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PATTERN RECOGNITION APPLIED TO
GEOCHEMICAL EXPLORATION DATA IN
THE AREA OF QUE RIVER, TASMANIA.

J. K. G.

1974 - 1977

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PATTERN RECOGNITION APPLIED
TO GEOCHEMICAL EXPLORATION
DATA IN THE AREA OF QUE RIVER,
TASMANIA, AUSTRALIA

by

G. van den Boom

S. Rehder

Progress Report based on Results of
the following Research Programs

1. Stratabound Ore Deposits
2. Statistical Evaluation Methods

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Zusammenfassung

Im Sommer 1978 wurden 187 Festgesteinsproben aus der näheren und weiteren Umgebung des Erzvorkommens Que River, Tasmanien (Australien) entnommen und nach entsprechender Aufbereitung mittels RFA auf 10 Hauptelemente und 19 Spuren analysiert.

Die geochemischen Analysendaten wurden mit Hilfe statistischer Methoden ausgewertet.

Als Ergebnis kann festgehalten werden:

Besonderes Verhalten im engen Lagerstättenbereich zeigen die Elemente Na_2O , Sr, Pb, Zn und Hg. Von diesen Variablen bilden Na_2O und Sr einen Halo, der sich durch besonders niedrige Gehalte auszeichnet. Die übrigen genannten Elemente zeichnen den Bereich der Vererzung durch hohe Metallgehalte aus.

Mit Hilfe dieser Charakteristika wurden 3 Höffigkeitsareale im Untersuchungsgebiet gefunden. Zwei dieser Bereiche liegen nördlich des bekannten Erzvorkommens. Eine Trennung von Pb-Zn-Hg-Anomalien und Na_2O -Sr-Halo wurde in Nähe des Mt. Charter festgestellt. Hier scheint sich durch die Na_2O - und Sr-Defizite ein Bereich starker hydrothermalen Aktivität (Alteration) abzuzeichnen, von dem sich eine eventuelle Vererzung räumlich getrennt hat.

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Pattern Recognition Applied to Geochemical Exploration
Data in the Area of Que River, Tasmania, Australia

1. Introduction

1.1 Data collection, sampling technique and analytical methods

The study is based on chemical analysis of 187 rock samples collected from the surface around the ore deposit of Que River. This deposit is located within the main mining district of North Western Tasmania approximately 2 km East of the Murchison Highway, 25 km NE of Rosebery.

The samples were taken from a Cambrian suite of lavas and pyroclastics known as the Mt. Read volcanics. These volcanic rocks host also the wellknown ore deposits Rosebery (Zn-Pb-Cu) and Mt. Lyell (Cu-Au).

Because of the very dense vegetation and the rugged terrain of the area prospecting of the Mt. Read volcanics has always been very difficult.

The rock samples were crushed in a jaw crusher and ground in an agate mill to a grain size of 75 μm (-200 mesh).

All samples were then analyzed with XRF in the laboratories of the BGR at Hannover (Germany) for the following elements:

Major elements: SiO_2 , TiO_2 , Al_2O_3 , Fe_2O_3 , MgO , CaO , Na_2O ,
 K_2O , P_2O_5 .

Trace elements: Ba, Ce, Co, Cr, Cu, La, Mn, Nb, Ni, Pb, Rb, Sc, Sr, Th, V, Y, Zn, Zr, Hg

A sample distribution map of the area investigated is shown as figure 1. The analytical values are given in table 1 .

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1.2 Data processing

The term "pattern recognition" as used in this study refers to a method in which exploration parameters are extracted from chemical data by univariate and multivariate statistical analysis.

The problem of recognition is defined in the following form. A set of objects is given. Each object belongs to one of several (usually two) classes. The goal is to find which class each object belongs to.

The recognition algorithm consists of three stages:

- Learning phase: certain critical questions concerning the distinctive features of the objects are determined by applying univariate and multivariate statistical methods to the learning material. The objects (samples) used in learning are divided into classes, corresponding to those close to and those far from a known ore deposit.
- Control experiment: Stability and reliability of recognition are tested by numerical experiments in order "to convince ourselves that the results are significant since recognition cannot be proven either mathematically or statistically" (I.M.GELFAND et al. 1976)⁺
- Voting phase: Using the knowledge of phases I and II samples of unknown exploration areas can be classified with the aim of establishing

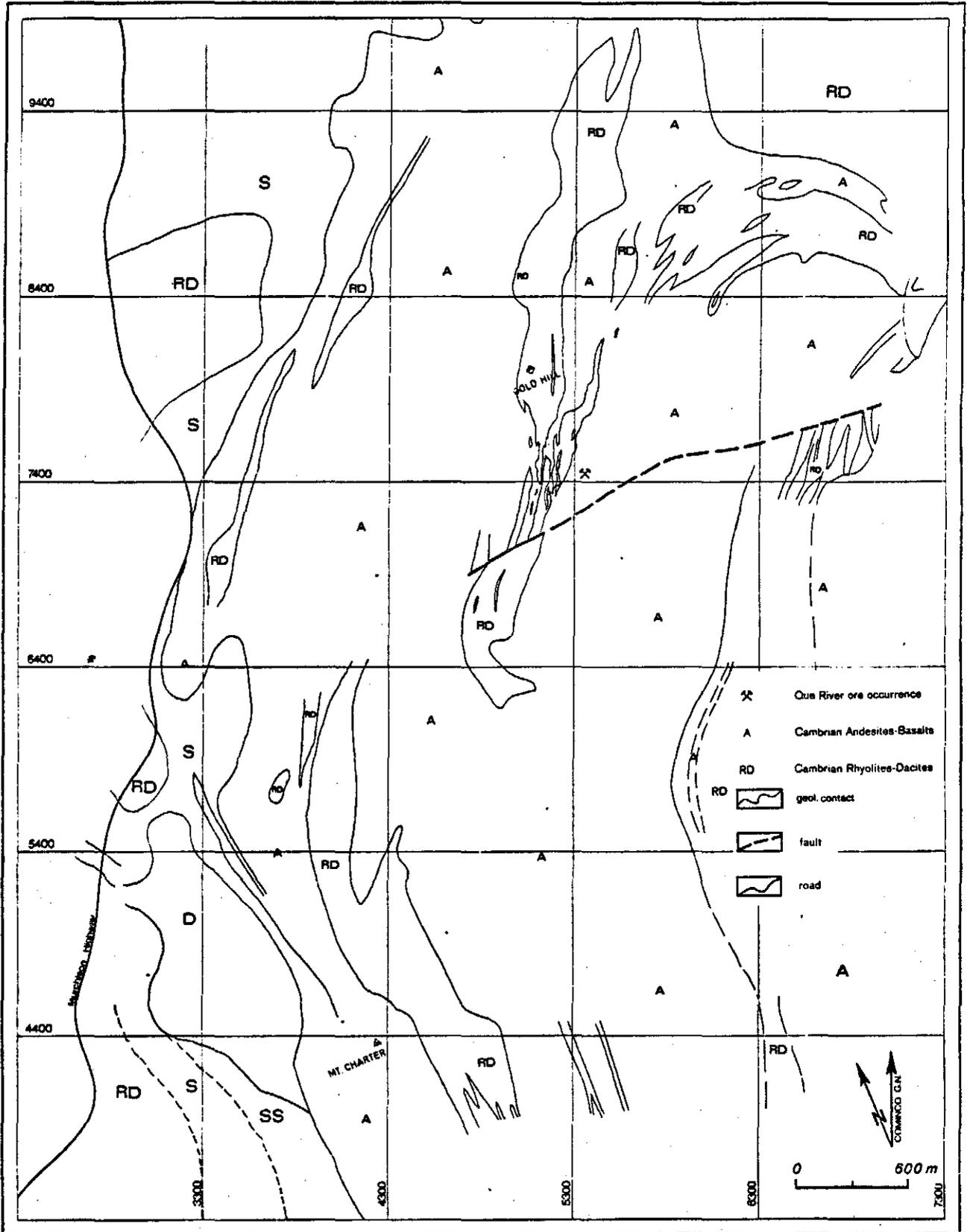
⁺) GELFAND, I.M. et.al.: Pattern Recognition applied to Earthquake Epicenters in California. - Physics of the Earth and Planetary Interiors, 11 (1976) 227-283, Elsevier Amsterdam.

prospective (deposit-like) target areas for further detailed and combined exploration work.

2. Local Geology

WEBSTER, S.S. and SKEY, E.H. (1977) give a short description of the local geology. According to these authors the area may be subdivided into three fundamental stratigraphic units. The eastern most unit is a west dipping and facing sequence of micaceous sandstones, siltstones, grey to black shales and foliated acid tuffs intruded by pyritic and magnetite bearing dacites. Further to the west a broad exposure of mainly andesitic agglomerates, lavas and feldspar crystal tuffs occur. The Que River beds conformably overlie the andesites. They comprise carbonaceous pyritic shales with interbedded acid volcanics. The greatly simplified geological map shown as figure 2 gives a general picture of the geological situation. In the vicinity of the ore zone the sub-vertical sequence from east to west interpreted from drilling results consists of footwall andesitic pyroclastics, a porphyritic dacitic unit containing "stringer"-mineralization, heavily pyritised lower dacitic pyroclastics with sericite-carbonate-silica alteration and disseminated to massive base metal sulphides. Between the lower and the upper sequence of barren dacitic lava, several repetitions of barren dacites and mineralised pyroclastics containing the major galena-sphalerite ore lenses occur. Hanging-wall andesitic-pyroclastics, unaltered and virtually devoid of sulphide mineralisation terminate the sequence.

According to WEBSTER and SKEY the eastern ore lens consists of bands and veins of coarsely crystalline pyrite. Galena, sphalerite and chalcopyrite occur within the pyrite host and associated silica carbonate gangue. The western lenses show bands in the range 1 mm to 1 cm pyrite, sphalerite and galena with minor chalcopyrite.



Authors: G. VAN DEN BOOM, S. REICHERT (1978)

5 cm

Fig. 2

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3. Mineralogical and petrological analysis by F.A.WASHAUSEN
(see map "Alteration Zones")

X-ray data permits a separation of three main groups of minerals assemblages.

In the area of samples 116 to 120 the known deposit is represented by the following mineral assemblages:

Main minerals are quartz, muscovite, and plagioclase (An 20 - 30), partly combined with K-feldspar which sometimes substitutes for the plagioclase.

Pyrite is abundant in this assemblage and is accompanied by gypsum or anhydrite and alunite or jarosite, and these are the dominant guides for further investigations on ore-bearing areas within the Que River project.

The Fe-rich variety of chlorite is less commonly found in the main mineralized area.

This zone 1 defined above is enveloped by zone 2 which is characterized by the following mineral assemblage:

The main minerals are quartz, muscovite, plagioclase (An 20 - 30) occasionally tending to pure albite. K-feldspar is only an accessory constituent in this assemblage which is identified by the carbonate minerals calcite and/or dolomite and/or ankerite. Magnesite is sporadically present as the carbonate. The Mg-rich variety of chlorite is another major mineral of this zone: accessory components such as pyrite and montmorillonite, illite or talc complete this series.

Zone 3 is characterized by the following mineral assemblage consisting of quartz, muscovite, plagioclase and/or K-feldspar

as major minerals. In several cases pyrite is one of the main minerals. Mg-rich chlorites are minor constituents of some samples of the third zone.

The associations mentioned above (zone 3) are of no significance for exploration.

These generalized mineralogical features of the main minerals, and the significant accessory minerals or minor constituents, in the three zones are (except K-feldspar in zone 3) applicable to a simplified model of both the rhyodacite and andesite lithological groups.

The results of investigation on X-ray data of 166 surface-samples of interest are drawn in the annexed map which only shows zone 1 and zone 2.

Thin section investigations on rhyodacitic rocks

By condensing the microscope investigations to the main features of interest, the following aspects must be described for zone 1:

The generally high amounts of free quartz may be explained by SiO_2 -rich solutions reacting with the originally unaltered materials. This is indicated in the thin sections by the appearance of secondary quartz in veinlets, fissures and vesicles. The vesicles are often formed in residual crystals of plagioclases, amphiboles or pyroxenes. Here quartz commonly is accompanied by euhedral pyrite crystals. These pyrites are sometimes connected with some pressure shadows composed of sericitic mica.

Commonly the leached former crystals of plagioclase, amphibole and pyroxene have been penetrated by quartz and pyrite and are

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linked to each other by veinlets of pyrite which in most cases is altered or weathered to some "FeOOH" - phases.

K-feldspar of the second generation has formed at the contact of many of these leached crystals.

Gypsum or anhydrite as well as alunite or jarosite occupy positions equivalent to those of K-feldspar.

The pyrite that has not been altered or weathered is of euhedral shape and attains sizes up to 5 mm \emptyset , but in most cases it is of the order of some tens of μ m.

Plagioclase, if it is not totally leached, is marked by major reaction rims with minerals of the second generation.

First generation K-feldspar may be identified as sanidine from the observed specific "hourglass"-structures.

Most of the light coloured micas, because of their small size, are unlikely to be identified microscopically. X-ray data identifies them as muscovite with various amounts of illite. The fine-grained groundmass is made up of quartz, feldspars and residues of hornblende and epidote, zircon, and apatite are the main accessory minerals.

Zone 2, the chlorite - carbonate - group, is in most cases easily identified by the anomalous blue interference colour of opt. (-) Fe-chlorites in samples that lie only a short distance from zone 1. In the more distant samples the anomalous brown interference colour of the opt. (+) Mg-rich chlorites is significant.

These chlorites are commonly the main minerals and often have strongly affected former minerals.

Carbonates in this group generally appear as veinlets or

fissures filled with calcite or ankerite, minor dolomite or, only in one case, magnesite.

In most cases the pyrites are as strongly weathered or altered as the plagioclases that they have penetrated, etching out the original structures.

Other originally big crystals of plagioclase have been totally altered into sericite or chlorite.

In cases where they are not filled with secondary quartz or other secondary minerals, the originally large phenocrysts of plagioclase, amphibole, or pyroxene just remain as voids in the thin sections. In most cases micas have to be identified by X-ray. Muscovite, the main mineral of this kind, is sometimes accompanied by illite. Talc or montmorillonite are minor components of the sheet-silicate-series. Samples taken near the contact of zone 1 (within zone 2) commonly contain some zeolites apart from the usual accessory minerals. In most cases these are laumontite, phillipsite, or natrolite.

The appearance of some very big crystals of hematite or lepidocrocite within a fine-grained groundmass of quartz and feldspar in some of the more distant samples should be mentioned here.

A more detailed report on all the investigations made will be written later. This will also deal with genetic aspects as well as final conclusions of the geochemistry and the mineralogy.

4. Statistical procedures for evaluation of geochemical data

This chapter describes the procedures to detect "chemical characteristics" that are spatially and causally related to a known ore deposit. Statistically this detection is done in the following way:

A set of "possible characteristics" is defined and the statistical procedures select those that are "significant" from a special point of view. Among these there are some characteristics that have no causal relation to the mineralization but may be explained by "natural noise" in the data or other causes like lithology and facies variations but also analytical errors.

The control experiment tries to extract all characteristics relevant for exploration. These are denoted as "features". The questions involved in the selection of "statistically significant characteristics" are:

- Is there a population in a multimodal element distribution with a spatial relation to a mineral deposit?
- Are there differences in the arithmetic means between a sample group from the near vicinity of a deposit and another group at a greater distance from the deposit.

In the choice of the statistical procedure, the advantages and disadvantages of the univariate and multivariate methods will be reviewed.

The following points should be mentioned as advantages of the univariate statistical methods:

- no characteristics are lost in studying the behaviour of the individual elements.
- the results are easier to interpret in relation to the geochemical behaviour and mineralogical-petrological characteristics.

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- These results assist in the initial subdivision of the samples into groups which are then statistically analyzed by multivariate methods. ('O' and 'N'-group).

The results obtained from such a statistical analysis can be used as additional clues in the regional assessment and prospecting potential for minerals deposits. However, it is not possible to quantitatively define the probability of success.

In the course of statistical treatment there is a general danger of the false use of a priori information. In the choice of the method special attention should be paid to their robustness and amenability to control.

4.1 Univariate statistical analysis

Initially it is necessary to study the statistical distribution of every analyzed element in the total sample population. In this case the element distributions of Pb, Zn, Hg, Na₂O and Sr have a similar and characteristic behaviour, which has also been observed from mineral deposits of comparable genesis (see chapter 4).

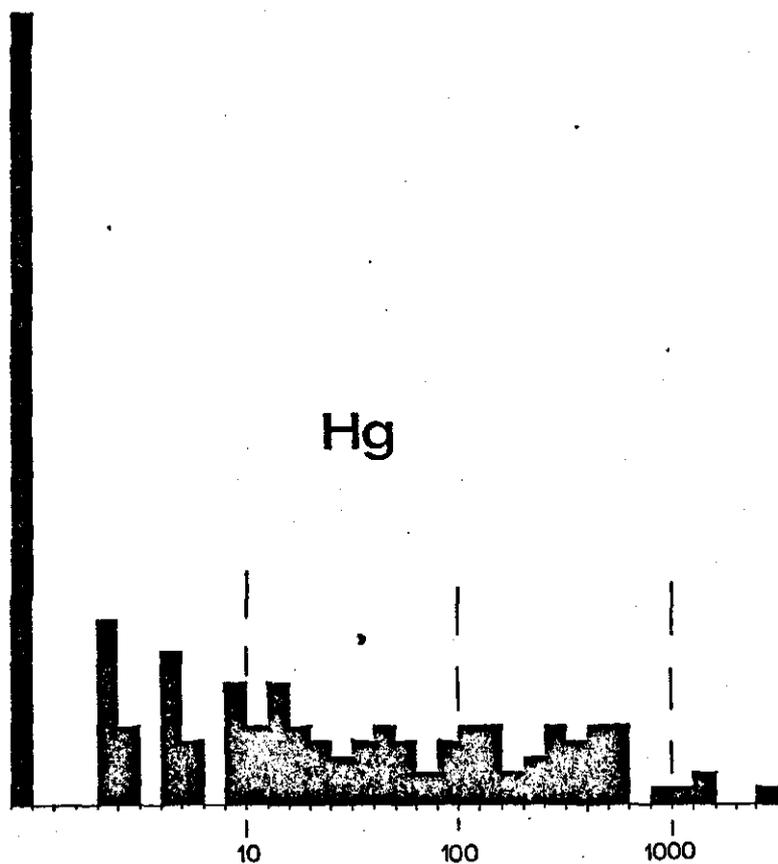
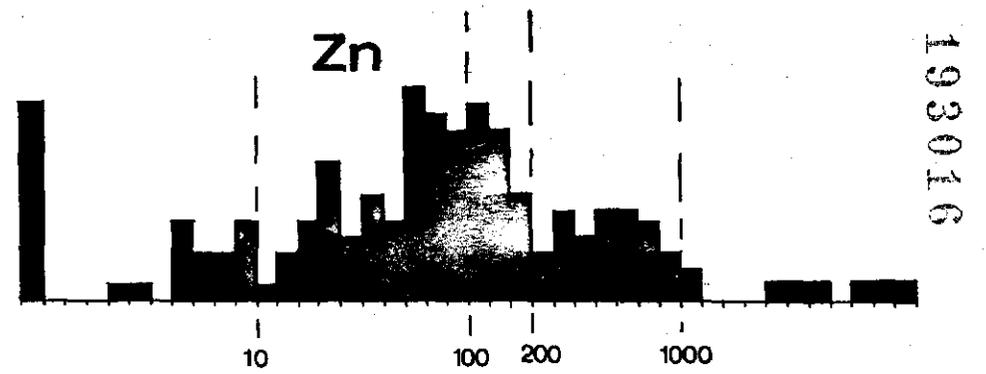
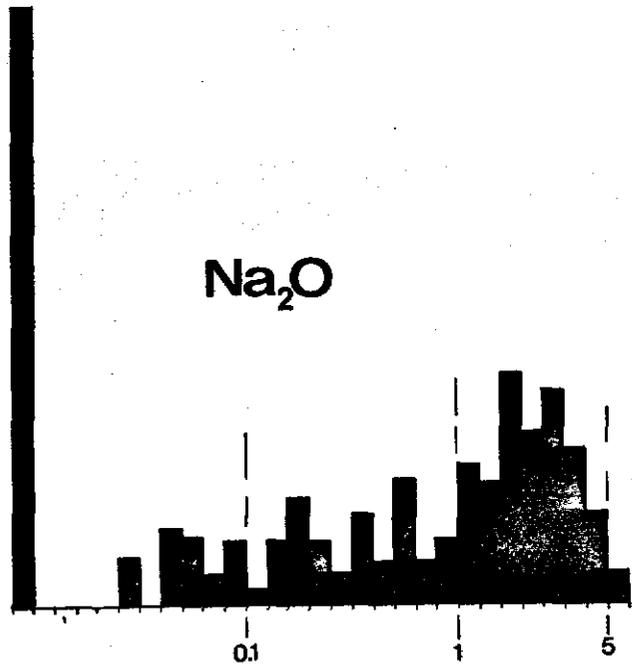
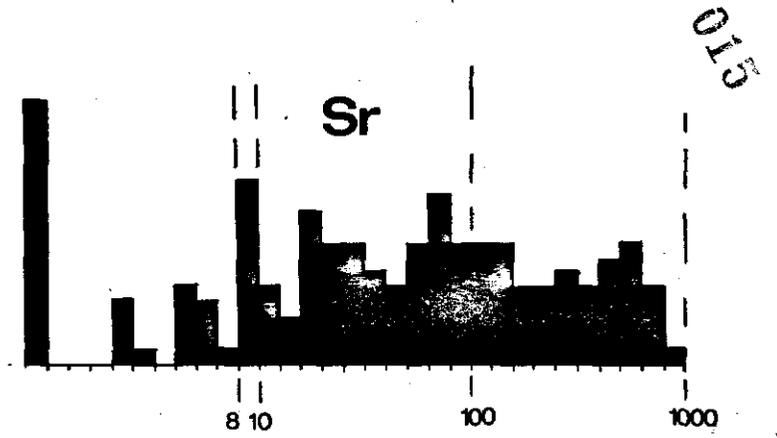
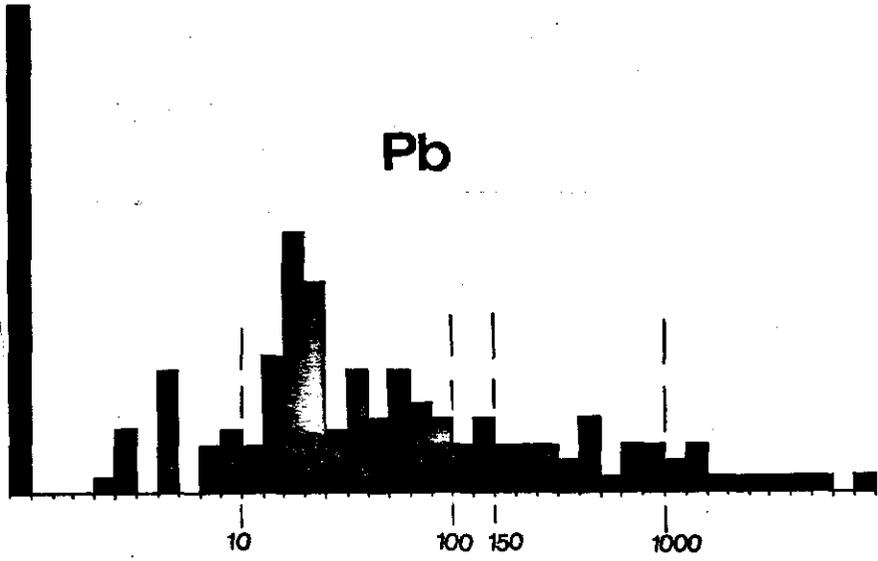


Fig. 3 Histogram of Hg-distribution



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WITHIN GROUPS CORRELATION MATRIX

	SI02	TI02	AL203	FE203	MGO	CAO	NA2O	K2O	P2O5
SI02	1.00000								
TI02	-.49527	1.00000							
AL203	-.32656	.64920	1.00000						
FE203	-.76512	.41092	.03880	1.00000					
MGO	-.74418	.47245	.15867	.72433	1.00000				
CAO	-.61504	.27635	.18053	.43919	.61922	1.00000			
NA2O	-.20026	.12978	.32241	.09652	.15129	.53264	1.00000		
K2O	.72674	.10874	.34763	-.39765	-.36465	-.28466	-.10482	1.00000	
P2O5	-.65964	.54912	.35449	.59073	.59165	.57681	.26391	.25162	1.00000
BA	-.09171	.28400	.40178	-.10056	-.10216	.12271	.21630	.54549	.06087
CE	-.12720	.09461	.36483	-.04311	.04565	.09284	.10495	.04638	.38441
CO	-.72701	.46087	.15073	.82073	.72900	.56446	.19328	-.29384	.60373
CR	-.51791	.49111	.03006	.56631	.62005	.33771	-.05364	-.25706	.41796
CU	-.48375	.35133	-.04029	.60272	.55024	.37365	.01055	-.24536	.39398
LA	-.13739	.10728	.45718	-.03053	.05712	.16090	.23380	.11454	.35766
MN	-.55731	.21242	.16667	.56702	.58372	.63818	.33121	-.30129	.59505
NB	.19340	-.12517	.04771	-.30256	-.29816	-.21134	.01582	.06842	-.17724
NI	-.50146	.38505	.01049	.57770	.67098	.37584	-.13914	-.27047	.44860
PB	-.24905	.12071	-.08641	.16564	.12250	.14799	-.01210	-.05941	.08512
RH	-.25635	.06889	.29949	-.41348	-.36894	-.36530	-.17633	.92827	-.25986
SC	-.70620	.78541	.51043	.63318	.67013	.48721	.16485	-.12270	.65399
SR	-.37431	.30834	.27540	.24501	.33988	.75315	.72632	-.15099	.39835
TH	-.06328	-.09351	.20673	-.09730	-.08753	-.09504	-.04803	.12085	.21113
Y	-.65251	.79642	.29499	.64344	.64584	.38444	.03317	-.19457	.63158
ZR	-.05152	.13940	.27600	-.04360	-.01145	.14705	.14283	.19694	.08532
ZS	-.56259	.27583	.13228	.59418	.54820	.50501	.32470	-.26417	.53692
ZR	.05389	.10107	.33521	-.21978	-.16824	-.11664	.00478	.25655	.05058
BA	1.00000								
CE	-.07186	1.00000							
CO	.01922	-.01004	1.00000						
CR	-.00851	-.14347	.67550	1.00000					
CU	.02545	-.12657	.64862	.60654	1.00000				
LA	.12630	.87042	.04361	-.12199	-.06620	1.00000			
MN	.03327	.21064	.44271	.24548	.24262	.14289	1.00000		
NB	-.02410	.18403	-.31335	-.21510	-.24820	.16225	-.14987	1.00000	
NI	-.08493	.00474	.67048	.76048	.59048	.04531	.35828	-.28014	1.00000
PB	.28142	-.18683	.25084	.34700	.41660	-.07885	-.11861	-.05640	.21034
RH	.49661	.07019	-.33627	-.23729	-.29612	.12557	-.31361	.10018	-.25606
SC	.15559	.12817	.68918	.65287	.47370	.15044	.47400	-.23053	.58653
SR	.33469	.02794	.34219	.14896	.20937	.15639	.42717	-.12985	.09024
TH	.09320	.54307	-.04210	-.15478	-.16596	.48557	.03123	.25447	-.05110
Y	.07637	-.12131	.68033	.69515	.57829	-.12172	.30832	-.31412	.59192
ZR	.28902	.29743	.02264	-.09176	.01935	.42038	.10269	.03211	.01841
ZS	.16657	.04954	.62125	.42320	.55924	.13153	.48489	-.22463	.43748
ZR	.16920	.48103	-.27519	-.21276	-.22006	.48292	-.00621	.42320	-.18215
PB	1.00000								
RH	-.04417	1.00000							
SC	.17156	-.15889	1.00000						
SR	.15594	-.25301	.34363	1.00000					
TH	-.15005	.17846	-.04107	-.10032	1.00000				
Y	.25509	-.23066	.81115	.25711	-.13835	1.00000			
ZR	.14347	.10620	.08642	.21901	.15883	-.08285	1.00000		
ZS	.44460	-.25953	.47610	.40984	-.02876	.43150	.16903	1.00000	
ZR	-.10924	.27238	-.06066	-.05961	.25724	-.20803	.35044	-.16265	1.00000

Fig. 6 Correlation-matrix of Que River data

4.2 Multivariate Statistical Analysis

Two important reasons for applying the multivariate analysis are:

- to detect additional features related to those already known.
- to combine the established features.

4.2.1 Stepwise Discriminant Analysis

As the first part of multivariate analysis, a procedure using modified stepwise discriminant analysis, is used to detect differences in the means of linear combinations of some selected variables. The reason for taking linear combinations, instead of each individual element separately, is that the natural variation related to the different groups ('O' - 'N'-groups) will be smaller and the contrast can be maximized.

The Rao's V statistic is used as a measure of the multivariate contrast.

In the first step of the first discriminant analysis the element with the greatest RAO's V is selected. In subsequent steps the respective element is chosen, which in context with the previously selected elements optimizes the discrimination of the groups. This discrimination is measured by the change in RAO's V.

The end of this procedure is defined by the fact that the next change in V is not significant or that an extraordinary "jump" occurs in this statistic.

The "significance" is determined by the α -level (see fig. 4). All elements that were noted in the first analysis, are united as a weighted linear

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combination and form a new feature whose regional variation is shown on map Al_2O_3 -Pb-Sr. After ignoring those elements which have already been selected, the same procedure is repeated for the remaining elements until the point is reached at which the final selected element exhibits no spatial or fundamental relation to the known ore deposit (shown on map "La-Sc-Cu").

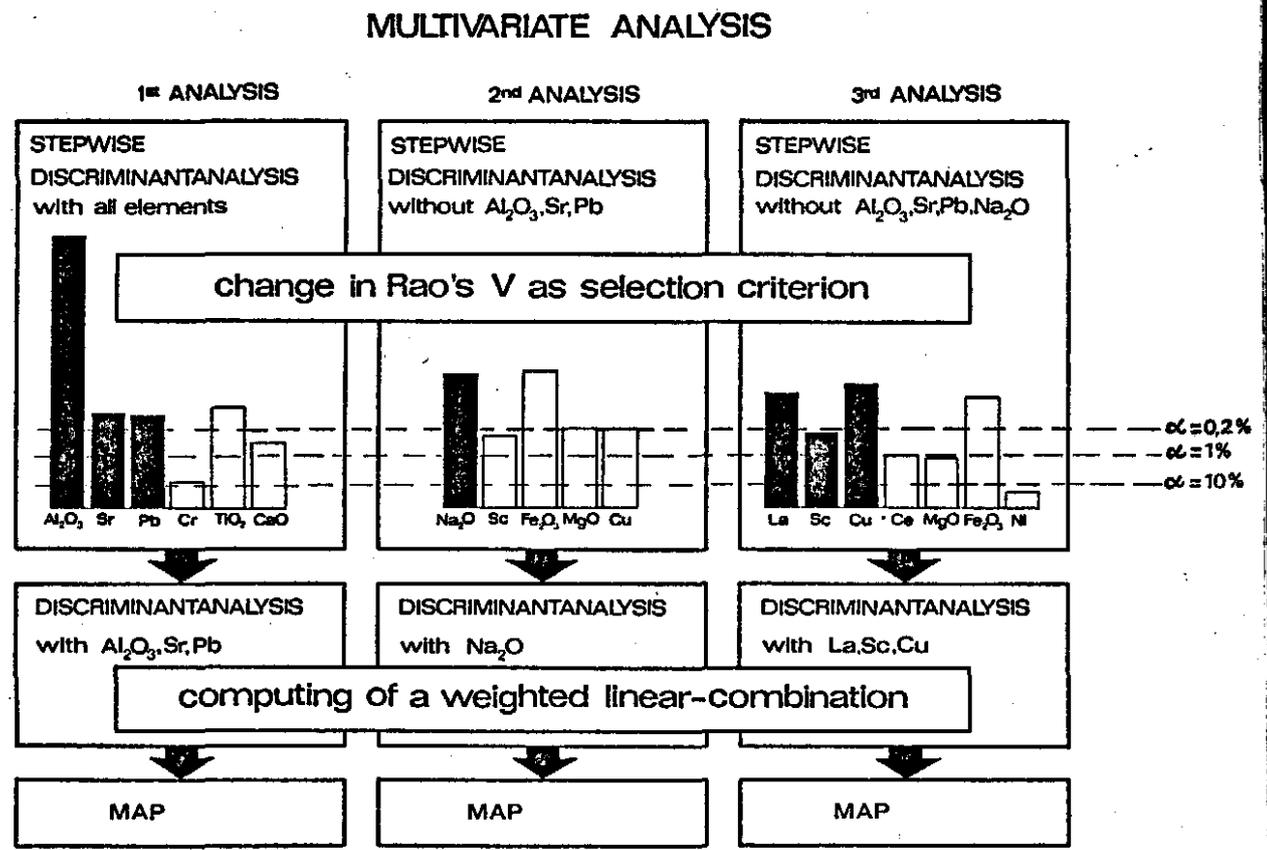


Fig. 7 Scheme of multivariate analysis

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5. Preliminary results

The histograms were constructed with a logarithmic scale on the abscissa (fig. 5-6). Even where there was not a normal distribution, several population could often be discerned. A relationship between the population of variables Na_2O , Sr, Pb, Zn, Hg and the occurrence of the known mineral deposit could be established. This has already been determined in earlier investigations on ore deposits of a similar type. Additionally for some elements (e.g. Na_2O) there is a good agreement of the population threshold with these deposits. In particular it was determined, that a population threshold in Na_2O could differentiate four distinct areas in the Que River district with values lower than 0,1%. One of these zones coincides with the known ore deposit (see map " Na_2O ").

With a population threshold of 8 ppm for Sr the regional distribution is very similar. Spatial clusters of samples with Sr-values less than 8 ppm are congruent with those of Na_2O but smaller in their dimensions (see map "Sr").

In both of the described cases low concentrations show a relationship to the ore deposit (negative anomalies).

For the variables Pb, Zn and Hg there are several samples with very high values which indicate the presence of the ore deposit. The population threshold for lead is about 150 ppm, for zinc about 200 ppm, and for mercury about 70 ppb (see map "Zn", "Pb", "Hg").

Away from the ore deposit other areas have been defined by these elements which are displaced, sometimes considerably, from the haloes described by the Na_2O and Sr values.

In the area of the "Southwest River Grid", northeast of the

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known deposit, consistent Pb-Zn-Hg anomalies appear that are not accompanied by corresponding Na_2O - Sr deficits.

As a consequence of these results, several areas have been defined as 'Prospective areas' (see map "Prospective Areas").

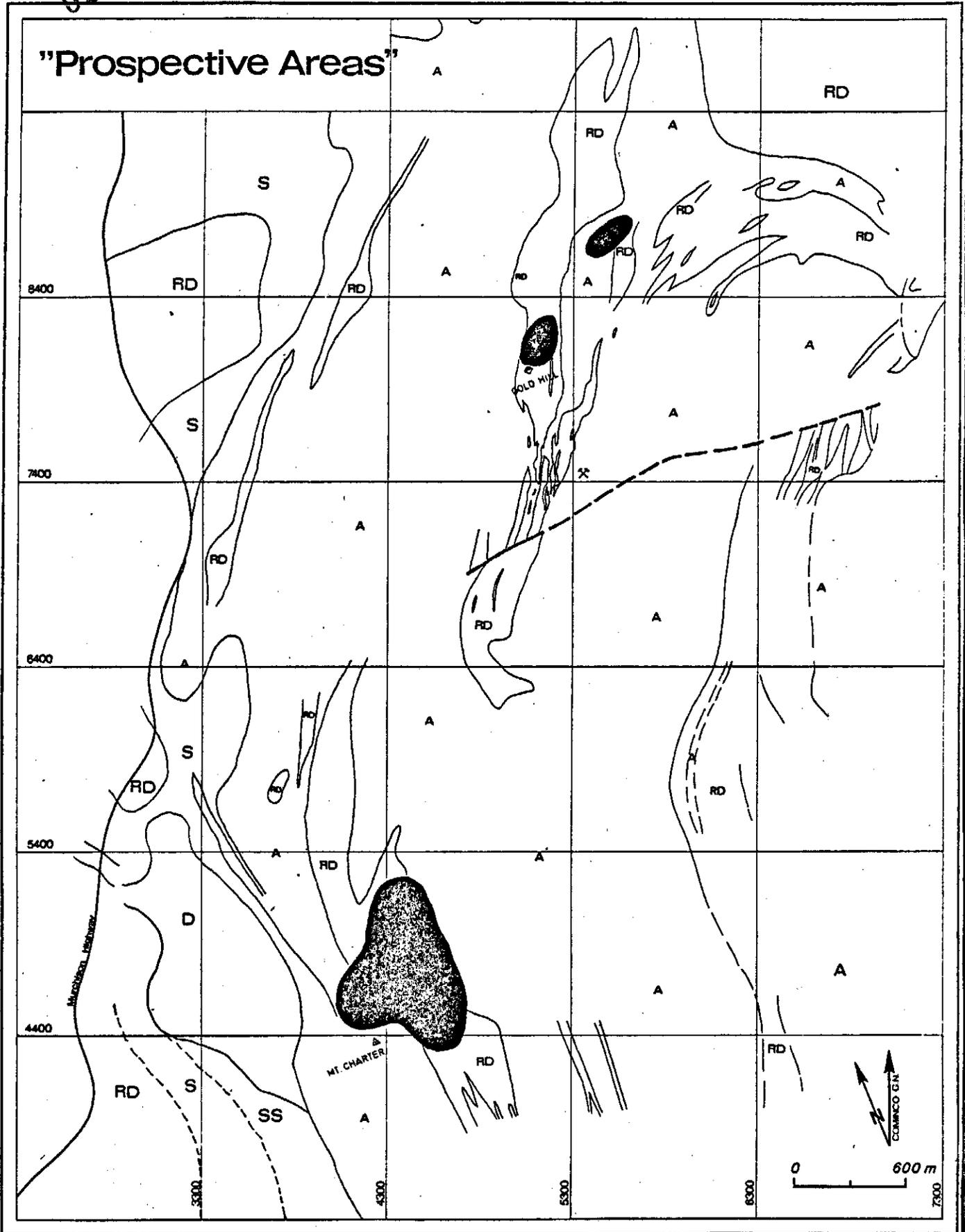
Comparison of the means of 'N'- and 'O'-group (see chapter 3.1.) show significant differences in Sr, Na_2O and Pb. Besides this expected result Al_2O_3 , La, Sc, and MgO also show high F-ratios. Surprisingly there is no significant difference in the means of Zn measured by the F-ratio. The explanation for this is that samples from the 'O'-group show high as well as low values which results in a very high variation coefficient. The F-test, however, considers this as "a random effect".

As stated previously, statistically significant differences might also have causes other than the nearby mineralization. Special consideration is given to this fact by multivariate analysis.

The first element-complex, extracted by the stepwise discriminant-analysis, consists of Al_2O_3 - Sr- Pb (fig. "Al₂O₃-Sr-Pb"). It is remarkable that the ability of discrimination of Al_2O_3 and Sr was not strengthened by including Na_2O , La, Sc as would be expected from the F-ratio (fig. 3).

The second analysis selected only Na_2O . The combination La-Sc-Cu found in the third analysis did not allow any geological conclusion and was therefore considered as the end of the discriminant analysis.

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5 cm

Fig.8

6. Discussion of the results

The prospective areas, defined by the univariate analysis were not refuted by the results of multivariate analysis. The exceptional behaviour of all selected variables Pb, Zn, Hg, Na₂O, Sr and Al₂O₃ - Sr - Cu is concentrated in one zone in the region of the known ore deposit. Since only this region was chosen as a training area for the discriminant analysis, a separation of the variables into distinct "cause-complexes" was not possible. Therefore the discriminant analysis selected elements of different chemical behaviour.

The consideration of the composition of the different prospective areas leads to two complexes:

- Pb-Zn-Hg
- Na₂O-Sr

It should be noted that separation of Pb-Zn-Hg-zones and Na₂O-Sr-zones in the southern part of the area (N of Mt-Charter) might lead to the conclusion that Na and Sr are indicators for areas with strong hydrothermal rock alteration. This could coincide with channel ways for the ore solution. The Pb-Zn anomalies might indicate a "distant" mineralization. The ore body of Que River and the northern two areas show that the Na-Sr-halo and the Pb-Zn-Hg anomalies occupy the same areas. In addition to the previously discussed Mt. Charter region, where the hydrothermal halo and lead-zinc-mercury anomaly are separated, in the NE portion of the area investigated is another anomaly defined only by Pb-Zn-Hg. The Na₂O- and Sr-haloes are missing. They could be situated further to the North in an area which has not been sampled. The existence of a small Sr-halo to the immediate north of the Pb-Zn-Hg anomaly is some support for this suggestion.

BUNDESANSTALT FÜR GEOWISSENSCHAFTEN UND ROHSTOFFE

Im Auftrag

Kürsten

(Dr. M. Kürsten)

- Direktor u. Professor -

Bearbeiter

G. van den Boom
(G. van den Boom)

Rehder
(S. Rehder)

QUE RIVER AUSTRALIA

COORDINATES

023

SPL. NO.

EAST (X)

NORTH (Y)

SPL. NO.	EAST (X)	NORTH (Y)
QR 101	7850	5020 391 580 5394 070
QR 102	7980	4950 391 570 5394 220
QR 103	8090	4860 391 520 5394 360
QR 104	7980	4850 391 465 5394 260
QR 105	7975	5030 391 630 5394 190
QR 106	8015	5100 391 715 5394 190
QR 107	8100	5050 391 570 5394 290
QR 108	8000	5225 391 820 5394 130
QR 109	7995	5456 392 025 5394 050
QR 110	7800	5300 391 810 5393 930
QR 111	7825	5525 392 050 5393 860
QR 112	7645	5060 391 530 5393 870
QR 113	7650	6170 392 460 5393 460
QR 114	7550	5145 391 580 5393 750
QR 115	7595	5150 391 595 5393 790
QR 117	7490	5250 391 650 5393 650
QR 118	7490	5265 391 670 5393 645
QR 119	7500	5290 391 690 5393 660
QR 120	7485	5295 391 700 5393 620
QR 121	7400	5310 391 670 5393 540
QR 122	7100	5225 391 470 5393 290
QR 123	7280	4635 391 000 5393 495
QR 124	7700	7600 393 900 5392 950
QR 125	7300	7600 393 750 5392 605
QR 126	6390	6425 392 315 5392 190
QR 127	6480	6405 392 330 " 170
QR 128	6820	6250 392 310 " 600
QR 129	6950	5970 392 115 " 985
QR 130	6950	5690 391 560 5393 000
QR 131	7440	4370 390 820 5393 920
QR 132	7760	3525 390 160 5394 530
QR 133	7750	3350 389 898 5394 590
QR 134	7800	3650 390 200 5394 540
QR 135	8060	3040 389 760 5395 005
QR 136	3950	2690 387 910 5391 295
QR 137	4445	4875 390 135 5390 965
QR 138	4440	4565 389 840 5391 080
QR 139	4430	4310 389 615 5391 160
QR 140	4795	4295 389 730 5391 510
QR 141	4600	4290 389 650 5391 325

193024

QUE RIVER AUSTRALIA

COORDINATES

024

SPL. NO. EAST (X) NORTH (Y)

SPL. NO.	EAST (X)	NORTH (Y)
QR 142	4600	3835 389 230 5391.500
QR 143	10500	5760 393 290 5396.255
QR 144	9790	4950 392 250 5395.900
QR 145	9805	5355 392 640 5395.760
QR 146	9560	5350 392 540 5395.535
QR 147	9200	4850 397 930 5395.380
QR 148	8700	5280 392 140 5394.770
QR 149	8400	3960 390 875 5394.960
QR 150	8600	5845 392 620 5394.460
QR 151	8600	6020 392 375 5394.390
QR 152	8600	6100 392 840 5394.360
QR 153	8605	6155 392 900 5394.340
QR 154	8600	6300 393 040 5394.280
QR 155	8600	6485 393 200 5394.210
QR 156	8600	6565 393 270 5394.190
QR 157	8600	6745 393 450 5394.120
QR 158	8400	6635 393 275 5333.965
QR 159	8400	6300 392 965 5394.095
QR 160	8000	6145 393 320 5393.785
QR 161	8400	5955 392 650 5394.205
QR 162	8400	5760 392 480 5394.290
QR 163	8400	5530 392 475 5394.390
QR 164	6400	5350 390 335 5392.600
QR 165	6400	4910 390 925 5392.760
QR 166	6395	4540 390 570 5392.900
QR 167	6400	4110 390 180 5393.070
QR 168	6400	3850 389 930 5393.170
QR 169	5600	4550 390 270 5392.160
QR 170	5600	4000 389 760 5392.320
QR 171	5600	3750 389 540 5392.460
QR 172	9000	6150 393 070 5394.770
QR 173	9000	6310 393 220 5394.650
QR 174	8995	6410 393 310 5394.610
QR 175	9000	6500 393 375 5394.570
QR 176	8800	6740 393 530 5394.305
QR 177	8800	6540 393 350 5394.375
QR 178	8800	6350 393 170 5394.450
QR 179	8800	6150 392 985 5394.530
QR 180	8800	6020 392 850 5394.580
QR 181	8800	5430 392 320 5394.800

193025

QUE RIVER AUSTRALIA

COORDINATES

025

SPL. NO.

