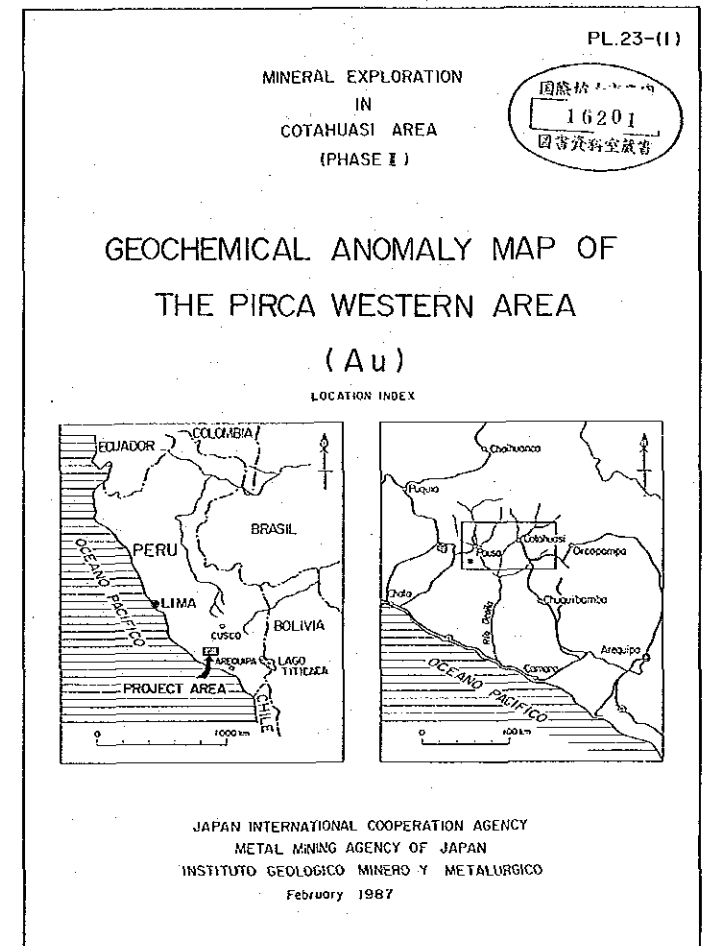
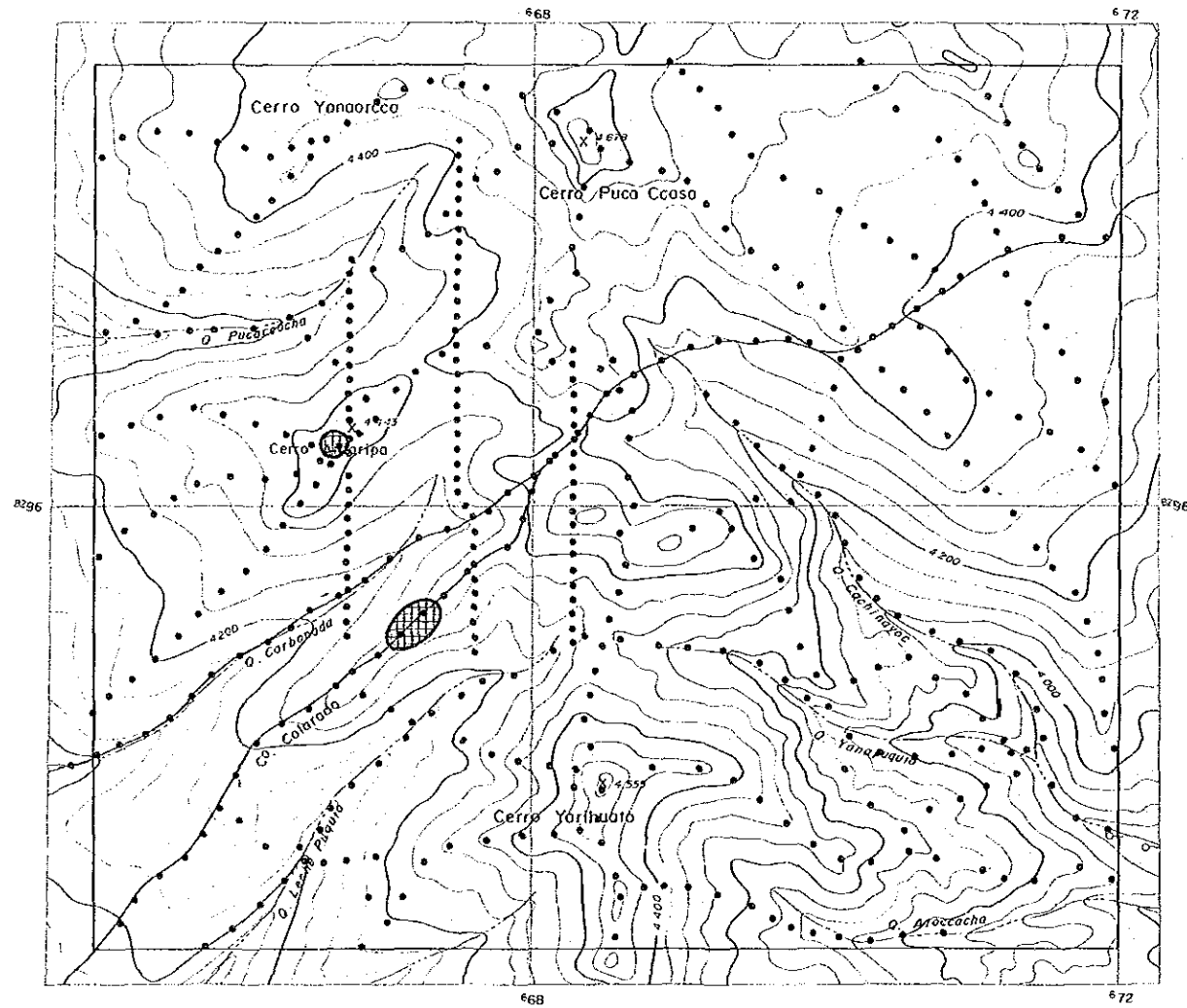


LEGEND

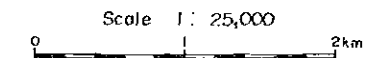
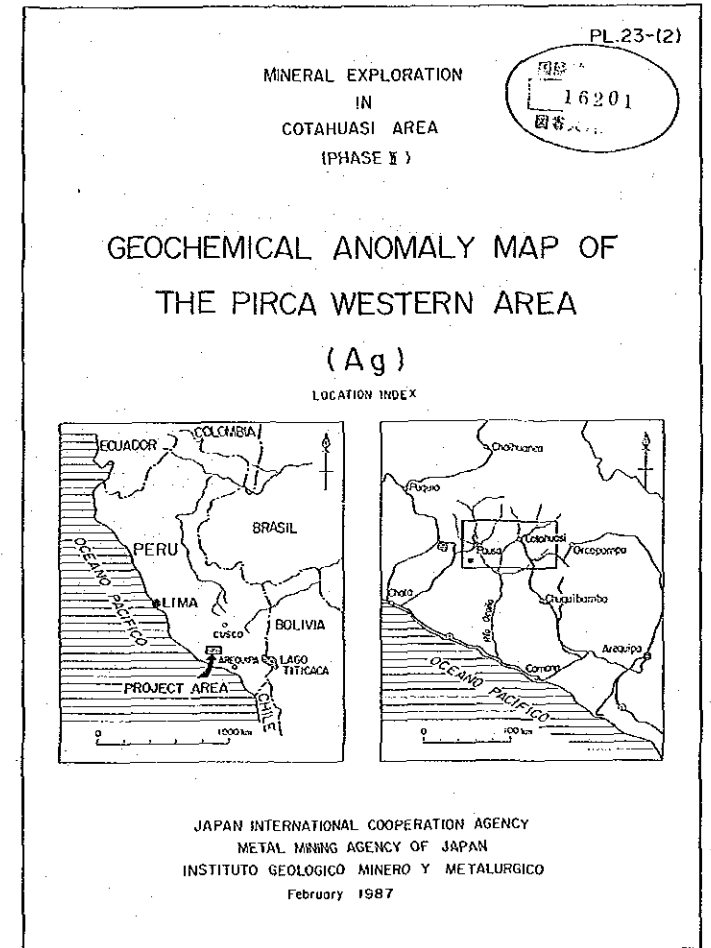
Symbol	Classification	Contents (in ppb)
	Anomaly A M+30'	$Au \geq 16.7$
	Anomaly B M+20'	$16.7 > Au \geq 7.8$
	High background M+10'	$7.8 > Au \geq 3.6$

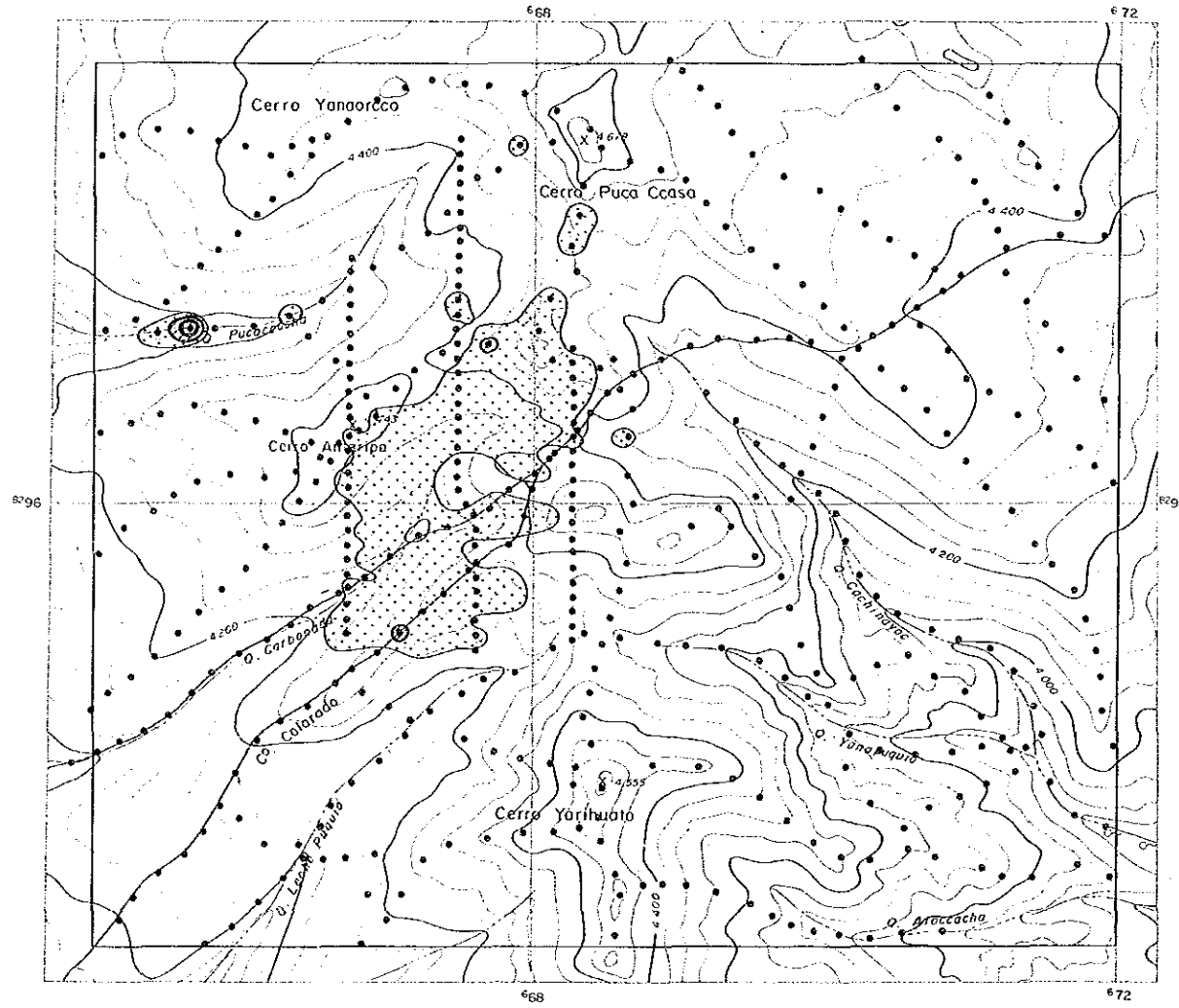




LEGEND

Symbol	Classification	Contents (in ppm)
	Anomaly A	Ag ≥ 0.13
	M+30'	





