit and the No.5 Ore Body are located in this district.

(1) Place of occurrence of ore bodies

- Mineralization spreads broadly in the skarn zone. The No.3 Ore Body almost conforms to the skarn zone.
- Bonanzas are formed at intersections of the skarn zone with dikes and fractures in the NW-SE direction traversing the skarn zone almost at right angles, and also along the dikes from the intersections to the hanging side of the skarn zone.
- In view of the geologic structure, occurrence of the skarn and type of ores, it is considered that Southern Deposit is continued with the No.3 Ore Body and that these have undergone the same mineralization.
- On the surface, mineralized dikes in the NW-SE direction traversing the skarn zone are predominant on the hanging side of the Southern Deposit (Fig. I-2-1). Therefore, occurrence of bonanzas can be expected at underground intersections of the mineralized dikes with the skarn zone and also along the dikes.
- On the surface portion of the No.5 Ore Body, a granodiorite porphyry dike in the NW-SE direction is present. From their strike and dip, it is presumed that the northwestern extension of the dike intersects the skarn zone between the No.3 Ore Body and Southern Deposit, in the Altyn-Jylga valley. In terms of the geologic structure, type of rocks and size, the dike at the No. 5 Ore Body resemble the dike with bonanzas on the south hanging side of the No.3 Ore Body, found in the 1930 m level tunnel; therefore, occurrence of bonanzas can be expected at the intersections of the dikes extending from the No.5 Ore Body and also along the dikes (Figs. I-2-4(4) and I-2-5).

(2) Size and continuity of ore bodies

- Continuity of the No.3 Ore Body has been confirmed by the tunnel survey and drilling survey over 250 m or more at the 1850 m level along the strike of the ore body and over 270 m or more in the vertical direction between surface and the 1710 m level. From the geologic structure of the district, horizontal and vertical farther extension is expected.

- The No.3 Ore Body and Southern Deposit are presumed to be linked/ continued; the total extension of these ore body and deposit is likely to reach 500 m or more (Fig. I-2-2).
- The mineralized dikes, 1 m to 5 m wide, on the hanging side of the Southern Deposit number about four per every 100 m. The bonanza ascertained by the Phase II survey south of the 1850 m level tunnel occurs at the intersection of a 2 m-wide dike with the skarn zone and its horizontal extension is about 30 m; therefore, occurrence of a bonanza of a similar size is conceivable.
- At the intersection of the dikes extending from the No.5 Ore Body with the skarn zone, an ore body similar in size to the bonanza on the south hanging side of the No.3 Ore body, 6m wide and 80m long, can be inferred.

2-2-1-2 Geochemical anomaly areas

The geochemical survey carried out by the Kyrghyz side has detected gold and antimony anomalies in the Altyn-Jylga ore field (Fig. I-1-5). Gold anomaly areas extend not only in the area including central and northern deposits but also in the upper reaches of the Altyn-Jylga valley in the south district and also in the northeast district from the north of the Northern Deposit towards the east, where no outcropping ore showings have been found, so far. The anomalies in south and northeast districts indicate presence of extensive area of gold mineralization, from which possible occurrence of blind deposits is conceived.

(1) South district

- A gold anomaly zone extends some 600 m along the Altyn-Jylga stream towards its upper reaches, protruding southwestward from its main anomaly area.
- In the No.3 Ore Body, bonanzas are formed accompanying dikes and fractures in the NW-SE direction, which cross the skarn zone at right angles, while the gold anomalies in the south district also protrude southeastward from the central district including the No.3 Ore Body, where the skarn zone occurs. Therefore, the gold anomaly in the south district is likely to reflect the mineralization accompanying fractures in the NW-SE direction.