EAST (X)

NORTH (Y)

QR 182
 QR 183
 QR 184
 QR 185
 QR 186
 QR 187
 QR 188
 QR 189
 QR 190
 QR 191
 QR 192
 QR 193
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8500
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 3400
 3400
 7550
 7050
 7420
 7420
 7450
 7350
 8305
 8398
 8340
 7770
 7910
 7830
 8000
 8078
 8100
 8105
 8200
 8198
 8200
 8010
 7900
 7890
 7905
 7700
 7550
 7400
 8600
 8295
 8300
 8490
 6800
 6700
 6500
 6400
 6000

5600
 5650
 5175
 5470
 4540
 5140
 5185
 5310
 5310
 5290
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 4970
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 5135
 5020
 5000
 5048
 5100
 5105
 4952
 5120
 5150
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 5496
 5420
 5302
 5260
 5300
 4780
 5255
 5005
 5150
 5200
 5060
 4775
 4905
 4850
 4940

392 365
 392 250
 390 410
 390 285
 399 440
 391 560
 391 415
 391 680
 391 690
 391 670
 391 750
 392 020
 391 725
 391 890
 391 580
 391 700
 391 570
 391 620
 391 690
 391 750
 391 760
 392 660
 391 810
 391 840
 392 070
 392 040
 391 970
 391 870
 391 730
 391 720
 391 180
 392 085
 391 730
 391 870
 391 910
 391 220
 390 900
 390 920
 390 860
 390 795

5394 460
 5394 070
 5390 870
 5394 770
 5390 150
 5393 750
 5393 270
 5393 560
 5393 580
 5393 600
 5393 450
 5394 400
 5394 610
 5394 480
 5393 980
 5394 290
 5394 040
 5394 210
 5394 260
 5394 275
 5394 290
 5394 420
 5394 350
 5394 360
 5394 040
 5393 940
 5393 960
 5394 015
 5393 850
 5392 690
 5393 740
 5394 680
 5394 490
 5394 435
 5394 600
 5393 080
 5393 100
 5392 360
 5392 790
 5392 380

193026

QUE RIVER AUSTRALIA

COORDINATES

SPL. NO.

EAST (X)

NORTH (Y)

SPL. NO.	EAST (X)	NORTH (Y)
QR 223	6000	5070 392 915 5392 340
QR 224	8300	5300 392 005 5394 380
QR 225	8600	5200 392 030 5394 700
QR 226	8600	5310 392 140 5394 650
QR 227	8600	5135 392 970 5394 925
QR 228	8729	5454 392 310 5394 720
QR 229	8726	5473 392 340 5394 740
QR 230	8735	5429 392 290 5394 740
QR 231	8745	5370 392 240 5394 770
QR 232	8800	5540 392 425 5394 760
QR 233	9100	5060 392 000 5395 120
QR 234	9200	5170 392 190 5395 180
QR 235	9600	5095 392 320 5395 665
QR 236	9420	5500 392 625 5395 350
QR 237	9400	4875 392 035 5395 570
QR 238	9600	5280 392 480 5395 600
QR 239	9645	5500 392 710 5395 550
QR 240	9600	5155 392 380 5395 640
QR 241	8400	5760 392 465 5394 510
QR 242	8510	5820 392 575 5394 375
QR 243	8690	6310 393 080 5394 365
QR 244	8700	6210 393 010 5394 410
QR 245	8870	6600 393 325 5394 450
QR 246	8820	6480 393 220 5394 455
QR 247	8790	6270 393 075 5394 470
QR 248	8880	6620 393 440 5394 420
QR 249	4575	4420 389 780 5391 235
QR 250	4600	4350 389 300 5391 720
QR 251	4590	4375 389 275 5391 725
QR 252	4600	4060 389 450 5391 415
QR 253	4900	4450 389 925 5391 540
QR 254	4900	3950 389 455 5391 735
QR 255	4400	4600 389 865 5391 020
QR 256	5400	4200 389 880 5392 095
QR 257	5500	4250 389 970 5392 180
QR 258	5300	4250 389 875 5397 995
QR 259	5200	4410 390 005 5391 840
QR 260	4000	4385 389 500 5390 740
QR 261	4400	4510 389 790 5391 060
QR 262	4500	4530 389 850 5391 140

0226

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QUE RIVER AUSTRALIA

COORDINATES

027



SPL. NO.

EAST (X)

NORTH (Y)

QR 263 5000
 QR 264 4800
 QR 265 3980
 QR 266 4500
 QR 267 5790
 QR 268 5700
 QR 269 5000
 QR 270 5190
 QR 271 4900

3870 389410 5391570
 4290 389720 5391530
 4960 389020 5390495
 4120 389470 5391300
 4010 389550 5392525
 4700 389480 5392180
 4370 389880 5391680
 4290 389880 5391880
 5100 389510 5391300

22
 3
 4
 5
 6

389570 5392020
 389505 5392045
 389480 5392085
 389465 5392115
 389440 5392155

193028

QUE RIVER AUSTRALIA

MAJOR ELEMENTS

(CONCENTRATIONS IN %)

028

SPL. NO.	SI02	TI02	AL203	FE203	MNO	MGO	CAO	NA2O	K2O	P2O5
QR 101	70.53	0.57	14.61	4.28		0.57	0.02	0.17	4.34	0.03
QR 102	86.66	0.17	8.22	1.21		0.35	0.02	0.57	1.78	0.05
QR 103	57.31	0.62	16.68	8.64		5.92	0.40	2.78	0.34	0.65
QR 104	61.93	0.60	14.08	9.63		6.32	0.47	0.10	1.59	0.51
QP 105	57.40	0.75	18.89	8.55		0.91	0.01	0.13	5.85	0.06
QR 106	73.47	0.28	13.24	3.15		0.70	0.01	0.16	3.74	0.05
QR 107	69.74	0.60	15.23	3.59		1.06	0.01	0.07	4.61	0.05
QR 108	85.42	0.33	7.75	1.28		0.44	0.01	0.16	2.09	0.02
QR 109	71.06	0.40	17.20	2.59		0.48	0.08	1.43	3.56	0.08
QR 110	50.93	0.63	14.01	7.03		2.63	7.22	0.87	3.42	0.42
QR 111	52.95	0.64	15.84	8.01		4.14	4.28	1.12	2.55	0.36
QP 112	65.96	0.71	17.77	5.08		2.13	0.07	1.11	2.98	0.18
QR 113	69.56	0.48	16.64	3.56		1.57	0.11	0.16	4.14	0.25
QP 114	61.11	0.78	19.37	3.68		0.93	0.01	0.28	5.65	0.04
QR 115	59.17	0.58	14.88	5.29		3.42	3.83	0.22	3.67	0.16
QR 117	56.13	0.61	16.64	11.21		0.75	0.57	1.09	4.60	0.29
QR 118	52.86	0.66	16.15	12.62		1.07	0.05	0.34	5.17	0.14
QR 119	69.25	0.38	8.48	7.57		2.22	1.08	2.14	0.83	0.54
QR 120	62.35	0.08	2.24	27.31		0.28	0.01	0.01	0.64	0.05
QR 121	77.49	0.38	7.80	5.37		0.51	0.02	0.06	2.44	0.02
QR 122	58.71	0.59	14.91	7.66		3.95	4.98	1.74	3.24	0.23
QR 123	51.92	0.43	15.68	9.40		5.67	11.11	2.11	0.12	0.09
QR 124	53.63	0.76	17.93	10.25		3.99	3.43	4.17	1.57	0.22
QR 125	57.49	0.62	16.87	8.41		3.99	2.13	2.60	2.41	0.21
QR 126	77.40	0.23	14.20	1.00		0.57	0.02	0.22	4.25	0.03
QR 127	83.73	0.29	9.69	0.98		0.50	0.02	0.06	2.95	0.05
QP 128	81.78	0.40	6.77	4.66		2.43	0.03	0.03	0.98	0.04
QR 129	53.52	0.56	15.28	8.43		7.68	6.63	1.05	3.23	0.17
QR 130	53.13	0.60	16.34	8.94		6.20	4.91	2.68	2.89	0.14
QR 131	61.00	0.58	16.50	8.50		3.09	0.14	2.11	1.68	0.25
QR 132	54.93	0.86	21.81	7.23		3.43	0.04	0.33	3.88	0.20
QP 133	73.83	0.69	13.15	2.20		1.36	0.01	0.11	3.11	0.04
QR 134	71.60	0.47	13.95	4.72		0.77	0.03	0.57	2.45	0.10
QP 135	72.93	0.31	13.90	2.72		1.37	0.18	3.58	2.52	0.05
QR 136	70.89	0.49	14.96	3.14		1.28	0.20	4.89	1.47	0.09
QR 137	71.41	0.37	14.41	2.84		0.45	0.09	1.86	5.53	0.08
QR 138	78.10	0.25	11.79	0.58		0.30	0.03	0.14	6.61	0.04
QR 139	51.53	0.94	17.23	9.35		4.83	6.04	2.72	2.32	0.39
QR 140	69.80	0.52	15.60	2.62		1.27	0.07	0.01	5.45	0.25
QR 141	53.05	0.74	20.25	7.32		4.70	0.27	0.59	0.35	0.57

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QUE RIVER AUSTRALIA

MAJOR ELEMENTS

(CONCENTRATIONS IN %)

SPL. NO.	SiO2	TiO2	AL2O3	FE2O3	MNO	MGO	CAO	NA2O	K2O	P2O5
QR 142	61.48	0.42	10.10	17.67		3.91	0.21	0.01	0.01	0.29
QR 143	53.61	0.78	14.73	11.14		9.64	0.05	0.01	1.13	0.18
QR 144	53.46	0.74	13.91	14.27		7.93	0.10	0.01	1.09	0.25
QR 145	61.84	0.64	17.06	8.06		3.21	0.13	1.89	1.89	0.14
QR 146	74.07	0.46	13.12	2.22		0.87	0.03	1.30	3.87	0.06
QR 147	59.11	0.51	15.67	6.98		3.64	7.25	2.91	0.14	0.10
QR 148	65.69	0.88	21.24	0.77		0.44	0.05	0.59	5.31	0.18
QR 149	51.18	0.57	13.62	8.02		7.00	8.57	4.57	0.50	0.61
QR 150	80.43	0.27	11.69	1.50		0.37	0.03	0.15	3.32	0.04
QR 151	78.26	0.29	12.85	1.68		0.35	0.04	0.41	3.51	0.04
QR 152	50.38	0.72	18.13	13.97		5.66	0.29	2.98	1.02	0.26
QR 153	54.39	0.57	14.59	5.55		2.29	6.85	1.82	2.98	0.14
QR 154	72.71	0.31	14.66	3.65		0.45	0.15	1.49	3.18	0.08
QR 155	52.61	0.43	12.35	7.31		5.29	5.60	3.89	0.01	0.24
QR 156	57.21	0.67	14.07	11.38		7.01	0.28	0.73	1.04	0.35
QR 157	74.49	0.27	13.80	3.25		0.45	0.03	0.17	3.53	0.07
QR 158	58.80	0.65	14.94	7.57		4.34	5.27	2.56	1.85	0.15
QR 159	58.22	0.58	14.90	7.54		4.16	6.31	2.88	1.43	0.14
QR 160	49.14	0.54	17.75	10.81		7.59	2.47	1.92	2.47	0.10
QR 161	52.72	0.72	18.60	10.65		3.52	2.40	5.55	0.37	0.55
QR 162	62.60	0.47	15.84	6.37		1.15	2.27	1.60	3.42	0.29
QR 163	63.36	0.50	13.73	10.57		4.39	0.05	0.05	2.21	0.16
QR 164	52.70	0.52	13.88	8.82		7.52	6.05	2.46	2.88	0.22
QR 165	63.25	0.60	12.39	10.37		2.16	0.10	1.70	1.93	0.20
QR 166	60.79	0.58	13.35	7.44		4.92	5.52	2.62	1.34	0.10
QR 167	76.77	0.32	12.45	2.45		0.49	0.04	0.36	3.05	0.06
QR 168	42.24	0.70	21.48	13.56		8.95	0.07	0.60	2.32	0.23
QR 169	59.06	0.56	14.34	7.03		3.90	7.44	2.15	1.83	0.12
QR 170	75.37	0.32	11.88	3.28		1.71	0.17	4.23	0.71	0.05
QR 171	55.71	0.52	16.34	7.12		4.31	6.79	3.01	1.26	0.24
QR 172	58.63	0.77	15.08	9.18		6.82	0.52	1.70	0.89	0.43
QR 173	77.92	0.13	12.81	1.62		0.66	0.04	0.17	3.69	0.02
QR 174	79.17	0.11	11.47	2.57		0.77	0.01	0.31	2.55	0.01
QR 175	61.51	0.75	14.73	9.70		4.63	0.13	0.48	1.49	0.27
QR 176	78.27	0.30	13.41	1.08		0.41	0.08	0.62	3.02	0.12
QR 177	72.66	0.32	14.40	3.98		0.30	0.04	3.09	2.50	0.08
QR 178	61.71	0.45	19.96	2.91		0.86	1.27	2.09	3.88	0.11
QR 179	72.57	0.26	12.39	3.21		0.67	2.10	1.97	2.30	0.07
QR 180	81.69	0.25	11.45	0.66		0.28	0.05	0.53	2.57	0.03
QR 181	65.29	0.52	15.27	3.91		1.41	3.24	5.58	0.01	0.22

023

193030

QUE RIVER AUSTRALIA

MAJOR ELEMENTS

(CONCENTRATIONS IN %)

030

SPL. NO.	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5
QR 182	51.40	0.74	18.57	13.15		5.32	0.16	2.21	1.57	0.38
QR 183	77.38	0.29	12.39	2.24		0.45	0.04	0.21	3.07	0.06
QR 184	60.63	0.62	15.18	7.95		3.23	3.95	2.21	1.85	0.19
QR 185	64.20	0.62	14.91	7.47		1.71	1.19	4.05	1.83	0.17
QR 186	68.07	0.24	15.69	4.68		1.21	0.09	4.06	2.40	0.03
QR 187	68.82	0.47	16.11	4.53		0.89	0.32	0.04	4.07	0.29
QR 188	68.82	0.50	16.57	3.76		0.68	0.17	0.07	4.38	0.28
QR 189	82.43	0.35	8.14	3.52		0.38	0.02	0.01	2.45	0.02
QR 190	83.41	0.35	6.27	3.75		0.35	0.02	0.01	2.03	0.02
QR 191	78.46	0.34	7.19	5.62		0.40	0.01	0.01	2.56	0.04
QR 192	67.95	0.47	12.95	6.52		0.66	0.02	0.01	6.38	0.04
QR 193	67.20	0.59	13.40	7.87		3.04	0.16	1.08	1.42	0.11
QR 194	59.95	0.75	19.33	6.94		0.21	0.05	1.61	3.46	0.05
QR 195	68.41	0.58	12.83	5.33		0.62	0.03	0.01	7.06	0.02
QR 196	65.76	0.67	17.10	4.31		2.90	0.03	0.10	3.72	0.12
QR 197	71.90	0.56	11.56	4.12		0.18	0.02	0.18	7.45	0.03
QR 198	69.42	0.59	14.43	4.69		0.53	0.01	0.98	3.88	0.03
QR 199	72.44	0.38	13.76	3.74		0.45	0.02	0.04	3.79	0.03
QR 200	73.53	0.44	11.70	5.09		0.58	0.03	0.01	3.35	0.08
QR 201	56.12	0.51	12.50	6.13		12.45	0.21	0.01	0.75	0.14
QR 202	63.58	0.62	15.93	5.09		5.04	0.04	0.01	3.22	0.13
QR 203	64.24	0.58	15.51	9.99		1.21	0.03	0.46	2.94	0.13
QR 204	69.90	0.48	10.43	4.92		3.13	0.02	0.01	2.48	0.13
QR 205	64.35	0.66	14.87	3.68		6.99	0.03	0.01	2.96	0.08
QR 206	77.16	0.26	12.58	2.62		0.33	0.08	2.47	1.84	0.06
QR 207	65.25	0.75	18.18	5.29		0.64	0.83	0.80	3.41	0.72
QR 208	45.26	0.43	10.81	8.17		8.18	8.74	0.08	2.01	0.45
QR 209	57.69	0.59	17.98	11.13		1.65	0.15	3.85	1.44	0.30
QR 210	72.62	0.38	15.84	1.63		0.24	0.06	2.59	3.14	0.07
QR 211	76.87	0.28	13.49	1.59		0.23	0.04	0.01	3.98	0.04
QR 212	65.41	0.50	16.87	6.88		2.11	0.05	0.32	3.09	0.06
QR 213	68.35	0.62	13.80	5.01		0.43	0.01	0.01	6.74	0.05
QR 215	58.03	0.59	15.75	8.07		5.23	4.78	3.44	0.89	0.07
QR 216	59.64	0.53	13.62	6.79		10.49	0.01	0.01	1.37	0.07
QR 217	68.20	0.73	15.80	2.04		0.57	0.02	0.03	8.88	0.03
QR 218	48.49	0.56	16.08	9.91		8.35	7.83	1.35	2.44	0.07
QR 219	64.53	0.88	16.08	6.79		2.57	0.07	0.01	3.65	0.16
QR 220	67.38	0.73	14.90	5.04		2.53	0.96	3.32	1.47	0.22
QR 221	75.45	0.72	12.64	3.25		0.36	0.05	2.69	1.42	0.03
QR 222	67.32	0.67	15.79	5.93		1.27	0.04	0.01	3.34	0.22

193031

QUE RIVER AUSTRALIA

MAJOR ELEMENTS

(CONCENTRATIONS IN %)

SPL. NO.	SI02	TIO2	AL2O3	FE2O3	MNO	MGO	CAO	NA2O	K2O	P2O5
QR 223	67.71	0.68	14.67	6.55		2.17	0.18	1.42	2.32	0.19
QR 224	66.47	0.58	13.69	7.84		3.05	0.18	1.24	1.44	0.12
QR 225	72.85	0.53	12.06	3.94		0.47	0.02	0.01	5.54	0.04
QR 226	65.73	0.73	18.93	3.97		0.69	0.39	1.72	3.06	0.18
QR 227	61.79	0.86	17.41	6.98		2.04	0.22	2.79	2.45	0.16
QR 228	57.12	0.44	24.61	4.46		0.43	0.02	0.01	4.75	0.13
QR 229	74.43	0.32	14.17	2.54		0.41	0.03	0.01	4.23	0.11
QR 230	49.46	0.68	16.97	10.02		8.06	2.59	1.84	3.29	0.36
QR 231	64.36	0.47	11.52	10.22		7.09	0.16	0.01	0.64	0.19
QR 232	60.93	0.65	14.99	10.95		4.30	0.07	0.01	2.50	0.15
QR 233	68.24	0.52	15.64	5.85		1.14	0.03	0.38	3.75	0.07
QR 234	74.84	0.32	15.43	1.27		0.27	0.06	0.05	4.09	0.05
QR 235	60.12	0.67	17.74	7.59		4.28	0.11	1.75	1.87	0.13
QR 236	53.51	0.16	4.40	35.64		1.10	0.01	0.01	0.01	0.10
QR 237	76.72	0.29	13.75	1.94		0.34	0.03	0.06	3.59	0.06
QR 238	51.36	0.96	21.55	9.70		1.41	0.34	0.09	5.35	0.59
QR 239	56.57	0.88	24.86	2.76		0.81	0.07	1.77	5.25	0.27
QR 240	75.62	0.47	13.70	1.81		0.81	0.02	0.74	4.17	0.02
QR 241	54.14	0.50	14.01	6.08		2.93	6.48	0.57	3.14	0.24
QR 242	53.77	0.54	14.40	9.26		3.06	4.97	1.63	2.24	0.59
QR 243	78.35	0.29	12.81	1.73		0.17	0.08	0.69	3.35	0.07
QR 244	43.52	0.27	9.22	9.61		4.11	12.23	1.12	1.58	0.09
QR 245	68.88	0.36	14.86	5.87		0.51	0.11	3.25	1.90	0.16
QR 246	41.88	0.45	11.51	9.63		7.07	10.20	0.22	2.04	0.19
QR 247	70.58	0.52	15.45	3.86		0.18	0.13	1.10	3.61	0.25
QR 248	69.60	0.38	10.53	6.09		0.87	0.94	1.38	2.15	0.11
QR 249	70.61	0.39	14.59	1.40		0.15	0.04	0.06	11.01	0.12
QR 250	69.03	0.32	10.01	5.19		0.57	0.05	1.36	2.68	0.11
QR 251	70.32	0.47	15.62	2.01		1.25	0.01	0.01	5.21	0.10
QR 252	52.92	0.82	16.89	9.74		4.60	6.50	2.22	1.95	0.35
QR 253	83.55	0.23	9.96	0.62		0.46	0.01	0.01	3.20	0.02
QR 254	63.52	0.70	18.68	3.35		0.45	0.10	0.34	3.87	0.36
QR 255	77.42	0.33	12.88	0.74		0.21	0.02	0.01	6.31	0.03
QR 256	60.85	0.50	10.65	12.85		7.30	0.06	0.01	0.99	0.27
QR 257	62.64	0.69	14.89	7.98		2.21	2.45	2.32	2.41	0.19
QR 258	58.65	0.73	16.11	7.48		3.83	2.10	3.52	3.64	0.25
QR 259	57.56	0.59	14.45	11.69		6.59	0.18	0.01	2.20	0.35
QR 260	67.67	0.26	16.15	3.97		0.50	0.05	0.85	5.13	0.04
QR 261	77.39	0.27	12.35	0.37		0.15	0.02	0.04	7.40	0.04
QR 262	74.74	0.33	13.57	1.07		0.21	0.02	0.01	7.52	0.05

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193032

QUE RIVER AUSTRALIA

MAJOR ELEMENTS

(CONCENTRATIONS IN %)

SPL. NO.	SI02	TI02	AL2O3	FE2O3	MNO	MGO	CAO	NA2O	K2O	P2O5
QR 263	35.00	0.85	24.49	13.53		6.54	0.36	0.15	2.76	0.86
QR 264	71.33	0.51	15.42	2.22		1.17	0.04	0.01	5.39	0.09
QR 265	70.83	0.23	13.49	5.35		0.18	0.17	3.35	3.11	0.07
QR 266	58.14	0.80	15.89	8.01		3.51	3.65	3.29	1.95	0.34
QR 267	76.01	0.27	11.68	2.94		0.38	0.09	1.10	3.96	0.06
QR 268	63.98	0.55	12.86	7.01		3.40	6.10	1.43	0.97	0.12
QR 269	86.09	0.16	7.23	1.61		0.50	0.02	0.01	2.49	0.02
QR 270	59.70	0.62	14.43	9.88		5.83	0.23	0.01	2.64	0.38
QR 271	76.45	0.37	13.12	1.65		0.85	0.02	0.01	4.50	0.02
QR 272	74.83	0.31	14.10	0.51		0.65	0.02	0.01	6.47	0.03
QR 273	67.90	0.43	17.75	1.68		0.84	0.01	0.01	7.06	0.06
QR 274	72.81	0.29	16.59	0.94		0.29	0.01	0.01	4.18	0.06
QR 275	71.39	0.31	13.96	2.00		0.21	0.02	0.03	8.62	0.02
QR 276	57.19	0.64	19.03	6.86		2.66	1.47	3.85	2.38	0.29

032

193033

QUE RIVER AUSTRALIA

TRACE ELEMENTS 1

(CONCENTRATIONS IN PPM)

SPL. NO.	PA	CE	CO	CR	CU	LA	MN	NB	NI	PB
QR 101	957	74	16	110	5	42	1	11	36	83
QR 102	650	43	1	7	1	17	9	16	17	19
QR 103	379	172	46	400	65	118	2360	14	143	17
QR 104	592	202	55	993	229	124	1615	17	148	13
QR 105	1139	111	28	102	22	66	5	13	40	145
QR 106	585	128	6	16	78	69	23	15	34	853
QR 107	726	79	28	107	40	35	42	15	40	127
QR 108	1803	25	1	7	177	9	14	8	21	628
QR 109	1429	190	4	1	20	138	28	18	20	23
QR 110	974	131	40	1	28	78	607	14	19	25
QR 111	994	158	28	349	52	104	450	5	64	58
QR 112	727	89	7	36	28	47	78	16	31	4
QR 113	1486	125	3	1	17	74	149	8	21	71
QR 114	1371	122	4	19	13	80	5	21	22	190
QR 115	888	75	32	52	87	46	2080	17	58	22
QR 117	1231	99	22	15	28	69	5598	12	27	27
QR 118	1135	125	34	156	89	75	42	10	52	1278
QR 119	3547	95	21	139	526	45	819	9	50	3732
QR 120	96	26	15	7	837	2	16	1	14	419
QR 121	276	53	9	30	73	23	24	9	22	40
QR 122	1464	82	30	154	113	65	1388	8	69	23
QR 123	214	54	33	84	91	14	1070	15	49	25
QR 124	1283	102	28	87	95	65	2305	10	56	28
QR 125	1528	111	29	76	18	89	1961	10	71	33
QR 126	425	244	1	2	1	160	28	20	23	21
QR 127	574	80	1	24	3	55	1	17	15	53
QR 128	202	58	11	672	10	18	77	16	124	19
QR 129	1349	88	44	572	30	61	1133	7	218	20
QR 130	1595	42	39	149	47	22	1154	1	66	16
QR 131	564	166	18	4	12	118	743	15	18	1
QR 132	1661	156	13	53	113	111	102	13	42	19
QR 133	1435	62	2	128	23	38	24	21	44	83
QR 134	746	95	9	4	73	75	36	9	18	1
QR 135	1049	63	5	5	1	70	510	14	18	96
QR 136	201	111	2	4	22	67	500	12	16	12
QR 137	1749	215	1	13	1	167	122	16	15	5
QR 138	2812	69	1	7	1	50	19	10	12	19
QR 139	2322	193	30	34	43	152	1285	19	28	23
QR 140	2587	195	1	1	12	142	210	10	17	63
QR 141	812	222	7	26	60	148	1514	17	25	1158

033

193034

QUE RIVER AUSTRALIA

TRACE ELEMENTS 1

(CONCENTRATIONS IN PPM)

03A

SPL. NO.	PA	CE	CO	CR	CU	LA	MN	NB	NI	PB
QR 142	68	74	23	133	78	40	1461	7	77	19
QR 143	789	149	72	754	161	89	712	10	167	34
QR 144	316	103	35	939	68	63	307	11	199	19
QR 145	790	62	15	140	41	35	284	15	49	36
QR 146	695	51	1	59	87	25	5	11	19	427
QR 147	158	69	26	78	74	33	872	5	41	4
QR 148	605	97	1	42	3	44	1	18	18	26
QR 149	689	171	53	533	133	124	1236	12	118	37
QR 150	560	122	1	2	19	87	6	16	12	1
QR 151	699	138	1	1	24	89	9	13	22	3
QR 152	413	99	48	33	35	55	567	8	37	15
QR 153	611	75	19	75	61	40	1083	9	47	3
QR 154	670	156	2	1	1	113	980	15	15	69
QR 155	3040	103	32	350	73	78	1916	3	107	5101
QR 156	270	248	66	1153	240	160	1328	11	423	68
QR 157	520	115	7	12	16	68	541	6	16	1
QR 158	868	64	22	121	78	35	930	12	57	7
QR 159	930	64	25	103	65	34	1009	10	50	16
QR 160	2824	22	44	207	106	40	2066	5	107	301
QR 161	420	182	28	2	104	136	1412	16	29	41
QR 162	1089	124	24	12	1	81	1130	2	37	16
QR 163	431	101	16	1082	98	61	356	5	223	18
QR 164	1932	67	43	702	139	54	1147	9	212	9
QR 165	1047	39	9	269	56	22	204	9	38	24
QR 166	916	54	29	126	44	30	1040	5	45	30
QR 167	526	131	1	1	1	92	625	10	13	1
QR 168	722	146	30	45	50	85	2704	6	59	16
QR 169	878	62	26	104	40	34	1337	8	45	64
QR 170	162	235	1	1	1	167	298	13	14	1
QR 171	867	127	26	207	82	87	1786	11	81	4
QR 172	540	128	52	957	29	89	513	7	219	15
QR 173	560	105	1	4	1	65	35	16	15	1
QR 174	344	91	1	1	14	59	107	19	19	4
QR 175	489	131	58	813	79	94	1629	8	252	3
QR 176	807	118	1	1	1	81	34	9	19	20
QR 177	648	128	1	6	5	107	644	13	16	1
QR 178	2154	172	5	24	75	137	402	19	20	440
QR 179	1109	127	3	1	5	96	827	13	19	7
QR 180	539	98	1	6	1	66	14	19	12	2
QR 181	116	156	5	169	29	111	394	12	55	10

193035

QUE RIVER AUSTRALIA

TRACE ELEMENTS 1

(CONCENTRATIONS IN PPM)

SPL. NO.	RA	CE	CO	CR	CU	LA	MN	NB	NI	PR
QR 182	576	100	44	30	2	71	1193	3	41	4
QR 183	719	128	1	1	3	92	66	13	16	1
QR 184	2030	85	15	138	12	71	1630	12	46	56
QR 185	1148	85	13	4	1	54	1654	16	18	1
QR 186	441	211	7	2	20	148	436	24	8	1
QR 187	1216	139	15	7	54	109	137	1	56	14
QR 188	1281	125	1	3	26	87	83	3	124	4
QR 189	256	72	1	1	86	35	15	48	213	8
QR 190	214	50	1	3	8	6	25	36	28	21
QR 191	245	42	1	14	100	14	22	1	106	260
QR 192	1240	41	13	73	75	17	39	1	111	187
QR 193	475	55	20	152	54	30	94	13	73	17
QR 194	598	69	42	79	115	47	17	27	55	157
QR 195	4548	39	21	13	93	33	50	12	102	53
QR 196	752	63	1	46	4	28	149	13	46	3
QR 197	3997	50	5	19	25	41	36	4	26	73
QR 198	2178	75	9	120	44	41	9	11	25	244
QR 199	692	107	12	82	45	66	1	10	31	119
QR 200	511	55	17	60	391	23	27	16	29	1470
QR 201	210	59	10	115	21	28	1965	17	209	694
QR 202	713	74	9	57	52	39	743	7	27	857
QR 203	600	55	35	132	52	27	313	1	84	44
QR 204	616	45	1	85	10	24	382	1	19	408
QR 205	644	95	2	22	2	46	874	31	52	91
QR 206	602	137	4	3	1	91	1209	18	56	1
QR 207	1021	257	19	191	47	190	84	10	35	35
QR 208	516	141	50	1007	152	98	1490	6	339	113
QR 209	561	206	37	19	188	157	167	9	39	13
QR 210	979	162	1	8	1	108	8	33	19	1
QR 211	364	129	1	3	15	84	14	18	13	127
QR 212	768	119	9	1	1	89	177	1	34	1
QR 213	2035	54	1	34	56	33	12	8	19	120
QR 215	948	49	29	134	76	21	1018	9	91	1
QR 216	274	62	3	22	37	25	1665	5	14	676
QR 217	2199	63	1	47	3	32	38	9	21	57
QR 218	1382	42	44	480	134	20	1385	2	146	216
QR 219	384	69	4	126	22	31	208	15	34	77
QR 220	817	90	4	9	170	54	517	1	44	1
QR 221	559	77	1	281	6	47	12	10	25	16
QR 222	608	91	3	17	36	52	147	13	29	1

035

193036

QUE RIVER AUSTRALIA

TRACE ELEMENTS 1

(CONCENTRATIONS IN PPM)

SPL. NO.	BA	CE	CO	CR	CU	LA	MN	NB	NI	PB
QR 223	562	80	16	168	26	46	997	8	49	1
QR 224	464	48	157	161	48	17	97	1	81	18
QR 225	1524	58	6	84	17	21	14	18	41	63
QR 226	1136	58	23	161	12	33	23	30	71	10
QR 227	963	112	3	6	61	73	357	15	18	959
QR 228	2049	177	1	10	131	125	4	11	17	2415
QR 229	1043	135	1	1	1	93	2	11	26	1481
QR 230	4674	133	41	288	202	111	1019	7	155	24
QR 231	289	139	44	525	341	63	312	1	147	1
QR 232	1004	216	46	484	26	159	211	10	79	226
QR 233	827	47	19	73	154	23	223	12	37	1
QR 234	501	169	3	7	1	107	208	15	26	5
QR 235	758	93	15	121	47	56	290	12	47	1
QR 236	58	26	20	79	14	6	425	25	51	17
QR 237	961	131	1	6	1	89	12	12	16	24
QR 238	1752	214	13	414	69	165	570	7	65	14
QR 239	2429	57	11	17	4	42	55	21	24	1
QR 240	1009	37	2	64	7	15	3	4	14	12
QR 241	582	110	52	507	208	60	798	5	154	98
QR 242	1064	148	45	453	148	111	1069	8	138	420
QR 243	620	135	1	4	1	95	178	15	13	1
QR 244	1089	84	17	70	279	49	1887	41	44	1677
QR 245	4046	68	16	116	117	69	681	9	49	334
QR 246	591	155	36	726	143	96	1122	1	203	316
QR 247	1189	65	13	6	33	45	8	23	20	1249
QR 248	1716	45	21	136	796	58	233	34	50	4053
QR 249	2555	108	1	56	1	79	49	13	20	197
QR 250	20755	1	11	1	646	63	27	1	15	9487
QR 251	2549	137	2	7	4	98	48	3	15	366
QR 252	1541	160	37	27	58	111	2894	1	26	684
QR 253	2132	66	1	1	1	39	14	7	12	14
QR 254	2065	162	3	25	6	12	124	18	23	1
QR 255	1783	66	1	14	1	38	47	1	15	1
QR 256	394	261	121	2920	282	178	1573	17	412	37
QR 257	1010	78	19	109	32	50	1517	8	30	1
QR 258	2619	98	23	14	38	83	976	1	22	39
QR 259	893	194	45	257	16	155	673	1	72	1
QR 260	2146	126	1	1	1	94	407	41	14	1
QR 261	2935	75	1	11	1	49	22	1	14	1
QR 262	2289	65	1	13	1	58	57	4	17	7

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193037

QUE RIVER AUSTRALIA

TRACE ELEMENTS 1

(CONCENTRATIONS IN PPM)

SPL. NO.	BA	CE	CO	CR	CU	LA	MN	NB	NI	PB
QR 263	1298	210	14	47	6	146	2413	23	34	12
QR 264	3321	85	1	9	1	58	114	19	15	129
QR 265	1247	91	3	4	1	52	379	15	13	15
QR 266	1782	162	20	30	79	115	2651	13	31	2600
QR 267	2116	91	4	4	10	70	165	10	15	1
QR 268	691	56	24	76	57	22	820	1	39	37
QR 269	479	26	1	1	1	5	13	26	13	1
QR 270	977	283	34	285	117	212	498	13	56	20
QR 271	682	37	1	6	1	4	22	14	13	14
QR 272	4947	46	1	10	1	51	67	3	14	18
QR 273	4400	58	4	1	5	65	102	1	16	47
QR 274	1166	171	1	10	1	129	119	7	13	1
QR 275	10195	1	1	8	6	32	37	15	16	43
QR 276	4065	155	10	9	45	139	1960	1	19	63

037

193038

QUE RIVER AUSTRALIA

TRACE ELEMENTS 2

(CONCENTRATIONS IN PPM, HG IN PPR)

SPL. NO.	RB	SC	SR	TH	V	Y	ZN	ZR	HG
QR 101	118	20	9	13	156	26	5	133	229
QR 102	68	1	32	8	14	18	1	108	15
QR 103	11	33	77	28	257	26	105	151	1
QR 104	52	47	8	37	275	20	138	166	1
QR 105	173	23	17	16	201	36	1	175	623
QR 106	112	7	12	20	19	35	4827	194	888
QR 107	164	27	1	8	188	19	45	116	69
QR 108	78	8	9	1	45	15	57	100	470
QR 109	107	11	129	33	39	26	23	220	3
QR 110	92	25	201	17	201	32	51	127	100
QR 111	88	29	250	26	249	23	411	181	157
QR 112	87	21	51	17	155	29	140	175	102
QR 113	131	20	10	11	169	25	60	140	17
QR 114	206	16	15	14	113	42	1	234	62
QR 115	107	23	40	9	147	49	128	133	112
QR 117	146	31	32	25	240	29	549	136	11
QR 118	177	21	1	19	116	33	3730	157	2750
QR 119	28	14	160	6	101	22	3063	94	1331
QR 120	11	1	1	6	41	3	686	28	1432
QR 121	81	5	1	4	53	13	59	103	552
QR 122	98	22	504	13	202	33	626	148	5
QR 123	1	46	268	1	247	8	74	63	15
QR 124	32	27	643	21	231	41	407	146	47
QR 125	68	22	574	27	172	29	587	160	21
QR 126	160	11	5	19	8	41	4	207	4
QR 127	115	5	16	31	42	18	1	137	43
QR 128	37	8	5	1	69	22	32	192	4
QR 129	110	30	311	10	201	28	80	126	1
QR 130	94	38	410	2	272	18	108	74	1
QR 131	76	20	115	23	200	21	131	172	8
QR 132	136	31	93	27	351	23	63	202	12
QR 133	141	15	26	13	304	30	20	154	25
QR 134	60	10	71	7	62	42	34	153	2
QR 135	87	6	145	5	29	39	175	179	2
QR 136	85	7	112	1	31	29	35	234	1
QR 137	145	13	115	16	12	45	16	207	6
QR 138	140	4	28	8	13	27	1	162	15
QR 139	93	29	655	20	252	34	66	205	1
QR 140	217	16	41	17	154	31	67	156	6
QR 141	11	31	188	53	183	36	351	246	125

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193039

QUE RIVER AUSTRALIA

TRACE ELEMENTS 2

(CONCENTRATIONS IN PPM, HG IN PPB)

SPL. NO.	RD	SC	SR	TH	V	Y	ZN	ZR	HG
QR 142	1	13	19	1	99	20	65	99	43
QR 143	42	44	6	9	279	15	315	173	45
QR 144	40	47	3	12	311	14	114	160	8
QR 145	66	32	110	1	225	21	85	117	38
QR 146	123	14	52	1	138	18	809	91	490
QR 147	1	29	249	2	179	30	41	106	1
QR 148	164	23	17	9	178	39	3	198	28
QR 149	3	39	557	9	254	26	77	131	1
QR 150	114	4	10	19	20	20	4	142	1
QR 151	108	4	28	24	26	25	17	151	1
QR 152	43	40	110	2	431	23	110	90	1
QR 153	101	25	89	9	153	24	31	118	3
QR 154	105	15	57	21	25	31	170	166	1
QR 155	1	30	351	11	166	27	8651	101	1005
QR 156	40	42	12	29	280	24	310	211	15
QR 157	136	9	4	8	30	17	7	131	6
QR 158	61	32	322	1	194	20	54	112	2
QR 159	38	29	460	1	188	22	85	99	4
QR 160	53	40	433	8	240	51	663	87	9
QR 161	1	26	797	25	275	34	486	197	1
QR 162	121	24	62	11	185	27	232	127	1
QR 163	87	32	2	8	242	12	127	107	20
QR 164	58	33	448	13	217	19	168	100	2
QR 165	52	27	139	18	232	15	61	110	205
QR 166	44	31	351	1	187	21	82	95	2
QR 167	87	7	9	23	18	18	10	165	4
QR 168	97	48	9	26	334	18	470	164	17
QR 169	57	27	324	9	197	23	106	98	3
QR 170	26	13	92	15	28	31	51	153	1
QR 171	34	29	709	14	222	22	52	121	1
QR 172	33	36	66	16	255	23	93	239	3
QR 173	122	3	2	21	3	21	1	141	1
QR 174	86	1	4	16	5	39	15	128	1
QR 175	61	39	10	8	252	20	129	216	13
QR 176	98	4	56	8	33	25	50	148	20
QR 177	67	11	48	18	25	34	7	159	5
QR 178	146	18	130	28	58	32	573	231	140
QR 179	86	7	91	13	21	30	24	136	1
QR 180	79	8	47	22	25	20	1	125	1
QR 181	1	26	714	17	161	27	185	128	1

033

193040

QUE RIVER AUSTRALIA

TRACE ELEMENTS 2

(CONCENTRATIONS IN PPM, HG IN PPB)

SPL. NO.	RB	SC	SR	TH	V	Y	ZN	ZR	HG
QR 182	57	50	32	10	427	25	126	99	1
QR 183	94	10	16	13	22	22	6	157	4
QR 184	57	21	607	9	115	38	180	155	2
QR 185	52	20	274	1	78	30	94	145	8
QR 186	126	12	54	34	4	36	36	265	1
QR 187	125	17	17	16	180	43	78	139	17
QR 188	152	23	10	19	136	24	38	139	19
QR 189	64	2	1	20	21	21	9	123	15
QR 190	72	5	6	4	37	15	2	110	131
QR 191	76	6	1	1	46	7	5	79	530
QR 192	169	23	24	10	161	20	89	54	352
QR 193	51	29	65	1	188	17	76	130	12
QR 194	72	16	57	1	189	34	122	170	163
QR 195	160	14	26	1	94	40	155	131	147
QR 196	128	27	17	5	202	27	160	157	65
QR 197	141	12	37	18	94	22	4	127	362
QR 198	113	24	37	8	181	29	73	134	516
QR 199	110	14	13	18	53	28	48	196	486
QR 200	117	20	1	2	126	17	464	103	287
QR 201	23	16	1	16	137	37	567	113	1
QR 202	117	24	1	2	155	40	250	147	1
QR 203	138	27	67	6	190	19	370	107	1
QR 204	69	16	1	4	129	22	110	112	10
QR 205	82	19	13	1	136	27	152	162	2
QR 206	39	10	78	21	24	50	23	168	1
QR 207	99	20	179	66	271	33	92	204	2
QR 208	68	31	412	31	184	24	787	131	110
QR 209	28	31	261	29	303	32	60	157	1
QR 210	102	9	72	59	35	11	24	198	3
QR 211	90	6	6	41	20	13	21	155	83
QR 212	90	14	51	18	38	56	71	217	1
QR 213	172	18	9	10	118	43	7	137	91
QR 215	15	29	514	1	198	8	124	105	1
QR 216	36	17	1	14	115	17	253	116	1
QR 217	222	17	35	1	144	23	12	131	1
QR 218	58	39	441	1	231	16	206	68	1
QR 219	92	29	19	1	235	29	70	145	12
QR 220	41	19	353	1	181	61	87	138	2
QR 221	33	28	152	1	157	32	10	120	280
QR 222	92	20	12	20	131	16	20	155	50

040

193041

QUE RIVER AUSTRALIA

TRACE ELEMENTS 2

(CONCENTRATIONS IN PPM, HG IN PPB)

041

SPL. NO.	RP	SC	SR	TH	V	Y	ZN	ZR	HG
QR 223	53	28	91	3	218	17	70	110	30
QR 224	45	26	68	21	198	8	813	0	2
QR 225	149	21	11	1	133	29	13	85	62
QR 226	108	26	92	20	196	30	296	140	2
QR 227	111	17	171	5	145	20	362	171	10
QR 228	124	14	1	31	39	1	80	220	309
QR 229	137	4	1	29	28	20	101	125	1
QR 230	34	50	276	16	275	37	511	149	1
QR 231	19	30	10	12	203	38	129	118	1
QR 232	72	46	1	21	313	27	406	159	5
QR 233	67	23	1	1	171	25	54	128	1
QR 234	103	16	7	17	51	51	16	178	1
QR 235	62	35	85	4	211	1	118	101	8
QR 236	1	10	1	15	265	3	51	38	14
QR 237	123	2	23	15	17	31	20	188	1
QR 238	159	49	30	27	416	29	56	238	1
QR 239	174	23	76	60	131	17	31	209	85
QR 240	132	6	23	1	146	7	21	108	268
QR 241	104	34	122	10	197	12	167	114	244
QR 242	68	43	110	9	221	36	734	113	320
QR 243	89	6	22	1	24	1	1	127	1
QR 244	46	16	170	10	76	48	1125	125	317
QR 245	53	16	148	9	74	26	683	137	304
QR 246	61	39	157	1	198	86	821	93	172
QR 247	116	21	91	4	58	22	75	174	154
QR 248	59	12	203	6	71	38	7751	111	486
QR 249	206	13	23	7	29	75	18	214	16
QR 250	58	12	224	11	74	13	12557	98	125
QR 251	164	22	6	6	127	38	36	148	503
QR 252	67	25	696	1	231	19	276	159	1
QR 253	83	3	19	40	14	8	8	116	12
QR 254	133	26	67	44	174	38	31	232	39
QR 255	145	10	11	9	17	23	8	180	5
QR 256	39	57	30	31	260	25	87	120	8
QR 257	54	26	312	24	110	39	114	164	1
QR 258	31	20	574	1	218	35	137	130	1
QR 259	79	52	1	40	298	30	149	133	1
QR 260	221	8	72	40	4	56	36	280	1
QR 261	127	9	17	12	17	47	1	169	6
QR 262	186	9	21	22	20	24	6	201	1

193042

QUE RIVER AUSTRALIA

TRACE ELEMENTS 2

(CONCENTRATIONS IN PPM, HG IN PPB)