LEGEND

Symbol	Classification	Contents (in ppm)
	Anomaly A M ± 3σ	As ≥ 113.9
	Anomaly B M ± 2σ	113.9 > As ≥ 41.7
	High background M ± 1σ	41.7 > As ≥ 15.3

PL.23-(13)

MINERAL EXPLORATION
IN
COTAHUASI AREA
(PHASE II)

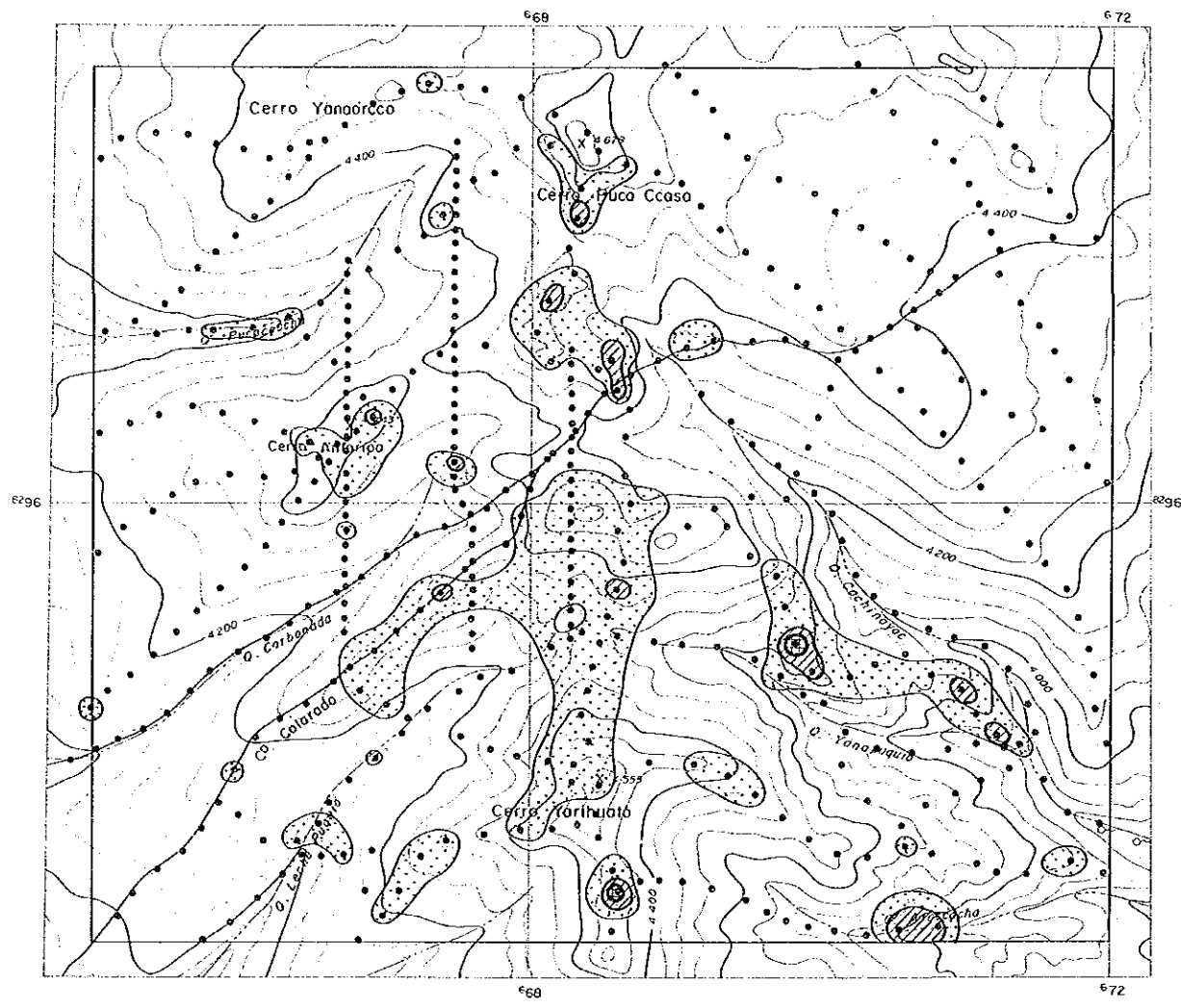
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GEOCHEMICAL ANOMALY MAP OF
THE PIRCA WESTERN AREA
(As)

LOCATION INDEX

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INSTITUTO GEOLOGICO MINERO Y METALURGICO
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Scale 1 : 25,000



LEGEND

Symbol	Classification	Contents (in ppm)
	Anomaly A M+30	$Cu \geq 128.4$
	Anomaly B M+20	$128.4 > Cu \geq 89.8$
	High background M+10	$89.8 > Cu \geq 62.8$

PL.23-(4)

MINERAL EXPLORATION
IN
COTAHUASI AREA
(PHASE II)

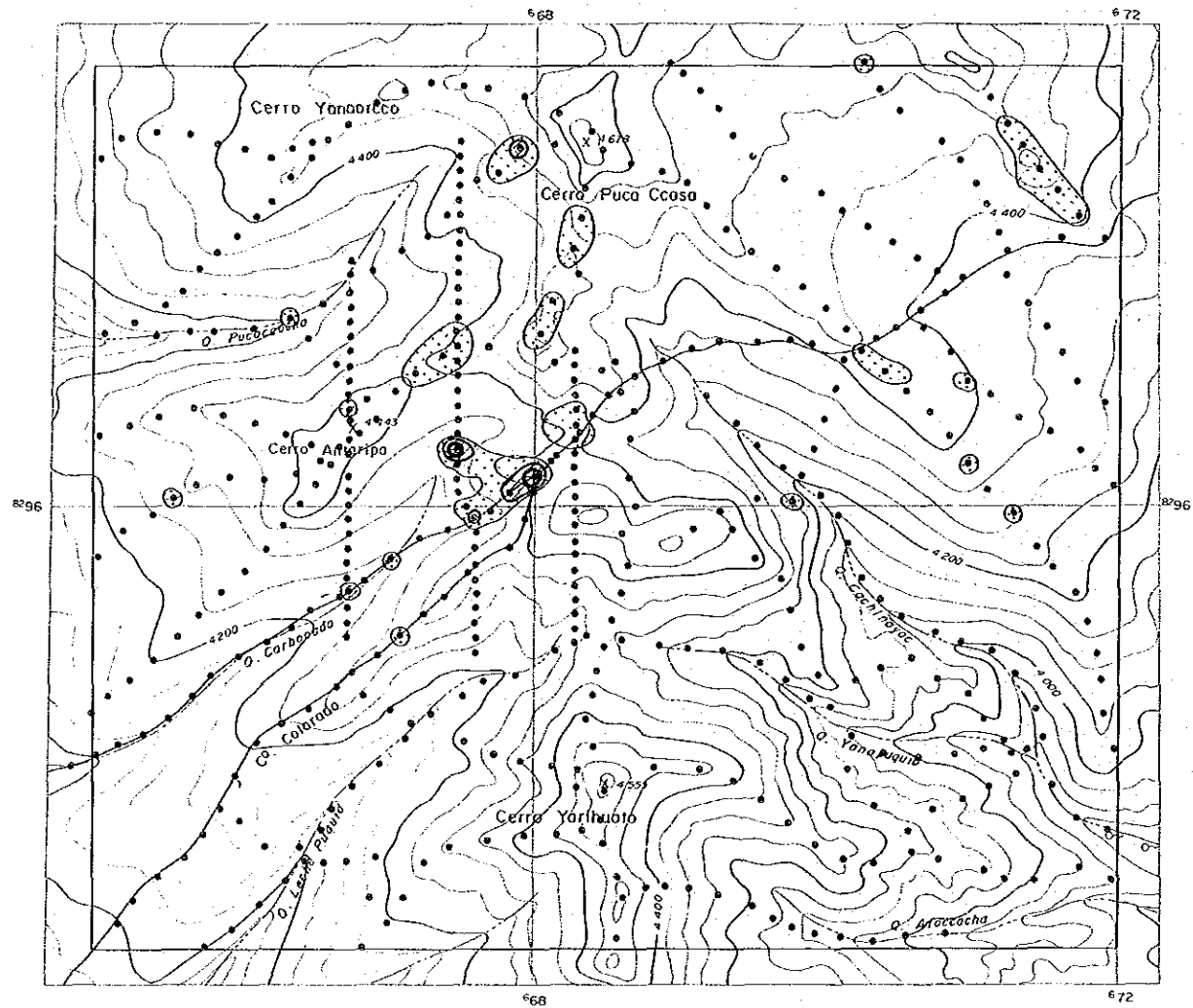
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**GEOCHEMICAL ANOMALY MAP OF
THE PIRCA WESTERN AREA
(Cu)**

LOCATION INDEX

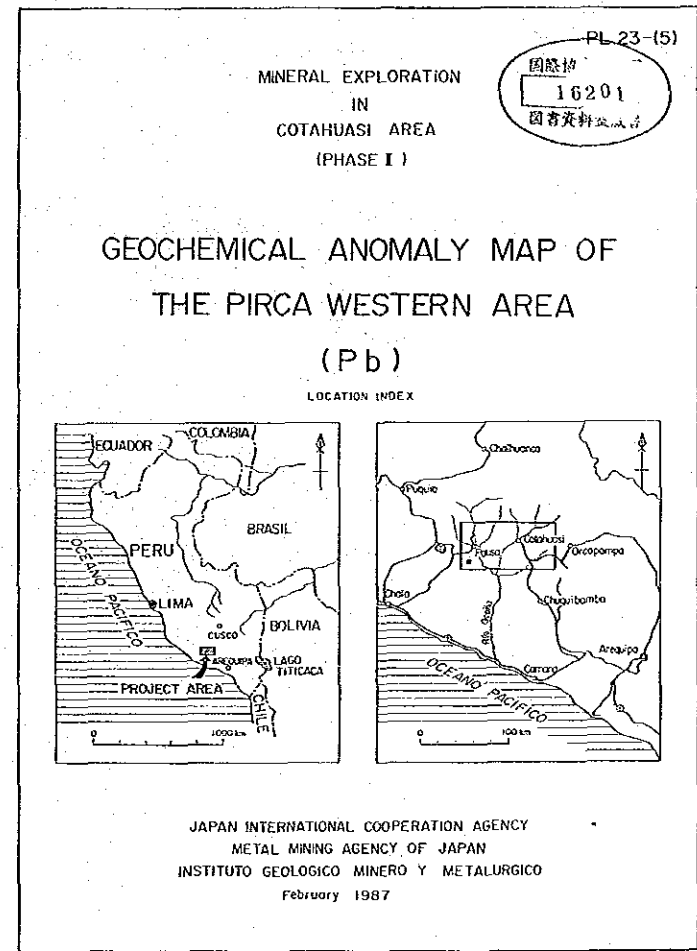
JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
INSTITUTO GEOLOGICO MINERO Y METALURGICO
February 1987