(2) Northeast district

- The gold anomaly zone in the northeast district has a straight-lined boundary, 1 km in extension, in the NW-SE direction. Over the boundary line, rock samples containing gold more than 5 g/t -- mineralization indication -- are distributed. This suggests a possibility that a vein-type ore deposit in the

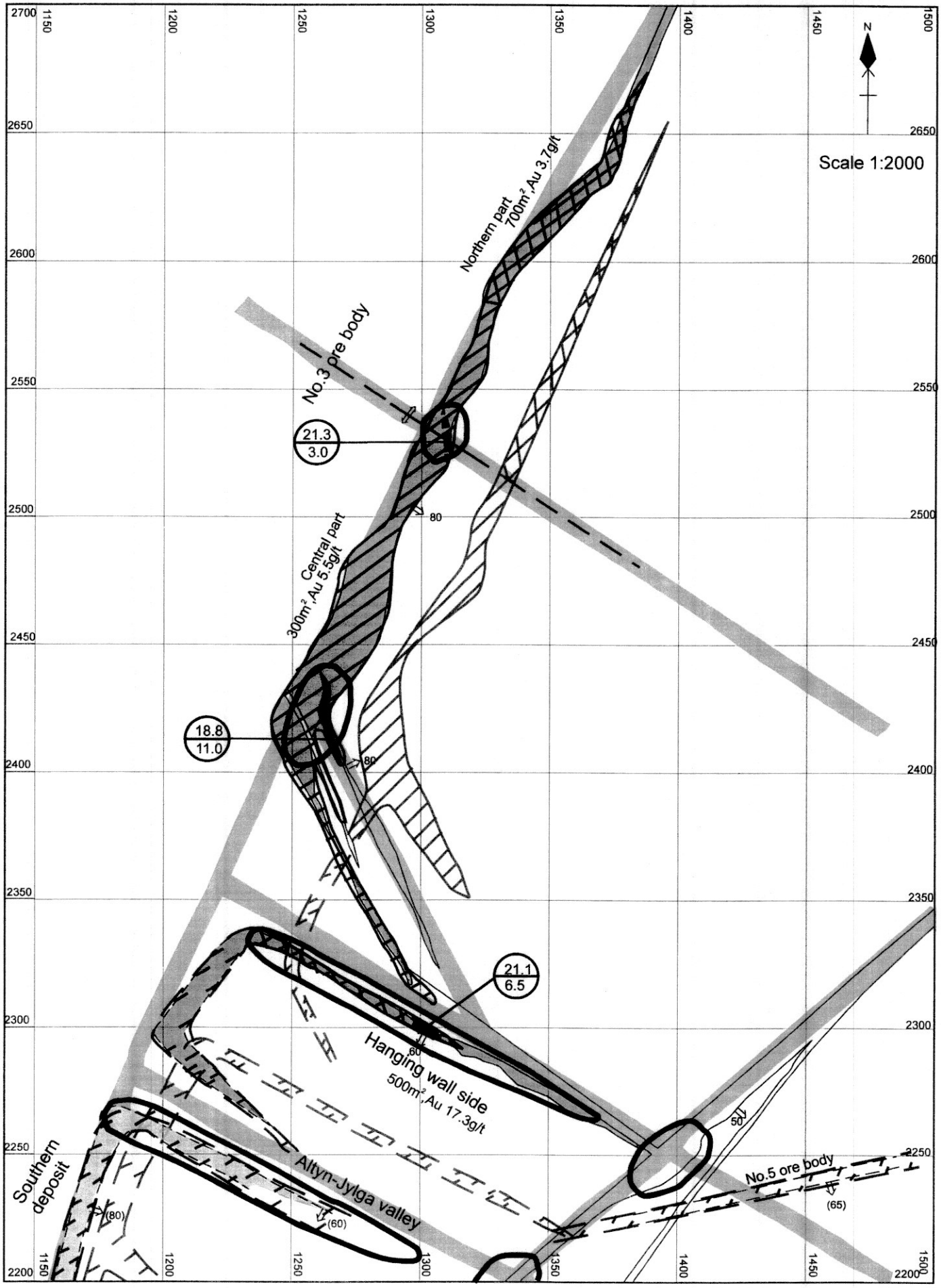

Fig. I-2-5 Generalized Result of the Survey of No. 3 Ore body at the 1930 m Level

NW-SE direction is concealed.

- As far northern ore showing is located at the intersection of boundary line of the gold anomaly with the extension of the skarn zone of Northern Deposit, it is considered that the northeastern district has undergone the same mineralization as in the central district where bonanzas are formed at intersections of the skarn zone with fractures in the NW-SE direction.

2-2-1-3 Promising exploration targets

- The past survey findings indicate that, in view of the characteristics of geologic structure and mineralization, place of occurrence and continuity, the promising exploration targets are the area between the No.3 Ore Body and Southern Deposit as well as the intersections of these with the dikes. Besides, the geochemical anomaly zones in the south and northeastern districts are also considered promising as exploration targets (Fig.I-3-1).