SPL. NO.	RB	SC	SR	TH	V	Y	ZN	ZR	HG
QR 263	118	47	30	54	235	18	281	353	460
QR 264	194	19	22	23	153	7	26	155	5
QR 265	57	7	151	1	7	28	51	171	2
QR 266	64	30	572	58	197	6	1123	166	57
QR 267	111	6	119	32	18	34	16	164	1
QR 268	24	26	418	1	157	22	50	88	1
QR 269	91	6	2	1	36	10	1	92	1
QR 270	92	51	2	38	303	65	107	151	1
QR 271	147	8	4	37	61	3	1	156	57
QR 272	179	9	31	14	14	29	1	165	15
QR 273	225	16	25	14	32	12	6	192	34
QR 274	133	8	8	22	23	32	15	168	1
QR 275	165	4	47	23	15	14	1	189	34
QR 276	63	29	613	18	154	31	375	184	29

042

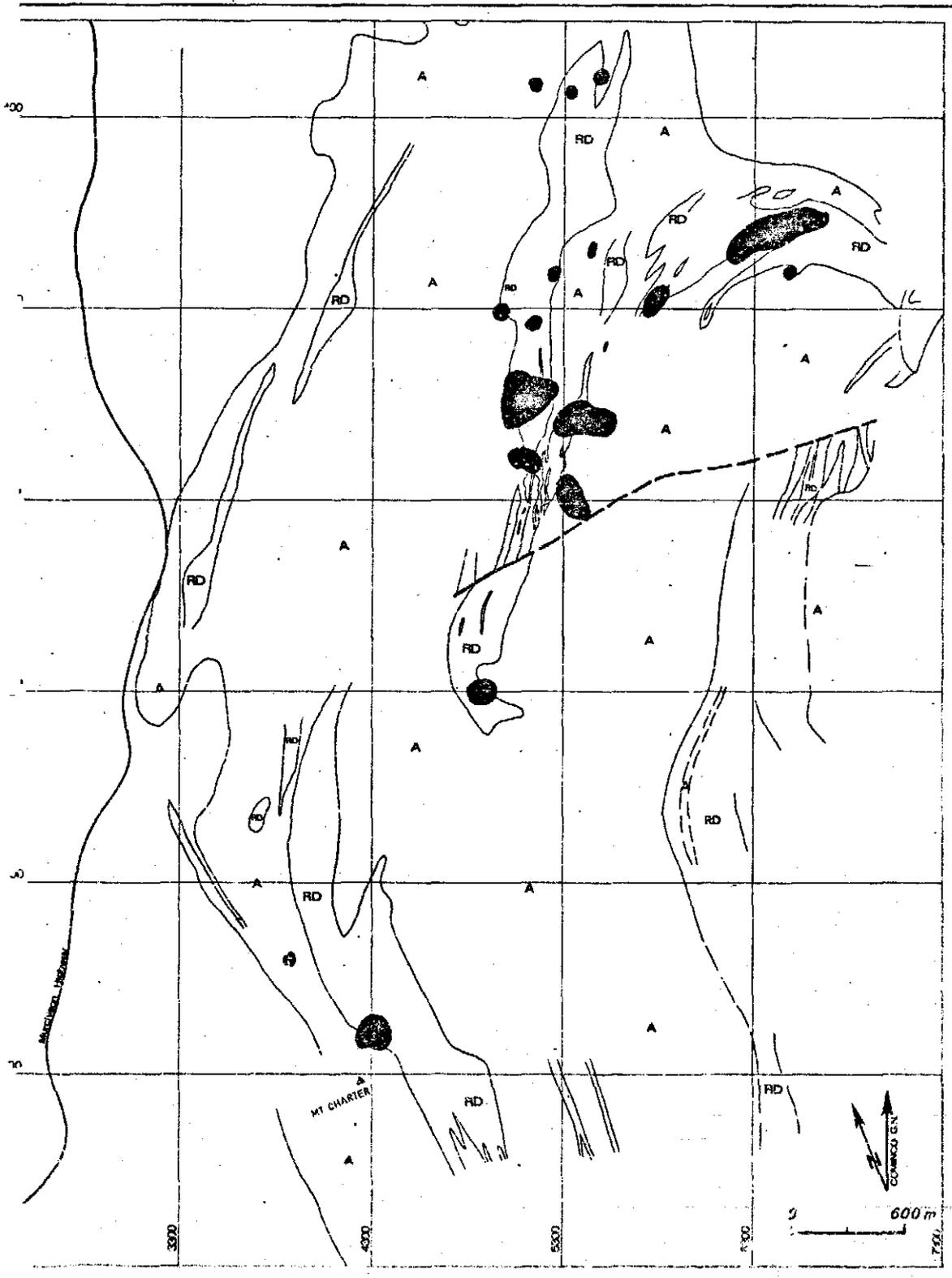
193043

043

FEDERAL INSTITUTE FOR GEOSCIENCES AND NATURAL RESOURCES, HANNOVER
 FEDERAL REPUBLIC OF GERMANY

Project: Stratabound Ore Deposits
 Statistical Evaluation Methods

Area: Que River, Tasmania, Australia



Geochemical Distribution

Hg

(Primary Dispersion)

-  > 70 ppb
-  Que River ore occurrence
-  Cambrian Andesites-Basalts
-  Cambrian Rhyolites-Dacites
-  geol. contact
-  fault
-  road

Author: G. von der Mühlen, B. Rösler (1970)

5 cm

044

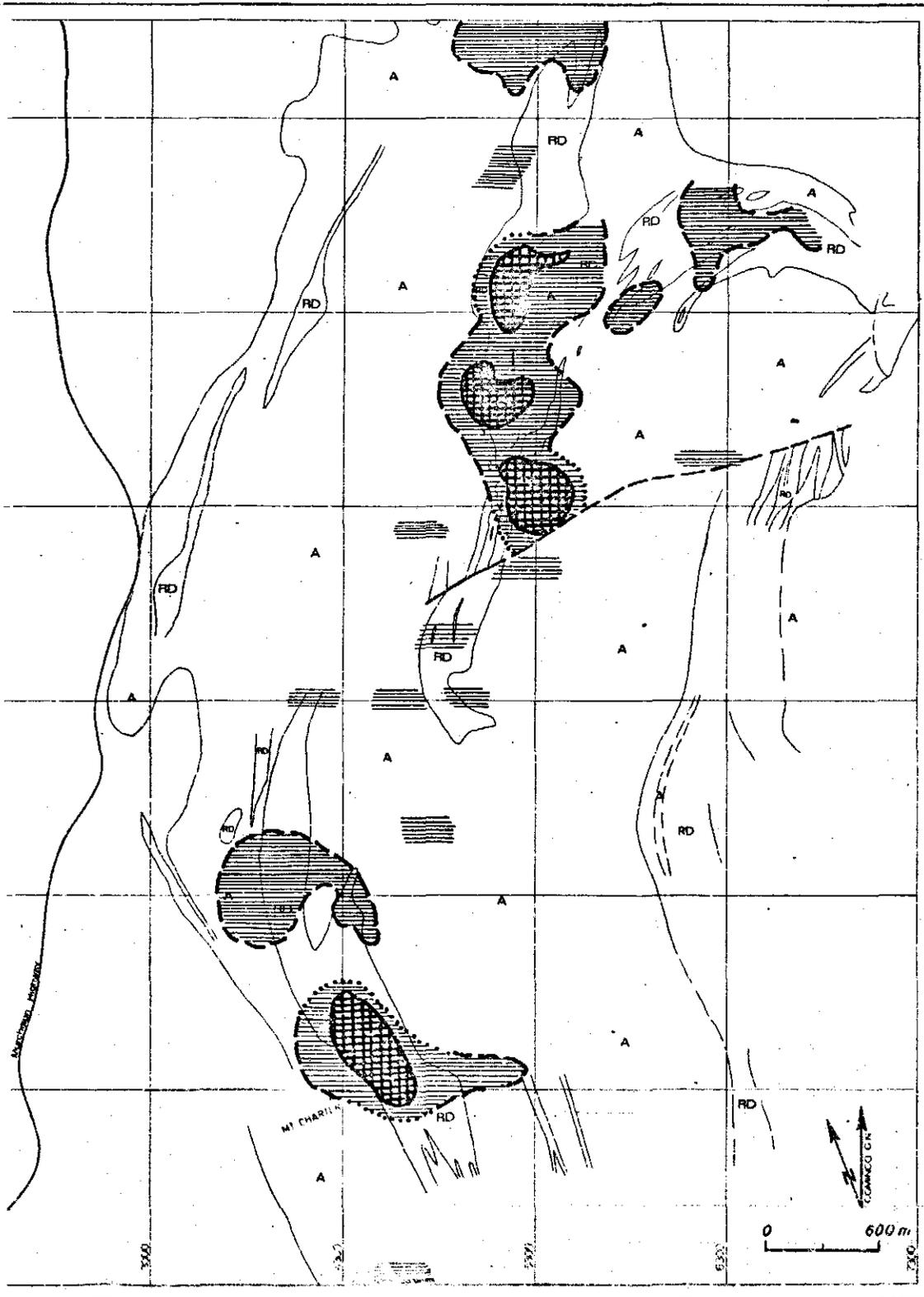
193045

FEDERAL INSTITUTE FOR GEOSCIENCES AND NATURAL RESOURCES, HANNOVER
FEDERAL REPUBLIC OF GERMANY

Project: Stratabound Ore Deposits
Statistical Evaluation Methods

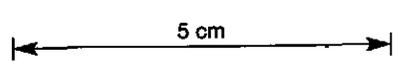
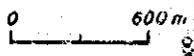
Area: Que River, Tasmania, Australia

Distribution of Alteration Zones



-  Zone I
-  Zone II
-  Que River ore occurrence
-  Cambrian Andesites Basalts
-  Cambrian Rhyolites-Dacites

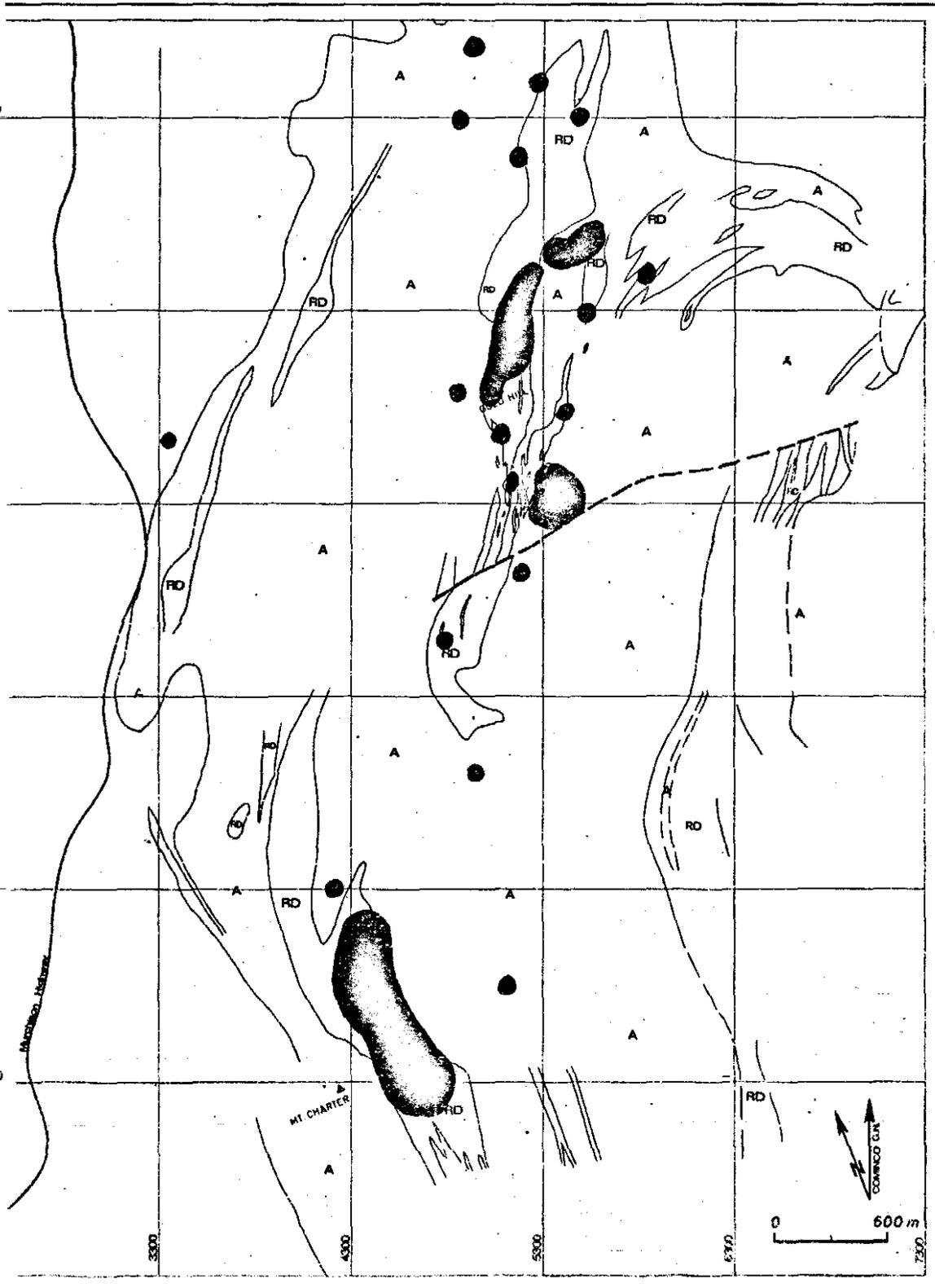
-  geol. contact
-  fault
-  road



FEDERAL INSTITUTE FOR GEOSCIENCES AND NATURAL RESOURCES, HANNOVER
FEDERAL REPUBLIC OF GERMANY

Project: Stratabound Ore Deposits
Statistical Evaluation Methods

Area: Que River, Tasmania, Australia



Geochemical Distribution

Na₂O

(Primary Dispersion)

< 0,1%

- Que River ore occurrence
- A** Cambrian Andesites-Basalts
- RD** Cambrian Rhyolites-Dacites

- geol. contact
- fault
- road

Authors: G. WILFING & G. P. FROEHLICH

5 cm

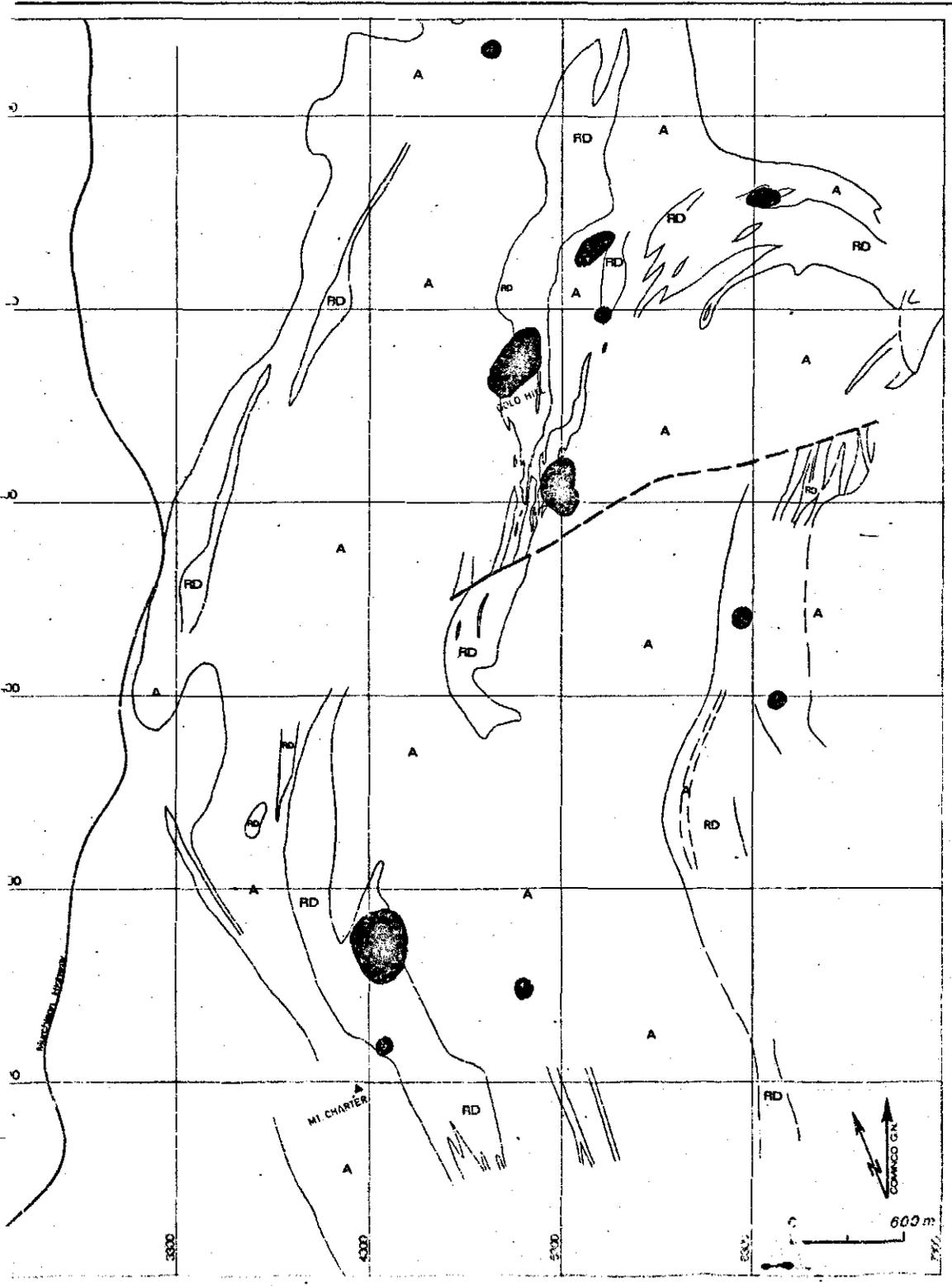
046

193047

FEDERAL INSTITUTE FOR GEOSCIENCES AND NATURAL RESOURCES, HANNOVER
FEDERAL REPUBLIC OF GERMANY

Project: Stratabound Ore Deposits
Statistical Evaluation Methods

Area: Que River, Tasmania, Australia



Geochemical Distribution

Sr

(Primary Dispersion)

-  < 8 ppm
-  Que River ore occurrence
-  Cambrian Andesites-Basalts
-  Cambrian Rhyolite-Dacites
-  geol. contact
-  fault
-  road

5 cm

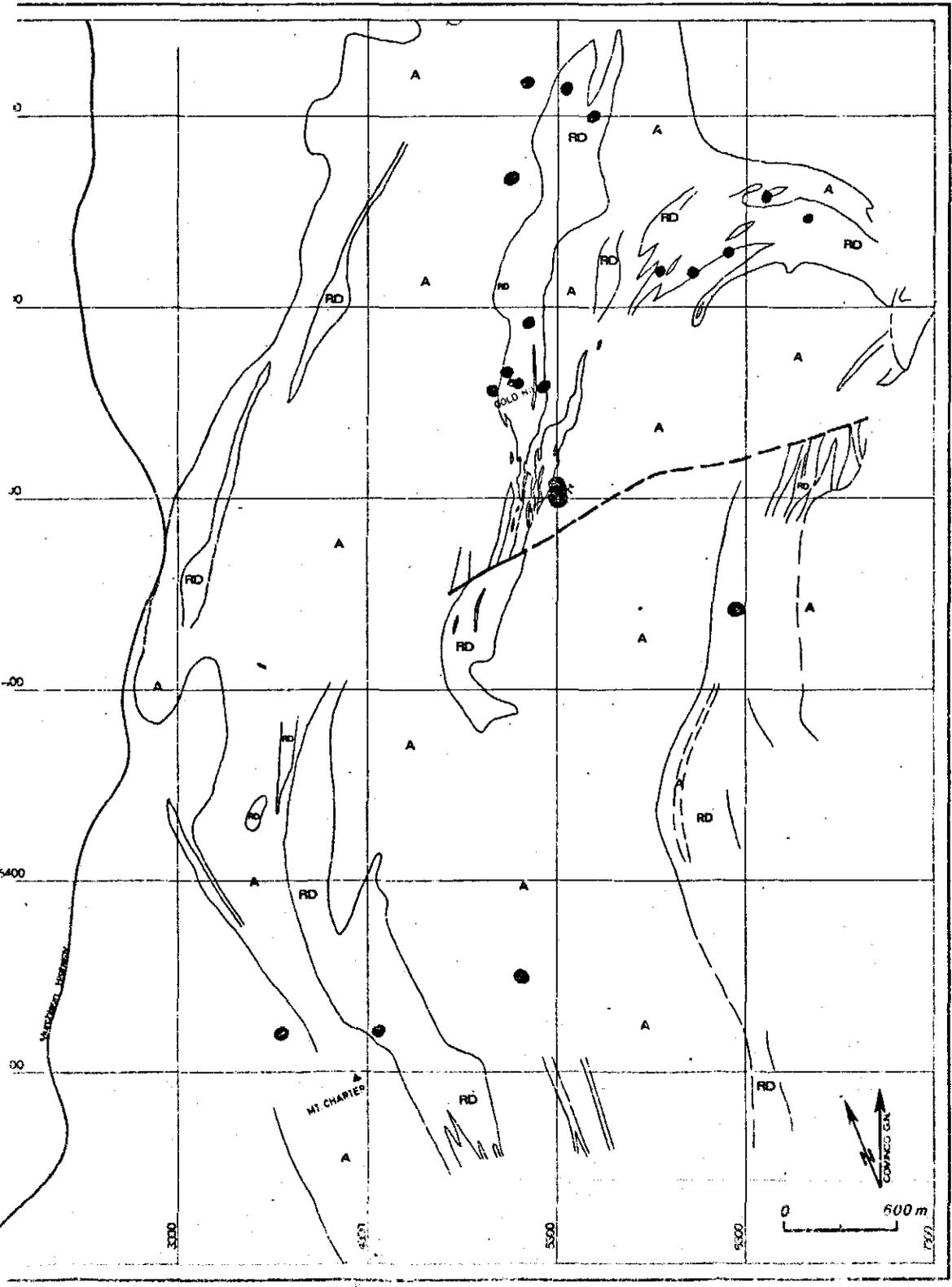
0410

193048

FEDERAL INSTITUTE FOR GEOSCIENCES AND NATURAL RESOURCES, HANNOVER
FEDERAL REPUBLIC OF GERMANY

Project: Stratabound Ore Deposits
Statistical Evaluation Methods

Area: Que River, Tasmania, Australia



Geochemical Distribution

La - Sc - Cu

(weighted linear combination)

-  "ORE GROUP"
-  Que River ore occurrence
-  Cambrian Andesites-Basalts
-  Cambrian Rhyolites-Dacites
-  geol. contact
-  fault
-  road

Author: G. WILKINSON, S. J. HALL, S. J. HALL (1978)

5 cm

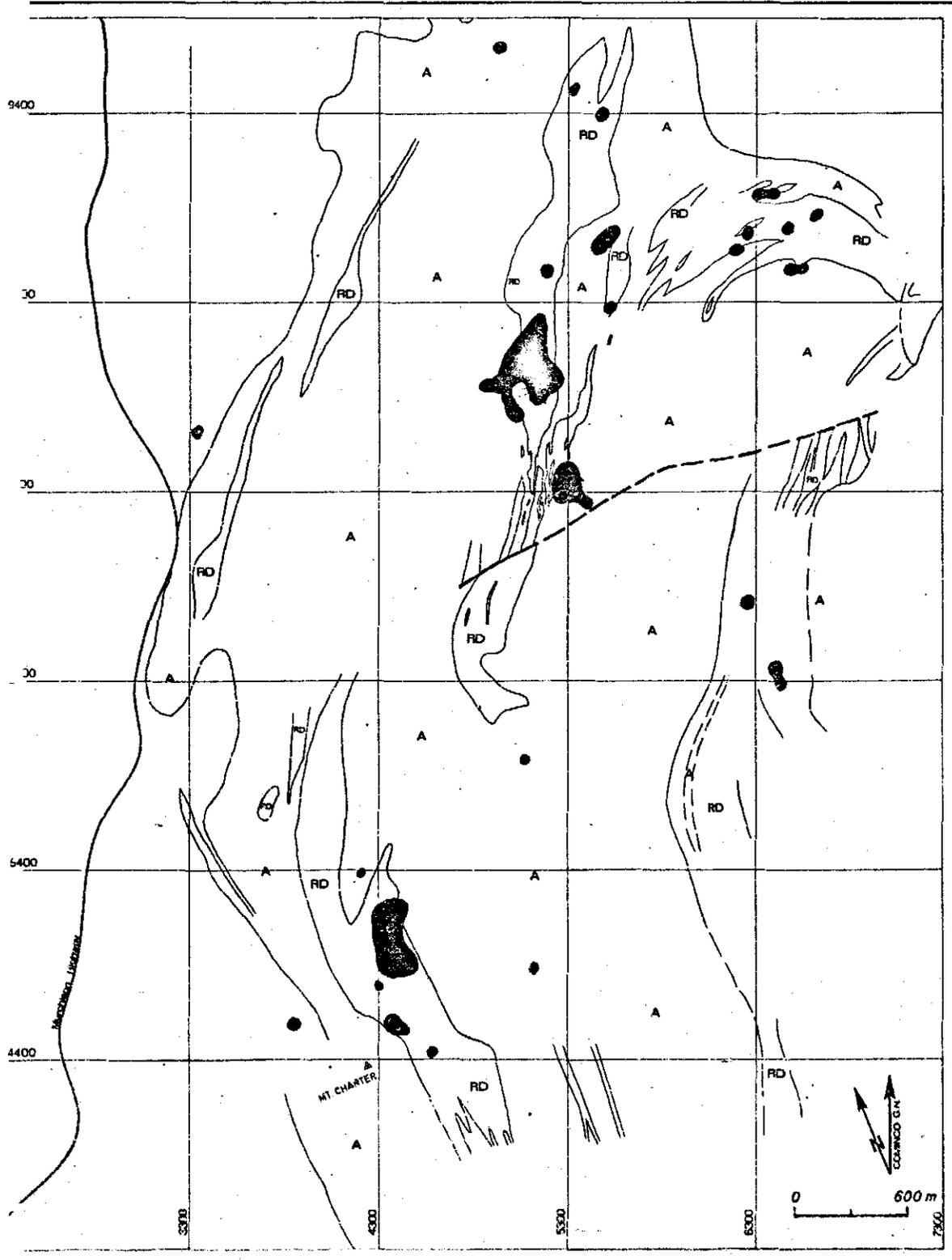
048

193049

FEDERAL INSTITUTE FOR GEOSCIENCES AND NATURAL RESOURCES, HANNOVER
FEDERAL REPUBLIC OF GERMANY

Project: Stratabound Ore Deposits
Statistical Evaluation Methods

Area: Que River, Tasmania, Australia



Geochemical Distribution

$Al_2O_3 - Pb - Sr$

(weighted linear combination)

"ORE GROUP"

- Que River ore occurrence
- Cambrian Andesites-Basalts
- Cambrian Rhyolites-Dacites

- geol. contact
- fault
- road

AUTHORS: G. S. SAUNDERS, B. B. BROWN, S. WHEATLEY, 1976

5 cm

FEDERAL INSTITUTE FOR GEOSCIENCES AND NATURAL RESOURCES, HANNOVER
FEDERAL REPUBLIC OF GERMANY

Project: Stratabound Ore Deposits
Statistical Evaluation Methods

Area: Que River, Tasmania, Australia



Geochemical Distribution

Pb

(Primary Dispersion)

-  150 ppm
-  Que River ore occurrence
-  Cambrian Andesites-Basalts
-  Cambrian Rhyolites-Dacites

-  geol. contact
-  fault
-  road

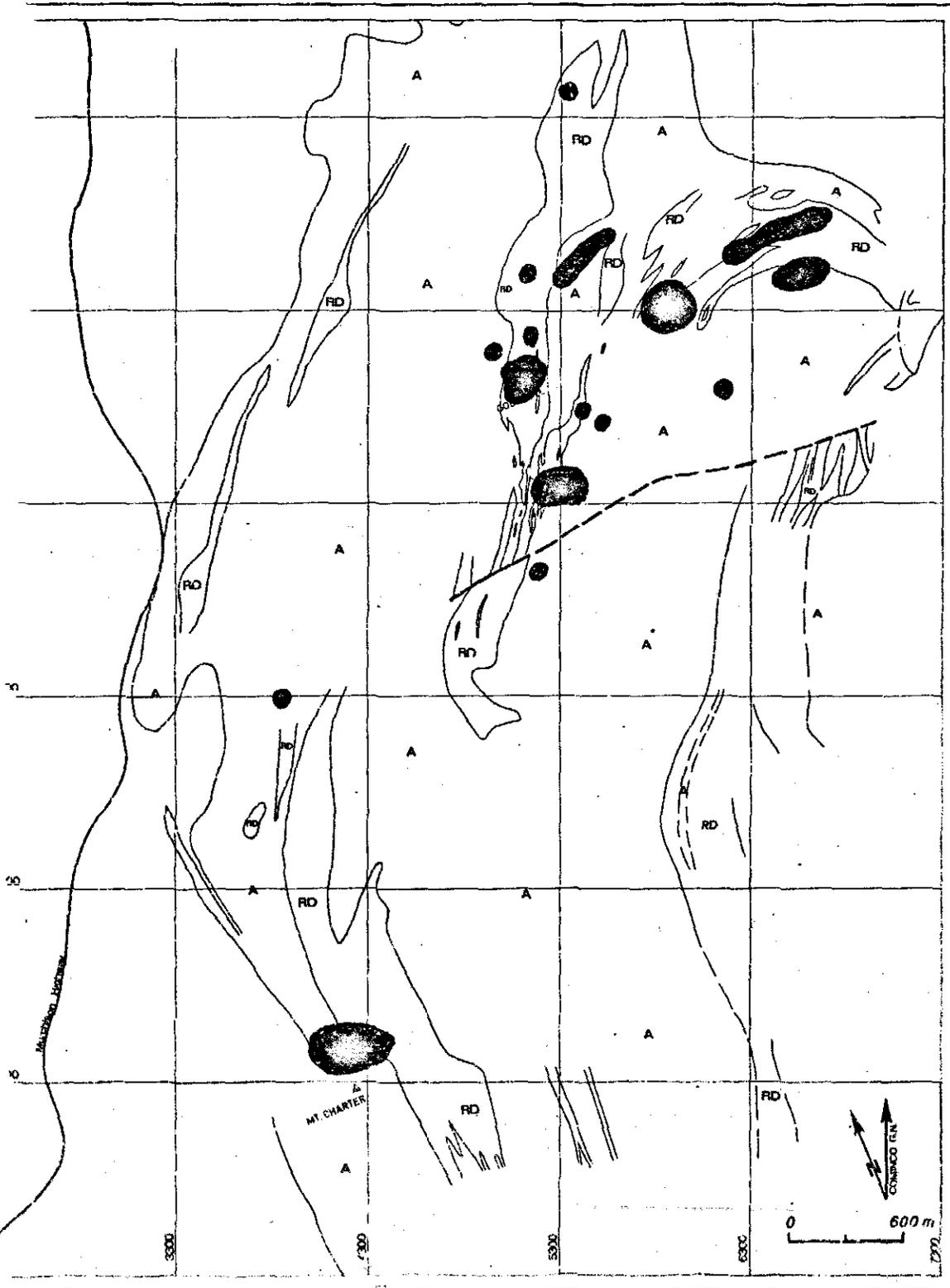
Author: G. VAN DEN BRINK & R. BENDER (1978)

5 cm

FEDERAL INSTITUTE FOR GEOSCIENCES AND NATURAL RESOURCES, HANNOVER
FEDERAL REPUBLIC OF GERMANY

Project: Stratabound Ore Deposits
Statistical Evaluation Methods

Area: Que River, Tasmania, Australia



Geochemical Distribution

Zn

(Primary Dispersion)

> 200 ppm

Que River ore occurrence

Cambrian Andesites-Basalts

Cambrian Rhyolites-Dacites

geol. contact

fault

road

A. J. H. G. VAN DEN BERG, J. F. H. VAN DER WOUDE

5 cm

051

OPEN FILE

GEOCHEMICAL

DATA

Que River, Tasmania, Australia.

DKSG

052

Geochemical DataQUE RIVER, TASMANIA, AUSTRALIA

Data-List

. Histograms, Cumulative frequency curves

Correlations

Factor Analysis

Cluster Analysis

053

Data-List

QUE RIVER AUSTRALIA MAJOR ELEMENTS (CONCENTRATIONS IN X)

054

SPL. NO.	SI02	TI02	AL203	FE203	MNO	MGO	CAO	NA2O	K2O	P2O5
QR 101	70.53	0.57	14.61	4.28		0.57	0.02	0.17	4.34	0.03
QR 102	86.66	0.17	8.22	1.21		0.35	0.02	0.57	1.78	0.05
QR 103	57.31	0.62	16.68	8.84		5.92	0.40	2.78	0.34	0.65
QR 104	61.93	0.60	14.08	9.63		6.32	0.47	0.10	1.59	0.51
QR 105	57.40	0.75	18.89	8.55		0.91	0.01	0.13	5.85	0.06
QR 106	73.47	0.28	13.24	3.15		0.70	0.01	0.16	3.74	0.05
QR 107	69.74	0.60	15.23	3.59		1.06	0.01	0.07	4.61	0.05
QR 108	85.42	0.33	7.75	1.28		0.44	0.01	0.16	2.09	0.02
QR 109	71.06	0.40	17.20	2.59		0.48	0.08	1.43	3.56	0.08
QR 110	50.93	0.63	14.01	7.03		2.63	7.22	0.87	3.42	0.42
QR 111	52.95	0.64	15.84	8.01		4.14	4.28	1.12	2.55	0.36
QR 112	65.96	0.71	17.77	5.08		2.13	0.07	1.11	2.98	0.18
QR 113	69.56	0.48	16.64	3.56		1.57	0.11	0.16	4.14	0.25
QR 114	61.11	0.78	19.37	3.68		0.93	0.01	0.28	5.65	0.04
QR 115	59.17	0.58	14.88	5.29		3.42	3.83	0.22	3.67	0.16
QR 117	56.13	0.61	16.64	11.21		0.75	0.57	1.09	4.60	0.29
QR 118	52.86	0.66	16.15	12.62		1.07	0.05	0.34	5.17	0.14
QR 119	69.25	0.38	8.48	7.57		2.22	1.08	2.14	0.83	0.54
QR 120	62.35	0.08	2.24	27.31		0.28	0.01	0.01	0.64	0.05
QR 121	77.49	0.38	7.80	5.37		0.51	0.02	0.06	2.44	0.02
QR 122	58.71	0.59	14.91	7.66		3.95	4.98	1.74	3.24	0.23
QR 123	51.92	0.43	15.68	9.40		5.67	11.11	2.11	0.12	0.09
QR 124	53.63	0.76	17.93	10.25		3.99	3.43	4.17	1.57	0.22
QR 125	57.49	0.62	16.87	8.41		3.99	2.13	2.60	2.41	0.21
QR 126	77.40	0.23	14.20	1.00		0.57	0.02	0.22	4.25	0.03
QR 127	83.73	0.29	9.69	0.98		0.50	0.02	0.06	2.95	0.05
QR 128	81.78	0.40	6.77	4.66		2.43	0.03	0.03	0.98	0.04
QR 129	53.52	0.56	15.28	8.43		7.68	6.63	1.05	3.23	0.17
QR 130	53.13	0.60	16.34	8.94		6.20	4.91	2.68	2.89	0.14
QR 131	61.00	0.58	16.50	8.50		3.09	0.14	2.11	1.68	0.25
QR 132	54.93	0.86	21.81	7.23		3.43	0.04	0.33	3.88	0.20
QR 133	73.83	0.69	13.15	2.20		1.36	0.01	0.11	3.11	0.04
QR 134	71.60	0.47	13.95	4.72		0.77	0.03	0.57	2.45	0.10
QR 135	72.93	0.31	13.90	2.72		1.37	0.18	3.58	2.52	0.05
QR 136	70.89	0.49	14.96	3.14		1.28	0.20	4.89	1.47	0.09
QR 137	71.41	0.37	14.41	2.84		0.45	0.09	1.86	5.53	0.08
QR 138	78.10	0.25	11.79	0.58		0.30	0.03	0.14	6.61	0.04
QR 139	51.53	0.94	17.23	9.35		4.83	6.04	2.72	2.32	0.39
QR 140	69.80	0.52	15.60	2.62		1.27	0.07	0.01	5.45	0.25
QR 141	53.05	0.74	20.25	7.32		4.70	0.27	0.59	0.35	0.57

193065

QUE RIVER

A U S T R A L I A

MA J O R E L E M E N T S

(CONCENTRATIONS IN %)

SPL. NO.	SI02	TI02	AL203	FE203	MNO	MGO	CAO	NA2O	K2O	P2O5
QR 142	61.48	0.42	10.10	17.67		3.91	0.21	0.01	0.01	0.29
QR 143	53.61	0.78	14.73	11.14		9.64	0.05	0.01	1.13	0.18
QR 144	53.46	0.74	13.91	14.27		7.93	0.10	0.01	1.09	0.25
QR 145	61.84	0.64	17.06	8.06		3.21	0.13	1.89	1.89	0.14
QR 146	74.07	0.46	13.12	2.22		0.87	0.03	1.30	3.87	0.06
QR 147	59.11	0.51	15.67	6.98		3.64	7.25	2.91	0.14	0.10
QR 148	65.69	0.88	21.24	0.77		0.44	0.05	0.59	5.31	0.18
QR 149	51.18	0.57	13.62	8.02		7.00	8.57	4.57	0.50	0.61
QR 150	80.43	0.27	11.69	1.50		0.37	0.03	0.15	3.32	0.04
QR 151	78.26	0.29	12.85	1.68		0.35	0.04	0.41	3.51	0.04
QR 152	50.38	0.72	18.13	13.97		5.66	0.29	2.98	1.02	0.26
QR 153	54.39	0.57	14.59	5.55		2.29	6.85	1.82	2.98	0.14
QR 154	72.71	0.31	14.66	3.65		0.45	0.15	1.49	3.18	0.08
QR 155	52.61	0.43	12.35	7.31		5.29	5.60	3.89	0.01	0.24
QR 156	57.21	0.67	14.07	11.38		7.01	0.28	0.73	1.04	0.35
QR 157	74.49	0.27	13.80	3.25		0.45	0.03	0.17	3.53	0.07
QR 158	58.80	0.65	14.94	7.57		4.34	5.27	2.56	1.85	0.15
QR 159	58.22	0.58	14.90	7.54		4.16	6.31	2.88	1.43	0.14
QR 160	49.14	0.54	17.75	10.81		7.59	2.47	1.92	2.47	0.10
QR 161	52.72	0.72	18.60	10.65		3.52	2.40	5.55	0.37	0.55
QR 162	62.60	0.47	15.84	6.37		1.15	2.27	1.60	3.42	0.29
QR 163	63.36	0.50	13.73	10.57		4.39	0.05	0.05	2.21	0.16
QR 164	52.70	0.52	13.88	8.82		7.52	6.05	2.46	2.88	0.22
QR 165	63.25	0.60	12.39	10.37		2.16	0.10	1.70	1.93	0.20
QR 166	60.79	0.58	13.35	7.44		4.92	5.52	2.62	1.34	0.10
QR 167	76.77	0.32	12.45	2.45		0.49	0.04	0.36	3.05	0.06
QR 168	42.24	0.70	21.48	13.56		8.95	0.07	0.60	2.32	0.23
QR 169	59.06	0.56	14.34	7.03		3.90	7.44	2.15	1.83	0.12
QR 170	75.37	0.32	11.88	3.28		1.71	0.17	4.23	0.71	0.05
QR 171	55.71	0.52	16.34	7.12		4.31	6.79	3.01	1.26	0.24
QR 172	58.63	0.77	15.08	9.18		6.82	0.52	1.70	0.89	0.43
QR 173	77.92	0.13	12.81	1.62		0.66	0.04	0.17	3.69	0.02
QR 174	79.17	0.11	11.47	2.57		0.77	0.01	0.31	2.55	0.01
QR 175	61.51	0.75	14.73	9.70		4.63	0.13	0.48	1.49	0.27
QR 176	78.27	0.30	13.41	1.08		0.41	0.08	0.62	3.02	0.12
QR 177	72.66	0.32	14.40	3.98		0.30	0.04	3.09	2.50	0.08
QR 178	61.71	0.45	19.96	2.91		0.86	1.27	2.09	3.88	0.11
QR 179	72.57	0.26	12.39	3.21		0.67	2.10	1.97	2.30	0.07
QR 180	81.69	0.25	11.45	0.66		0.28	0.05	0.53	2.57	0.03
QR 181	65.29	0.52	15.27	3.91		1.41	3.24	5.58	0.01	0.22

055

193066

056

QUE RIVER AUSTRALIA MAJOR ELEMENTS (CONCENTRATIONS IN %)

SPL. NO.	SI02	TI02	AL203	FE203	MNO	MGO	CAO	NA2O	K2O	P2O5
QR 182	51.40	0.74	18.57	13.15		5.32	0.16	2.21	1.57	0.38
QR 183	77.38	0.29	12.39	2.24		0.45	0.04	0.21	3.07	0.06
QR 184	60.63	0.62	15.18	7.95		3.23	3.95	2.21	1.85	0.19
QR 185	64.20	0.62	14.91	7.47		1.71	1.19	4.05	1.83	0.17
QR 186	68.07	0.24	15.69	4.68		1.21	0.09	4.06	2.40	0.03

193067

QUE RIVER

A U S T R A L I A

T R A C E E L E M E N T S 1

(CONCENTRATIONS IN PPM)

SPL. NO.	BA	CE	CO	CR	CU	LA	MN	NB	NI	PB
QR 101	957	74	16	110	5	42	1	11	36	83
QR 102	650	43	1	7	1	17	9	16	17	19
QR 103	379	172	46	400	65	118	2360	14	143	17
QR 104	592	202	55	993	229	124	1615	17	148	13
QR 105	1139	111	28	102	22	66	5	13	40	145
QR 106	585	128	6	16	78	69	23	15	34	853
QR 107	726	79	28	107	40	35	42	15	40	127
QR 108	1803	25	1	7	177	9	14	8	21	628
QR 109	1429	190	4	1	20	138	28	18	20	23
QR 110	974	131	40	1	28	78	607	14	19	25
QR 111	994	158	28	349	52	104	450	5	64	58
QR 112	727	89	7	36	28	47	78	16	31	4
QR 113	1486	125	3	1	17	74	149	8	21	71
QR 114	1371	122	4	19	13	80	5	21	22	190
QR 115	888	75	32	52	87	46	2080	17	58	22
QR 117	1231	99	22	15	28	69	5598	12	27	27
QR 118	1135	125	34	156	89	75	42	10	52	1278
QR 119	3547	95	21	139	526	45	819	9	50	3732
QR 120	96	26	15	7	837	2	16	1	14	419
QR 121	276	53	9	30	73	23	24	9	22	40
QR 122	1464	82	30	154	113	65	1388	8	69	23
QR 123	214	54	33	84	91	14	1070	15	49	25
QR 124	1283	102	28	87	95	65	2305	10	56	28
QR 125	1528	111	29	76	18	89	1961	10	71	33
QR 126	425	244	1	2	1	160	28	20	23	21
QR 127	574	80	1	24	3	55	1	17	15	53
QR 128	202	58	11	672	10	18	77	16	124	19
QR 129	1349	88	44	572	30	61	1133	7	218	20
QR 130	1595	42	39	149	47	22	1154	1	66	16
QR 131	564	166	18	4	12	118	743	15	18	1
QR 132	1661	156	13	53	113	111	102	13	42	19
QR 133	1435	62	2	128	23	38	24	21	44	83
QR 134	746	95	9	4	73	75	36	9	18	1
QR 135	1049	63	5	5	1	70	510	14	18	96
QR 136	201	111	2	4	22	67	500	12	16	12
QR 137	1749	215	1	13	1	167	122	16	15	5
QR 138	2812	69	1	7	1	50	19	10	12	19
QR 139	2322	193	30	34	43	152	1285	19	28	23
QR 140	2587	195	1	1	12	142	210	10	17	63
QR 141	812	222	7	26	60	148	1514	17	25	1158

057

193058

QUE RIVER

A U S T R A L I A

T R A C E E L E M E N T S 1

(CONCENTRATIONS IN PPM)