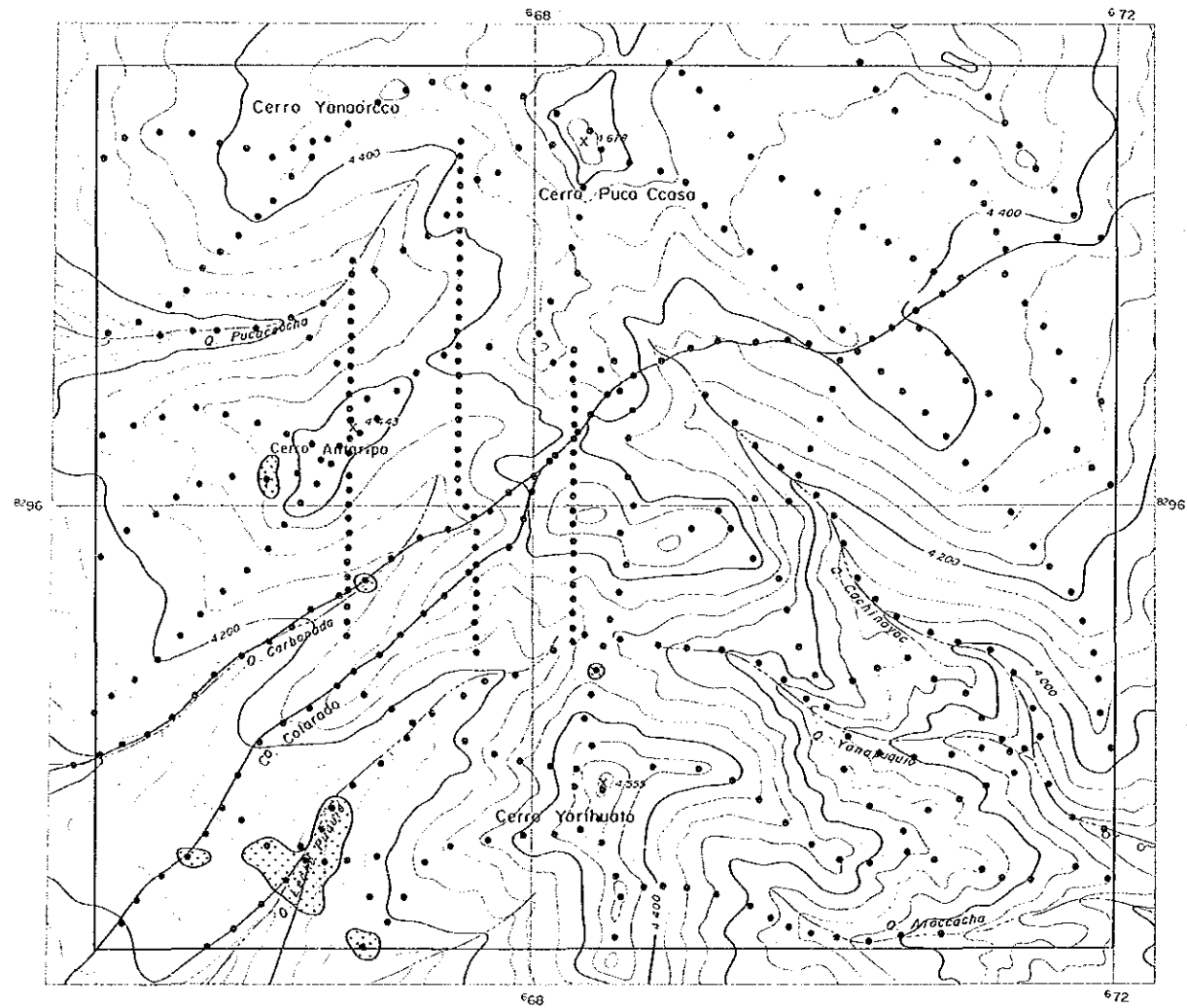
Scale 1 : 25,000



LEGEND

Symbol	Classification	Contents (in ppm)
	Anomaly A M+30'	$Pb \geq 42.1$
	Anomaly B M+20'	$42.1 > Pb \geq 21.1$
	High background M+10'	$21.1 > Pb \geq 10.6$





LEGEND

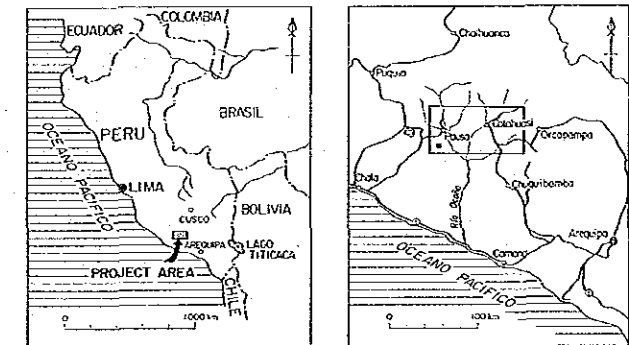
Symbol	Classification	Contents (in ppm)
	High background	146.1 > Zn ≥ 93.5
	M+10'	

MINERAL EXPLORATION
IN
COTAHUASI AREA
(PHASE I.)

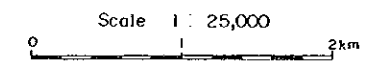
PL.23-(6)
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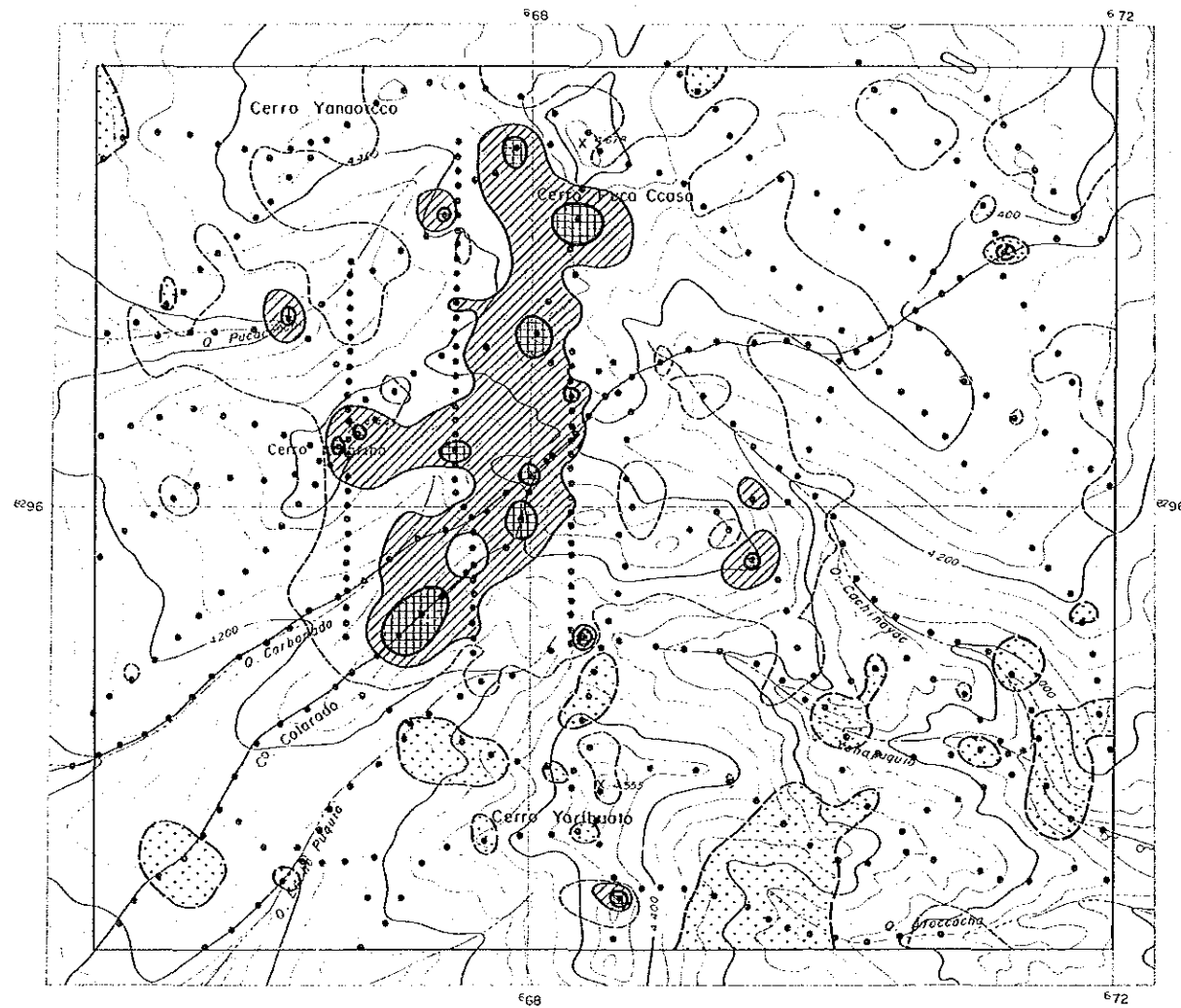
GEOCHEMICAL ANOMALY MAP OF
THE PIRCA WESTERN AREA
(Zn)

LOCATION INDEX



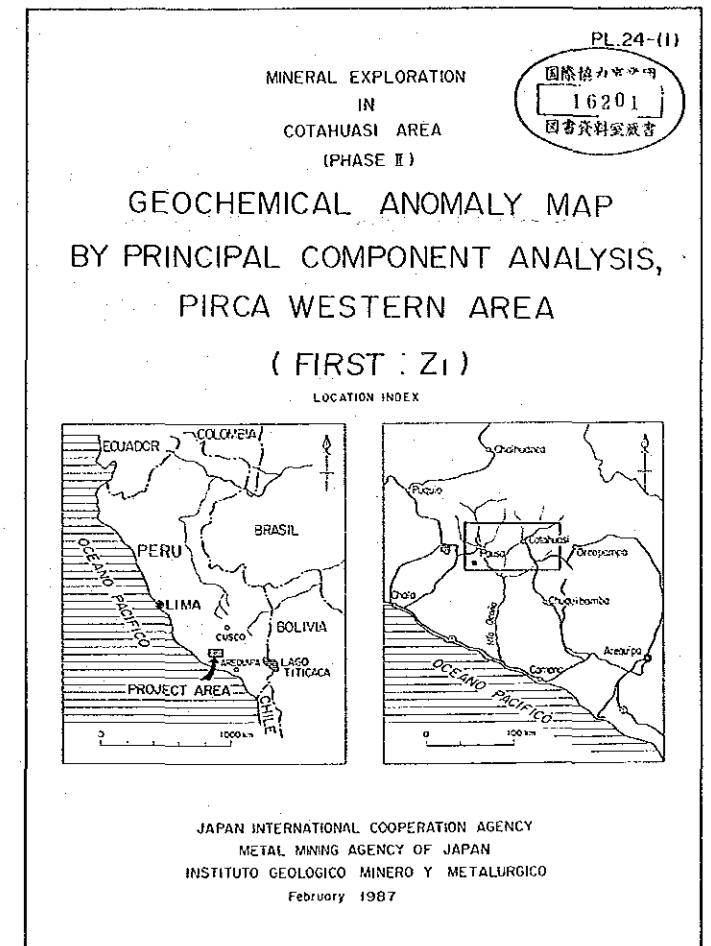
JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
INSTITUTO GEOLOGICO MINERO Y METALURGICO
February 1987

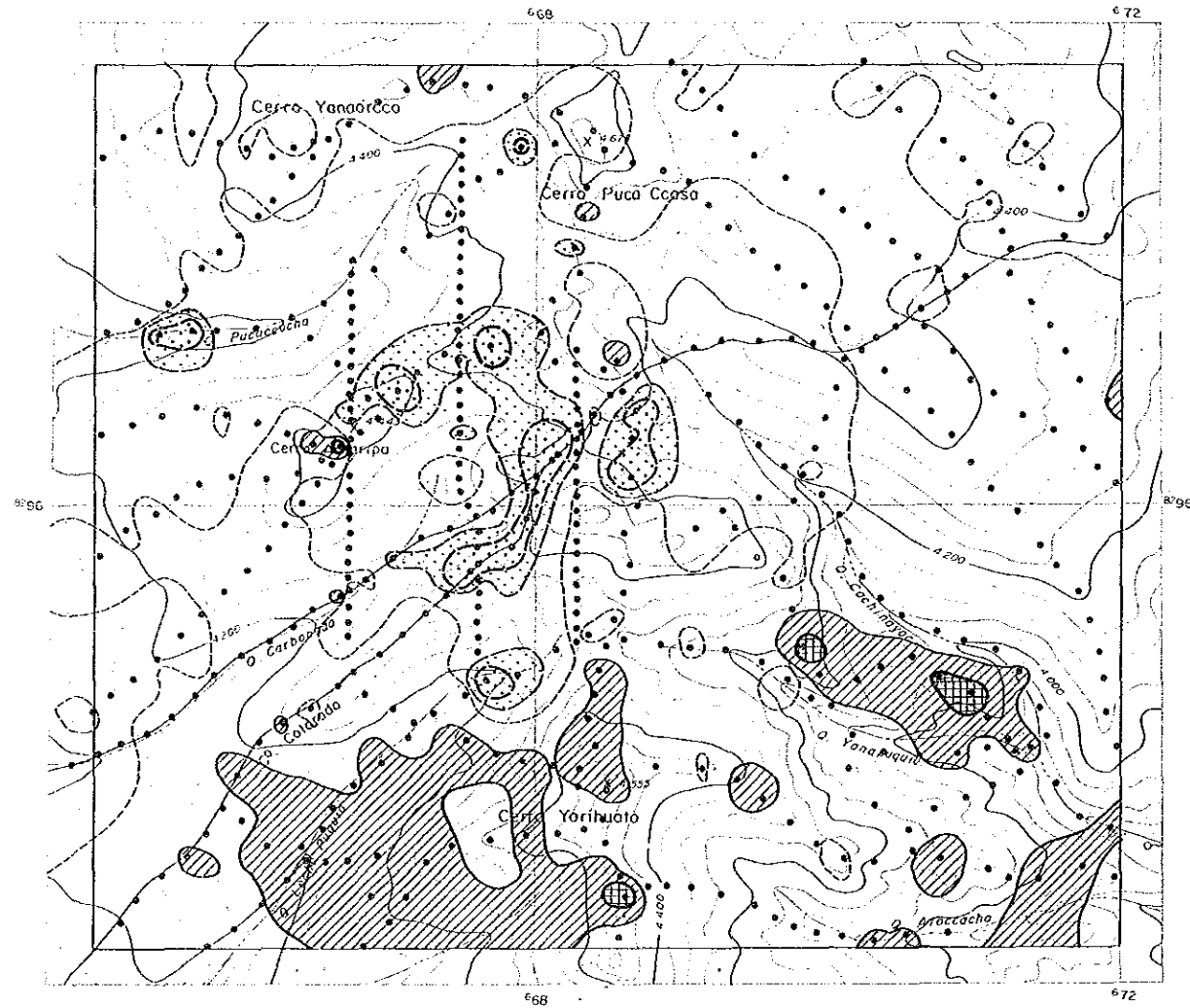




LEGEND

Symbol	Score	Classification
	M+26 2.49	+ Anomaly
	M+6 1.24	+ High background
	M 0	Background
	M-6 -1.24	- High background
	M-26 -2.49	- Anomaly