	Promising targets	Potentialities
Central district in the Altyn-Jylga Ore Field	1. The No.3 Ore Body to Southern Deposit	Continuous mineralization, 10 m wide and 500 m long (P2→P1・C2)
	2. Hanging side of Southern Deposit: Intersections of mineralized dikes with Southern Deposit	Bonanzas occur at intersections of dikes in NE-SW direction and the ore body: approx. 4 bonanzas in an extension of 100 m, 1 m to 3 m wide and 30 m long.
	3. Area between the No.3 Ore Body and Southern Deposit: At intersection of the skarn zone with granodiorite porphyry dike and along the dike.	Occurrence of bonanzas with structures and mineralization similar to those of the bonanza on the south hanging side of the No.3 Ore Body, 6 m wide and 80 m long.
Geochemical anomaly area	1. Southern district along the Altyn-Jylga valley: blind deposits	Ore bodies accompanying fractures and dikes: Hydrothermal vein-type deposits; an area, 400 m x 600 m, similar to the No.3 Ore Body (skarn and mineralized dikes)
	2. Northern area (from north of Northern deposit towards the east): blind deposits	Hydrothermal vein-type deposits along fractures and dikes in a 200 m x 1km area

2-2-2 Estimation of potential ore reserves

(1) Rules of the estimation of ore reserves

Cut-off grade : 1 g/t Au

Area : Area over 1 g/t Au or determined by geological structure. Width of gangue rock is less than 1 m

Depth : The No.3 Ore Body - up to the 1710 m level, as ascertained by the drilling survey, excepting the newly found ore body on the hanging side of the southern part, where the depth is up to the 1750 m level.

The No.5 Ore Body and Southern Deposit - up to 1850m level, the level of the exploration tunnel.

Calculation : the section method, specific gravity = 3.0 (on the basis of the measured value by the Kyrghyz side)

(2) Area and grade of ore deposits

- As a result of the Phase III survey, the northern extension (700 m^2) of the No.3 Ore Body and a branch (500 m^2) on the south hanging side of the ore body were added in the calculation.

Areas and grades of ore bodies :

Ore body		Level(m)	Area(m^2)	Au grade(g/t)	Height(m)
NO. 3 ore body	Central part	1,980(surface)	3,100	5.5	
		1,930	3,100	5.5	50
		1,850	2,000	7.0	80
		1,710	2,000	7.0	140
	Northern part	1,980(surface)	700	3.7	280
	Southern hanging wall	2,050(surface)	0	17.3	
		1930	500	17.3	120
		1750	500	17.3	180
No. 5 ore body		2,170(surface)	536	13.6	320
Southern deposit		2,100(surface)	1,370	7.4	250

(3) Potential ore reserves (gold content)

- The ore reserves of the No.3 Ore Body – 14.7t as calculated in Phase II -- were raised from the P1 to the C2 category, as a result of the drilling survey (MJKA-14, 15, 16 and 17) that confirmed the continuity in the lower part.
- Ore bodies were newly found in the northern extension of the No.3 Ore Body

(ascertained by the MJKA-18 drilling on the 1850 m level) and also on the hanging side (ascertained at the side track I of the 1930 m level tunnel), which increased the ore reserves by 7.2t.

- **The No. 3 ore body + the No. 5 ore body + Southern deposit = 36.5 t**

Potential ore reserves (gold) :

	Ore body	Au (ton)	Category*	Total Au (ton)	
New acquisition (phase III)	Northern part of No. 3 ore body	2.2	P1	21.9	36.5
	Southern hanging wall of No. 3 ore body	5.0	P1		
Existing acquisition (phase II)	Central part of No. 3 ore body	14.7	C2		
	No. 5 ore body + Southen deposit	14.6	P2	14.6	

*refer to the table below for correlation of ore reserve categories

2-3 Mineral separation

- The rates of recovery of gold, silver and copper in the separation test (table shaking and sulfide flotation) of the ore of the No.3 Ore Body were 94 %, 92 % and 99 %, respectively. The gold content in tailings was 1.1 g/t.
- A combination of table shaking and sulfide flotation proved to be workable for recovery of gold.