058

SPL. NO.	BA	CE	CO	CR	CU	LA	MN	NB	NI	PB
QR 142	68	74	23	133	78	40	1461	7	77	19
QR 143	789	149	72	754	161	89	712	10	167	34
QR 144	316	103	35	939	68	63	307	11	199	19
QR 145	790	62	15	140	41	35	284	15	49	36
QR 146	695	51	1	59	87	25	5	11	19	427
QR 147	158	69	26	78	74	33	872	5	41	4
QR 148	605	97	1	42	3	44	1	18	18	26
QR 149	689	171	53	533	133	124	1236	12	118	37
QR 150	560	122	1	2	19	87	6	16	12	1
QR 151	699	138	1	1	24	89	9	13	22	3
QR 152	413	99	48	33	35	55	567	8	37	15
QR 153	611	75	19	75	61	40	1083	9	47	3
QR 154	670	156	2	1	1	113	980	15	15	69
QR 155	3040	103	32	350	73	78	1916	3	107	5101
QR 156	270	248	66	1153	240	160	1328	11	423	68
QR 157	520	115	7	12	16	68	541	6	16	1
QR 158	868	64	22	121	78	35	930	12	57	7
QR 159	930	64	25	103	65	34	1009	10	50	16
QR 160	2824	22	44	207	106	40	2066	5	107	301
QR 161	420	182	28	2	104	136	1412	16	29	41
QR 162	1089	124	24	12	1	81	1130	2	37	16
QR 163	431	101	16	1082	98	61	356	5	223	18
QR 164	1932	67	43	702	139	54	1147	9	212	9
QR 165	1047	39	9	269	56	22	204	9	38	24
QR 166	916	54	29	126	44	30	1040	5	45	30
QR 167	526	131	1	1	1	92	625	10	13	1
QR 168	722	146	30	45	50	85	2704	6	59	16
QR 169	878	62	26	104	40	34	1337	8	45	64
QR 170	162	235	1	1	1	167	298	13	14	1
QR 171	867	127	26	207	82	87	1786	11	81	4
QR 172	540	128	52	957	29	89	513	7	219	15
QR 173	560	105	1	4	1	65	35	16	15	1
QR 174	344	91	1	1	14	59	107	19	19	4
QR 175	489	131	58	813	79	94	1629	8	252	3
QR 176	807	118	1	1	1	81	34	9	19	20
QR 177	648	128	1	6	5	107	644	13	16	1
QR 178	2154	172	5	24	75	137	402	19	20	440
QR 179	1109	127	3	1	5	96	827	13	19	7
QR 180	539	98	1	6	1	66	14	19	12	2
QR 181	116	156	5	169	29	111	394	12	55	10

193059

QUE RIVER

A U S T R A L I A

T R A C E E L E M E N T S 1

(CONCENTRATIONS IN PPM)

059

SPL. NO.	BA	CE	CO	CR	CU	LA	MN	NB	NI	PB
QR 182	576	100	44	30	2	71	1193	3	41	4
QR 183	719	128	1	1	3	92	66	13	16	1
QR 184	2030	85	15	138	12	71	1630	12	46	56
QR 185	1148	85	13	4	1	54	1654	16	18	1
QR 186	441	211	7	2	20	148	436	24	8	1

193060

QUE RIVER

A U S T R A L I A

T R A C E E L E M E N T S 2

(CONCENTRATIONS IN PPM, HG IN PPB)

060

SPL. NO.	RB	SC	SR	TH	V	Y	ZN	ZR	HG
QR 101	118	20	9	13	156	26	5	133	
QR 102	68	1	32	8	14	18	1	108	
QR 103	11	33	77	28	257	26	105	151	
QR 104	52	47	8	37	275	20	138	166	
QR 105	173	23	17	16	201	36	1	175	
QR 106	112	7	12	20	19	35	4827	194	
QR 107	164	27	1	8	188	19	45	116	
QR 108	78	8	9	1	45	15	57	100	
QR 109	107	11	129	33	39	26	23	220	
QR 110	92	25	201	17	201	32	51	127	
QR 111	88	29	250	26	249	23	411	181	
QR 112	87	21	51	17	155	29	140	175	
QR 113	131	20	10	11	169	25	60	140	
QR 114	206	16	15	14	113	42	1	234	
QR 115	107	23	40	9	147	49	128	133	
QR 117	146	31	32	25	240	29	549	136	
QR 118	177	21	1	19	116	33	3730	157	
QR 119	28	14	160	6	101	22	3063	94	
QR 120	11	1	1	6	41	3	686	28	
QR 121	81	5	1	4	53	13	59	103	
QR 122	98	22	504	13	202	33	626	148	
QR 123	1	46	268	1	247	8	74	63	
QR 124	32	27	643	21	231	41	407	146	
QR 125	68	22	574	27	172	29	587	160	
QR 126	160	11	5	19	8	41	4	207	
QR 127	115	5	16	31	42	18	1	137	
QR 128	37	8	5	1	69	22	32	192	
QR 129	110	30	311	10	201	28	80	126	
QR 130	94	38	410	2	272	18	108	74	
QR 131	76	20	115	23	200	21	131	172	
QR 132	136	31	93	27	351	23	63	202	
QR 133	141	15	26	13	304	30	20	154	
QR 134	60	10	71	7	62	42	34	153	
QR 135	87	6	145	5	29	39	175	179	
QR 136	85	7	112	1	31	29	35	234	
QR 137	145	13	115	16	12	45	16	207	
QR 138	140	4	28	8	13	27	1	162	
QR 139	93	29	655	20	252	34	66	205	
QR 140	217	16	41	17	154	31	67	156	
QR 141	11	31	188	53	183	36	351	246	

193061

SPL. NO.	RB	SC	SR	TH	V	Y	ZN	ZR	HG
QR 142	1	13	19	1	99	20	65	99	
QR 143	42	44	6	9	279	15	315	173	
QR 144	40	47	3	12	311	14	114	160	
QR 145	66	32	110	1	225	21	85	117	
QR 146	123	14	52	1	138	18	809	91	
QR 147	1	29	249	2	179	30	41	106	
QR 148	164	23	17	9	178	39	3	198	
QR 149	3	39	557	9	254	26	77	131	
QR 150	114	4	10	19	20	20	4	142	
QR 151	108	4	28	24	26	25	17	151	
QR 152	43	40	110	2	431	23	110	90	
QR 153	101	25	89	9	153	24	31	118	
QR 154	105	15	57	21	25	31	170	166	
QR 155	1	30	351	11	166	27	8651	101	
QR 156	40	42	12	29	280	24	310	211	
QR 157	136	9	4	8	30	17	7	131	
QR 158	61	32	322	1	194	20	54	112	
QR 159	38	29	460	1	188	22	85	99	
QR 160	53	40	433	8	240	51	663	87	
QR 161	1	26	797	25	275	34	486	197	
QR 162	121	24	62	11	185	27	232	127	
QR 163	87	32	2	8	242	12	127	107	
QR 164	58	33	448	13	217	19	168	100	
QR 165	52	27	139	18	232	15	61	110	
QR 166	44	31	351	1	187	21	82	95	
QR 167	87	7	9	23	18	18	10	165	
QR 168	97	48	9	26	334	18	470	164	
QR 169	57	27	324	9	197	23	106	98	
QR 170	26	13	92	15	28	31	51	153	
QR 171	34	29	709	14	222	22	52	121	
QR 172	33	36	66	16	255	23	93	239	
QR 173	122	3	2	21	3	21	1	141	
QR 174	86	1	4	16	5	39	15	128	
QR 175	61	39	10	8	252	20	129	216	
QR 176	98	4	56	8	33	25	50	148	
QR 177	67	11	48	18	25	34	7	159	
QR 178	146	18	130	28	58	32	573	231	
QR 179	86	7	91	13	21	30	24	136	
QR 180	79	8	47	22	25	20	1	125	
QR 181	1	26	714	17	161	27	185	128	

061

193062

002

QUE RIVER AUSTRALIA TRACE ELEMENTS 2 (CONCENTRATIONS IN PPM, HG IN PPB)

SPL. NO.	RB	SC	SR	TH	V	Y	ZN	ZR	HG
QR 182	57	50	32	10	427	25	126	99	
QR 183	94	10	16	13	22	22	6	157	
QR 184	57	21	607	9	115	38	180	155	
QR 185	52	20	274	1	78	30	94	145	
QR 186	126	13	54	34	4	36	36	265	

193063

Histograms .
Cumulative frequency curves

STATISTIK PROJEKT QUE RIVER, AUSTRALIEN S102

ZAHL DER WERTE = 85
 KLEINSTER WERT = 42.240
 GROSSTER WERT = 86.660
 ARITHM. MITTEL = 64.404
 GEOMET. MITTEL = 63.594
 VARIANZ = 0.106E 03
 STAND. ABWEICH. = 10.314
 LOG. VARIANZ = 0.484E-02
 LOG. ST. ABW. = 0.070
 SCHIEFE = 0.258
 WÖLBUNG = -0.951
 LOG. SCHIEFE = 0.011
 LOG. WÖLBUNG = -0.898

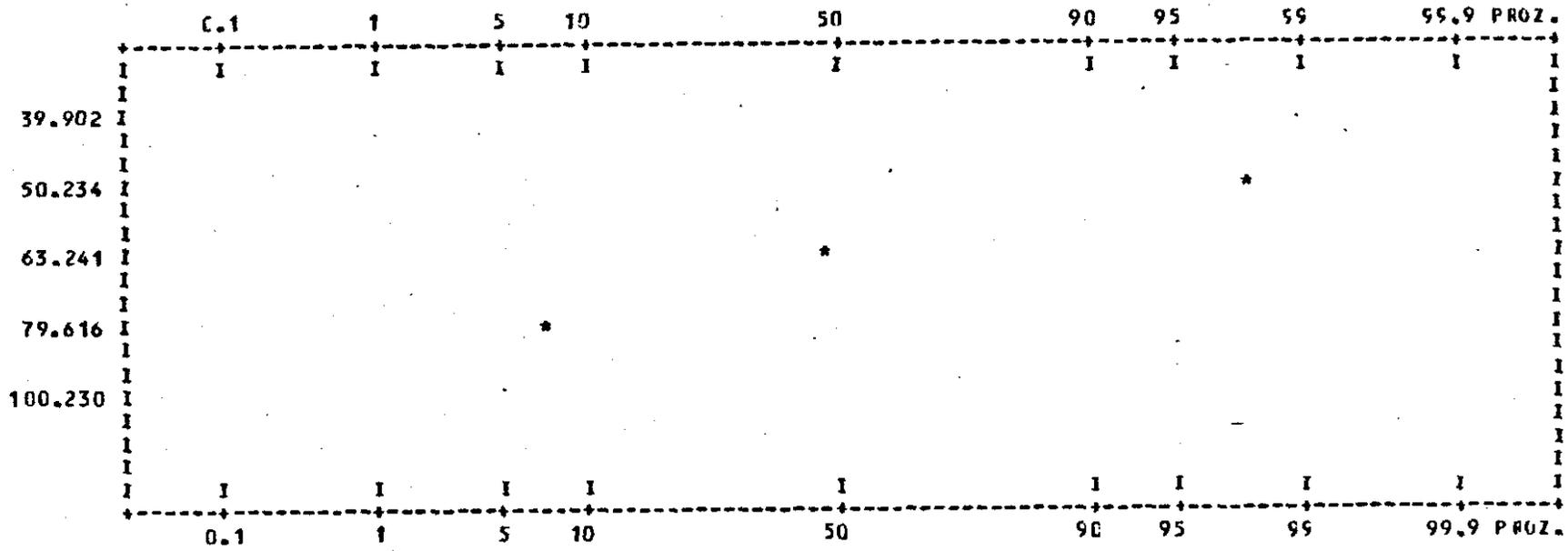
 I STAT (ONT. 72) I
 I E. MUNDRY I
 I BODENFORSCHUNG, HANNOVER I
 I GERMANY I

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECK KW.)
...	39.902	0	0.00	100.00
39.902...	50.234	2	2.35	100.00
50.234...	63.241	43	50.59	97.65
63.241...	79.616	34	40.00	47.06
79.616...	100.230	6	7.06	7.06
100.230...		0	0.00	0.00

PROZENT	PERZENTIL
5.	50.843
10.	52.013
20.	54.436
25.	55.689
30.	56.970
40.	59.623
50.	62.400
60.	65.864
70.	69.766
75.	71.803
80.	73.900
90.	78.279
95.	85.146

064

193065



SUMMENHAEUFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN S102

065

193066

STATISTIK PROJEKT QUE RIVER, AUSTRALIEN T102

ZAHL DER WERTE * 85
 KLEINSTER WERT = 0.080
 GROSSTER WERT = 0.940
 ARITHM. MITTEL = 0.511
 GEOMET. MITTEL = 0.466
 VARIANZ = 0.367E-01
 STAND. ABWEICH. = 0.192
 LOG. VARIANZ = 0.422E-01
 LOG. ST. ABW. = 0.205
 SCHIEFE = -0.168
 WÖLHUNG = -0.638
 LOG. SCHIEFE = -1.318
 LOG. WÖLHUNG = 2.117

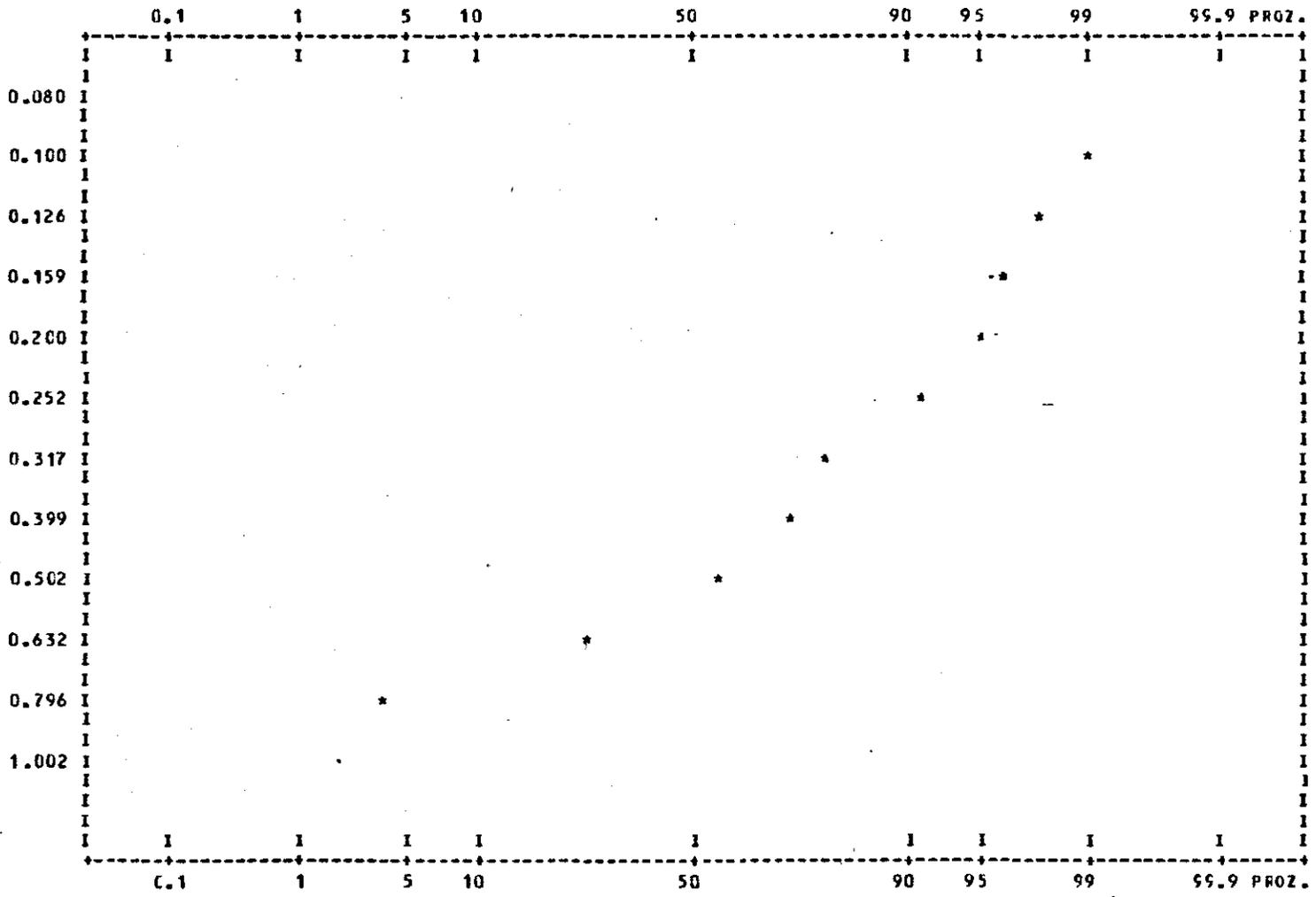
STAT (OKT. 72)
 E. MUNDRY
 BODENFORSCHUNG, HANNOVER
 GERMANY

0096

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
...	0.080	0	0.00	0.00
0.080...	0.100	1	1.18	100.00
0.100...	0.126	1	1.18	2.35
0.126...	0.159	1	1.18	3.53
0.159...	0.200	1	1.18	4.71
0.200...	0.252	4	4.71	9.41
0.252...	0.317	10	11.76	21.18
0.317...	0.399	7	8.24	29.41
0.399...	0.502	12	14.12	43.53
0.502...	0.632	26	30.59	74.12
0.632...	0.796	19	22.35	96.47
0.796...	1.002	3	3.53	100.00
1.002...		0	0.00	100.00

PROZENT	PERZENTIL
5.	0.203
10.	0.255
20.	0.310
25.	0.353
30.	0.403
40.	0.474
50.	0.527
60.	0.569
70.	0.613
75.	0.638
80.	0.672
90.	0.745
95.	0.784

193067



SUMMENHAUEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN T102

068

193069

STATISTIK PROJEKT QUE RIVER, AUSTRALIEN AL203

ZAHL DER WERTE = 85
 KLEINSTER WERT = 2.240
 GROESSTER WERT = 21.810
 ARITHM. MITTEL = 14.566
 GEOMET. MITTEL = 14.069
 VARIANZ = 0.107E 02
 STAND. ABWEICH. = 3.271
 LOG. VARIANZ = 0.169E-01
 LOG. ST. ABW. = 0.130
 SCHIEFE = -0.668
 WOELBUNG = 2.096
 LOG. SCHIEFE = -3.123
 LOG. WOELBUNG = 16.432

STAT (Okt. 72)
 E. MUNDRY
 RODENFORSCHUNG, HANNOVER
 GERMANY

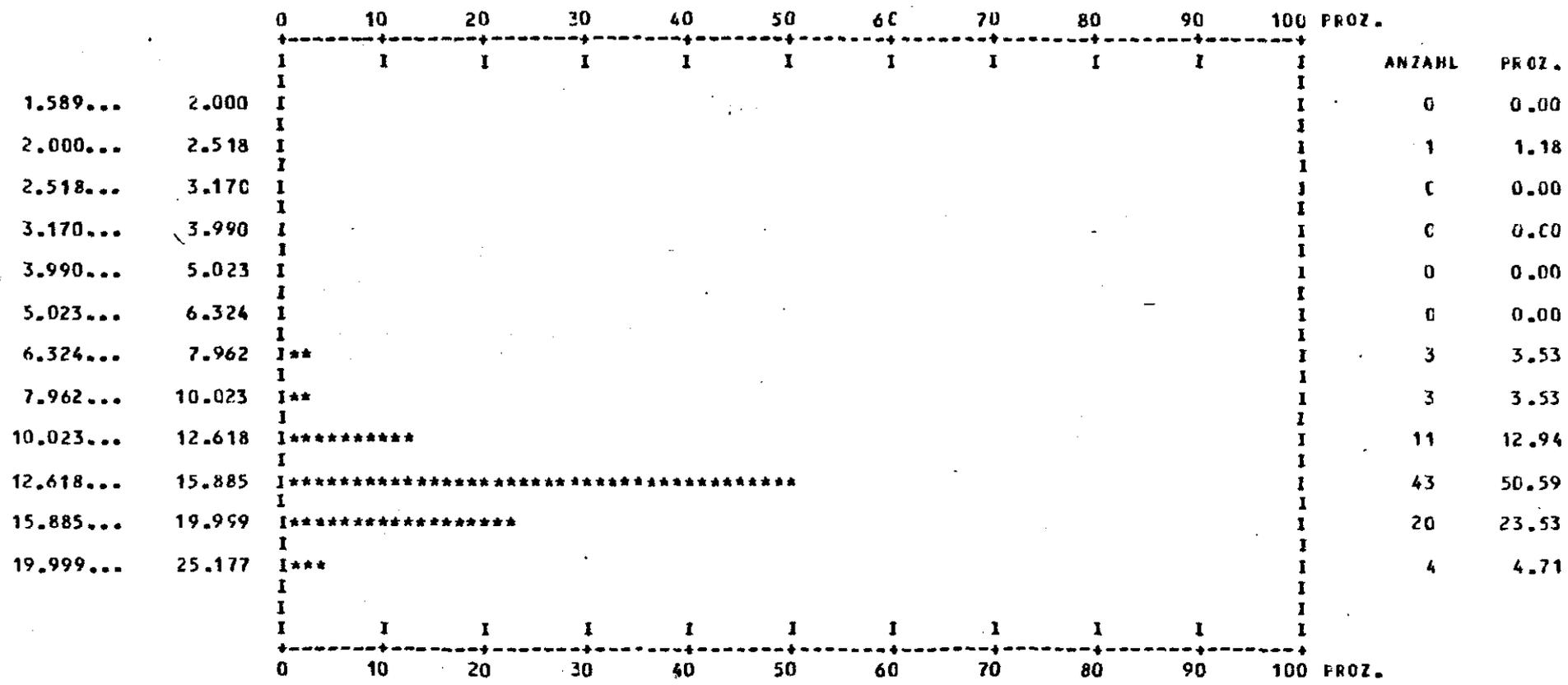
KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKFW.)
...	1.589	0	0.00	100.00
1.589...	2.000	0	0.00	100.00
2.000...	2.518	1	1.18	100.00
2.518...	3.170	0	0.00	98.82
3.170...	3.990	0	0.00	98.82
3.990...	5.023	0	0.00	98.82
5.023...	6.324	0	0.00	98.82
6.324...	7.962	3	3.53	98.82
7.962...	10.023	3	3.53	95.29
10.023...	12.618	11	12.94	51.76
12.618...	15.885	43	50.59	78.82
15.885...	19.999	20	23.53	28.24
19.999...	25.177	4	4.71	100.00
25.177...		0	0.00	0.00

PROZENT	PERZENTIL
5.	8.116
10.	10.343
20.	12.357
25.	12.840
30.	13.135
40.	13.747
50.	14.387
60.	15.057
70.	15.758
75.	16.396
80.	17.219
90.	18.989
95.	19.941

069

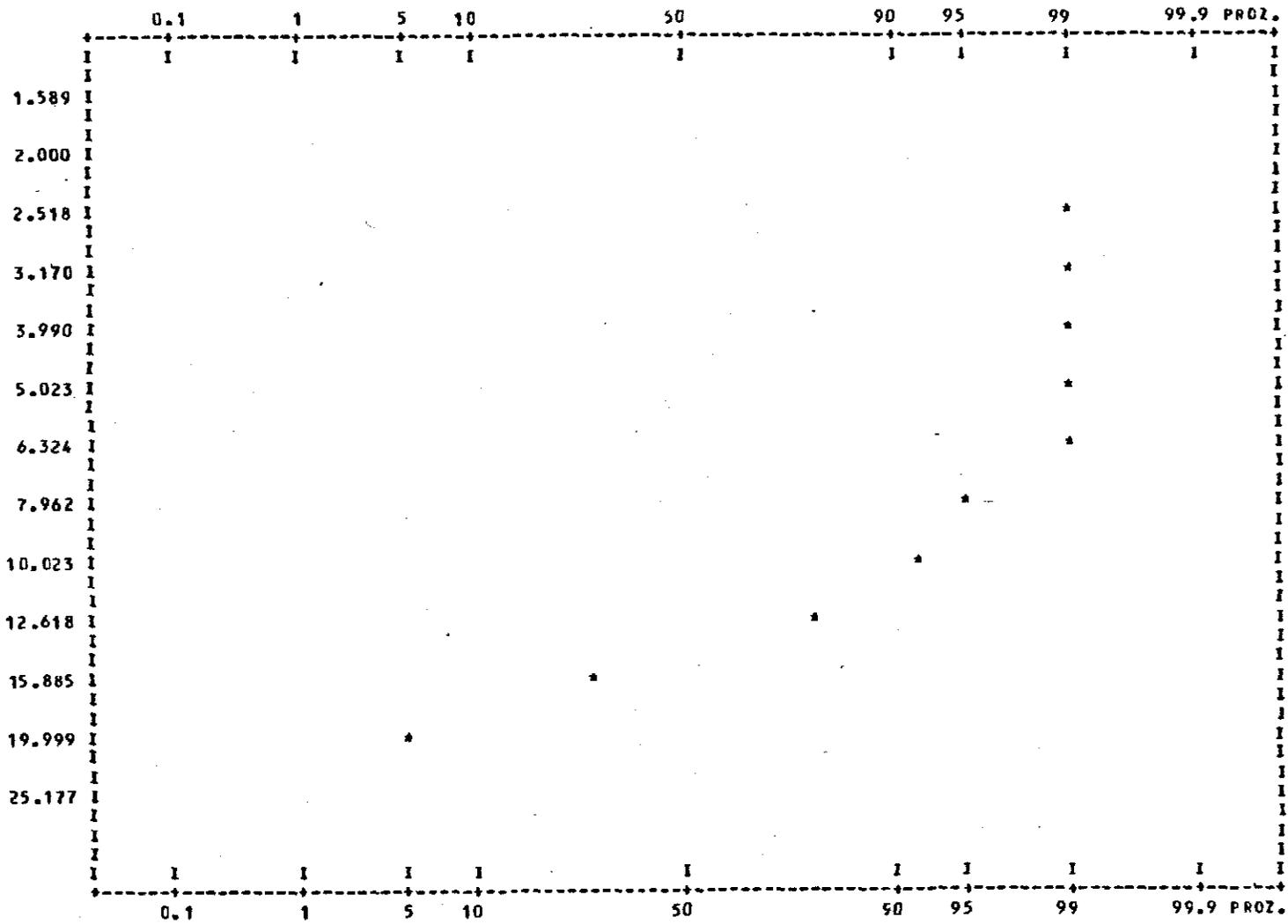
193070

070



HAEUFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN AL203

193071



SUMMENHAUEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN AL203

171

193072

STATISTIK PROJEKT QUE RIVER, AUSTRALIEN FE203

ZAHL DER WERTE = 85
 KLEINSTER WERT = 0.580
 GROESSTER WERT = 27.310
 ARITHM. MITTEL = 6.542
 GEOMET. MITTEL = 5.014
 VARIANZ = 0.196E 02
 STAND. ABWEICH. = 4.428
 LOG. VARIANZ = 0.124E 00
 LOG. ST. ABW. = 0.352
 SCHIEFE = 1.422
 WOLLBUNG = 4.550
 LOG. SCHIEFE = -0.737
 LOG. WOLLBUNG = 0.043

STAT (GRT. 72)
 E. MUNDRY
 BODENFORSCHUNG, HANNOVER
 GERMANY

072

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
0.502	0	0.00	0.00	100.00
0.632	1	1.18	1.18	100.00
0.796	2	2.35	3.53	98.82
1.002	2	2.35	5.88	96.47
1.262	2	2.35	8.24	94.12
1.589	2	2.35	10.59	91.76
2.000	2	2.35	12.94	89.41
2.518	4	4.71	17.65	87.06
3.170	8	9.41	27.06	82.35
3.990	9	10.59	37.65	72.94
5.023	4	4.71	42.35	62.35
6.324	4	4.71	47.06	57.65
7.962	15	17.65	64.71	52.94
10.023	15	17.65	82.35	35.29
12.618	8	9.41	91.76	17.65
15.885	5	5.88	97.65	8.24
19.999	1	1.18	98.82	2.35
25.177	0	0.00	98.82	1.18
31.696	1	1.18	100.00	1.18
	0	0.00	100.00	0.00

PROZENT	PERZENTIL
5.	0.919
10.	1.500
20.	2.667
25.	3.014
30.	3.379
40.	4.477
50.	6.572
60.	7.487
70.	8.531
75.	9.106
80.	9.720
90.	12.685
95.	14.322

193073

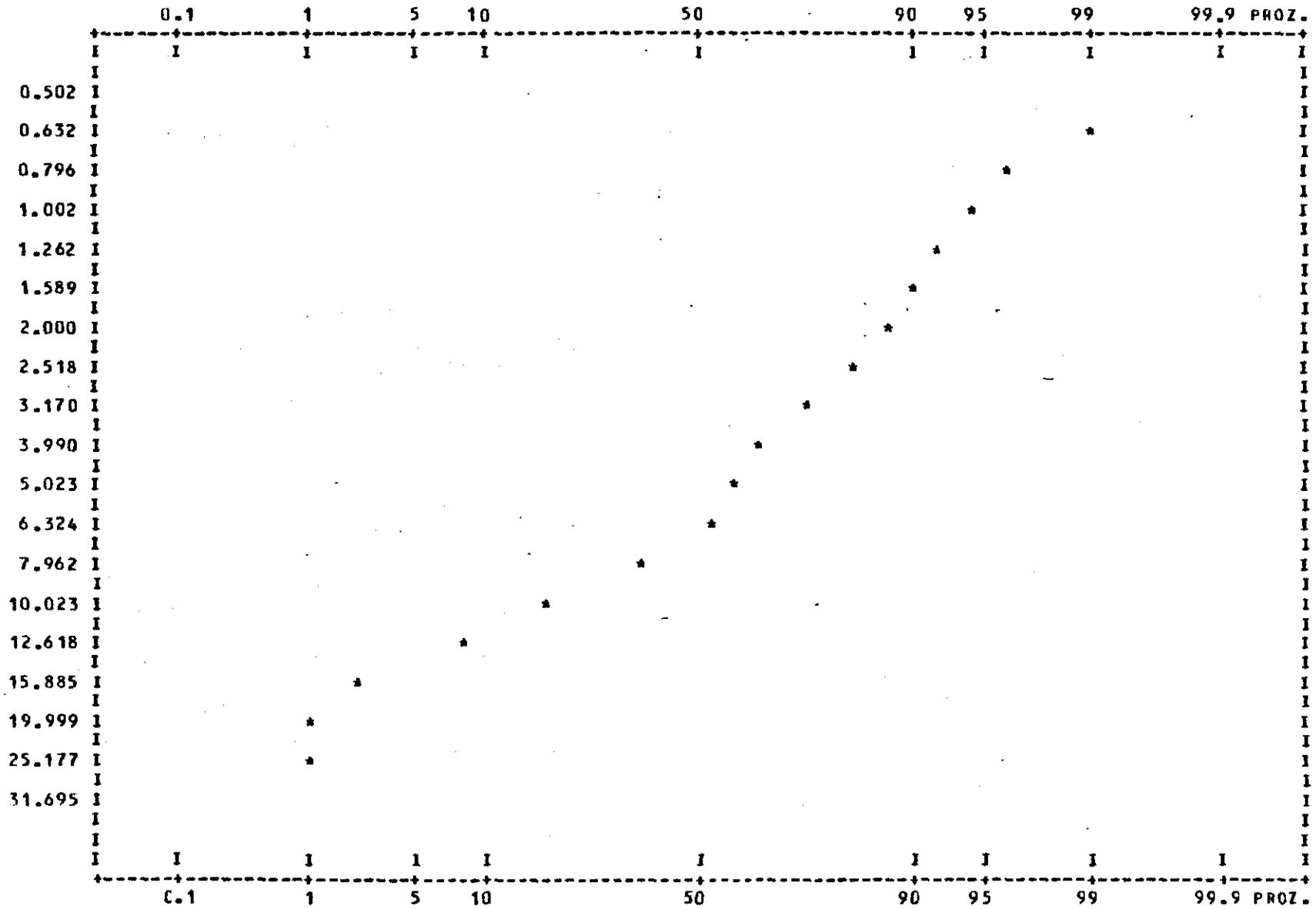
073

	0	2	4	6	8	10	12	14	16	18	20	PROZ.		
	I	I	I	I	I	I	I	I	I	I	I		ANZAHL	PROZ.
0.502...	I****												1	1.18
0.632...	I*****												2	2.35
0.796...	I*****												2	2.35
1.002...	I*****												2	2.35
1.262...	I*****												2	2.35
1.589...	I*****												2	2.35
2.000...	I*****												4	4.71
2.518...	I*****												8	9.41
3.170...	I*****												9	10.59
3.990...	I*****												4	4.71
5.023...	I*****												4	4.71
6.324...	I*****												15	17.65
7.962...	I*****												15	17.65
10.023...	I*****												8	9.41
12.618...	I*****												5	5.88
15.885...	I****												1	1.18
19.999...	I												0	0.00
25.177...	I****												1	1.18

HAEUFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN FE203

193074

074



SUMMENHAEUFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN FE203

193075

S T A T I S T I K P R O J E K T Q U E R I V E N , A U S T R A L I E N M G O

075

Z A H L D E R W E R T E = 85
 K L F I N S T E R W E R T = 0.280
 G R O E S S T E R W E R T = 9.640
 A R I T H M . M I T T E L = 2.830
 G E O M E T . M I T T E L = 1.755
 V A R I A N Z = 0.608E C1
 S T A N D . A B W E I C H . = 2.466
 L O G . V A R I A N Z = 0.214E 00
 L O G . S T . A B W . = 0.463
 S C H I E F E = 0.847
 W O E L B U N G = -0.267
 L O G . S C H I E F E = -0.171
 L O G . W O E L B U N G = -1.365

 I S T A T (O K T . 7 2) I
 I E . M U N D R Y I
 I B O D E N F O R S C H U N G , H A N N O V E R I
 I G E R M A N Y I

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKN.)
...	0.252	0	0.00	0.00
0.252...	0.317	4	4.71	4.71
0.317...	0.399	3	3.53	8.24
0.399...	0.502	10	11.76	20.00
0.502...	0.632	3	3.53	23.53
0.632...	0.796	6	7.06	30.59
0.796...	1.002	4	4.71	35.29
1.002...	1.262	4	4.71	40.00
1.262...	1.589	6	7.06	47.06
1.589...	2.000	2	2.35	49.41
2.000...	2.518	5	5.88	55.29
2.518...	3.170	2	2.35	57.65
3.170...	3.990	11	12.94	70.59
3.990...	5.023	9	10.59	81.18
5.023...	6.324	7	8.24	89.41
6.324...	7.962	7	8.24	97.65
7.962...	10.023	2	2.35	100.00
10.023...		0	0.00	100.00

PROZENT	PERZENTIL
5.	0.323
10.	0.413
20.	0.502
25.	0.663
30.	0.781
40.	1.262
50.	2.046
60.	3.305
70.	3.949
75.	4.392
80.	4.897
90.	6.429
95.	7.394

193076

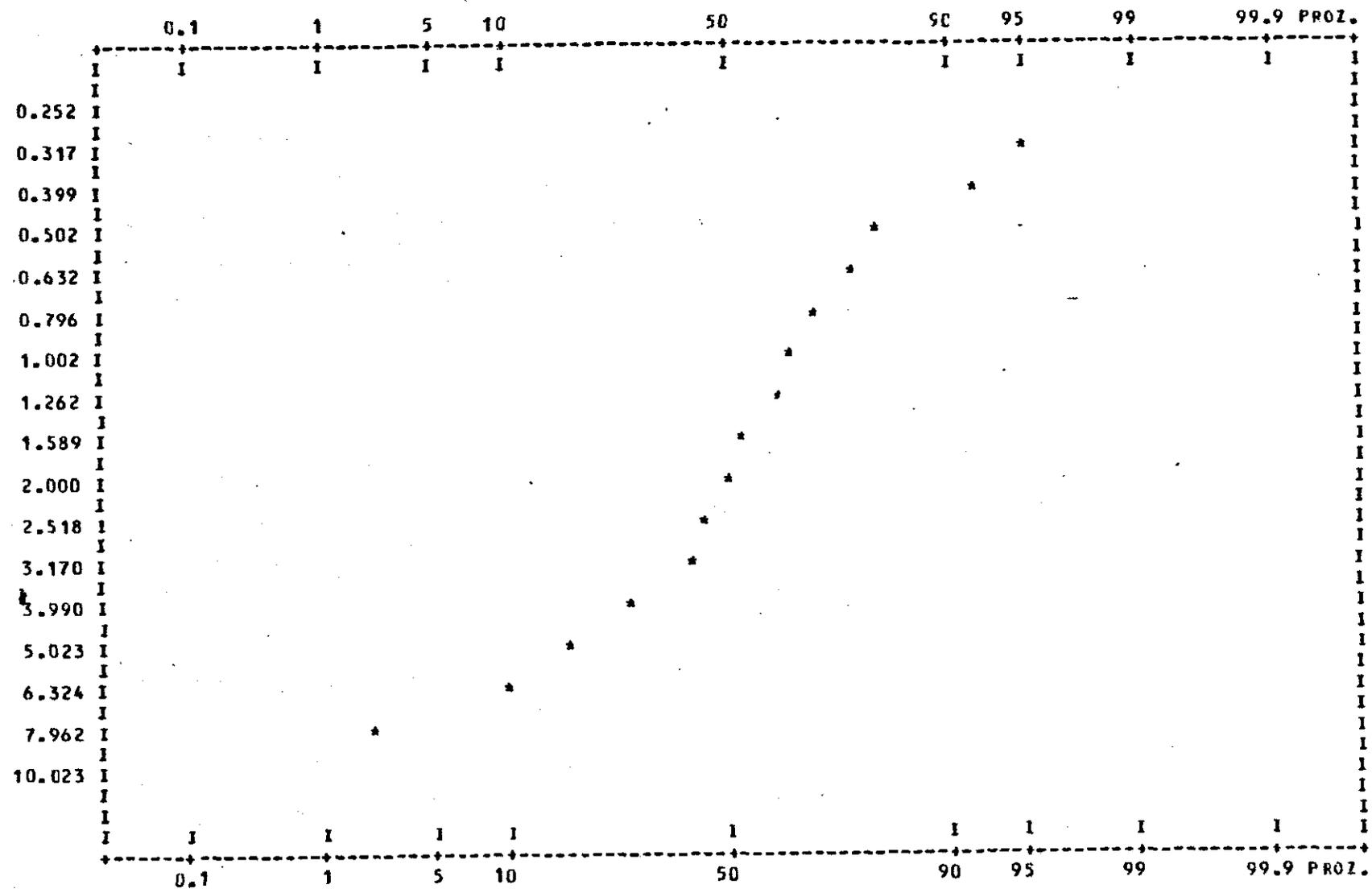
076

		0	2	4	6	8	10	12	14	16	18	20	PROZ.		
		I	I	I	I	I	I	I	I	I	I	I		ANZAHL	PROZ.
0.252...	0.317	I*****												4	4.71
0.317...	0.399	I*****												3	3.53
0.399...	0.502	I*****												10	11.76
0.502...	0.632	I*****												3	3.53
0.632...	0.796	I*****												6	7.06
0.796...	1.002	I*****												4	4.71
1.002...	1.262	I*****												4	4.71
1.262...	1.589	I*****												6	7.06
1.589...	2.000	I*****												2	2.35
2.000...	2.518	I*****												5	5.88
2.518...	3.170	I*****												2	2.35
3.170...	3.990	I*****												11	12.94
3.990...	5.023	I*****												9	10.59
5.023...	6.324	I*****												7	8.24
6.324...	7.962	I*****												7	8.24
7.962...	10.023	I*****												2	2.35

HAUEFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN MGO

193077

0171



SUMMENHAEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN HGO

193078

STATISTIK PROJEKT QUE RIVER, AUSTRALIEN CAO

ZAHL DER WERTE = 85
 KLEINSTER WERT = 0.010
 GROSSTER WERT = 11.110
 ARITHM. MITTEL = 1.720
 GEOMET. MITTEL = 0.248
 VARIANZ = 0.710E 01
 STAND. ABWEICH. = 2.665
 LOG. VARIANZ = 0.964E 00
 LOG. ST. ABW. = 0.982
 SCHIEFE = 1.512
 WOEHRUNG = 1.272
 LOG. SCHIEFE = 0.272
 LOG. WOEHRUNG = -1.366

STAT (Okt. 72)
 E. MUNDRY
 BODENFORSCHUNG, HANNOVER
 GERMANY

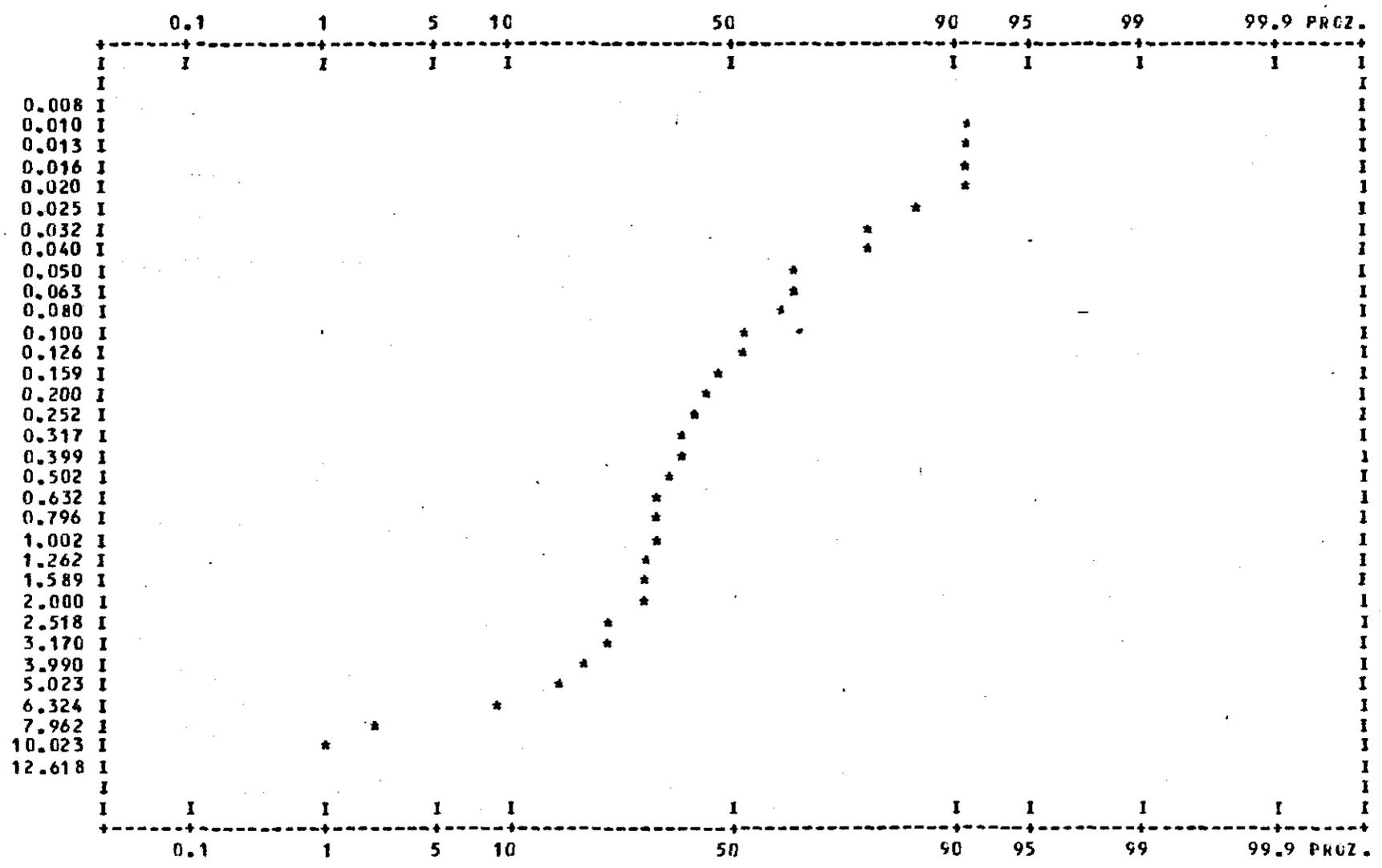
KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
...	0.008	0	0.00	0.00
0.008...	0.010	8	9.41	100.00
0.010...	0.013	0	0.00	9.41
0.013...	0.016	0	0.00	9.41
0.016...	0.020	0	0.00	9.41
0.020...	0.025	5	5.88	15.29
0.025...	0.032	6	7.06	22.35
0.032...	0.040	0	0.00	22.35
0.040...	0.050	11	12.94	35.29
0.050...	0.063	0	0.00	35.29
0.063...	0.080	3	3.53	38.82
0.080...	0.100	6	7.06	45.88
0.100...	0.126	1	1.18	47.06
0.126...	0.159	4	4.71	51.76
0.159...	0.200	3	3.53	55.29
0.200...	0.252	2	2.35	57.65
0.252...	0.317	3	3.53	61.18
0.317...	0.399	0	0.00	61.18
0.399...	0.502	2	2.35	63.53
0.502...	0.632	2	2.35	65.88
0.632...	0.796	0	0.00	65.88
0.796...	1.002	0	0.00	65.88
1.002...	1.262	2	2.35	68.24
1.262...	1.589	1	1.18	69.41
1.589...	2.000	0	0.00	69.41
2.000...	2.518	5	5.88	75.29
2.518...	3.170	0	0.00	75.29
3.170...	3.990	4	4.71	80.00
3.990...	5.023	3	3.53	83.53
5.023...	6.324	6	7.06	90.59
6.324...	7.962	6	7.06	97.65
7.962...	10.023	1	1.18	98.82
10.023...	12.618	1	1.18	100.00
12.618...		0	0.00	100.00

PROZENT	PERZENTIL
5.	0.009
10.	0.020
20.	0.029
25.	0.042
30.	0.046
40.	0.083
50.	0.146
60.	0.294
70.	2.046
75.	2.489
80.	3.990
90.	6.204
95.	7.303

018

193079

080



SUMMENHAUEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN CAO

193081

STATISTIK PROJEKT QUE RIVER, AUSTRALIEN MA20

ZAHL DER WERTE = 85
 KLEINSTER WERT = 0.010
 GROESSTER WERT = 5.580
 ARITHM. MITTEL = 1.511
 GEOMET. MITTEL = 0.654
 VARIANZ = 0.213F 01
 STAND-ABWEICH. = 1.459
 LOG. VARIANZ = 0.529E 00
 LOG. ST.ABW. = 0.727
 SCHIEFE = 0.935
 WOLBUNG = 0.124
 LOG. SCHIEFE = -0.948
 LOG. WOLBUNG = 0.198