LEGEND

Symbol	Score	Classification
	M+26 2.25	+ Anomaly
	M+6 1.12	+ High background
	M 0	Background
	M-6 -1.12	- High background
	M-26 -2.25	- Anomaly

PL-24-(2)

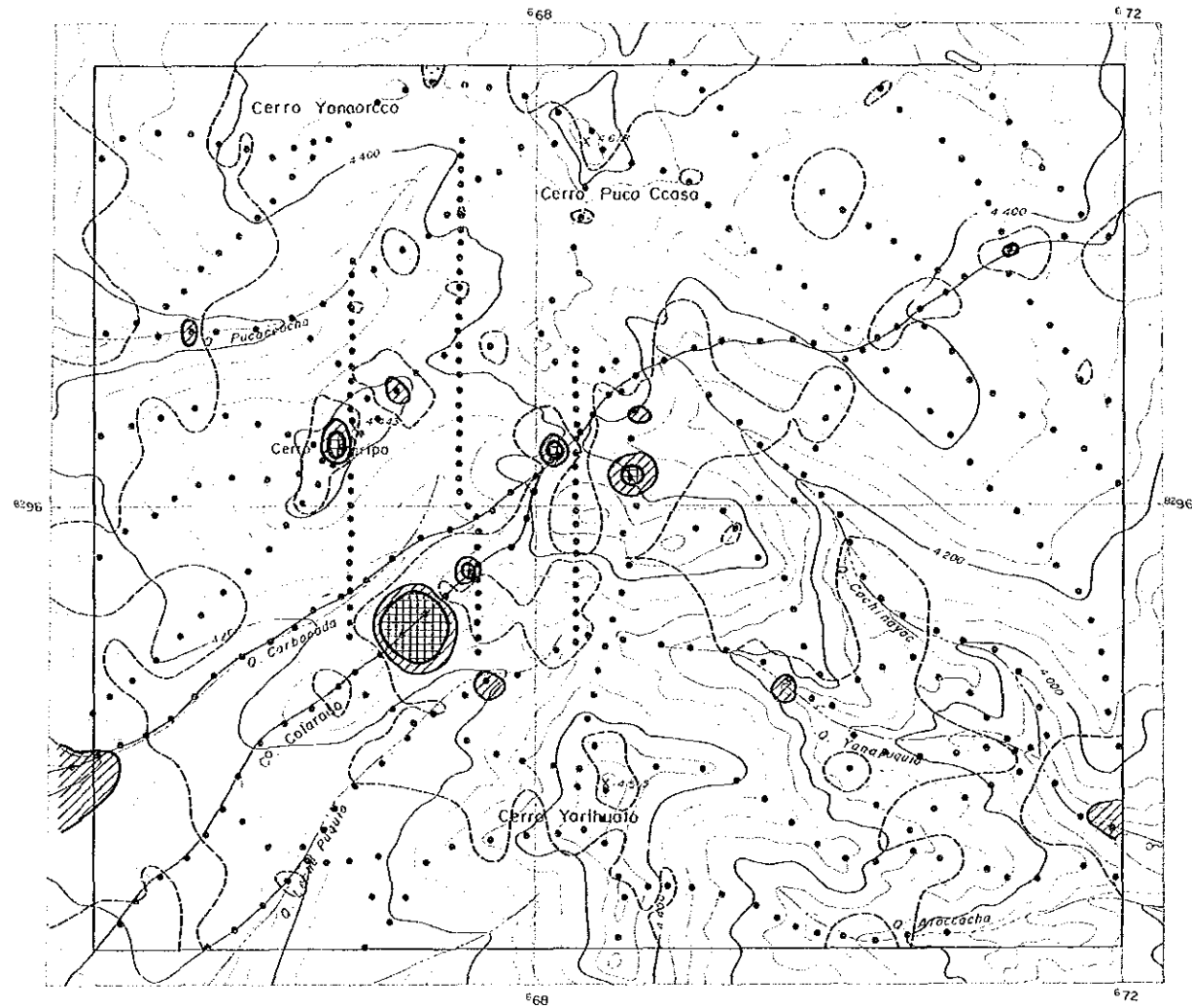
MINERAL EXPLORATION
IN
COTAHUASI AREA
(PHASE II)

GEOCHEMICAL ANOMALY MAP
BY PRINCIPAL COMPONENT ANALYSIS,
PIRCA WESTERN AREA
(SECOND : Z2)

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METAL MINING AGENCY OF JAPAN
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Scale 1: 25,000



LEGEND

Symbol	Score	Classification
	M+2σ 1.98	+ Anomaly
	M+σ 0.99	+ High background
	M - 0	Background
	M-σ -0.99	- High background
	M-2σ -1.98	- Anomaly

PL 24-(3)

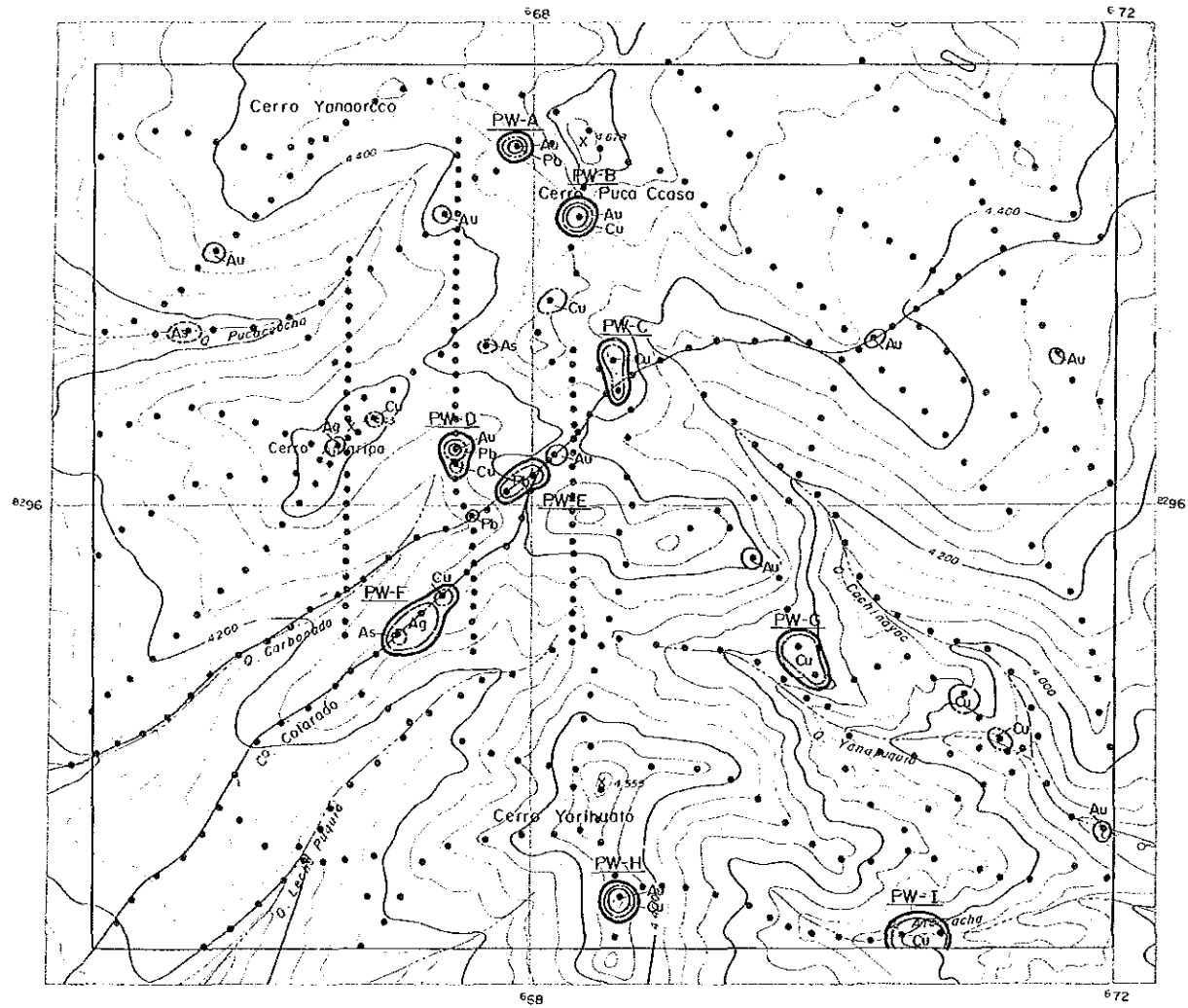
MINERAL EXPLORATION
IN
COTAHUASI AREA
(PHASE I)

GEOCHEMICAL ANOMALY MAP
BY PRINCIPAL COMPONENT ANALYSIS,
PIRCA WESTERN AREA
(THIRD : Z3)

LOCATION INDEX

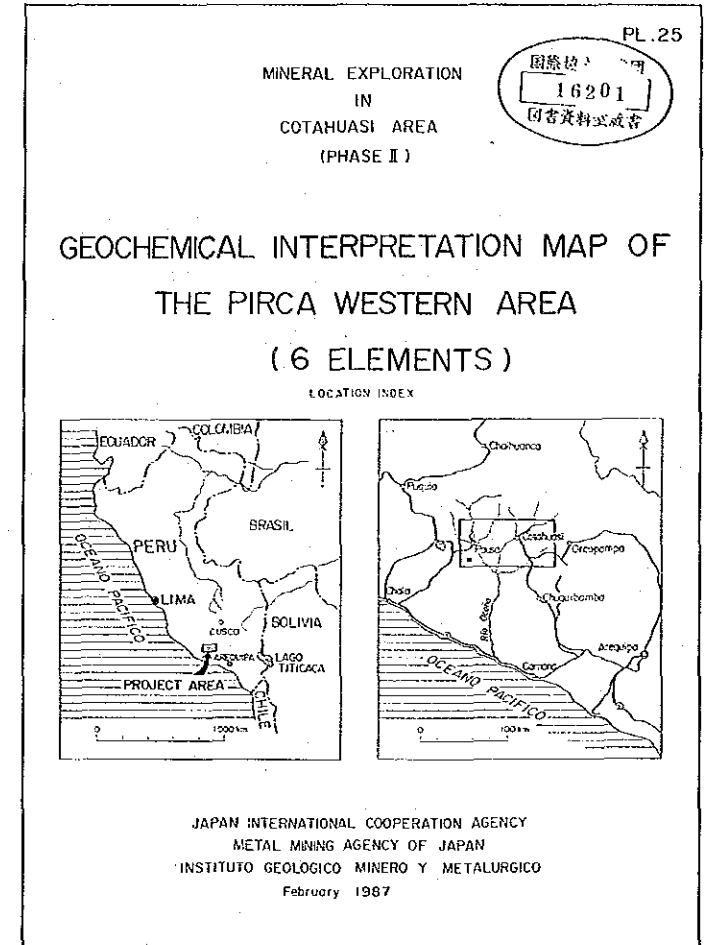
JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
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February 1987