Correlation between Ore Reserve Category of CIS Countries and those of USBM/USGS

USBM/USGS	Identified resources					Undiscovered resources	
	Demonstrated			Inferred		Hypothetical	Speculative
	Measured		Indicated				
CIS	A	B	C1	C2	P1	P2	P3
	Reserves			Inferred reserves			

*United States Bureau of Mines **United States Geological Survey

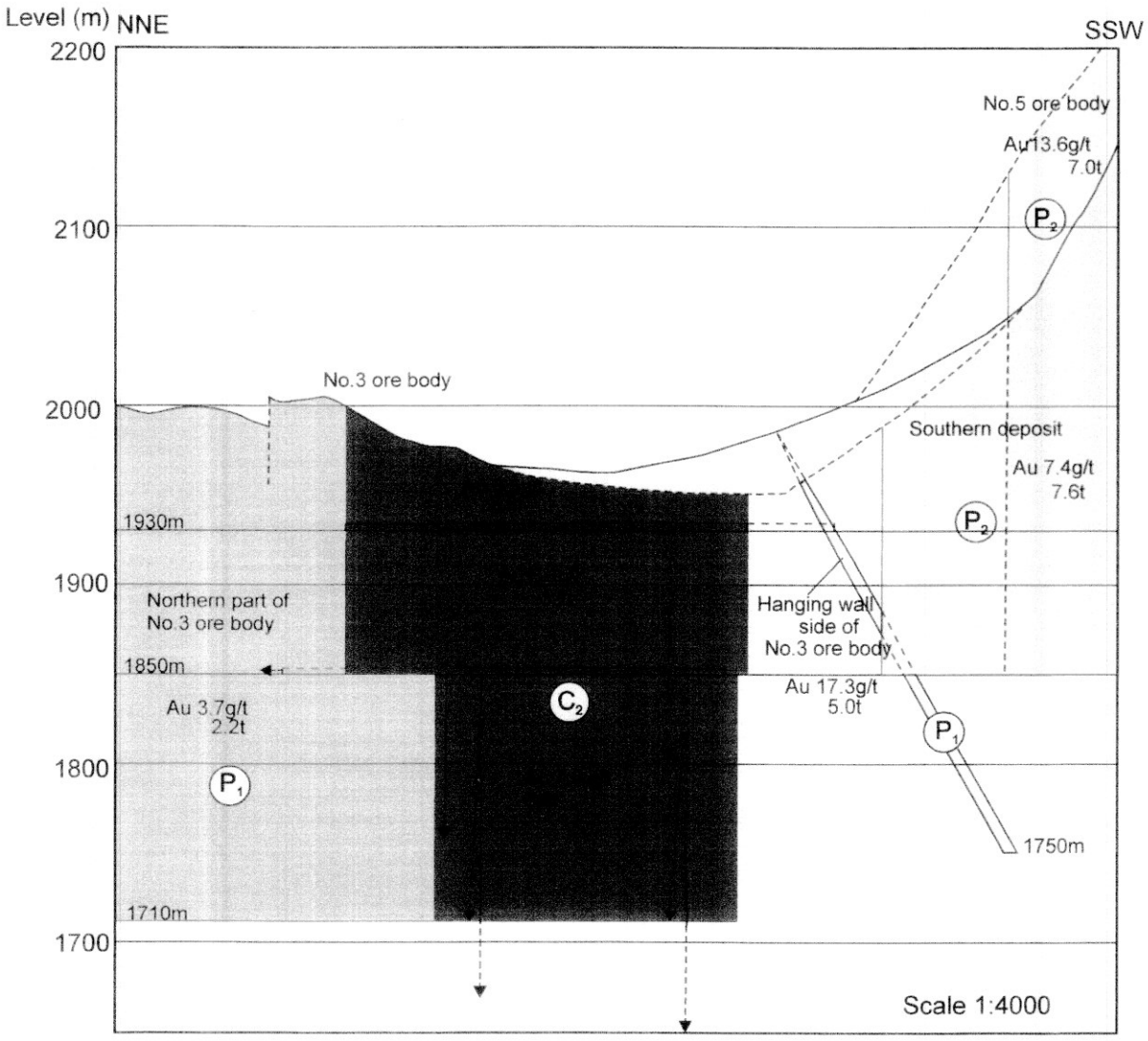

Fig. I-2-6 Perspective Section Showing Potential of Ore Reserves