 I STAT (OKT. 72) I
 I E.MUNDRY I
 I BODENFORSCHUNG, HANNOVER I
 I GERMANY I

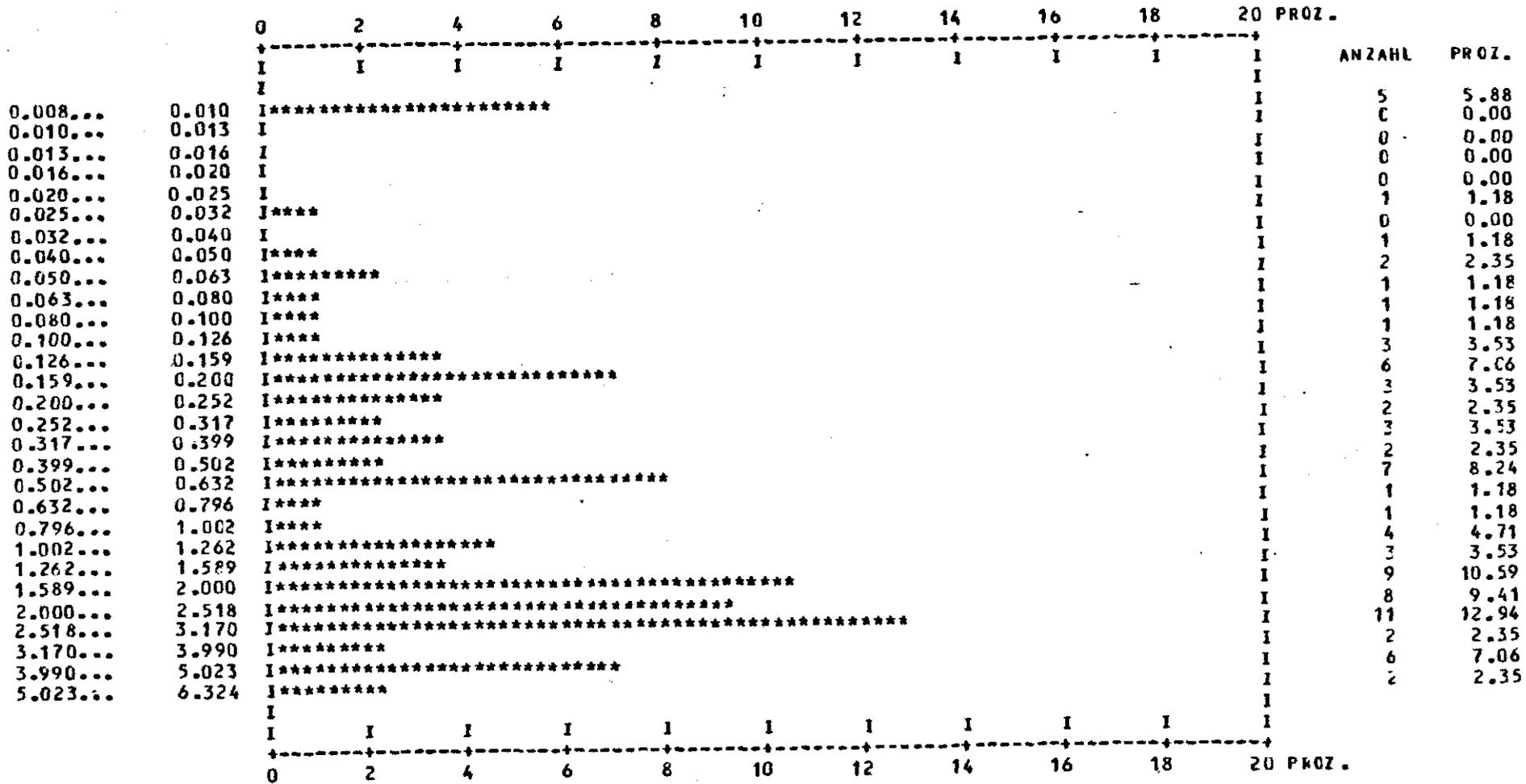
KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
...	0.008	0	0.00	0.00
0.008...	0.010	5	5.88	100.00
0.010...	0.013	0	0.00	5.88
0.013...	0.016	0	0.00	5.88
0.016...	0.020	0	0.00	5.88
0.020...	0.025	0	0.00	5.88
0.025...	0.032	1	1.18	7.06
0.032...	0.040	0	0.00	7.06
0.040...	0.050	1	1.18	8.24
0.050...	0.063	2	2.35	10.59
0.063...	0.080	1	1.18	11.76
0.080...	0.100	1	1.18	12.94
0.100...	0.126	1	1.18	14.12
0.126...	0.159	3	3.53	17.65
0.159...	0.200	6	7.06	24.71
0.200...	0.252	3	3.53	28.24
0.252...	0.317	2	2.35	30.59
0.317...	0.399	3	3.53	34.12
0.399...	0.502	2	2.35	36.47
0.502...	0.632	7	8.24	44.71
0.632...	0.796	1	1.18	45.88
0.796...	1.002	1	1.18	47.06
1.002...	1.262	4	4.71	51.76
1.262...	1.589	3	3.53	55.29
1.589...	2.000	9	10.59	65.88
2.000...	2.518	8	9.41	75.29
2.518...	3.170	11	12.94	88.24
3.170...	3.990	2	2.35	90.59
3.990...	5.023	6	7.06	97.65
5.023...	6.324	2	2.35	100.00
6.324...		0	0.00	100.00

PROZENT	PERZENTIL
5.	0.010
10.	0.060
20.	0.172
25.	0.204
30.	0.299
40.	0.554
50.	1.157
60.	1.760
70.	2.212
75.	2.500
80.	2.738
90.	3.767
95.	4.608

081

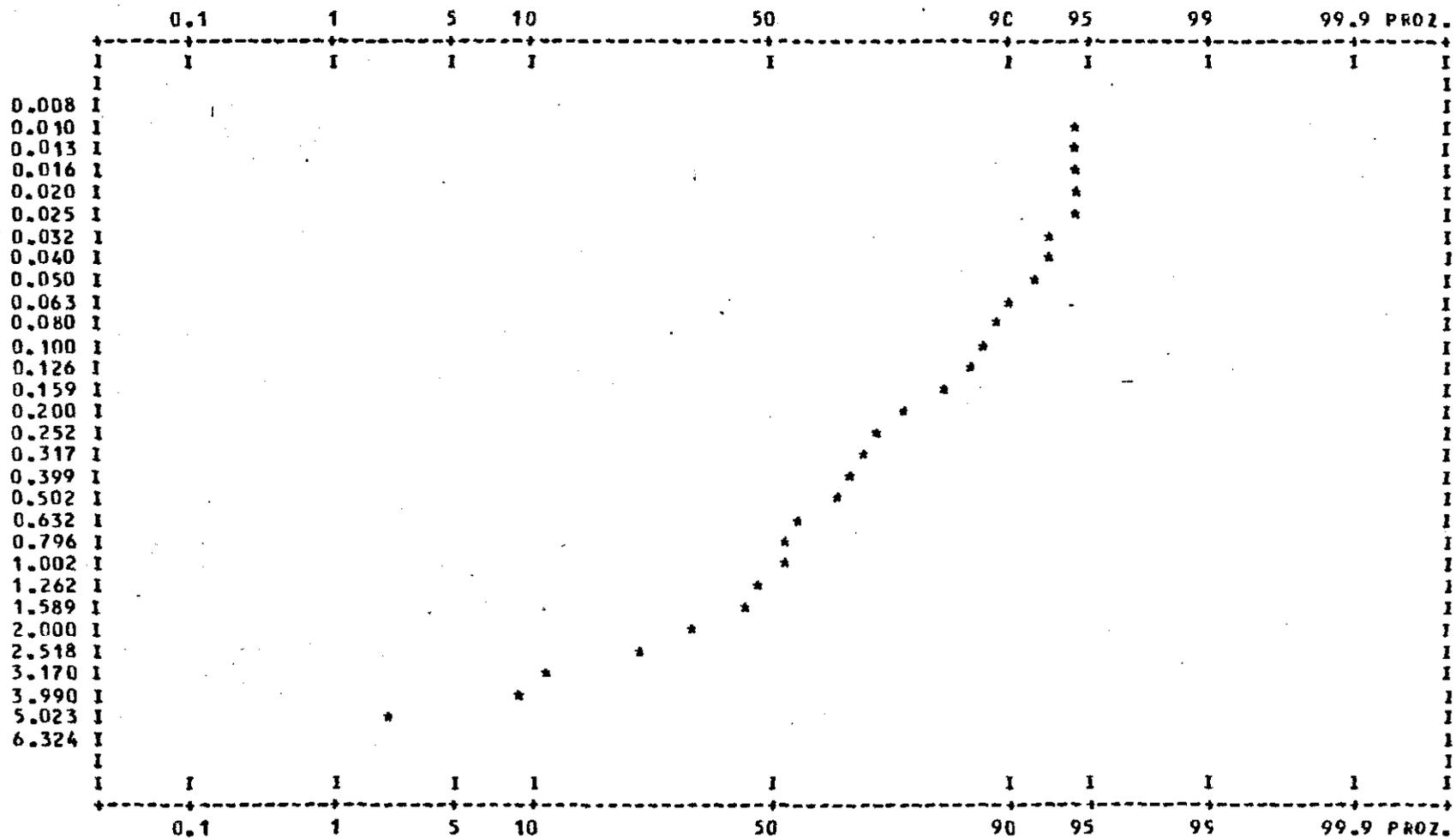
193082

082



HAUEFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN NA20

193083



SUMMENHAUEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN NA20

033

193084

S T A T I S T I K P R O J E K T Q U E R I V E R , A U S T R A L I E N K 2 0

Z A H L D E R W E R T E = 8 5

K L E I N S T E R W E R T = 0 . 0 1 0

G R O E S S T E R W E R T = 6 . 6 1 0

A R I T H M . M I T T E L = 2 . 5 2 0

G E O M E T . M I T T E L = 1 . 7 3 3

V A R I A N Z = 0 . 2 2 8 E 0 1

S T A N D . A B W E I C H . = 1 . 5 0 9

L O G . V A R I A N Z = 0 . 2 9 8 E 0 0

L O G . S T . A B W . = 0 . 5 4 6

S C H I E F E = 0 . 4 1 9

W O E L B U N G = - 0 . 1 6 5

L O G . S C H I E F E = - 2 . 6 9 8

L O G . W O E L B U N G = 8 . 4 3 4

----->

I S T A T (O K T . 7 2) I

I E . M U N D R Y I

I B O D E N F O R S C H U N G , H A N N O V E R I

I G E R M A N Y I

----->

084

KLASSE	ANZAHL	ANZAHL (PROZ.)	SURPE (PROZ.)	SUMME (RUECKW.)
...	0.008	0	0.00	0.00
0.008...	0.010	3	3.53	100.00
0.010...	0.013	0	0.00	3.53
0.013...	0.016	0	0.00	3.53
0.016...	0.020	0	0.00	3.53
0.020...	0.025	0	0.00	3.53
0.025...	0.032	0	0.00	3.53
0.032...	0.040	0	0.00	3.53
0.040...	0.050	0	0.00	3.53
0.050...	0.063	0	0.00	3.53
0.063...	0.080	0	0.00	3.53
0.080...	0.100	0	0.00	3.53
0.100...	0.126	1	1.18	4.71
0.126...	0.159	1	1.18	5.88
0.159...	0.200	0	0.00	5.88
0.200...	0.252	0	0.00	5.88
0.252...	0.317	0	0.00	5.88
0.317...	0.399	3	3.53	9.41
0.399...	0.502	1	1.18	10.59
0.502...	0.632	0	0.00	10.59
0.632...	0.796	2	2.35	12.94
0.796...	1.002	3	3.53	16.47
1.002...	1.262	5	5.88	22.35
1.262...	1.589	6	7.06	29.41
1.589...	2.000	9	10.59	40.00
2.000...	2.518	11	12.94	52.94
2.518...	3.170	13	15.29	68.24
3.170...	3.990	15	17.65	85.88
3.990...	5.023	5	5.88	91.76
5.023...	6.324	6	7.06	98.82
6.324...	7.962	1	1.18	100.00
7.962...		0	0.00	100.00

PROZENT-	PERZENTIL
5.	0.134
10.	0.448
20.	1.151
25.	1.376
30.	1.609
40.	2.000
50.	2.389
60.	2.800
70.	3.243
75.	3.462
80.	3.695
90.	4.688
95.	5.583

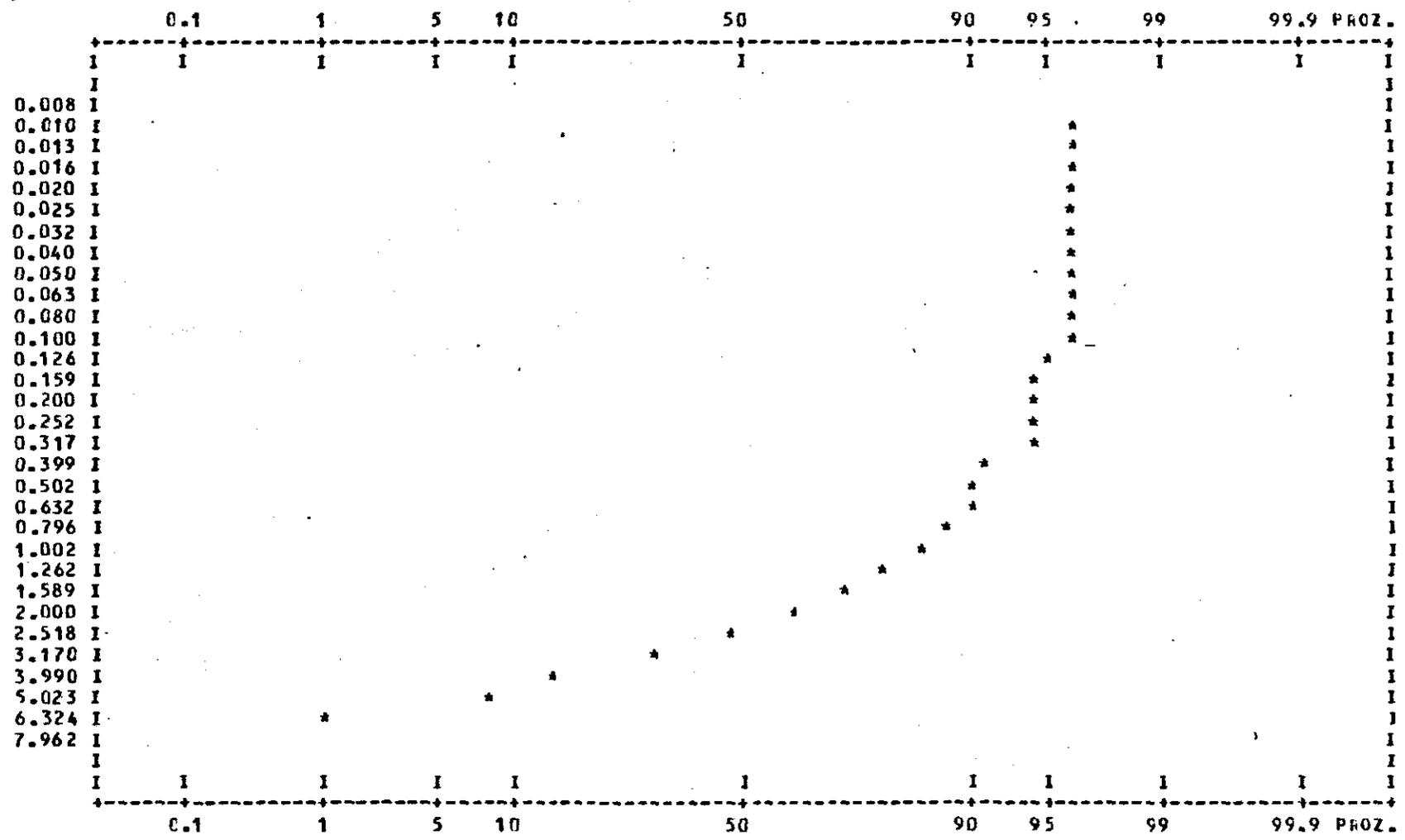
193083

085

	0	2	4	6	8	10	12	14	16	18	20	PROZ.		
	I	I	I	I	I	I	I	I	I	I	I		ANZAHL	PROZ.
0.008...	I													
0.010...	I												3	3.53
0.013...	I												0	0.00
0.016...	I												0	0.00
0.020...	I												0	0.00
0.025...	I												0	0.00
0.032...	I												0	0.00
0.040...	I												0	0.00
0.050...	I												0	0.00
0.063...	I												0	0.00
0.080...	I												0	0.00
0.100...	I												1	1.18
0.126...	I												1	1.18
0.159...	I												0	0.00
0.200...	I												0	0.00
0.252...	I												0	0.00
0.317...	I												0	0.00
0.399...	I												3	3.53
0.502...	I												1	1.18
0.632...	I												0	0.00
0.796...	I												2	2.35
1.002...	I												3	3.53
1.262...	I												5	5.88
1.589...	I												6	7.06
2.000...	I												9	10.59
2.518...	I												11	12.54
3.170...	I												13	15.29
3.990...	I												15	17.65
5.023...	I												5	5.88
6.324...	I												6	7.06
	I												1	1.18
	I													
	I	I	I	I	I	I	I	I	I	I	I			
	0	2	4	6	8	10	12	14	16	18	20	PROZ.		

HAEUFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN K20

193086



SUMMENHAUEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN K20

086

193087

087

S T A T I S T I K P R O J E K T Q U E R I V E R , A U S T R A L I E N P 2 0 5

Z A H L D E R W E R T E = 8 5

K L E I N S T E R W E R T = 0 . 0 1 0

G R O E S S T E R W E R T = 0 . 6 5 0

A R I T H M . M I T T E L = 0 . 1 7 7

G E O M E T . M I T T E L = 0 . 1 2 1

V A R I A N Z = 0 . 2 2 7 E - 0 1

S T A N D . A B W E I C H . = 0 . 1 5 1

L O G . V A R I A N Z = 0 . 1 6 4 E 0 0

L O G . S T . A B W . = 0 . 4 0 5

S C H I E F E = 1 . 3 5 3

W O E L B U N G = 1 . 4 3 6

L O G . S C H I E F E = - 0 . 2 9 0

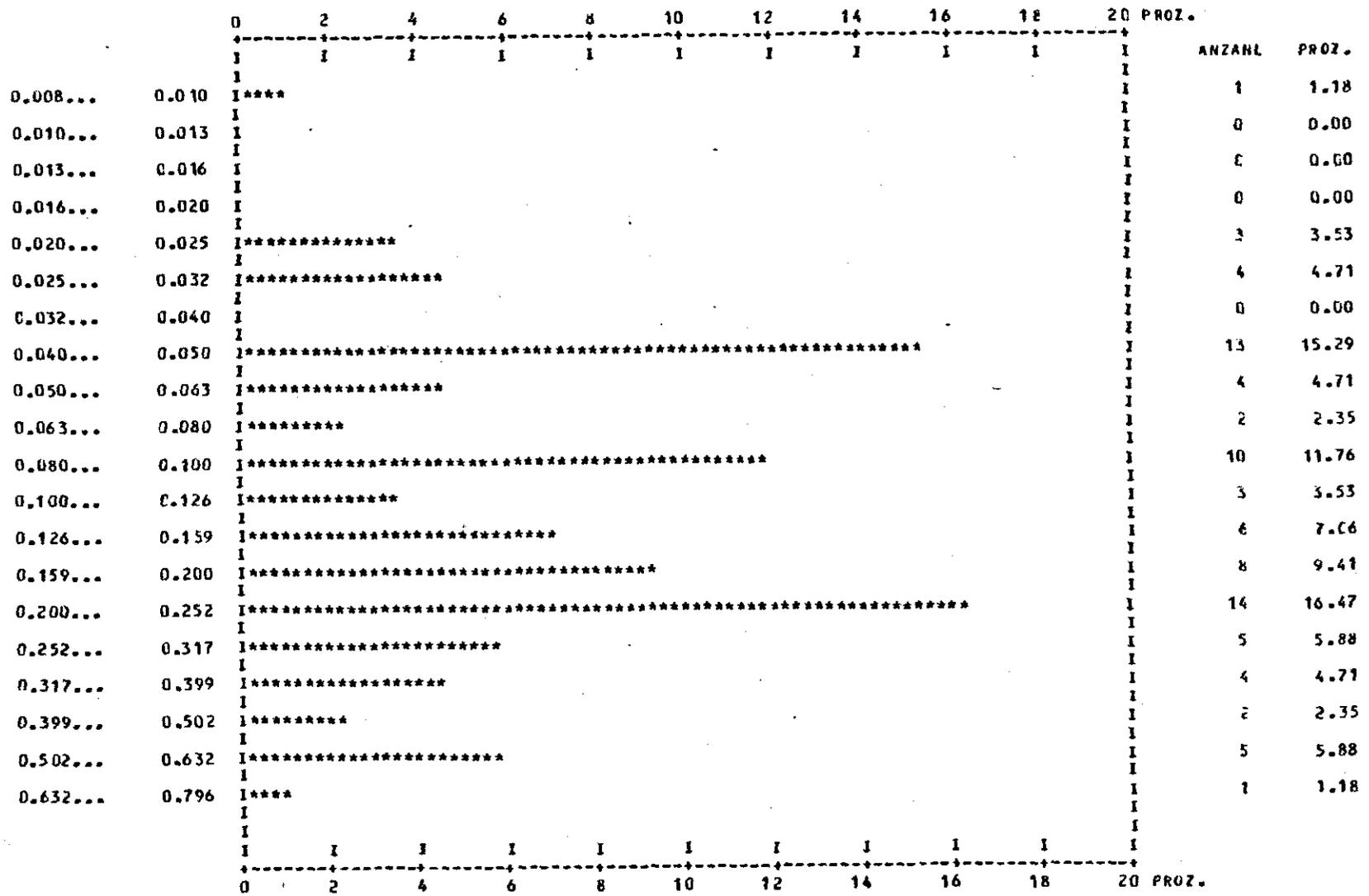
L O G . W O E L B U N G = - 0 . 5 6 3

-----+
 I S T A T (O K T . 7 2) I
 I E . M U N D R Y I
 I B O D E N F O R S C H U N G , H A N N O V E R I
 I G E R M A N Y I
 -----+

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)	PROZENT	PERZENTIL
...	0	0.00	0.00	100.00	5.	0.026
0.008...	1	1.18	1.18	100.00	10.	0.040
0.010...	0	0.00	1.18	98.82	20.	0.047
0.013...	0	0.00	1.18	98.82	25.	0.051
0.016...	0	0.00	1.18	98.82	30.	0.067
0.020...	3	3.53	4.71	98.82	40.	0.094
0.025...	4	4.71	9.41	95.29	50.	0.139
0.032...	0	0.00	9.41	90.59	60.	0.183
0.040...	13	15.29	24.71	90.59	70.	0.219
0.050...	4	4.71	29.41	75.29	75.	0.235
0.063...	2	2.35	31.76	70.59	80.	0.252
0.080...	10	11.76	43.53	68.24	90.	0.388
0.100...	3	3.53	47.06	56.47	95.	0.545
0.126...	6	7.06	54.12	52.94		
0.159...	8	9.41	63.53	45.88		
0.200...	14	16.47	80.00	36.47		
0.252...	5	5.88	85.88	20.00		
0.317...	4	4.71	90.59	14.12		
0.399...	2	2.35	92.94	9.41		
0.502...	5	5.88	98.82	7.06		
0.632...	1	1.18	100.00	1.18		
0.796...	0	0.00	100.00	0.00		

193088

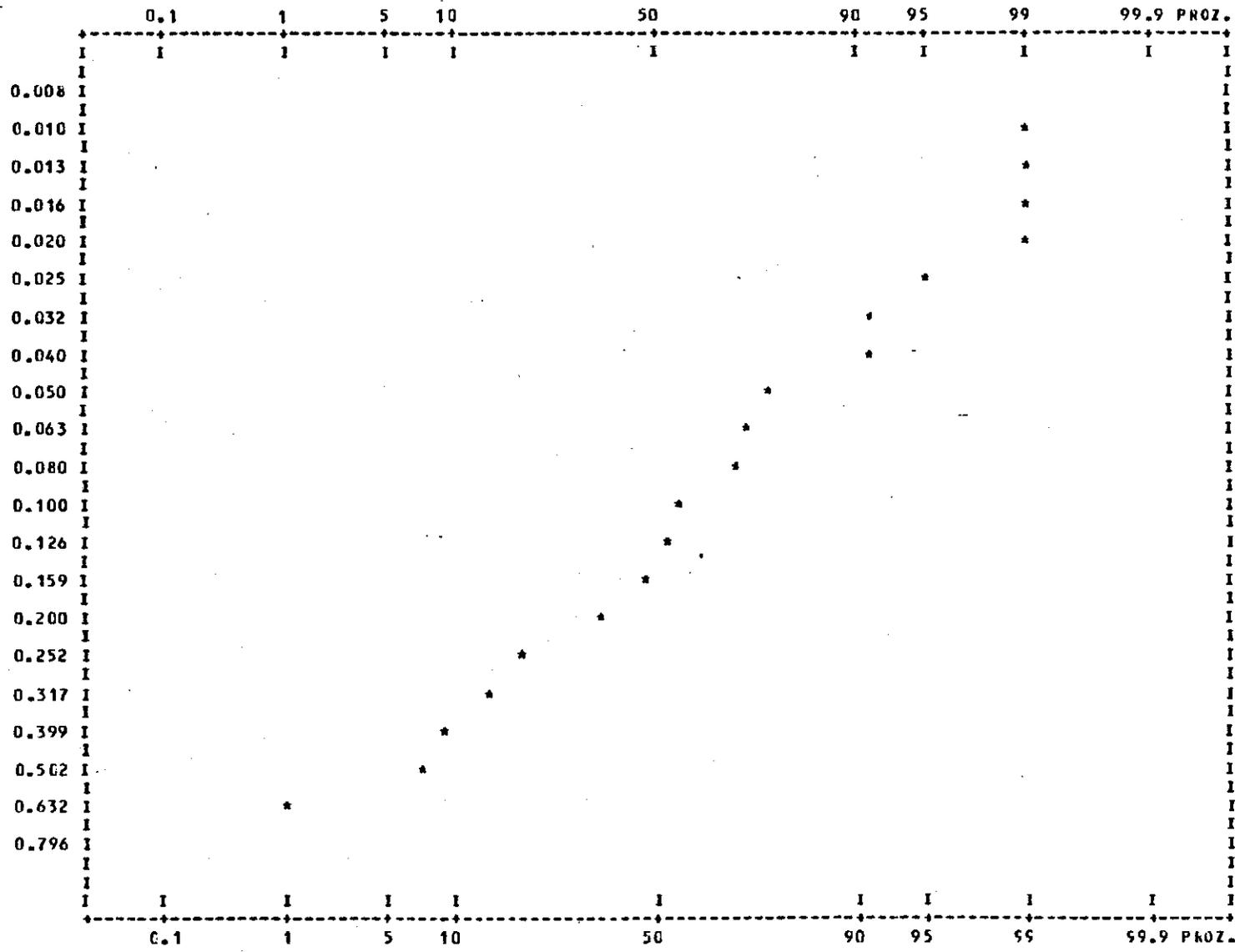
088



HAUEFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN P205

193089

089



STATISTIK PROJEKT QUE RIVER, AUSTRALIEN BA

ZAHL DER WERTE = 85
 KLEINSTER WERT = 68.000
 GROSSTER WERT = 3547.000
 ARITHM. MITTEL = 968.023
 GEOMET. MITTEL = 743.113
 VARIANZ = 0.500E 06
 STAND. ABWEICH. = 707.155
 LOG. VARIANZ = 0.115E 00
 LOG. ST. ABW. = 0.340
 SCHIEFE = 1.512
 WOELBUNG = 2.387
 LOG. SCHIEFE = -0.609
 LOG. WOELBUNG = 0.724

STAT (OPT. 72)
 E. MUNDRY
 BODENFORSCHUNG, HANNOVER
 GERMANY

090

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
...	63.241	0	0.00	100.00
63.241...	79.616	1	1.18	100.00
79.616...	100.230	1	1.18	98.82
100.230...	126.182	1	1.18	97.65
126.182...	158.854	1	1.18	96.47
158.854...	199.985	1	1.18	95.29
199.985...	251.766	3	3.53	94.12
251.766...	316.954	3	3.53	90.59
316.954...	399.020	2	2.35	87.06
399.020...	502.336	6	7.06	84.71
502.336...	632.403	13	15.29	77.65
632.403...	796.147	13	15.29	62.35
796.147...	1002.289	11	12.94	47.06
1002.289...	1261.805	8	9.41	34.12
1261.805...	1588.516	8	9.41	24.71
1588.516...	1999.821	5	5.88	15.29
1999.821...	2517.622	3	3.53	9.41
2517.622...	3169.494	4	4.71	5.88
3169.494...	3990.151	1	1.18	1.18
3990.248...		0	0.00	100.00

PROZENT	PERZENTIL
5.	168.266
10.	261.615
20.	465.224
25.	522.759
30.	563.630
40.	655.207
50.	761.662
60.	902.690
70.	1108.518
75.	1252.760
80.	1415.769
90.	1954.307
95.	2628.704

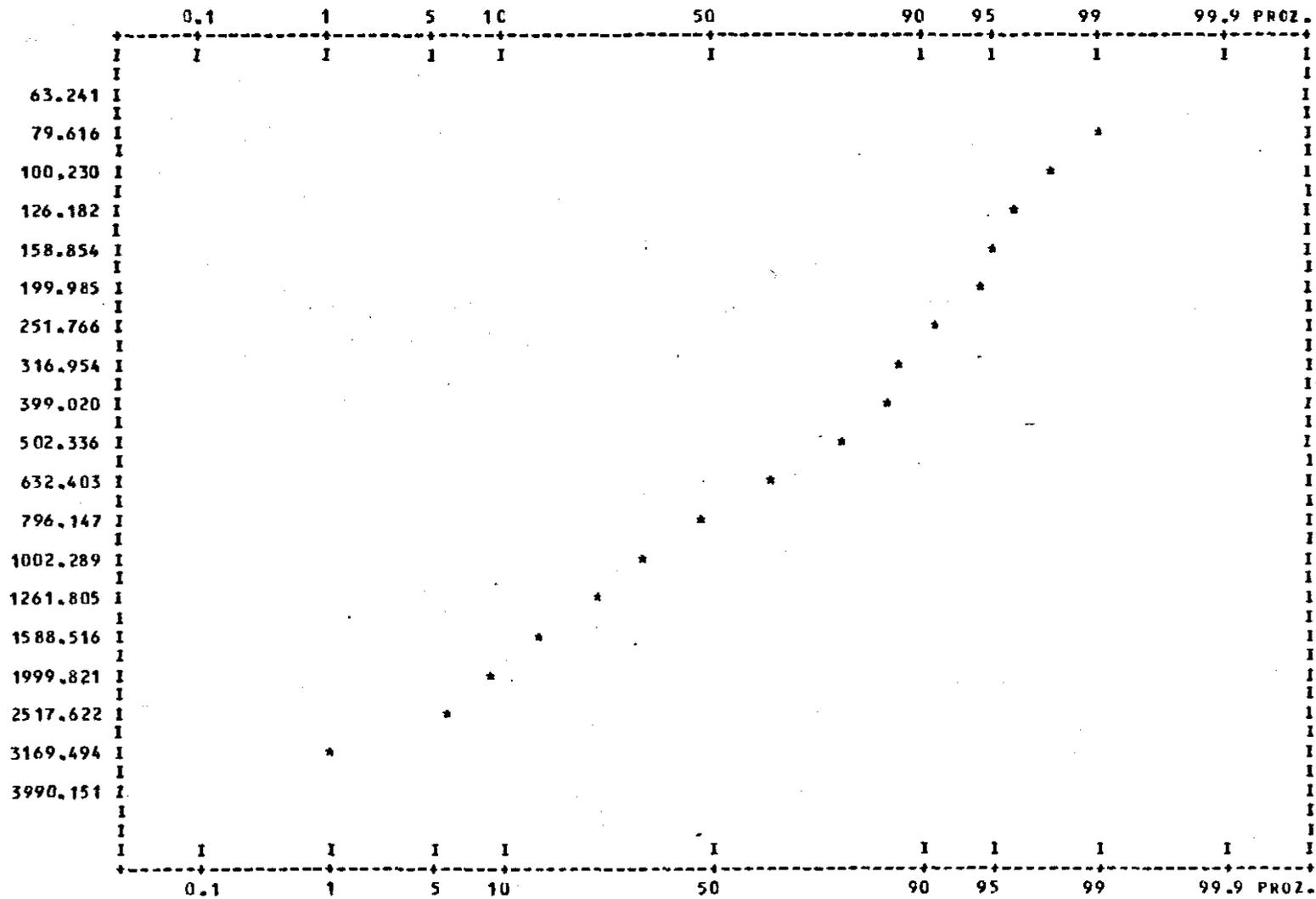
193091

091

			0	2	4	6	8	10	12	14	16	18	20	PROZ.		ANZAHL	PROZ.
			I	I	I	I	I	I	I	I	I	I	I				
63.241...	79.616	I****	I													1	1.18
79.616...	100.230	I****	I													1	1.18
100.230...	126.182	I****	I													1	1.18
126.182...	158.854	I****	I													1	1.18
158.854...	199.985	I****	I													1	1.18
199.985...	251.766	I*****	I													3	3.53
251.766...	316.954	I*****	I													3	3.53
316.954...	399.020	I*****	I													2	2.35
399.020...	502.336	I*****	I													6	7.06
502.336...	632.403	I*****	I													13	15.29
632.403...	796.147	I*****	I													13	15.29
796.147...	1002.289	I*****	I													11	12.94
1002.289...	1261.805	I*****	I													8	9.41
1261.805...	1588.516	I*****	I													8	9.41
1588.516...	1999.821	I*****	I													5	5.88
1999.821...	2517.622	I*****	I													3	3.53
2517.622...	3169.494	I*****	I													4	4.71
3169.494...	3990.151	I****	I													1	1.18
			I	I	I	I	I	I	I	I	I	I	I				

HAUEFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN BA

193092



SUMMENHAEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN BA

032

193093

STATISTIK PROJEKT QUE RIVER, AUSTRALIEN CE

ZAHL DER WERTE # 85
 KLEINSTER WERT = 22.000
 GROSSTER WERT = 248.000
 ARITHM. MITTEL = 113.447
 GEOMET. MITTEL = 100.889
 VARIANZ = 0.277E 04
 STAND. ABWEICH. = 52.623
 LOG. VARIANZ = 0.496E-01
 LOG. ST. ABW. = 0.223
 SCHIEFE = 0.634
 WOELBUNG = -0.049
 LOG. SCHIEFE = -0.648
 LOG. WOELBUNG = 0.562

STAT (OKT. 72)
 E. MUNDORY
 BGDENFGRSCHUNG, HANNOVER
 GERPANY

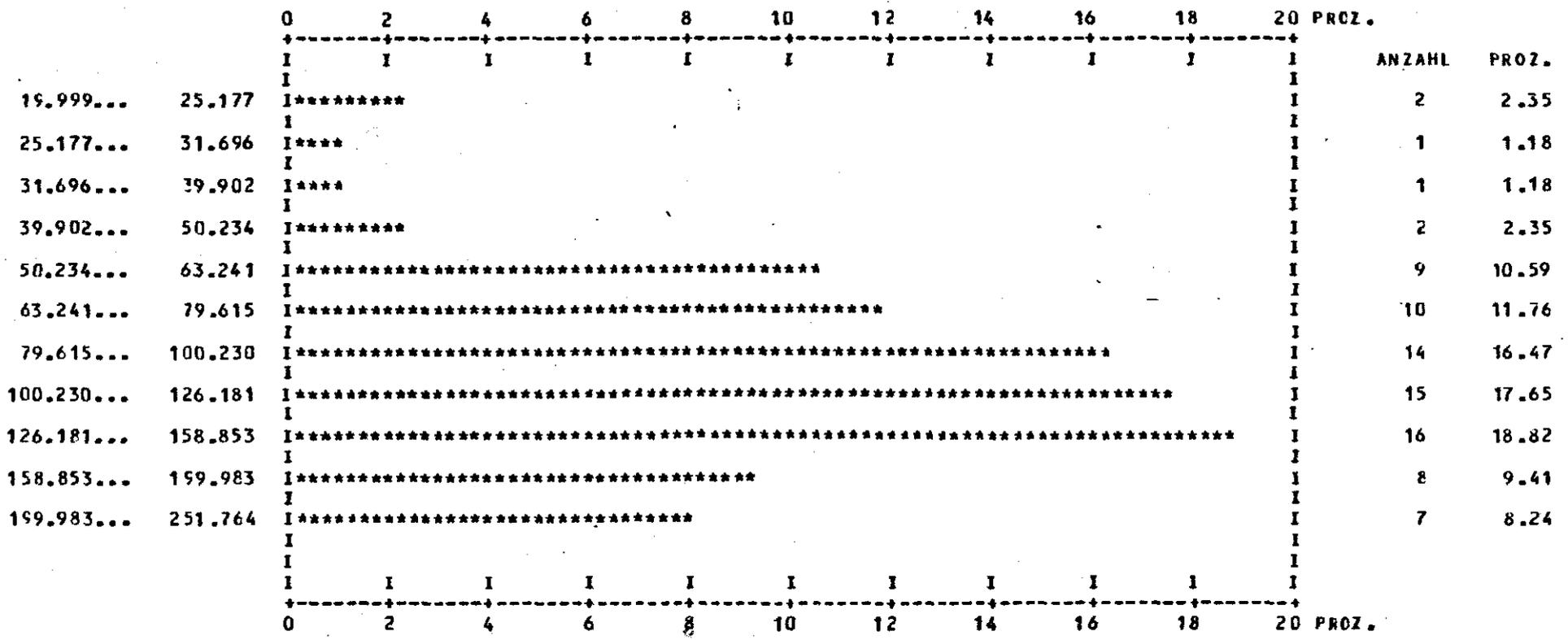
KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
...	19.999	0	0.00	0.00
19.999...	25.177	2	2.35	100.00
25.177...	31.696	1	1.18	97.65
31.696...	39.902	1	1.18	96.47
39.902...	50.234	2	2.35	95.29
50.234...	63.241	9	10.59	92.94
63.241...	79.615	10	11.76	82.35
79.615...	100.230	14	16.47	70.59
100.230...	126.181	15	17.65	54.12
126.181...	158.853	16	18.82	36.47
158.853...	199.983	8	9.41	17.65
199.983...	251.764	7	8.24	8.24
251.768...		0	0.00	0.00

PROZENT	PERZENTIL
5.	41.067
10.	53.552
20.	66.221
25.	73.029
30.	80.273
40.	92.317
50.	105.762
60.	120.502
70.	136.575
75.	145.188
80.	154.346
90.	191.533
95.	218.917

083

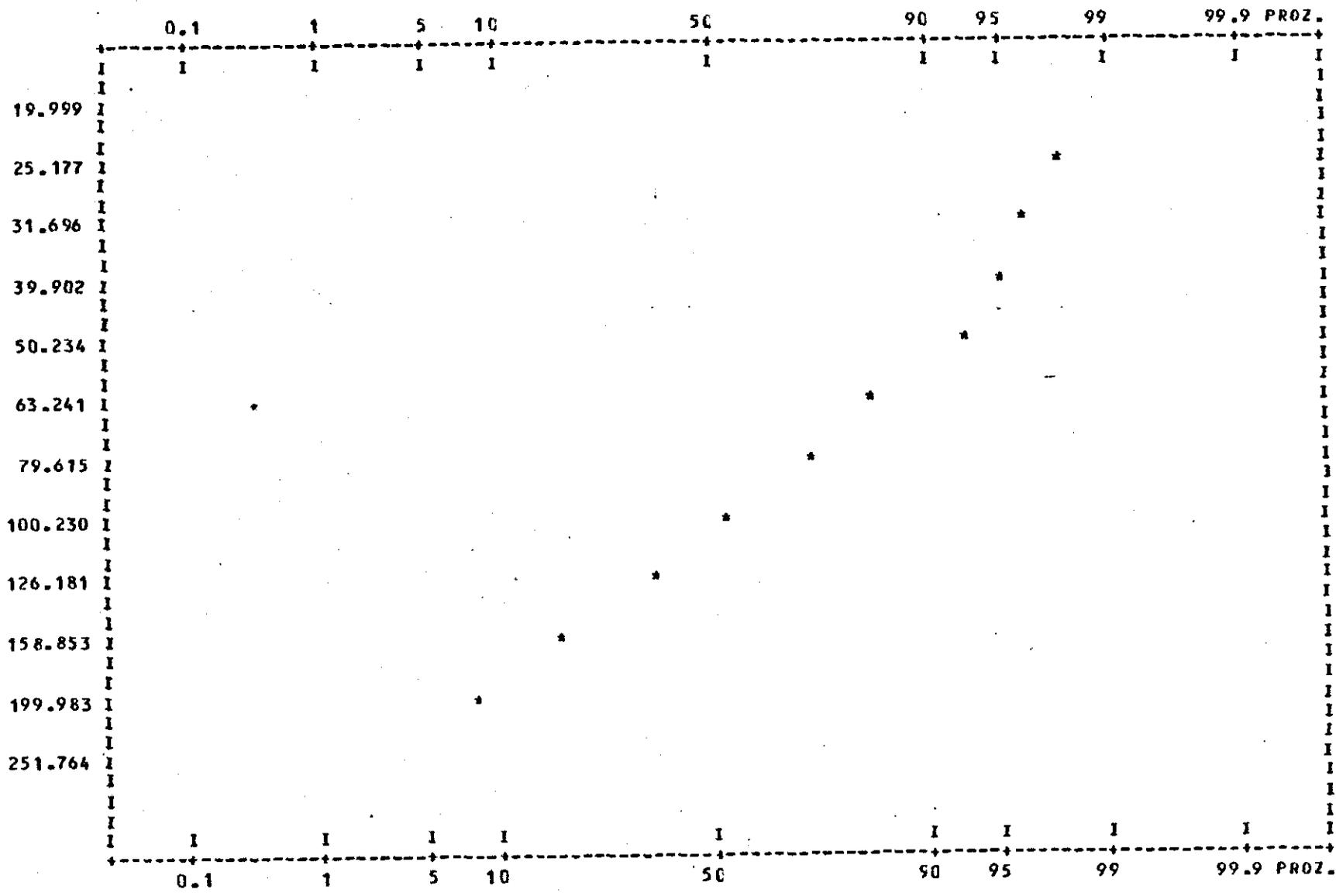
193094

094



HAEUFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN CE

198095



SUMMENHAUEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN CE

095

193096

0396

STATISTIK PROJEKT QUE RIVER, AUSTRALIEN CO

ZAHL DER WERTE = 85
 KLEINSTER WERT = 1.000
 GROESSTER WERT = 72.000
 ARITHM. MITTEL = 19.282
 GEOMET. MITTEL = 9.277
 VARIANZ = 0.321E 03
 STAND. ABWEICH. = 17.923
 LOG. VARIANZ = 0.400E 00
 LOG. ST. ABW. = 0.632
 SCHIEFE = 0.840
 WOELBUNG = -0.015
 LOG. SCHIEFE = -0.489
 LOG. WOELBUNG = -1.277

 I STAT (OKT. 72) I
 I E. MUNDRY I
 I BODENFORSCHUNG, HANNOVER I
 I GERMANY I

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
...	0	0.00	0.00	100.00
0.796...	19	22.35	22.35	100.00
1.002...	0	0.00	22.35	77.65
1.262...	0	0.00	22.35	77.65
1.589...	0	0.00	22.35	77.65
2.000...	3	3.53	25.88	77.65
2.518...	2	2.35	28.24	74.12
3.170...	0	0.00	28.24	71.76
3.990...	5	5.88	34.12	71.76
5.023...	1	1.18	35.29	65.88
6.324...	4	4.71	40.00	64.71
7.962...	3	3.53	43.53	60.00
10.023...	1	1.18	44.71	56.47
12.618...	5	5.88	50.59	55.29
15.885...	4	4.71	55.29	49.41
19.999...	6	7.06	62.35	44.71
25.177...	13	15.29	77.65	37.65
31.695...	6	7.06	84.71	22.35
39.902...	7	8.24	92.94	15.29
50.234...	4	4.71	97.65	7.06
63.240...	2	2.35	100.00	2.35
79.616...	0	0.00	100.00	0.00

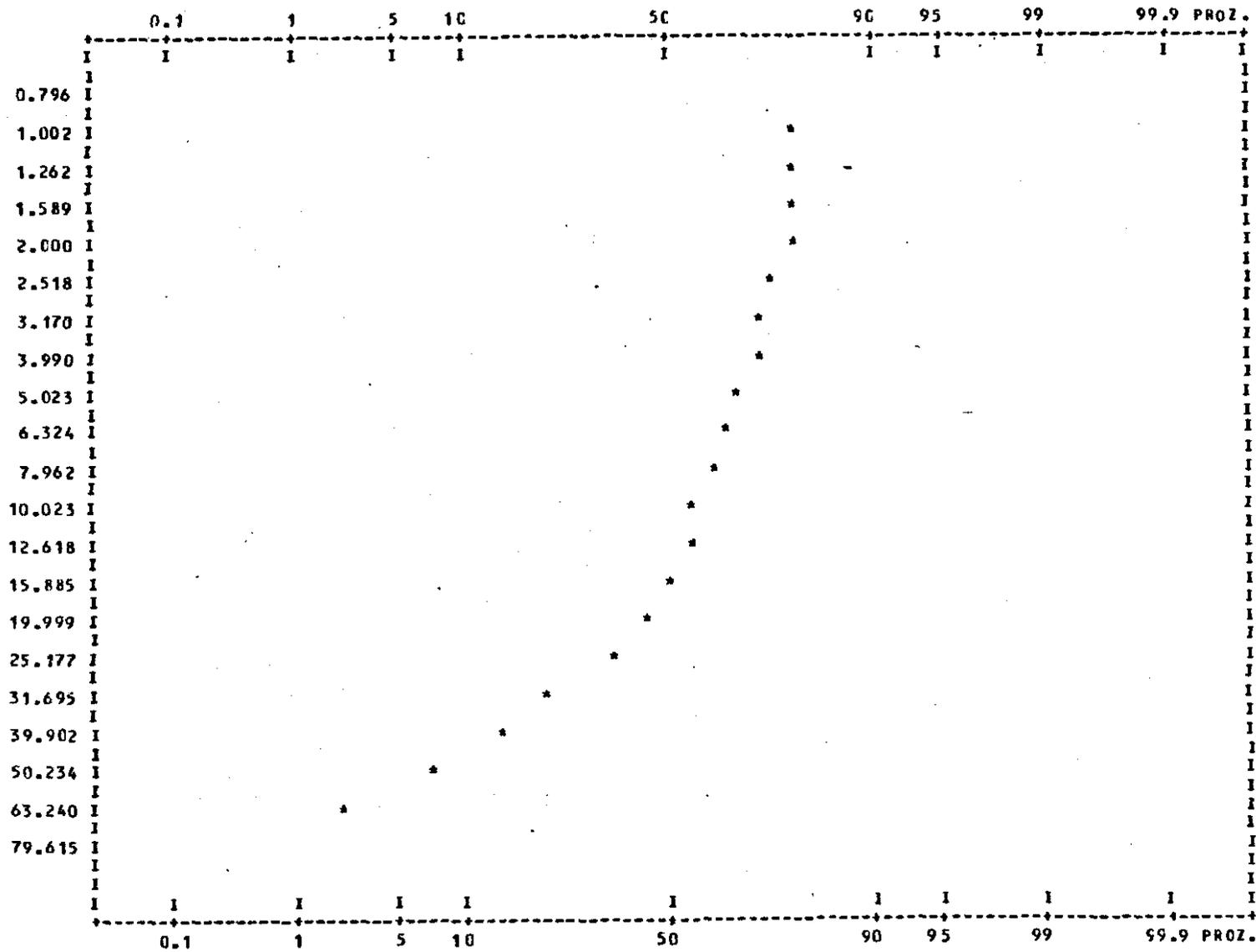
PROZENT	PERZENTIL
5.	0.838
10.	0.883
20.	0.978
25.	2.377
30.	4.276
40.	7.962
50.	15.524
60.	23.317
70.	28.249
75.	30.457
80.	34.224
90.	46.268
95.	55.558

193097

097

		0	5	10	15	20	25	30	35	40	45	50	PROZ.		
		I	I	I	I	I	I	I	I	I	I	I		ANZAHL	PROZ.
0.796...	1.002	I*****										I		19	22.35
1.002...	1.262	I										I		0	0.00
1.262...	1.589	I										I		0	0.00
1.589...	2.000	I										I		0	0.00
2.000...	2.518	I*****										I		3	3.53
2.518...	3.170	I***										I		2	2.35
3.170...	3.990	I										I		0	0.00
3.990...	5.023	I*****										I		5	5.88
5.023...	6.324	I*										I		1	1.18
6.324...	7.962	I*****										I		4	4.71
7.962...	10.023	I*****										I		3	3.53
10.023...	12.618	I*										I		1	1.18
12.618...	15.885	I*****										I		5	5.88
15.885...	19.999	I*****										I		4	4.71
19.999...	25.177	I*****										I		6	7.06
25.177...	31.695	I*****										I		13	15.29
31.695...	39.902	I*****										I		6	7.06
39.902...	50.234	I*****										I		7	8.24
50.234...	63.240	I*****										I		4	4.71
63.240...	79.615	I***										I		2	2.35
		I	I	I	I	I	I	I	I	I	I	I			
		0	5	10	15	20	25	30	35	40	45	50	PROZ.		