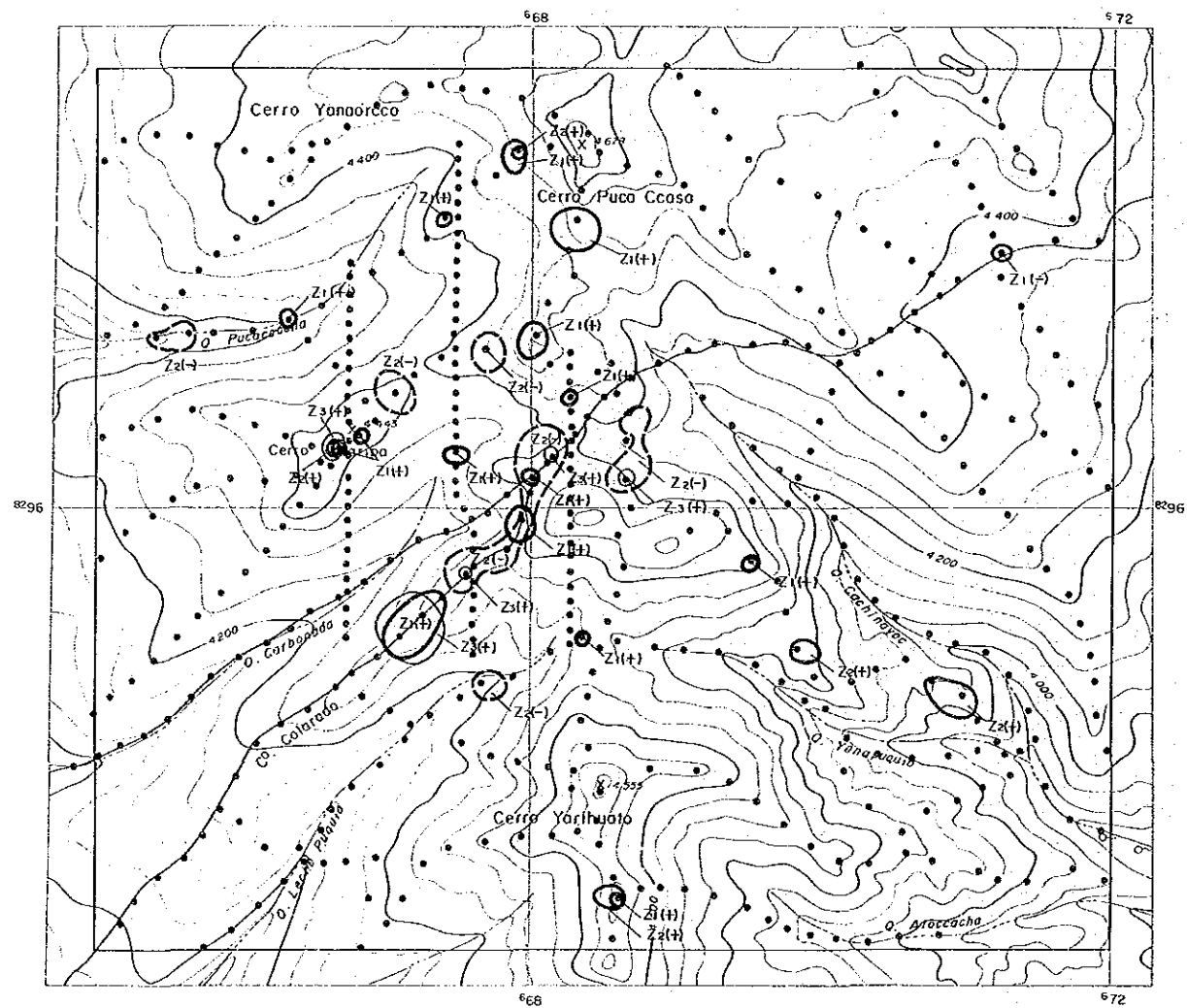
Scale 1 : 25,000



LEGEND

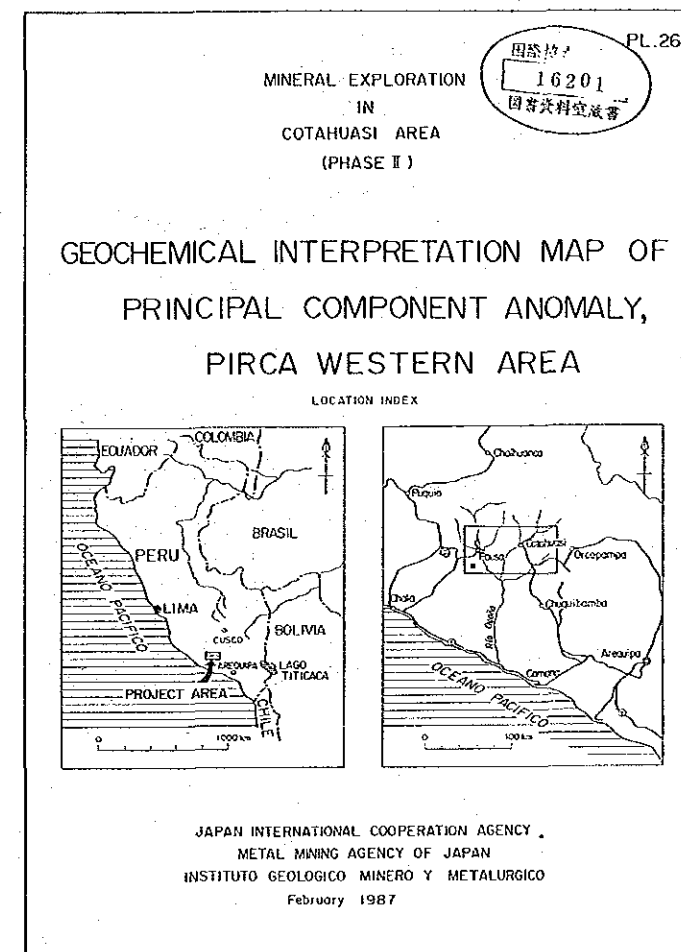
- Anomaly Zone
- PW-A : Name of Anomaly Zone
- Au Anomaly : Au \geq 7.8 ppb
- Ag Anomaly : Ag \geq 0.13 ppm
- As Anomaly : As \geq 41.7 ppm
- Cu Anomaly : Cu \geq 89.8 ppm
- Pb Anomaly : Pb \geq 21.2 ppm
- Zn Anomaly : Zn \geq 146.1 ppm

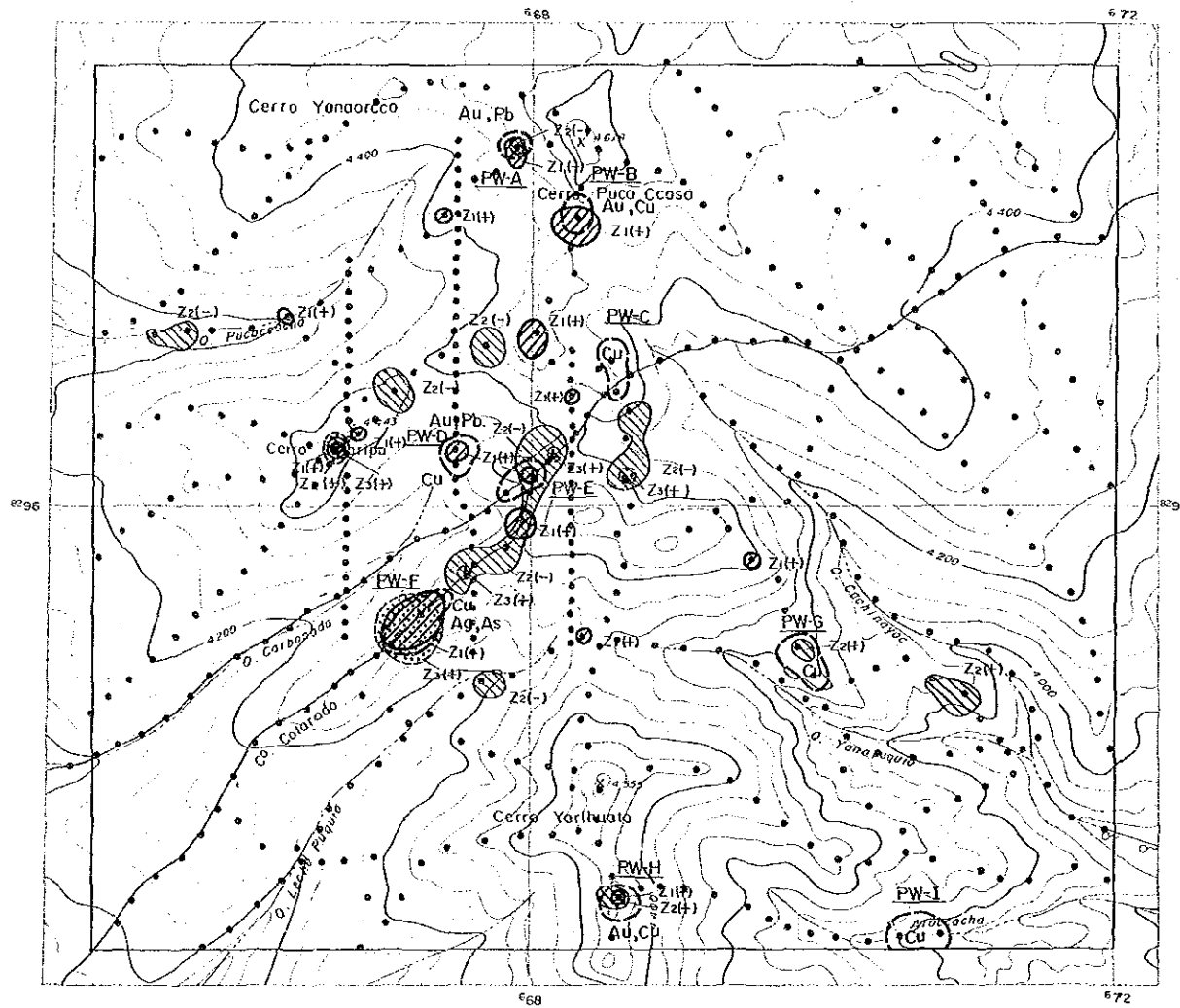




LEGEND

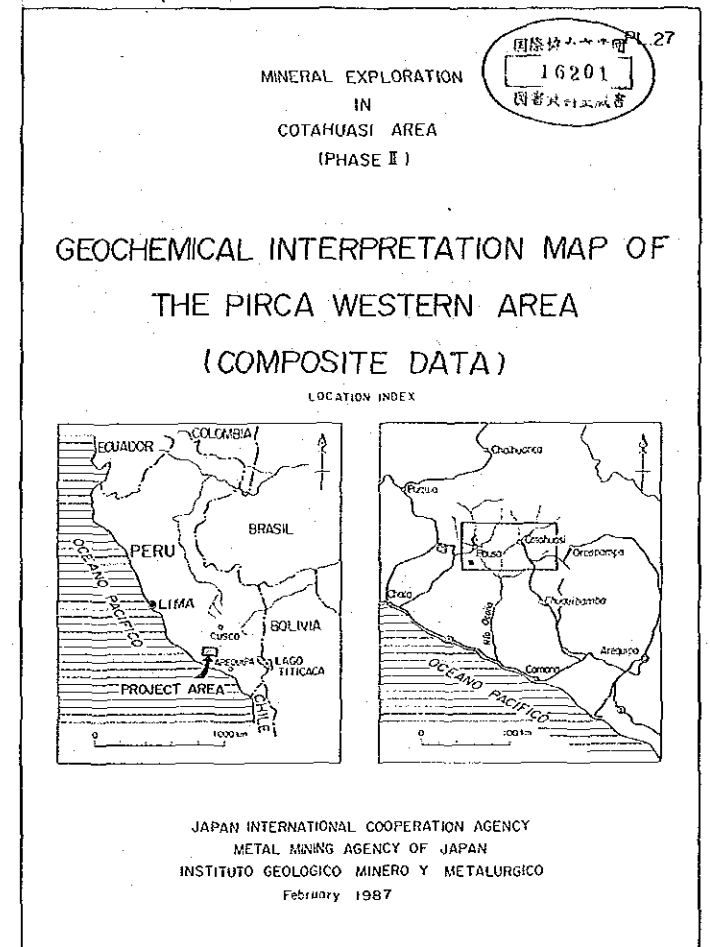
Principal Component	Anomaly	
	+	-
1st	Z1(+)	Z1(-)
2nd	Z2(+)	Z2(-)
3rd	Z3(+)	Z3(-)

