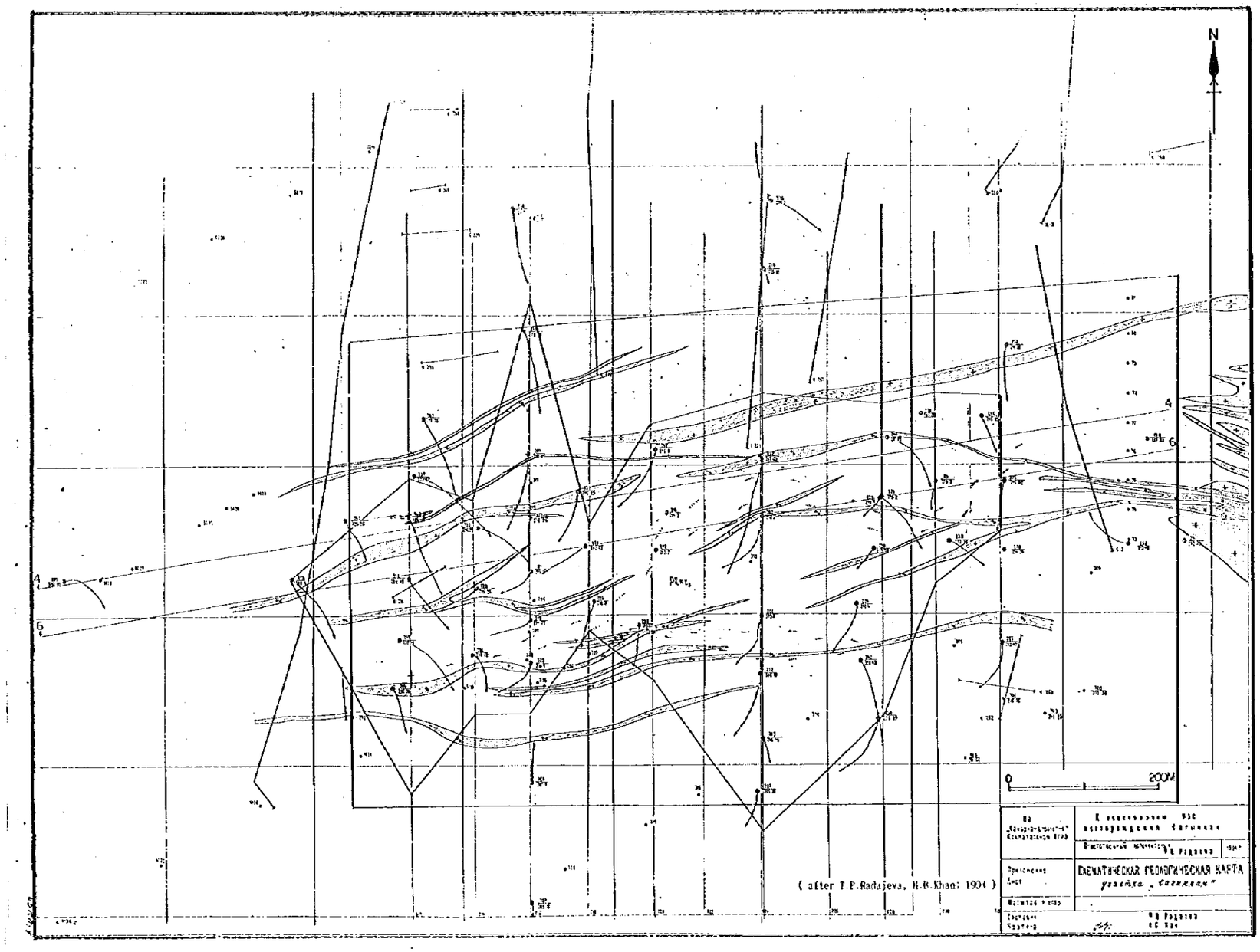

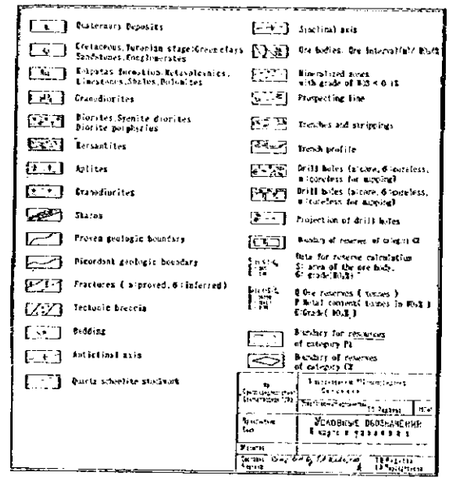

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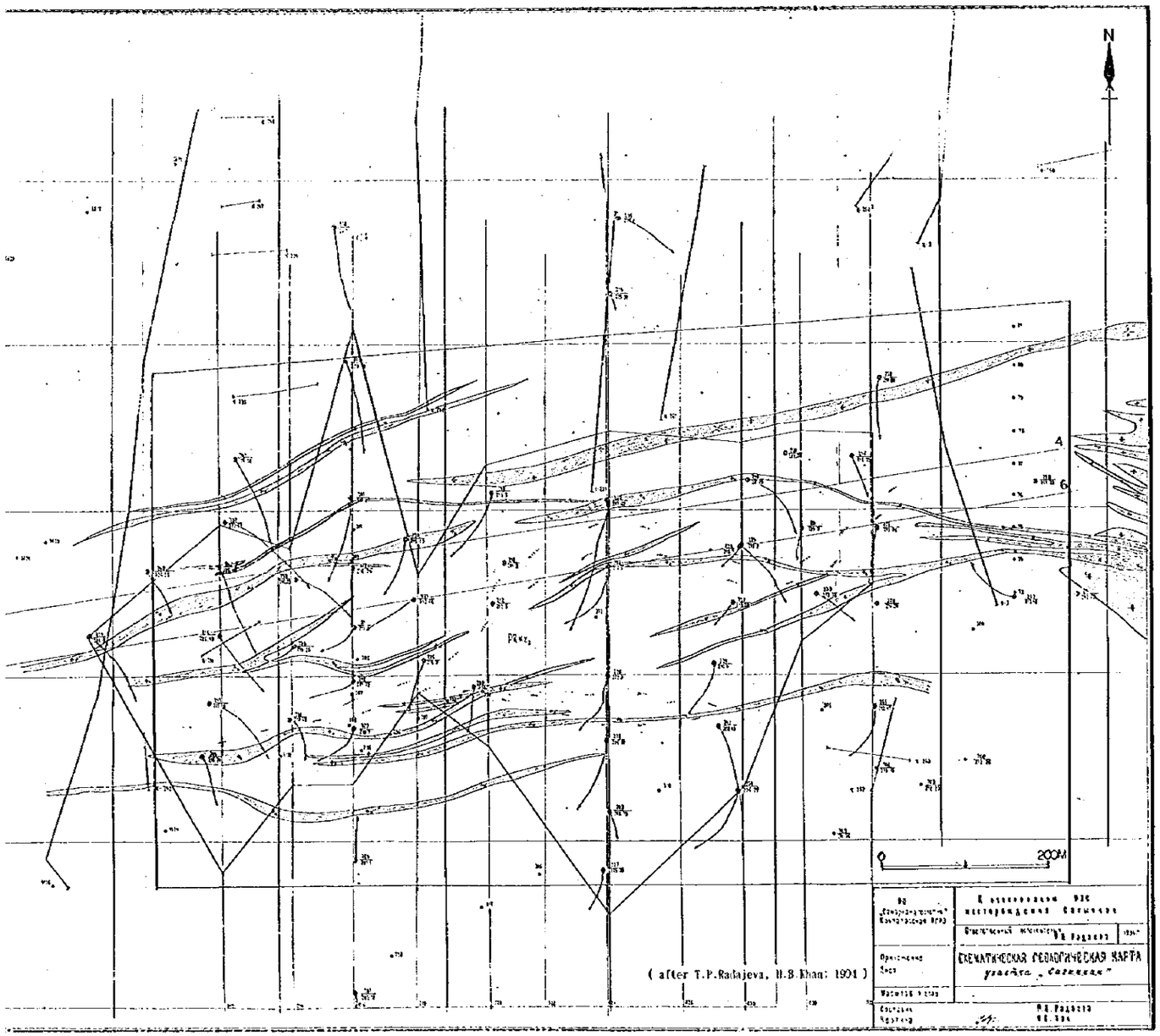
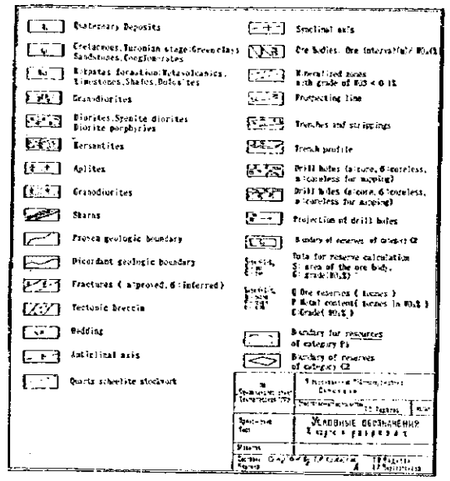
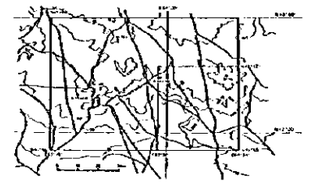




PL. II-1-5

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

SCHEMATIC GEOLOGICAL MAP OF THE SAGHINKAN DEPOSITS



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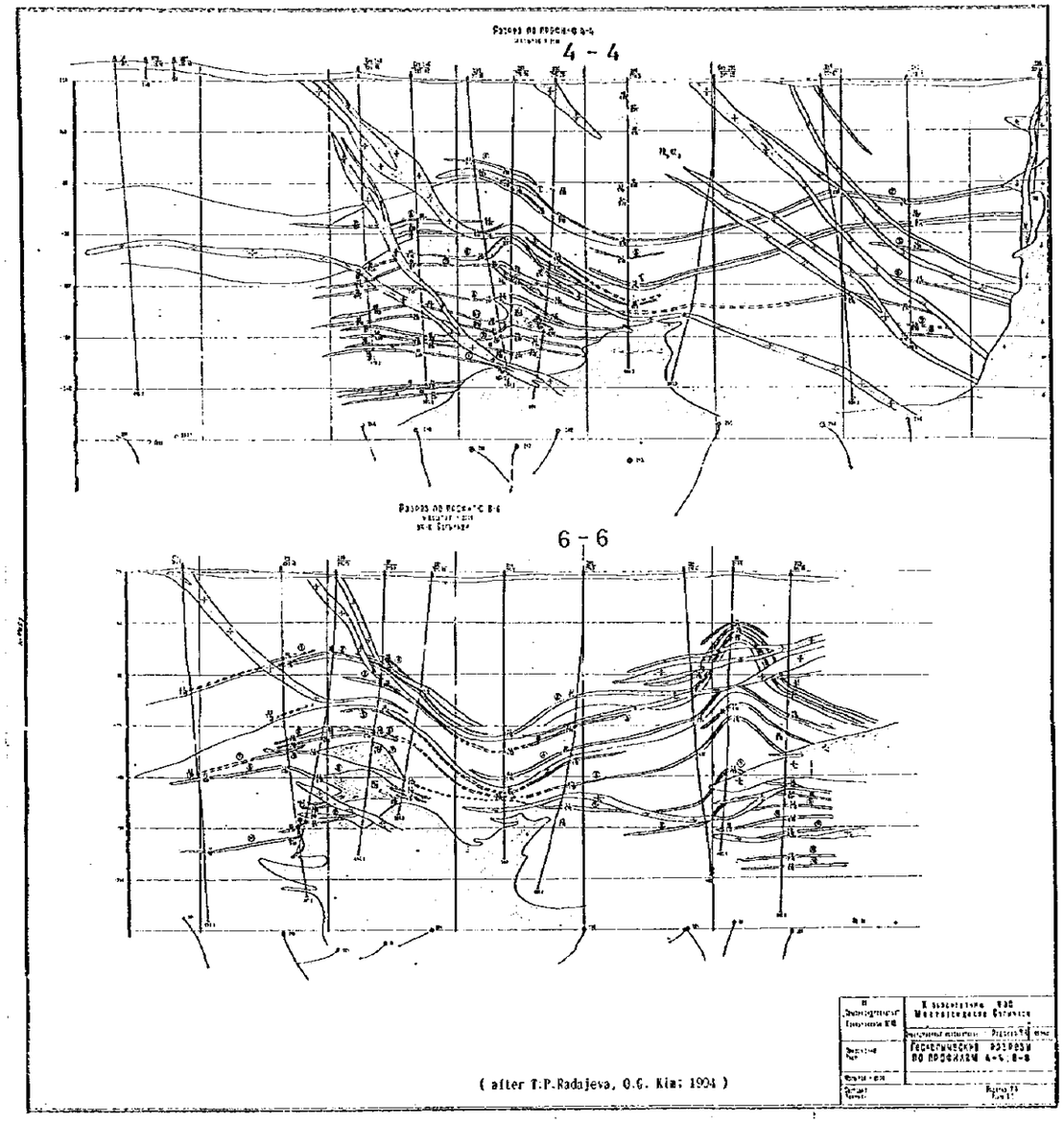
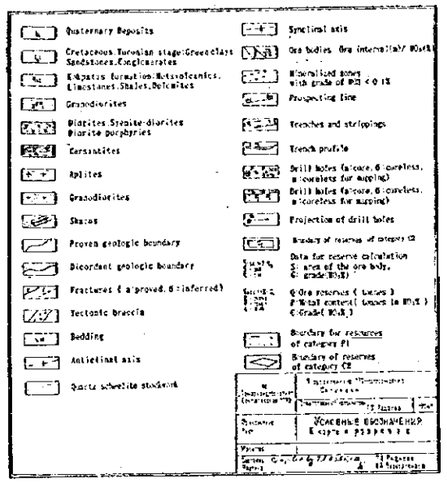
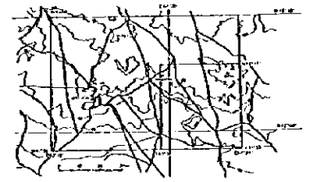


(after T.P.Radajeva, O.G. Kim; 1994)



THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

GEOLOGICAL CROSS SECTIONS OF THE SAGHINKAN DEPOSITS



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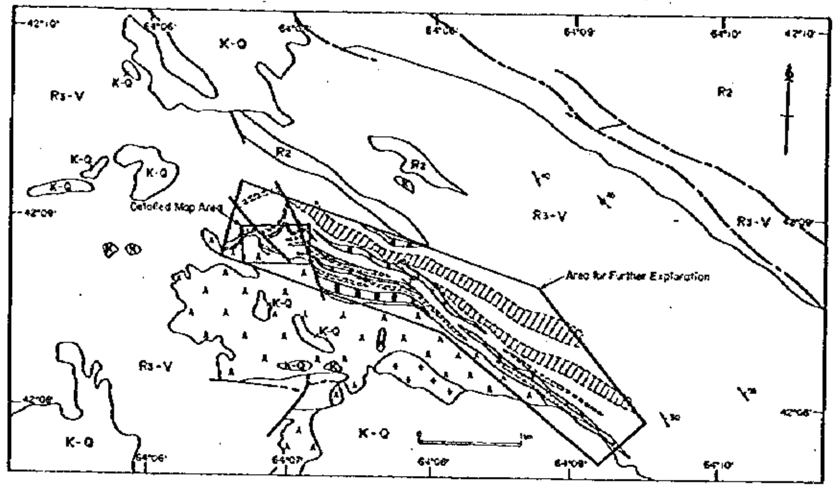
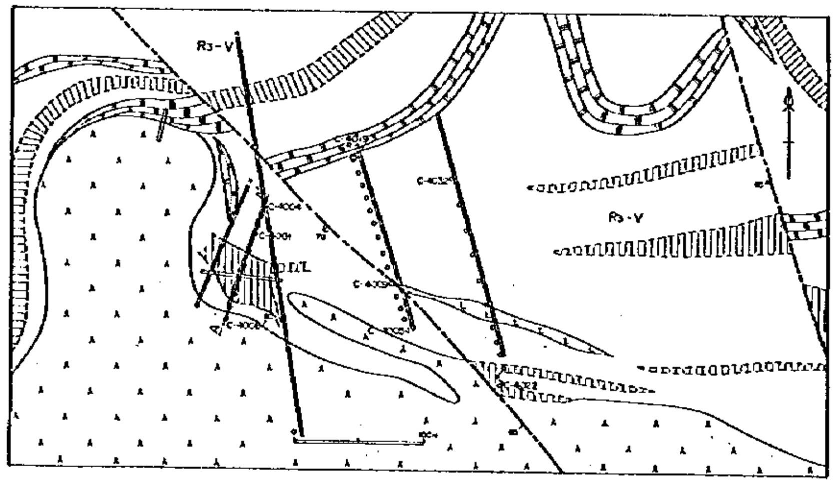
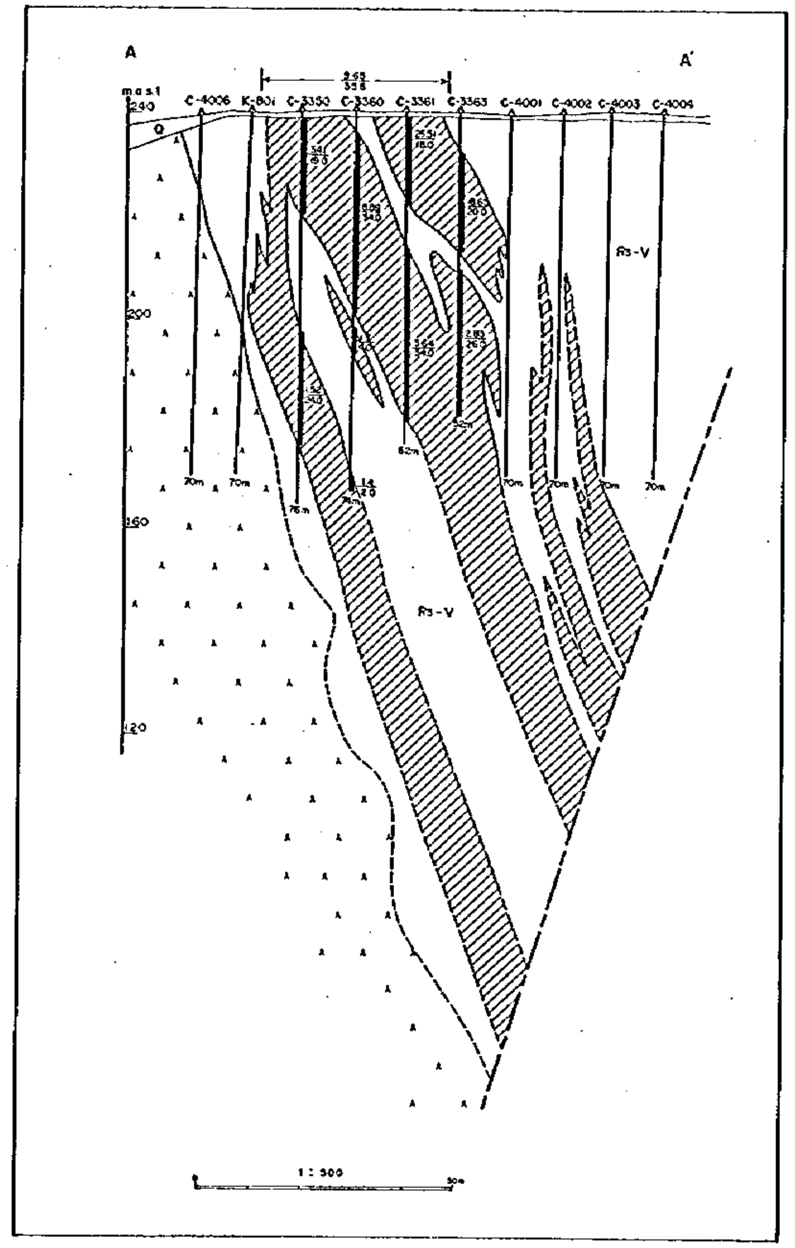


a: Index Map of Bulutkan Prospect



b: Detail Map of Bulutkan Prospect



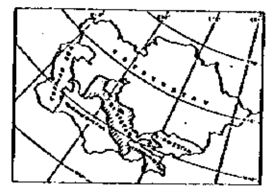
c: Cross Section of A – A'

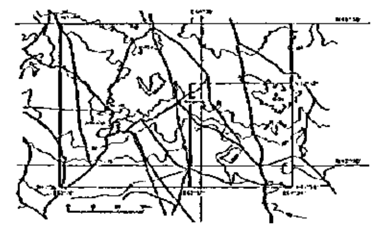
(after V.F. Chechulin: 1994)

PL. II-1-7

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

SCHEMATIC GEOLOGICAL MAP AND CROSS SECTION OF THE BULUTKAN ORE SHOWING





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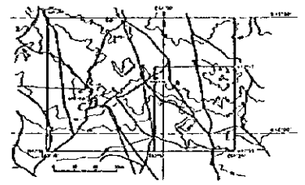
LEGEND

K-Q	Cretaceous or Quaternary sediments
R3-V	Kokpatas formation, sandstones, shales, quartz schist
	dolomites, quartzites
R2	Karashakh formation schist, metavolcanics
	bersantite
	syenodiorite
	granodiorite
	gold ore zone
	Au grade(g/t)/sample interval(m)
	fault
	bedding
	trench
	drill hole(non core drilling)
A—A'	cross section line