193098



099

193099

093

S T A T I S T I K P R O J E K T Q U E R I V E R , A U S T R A L I E N C R

ZAHL DER WERTE = 85
 KLEINSTER WERT * 1.000
 GROSSTER WERT = 1153.000
 ARITHM. MITTEL = 165.776
 GEOMET. MITTEL = 31.191
 VARIANZ = 0.789E 05
 STAND. ABWEICH. = 280.853
 LOG. VARIANZ = 0.899E 00
 LOG. ST. ABW. = 0.948
 SCHIEFE = 2.192
 WOELBUNG * 3.864
 LOG. SCHIEFE * -0.164
 LOG. WOELBUNG * -1.109

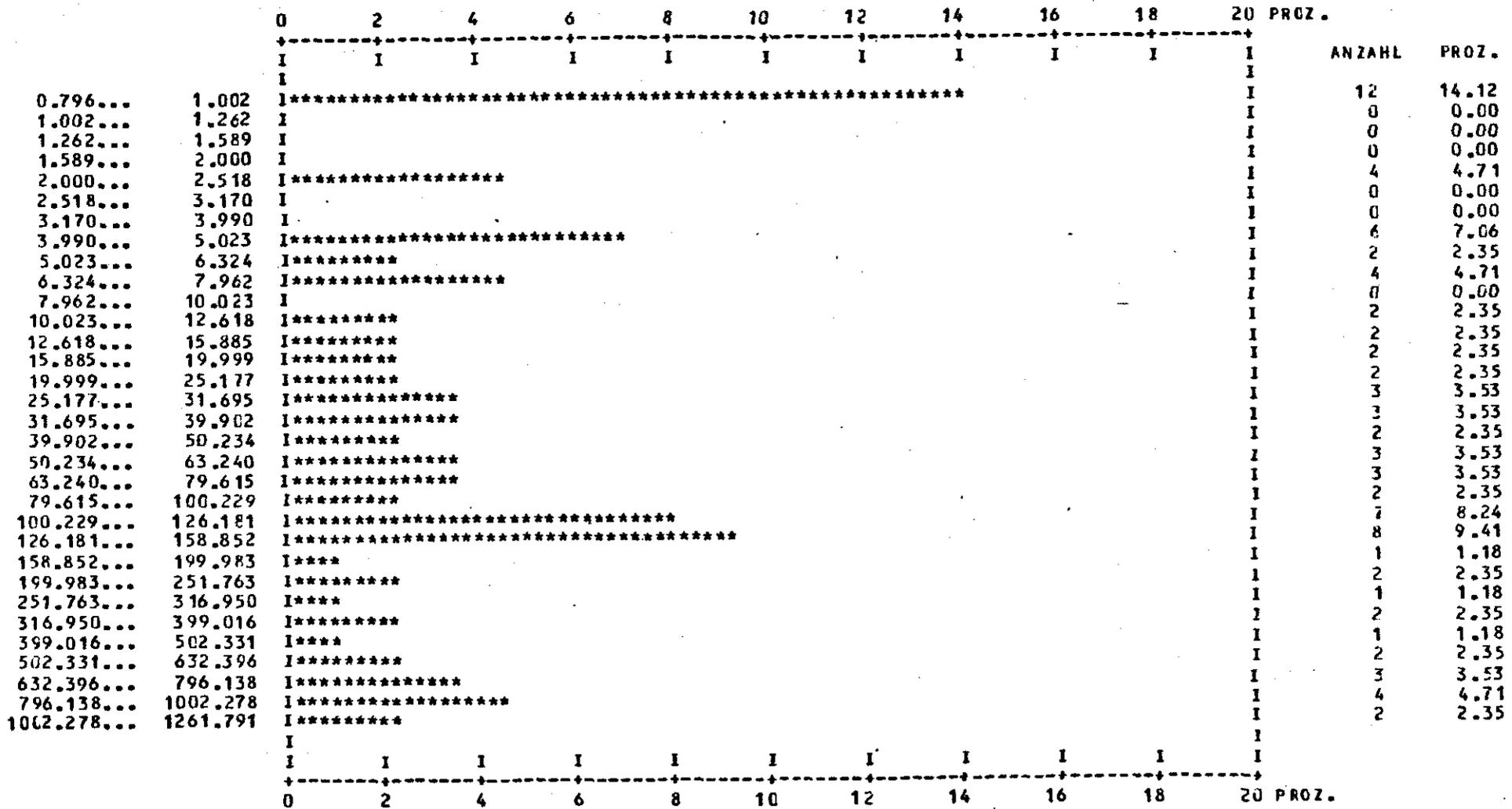
 I STAT (OKT. 72) I
 I E. HUNDRY I
 I BODENFORSCHUNG, HANNOVER I
 I GERMANY I

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
...	0	0.00	0.00	100.00
0.796...	12	14.12	14.12	100.00
1.002...	0	0.00	14.12	85.88
1.262...	0	0.00	14.12	85.88
1.589...	0	0.00	14.12	85.88
2.000...	4	4.71	18.82	85.88
2.518...	0	0.00	18.82	81.18
3.170...	0	0.00	18.82	81.18
3.990...	6	7.06	25.88	81.18
5.023...	2	2.35	28.24	74.12
6.324...	4	4.71	32.94	71.76
7.962...	0	0.00	32.94	67.06
10.023...	2	2.35	35.29	67.06
12.618...	2	2.35	37.65	64.71
15.885...	2	2.35	40.00	62.35
19.999...	2	2.35	42.35	60.00
25.177...	3	3.53	45.88	57.65
31.695...	3	3.53	49.41	54.12
39.902...	2	2.35	51.76	50.59
50.234...	3	3.53	55.29	48.24
63.240...	3	3.53	58.82	44.71
79.615...	2	2.35	61.18	41.18
100.229...	7	8.24	69.41	38.82
126.181...	8	9.41	78.82	30.59
158.852...	1	1.18	80.00	21.18
199.983...	2	2.35	82.35	20.00
251.763...	1	1.18	83.53	17.65
316.950...	2	2.35	85.88	16.47
399.016...	1	1.18	87.06	14.12
502.331...	2	2.35	89.41	12.94
632.396...	3	3.53	92.94	10.59
796.138...	4	4.71	97.65	7.06
1002.278...	2	2.35	100.00	2.35
1261.827...	0	0.00	100.00	0.00

PROZENT	PERZENTIL
5.	0.864
10.	0.937
20.	4.146
25.	4.881
30.	6.894
40.	19.999
50.	42.267
60.	89.330
70.	128.010
75.	144.667
80.	199.984
90.	657.142
95.	880.524

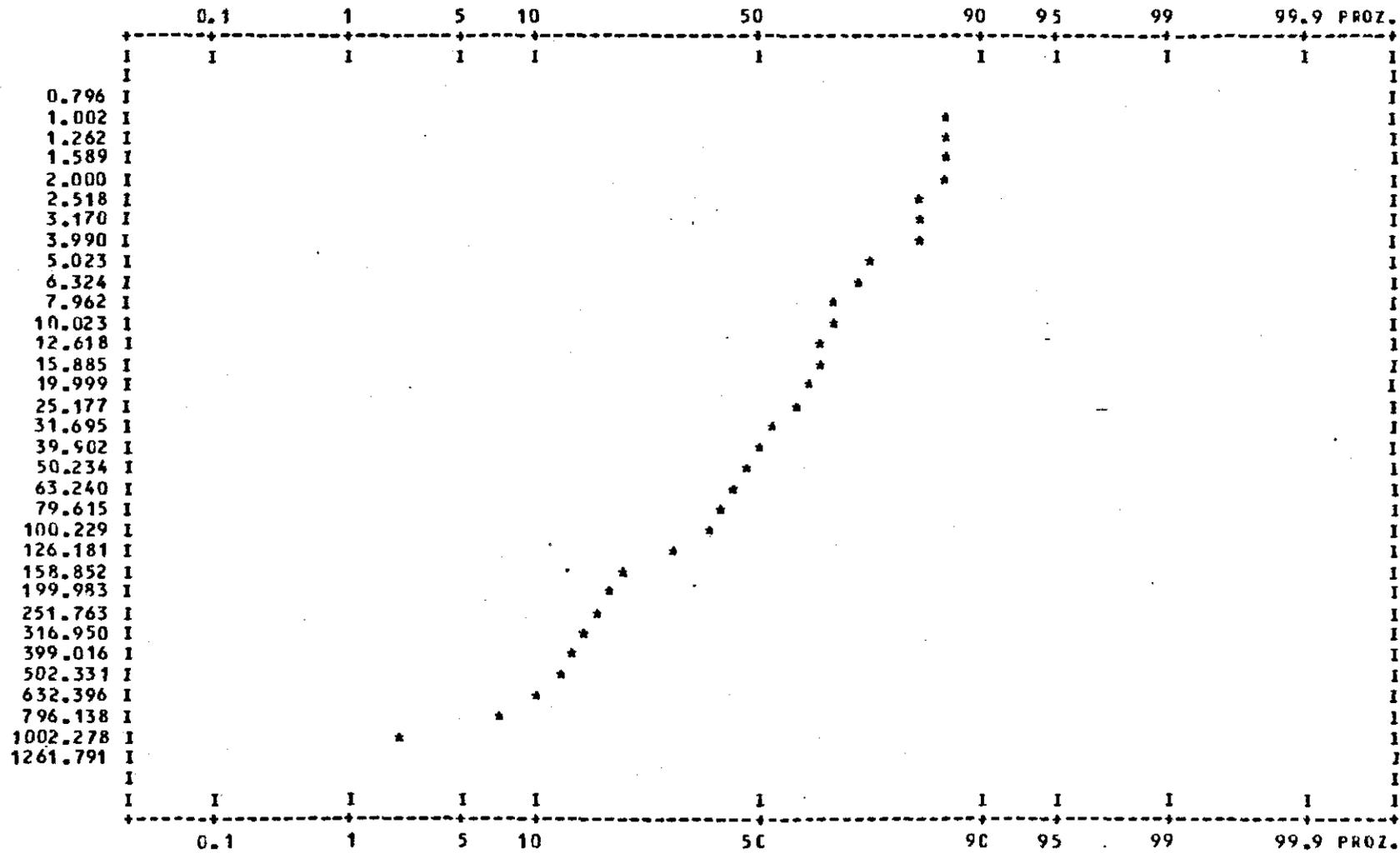
193100

100



HAUEFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN CR

193101



101

193102

SUMMENHAUEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN CR

S T A T I S T I K P R O J E K T Q U E R I V E R , A U S T R A L I E N C U

Z A H L D E R W E R T E = 85
 K L E I N S T E R W E R T = 1.000
 G R O E S S T E R W E R T = 837.000
 A R I T H M . M I T T E L = 64.000
 G L O M E T . M I T T E L = 22.781
 V A R I A N Z = 0.124E 05
 S T A N D . A B W E I C H . = 111.277
 L O G . V A R I A N Z = 0.560E 00
 L O G . S T . A B W . = 0.748
 S C H I E F E = 5.019
 W O L L B U N G = 30.665
 L O G . S C H I E F E = -0.620
 L O G . W O E L B U N G = -0.501

 I STAT (OKT. 72) I
 I E. MUNDRY I
 I BO DEN FORSCHUNG, HANNOVER I
 I GERMANY I

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKM.)
...	0	0.00	0.00	100.00
0.796...	13	15.29	15.29	100.00
1.002...	0	0.00	15.29	84.71
1.262...	0	0.00	15.29	84.71
1.589...	0	0.00	15.29	64.71
2.000...	1	1.18	16.47	84.71
2.518...	3	3.53	20.00	63.53
3.170...	0	0.00	20.00	80.00
3.990...	3	3.53	23.53	80.00
5.023...	0	0.00	23.53	76.47
6.324...	0	0.00	23.53	76.47
7.962...	1	1.18	24.71	76.47
10.023...	3	3.53	28.24	75.29
12.618...	2	2.35	30.59	71.76
15.885...	4	4.71	35.29	69.41
19.999...	6	7.06	42.35	64.71
25.177...	6	7.06	49.41	57.65
31.695...	1	1.18	50.59	50.59
39.902...	7	8.24	58.82	49.41
50.234...	4	4.71	63.53	41.18
63.240...	12	14.12	77.65	36.47
79.615...	7	8.24	85.88	22.35
100.229...	4	4.71	90.59	14.12
126.181...	2	2.35	92.94	9.41
158.852...	2	2.35	95.29	7.06
199.983...	2	2.35	97.65	4.71
251.763...	0	0.00	97.65	2.35
316.950...	0	0.00	97.65	2.35
399.016...	0	0.00	97.65	2.35
502.331...	1	1.18	98.82	2.35
632.396...	0	0.00	98.82	1.18
796.138...	1	1.18	100.00	1.18
1002.304...	0	0.00	100.00	0.00

PROZENT	PERZENTIL
5.	0.858
10.	0.926
20.	3.990
25.	10.217
30.	14.997
40.	23.317
50.	35.563
60.	53.210
70.	70.279
75.	76.251
80.	85.029
90.	122.601
95.	194.310

102

193103

103

		0	2	4	6	8	10	12	14	16	18	20	PROZ.		
		I	I	I	I	I	I	I	I	I	I	I		ANZAHL	PROZ.
0.796...	1.002	I*****												13	15.29
1.002...	1.262	I												0	0.00
1.262...	1.589	I												0	0.00
1.589...	2.000	I												0	0.00
2.000...	2.518	I****												1	1.18
2.518...	3.170	I*****												3	3.53
3.170...	3.990	I												0	0.00
3.990...	5.023	I*****												3	3.53
5.023...	6.324	I												0	0.00
6.324...	7.962	I												0	0.00
7.962...	10.023	I****												1	1.18
10.023...	12.618	I*****												3	3.53
12.618...	15.885	I*****												2	2.35
15.885...	19.999	I*****												4	4.71
19.999...	25.177	I*****												6	7.06
25.177...	31.695	I*****												6	7.06
31.695...	39.902	I****												1	1.18
39.902...	50.234	I*****												7	8.24
50.234...	63.240	I*****												4	4.71
63.240...	79.615	I*****												12	14.12
79.615...	100.229	I*****												7	8.24
100.229...	126.181	I*****												4	4.71
126.181...	158.852	I*****												2	2.35
158.852...	199.983	I*****												2	2.35
199.983...	251.763	I*****												2	2.35
251.763...	316.950	I												0	0.00
316.950...	399.016	I												0	0.00
399.016...	502.331	I												0	0.00
502.331...	632.396	I****												1	1.18
632.396...	796.138	I												0	0.00
796.138...	1002.278	I****												1	1.18
		I													
		I	I	I	I	I	I	I	I	I	I	I			

HAEUFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN CU

193104

STATISTIK PROJEKT QUE RIVER, AUSTRALIEN LA

ZAHL DER WERTE = 85
 KLEINSTER WERT = 2.000
 GROESSTER WERT = 167.000
 ARITHM. MITTEL = 75.176
 GEOMET. MITTEL = 62.216
 VARIANZ = 0.163E 04
 STAND. ABWEICH. = 40.424
 LOG. VARIANZ = 0.967E-01
 LOG. ST. ABW. = 0.311
 SCHIEFE = 0.531
 WÖFLBUNG = -0.365
 LOG. SCHIEFE = -1.696
 LOG. WÖFLBUNG = 5.516

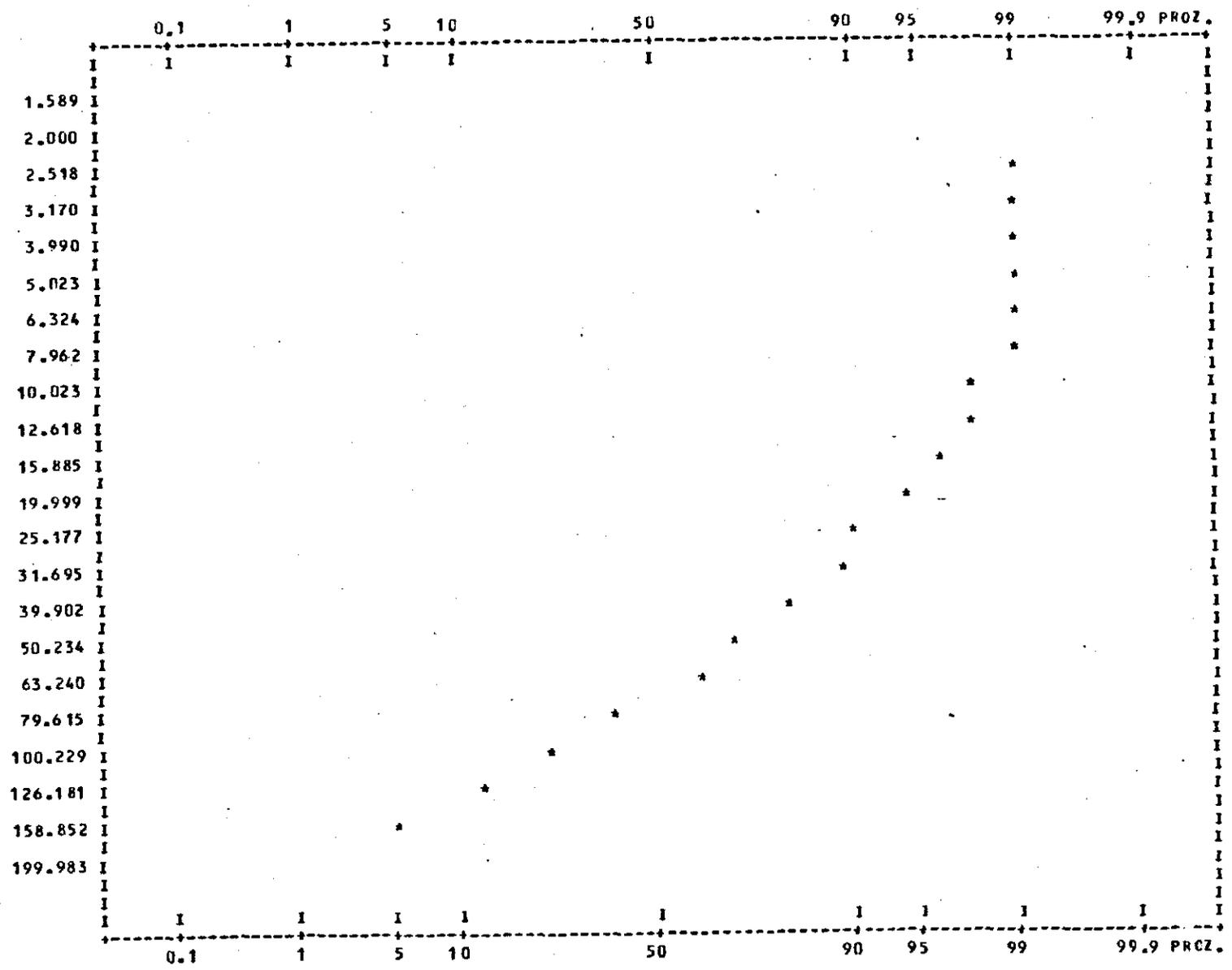
 I STAT (OKT. 72) I
 I E. MUNDRY I
 I BOdenFORSCHUNG, HANNOVER I
 I GERMANY I

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
...	1.589	0	0.00	0.00
1.589...	2.000	0	0.00	0.00
2.000...	2.518	1	1.18	1.18
2.518...	3.170	0	0.00	1.18
3.170...	3.990	0	0.00	1.18
3.990...	5.023	0	0.00	1.18
5.023...	6.324	0	0.00	1.18
6.324...	7.962	0	0.00	1.18
7.962...	10.023	1	1.18	2.35
10.023...	12.618	0	0.00	2.35
12.618...	15.885	1	1.18	3.53
15.885...	19.999	2	2.35	5.88
19.999...	25.177	4	4.71	10.59
25.177...	31.695	1	1.18	11.76
31.695...	39.902	7	8.24	20.00
39.902...	50.234	9	10.59	30.59
50.234...	63.240	8	9.41	40.00
63.240...	79.615	17	20.00	60.00
79.615...	100.229	14	16.47	76.47
100.229...	126.181	9	10.59	87.06
126.181...	158.852	7	8.24	95.29
158.852...	199.983	4	4.71	100.00
199.983...		0	0.00	100.00

PROZENT	PERZENTIL
5.	18.344
10.	24.462
20.	39.902
25.	44.485
30.	49.595
40.	63.240
50.	70.957
60.	79.615
70.	91.560
75.	98.190
80.	108.225
90.	136.996
95.	157.551

		0	2	4	6	8	10	12	14	16	18	20	PROZ.	ANZAHL	PROZ.
		I	I	I	I	I	I	I	I	I	I	I			
1.589...	2.000	I												0	0.00
2.000...	2.518	I****												1	1.18
2.518...	3.170	I												0	0.00
3.170...	3.990	I												0	0.00
3.990...	5.023	I												0	0.00
5.023...	6.324	I												0	0.00
6.324...	7.962	I												0	0.00
7.962...	10.023	I****												1	1.18
10.023...	12.618	I												0	0.00
12.618...	15.885	I****												1	1.18
15.885...	19.999	I*****												2	2.35
19.999...	25.177	I*****												4	4.71
25.177...	31.695	I****												1	1.18
31.695...	39.902	I*****												7	8.24
39.902...	50.234	I*****												9	10.59
50.234...	63.240	I*****												8	9.41
63.240...	79.615	I*****												17	20.00
79.615...	100.229	I*****												14	16.47
100.229...	126.181	I*****												9	10.59
126.181...	158.852	I*****												7	8.24
158.852...	199.983	I*****												4	4.71
		I	I	I	I	I	I	I	I	I	I	I			

HAUEFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN LA



SUMMENHAEUFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN LA

107

193108

S T A T I S T I K P R O J E K T Q U E R I V E R , A U S T R A L I E N P N

ZAHL DER WERTE = 85
 KLEINSTER WERT = 1.000
 GROESSTER WERT = 5598.000
 ARITHM. MITTEL = 765.612
 GEOMET. MITTEL = 235.307
 VARIANZ = 0.769E 06
 STAND. ABWEICH. = 877.104
 LOG. VARIANZ = 0.843E 00
 LOG. ST. ABW. = 0.918
 SCHIEFE = 2.327
 WOELBUNG = 9.741
 LOG. SCHIEFE = -0.912
 LOG. WOELBUNG = -0.137

 I STAT (ORT. 72) I
 I E. MUNDY I
 I BODENFORSCHUNG, HANNOVER I
 I GERMANY I

108

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
0.796...	0	0.00	0.00	100.00
1.002...	3	3.53	3.53	100.00
1.262...	0	0.00	3.53	96.47
1.589...	0	0.00	3.53	96.47
2.000...	0	0.00	3.53	96.47
2.518...	0	0.00	3.53	96.47
3.170...	0	0.00	3.53	96.47
3.990...	3	3.53	7.06	96.47
5.023...	1	1.18	8.24	92.94
6.324...	0	0.00	8.24	91.76
7.962...	2	2.35	10.59	91.76
10.023...	0	0.00	10.59	89.41
12.618...	2	2.35	12.94	89.41
15.885...	2	2.35	15.29	87.06
19.999...	3	3.53	18.82	84.71
25.177...	2	2.35	21.18	81.18
31.695...	3	3.53	24.71	78.82
39.902...	2	2.35	27.06	75.29
50.234...	0	0.00	27.06	72.94
63.240...	3	3.53	30.59	72.94
79.615...	0	0.00	30.59	69.41
100.229...	3	3.53	34.12	69.41
126.181...	1	1.18	35.29	65.88
158.852...	0	0.00	35.29	64.71
199.983...	2	2.35	37.65	64.71
251.763...	3	3.53	41.18	62.35
316.950...	2	2.35	43.53	58.82
399.016...	4	4.71	48.24	56.47
502.331...	6	7.06	55.29	51.76
632.396...	3	3.53	58.82	44.71
796.138...	5	5.88	64.71	41.18
1002.278...	10	11.76	76.47	35.29
1261.791...	7	8.24	84.71	23.53
1588.499...	7	8.24	92.94	15.29
1999.799...	4	4.71	97.65	7.06
2517.594...	1	1.18	98.82	2.35
3169.459...	0	0.00	98.82	1.18
3990.107...	0	0.00	98.82	1.18
5023.242...	1	1.18	100.00	1.18
6324.113...	0	0.00	100.00	0.00

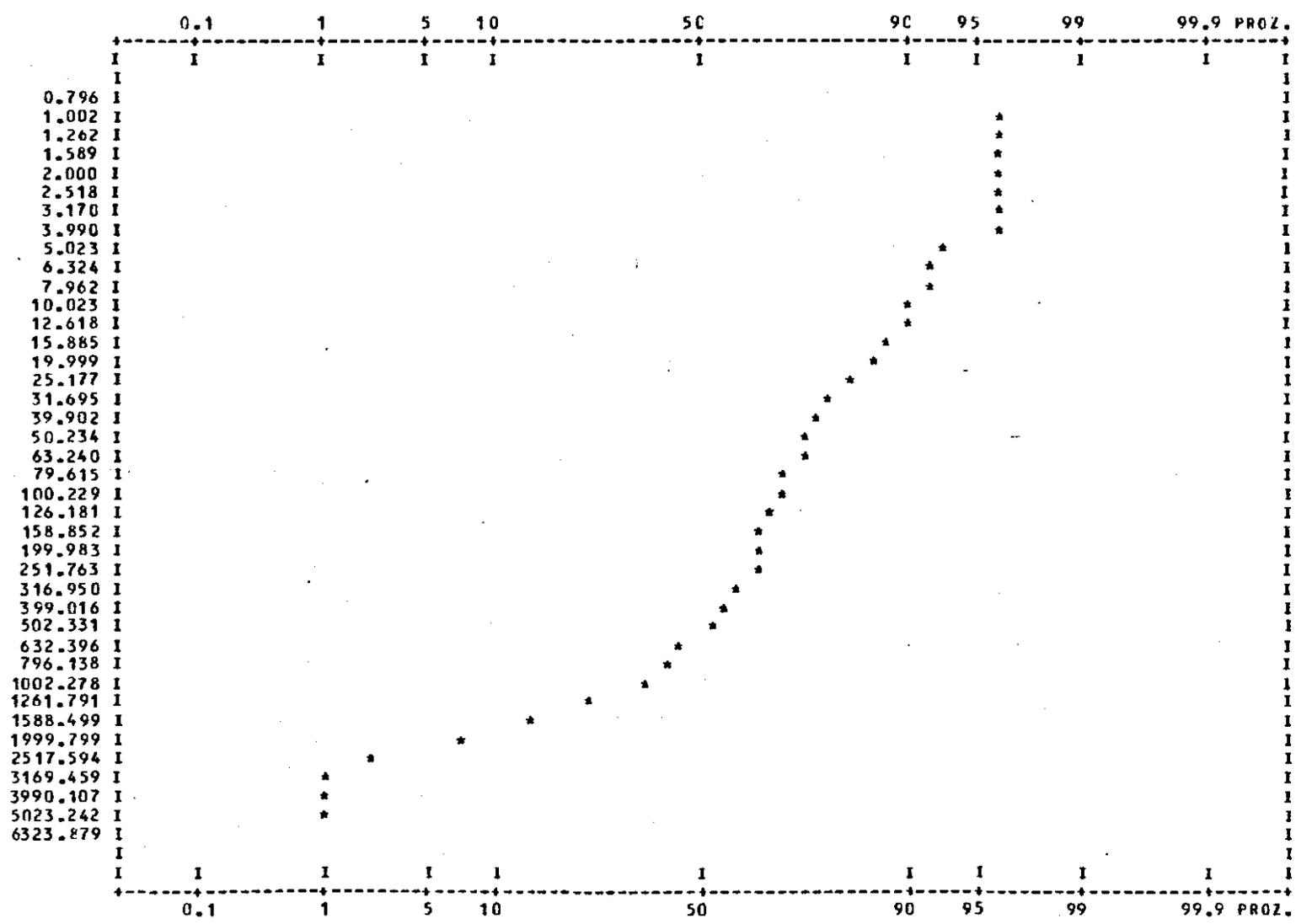
PROZENT	PERZENTIL
5.	4.392
10.	9.462
20.	28.249
25.	41.067
30.	76.618
40.	293.534
50.	532.096
60.	833.662
70.	1111.701
75.	1225.995
80.	1392.662
90.	1841.930
95.	2211.765

193109

601

		0	2	4	6	8	10	12	14	16	18	20	PROZ.		
		I	I	I	I	I	I	I	I	I	I	I		ANZAHL	PROZ.
0.796...	1.002	I*****												3	3.53
1.002...	1.262	I												0	0.00
1.262...	1.589	I												0	0.00
1.589...	2.000	I												0	0.00
2.000...	2.518	I												0	0.00
2.518...	3.170	I												0	0.00
3.170...	3.990	I												0	0.00
3.990...	5.023	I*****												3	3.53
5.023...	6.324	I****												1	1.18
6.324...	7.962	I												0	0.00
7.962...	10.023	I*****												2	2.35
10.023...	12.618	I												0	0.00
12.618...	15.885	I*****												2	2.35
15.885...	19.999	I*****												2	2.35
19.999...	25.177	I*****												3	3.53
25.177...	31.695	I*****												2	2.35
31.695...	39.902	I*****												3	3.53
39.902...	50.234	I*****												2	2.35
50.234...	63.240	I												0	0.00
63.240...	79.615	I*****												3	3.53
79.615...	100.229	I												0	0.00
100.229...	126.181	I*****												3	3.53
126.181...	158.852	I****												1	1.18
158.852...	199.983	I												0	0.00
199.983...	251.763	I*****												2	2.35
251.763...	316.950	I*****												3	3.53
316.950...	399.016	I*****												2	2.35
399.016...	502.331	I*****												4	4.71
502.331...	632.396	I*****												6	7.06
632.396...	796.138	I*****												3	3.53
796.138...	1002.278	I*****												5	5.88
1002.278...	1261.791	I*****												10	11.76
1261.791...	1588.499	I*****												7	8.24
1588.499...	1999.799	I*****												7	8.24
1999.799...	2517.594	I*****												4	4.71
2517.594...	3169.459	I****												1	1.18
3169.459...	3990.107	I												0	0.00
3990.107...	5023.242	I												0	0.00
5023.242...	6323.879	I****												1	1.18

193110



SUMMENHAUEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN MN

STATISTIK PROJEKT QUE RIVER, AUSTRALIEN NR

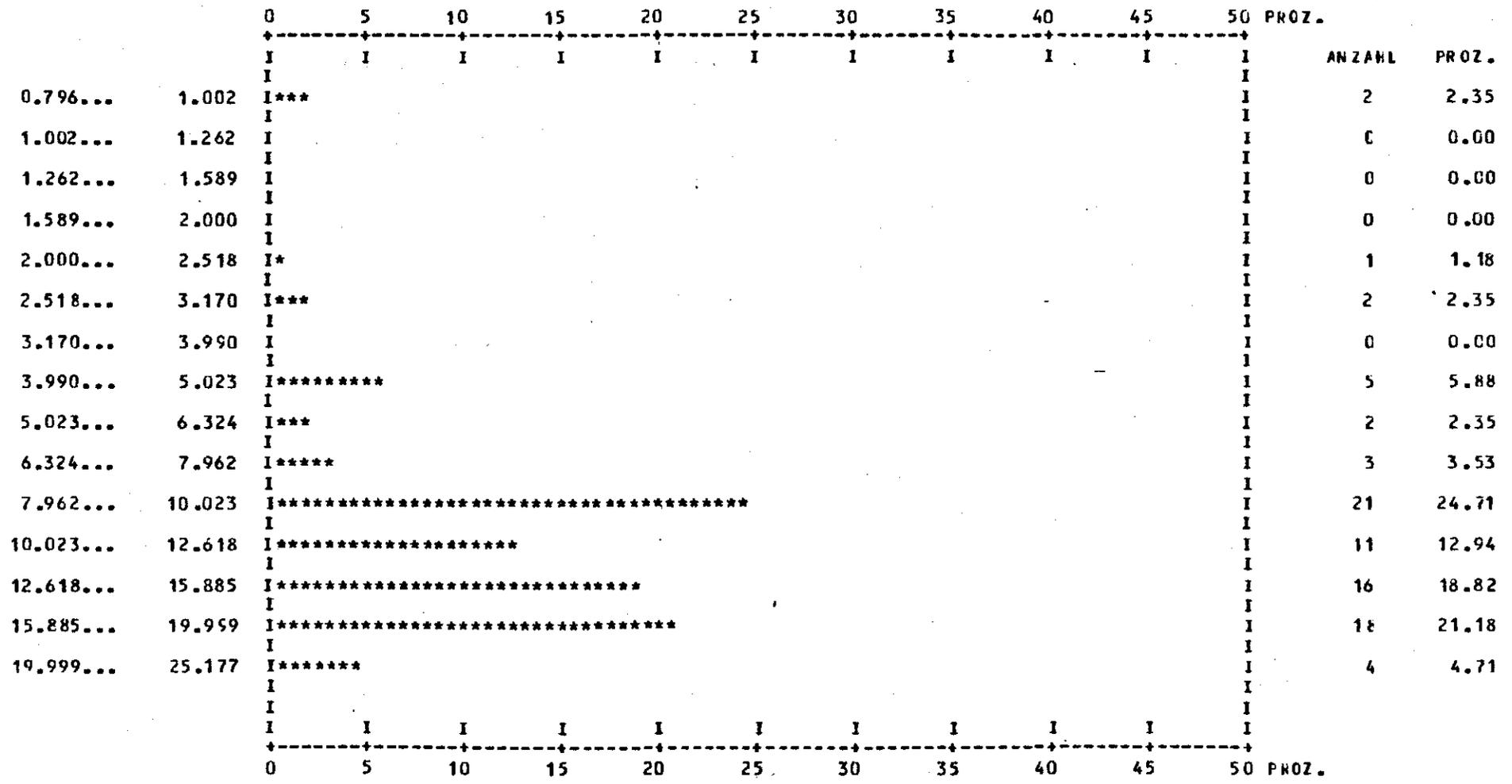
ZAHL DER WERTE = 85
 KLEINSTER WERT = 1.000
 GROSSTER WERT = 24.000
 ARITHM. MITTEL = 11.800
 GEOMET. MITTEL = 10.392
 VARIANZ = 0.241E 02
 STAND. ABWEICH. = 4.913
 LOG. VARIANZ = 0.657E-01
 LOG. ST. ABW. = 0.256
 SCHIEFE = -0.037
 WÖLBUNG = -0.354
 LOG. SCHIEFE = -1.908
 LOG. WÖLBUNG = 4.936

STAT. (OKT. 72)
 E. MUNDRY
 BODENFORSCHUNG, HANNOVER
 GERMANY

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
0.796...	0	0.00	0.00	100.00
1.002...	2	2.35	2.35	100.00
1.262...	0	0.00	2.35	97.65
1.589...	0	0.00	2.35	97.65
1.589...	0	0.00	2.35	97.65
2.000...	1	1.18	3.53	57.65
2.518...	2	2.35	5.88	96.47
3.170...	0	0.00	5.88	94.12
3.990...	5	5.88	11.76	94.12
5.023...	2	2.35	14.12	88.24
6.324...	3	3.53	17.65	85.88
7.962...	21	24.71	42.35	82.35
10.023...	11	12.94	55.29	57.65
12.618...	16	18.82	74.12	44.71
15.885...	18	21.18	95.29	25.88
19.999...	4	4.71	100.00	4.71
25.177...	0	0.00	100.00	0.00

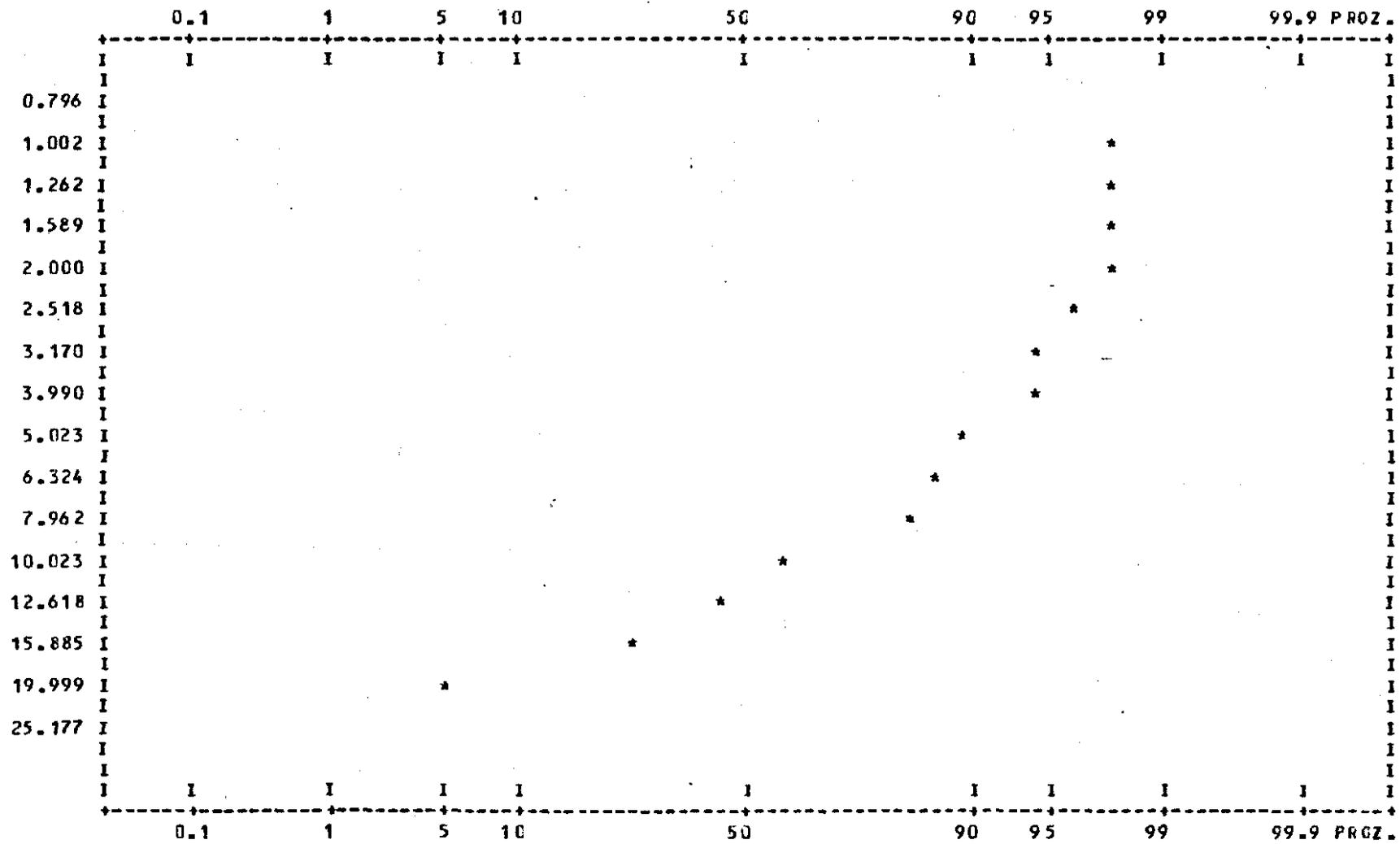
PROZENT	PERZENTIL
5.	2.907
10.	4.688
20.	8.138
25.	8.526
30.	8.933
40.	9.806
50.	11.484
60.	13.366
70.	15.105
75.	16.039
80.	16.935
90.	18.880
95.	19.935