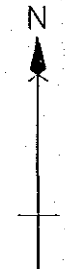
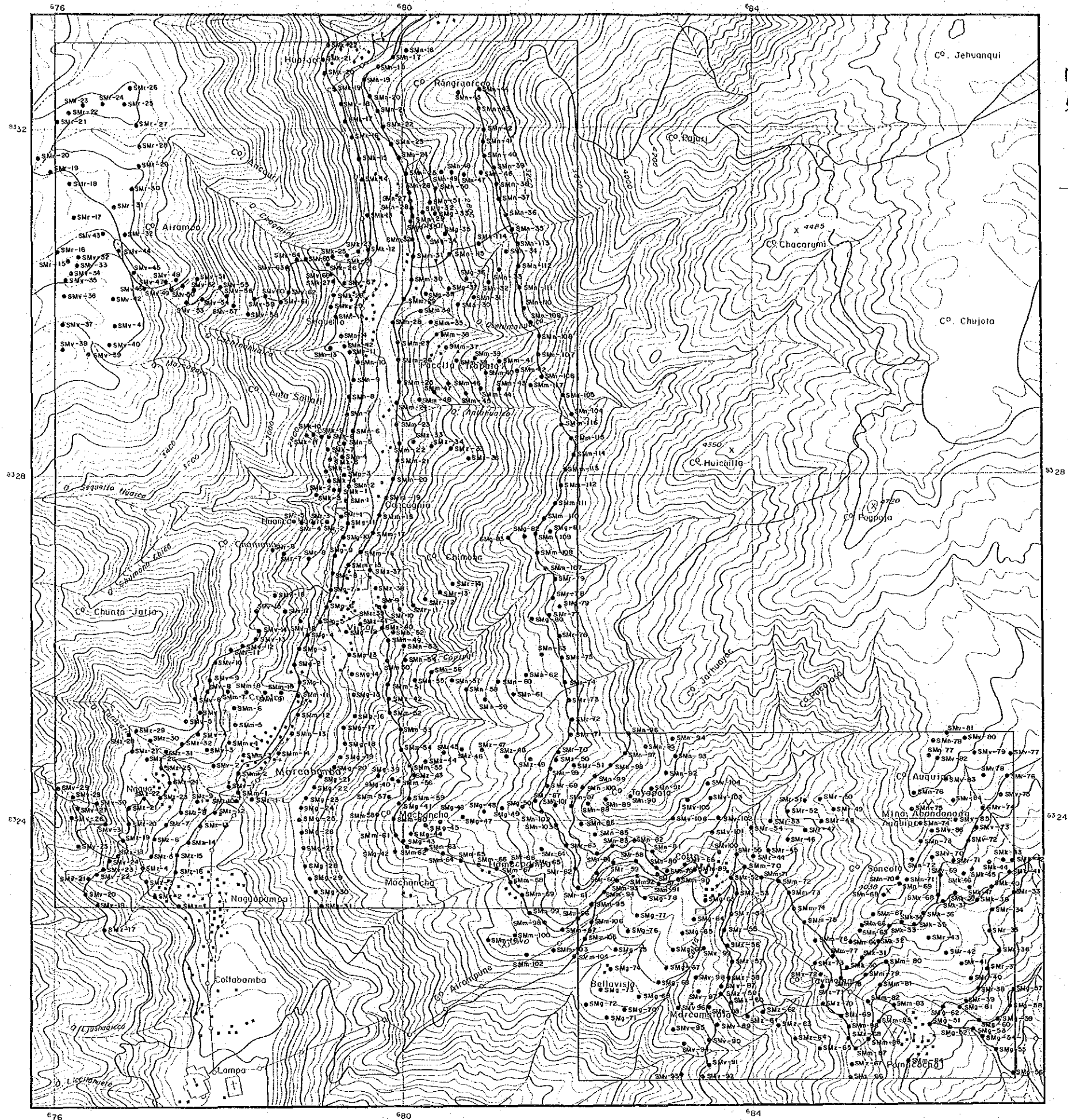




LEGEND

- Geochemical Anomaly
- <Univariate Analysis>
- Anomaly Zone and Anomalous Elements
 - PW-A Name of Anomaly Zone
- <Principal Components Analysis>
- 1st Principal Component
 - Z1(+) + Anomaly
 - Z1(-) - Anomaly
 - 2nd Principal Component
 - Z2(+) + Anomaly
 - Z2(-) - Anomaly
 - 3rd Principal Component
 - Z3(+) + Anomaly
 - Z3(-) - Anomaly





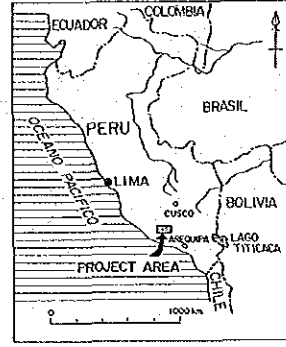
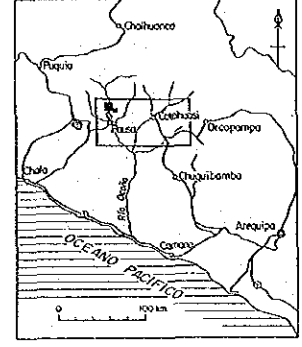
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MINERAL EXPLORATION
IN
COTAHUASI AREA
(PHASE II)

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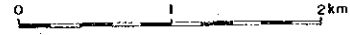
LOCATION MAP OF GEOCHEMICAL SOIL SAMPLES OF THE MARCABAMBA AREA

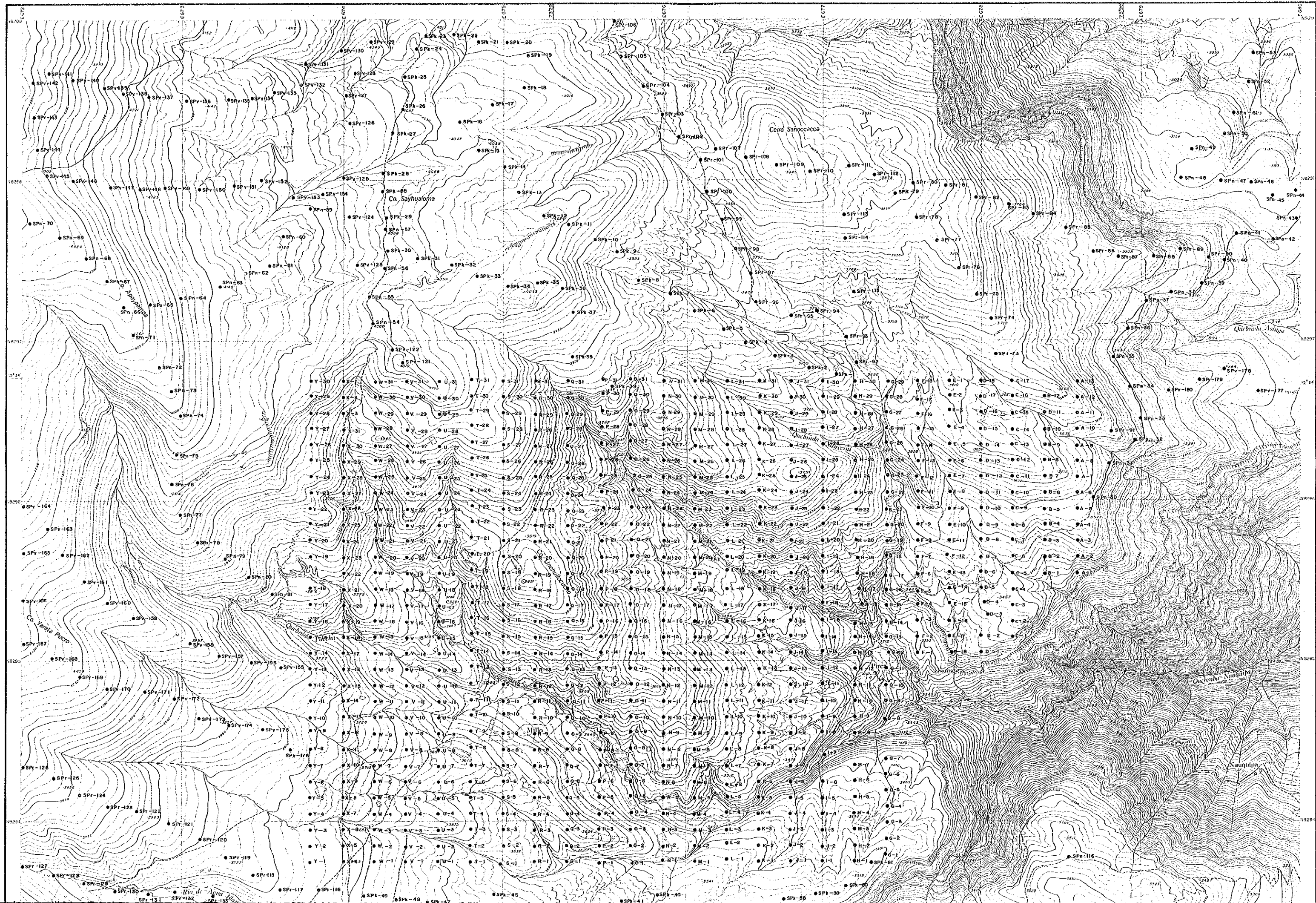
LOCATION INDEX

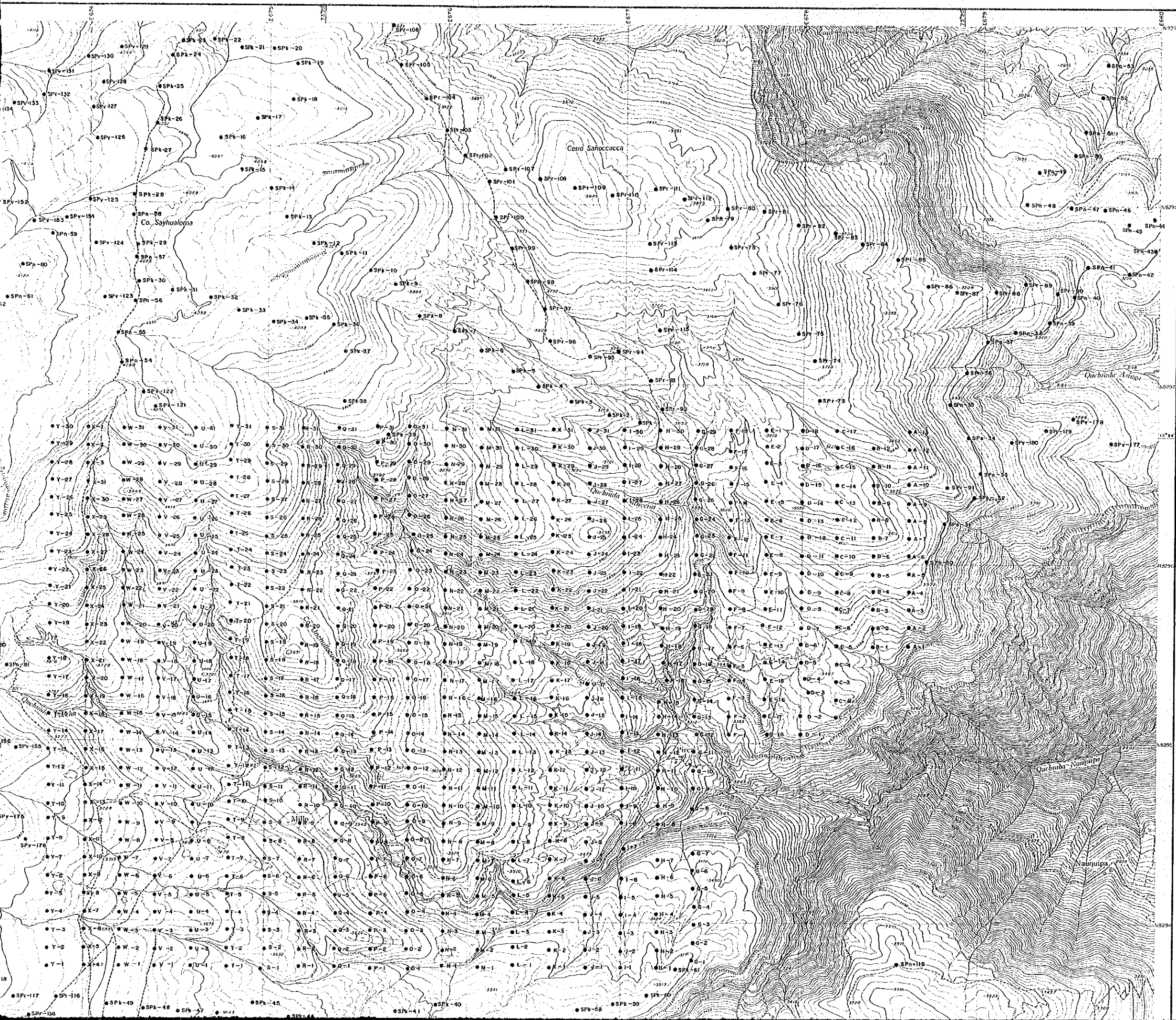



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Scale 1 : 25,000





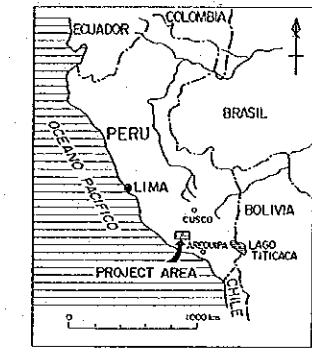


MINERAL EXPLORATION
IN
COTAHUASI AREA
(PHASE II)