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

GEOLOGICAL MAP OF THE TURBAY ORE DEPOSITS



JAPAN INTERNATIONAL COOPERATION AGENCY
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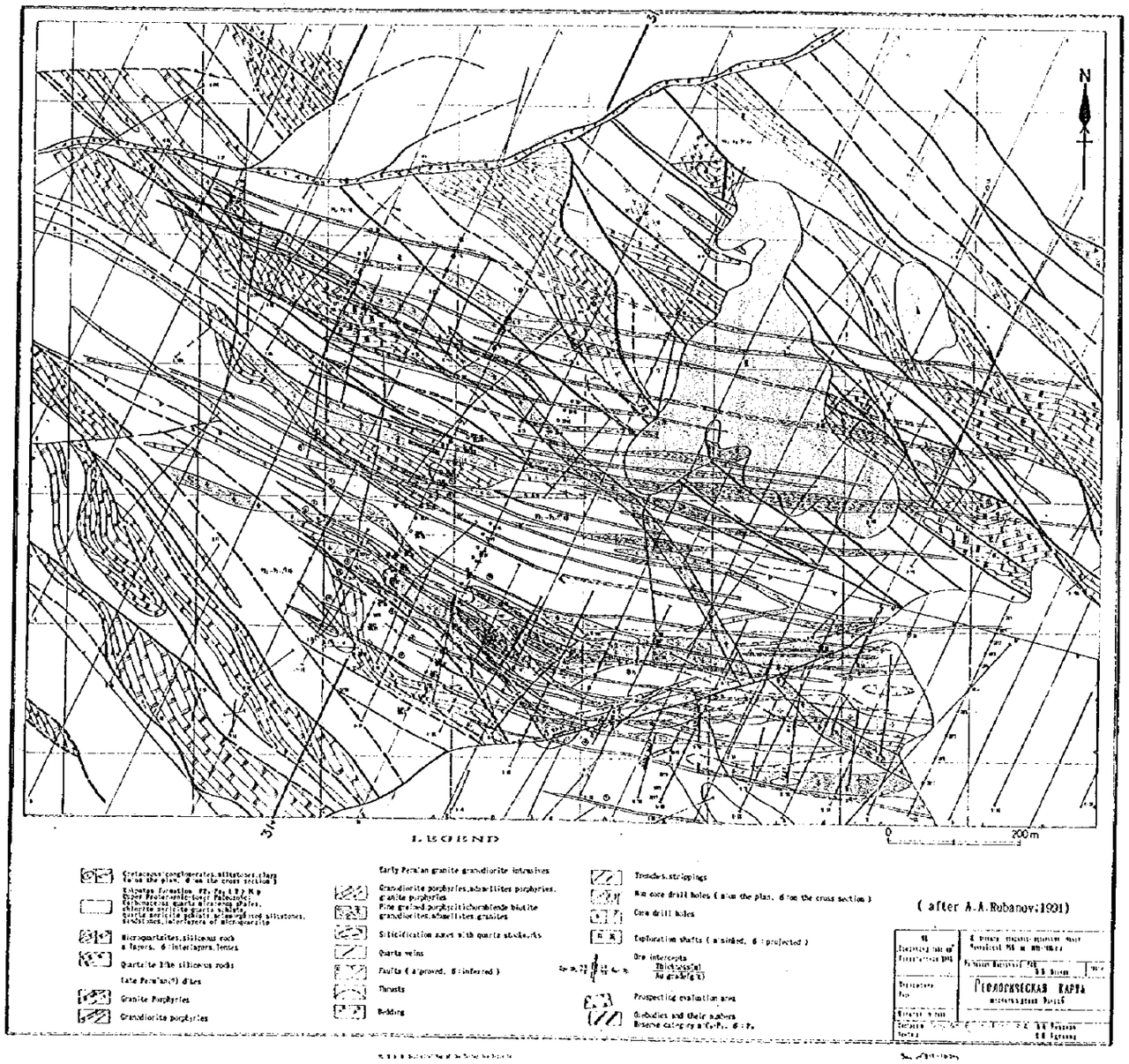
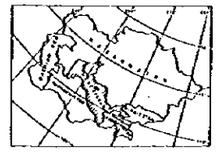
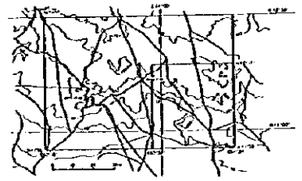


THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

GEOLOGICAL CROSS SECTION OF THE TURBAY DEPOSITS





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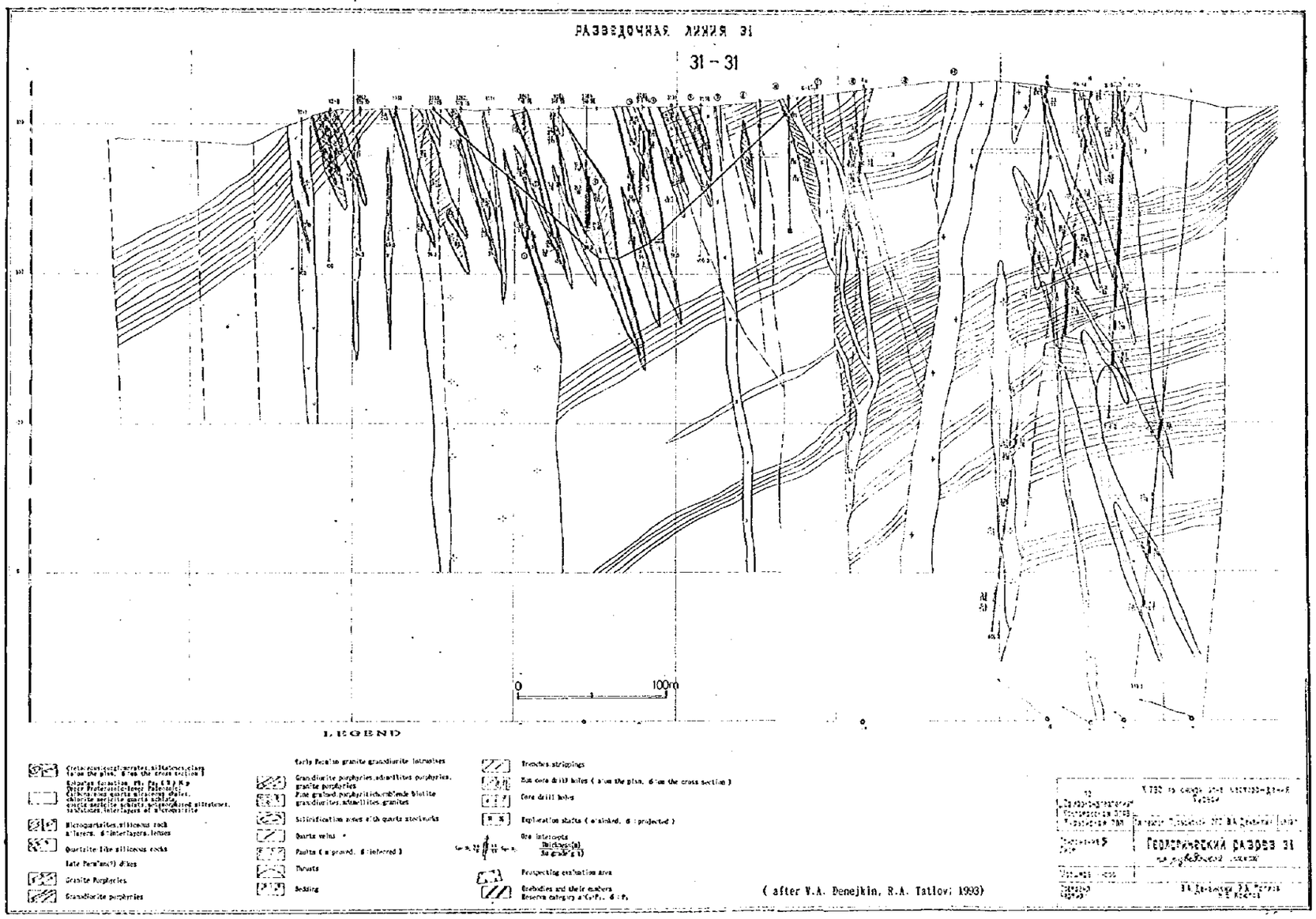
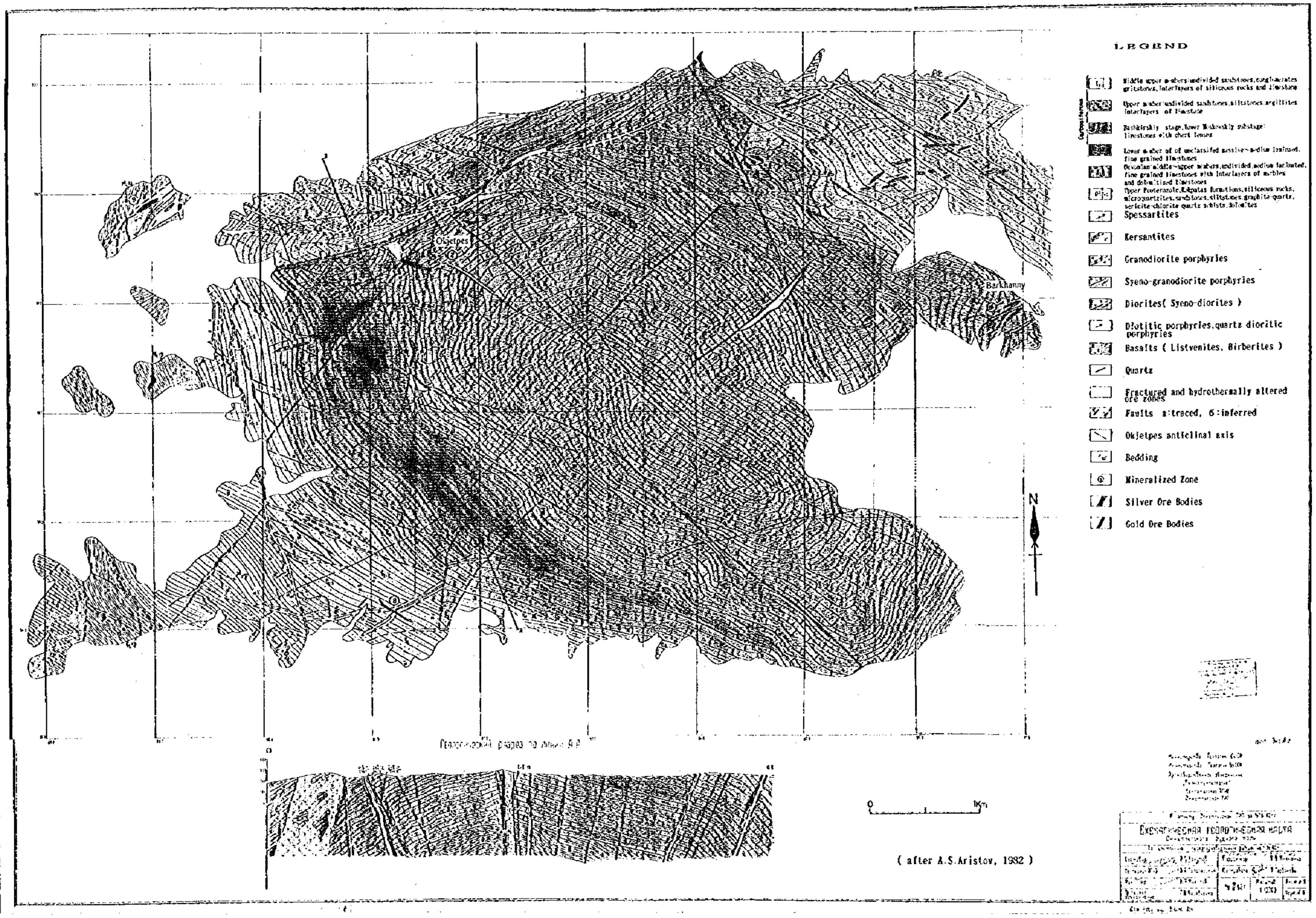
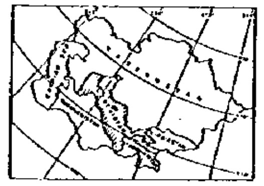


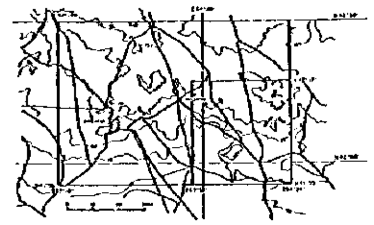


PL. II-1-10

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

SCHEMATIC GEOLOGICAL MAP OF THE OKJETPES ORE FIELD





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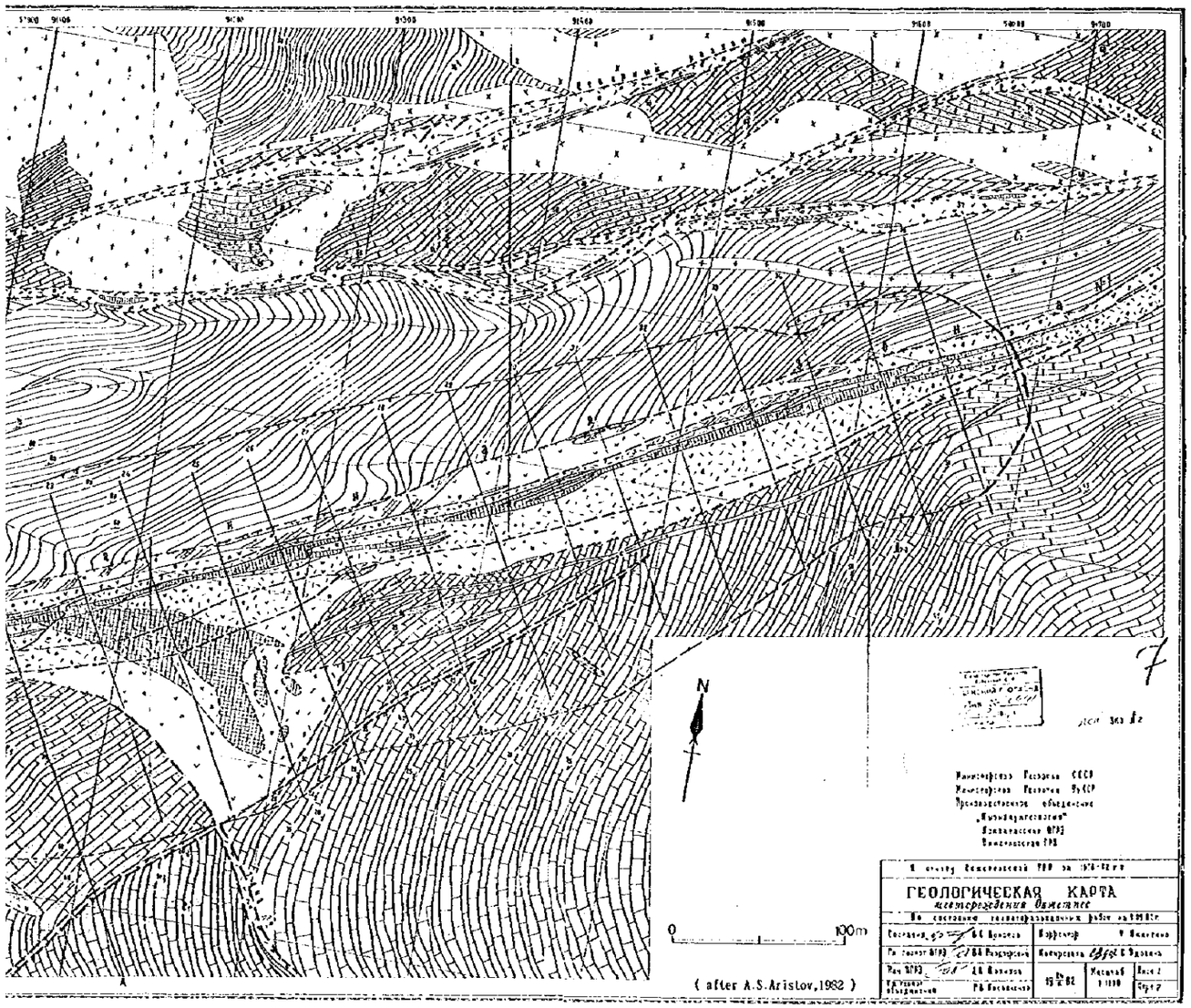
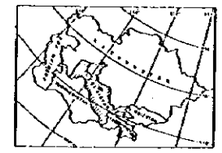


PL. II-1-11

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

GEOLOGICAL MAP OF THE OKJETPES DEPOSITS



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11 – 11

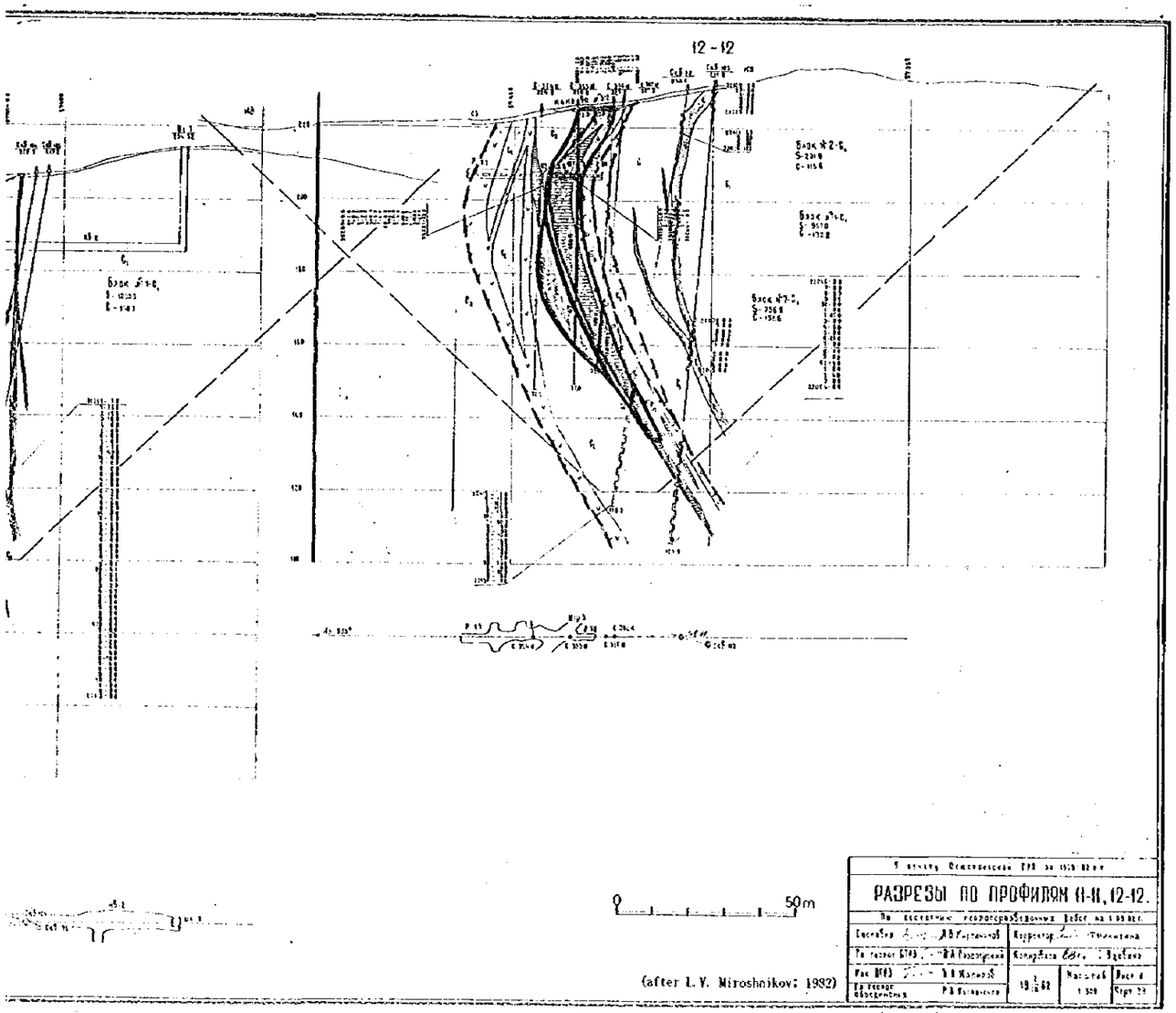
12 – 12

0 50m

(after L.V. Miroshnikov; 1982)

РАЗРЕЗЫ ПО ПРОФИЛЯМ 11-11, 12-12.

LEGEND



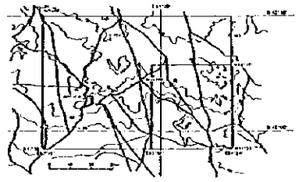
(after L. V. Miroshnikov; 1982)

РАЗРЕЗЫ ПО ПРОФИЛЯМ 11-11, 12-12.

PL. B-1-12

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

GEOLOGICAL CROSS SECTION OF THE OKJETPES ORE DEPOSITS



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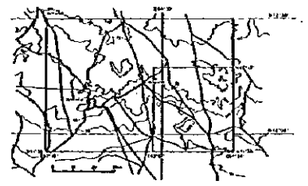
THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

GEOLOGIAL MAP AND CROSS SECTION OF THE BARHANNY ORE SHOWING



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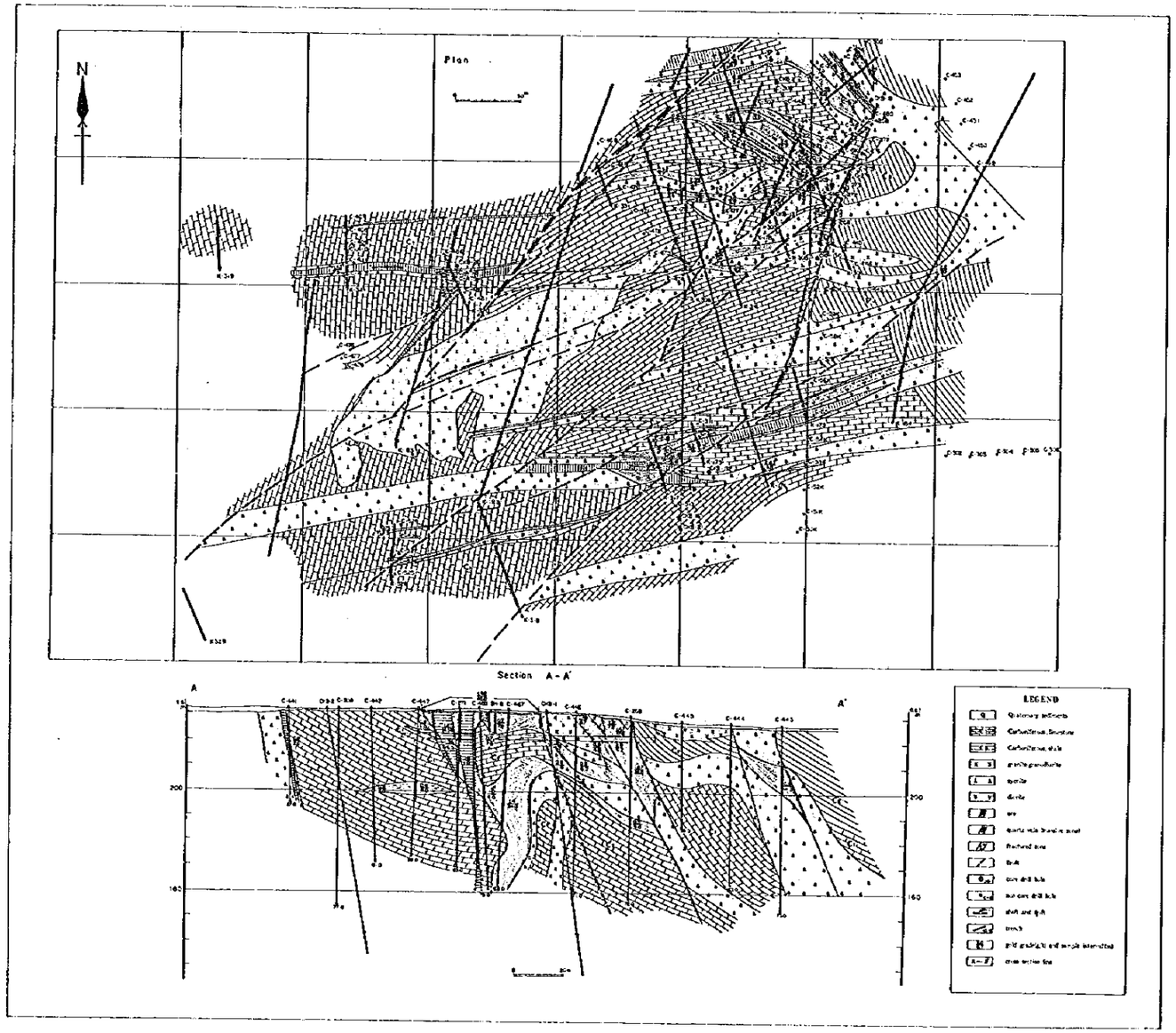
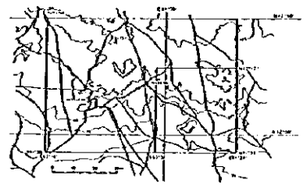


THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

TOTAL MAGNETIC ANOMALY MAP



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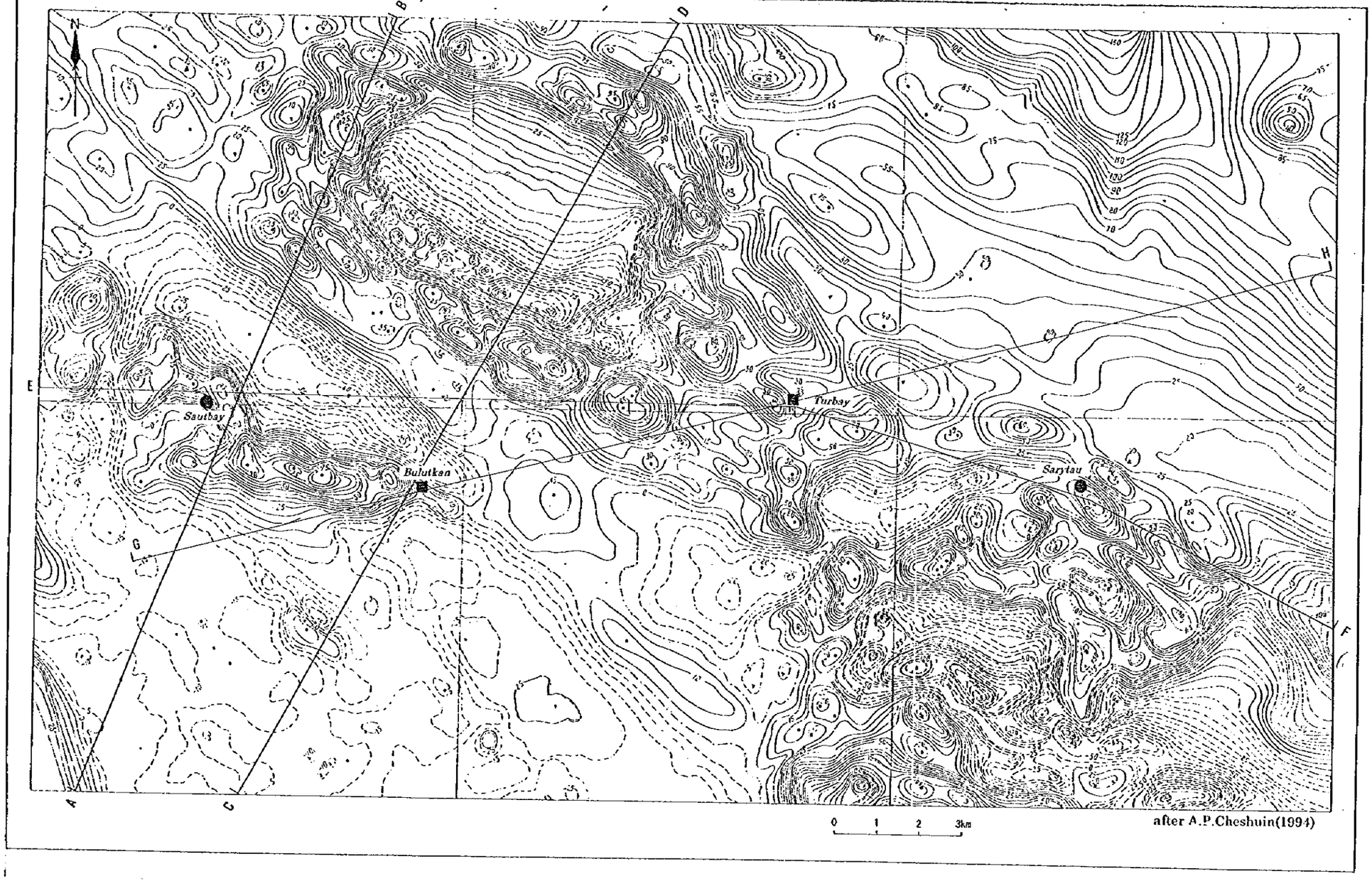
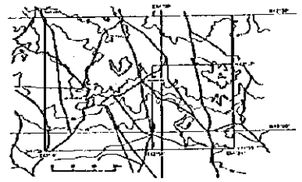


Legend

- 100 — solid line : positive anomaly
- 100 - - - dashed line : negative anomaly
- unit : nT
- A — B geophysical-geological section
- ●, ■ ore deposits and ore showing

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

LOCAL MAGNETIC ANOMALY MAP



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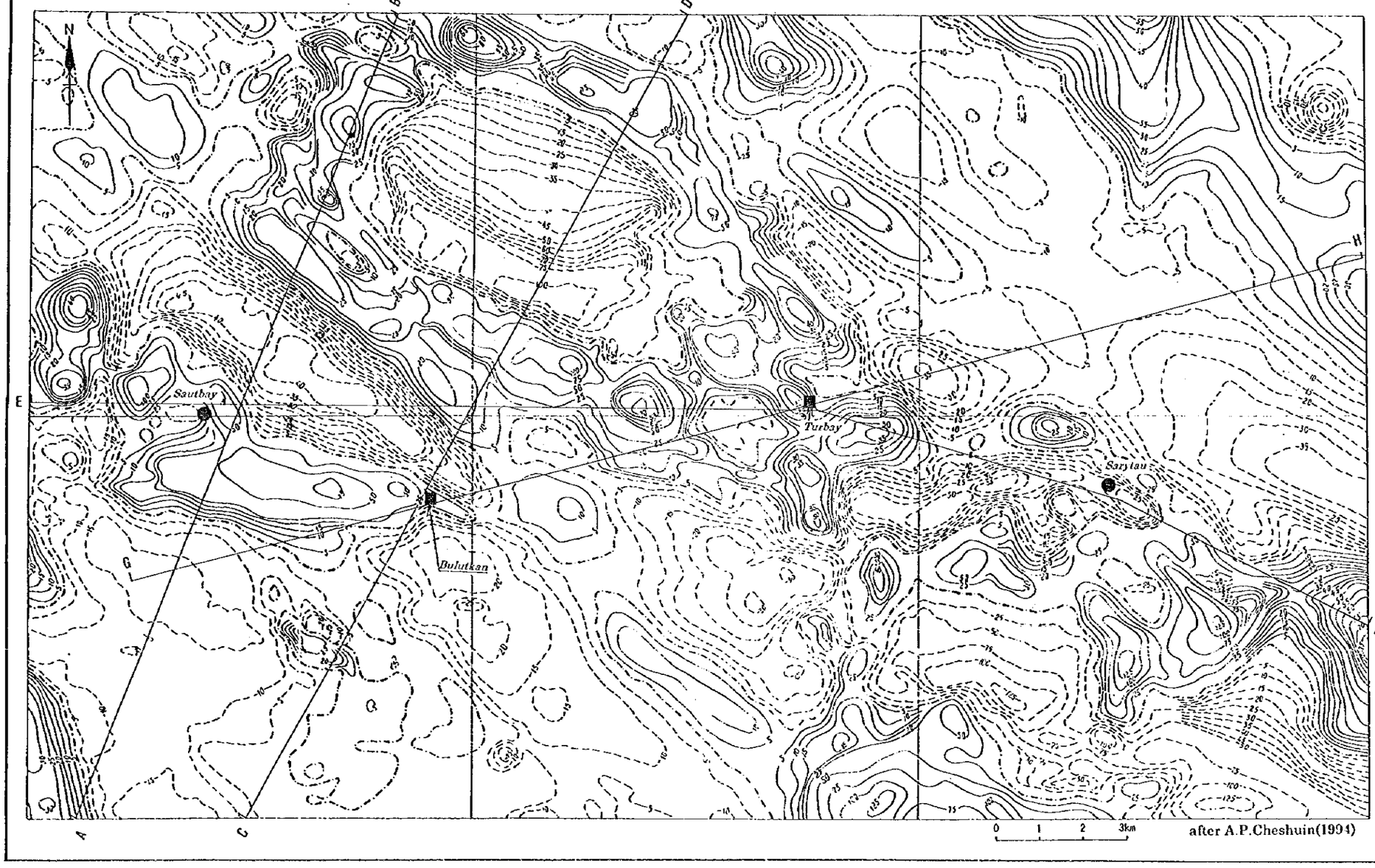


after A.P.Cheshuin(1994)

Legend

100 solid line : positive anomaly

100 dashed line : negative anomaly

unit : nT

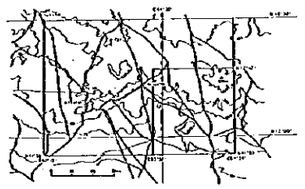
(filtered wavelength 10,000m)

A B geophysical-geological section

● , ■ ore deposits and ore showing

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE 1)

GEOPHYSICAL - GEOLOGICAL SECTION A – B



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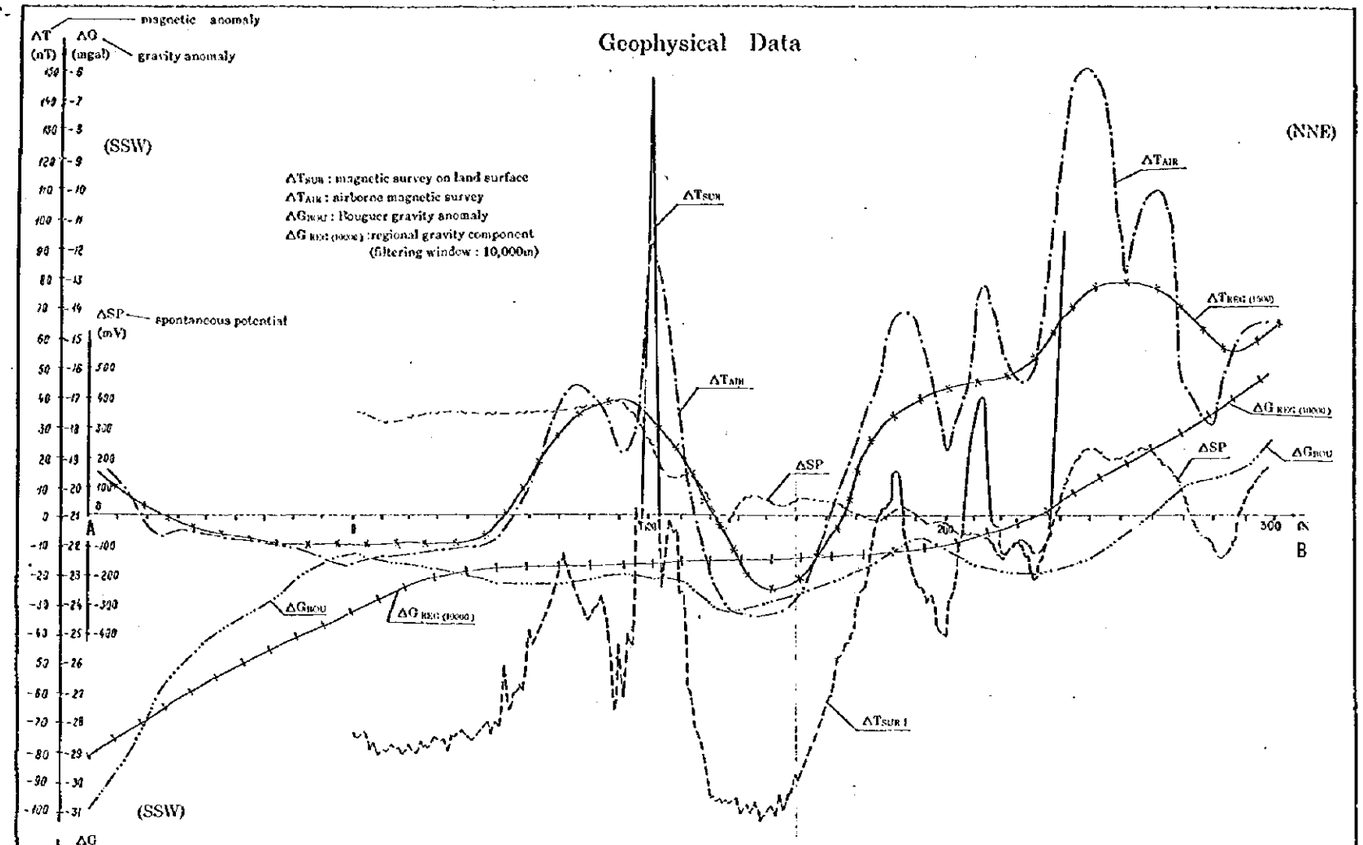
Geophysical Data

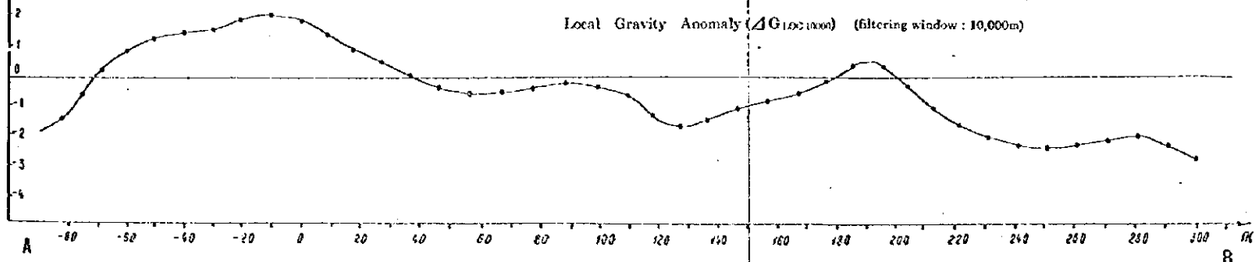
ΔT (nT) — magnetic anomaly
ΔG (mgal) — gravity anomaly
ΔSP — spontaneous potential (mV)

(SSW) (NNE)

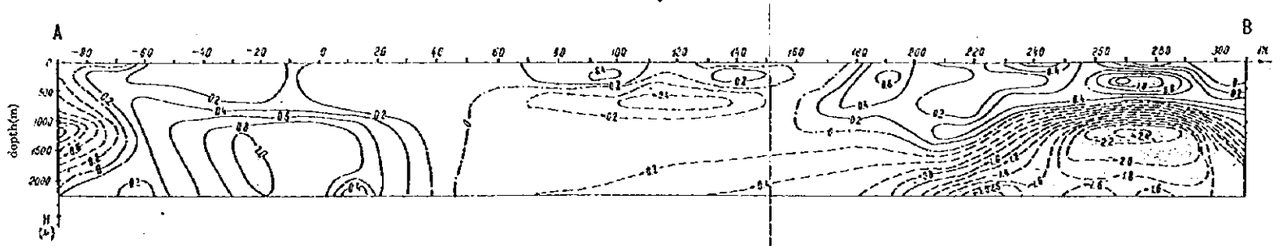
ΔTSUR : magnetic survey on land surface
ΔTAIR : airborne magnetic survey
ΔGBOU : Bouguer gravity anomaly
ΔG REG (10000) : regional gravity component (filtering window : 10,000m)



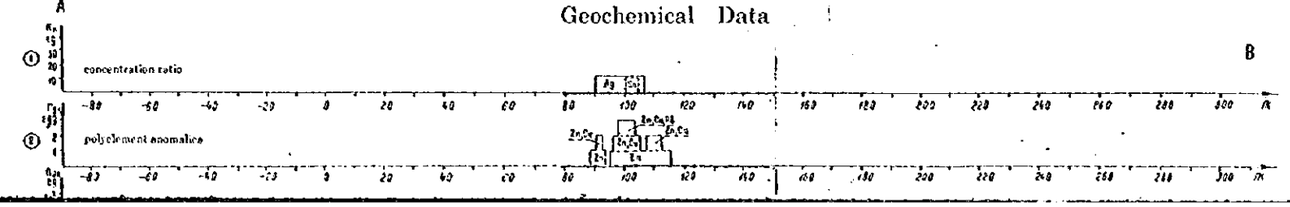
Local Gravity Anomaly (ΔG REG 10000) (filtering window : 10,000m)



Vertical Gravity Gradient



Geochemical Data



Legend

granitoid intrusive rock
- solid line : inferred from gravity modeling
- dashed line : prospective border
- -0.1, -0.05 : density contrast in g/cm³, against to country rock(2.67g/cm³)

km: Kumbulak formation
kr : Kurashakh formation
kp : Kokpatas formation
ha : Khodjaakhmet formation
ks : Koksai formation

contact with granitoid intrusive rock
(according to geophysical data, and hydrothermal metasomatic changes of rocks)
a: close contact b: middle contact
δ: with mineral associations including sulfide

dislocations with break in continuity
a : known(solid line) inferred (dashed line)
δ, β : enriched zone of magnetic minerals)
(β : including sulfide)

location of ore field and prospective area

drilling data
drill hole and its №
density (g/cm³)
magnetic susceptibility (x10⁻³ SI)

longitudinal wave velocity (km/sec) according to seismic prospecting

magnetic susceptibility (x10⁻⁶ cgs/cm³) derived from magnetic modeling

(SSW)

(NNE)

Local Gravity Anomaly ($\Delta G_{LOC\,10000}$) (filtering window : 10,000m)

Vertical Gravity Gradient

Geochemical Data

concentration ratio

polyelement anomalies

monoelement anomalies

polyelement anomalies

monoelement anomalies

Geophysical - Geological Model

(SSW)

(NNE)

Okjetpes area

Okjetpes fault

Southbay ore field

Southbay deposit

North Southbay fault

North Akkol fault

Turbay fault

Turbay ore field

North Southbay intrusive rock

Turbay intrusive rock

depth(m)

0 1 2 3km

after A.P.Cheshuin(1991)

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Legend

granitoid intrusive rock
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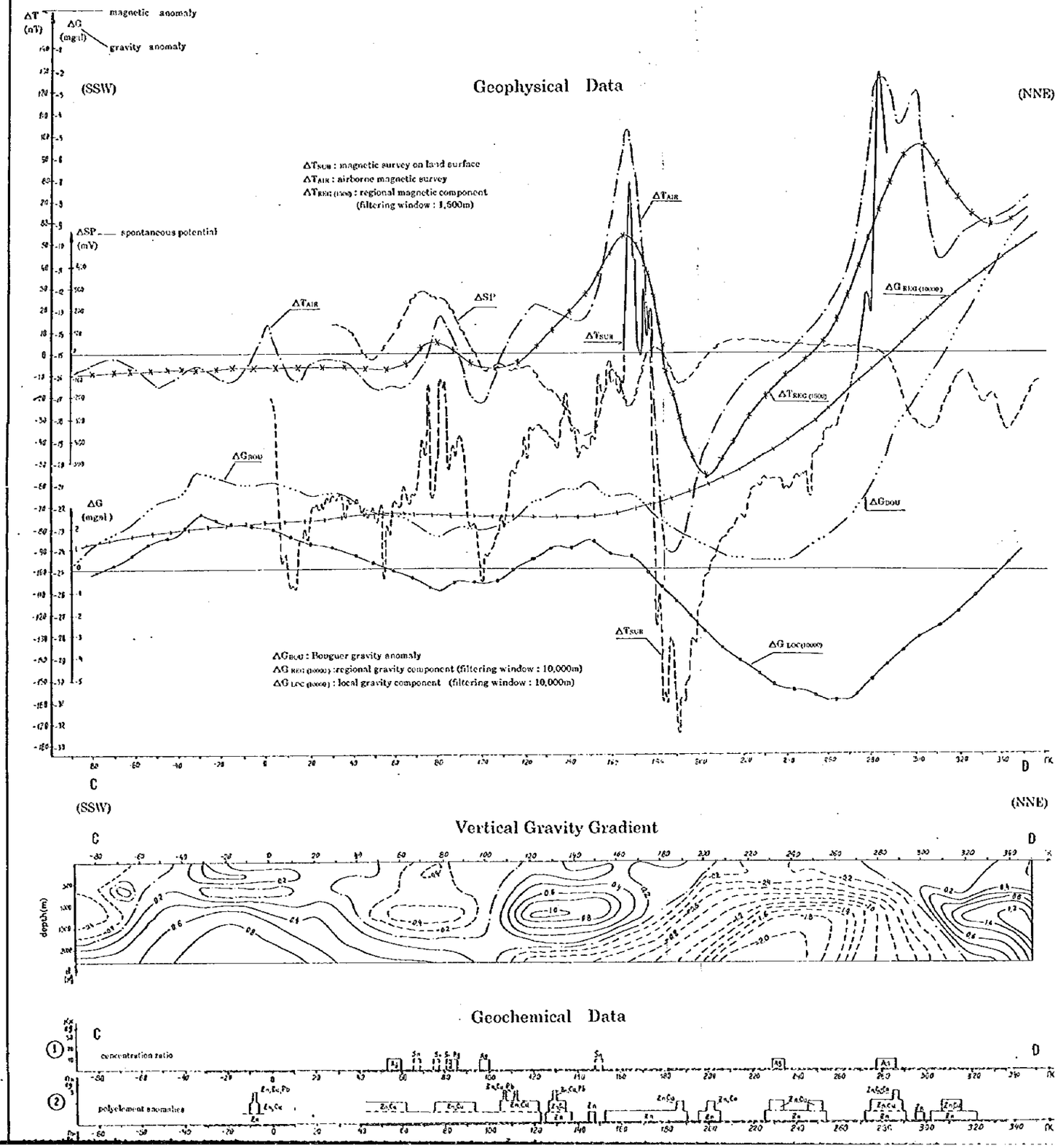
(δ : including sulfide)

location of ore field and prospective area

drilling data
drill hole and its №
density (g/cm³)
magnetic susceptibility (x10⁻³ SI)

longitudinal wave velocity (km/sec) according to seismic prospecting

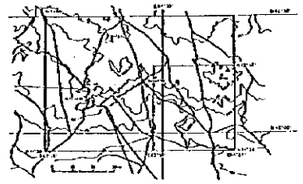
magnetic susceptibility (x10⁻⁴ cgs/cm³) derived from magnetic modeling



PL. II-2-4

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

GEOPHYSICAL - GEOLOGICAL SECTION C – D



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Legend

granitoid intrusive rock
- solid line : inferred from gravity modeling
- dashed line : prospective border
- -0.1,-0.05 : density contrast in g/cm³, against to country rock(2.67g/cm³)

km: Kumbulak formation
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ks : Koksai formation

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a: close contact b: middle contact
δ: with mineral associations including sulfide