198112



HAUEFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN NB

113



SUMMENHAUEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN NB

193114

114

STATISTIK PROJEKT QUE RIVER, AUSTRALIEN NI

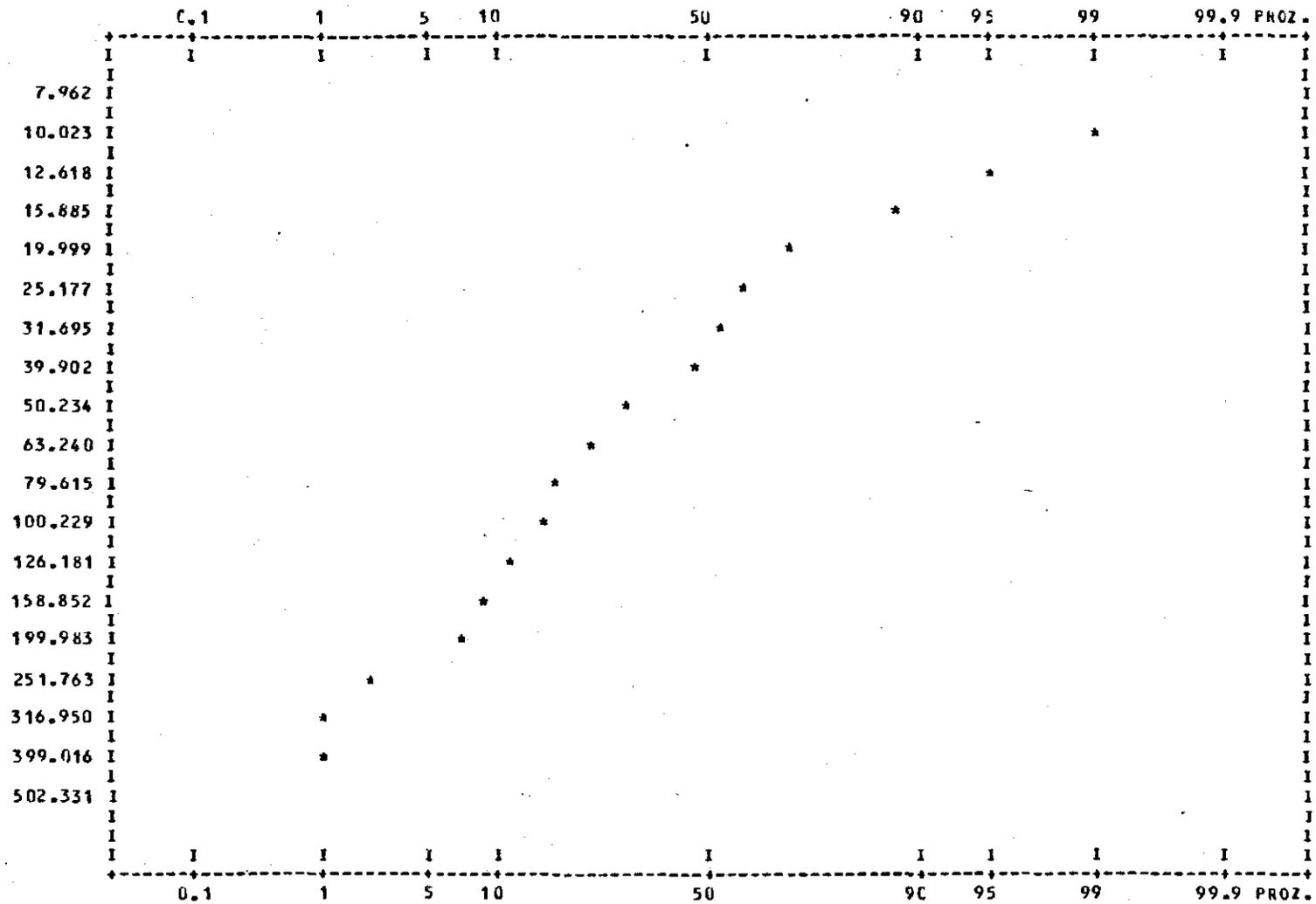
ZAHL DER WERTE = 85
 KLEINSTER WERT = 8.000
 GROESSTER WERT = 423.000
 ARITHM. MITTEL = 58.529
 GEOMET. MITTEL = 37.754
 VARIANZ = 0.480E 04
 STAND. ABWEICH. = 69.248
 LOG. VARIANZ = 0.145E 00
 LOG. ST. ABW. = 0.380
 SCHIEFE = 2.762
 WOELBUNG = 9.368
 LOG. SCHIEFE = 0.715
 LOG. WOELBUNG = -0.176

 I STAT (OKT. 72) I
 I E. MUNDY I
 I BODENFORSCHUNG, HANNOVER I
 I GERMANY I

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
...	7.962	0	0.00	100.00
7.962...	10.023	1	1.18	100.00
10.023...	12.618	3	3.53	98.82
12.618...	15.885	7	8.24	95.29
15.885...	19.999	16	18.82	87.06
19.999...	25.177	9	10.59	68.24
25.177...	31.695	4	4.71	57.65
31.695...	39.902	5	5.88	52.94
39.902...	50.234	14	16.47	47.06
50.234...	63.240	6	7.06	30.59
63.240...	79.615	5	5.88	23.53
79.615...	100.229	1	1.18	17.65
100.229...	126.181	4	4.71	16.47
126.181...	158.852	2	2.35	11.76
158.852...	199.983	2	2.35	9.41
199.983...	251.763	4	4.71	7.06
251.763...	316.950	1	1.18	2.35
316.950...	399.016	0	0.00	1.18
399.016...	502.331	1	1.18	1.18
502.343...		0	0.00	0.00

PROZENT	PERZENTIL
5.	12.722
10.	14.631
20.	17.318
25.	18.410
30.	19.571
40.	23.521
50.	35.563
60.	44.041
70.	51.207
75.	60.279
80.	72.610
90.	149.967
95.	221.179

193115



SUMMENHAEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN NI

S T A T I S T I K P R O J E K T Q U E R I V E R , A U S T R A L I E N P B

117

Z A H L D E R W E R T E * 85

K L E I N S T E R W E R T = 1.000

G R O E S S T E R W E R T = 5101.000

A R I T H M . M I T T E L = 193.753

G E O M E T . M I T T E L = 21.686

V A R I A N Z = 0.496E 06

S T A N D . A B W E I C H . = 704.109

L O G . V A R I A N Z = 0.716E 00

L O G . S T . A B W . = 0.846

S C H I E F E = 5.751

W O E L B U N G = 35.343

L O G . S C H I E F E = 0.442

L O G . W O E L B U N G = 0.346

I S T A T (O K T . 7 2) I

I E . M U N D N Y I

I B O D E N F O R S C H U N G , H A N N O V E R I

I G E R M A N Y I

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
0.796...	0	0.00	0.00	100.00
1.002...	11	12.94	12.94	100.00
1.262...	0	0.00	12.94	87.06
1.589...	0	0.00	12.94	87.06
2.000...	0	0.00	12.94	87.06
2.518...	1	1.18	14.12	87.06
3.170...	3	3.53	17.65	85.88
3.990...	0	0.00	17.65	82.35
5.023...	6	7.06	24.71	82.35
6.324...	0	0.00	24.71	75.29
7.962...	2	2.35	27.06	75.29
10.023...	2	2.35	29.41	72.94
12.618...	1	1.18	30.59	70.59
15.885...	3	3.53	34.12	69.41
19.999...	12	14.12	48.24	65.88
25.177...	10	11.76	60.00	51.76
31.695...	4	4.71	64.71	40.00
39.902...	4	4.71	69.41	35.29
50.234...	2	2.35	71.76	30.59
63.240...	4	4.71	76.47	28.24
79.615...	4	4.71	81.18	23.53
100.229...	3	3.53	84.71	18.82
126.181...	0	0.00	84.71	15.29
158.852...	2	2.35	87.06	15.29
199.983...	1	1.18	88.24	12.94
251.763...	0	0.00	88.24	11.76
316.950...	1	1.18	89.41	11.76
399.016...	0	0.00	89.41	10.59
502.331...	3	3.53	92.94	10.59
632.396...	1	1.18	94.12	7.06
756.138...	0	0.00	94.12	5.88
1002.278...	1	1.18	95.29	5.88
1261.791...	1	1.18	96.47	4.71
1588.499...	1	1.18	97.65	3.53
1999.799...	0	0.00	97.65	2.35
2517.594...	0	0.00	97.65	2.35
3169.459...	0	0.00	97.65	2.35
3990.107...	1	1.18	98.82	2.35
5023.242...	0	0.00	98.82	1.18
6324.113...	1	1.18	100.00	1.18
	0	0.00	100.00	0.00

PROZENT	PERZENTIL
5.	0.870
10.	0.951
20.	4.309
25.	6.509
30.	11.246
40.	17.485
50.	20.701
60.	25.177
70.	42.267
75.	58.850
80.	75.162
90.	414.629
95.	946.235

193118

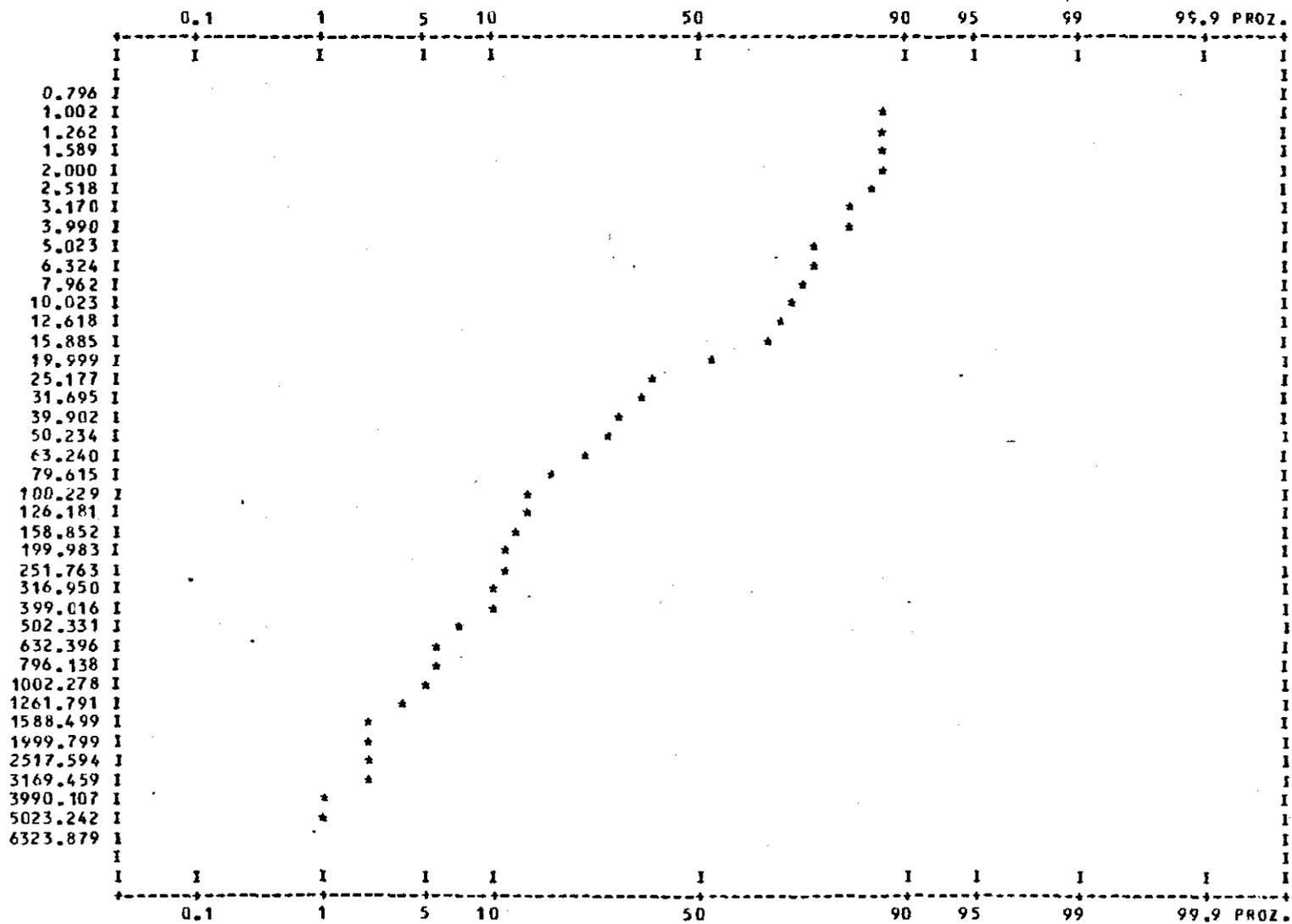
118

	0	2	4	6	8	10	12	14	16	18	20	PRCZ.		
	I	I	I	I	I	I	I	I	I	I	I		ANZAHL	PROZ.
0.796...	1.002	I*****									I		11	12.94
1.002...	1.262	I									I		0	0.00
1.262...	1.589	I									I		0	0.00
1.589...	2.000	I									I		0	0.00
2.000...	2.518	I****									I		1	1.18
2.518...	3.170	I*****									I		3	3.53
3.170...	3.990	I									I		0	0.00
3.990...	5.023	I*****									I		6	7.06
5.023...	6.324	I									I		0	0.00
6.324...	7.962	I*****									I		2	2.35
7.962...	10.023	I*****									I		2	2.35
10.023...	12.618	I****									I		1	1.18
12.618...	15.885	I*****									I		3	3.53
15.885...	19.999	I*****									I		12	14.12
19.999...	25.177	I*****									I		10	11.76
25.177...	31.655	I*****									I		4	4.71
31.655...	39.902	I*****									I		4	4.71
39.902...	50.234	I*****									I		2	2.35
50.234...	63.240	I*****									I		4	4.71
63.240...	79.615	I*****									I		4	4.71
79.615...	100.229	I*****									I		3	3.53
100.229...	126.181	I									I		0	0.00
126.181...	158.852	I*****									I		2	2.35
158.852...	199.983	I****									I		1	1.18
199.983...	251.763	I									I		0	0.00
251.763...	316.950	I****									I		1	1.18
316.950...	399.016	I									I		0	0.00
399.016...	502.331	I*****									I		3	3.53
502.331...	632.396	I****									I		1	1.18
632.396...	796.138	I									I		0	0.00
796.138...	1002.278	I****									I		1	1.18
1002.278...	1261.791	I****									I		1	1.18
1261.791...	1588.499	I****									I		1	1.18
1588.499...	1999.799	I									I		0	0.00
1999.799...	2517.594	I									I		0	0.00
2517.594...	3169.459	I									I		0	0.00
3169.459...	3990.107	I****									I		1	1.18
3990.107...	5023.242	I									I		0	0.00
5023.242...	6323.879	I****									I		1	1.18

HAEUFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN PB

193119

911



193120

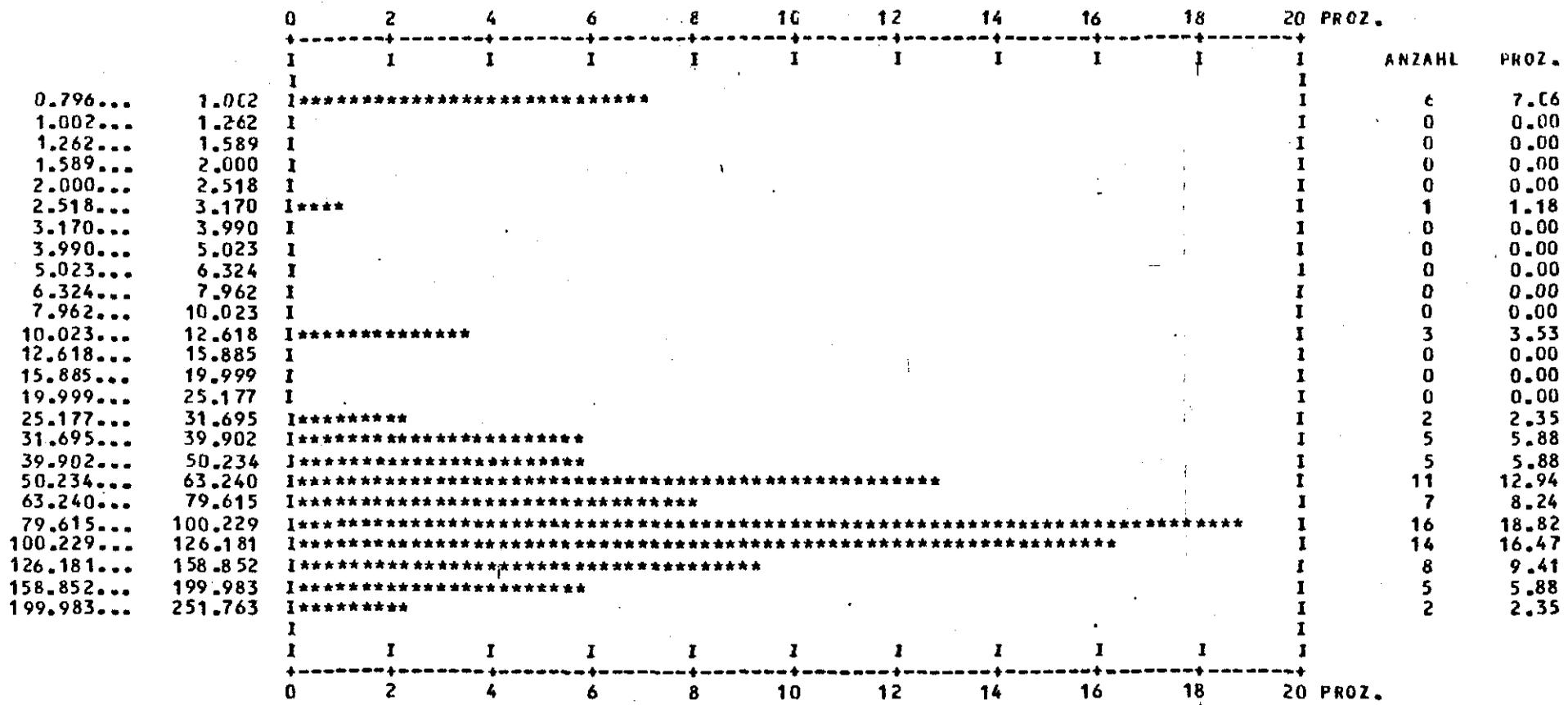
STATISTIK PROJEKT QUE RIVER, AUSTRALIEN RB

ZAHL DER WERTE = 85
 KLEINSTER WERT = 1.000
 GROSSTER WERT = 217.000
 ARITHM. MITTEL = 82.494
 GEOMET. MITTEL = 54.300
 VARIANZ = 0.248E 04
 STAND. ABWEICH. = 49.768
 LOG. VARIANZ = 0.323E 00
 LOG. ST. ABW. = 0.568
 SCHIEFE = 0.319
 WOELBUNG = -0.215
 LOG. SCHIEFE = -2.142
 LOG. WOELBUNG = 4.075

 I STAT (OKT. 72) I
 I E. MUNDRY I
 I BGDENF. CRSCHUNG, HANNOVER I
 I GERMANY I

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SLAFME (RUECKW.)	PROZENT	PERZENTIL
0.796...	0	0.00	0.00	100.00	5.	0.937
1.002...	6	7.06	7.06	100.00	10.	11.246
1.262...	0	0.00	7.06	92.94	20.	39.902
1.589...	0	0.00	7.06	92.94	25.	48.528
2.000...	0	0.00	7.06	92.94	30.	54.052
2.518...	0	0.00	7.06	92.94	40.	65.355
3.170...	1	1.18	8.24	92.94	50.	82.531
3.990...	0	0.00	8.24	91.76	60.	93.270
5.023...	0	0.00	8.24	91.76	70.	106.168
6.324...	0	0.00	8.24	91.76	75.	113.855
7.962...	0	0.00	8.24	91.76	80.	122.098
10.023...	0	0.00	8.24	91.76	90.	152.140
12.618...	3	3.53	11.76	91.76	95.	180.299
15.885...	0	0.00	11.76	88.24		
19.999...	0	0.00	11.76	88.24		
25.177...	0	0.00	11.76	88.24		
31.695...	2	2.35	14.12	88.24		
39.902...	5	5.88	20.00	85.88		
50.234...	5	5.88	25.88	80.00		
63.240...	11	12.94	38.82	74.12		
79.615...	7	8.24	47.06	61.18		
100.229...	16	18.82	65.88	52.94		
126.181...	14	16.47	82.35	34.12		
158.852...	8	9.41	91.76	17.65		
199.983...	5	5.88	97.65	8.24		
251.768...	2	2.35	100.00	2.35		
	0	0.00	100.00	0.00		

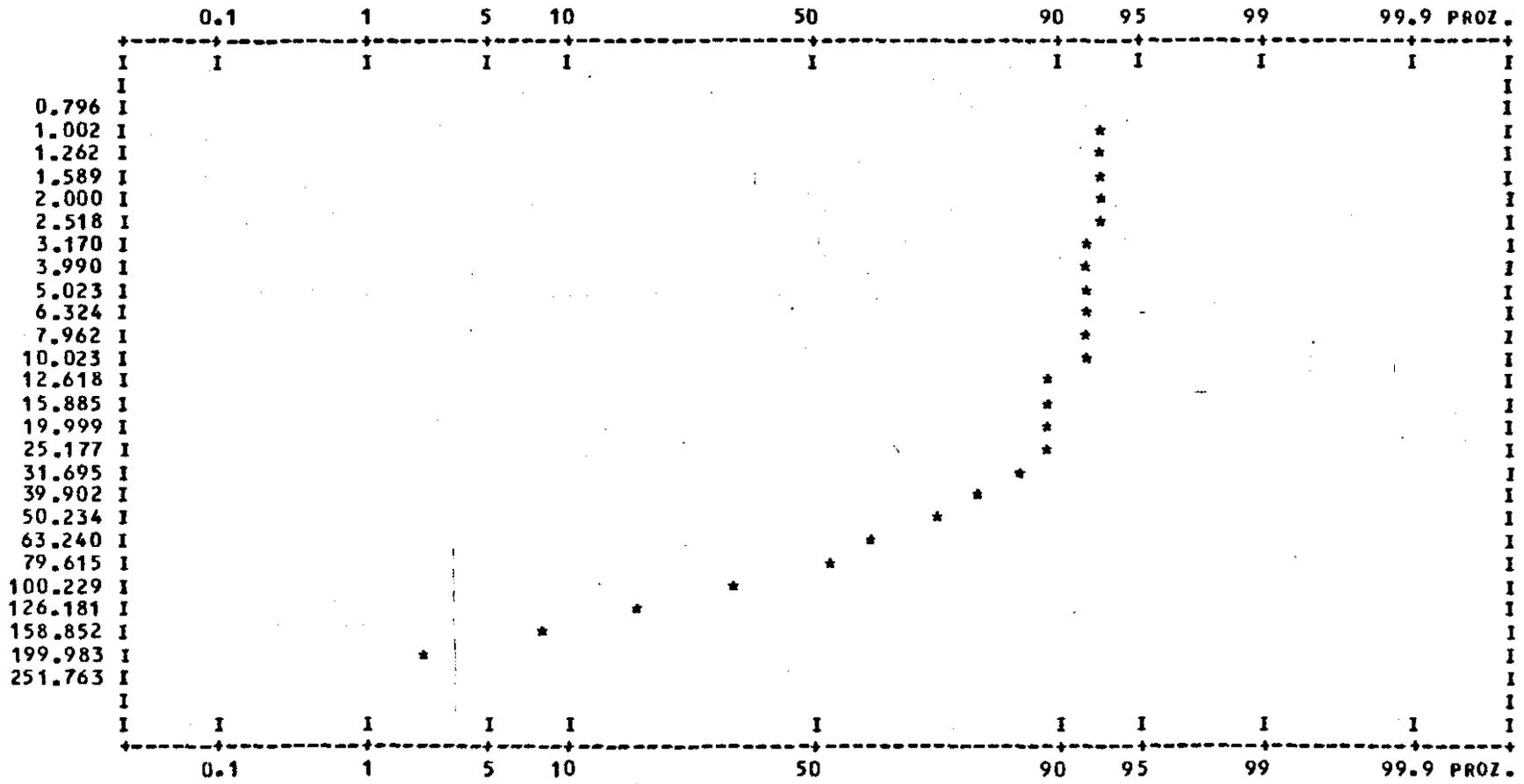
121



HAEUFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN RB

193122

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SUMMENHAUEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN RB

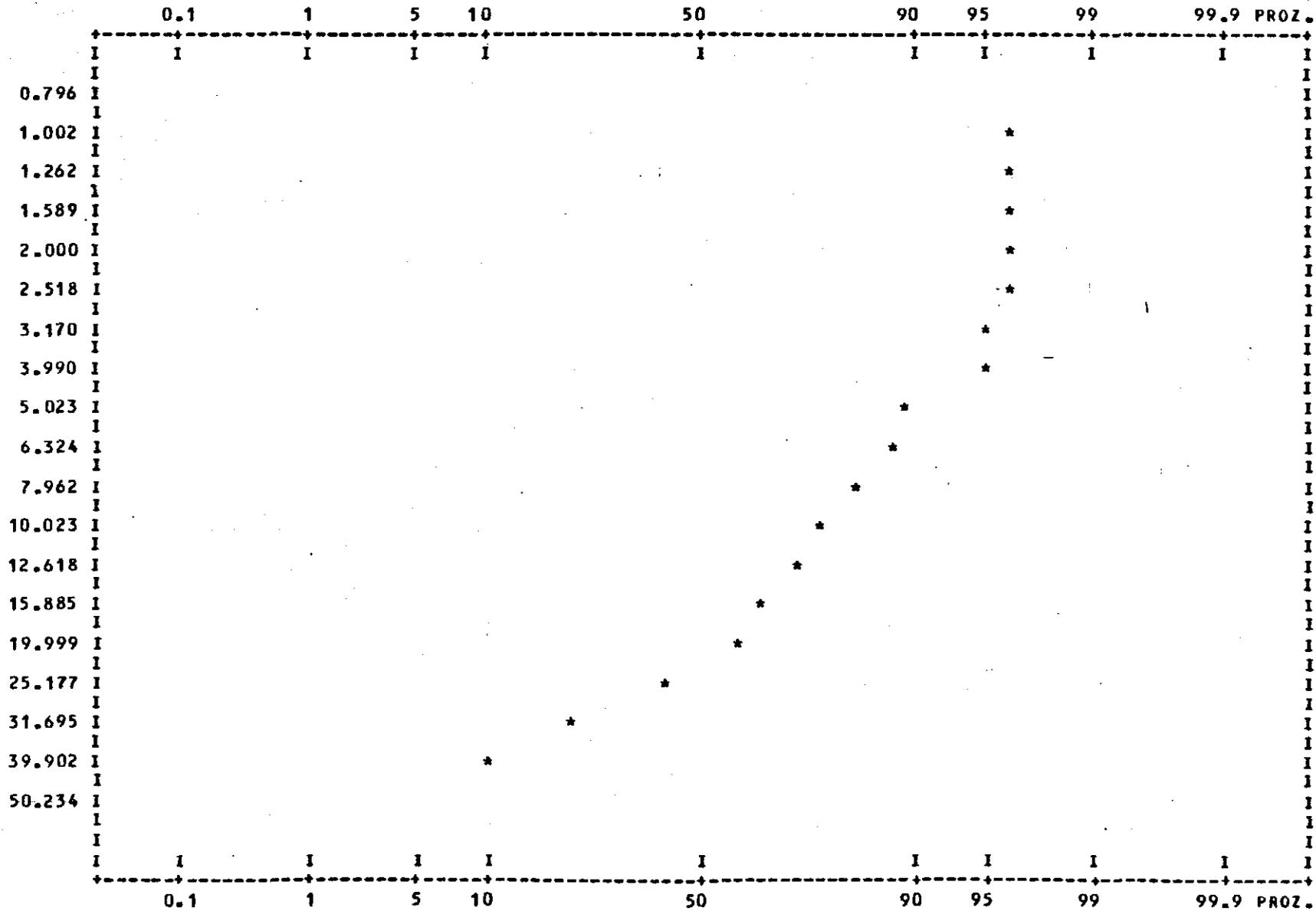
193123

124

		0	2	4	6	8	10	12	14	16	18	20	PROZ.		
		I	I	I	I	I	I	I	I	I	I	I		ANZAHL	PROZ.
0.796...	1.002	I*****												3	3.53
1.002...	1.262	I												0	0.00
1.262...	1.589	I												0	0.00
1.589...	2.000	I												0	0.00
2.000...	2.518	I												0	0.00
2.518...	3.170	I****												1	1.18
3.170...	3.990	I												0	0.00
3.990...	5.023	I*****												6	7.06
5.023...	6.324	I****												1	1.18
6.324...	7.962	I*****												4	4.71
7.962...	10.023	I*****												6	7.06
10.023...	12.618	I*****												3	3.53
12.618...	15.885	I*****												8	9.41
15.885...	19.999	I*****												3	3.53
19.999...	25.177	I*****												15	17.65
25.177...	31.695	I*****												17	20.00
31.695...	39.902	I*****												9	10.59
39.902...	50.234	I*****												9	10.59

193125

HAUEFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN SC



STATISTIK PROJEKT QUE RIVER, AUSTRALIEN SR

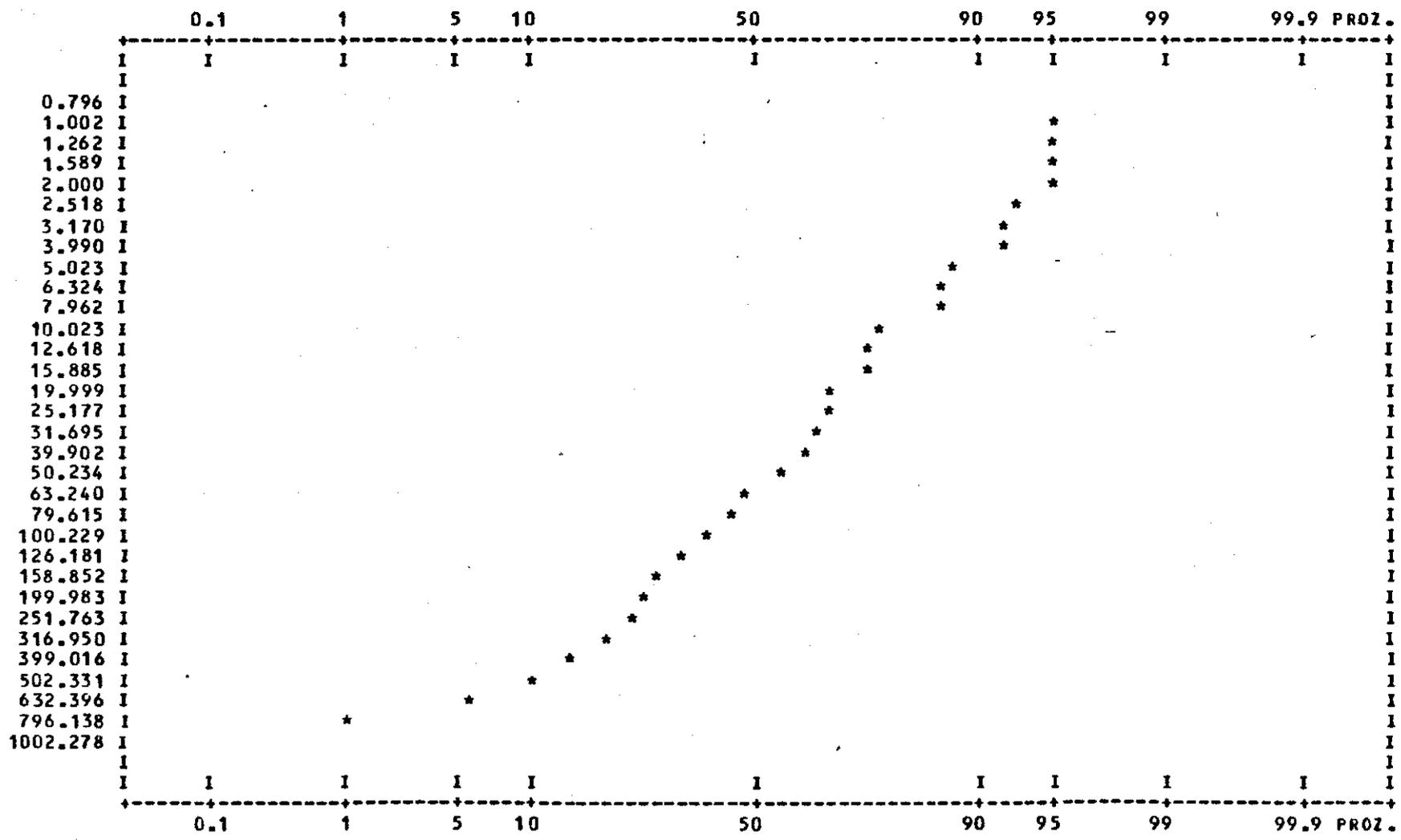
ZAHL DER WERTE = 85
 KLEINSTER WERT = 1.000
 GROSSTER WERT = 797.000
 ARITHM. MITTEL = 157.212
 GEOMET. MITTEL = 50.138
 VARIANZ = 0.424E 05
 STAND. ABWEICH. = 205.982
 LOG. VARIANZ = 0.615E 00
 LOG. ST. ABW. = 0.784
 SCHIEFE = 1.548
 WOELBUNG = 1.382
 LOG. SCHIEFE = -0.403
 LOG. WOELBUNG = -0.659

STAT (OKT. 72) I
 E. HUNDRY I
 BODENFORSCHUNG, HANNOVER I
 GERMANY I

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
...	0.796	0	0.00	0.00
0.796...	1.002	4	4.71	100.00
1.002...	1.262	0	0.00	4.71
1.262...	1.589	0	0.00	4.71
1.589...	2.000	0	0.00	4.71
2.000...	2.518	2	2.35	7.06
2.518...	3.170	1	1.18	8.24
3.170...	3.990	0	0.00	8.24
3.990...	5.023	4	4.71	12.94
5.023...	6.324	1	1.18	14.12
6.324...	7.962	0	0.00	14.12
7.962...	10.023	8	9.41	23.53
10.023...	12.618	2	2.35	25.88
12.618...	15.885	1	1.18	27.06
15.885...	19.999	5	5.88	32.94
19.999...	25.177	0	0.00	32.94
25.177...	31.695	3	3.53	36.47
31.695...	39.902	3	3.53	40.00
39.902...	50.234	4	4.71	44.71
50.234...	63.240	6	7.06	51.76
63.240...	79.615	3	3.53	55.29
79.615...	100.229	4	4.71	60.00
100.229...	126.181	5	5.88	65.88
126.181...	158.852	4	4.71	70.59
158.852...	199.983	2	2.35	72.94
199.983...	251.763	3	3.53	76.47
251.763...	316.950	3	3.53	80.00
316.950...	399.016	4	4.71	84.71
399.016...	502.331	4	4.71	89.41
502.331...	632.396	4	4.71	94.12
632.396...	796.138	4	4.71	98.82
796.138...	1002.278	1	1.18	100.00
1002.304...		0	0.00	100.00

PROZENT	PERZENTIL
5.	2.058
10.	4.350
20.	9.194
25.	11.574
30.	17.824
40.	39.902
50.	59.703
60.	100.229
70.	154.346
75.	228.733
80.	316.951
90.	517.002
95.	660.302

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STATISTIK PROJEKT QUE RIVER, AUSTRALIEN TN

ZAHL DER WERTE = 85
 KLEINSTER WERT = 1.000
 GROSSTER WERT = 53.000
 ARITHM. MITTEL = 14.200
 GEOMET. MITTEL = 9.639
 VARIANZ = 0.101E 03
 STAND. ABWEICH. = 10.040
 LOG. VARIANZ = 0.216E 00
 LOG. ST. ABW. = 0.464
 SCHIEFE = 0.908
 WOELBUNG = 1.444
 LOG. SCHIEFE = -1.102
 LOG. WOELBUNG = 0.247

 I STAT (ORT. 72) I
 I E. MUNDRY I
 I BODENFORSCHUNG, HANNOVER I
 I GERMANY I

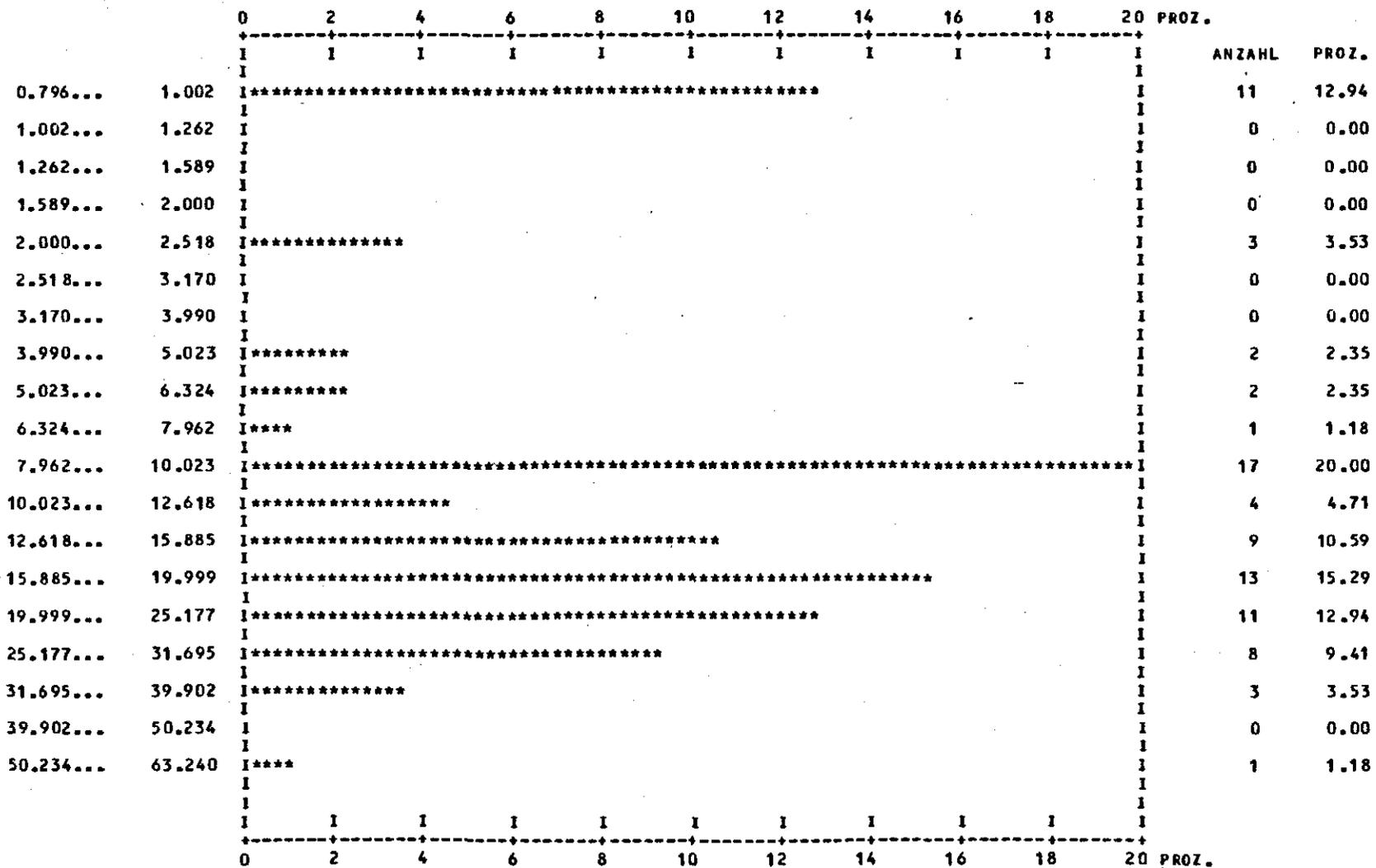
KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
...	0.796	0	0.00	0.00
0.796...	1.002	11	12.94	100.00
1.002...	1.262	0	0.00	12.94
1.262...	1.589	0	0.00	12.94
1.589...	2.000	0	0.00	12.94
2.000...	2.518	3	3.53	16.47
2.518...	3.170	0	0.00	16.47
3.170...	3.990	0	0.00	16.47
3.990...	5.023	2	2.35	18.82
5.023...	6.324	2	2.35	21.18
6.324...	7.962	1	1.18	22.35
7.962...	10.023	17	20.00	42.35
10.023...	12.618	4	4.71	47.06
12.618...	15.885	9	10.59	57.65
15.885...	19.999	13	15.29	72.94
19.999...	25.177	11	12.94	85.88
25.177...	31.695	8	9.41	95.29
31.695...	39.902	3	3.53	98.82
39.902...	50.234	0	0.00	98.82
50.234...	63.240	1	1.18	100.00
63.241...		0	0.00	100.00

PROZENT	PERZENTIL
5.	0.870
10.	0.951
20.	5.636
25.	8.208
30.	8.694
40.	9.755
50.	13.452
60.	16.458
70.	19.132
75.	20.745
80.	22.675
90.	27.845
95.	31.468

193

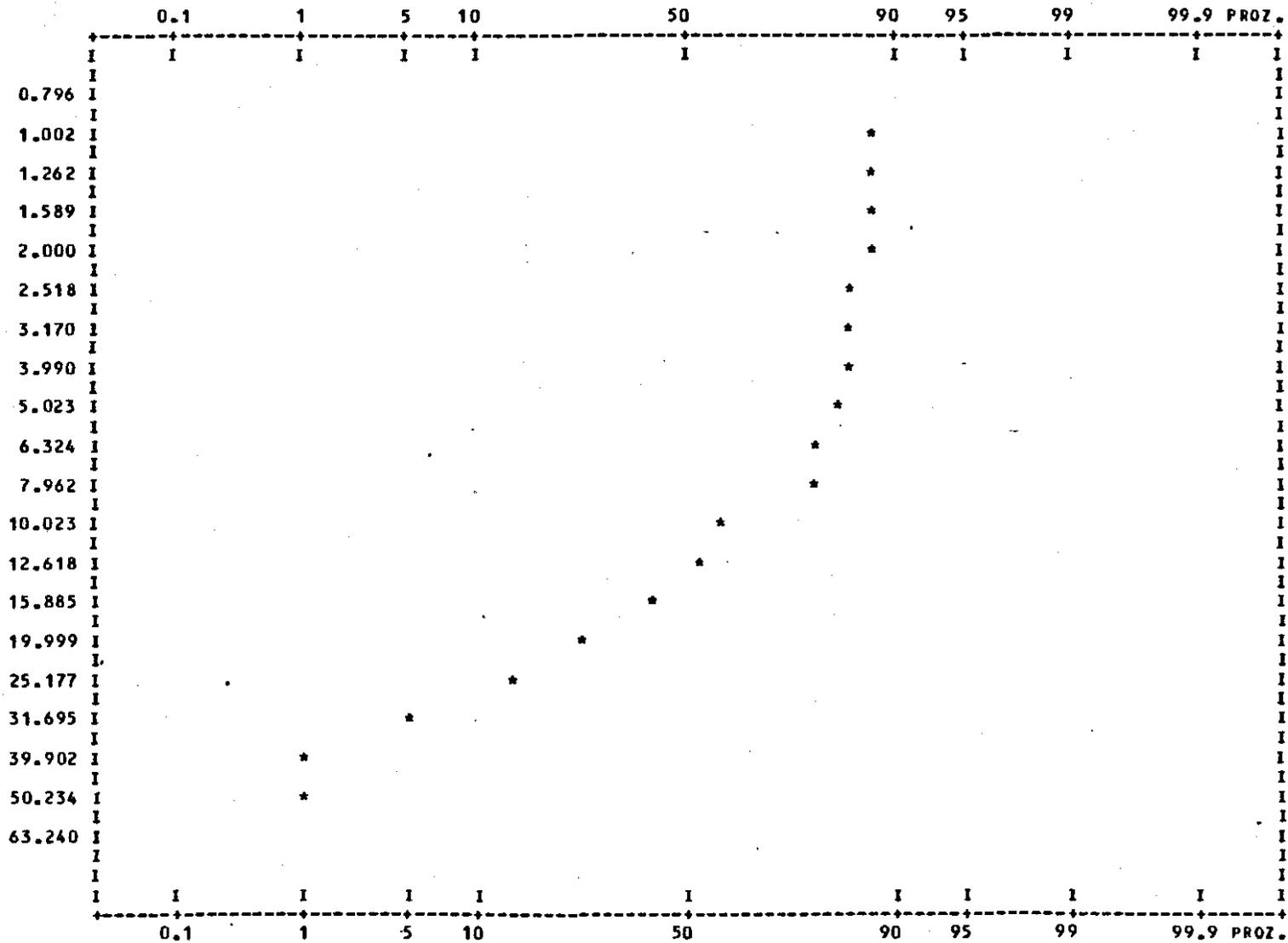
193130

130



HAUEFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN TH

193131



132

S T A T I S T I K P R O J E K T Q U E R I V E R , A U S T R A L I E N V

Z A H L D E R W E R T E = 85
 K L E I N S T E R W E R T = 3.000
 G R O E S S T E R W E R T = 431.000
 A R I T H M . M I T T E L = 151.188
 G E O M E T . M I T T E L = 95.592
 V A R I A N Z = 0.115E 05
 S T A N D . A B W E I C H . = 107.153
 L O G . V A R I A N Z = 0.263E 00
 L O G . S T . A B W . = 0.513
 S C H I E F E = 0.291
 W O E L B U N G = -0.630
 L O G . S C H I E F E = -1.036
 L O G . W O E L B U N G = 0.196