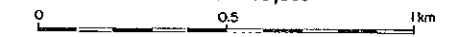
LOCATION MAP OF GEOCHEMICAL
SOIL SAMPLES OF
THE PIRCA EASTERN AREA

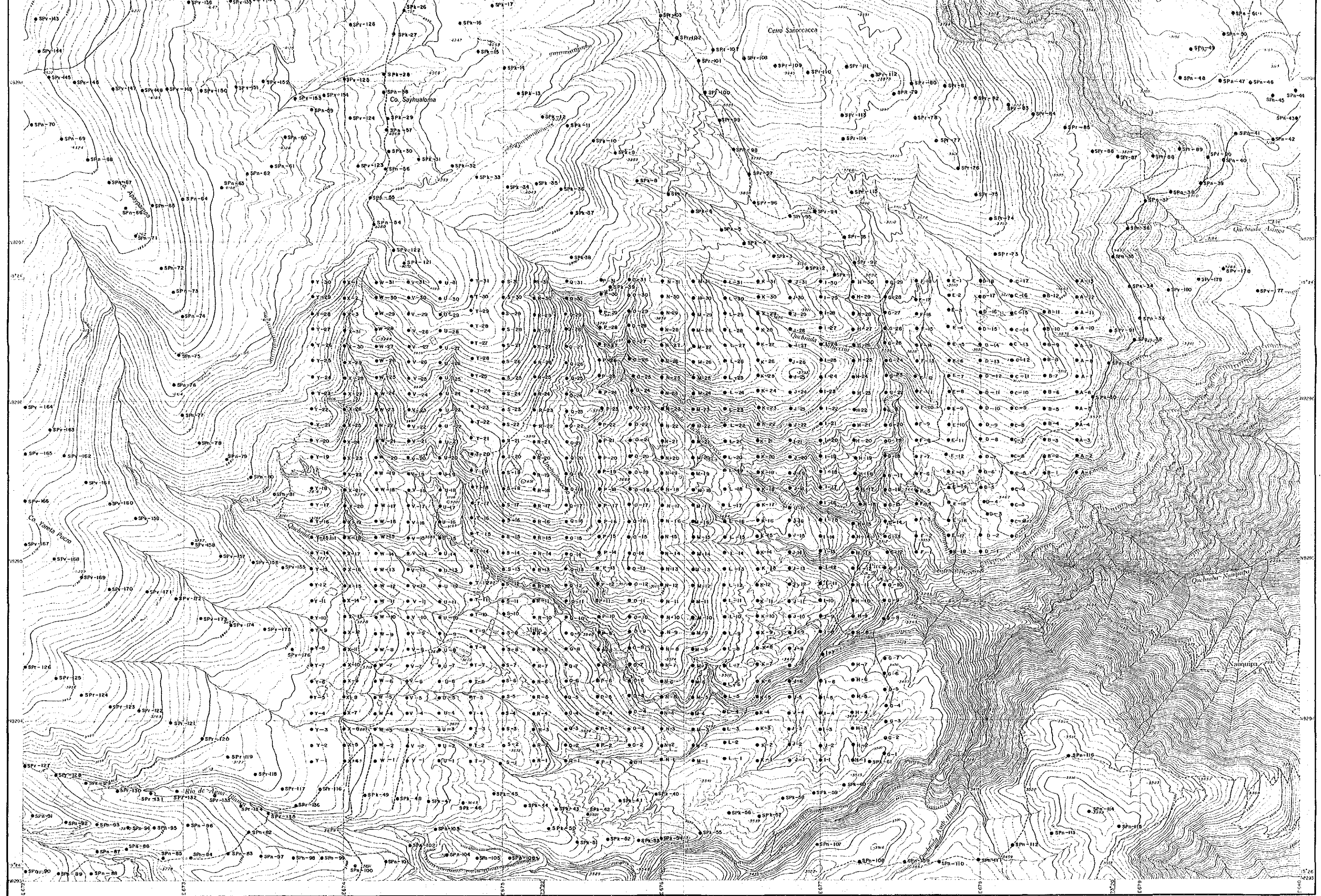
LOCATION INDEX



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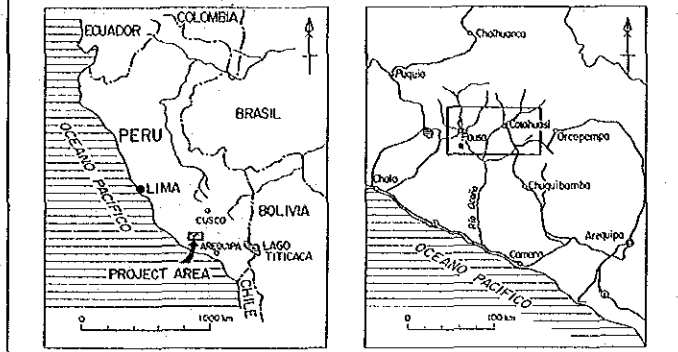
Scale 1 : 10,000



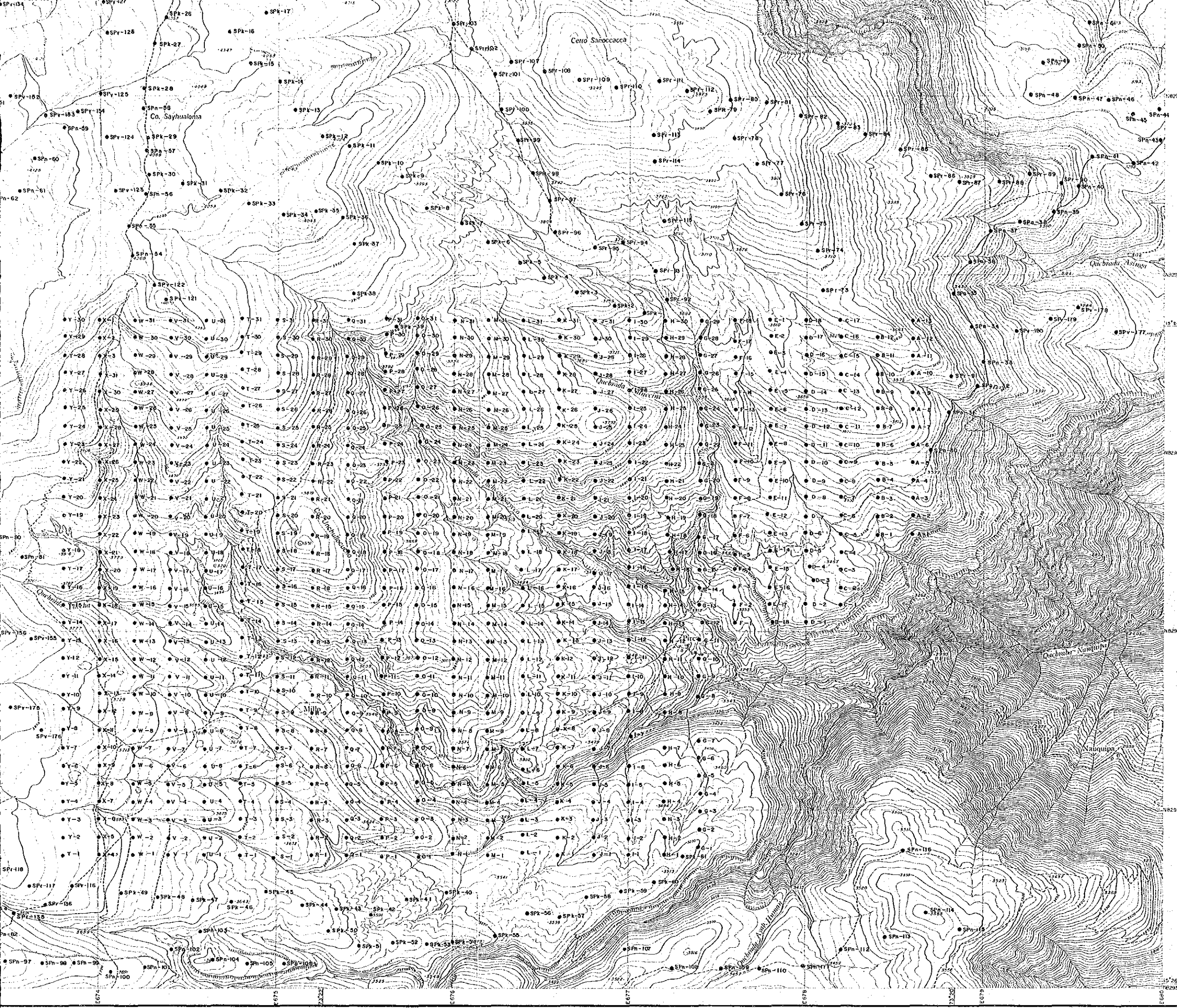
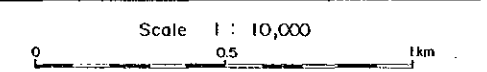