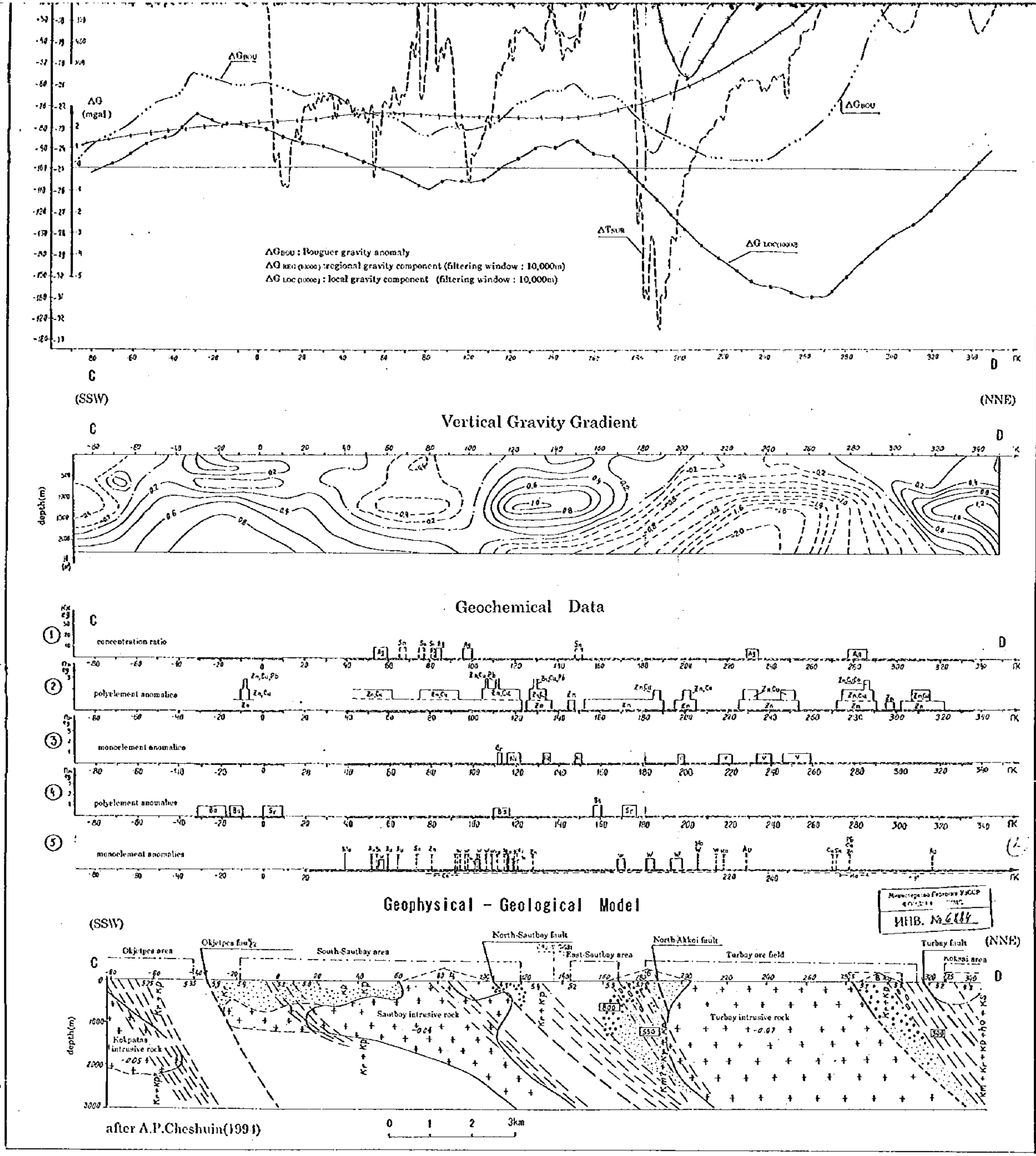
dislocations with break in continuity
α : know n(solid line) inferred (dashed line)
δ, β : enriched zone of magnetic minerals)
(β : including sulfide)

location of ore field and prospective area

drilling data
drill hole and its No.
density (g/cm³)
magnetic susceptibility (x10⁻³ SI)

longitudinal wave velocity (km/sec) according to seismic prospecting

magnetic susceptibility (x10⁻³cgs/cm³)



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Legend

granitoid intrusive rock
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- -0.1,-0.05 : density contrast in g/cm³, against to country rock(2.67g/cm³)

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a: close contact b: middle contact
δ: with mineral associations including sulfide

dislocations with break in continuity
a : known(solid line) inferred (dashed line)
δ, β : enriched zone of magnetic minerals)
(β : including sulfide)

location of ore field and prospective area

drilling data
drill hole and its No
density (g/cm³)
magnetic susceptibility (x10⁻⁵ SI)

longitudinal wave velocity (km/sec) according to seismic prospecting

magnetic susceptibility (x10⁻⁶ cgs/cm³) derived from magnetic modeling

Geophysical Data

ΔT (nT) — magnetic anomaly
ΔG (mgal) — gravity anomaly
spontaneous potential
ΔSP (mV)

ΔTSUR : magnetic survey on land surface
ΔTAIR : airborne magnetic survey
ΔTREG (1500) : regional magnetic component (filtering window : 1,500m)
ΔGBOU : Bouguer gravity anomaly
ΔGREG (10000) : regional gravity component (filtering window : 10,000m)

(W) (E)

ΔTAIR, ΔSP, ΔTREG (1500), ΔGBOU, ΔGREG (10000), ΔTSUR

Local Gravity Anomaly (ΔGLOC 10000) (filtering window : 10,000m)

ΔG (mgal)

E F

Vertical Gravity Gradient

depth (m)

E F

Geochemical Data

concentration ratio

② polyelement anomalies

③ monoelement anomalies

④ polyelement anomalies

E F

THE MINERAL E
IN
THE EASTERN BU
THE REPUBLIC O
(PHASI

GEOPHYSICAL – G
SECTION E

JAPAN INTERNATIONAL C
METAL MINING AG
FEBRUAR

Prepared by

Legend

granitoid intrusi
- solid line : inferre
- dashed line : pres
- -0.1, -0.05 : densit
against to co

km: Kumbulak form
kr : Karashakh form
kp : Kokpatas form
ha : Khodjaakhmet
ka : Kokasi formatic

contact with gran
(according to genphy
metasomatic cha
a: close contact
δ: with mineral asso

dislocations with
a : known(solid line
δ, β : enriched zone
(β : including sulfide

location of ore field

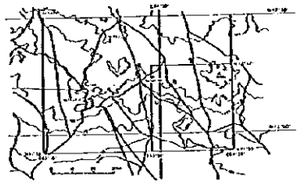
drilling data
drill hole and its N
density (g/cm³)
magnetic susceptibil

longitudinal wave ve
according to seismi

magnetic susceptibil
derived from magn

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

GEOPHYSICAL - GEOLOGICAL SECTION E - F



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METAL MINING AGENCY OF JAPAN
FEBRUARY 1995

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Geophysical Data

ΔTSUR : magnetic survey on land surface
ΔTAIR : airborne magnetic survey
ΔTREG (1500) : regional magnetic component (filtering window : 1,500m)
ΔGBOU : Bouguer gravity anomaly
ΔG REG (10000) : regional gravity component (filtering window : 10,000m)

ΔTAIR
ΔTREG (1500)
ΔSP
ΔTSUR
ΔG REG (10000)
ΔGBOU

(E) F

Local Gravity Anomaly (ΔG LOC 10000) (filtering window : 10,000m)

(E) F

Vertical Gravity Gradient

(E) F

Geochemical Data

concentration ratio

polyelement anomalies

monoelement anomalies

polyelement anomalies

F

Legend

granitoid intrusive rock
- solid line : inferred from gravity modeling
- dashed line : prospective border
- -0.1,-0.05 : density contrast in g/cm³, against to country rock(2.67g/cm³)

km : Kumbulak formation
kr : Karashakh formation
kp : Kokpatas formation
ha : Khodjaakhmet formation
ka : Koksai formation

contact with granitoid intrusive rock (according to geophysical data, and hydrothermal metasomatic changes of rocks)
a : close contact b : middle contact
δ : with mineral associations including sulfide

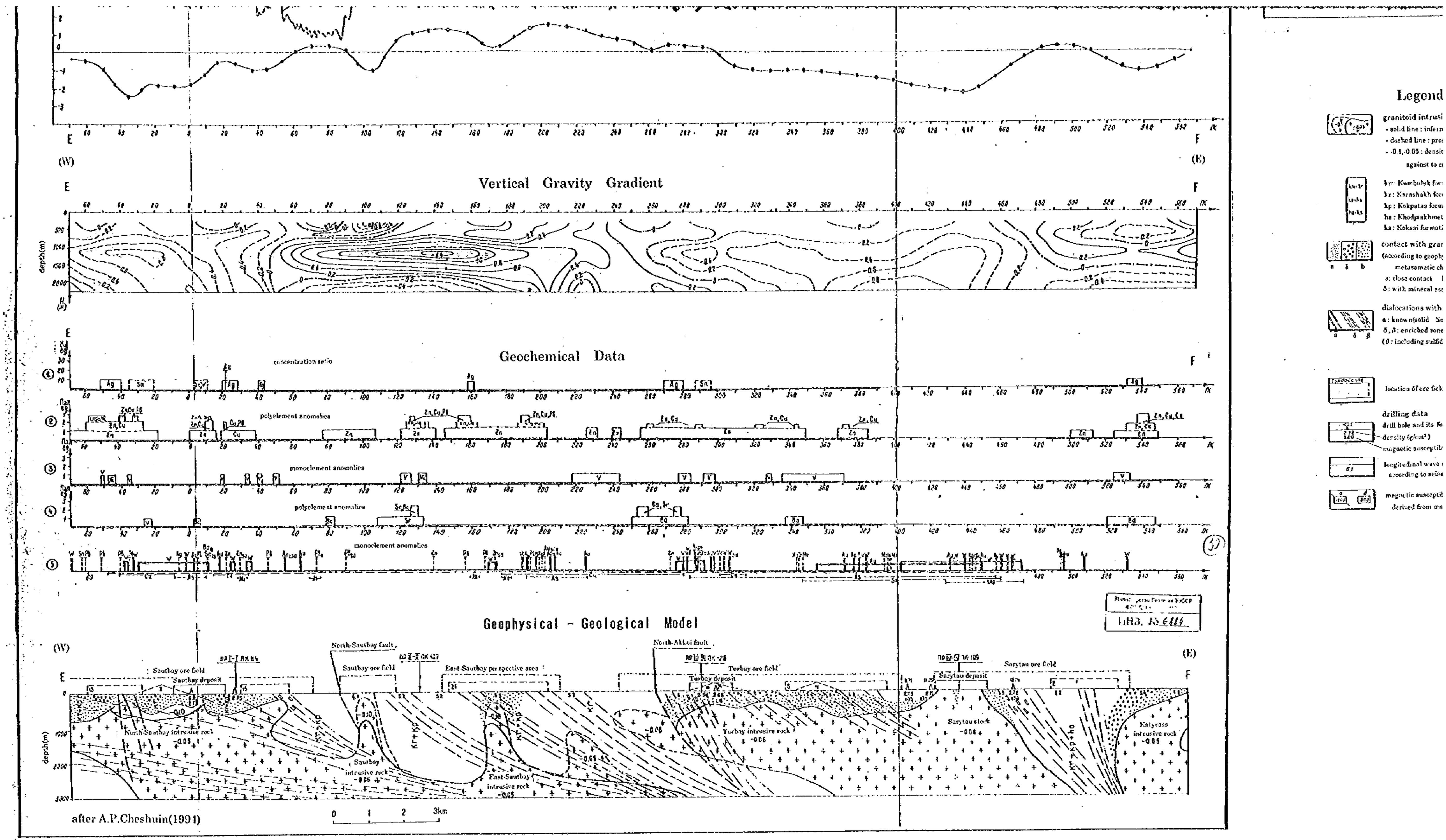
dislocations with break in continuity
a : known(solid line) inferred (dashed line)
δ, β : enriched zone of magnetic minerals)
(β : including sulfide)

location of ore field and prospective area

drilling data
drill hole and its №
density (g/cm³)
magnetic susceptibility (x10⁻⁶SI)

longitudinal wave velocity (km/sec) according to seismic prospecting

magnetic susceptibility (x10⁻⁶cgs/cm³) derived from magnetic modeling



Vertical Gravity Gradient
Geochemical Data
concentration ratio
polyelement anomalies
monoelement anomalies
polyelement anomalies
monoelement anomalies
Geophysical - Geological Model
(W)
(E)
North-Sautbay fault
Sautbay ore field
Sautbay deposit
East-Sautbay perspective area
North-Akkoi fault
Turbay ore field
Turbay deposit
Sorytau ore field
Sorytau deposit
North-Sautbay intrusive rock
Sautbay intrusive rock
East-Sautbay intrusive rock
Turbay intrusive rock
Sorytau stock
Katyrass intrusive rock
depth(m)
after A.P.Cheshuin(1994)
0 1 2 3km
Legend

Vertical Gravity Gradient

Geochemical Data

concentration ratio

polyelement anomalies

monoelement anomalies

polyelement anomalies

monoelement anomalies

Geophysical - Geological Model

North-Sautbay fault

North-Akkoi fault

Sautbay ore field

Sautbay deposit

East-Sautbay perspective area

Turbay ore field

Turbay deposit

Sarytau ore field

Sarytau deposit

Sautbay intrusive rock

Turbay intrusive rock

Sarytau stock

Katyraus intrusive rock

East-Sautbay intrusive rock

0 1 2 3km

ain(1991)

Legend

granitoid intrusive rock
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- dashed line : prospective border
- -0.1,-0.05 : density contrast in g/cm³, against to country rock(2.67g/cm³)

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a: close contact b: middle contact
δ: with mineral associations including sulfide

dislocations with break in continuty
α : known(solid line) inferred (dashed line)
δ, β : enriched zone of magnetic minerals)
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location of ore field and prospective area

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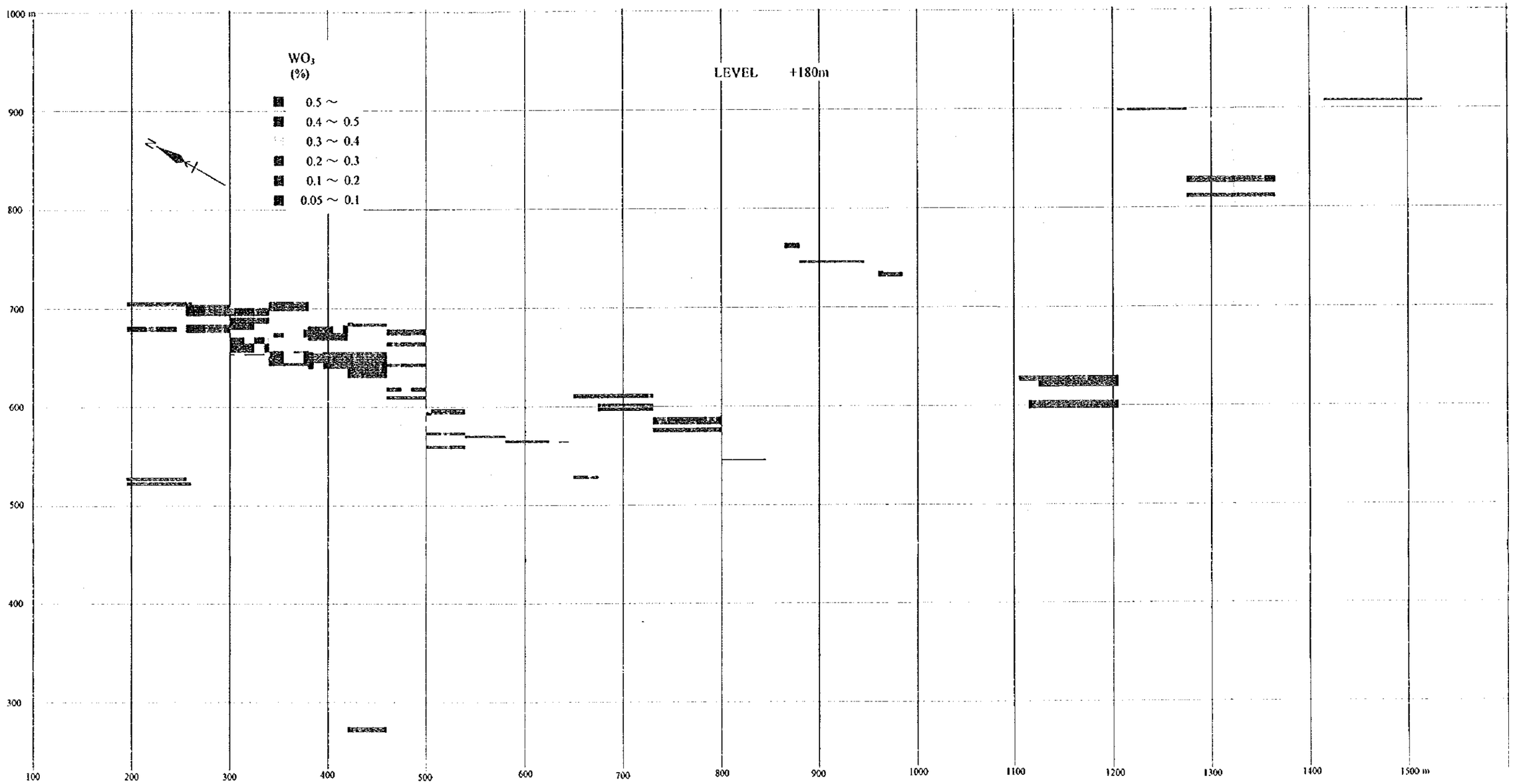
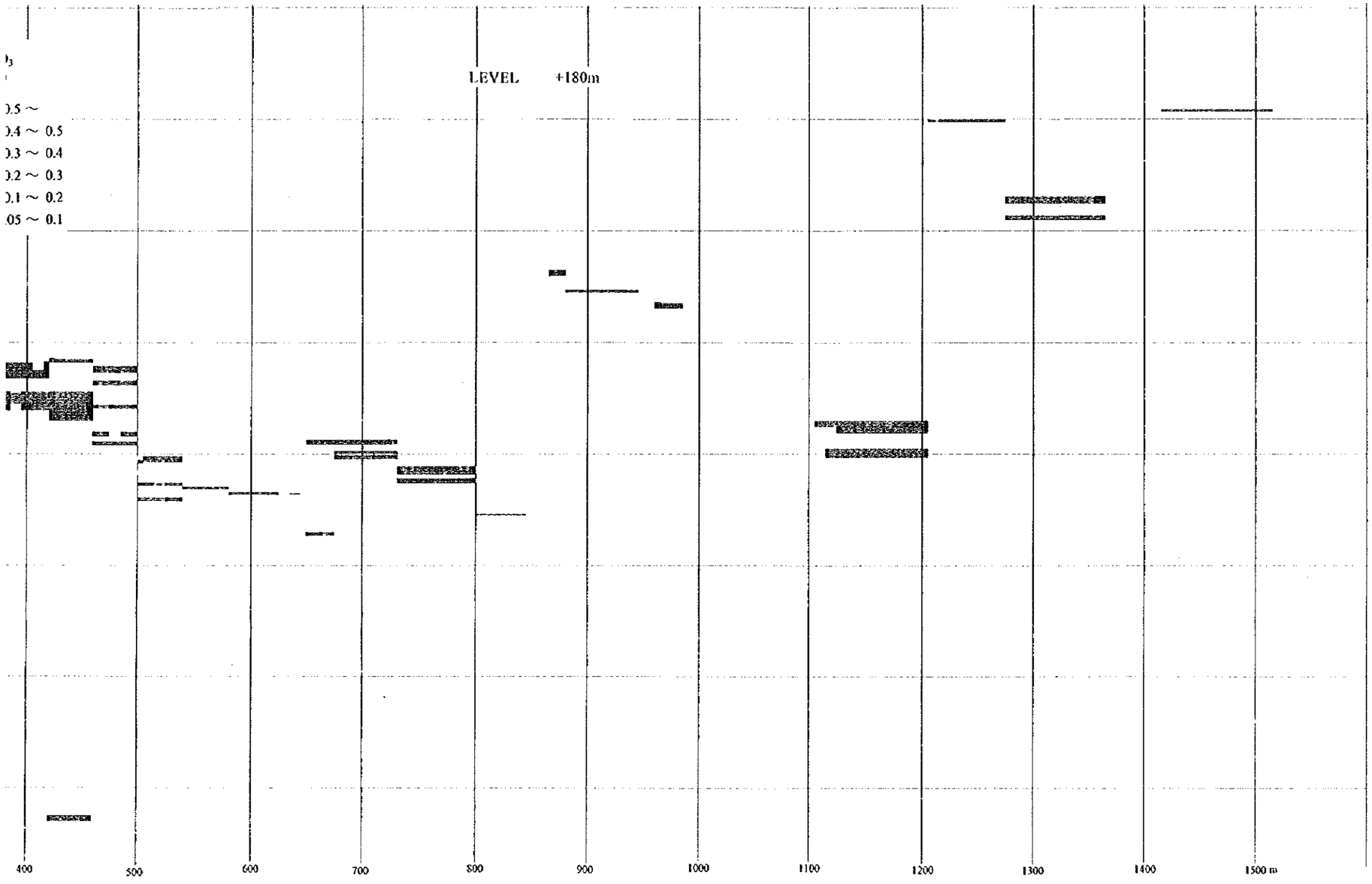
density (g/cm³)
magnetic susceptibility (x10⁻³ SI)

longitudinal wave velocity (km/sec) according to seismic prospecting

magnetic susceptibility (x10⁻⁶cgs/cm³) derived from magnetic modeling

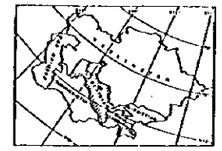

WO3
(%)
0.5 ～
0.4 ～ 0.5
0.3 ～ 0.4
0.2 ～ 0.3
0.1 ～ 0.2
0.05 ～ 0.1
LEVEL +180m
1000 m
900
800
700
600
500
400
300
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500 m



PL. II-3-1(1)

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

ESTIMATED GRADES OF WO3 AT THE LEVEL OF + 180m



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METAL MINING AGENCY OF JAPAN
FEBRUARY 1995

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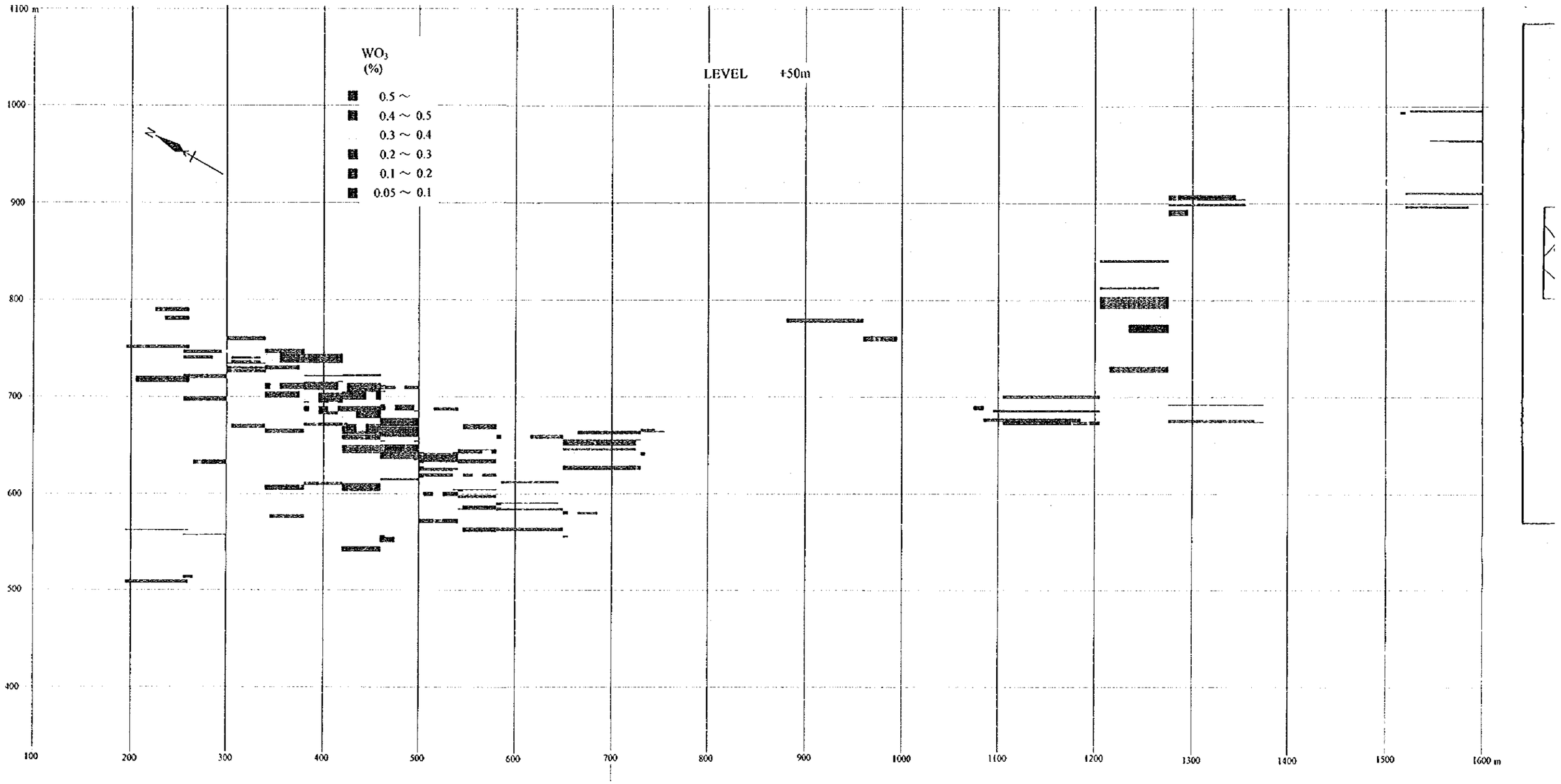
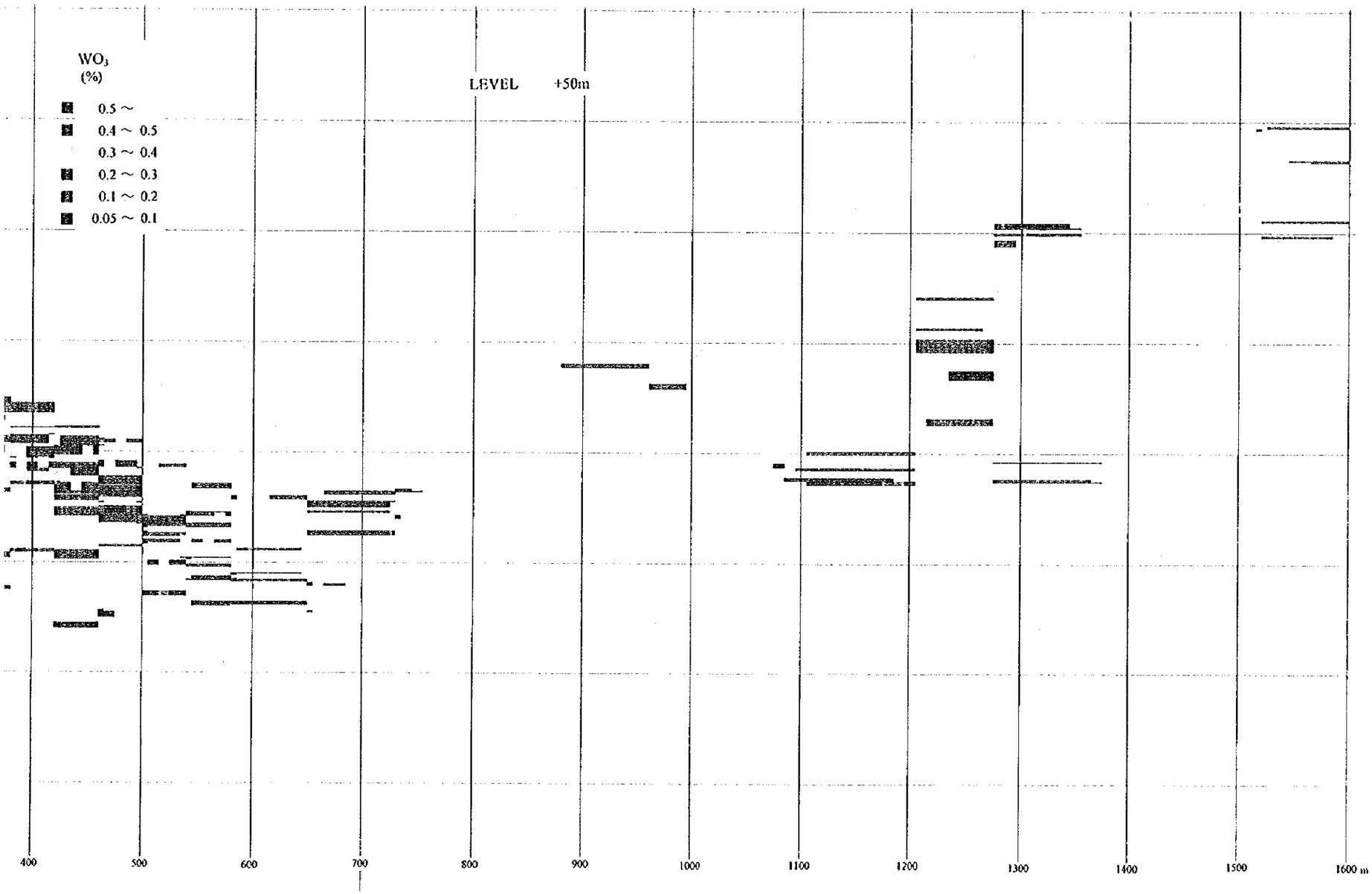
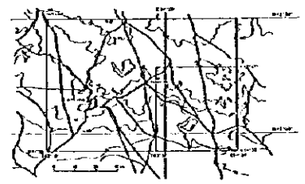

1100 m
1000
900
800
700
600
500
400
WO3
(%)
0.5 ~
0.4 ~ 0.5
0.3 ~ 0.4
0.2 ~ 0.3
0.1 ~ 0.2
0.05 ~ 0.1
N
LEVEL +50m
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600 m



PL. II-3-1(2)

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

ESTIMATED GRADES OF WO3 AT THE LEVEL OF + 50m



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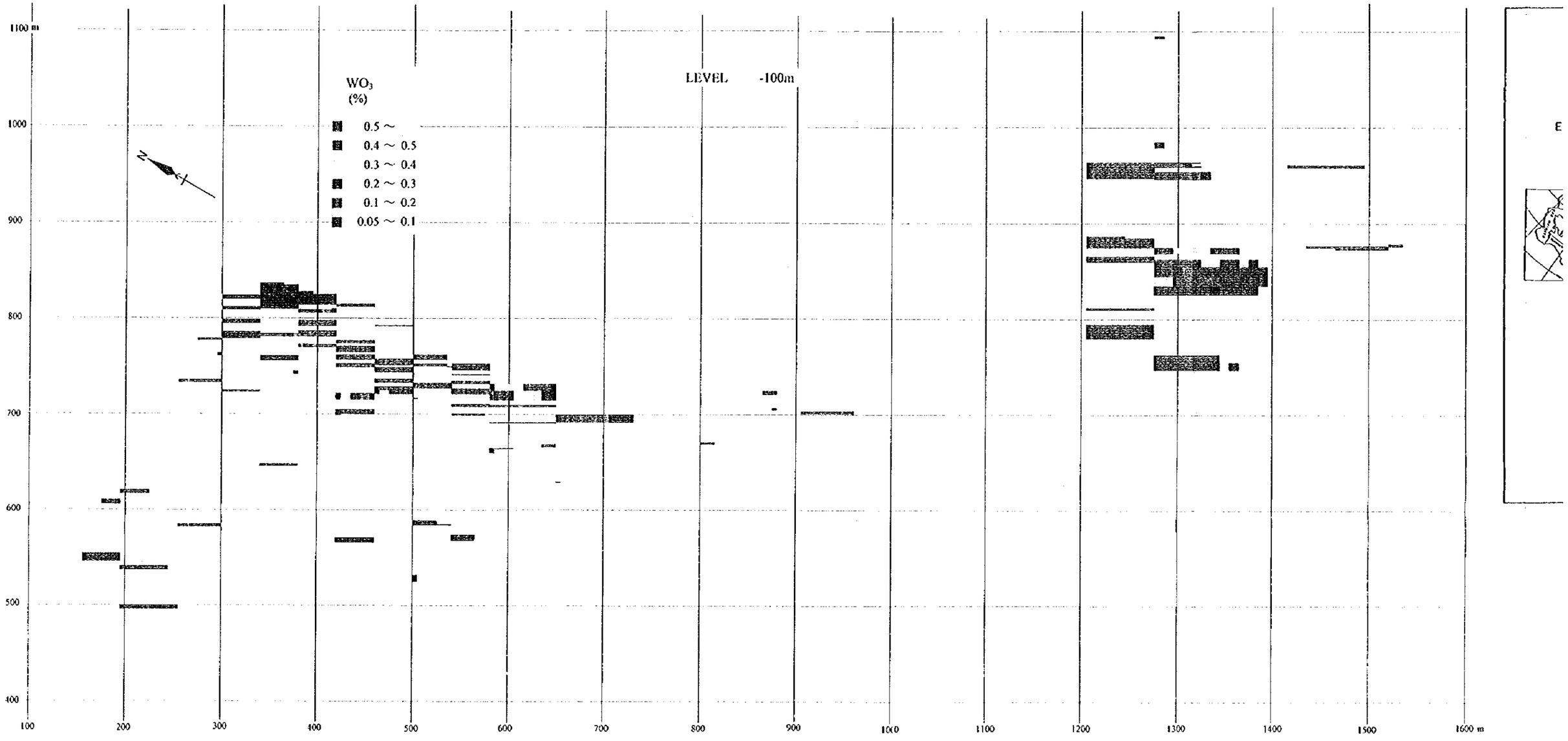
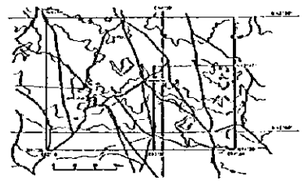
FEBRUARY 1995

Prepared by MINDECO


1100 m
1000
900
800
700
600
500
400
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600 m
WO3
(%)
0.5 ~
0.4 ~ 0.5
0.3 ~ 0.4
0.2 ~ 0.3
0.1 ~ 0.2
0.05 ~ 0.1
LEVEL -100m
N
E

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

ESTIMATED GRADES OF WO3 AT THE LEVEL OF - 100m



JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
FEBRUARY 1995

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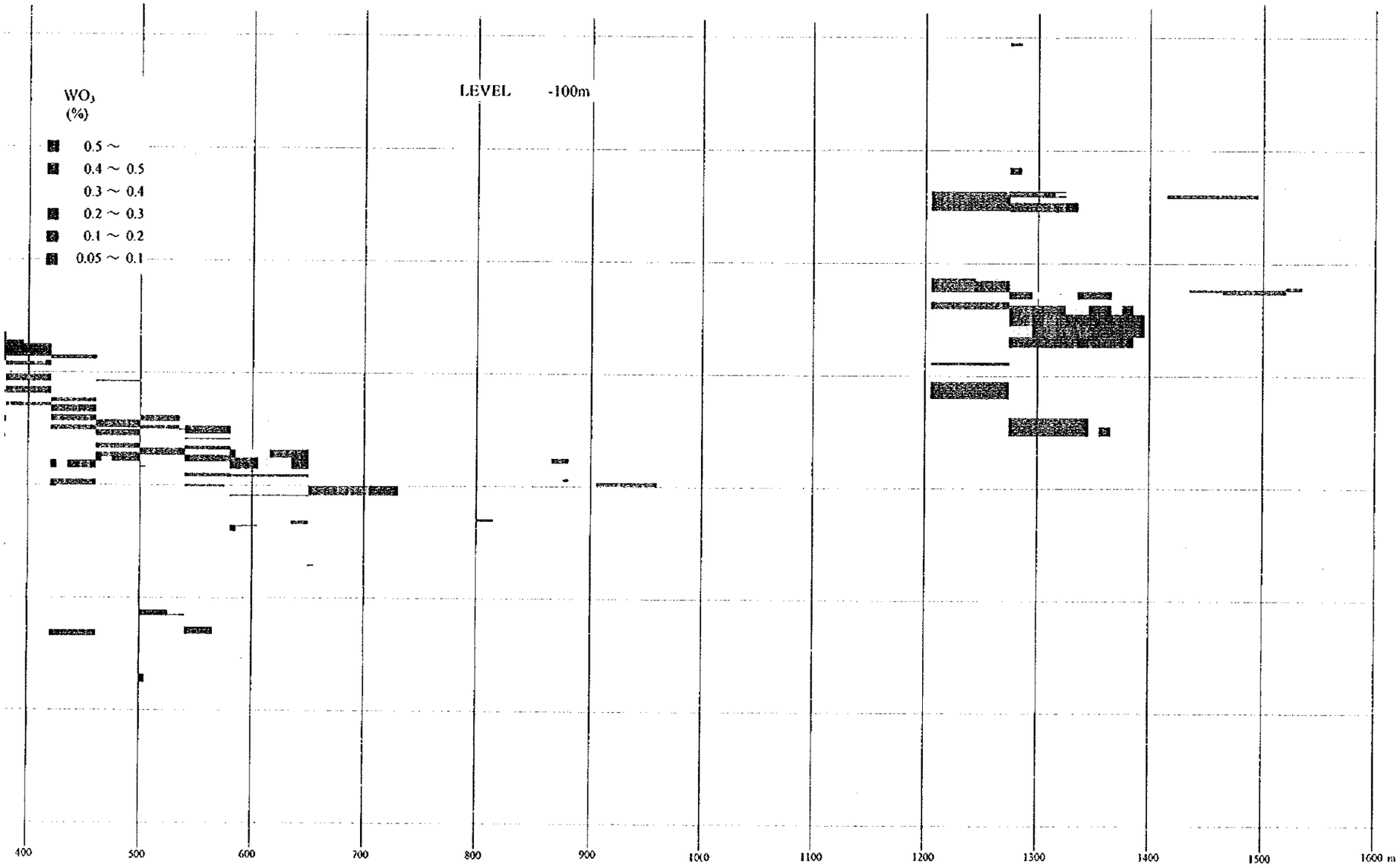
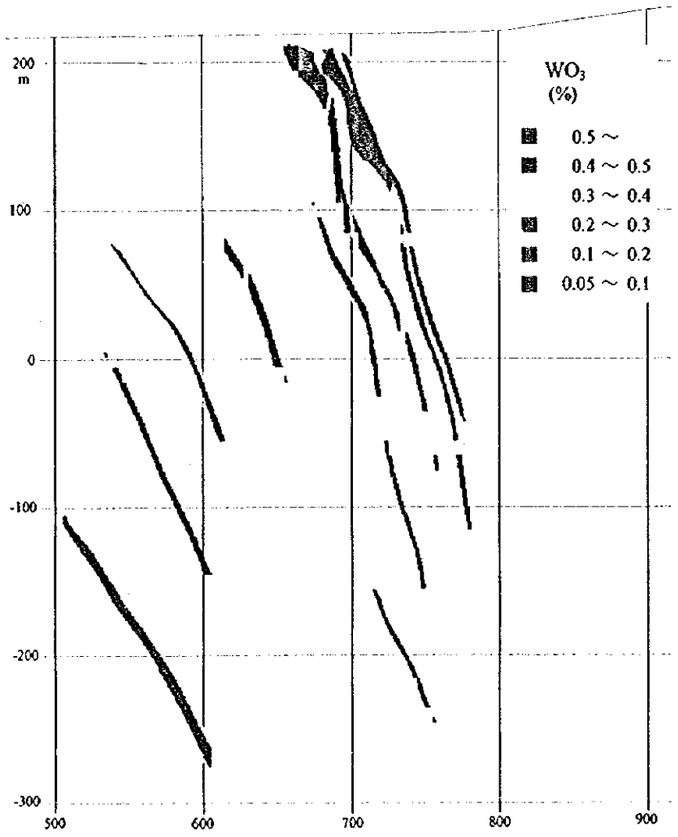
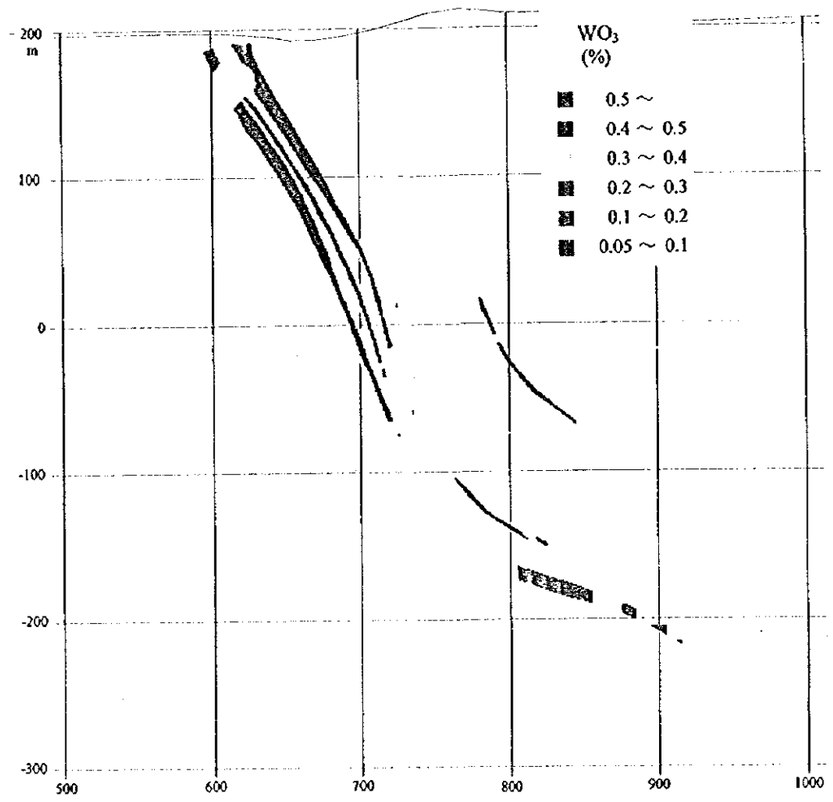


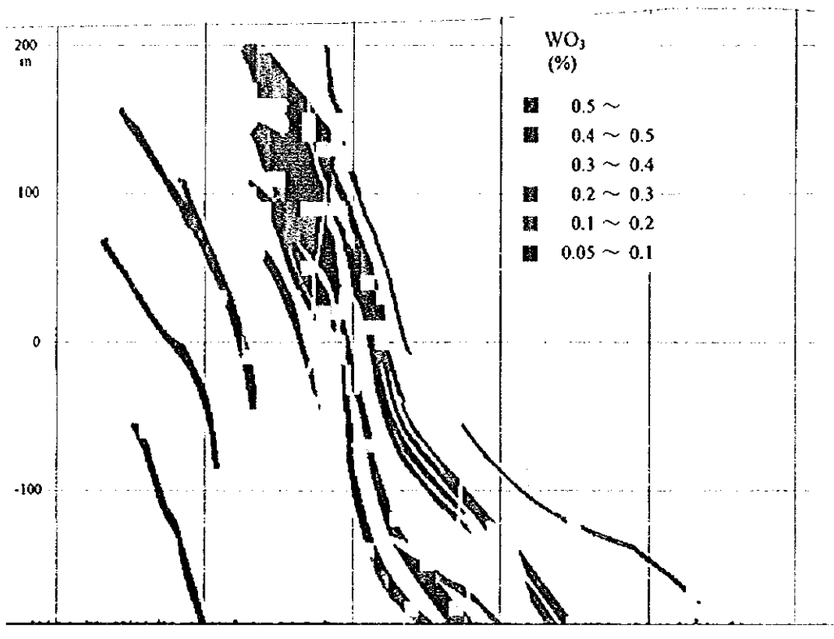
LINE 36 — 36



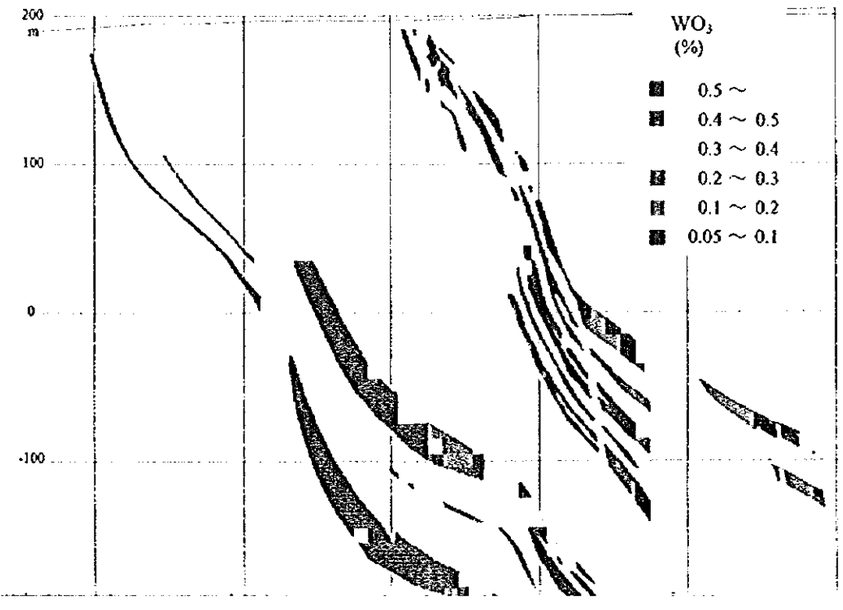
LINE 58 — 58



LINE 40 — 40



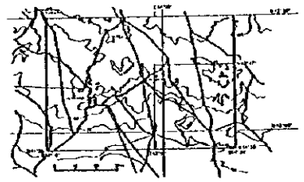
LINE 62 — 62



PL.II-3-2

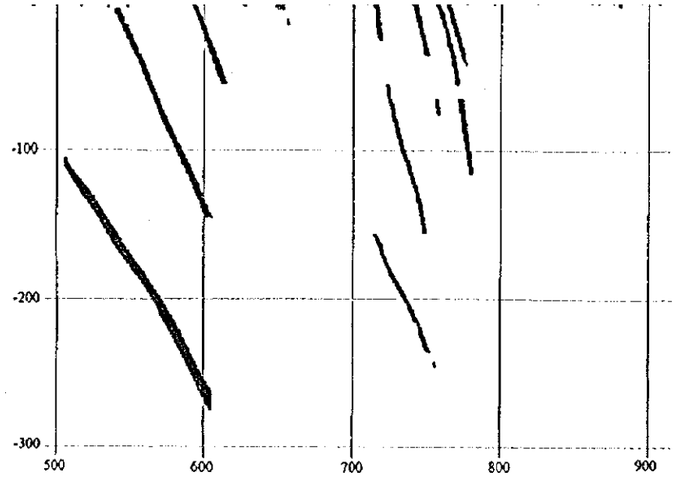
THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