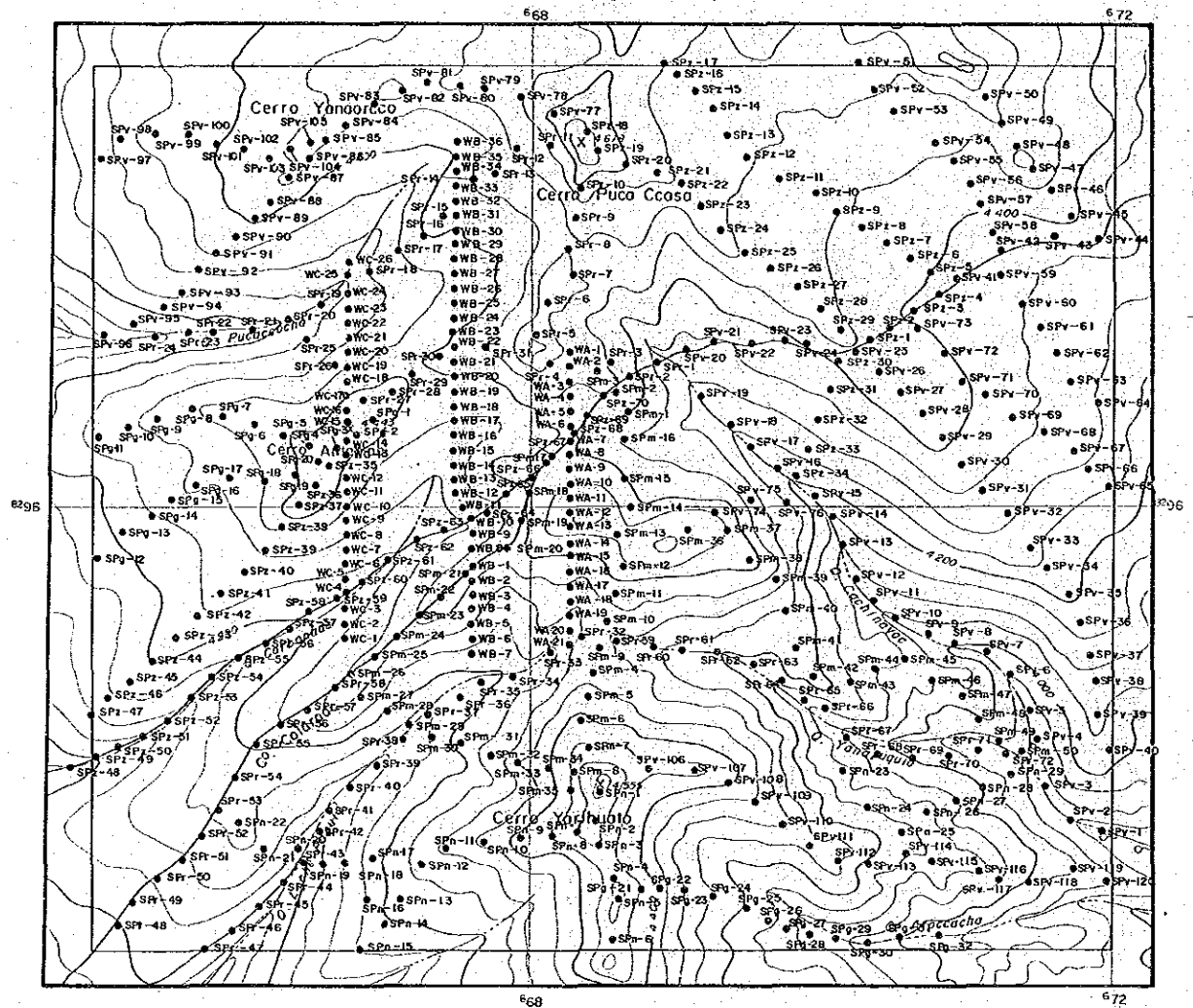
LOCATION MAP OF GEOCHEMICAL
SOIL SAMPLES OF
THE PIRCA EASTERN AREA

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MINERAL EXPLORATION
IN
COTAHUASI AREA
(PHASE II)

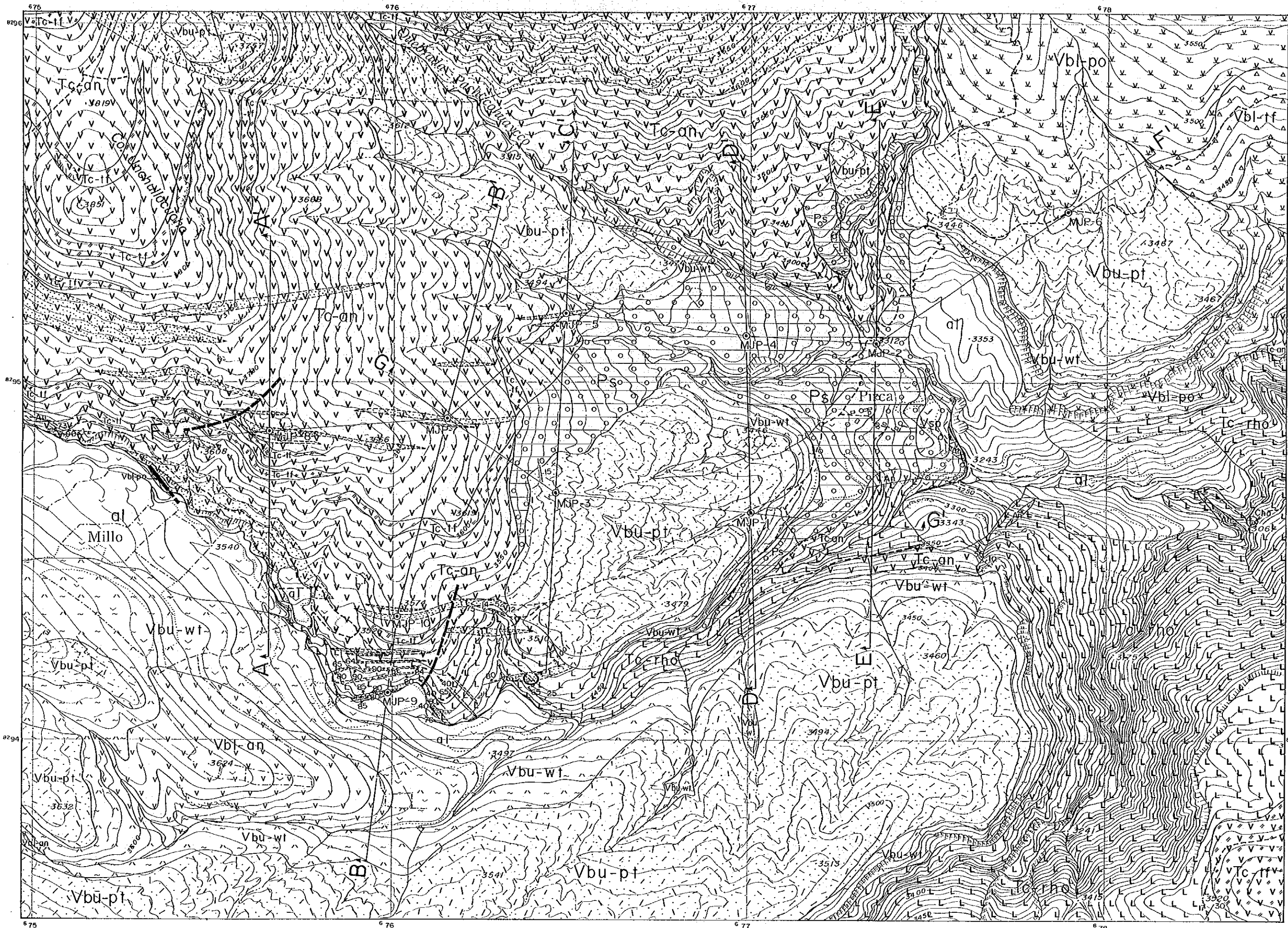
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LOCATION MAP OF GEOCHEMICAL
SOIL SAMPLES OF
THE PIRCA WESTERN AREA

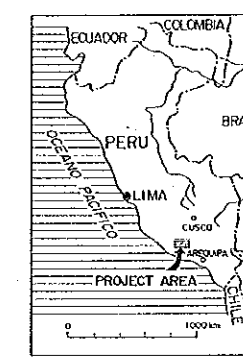
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Scale 1 : 25,000



GEO
OF THE PIRCA

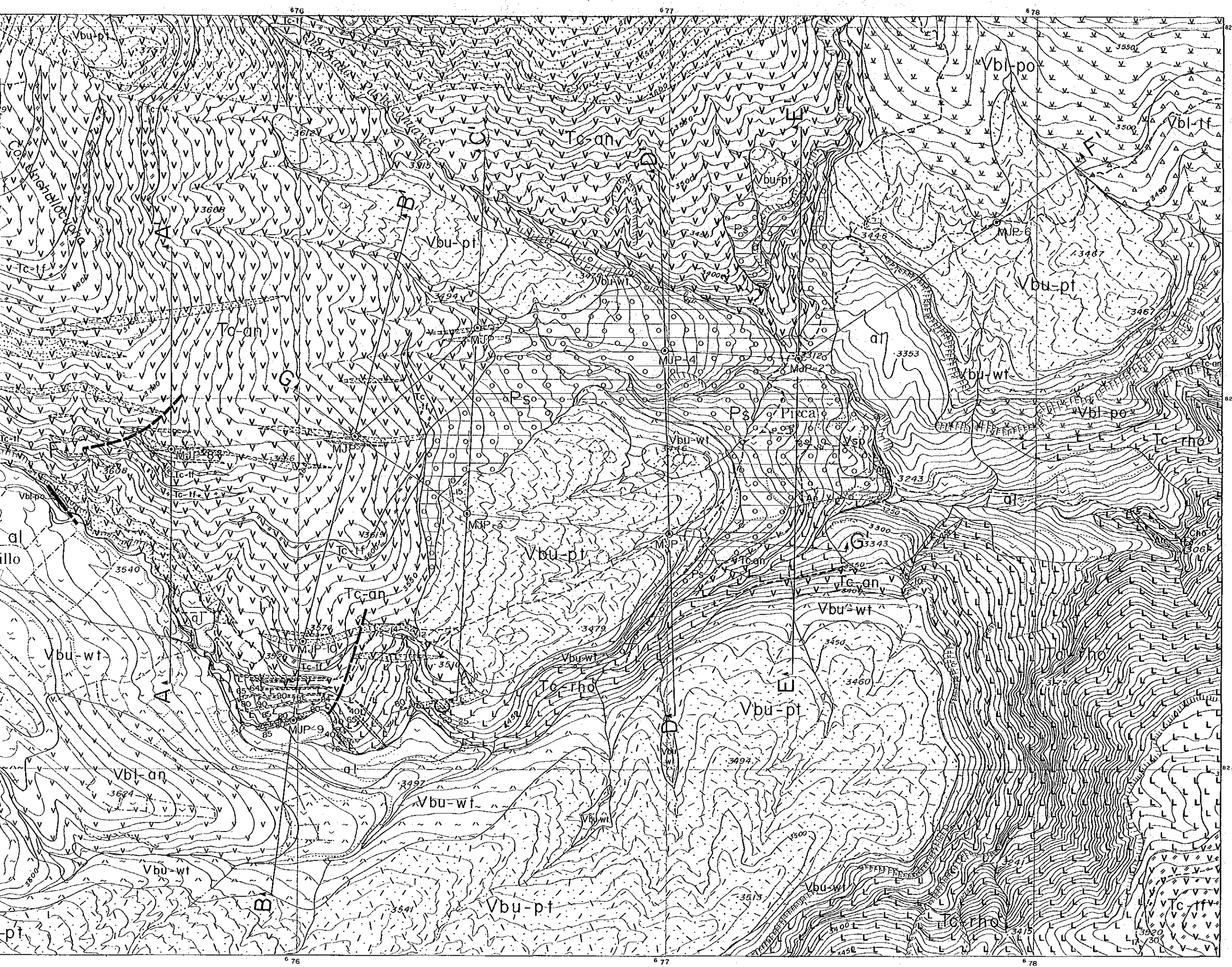


JAPAN INTE
METAL
INSTITUTO GE



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Quaternary	Holocene	Alluvium and Talus	al
		Volcanic Sediment of Fauso	vbsp
Pleistocene	Upper		vbu-pi
			vbu-wi
	Lower		vbi-an
			vbi-tf
			vbi-po
	Pirca Sediment	ps	
Miocene	Taczoa Formation	tca	
		tcrho	
Jurassic	Chocolate Volcanic Rocks	zcho	
		zcho	
Intrusive Rock			
Dike			



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同巻資料表紙

MINERAL EXPLORATION
IN
COTAHUASI AREA
(PHASE II)

GEOLOGICAL MAP OF THE PIRCA SOUTHEASTERN AREA

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February 1987

Scale 1 : 5,000
0 0.1 0.2 0.3 0.4 0.5 km

LEGEND

Quaternary	Holocene	Atlluvium and Talus	al	Gravel, sand, silt and clay	
		Volcanic Sediment of Pousa	o-o-o o-o-vsp	Volcanic ash and gravel	
	Pleistocene	Upper	Pumice fall and tuffaceous sand	Vbu-pj	
			Dacite, dacitic tuff and welded tuff	Vbu-aj	
		Lower	Olivine basalt and pyroxene andesite lavas	Vbu-an	
			Andesitic tuff, lapilli tuff and tuff breccia	Vbu-aj	
	Pirca Sediment	Hornblende andesite lava	Vbu-po		
		Gravel, sand, silt and clay	o-o-o o-o-pj		
	Tertiary	Miocene	Andesitic volcanic breccia	V-v-v V, Tc-ff	
			Andesite lava with thin bedded tuff, lapilli tuff and tuff breccia	V, V, V V, Tc-aj	
Chocolate Volcanic Rocks		Rhyolite lava, tuff and lapilli tuff	L, L, L L, Tc-rho		
Jurassic	Intrusive Rock	Andesitic tuff breccia	v-v-v v-v-cho		
		Dike	v-v-v v-v-an	Hornblende andesite	

--- Fault
 Strike and dip of bedding
 Strike and dip of contact plane
 Strong alteration zone
 Quartz vein
 Location of drilling
 A—A' Geological profile line