ESTIMATED GRADES OF WO3 ALONG LINE 36-36, 40-40, 58-58, 62-62

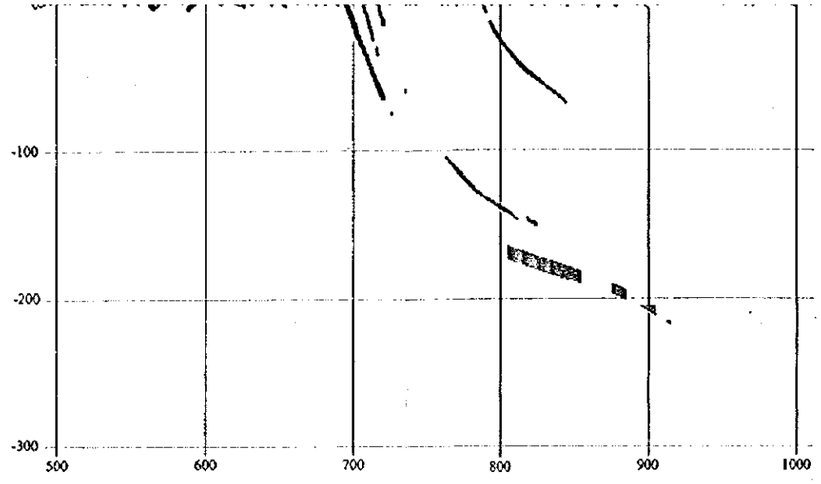


JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
FEBRUARY 1995

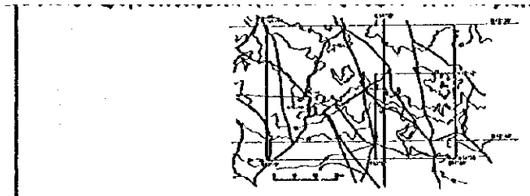
Prepared by MINDECO



LINE 40 — 40



LINE 62 — 62



JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
FEBRUARY 1995

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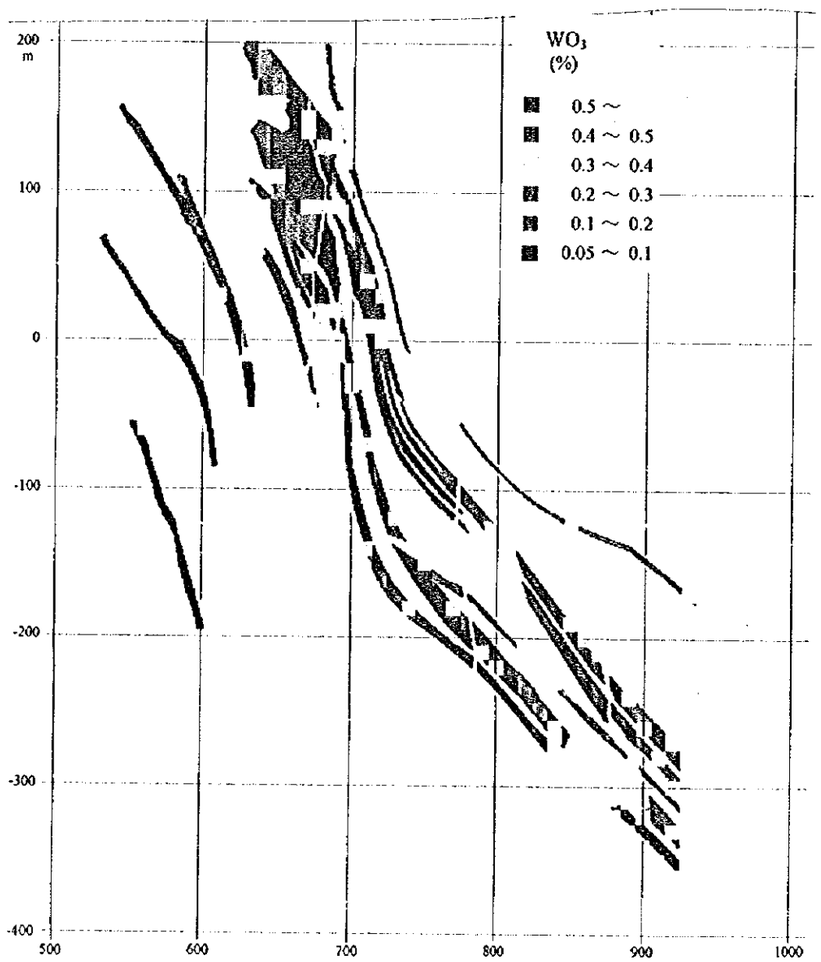
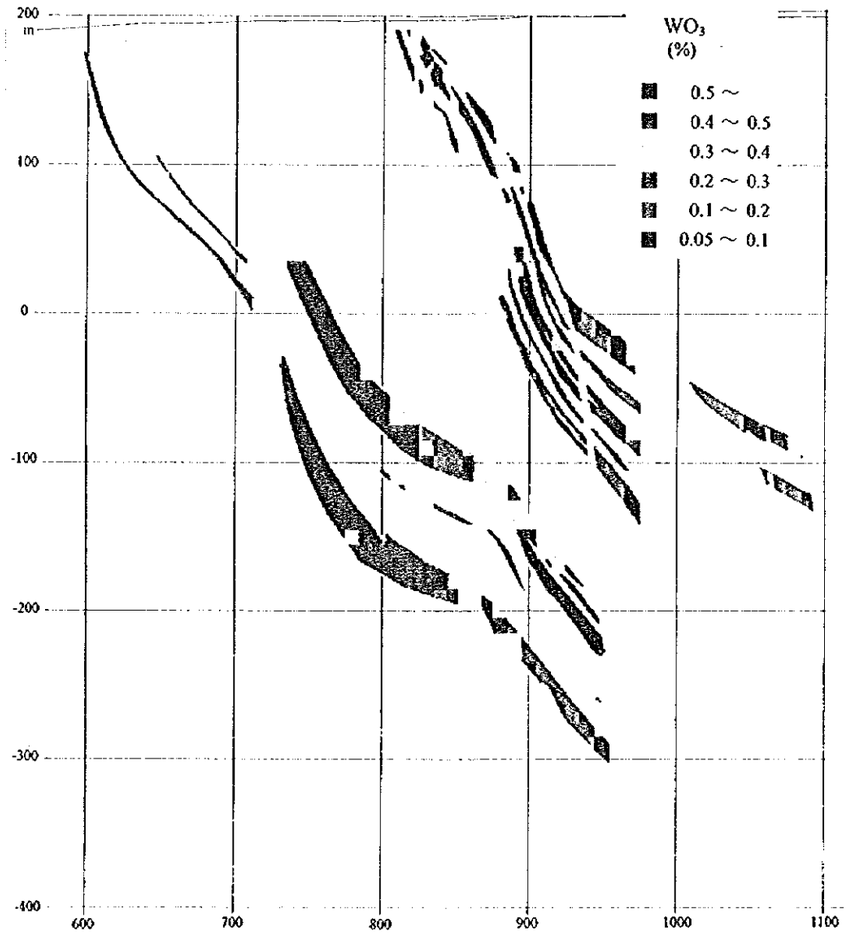




Au
(g/t)

0.5 ～
0.4 ～ 0.5
0.3 ～ 0.4
0.2 ～ 0.3
0.1 ～ 0.2
0 ～ 0.1

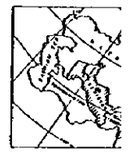
LEVEL +180m

N

900 m
800
700
600
500
400
300
200

100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 m

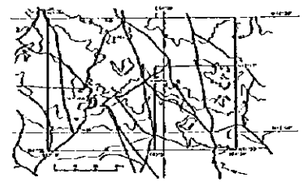
T
TH
TH
ESTIM
LE



JAPAN

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

ESTIMATED GRADES OF Au AT THE LEVEL OF + 180m



JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
FEBRUARY 1995

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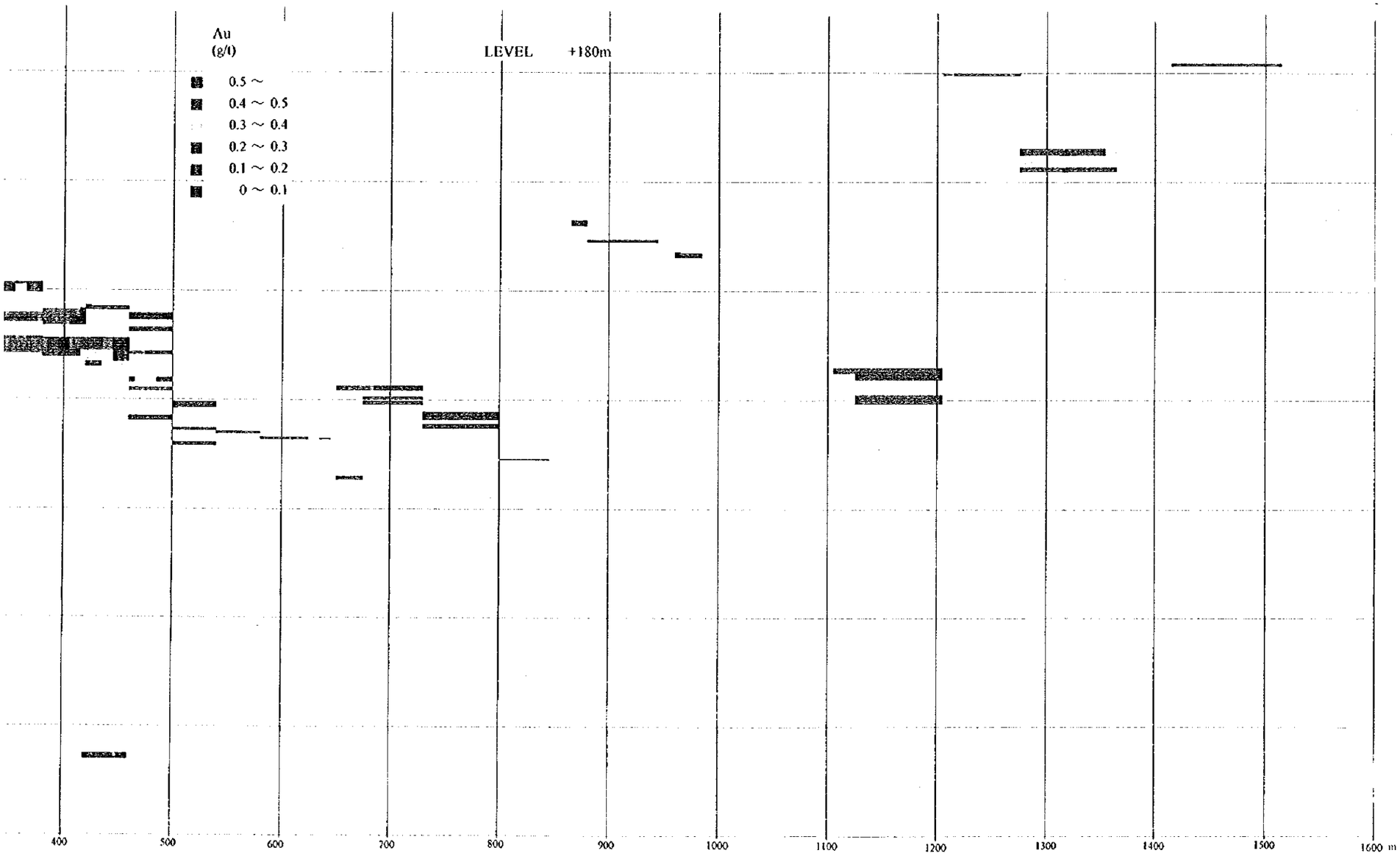


LEVEL +50m

Au
(g/t)

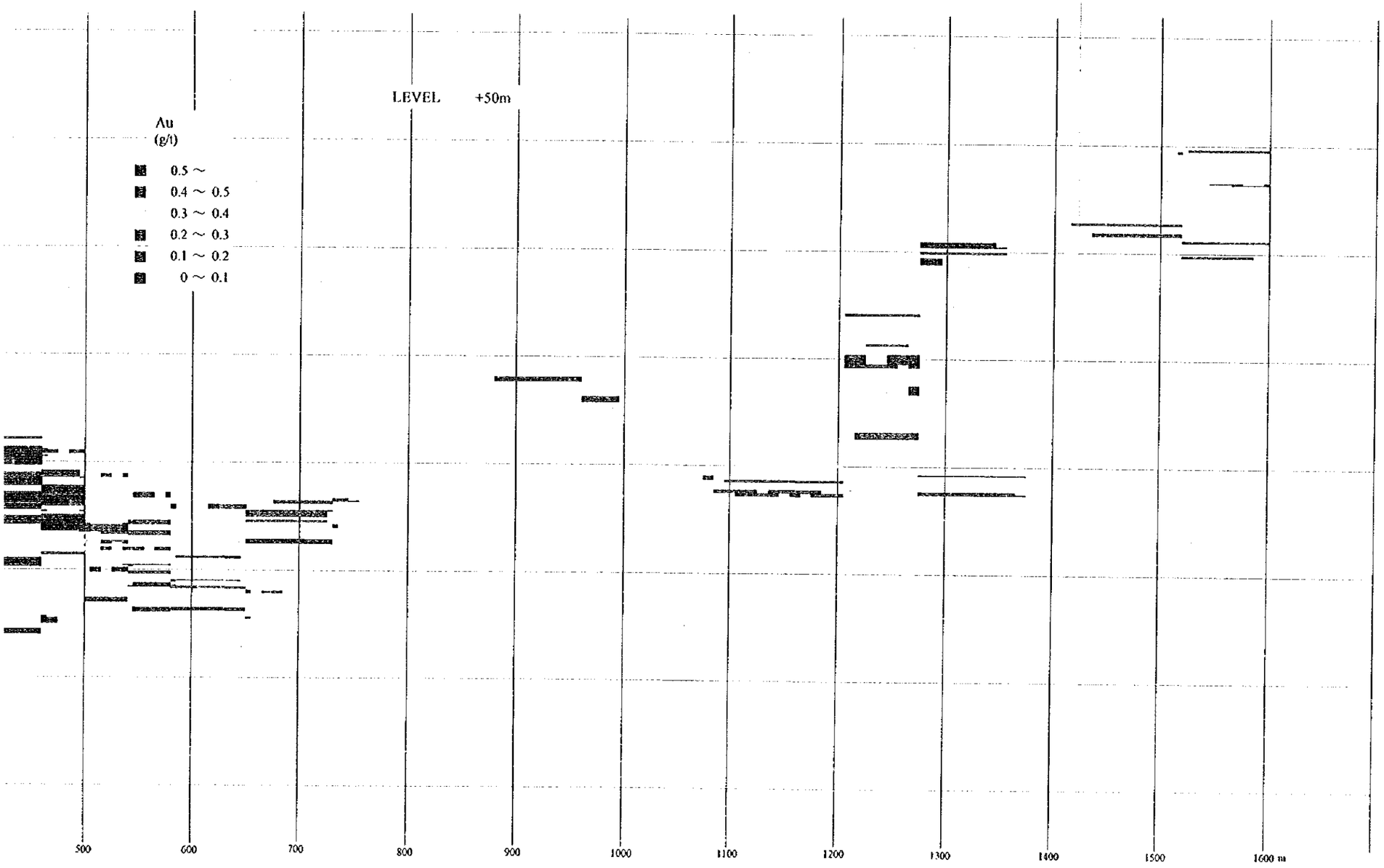
- 0.5 ~
- 0.4 ~ 0.5
- 0.3 ~ 0.4
- 0.2 ~ 0.3
- 0.1 ~ 0.2
- 0 ~ 0.1

N

1100 m
1000
900
800
700
600
500
400

200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 m

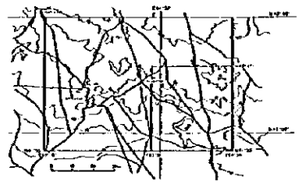
1 1



PL.II-3-3(2)

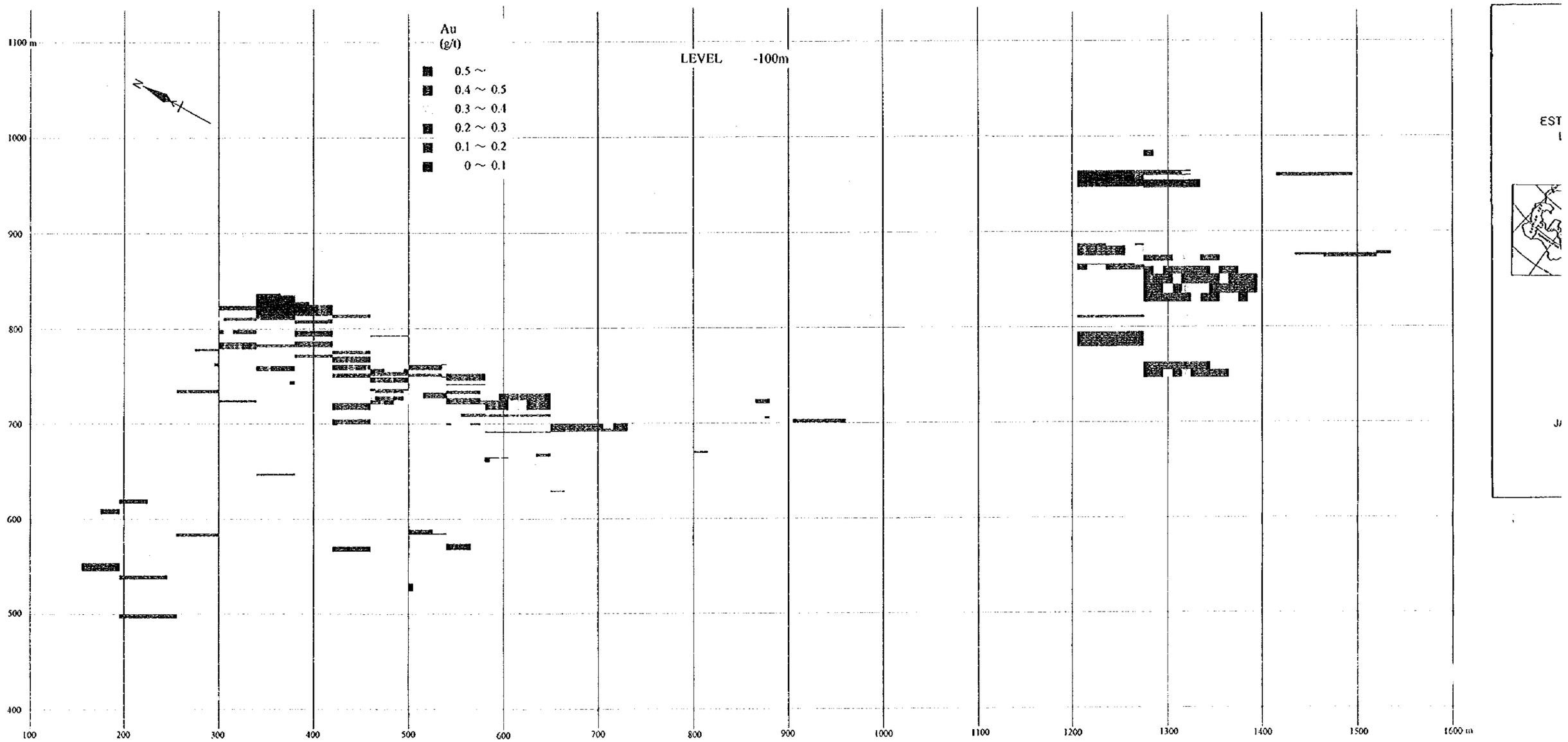
THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

ESTIMATED GRADES OF Au AT THE LEVEL OF + 50m



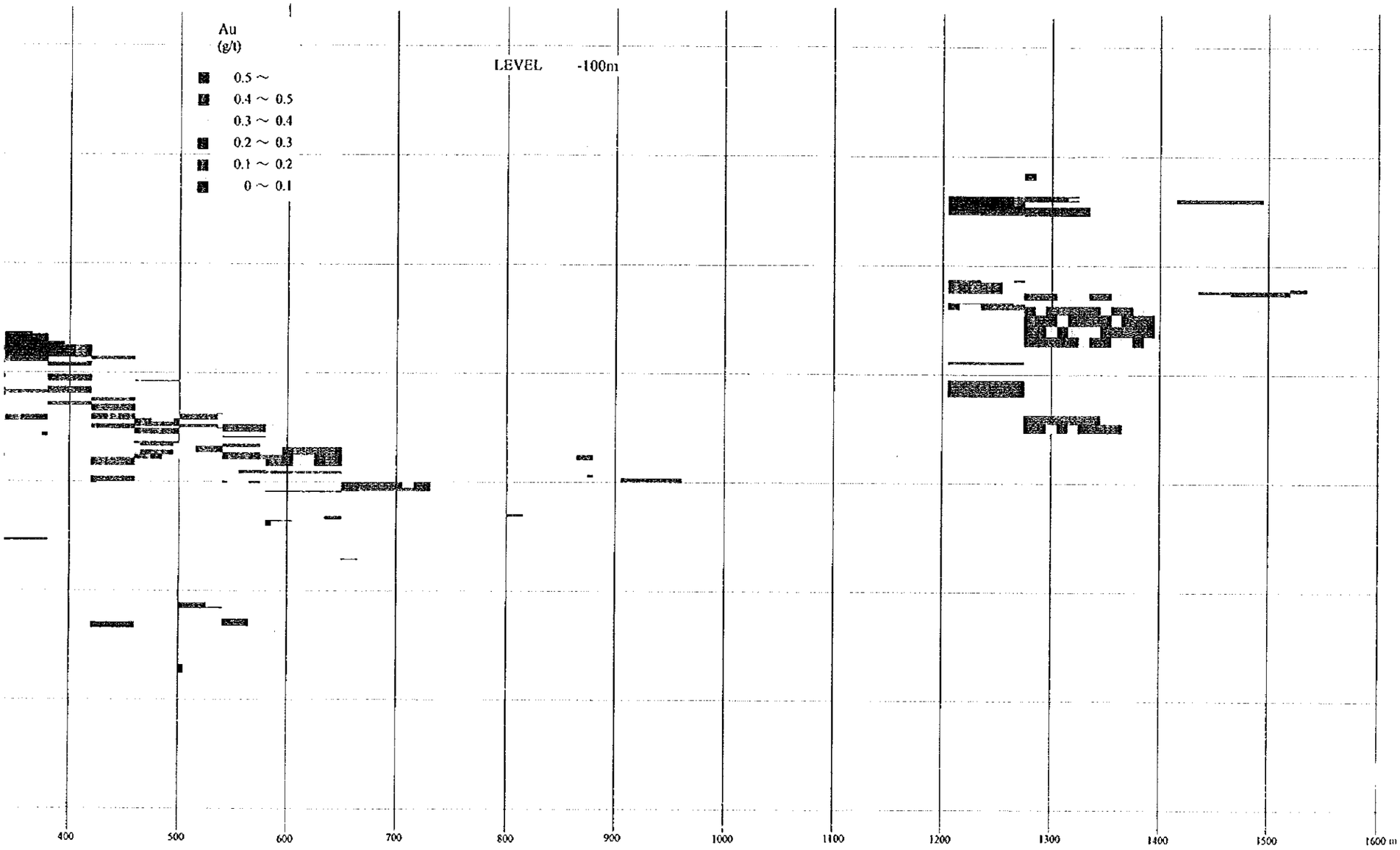
JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
FEBRUARY 1995

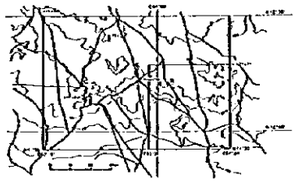
Prepared by MINDECO


Au
(g/t)
0.5 ～
0.4 ～ 0.5
0.3 ～ 0.4
0.2 ～ 0.3
0.1 ～ 0.2
0 ～ 0.1
LEVEL -100m
N
1100 m
1000
900
800
700
600
500
400
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600 m
EST
JJ

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

ESTIMATED GRADES OF Au AT THE LEVEL OF - 100m





JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
FEBRUARY 1995

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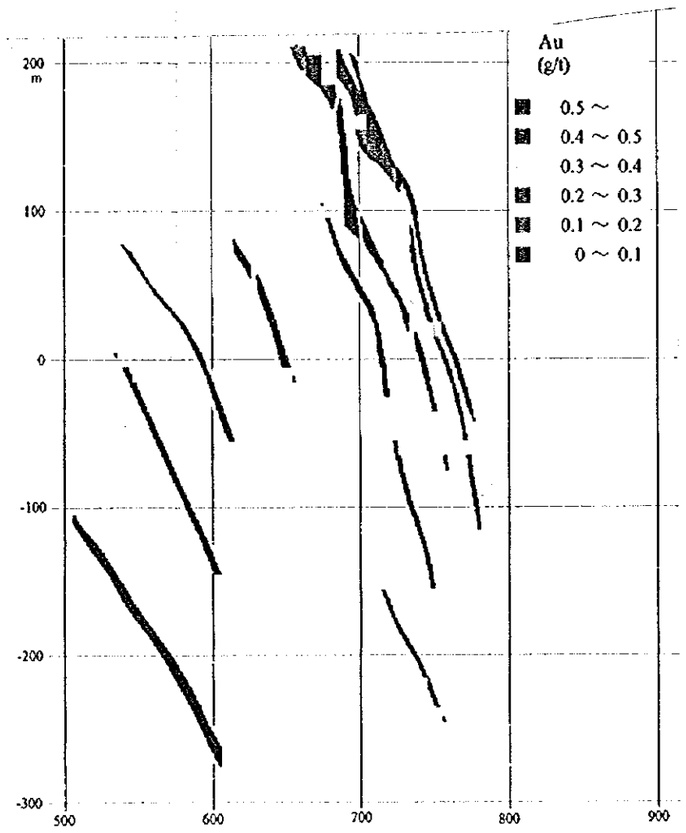
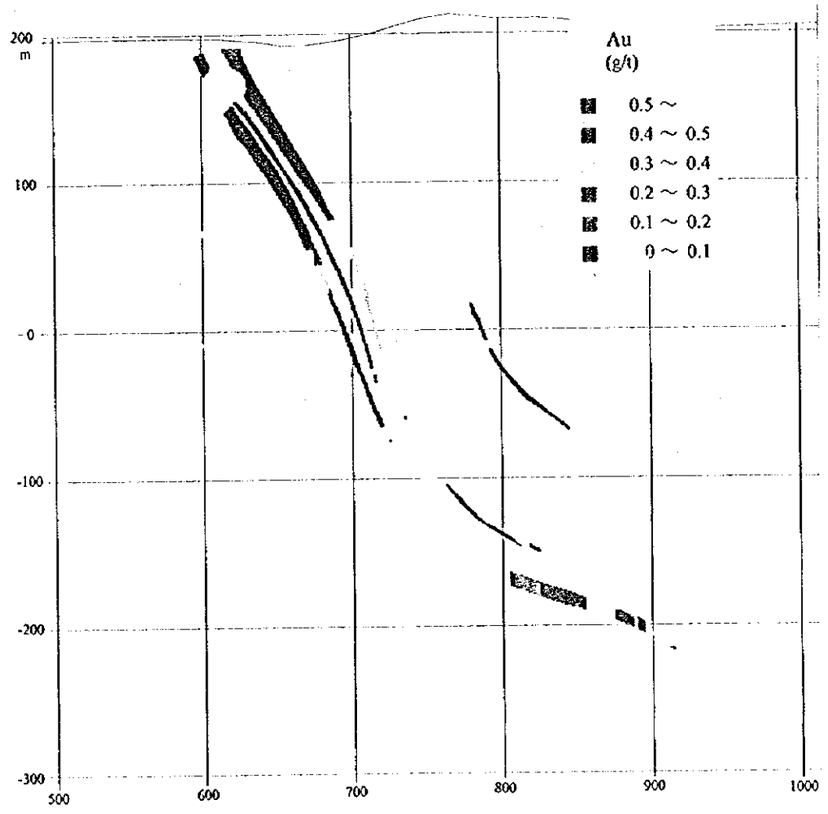
LINE 36 — 36



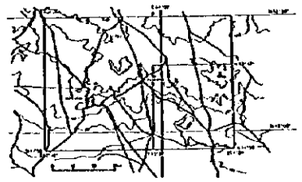
LINE 58 — 58



Pl. II-3-4

THE MINERAL EXPLORATION
IN
THE EASTERN BUKANTAU AREA
THE REPUBLIC OF UZBEKISTAN
(PHASE I)

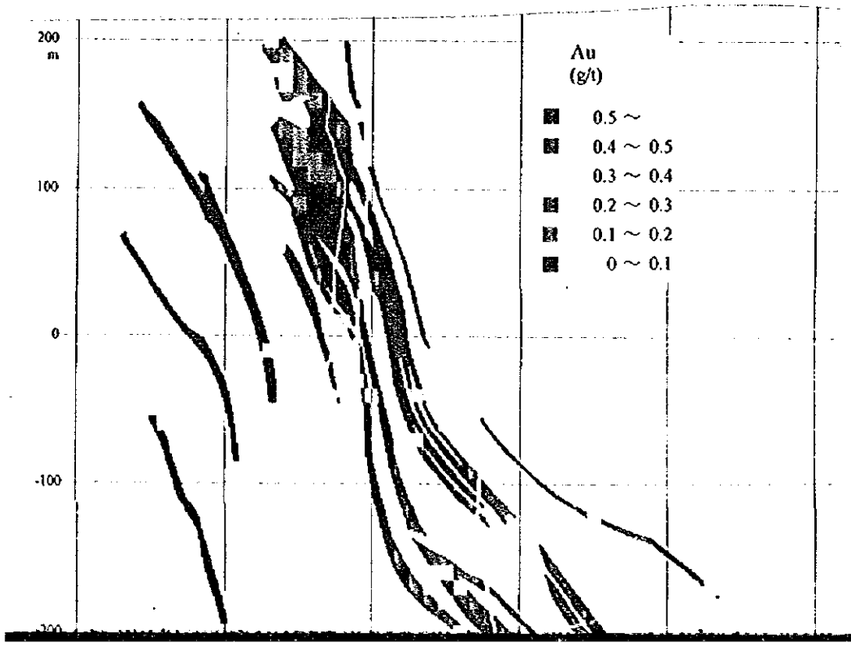
ESTIMATED GRADES OF Au ALONG
LINE 36-36, 40-40, 58-58, 62-62



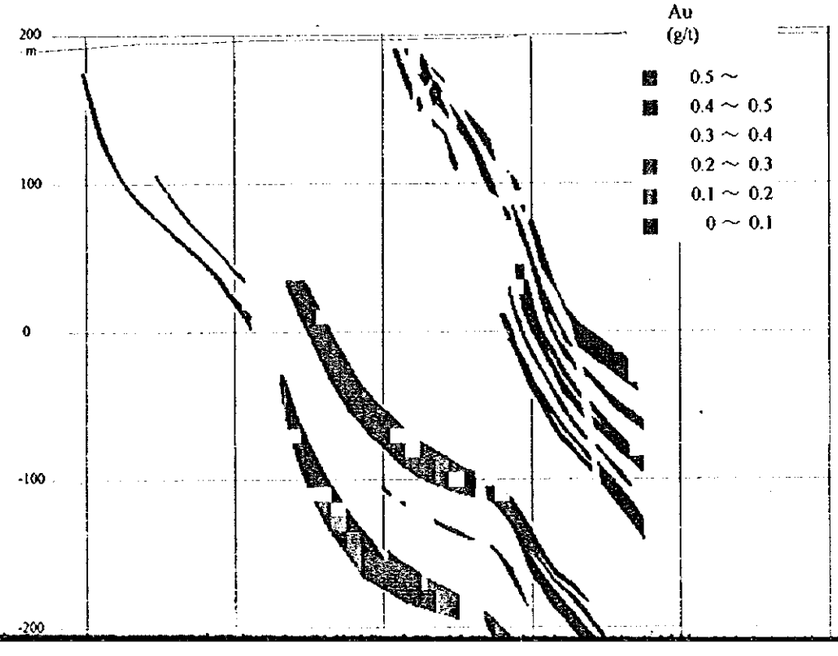
JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
FEBRUARY 1995

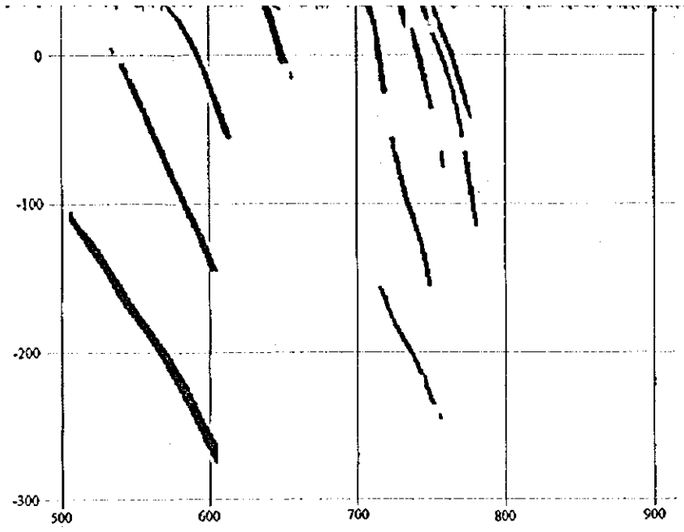
Prepared by MINDECO

LINE 40 — 40

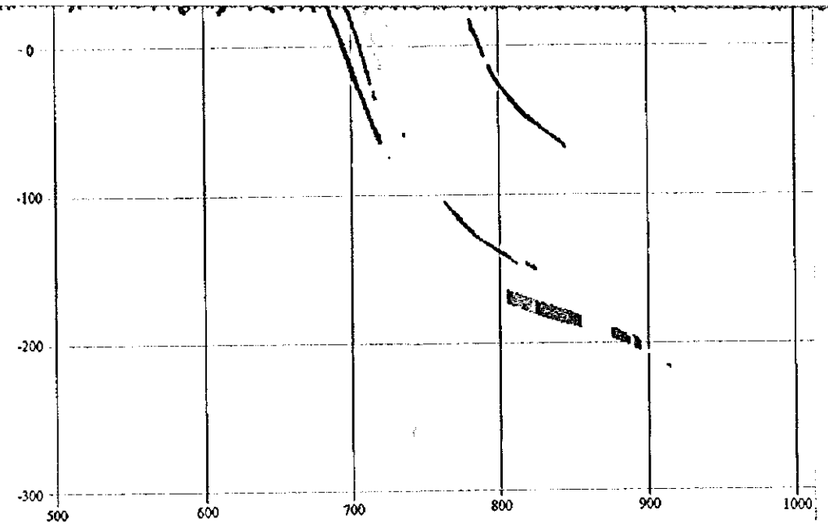


LINE 62 — 62





LINE 40 — 40



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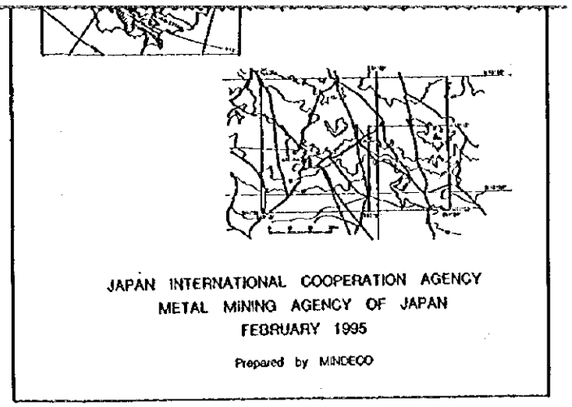
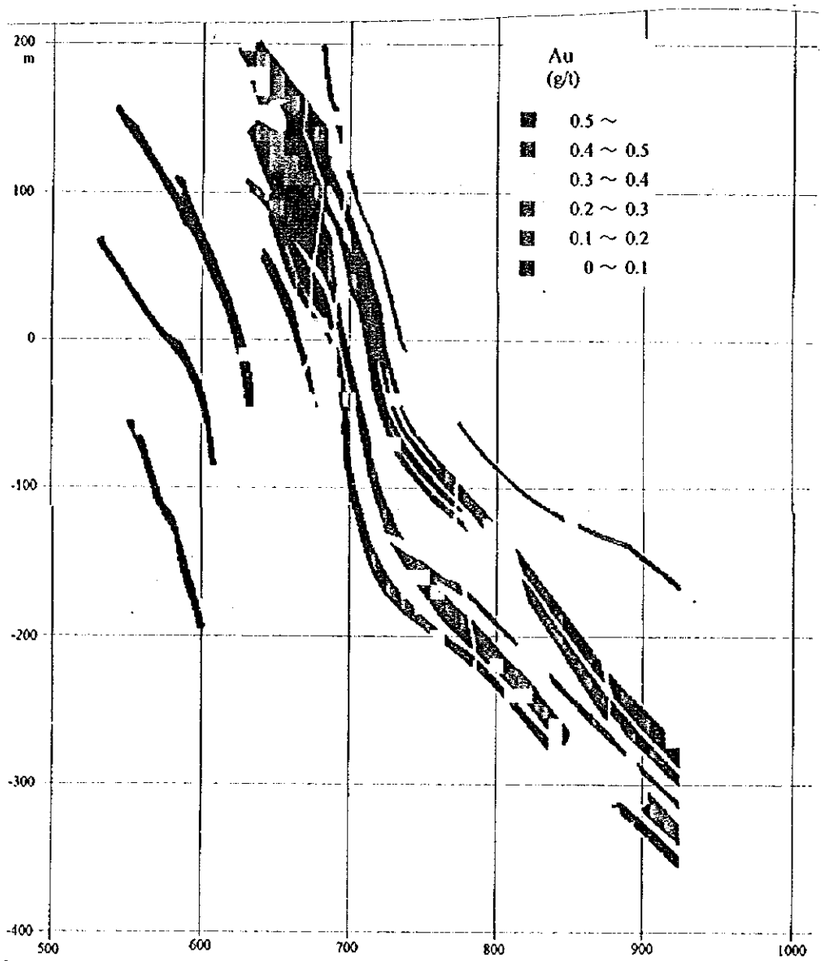
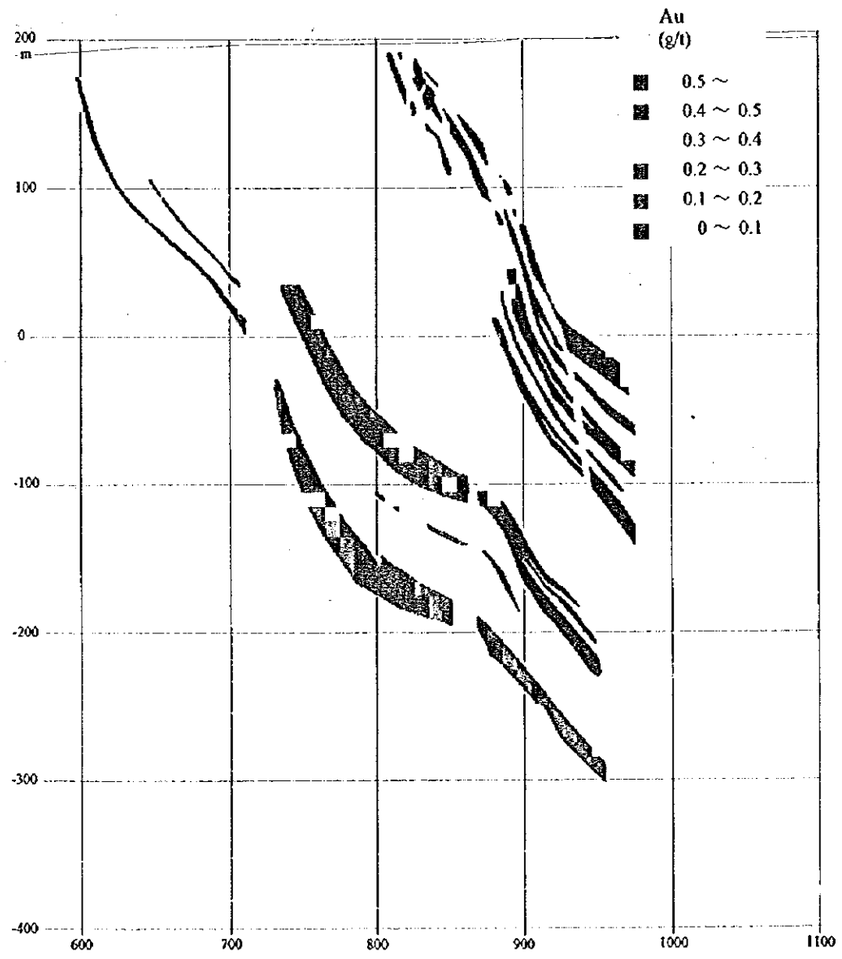
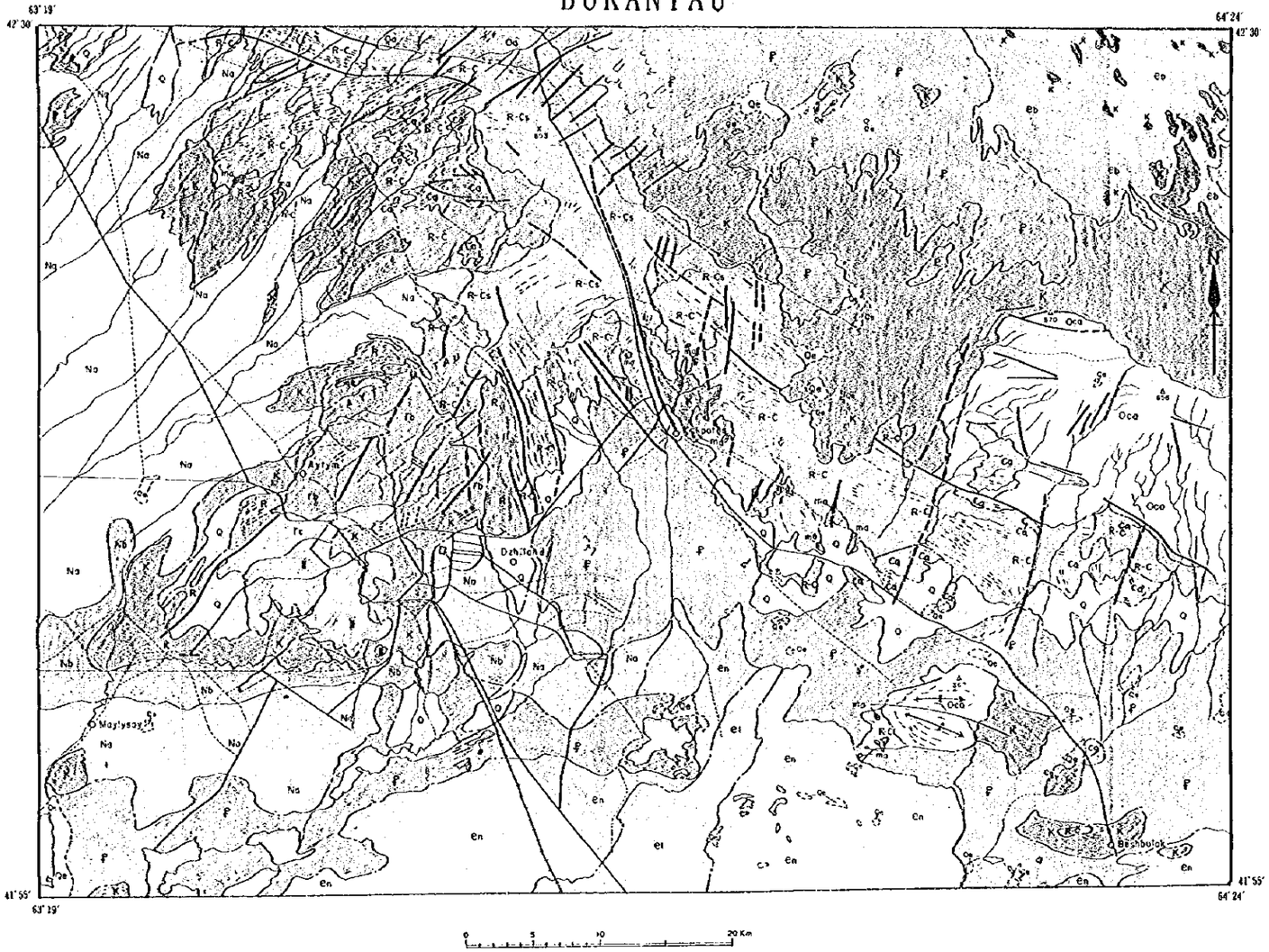






BUKANTAU



LEGEND

Unit	Photographic Feature: Color	Photographic Feature: Texture	Topographic Feature: Drainage Pattern	Topographic Feature: Drainage Density	Resistivity	Development of Bedding	Lithology interpreted from Photogeology
R	Dark blue, Black	fine	sub parallel	moderate	high	well	very dark, fine grained sedimentary metamorphosed rocks
R-C	Grayish blue, White	medium	dendritic, trellis	high	moderate	well	alternation of light and dark colored rocks
R-Cs	Brown	medium	dendritic, trellis	high	moderate	well	similar to 'R-C', thicker aeolian sand cover
Qa	Dark green, Dark blue	fine	dendritic	high	high	well	dark colored, fine-medium grained sedimentary rocks
QCa	Pale pinky gray	medium	dendritic, parallel	moderate	high	partially well	light colored sedimentary rocks
Qs	Dark grayish blue	fine	pinnate, parallel	high	high	very well	dark colored, fine grained sedimentary rocks
Ts	Pale reddish purplish	medium	parallel	low	low	partially well	fine-medium grained sediments (loosely consolidated)
N	Pale pinky ocher	medium-coarse	parallel	low	low	partially well	fine-medium grained sediments
Ng	Grayish blue	fine	parallel	moderate	low	partially well	medium grained sediments (unconsolidated)
Nb	Dark blue	medium	sub parallel	moderate	low	partially well	fine grained sediments (unconsolidated)
Q	Gray, Reddish brown, Dark blue	fine	parallel	moderate	very low	-	alluvium, talus deposits
Qe	Whitish	fine	-	-	low	rare	salt lake (evaporates)
eb	Yellow Ocher	coarse	-	-	low	-	aeolian deposits (includes barchans)
ed	Whitish, Pale yellow	medium	-	-	low	-	aeolian deposits (includes linear dunes)
en	Whitish, Pale yellow, Reddish brown	fine	-	-	very low	-	aeolian deposits (thinner than 'eb' and 'ed')
γb	Grayish purple	medium	pinnate	very high	high	poor(massive)	granitic intrusive
γc	Pale pink	medium	parallel	moderate	moderate	poor(massive)	granitic intrusive
K	Pale yellow, White	fine	-	-	-	-	mine site (open pit and waste dump)

- Alteration zone or mineralized zone
- Anticlinal axis
- Bedding trace
- Joints
- Lineament (topographically clear)
- Lineament (topographically rather clear)
- Principal road
- rough road
- Village or town
- Elevation in meter
- lake/salt lake
- Airport/ Air strip

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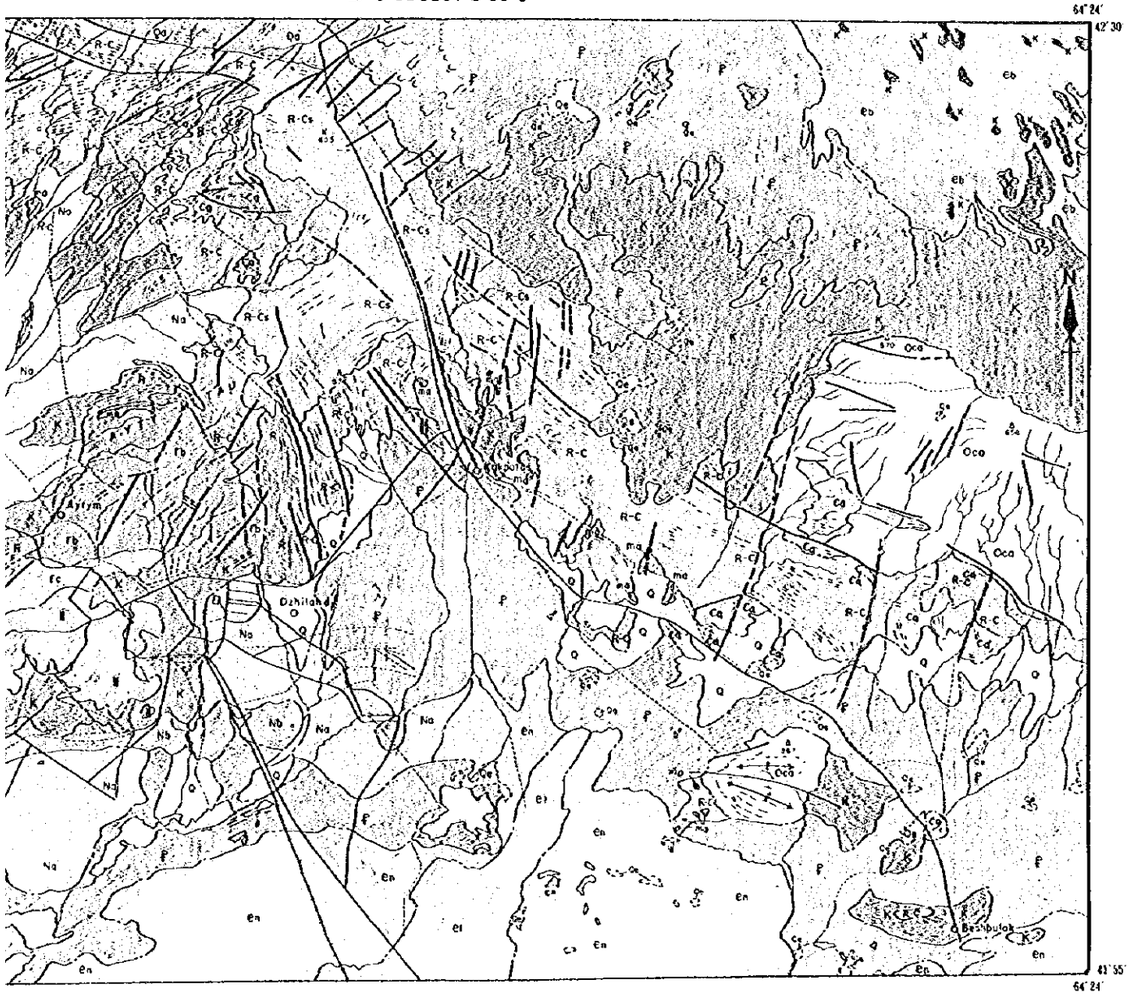
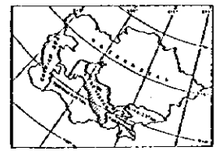
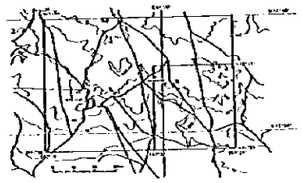


LEGEND

Unit	Photographic Feature: Color	Photographic Feature: Texture	Topographic Feature: Drainage: Pattern	Topographic Feature: Drainage: Density	Topographic Feature: Resistivity	Development of Bedding	Lithology interpreted from Photogeology
R	Dark blue, Black	fine	sub parallel	moderate	high	well	very dark, fine grained sedimentary-metamorphosed rocks
R-C	Grayish blue, White	medium	dendritic, trellis	high	moderate	well	alteration of light and dark colored rocks
R-Cs	Brown	medium	dendritic, trellis	high	moderate	well	similar to R-C, thicker aeolian sand cover
Cs	Dark green, Dark blue	fine	dendritic	high	high	well	dark colored, fine-medium grained sedimentary rocks
Cca	Pale pinky gray	medium	dendritic, parallel	moderate	high	partially well	light colored sedimentary rocks
Cg	Dark grayish blue	fine	pinnate, parallel	high	high	very well	dark colored, fine grained sedimentary rocks
N	Pale reddish purplish	medium	parallel	low	low	partially well	fine-medium grained sediments (loosely consolidated)
P	Pale pinky ocher	medium-coarse	parallel	low	low	partially well	fine-medium grained sediments
Na	Grayish blue	fine	parallel	moderate	low	partially well	medium grained sediments (unconsolidated)
Nb	Dark blue	medium	sub parallel	moderate	low	partially well	fine grained sediments (unconsolidated)
Q	Gray, Reddish brown, Dark blue	fine	parallel	moderate	very low	-	alluvium, talus deposits
Qe	Whitish	fine	-	-	low	rare	salt lake (evaporates)
eb	Yellow Ocher	coarse	-	-	low	-	aeolian deposits (includes barchans)
ed	Whitish, Pale yellow	medium	-	-	low	-	aeolian deposits (includes linear dunes)
en	Whitish, Pale yellow, Reddish brown	fine	-	-	very low	-	aeolian deposits (thinner than 'eb' and 'ed')
h	Grayish purple	medium	pinnate	very high	high	poor(massive)	granitic intrusive
rc	Pale pink	medium	parallel	moderate	moderate	poor(massive)	granitic intrusive
M	Pale yellow, White	fine	-	-	-	-	mine site (open pit and waste dump)

- Alteration zone or mineralized zone
- Anticlinal axis
- Bedding trace
- Joints
- Lineament (topographically clear)
- Lineament (topographically rather clear)
- Principal road
- rough road
- Village or town
- Elevation in meter
- Inte/salt lake
- Airport/ Air strip





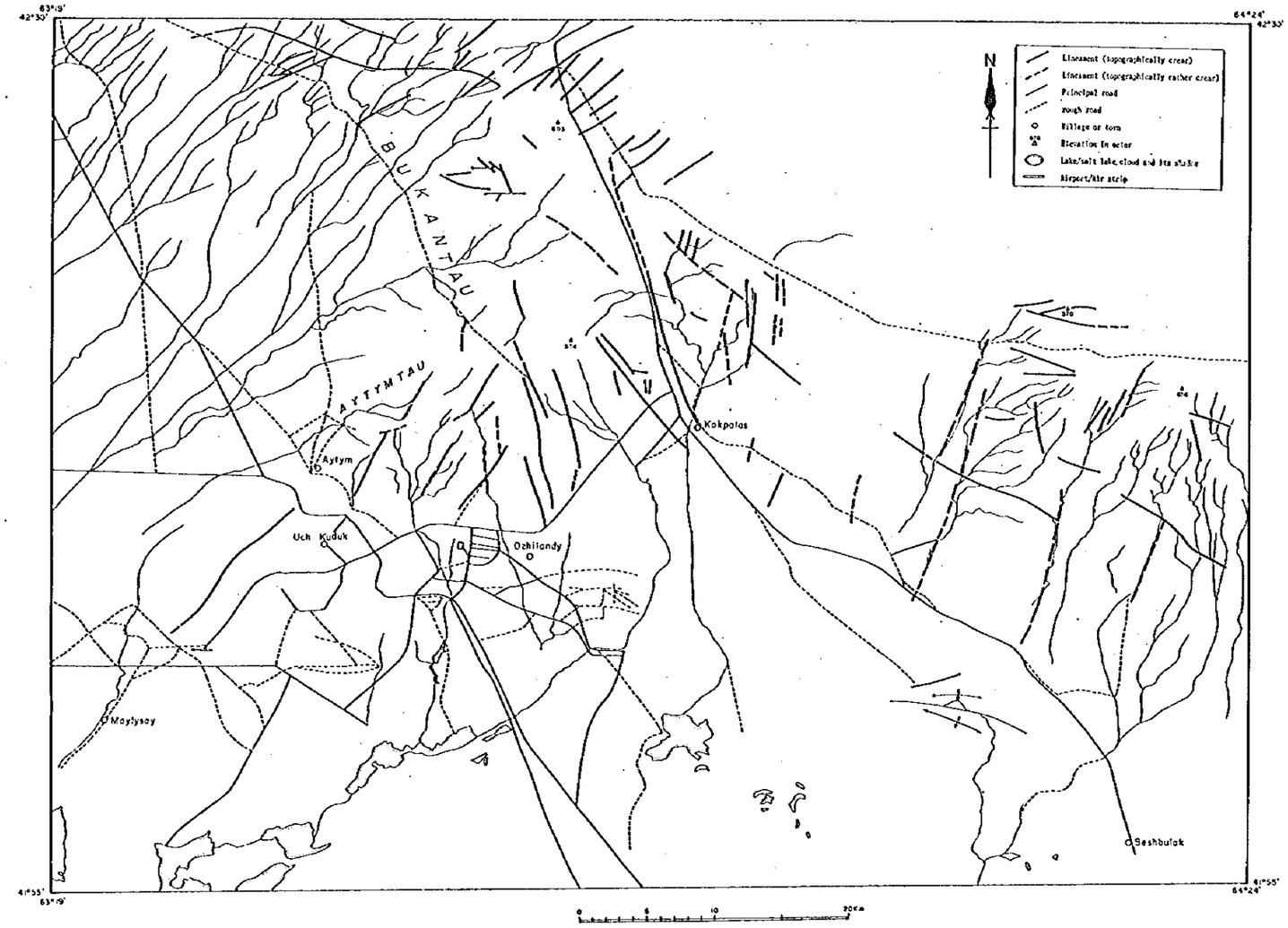
THE MINERAL EXPLORATION
IN
THE EASTERN BUKANTAU AREA
THE REPUBLIC OF UZBEKISTAN
(PHASE I)

PHOTOGEOLOGICAL INTERPRETATION MAP

JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
FEBRUARY 1995

Prepared by MINDECO

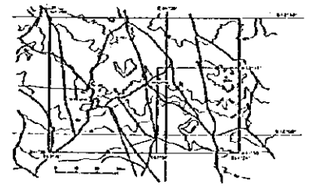
BUKANTAU



PL. II-4-2

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

LINEAMTENTS EXTRACTION MAP

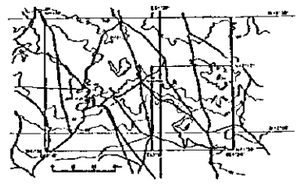


JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
FEBRUARY 1995

Prepared by MINDECO

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

RESULTS OF SPECTRAL ANALYSIS SHOWING ALTERATION ZONES EXTRACTED BY RATIONING



JAPAN INTERNATIONAL COOPERATION AGENCY
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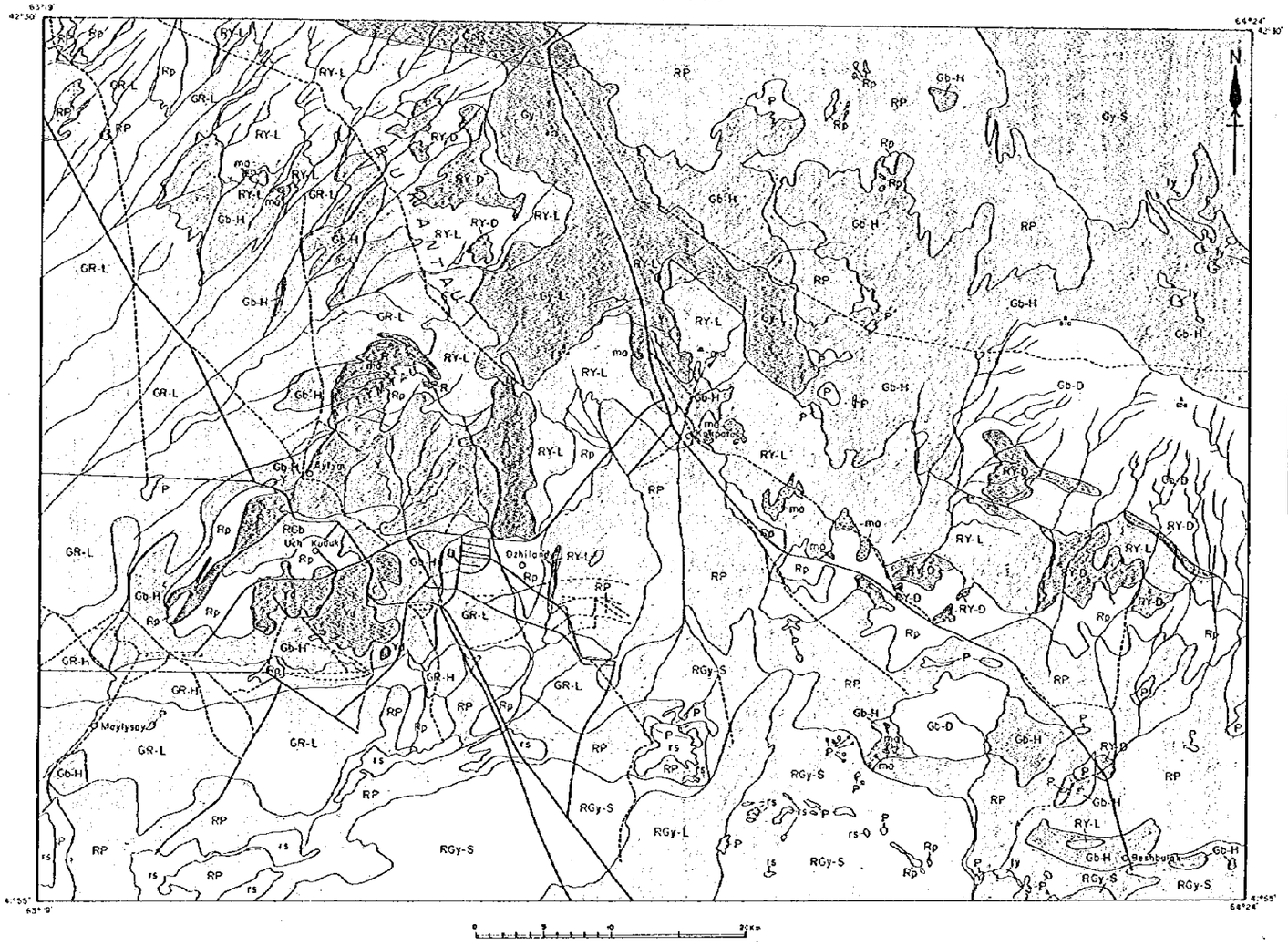
FEBRUARY 1995

Prepared by MINDECO

BUKANTAU

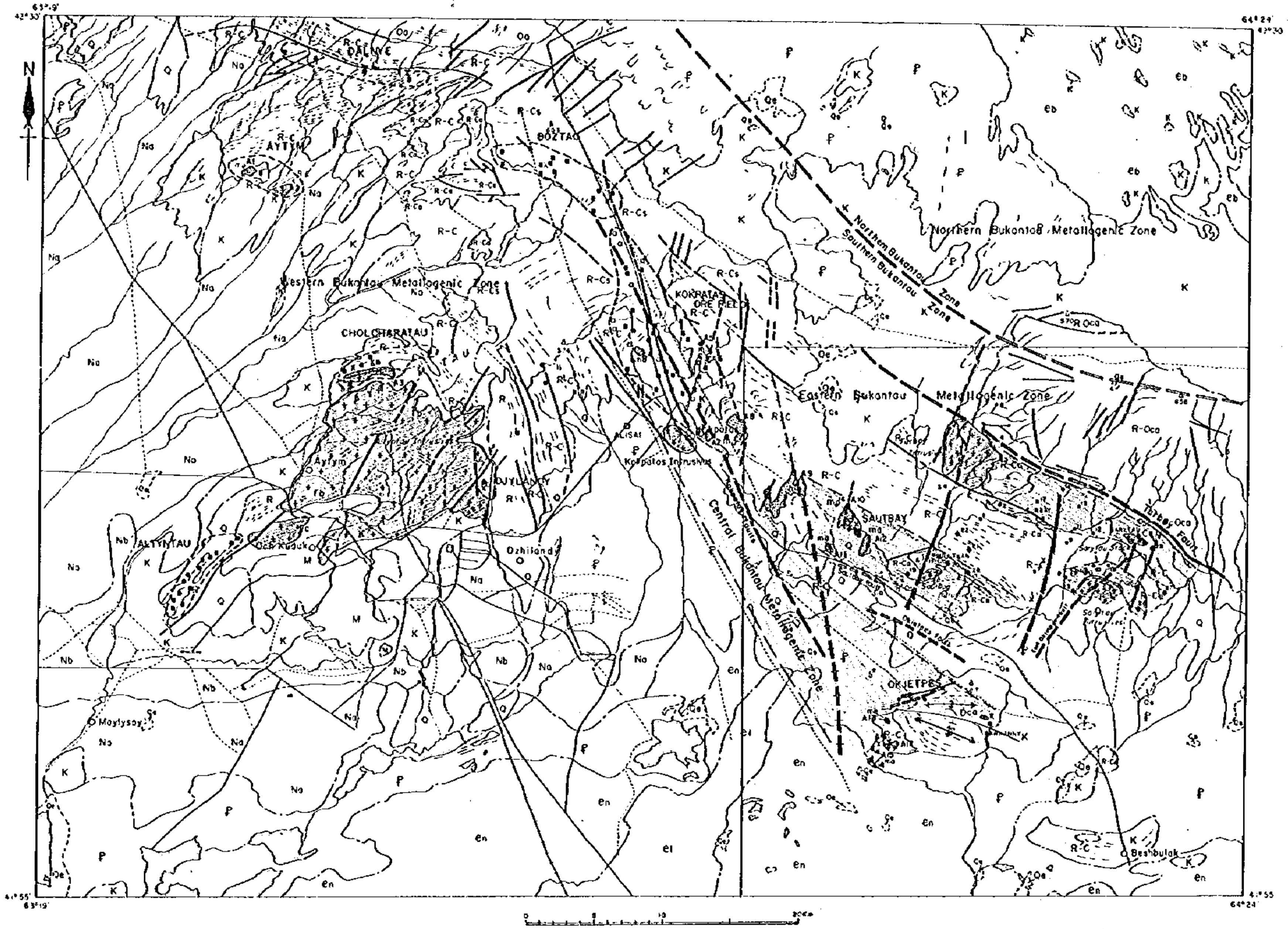


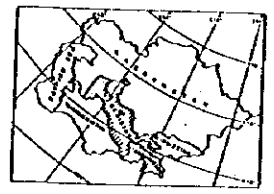
LEGEND

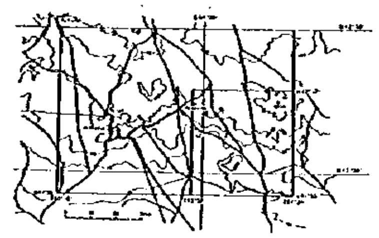
Unit	Color	Texture	Correlation*
R	Reddish	Dotted	R
RY-L	Red+Yellow	Linear	R – C
GY-L	Yellowish green	Linear	R – C s
GR-L	Pale green+Red	Linear	O a
Gb-D	Blueish green	Dotted	O C a
RY-D	Red+Yellow	Dotted	C a
Gb-H	Blueish green	Hazy	K
RP	Red+Purple	Hazy	P
GR-L	Green+Red	Rather Linear	N a
GR-H	Green+Red	Hazy	N b
Rp	Pale red	Smooth	Q
P	Purplish	Smooth	Q e
Gy-S	Yellowish green	Sandy	e b
RGy-L	Red+Yellowish green	Sandy, Linear	e l
RGy-S	Red+Yellowish green	Sandy	e n
	Yellowish	Dotted	y b
RGb	Red+Blueish green	Dotted	y c
Y d	Dark yellow	Dotted	M
rs, ly	Red, light yellow	smooth	Lake, Salt lake, Cloud and its shadow
m a	Pale green	Smooth	Alteration zone

*Correlated with Photogeological Interpretation Unit

BUKANTAU







Pl. II-5-1

THE MINERAL EXPLORATION IN THE EASTERN BUKANTAU AREA THE REPUBLIC OF UZBEKISTAN (PHASE I)

INTEGRATED INTERPRETATION MAP

JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
FEBRUARY 1995

Prepared by MINDECO

A. Ore Deposits and Showings

(1) Main Ore Deposits showings within Ground Truth Survey Area

- SAUTBAY : Sautbay, Saghinkan, Burgut deposits(W)
- SARYTAU : Sarytau deposits(W,Au)
- TURBAY : Turbay deposits(Au)
- OKJETPES : Okjetpes deposits(Ag-Au, Au)
- BARHANNY : Barhanny deposits (Au)
- BULUTKAN : Bulutkan showings(Au)

(2) Other showings within Ground Truth Survey Area

- Au-Ag showings : Mo deposits [31 ALISAI]

[1 CENTRAL, 2 CENTRAL TURBAY, 3 SOUTH TURBAY, 4 NORTH TURBAY, 5 NEAR CONTACT, 6 DAIKOVOYE, 7 KAYANSAI, 8 EAST AKKOI, 9 AKKOI, 10 SOUTH SARYTAU, 11 EAST TURBAY, 12 KURGANTAU, 13 KARATAU, 14 NORTHEAST TURBAY, 15 TARAUBAY, 16 KOKTASH, 17 WEST TURBAY, 18 CENTRAL SARYTAU]

- W showings

19 SOUTHEAST SAUTBAY, 20 KIZKI KASHKAR, 21 EAST SARIDJOY, 22 WEST SARIDJOY, 23 KADJAN, 24 WEST KADJAN, 24 BEKTASH, 25 SOUTH BEKTASH, 26 EAST KADJAN, 27 KATIRTAS, 28 SOUTH BEKTASH, 29 BEKTASH]

- Cu showings [30 NORTH SARYTAU]

(3) Ore Deposits or Showings outside Ground Truth Survey Area

a) Zone (Ore Field or Zone of Showings)

- Zone boundary

[KOKPATAS(Au), BOZTAU(Au), DALNEYE(Au), AYTYM(Au), CHOLCHARATAU(W,Au), ALTYNTAU(Au), DJYLANDY(W)]

b) Individual Ore Deposits and Showings(including single outcrop)

- : Au-Ag
- : W
- : Mo (ALISAI)

B. Metallogenic Zone

- : Metallogenic zone bondary (by Mr. Ushakov)
- : Ore zone bondary (cursorily defined by the Survey)

C. Geologic Features

(1) Intrusive Rocks

- : granite~diorite
- : syenite~syenodiorite

(2) Main Geologic Structures

- : faults or fracture zone
- : Anticlinal axis

D. Ground Truth Survey

- : Ground Truth Survey Area
- : Main check point

Age	Symbol	Lithology (Rocks Confirmed by Ground Survey)
Quaternary	Q	alluvium, talus deposits (sand, gravel)
	Qe	evaporates(salt)
	eb	aeolian deposits (includes barchan sand dunes)
	el	aeolian deposits (includes linear sand dunes)
	en	aeolian deposits (thinner than 'el' and 'eb')
Pliocene	Nb	fine grained sediments (unconsolidated)
	Na	medium grained sediments (unconsolidated)
Paleocene-Miocene	P	fine~medium grained sediments (conglomerates, sandstones)
Cretaceous	K	fine~medium grained sediments (loosely consolidated)
Devonian-Carboniferous	DCa	light colored sediments (dolomites, limestones, siliceous shales)
Ordovician	Oa	dark colored, fine~medium grained sediments (limestones)
Paleozoic (Carboniferous) ~ Proterozoic (Riphean)	R-Ca	dark colored, fine grained sediments (black colored siliceous shales)
	R-Oa	light colored sediments (shales)
	R-C, R-Ca	alternation of light colored and dark colored rocks (siliceous shales, quartzites, schists, hornfels, meta-volcanics)
	R	very dark, fine grained sediments and metamorphosed rocks (hornfels, black shales, dolomites)
Intrusives	γb	granite (two mica granite)
	γc	granodiorite, adamellite, granite
	M	mine site (open pit, waste dumps)

- Alteration zone
- Anticline axis
- Bedding trace
- Joints
- Lineament (topographically clear)
- Lineament (topographically rather clear)
- Principal road
- rough road
- Village or town
- Elevation in meter
- Lake/salt lake, cloud and its shade
- Airport/Air strip

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