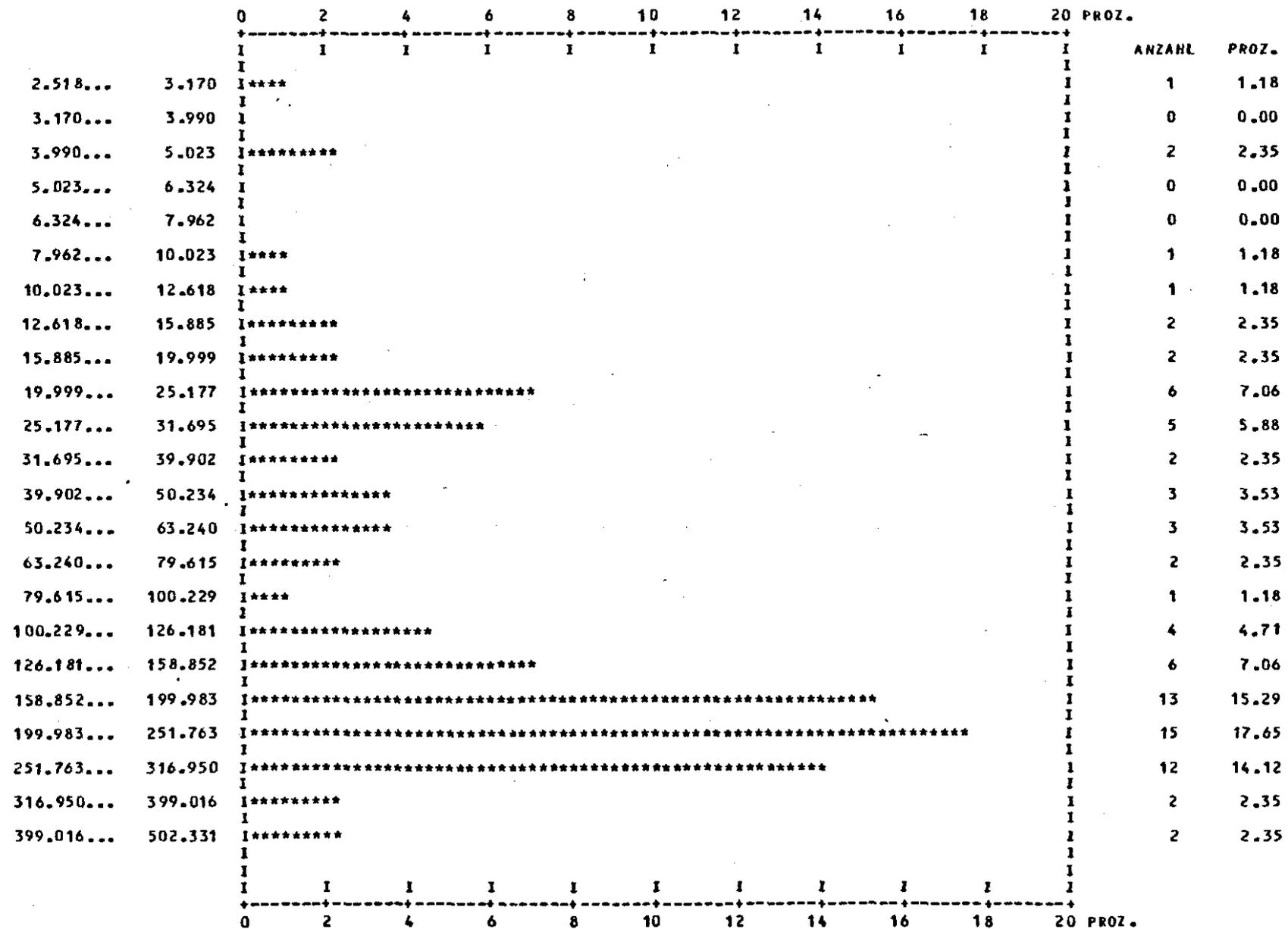
 I S T A T (O K T . 7 2) I
 I E . M U N D R Y I
 I B O D E N F O R S C H U N G , H A N N O V E R I
 I G E R M A N Y I

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
2.518...	0	0.00	0.00	100.00
3.170...	1	1.18	1.18	100.00
3.990...	0	0.00	1.18	98.82
5.023...	2	2.35	3.53	98.82
6.324...	0	0.00	3.53	96.47
7.962...	0	0.00	3.53	96.47
10.023...	1	1.18	4.71	96.47
12.618...	1	1.18	5.88	95.29
15.885...	2	2.35	8.24	94.12
19.999...	2	2.35	10.59	91.76
25.177...	6	7.06	17.65	89.41
31.695...	5	5.88	23.53	82.35
39.902...	2	2.35	25.88	76.47
50.234...	3	3.53	29.41	74.12
63.240...	3	3.53	32.94	70.59
79.615...	2	2.35	35.29	67.06
100.229...	1	1.18	36.47	64.71
126.181...	4	4.71	41.18	63.53
158.852...	6	7.06	48.24	58.82
199.983...	13	15.29	63.53	51.76
251.763...	15	17.65	81.18	36.47
316.950...	12	14.12	95.29	18.82
399.016...	2	2.35	97.65	4.71
502.343...	2	2.35	100.00	2.35
	0	0.00	100.00	0.00

PROZENT	PERZENTIL
5.	10.617
10.	18.880
20.	27.606
25.	36.601
30.	52.199
40.	119.123
50.	163.129
60.	189.634
70.	217.600
75.	232.269
80.	247.928
90.	290.731
95.	315.434

193133

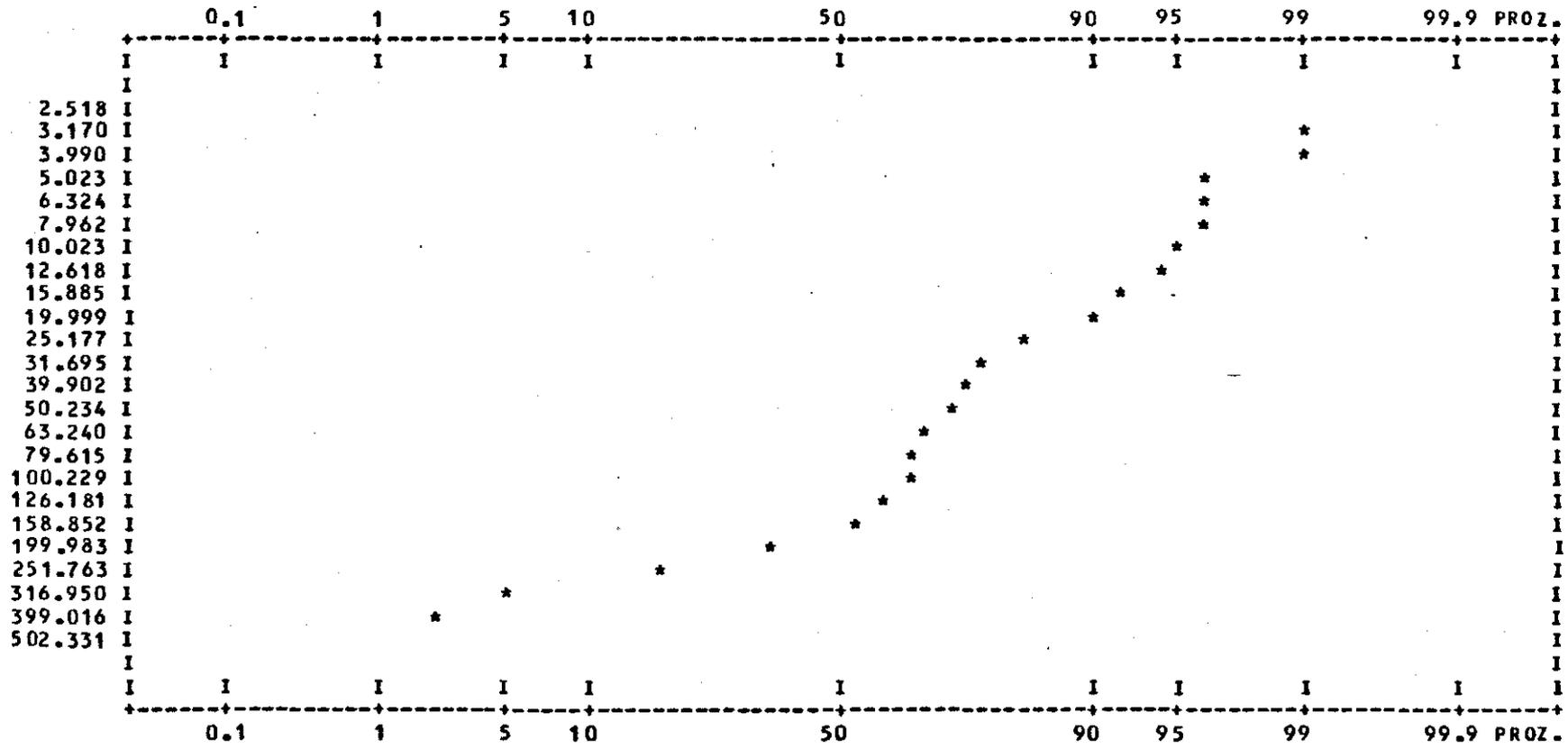
133



HAEUFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN V

193134

134



SUMMENHAUEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN V

193135

STATISTIK PROJEKT QUE RIVER, AUSTRALIEN Y

ZAHL DER WERTE = 85
 KLEINSTER WERT = 3.000
 GROESSTER WERT = 51.000
 ARITHM. MITTEL = 26.412
 GEOMET. MITTEL = 24.667
 VARIANZ = 0.807E 02
 STAND. ABWEICH. = 8.984
 LOG. VARIANZ = 0.313E-01
 LOG. ST. ABW. = 0.177
 SCHIEFE = 0.357
 WOELBUNG = 0.268
 LOG. SCHIEFE = -1.804
 LOG. WOELBUNG = 7.763

 I STAT (OKT. 72) I
 I E. MUNDRY I
 I BODENFORSCHUNG, HANNOVER I
 I GERMANY I

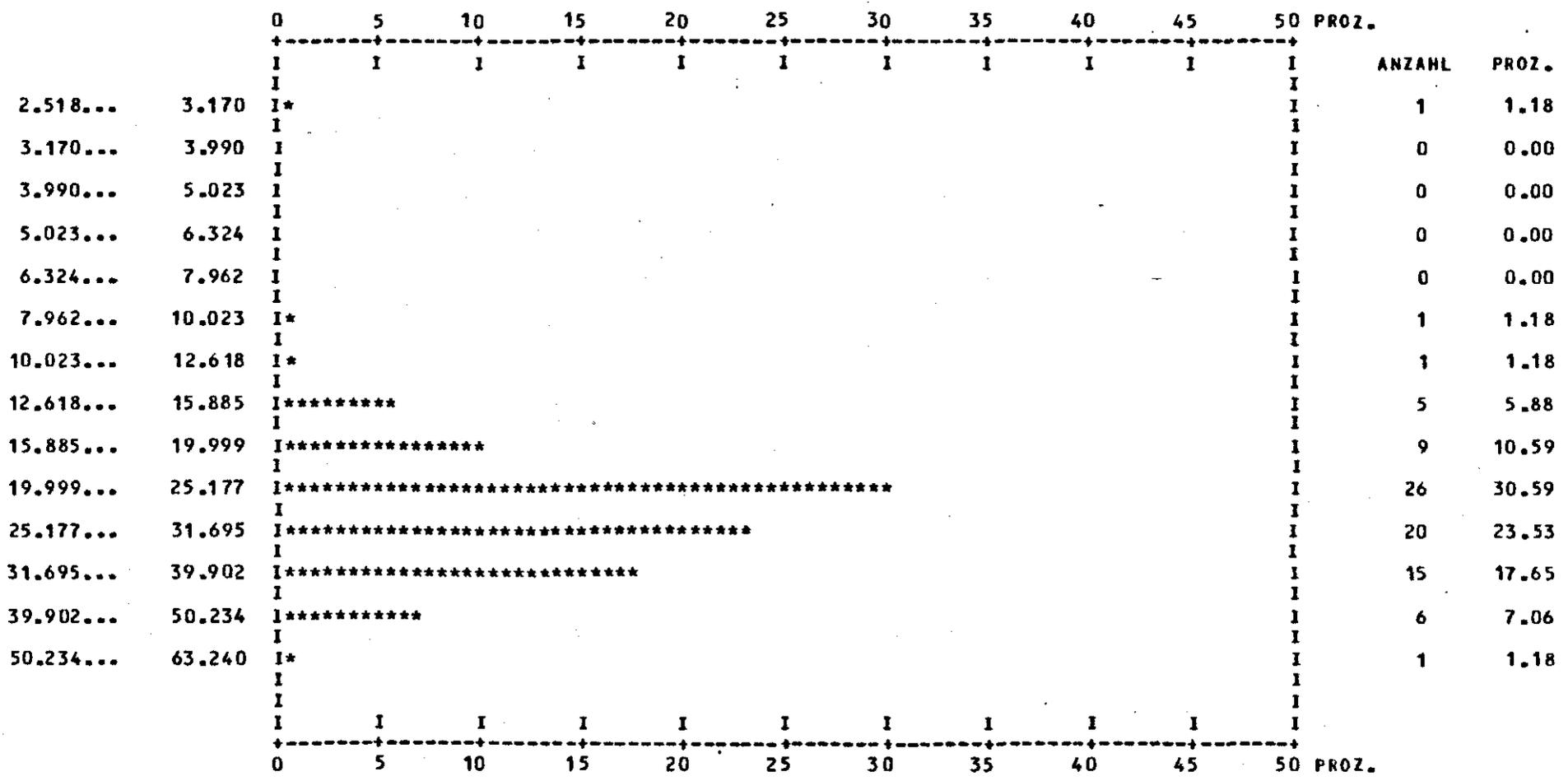
KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
...	2.518	0	0.00	100.00
2.518...	3.170	1	1.18	100.00
3.170...	3.990	0	0.00	98.82
3.990...	5.023	0	0.00	98.82
5.023...	6.324	0	0.00	98.82
6.324...	7.962	0	0.00	98.82
7.962...	10.023	1	1.18	98.82
10.023...	12.618	1	1.18	97.65
12.618...	15.885	5	5.88	96.47
15.885...	19.999	9	10.59	90.59
19.999...	25.177	26	30.59	80.00
25.177...	31.695	20	23.53	49.41
31.695...	39.902	15	17.65	25.88
39.902...	50.234	6	7.06	8.24
50.234...	63.240	1	1.18	100.00
63.241...		0	0.00	100.00

PROZENT	PERZENTIL
5.	13.366
10.	16.090
20.	19.999
25.	20.766
30.	21.562
40.	23.248
50.	25.065
60.	27.606
70.	30.444
75.	32.062
80.	34.224
90.	38.994
95.	44.343

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193136

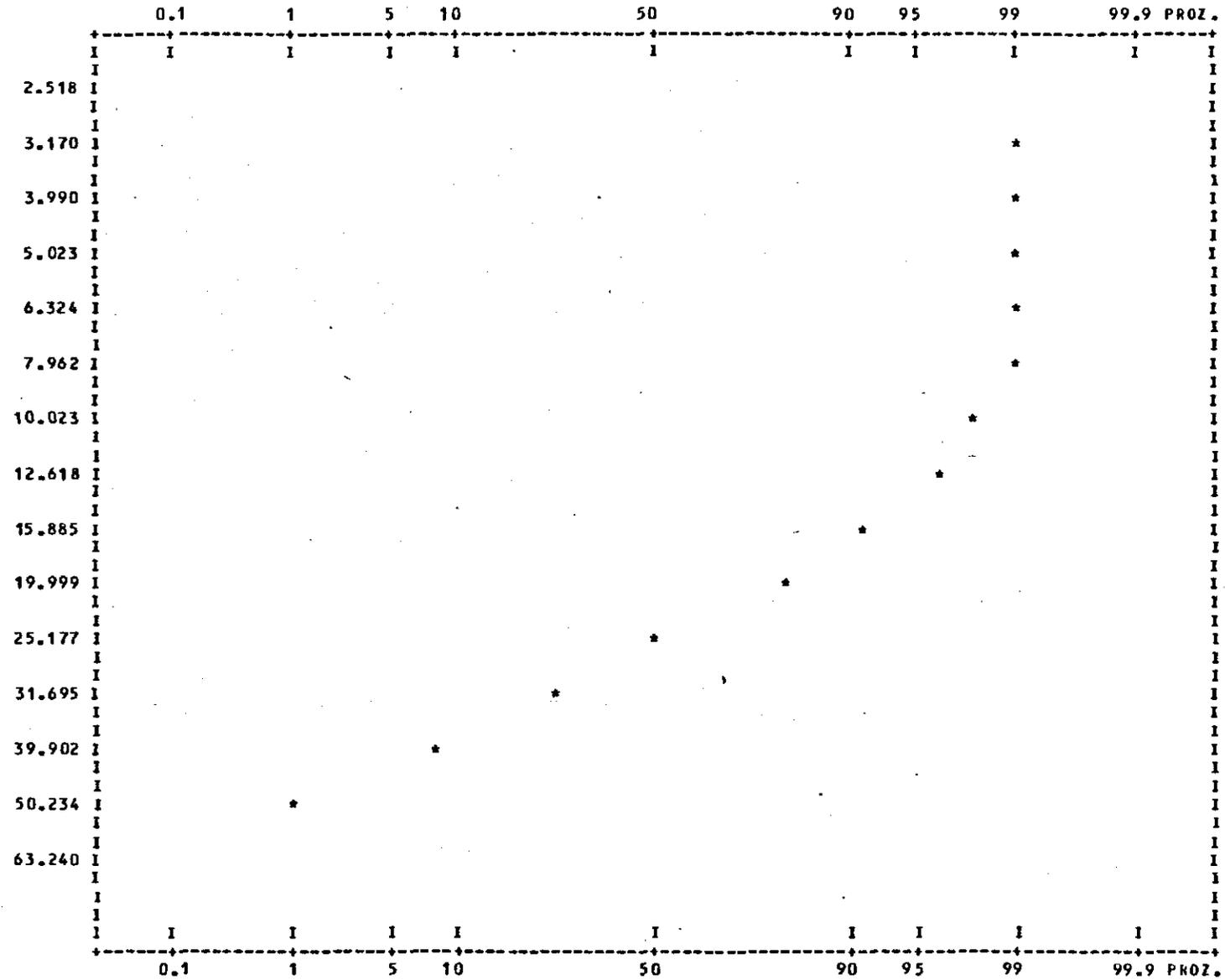
139



HAEUFIGKEITSVERTEILUNG PROJEKT RUE RIVER, AUSTRALIEN Y

198137

137



S T A T I S T I K PROJEKT QUE RIVER, AUSTRALIEN 2N

138

ZAHL DER WERTE = 85
 KLEINSTER WERT = 1.000
 GROSSTER WERT = 8651.000
 ARITHM. MITTEL = 375.694
 GEOMET. MITTEL = 64.294
 VARIANZ = 0.136E 07
 STAND. ABWEICH. = 1164.854
 LOG. VARIANZ = 0.740E 00
 LOG. ST. ABW. = 0.860
 SCHIEFE = 5.477
 WOELBUNG = 33.431
 LOG. SCHIEFE = -0.295
 LOG. WOELBUNG = 0.349

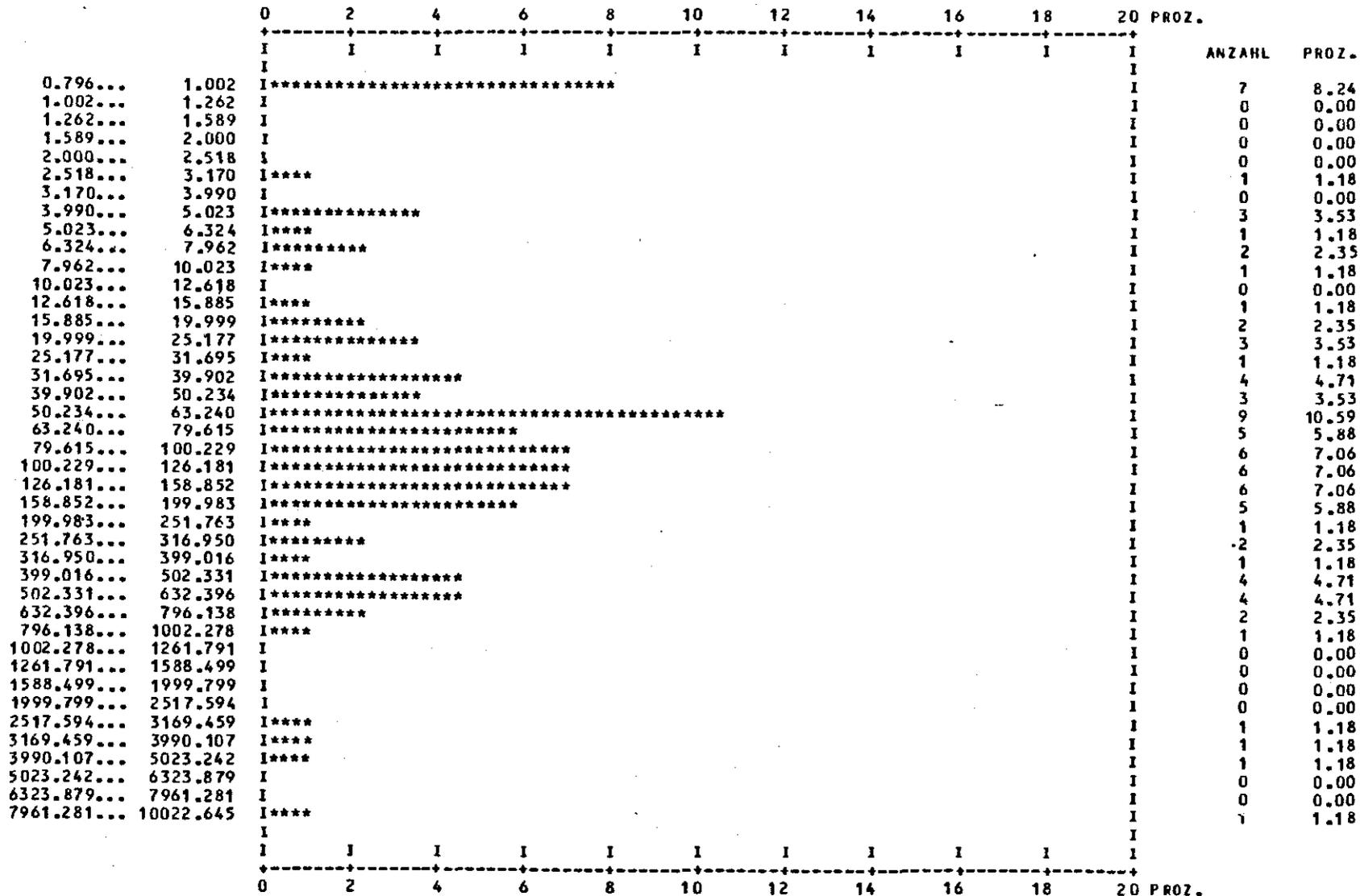
 I STAT (OKT. 72) I
 I E. MUNDRY I
 I BODENFORSCHUNG, HANNOVER I
 I GERMANY I

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
...	0.796	0	0.00	100.00
0.796...	1.002	7	8.24	100.00
1.002...	1.262	0	0.00	91.76
1.262...	1.589	0	0.00	82.52
1.589...	2.000	0	0.00	73.28
2.000...	2.518	0	0.00	64.04
2.518...	3.170	1	1.18	54.80
3.170...	3.990	0	0.00	45.56
3.990...	5.023	3	3.53	36.32
5.023...	6.324	1	1.18	27.08
6.324...	7.962	2	2.35	17.84
7.962...	10.023	1	1.18	8.60
10.023...	12.618	0	0.00	-0.64
12.618...	15.885	1	1.18	-11.38
15.885...	19.999	2	2.35	-22.12
19.999...	25.177	3	3.53	-32.86
25.177...	31.695	1	1.18	-43.60
31.695...	39.902	4	4.71	-54.34
39.902...	50.234	3	3.53	-65.08
50.234...	63.240	9	10.59	-75.82
63.240...	79.615	5	5.88	-86.56
79.615...	100.229	6	7.06	-97.30
100.229...	126.181	6	7.06	-108.04
126.181...	158.852	6	7.06	-118.78
158.852...	199.983	5	5.88	-129.52
199.983...	251.763	1	1.18	-140.26
251.763...	316.950	2	2.35	-151.00
316.950...	399.016	1	1.18	-161.74
399.016...	502.331	4	4.71	-172.48
502.331...	632.396	4	4.71	-183.22
632.396...	796.138	2	2.35	-193.96
796.138...	1002.278	1	1.18	-204.70
1002.278...	1261.791	0	0.00	-215.44
1261.791...	1588.499	0	0.00	-226.18
1588.499...	1999.799	0	0.00	-236.92
1999.799...	2517.594	0	0.00	-247.66
2517.594...	3169.459	1	1.18	-258.40
3169.459...	3990.107	1	1.18	-269.14
3990.107...	5023.242	1	1.18	-279.88
5023.242...	6323.879	0	0.00	-290.62
6323.879...	7961.281	0	0.00	-301.36
7961.281...	10022.645	1	1.18	-312.10
10022.645...	10023.063	0	0.00	-322.84

PROZENT	PERZENTIL
5.	0.916
10.	4.146
20.	17.824
25.	26.669
30.	38.770
40.	57.089
50.	77.803
60.	108.225
70.	149.966
75.	180.299
80.	282.484
90.	580.085
95.	946.235

193139

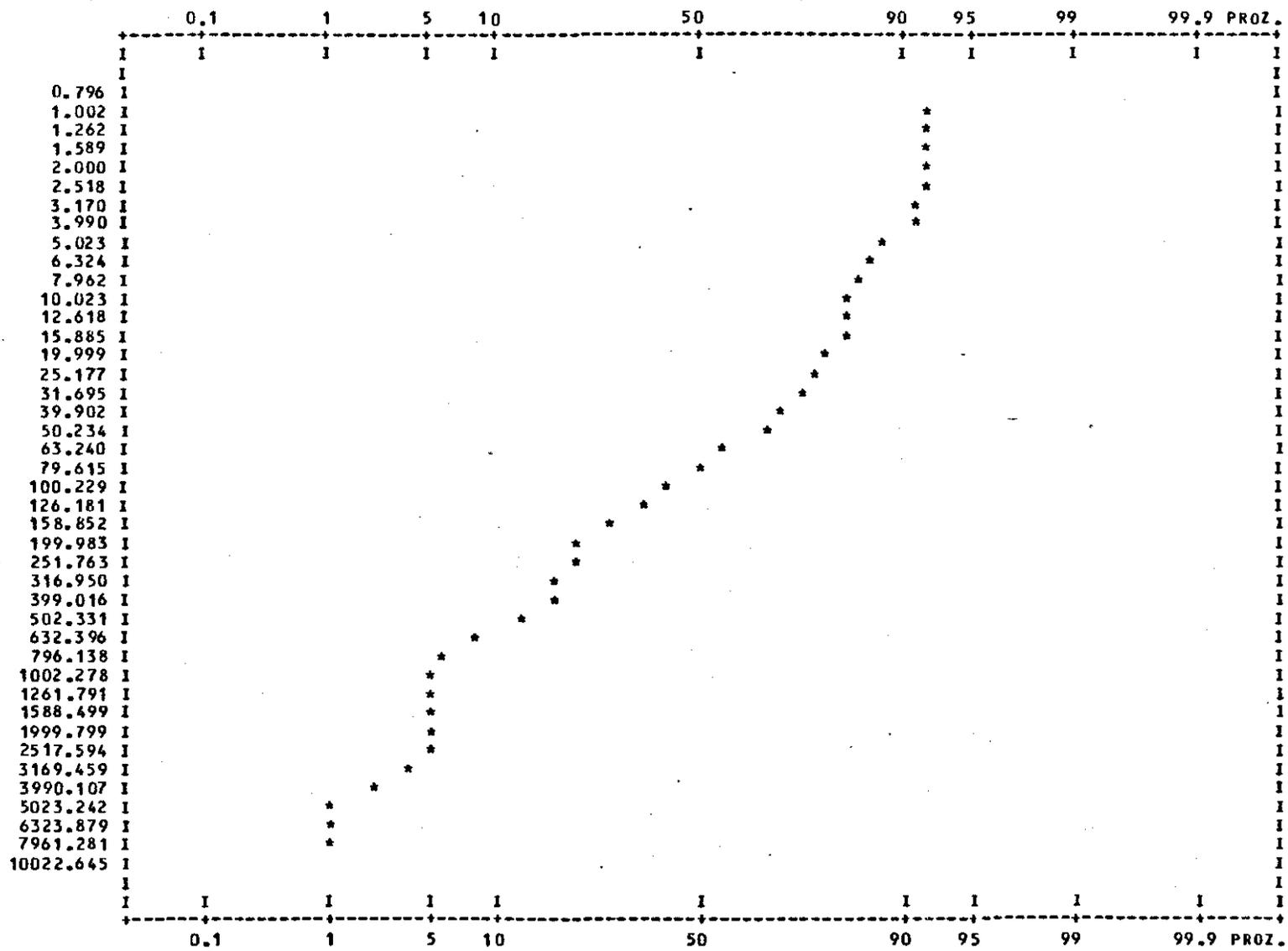
139



HAUEFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN ZN

193140

140



193141

STATISTIK PROJEKT QUE RIVER, AUSTRALIEN 2R

144

ZAHL DER WERTE = 85
 KLEINSTER WERT = 28.000
 GROESSTER WERT = 265.000
 ARITHM. MITTEL = 148.071
 GEOMET. MITTEL = 140.522
 VARIANZ = 0.206E 04
 STAND.ABWEICH. = 45.434
 LOG. VARIANZ = 0.223E-01
 LOG. ST.ABW. = 0.149
 SCHIEFE = 0.303
 WOELBUNG = 0.005
 LOG. SCHIEFE = -1.241
 LOG. WOELBUNG = 4.596

 I STAT (OKT. 72) I
 I E.MUNDRY I
 I BOENFORSCHUNG,HANNOVER I
 I GERMANY I

KLASSE	ANZAHL	ANZAHL (PROZ.)	SUMME (PROZ.)	SUMME (RUECKW.)
---	25.177	0	0.00	100.00
25.177...	31.696	1	1.18	100.00
31.696...	39.902	0	0.00	98.82
39.902...	50.234	0	0.00	98.82
50.234...	63.241	1	1.18	98.82
63.241...	79.615	1	1.18	97.65
79.615...	100.230	11	12.94	96.47
100.230...	126.181	13	15.29	83.53
126.181...	158.853	27	31.76	68.24
158.853...	199.983	18	21.18	36.47
199.983...	251.764	12	14.12	15.29
251.764...	316.951	1	1.18	1.18
316.956...		0	0.00	0.00

PROZENT	PERZENTIL
5.	81.726
10.	89.330
20.	105.699
25.	113.963
30.	122.873
40.	133.943
50.	144.013
60.	154.840
70.	170.431
75.	179.954
80.	190.008
90.	218.019
95.	236.543

193142

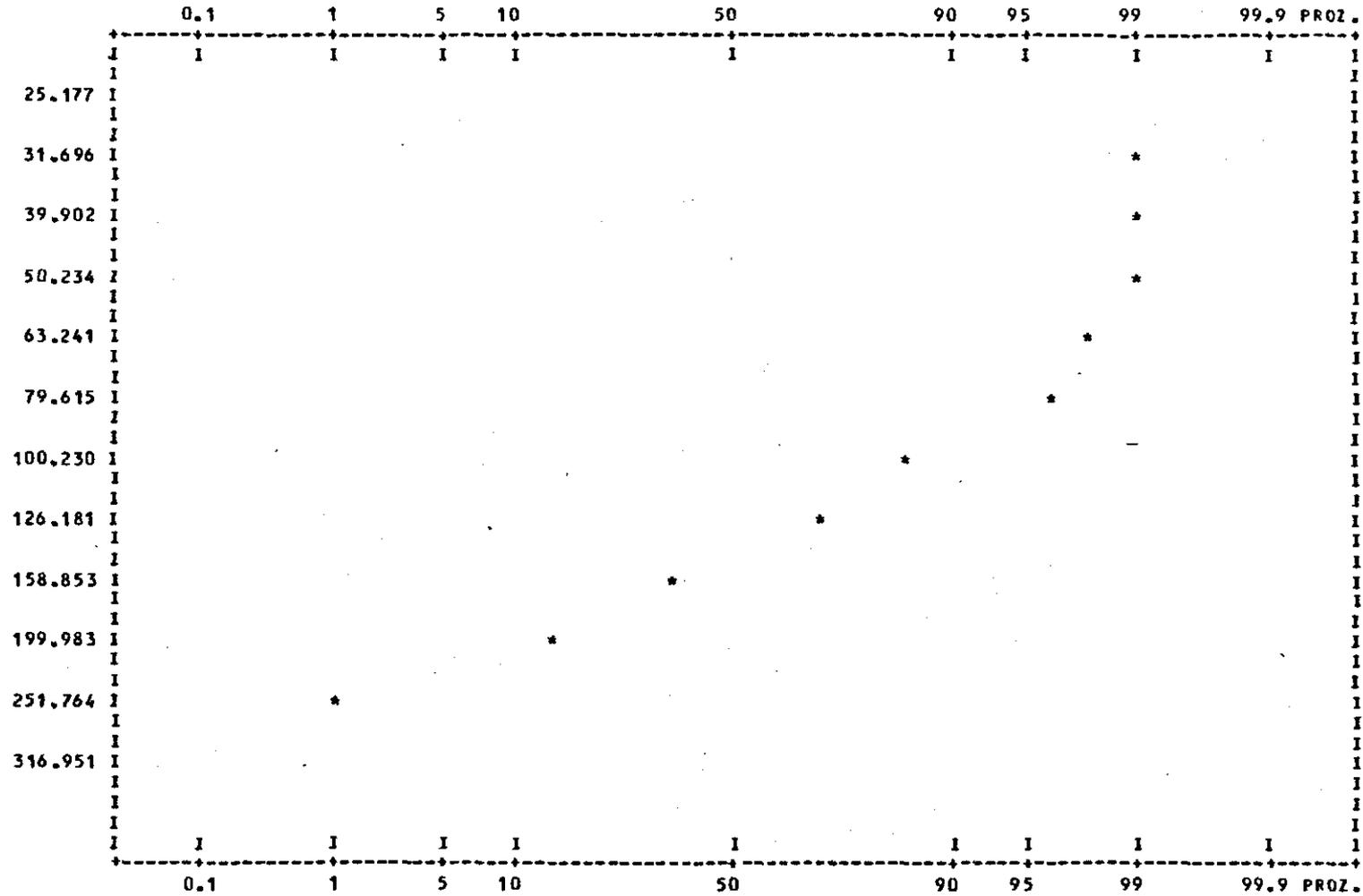
142

		0	5	10	15	20	25	30	35	40	45	50	PROZ.		
		I	I	I	I	I	I	I	I	I	I	I		ANZAHL	PROZ.
25.177...	31.696	I*										I		1	1.18
31.696...	39.902	I										I		0	0.00
39.902...	50.234	I										I		0	0.00
50.234...	63.241	I*										I		1	1.18
63.241...	79.615	I*										I		1	1.18
79.615...	100.230	I*****										I		11	12.94
100.230...	126.181	I*****										I		13	15.29
126.181...	158.853	I*****										I		27	31.76
158.853...	199.983	I*****										I		18	21.18
199.983...	251.764	I*****										I		12	14.12
251.764...	316.951	I*										I		1	1.18
		I										I			
		I	I	I	I	I	I	I	I	I	I	I			

HAEUFIGKEITSVERTEILUNG PROJEKT QUE RIVER, AUSTRALIEN ZR

193143

143



SUMMENHAUEFIGKEITEN PROJEKT QUE RIVER, AUSTRALIEN ZR

193144

Correlations

CORRELATION ANALYSIS FOR QUE RIVER, AUSTRALIA

NUMBER OF VARIABLES = 27.

NUMBER OF SUBJECTS IN THIS GROUP = 85

MEANS OF THIS GROUP

1.8034153	-0.3314465	1.1482744	0.7001562	0.2442790
-0.6048501	-0.1845514	0.2388320	-0.9178327	2.8710546
2.0038433	0.9674011	1.4940329	1.3575821	1.7938995
2.3716354	1.0167055	1.5769615	1.3361807	1.7347984
1.2191200	1.7001648	0.9840441	1.9804220	1.3921175
1.8081675	2.1477442			

STANDARD DEVIATIONS OF THIS GROUP

0.0696270	0.2054392	0.1301278	0.3517352	0.4625264
0.9819945	0.7271089	0.5460542	0.4054295	0.3396416
0.2227721	0.6324511	0.9481345	0.7481828	0.3110223
0.9182153	0.2564298	0.3803563	0.8461819	0.5680763
0.3827344	0.7841640	0.4643818	0.5125068	0.1768881
0.8602454	0.1494133			

MEANS OF THIS GROUP

0.1803415E 01 -0.3314465E 00 0.1148274E 01 0.7001562E 00 0.2442790E 00

0.6048501E 00 -0.1845514E 00 0.2388320E 00 -0.9178327E 00 0.2871055E 01
0.2003843E 01 0.9674011E 00 0.1494033E 01 0.1357582E 01 0.1793900E 01
0.2371635E 01 0.1016706E 01 0.1576962E 01 0.1336181E 01 0.1734798E 01
0.1219120E 01 0.1700165E 01 0.9840441E 00 0.1980422E 01 0.1392118E 01
0.1808167E 01 0.2147744E 01

STANDARD DEVIATIONS OF THIS GROUP

0.0696270E-01 0.2054392E 00 0.1301278E 00 0.3517352E 00 0.4625264E 00
0.9819945E 00 0.7271089E 00 0.5460542E 00 0.4054295E 00 0.3396416E 00
0.2227721E 00 0.6324511E 00 0.9481345E 00 0.7481828E 00 0.3110223E 00
0.9182153E 00 0.2564298E 00 0.3803563E 00 0.8461819E 00 0.5680763E 00
0.3827344E 00 0.7841640E 00 0.4643818E 00 0.5125068E 00 0.1768881E 00
0.8602454E 00 0.1494133E 00

140

RAW SUMS OF SQUARES AND CROSS PRODUCTS

RAW SECTION 1

ROW	SI02 1	TI02 2	AL203 3	FE203 4	MGO 5	CAO 6	NA2O 7	K2O 8	P2O5 9	BA 10
1	276.85	-51.62	175.67	105.69	35.26	-96.29	-29.57	37.42	-142.40	439.82
2	-51.62	12.88	-30.84	-16.75	-1.61	23.70	8.11	-7.18	30.57	-79.36
3	175.67	-30.84	113.50	68.72	25.73	-55.90	-14.62	24.19	-87.83	281.47
4	105.69	-16.75	68.72	52.06	24.70	-22.83	-8.26	8.55	-47.17	169.77
5	35.26	-1.61	25.73	24.70	23.04	11.59	3.13	-2.98	-8.13	60.11
6	-96.29	23.70	-55.90	-22.83	11.59	112.10	46.91	-27.92	67.08	-142.41
7	-29.57	8.11	-14.62	-8.26	3.13	46.91	47.30	-8.39	21.73	-40.76
8	37.42	-7.18	24.19	8.55	-2.98	-27.92	-8.39	29.90	-24.63	65.56
9	-142.40	30.57	-87.83	-47.17	-8.13	67.08	21.73	-24.63	85.41	-222.38
10	439.82	-79.36	281.47	169.77	60.11	-142.41	-40.76	65.56	-222.38	710.34
11	307.07	-55.85	196.69	118.94	41.89	-103.06	-29.98	40.76	-153.96	488.79
12	145.24	-20.62	95.96	73.80	40.16	-19.91	-8.59	11.30	-61.53	236.56
13	226.06	-33.06	146.89	104.42	56.41	-50.76	-24.31	17.65	-102.38	364.94
14	205.80	-33.76	131.97	94.65	43.74	-52.23	-24.08	17.50	-95.93	330.80
15	274.79	-49.21	177.23	105.94	38.46	-89.67	-23.40	37.48	-136.63	439.39
16	360.19	-61.21	234.46	158.75	74.28	-66.29	-11.68	33.03	-164.86	580.13
17	156.34	-28.58	99.99	57.24	18.72	-57.18	-15.66	23.07	-81.18	248.25
18	240.45	-40.99	154.55	100.69	44.34	-68.66	-25.23	26.57	-116.07	384.66
19	203.82	-35.34	129.41	83.42	31.48	-67.86	-27.61	22.56	-100.26	334.09
20	266.97	-49.42	170.13	96.88	27.51	-108.84	-34.38	59.41	-142.01	430.65
21	185.15	-28.61	121.69	79.36	36.84	-45.40	-11.99	21.46	-85.92	299.60
22	258.72	-42.95	169.23	105.92	48.28	-36.43	10.89	24.81	-120.23	422.25
23	150.72	-27.92	97.32	57.20	18.09	-55.95	-16.28	24.72	-74.64	242.72
24	301.30	-48.24	195.42	127.99	56.01	-82.30	-27.22	35.01	-141.72	485.35
25	213.38	-38.42	137.03	81.74	28.85	-69.40	-17.71	29.84	-108.19	341.64
26	274.50	-46.25	177.07	123.58	55.06	-62.85	-15.88	24.23	-125.31	444.27
27	329.32	-59.81	210.49	126.66	44.26	-112.71	-33.06	45.39	-167.19	524.77

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RAW SECTION 2

ROW	CE	CO	CR	CU	LA	NN	NB	NI	PB	RB
	11	12	13	14	15	16	17	18	19	20
1	307.07	145.20	226.06	205.80	274.79	360.19	156.34	240.45	203.82	266.97
2	-55.85	-20.80	-33.06	-33.76	-49.21	-61.21	-28.58	-40.99	-35.34	-49.42
3	196.69	95.90	146.89	131.97	177.23	234.46	99.99	154.55	129.41	170.13
4	118.94	73.80	104.42	94.65	105.94	158.75	57.24	100.69	83.42	96.88
5	41.89	40.16	56.41	43.74	38.46	74.28	18.72	44.34	31.48	27.51
6	-103.06	-19.91	-50.76	-52.23	-89.67	-66.29	-57.18	-68.66	-67.86	-108.84
7	-29.98	-8.59	-24.31	-24.08	-23.40	-11.68	-15.66	-25.23	-27.61	-34.38
8	40.76	11.30	17.65	17.50	37.48	33.03	23.07	26.57	22.56	59.41
9	-153.96	-61.53	-102.38	-95.93	-136.63	-164.86	-81.18	-116.07	-100.26	-142.01
10	488.79	236.56	364.94	330.80	439.39	580.13	248.25	384.66	334.09	430.65
11	345.48	164.05	250.85	228.66	310.80	406.74	175.04	268.39	224.19	295.95
12	164.05	113.15	158.20	136.31	146.60	224.79	78.52	144.74	118.78	132.64
13	250.85	158.20	265.24	206.24	223.58	322.34	124.17	226.70	189.62	208.50
14	228.66	136.31	206.24	203.68	201.97	290.25	113.41	195.15	175.96	188.23
15	310.80	146.60	223.58	201.97	281.66	367.55	157.78	240.60	198.51	266.27
16	406.74	224.79	322.34	290.25	367.55	548.92	200.11	331.24	262.81	333.64
17	175.04	78.52	124.17	113.41	157.78	200.11	93.39	134.11	112.69	152.31
18	268.39	144.74	226.70	195.15	240.60	331.24	134.11	223.53	184.59	227.22
19	224.19	118.78	189.62	175.96	198.51	262.81	112.69	184.59	211.90	192.94
20	295.95	132.64	208.50	188.23	266.27	333.64	152.31	227.22	192.94	282.92
21	209.01	114.76	173.50	150.09	188.56	262.33	104.30	171.09	141.66	175.97
22	289.92	150.80	222.68	200.73	263.20	373.53	146.50	230.63	192.60	237.86
23	172.99	78.43	118.99	109.82	157.60	196.89	87.66	130.95	110.41	150.01
24	336.44	183.41	278.88	246.44	301.12	415.19	167.80	276.28	235.35	285.78
25	238.40	113.40	174.15	157.38	215.11	282.03	121.93	185.91	157.89	206.98
26	307.99	174.14	253.97	240.00	275.69	401.85	149.59	254.32	235.86	254.12
27	367.80	175.10	271.12	245.20	330.47	432.50	187.56	287.61	242.35	318.90

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RAW SECTION 3

ROW	SC	SR	TH	V	Y	ZN	ZR
1	21 185.15	22 258.72	23 150.72	24 301.30	25 213.38	26 274.50	27 329.32
2	-28.61	-42.95	-27.92	-48.24	-38.42	-46.25	-59.81
3	121.69	169.23	97.32	195.42	137.03	177.07	210.49
4	79.36	105.92	57.20	127.99	81.74	123.58	126.66
5	36.84	48.28	18.09	56.01	28.85	55.06	44.26
6	-45.40	-36.43	-55.95	-82.30	-69.40	-62.85	-112.71
7	-11.99	10.89	-16.28	-27.22	-17.71	-15.88	-33.06
8	21.46	24.81	24.72	35.01	29.84	24.23	45.39
9	-85.92	-120.23	-74.64	-141.72	-108.19	-125.31	-167.19
10	299.60	422.25	242.72	485.35	341.64	444.27	524.77
11	209.01	289.92	172.99	336.44	238.40	307.99	367.80
12	114.76	150.80	78.43	183.41	113.40	174.14	175.10
13	173.50	222.68	118.99	278.88	174.15	253.97	271.12
14	150.09	200.73	109.82	246.44	157.38	240.00	245.20
15	188.56	263.20	157.60	301.12	215.11	275.69	330.47
16	262.33	373.53	196.89	415.19	282.03	401.85	432.50
17	104.30	146.50	87.66	167.80	121.93	149.59	187.56
18	171.09	230.63	130.95	276.28	185.91	254.32	287.61
19	141.66	192.60	110.41	235.35	157.89	235.86	242.35
20	175.97	237.86	150.01	285.78	206.98	254.12	318.90
21	138.64	186.13	101.76	218.73	145.06	199.15	223.05
22	186.13	297.35	139.52	297.16	205.24	276.38	310.32
23	101.76	139.52	100.42	163.30	118.40	149.99	182.48
24	218.73	297.16	163.30	355.44	233.58	321.55	360.48
25	145.06	205.24	118.40	233.58	167.36	213.47	255.52
26	199.15	276.38	149.99	321.55	213.47	340.07	328.35
27	223.05	310.32	182.48	360.48	255.52	328.35	393.96

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DEVIATION SUMS OF SQUARES AND CROSS PRODUCTS

DEV SECTION 1

ROW	SI02	TI02	AL203	FE203	MGO	CAO	NA2O	K2O	P2O5	BA
	1	2	3	4	5	6	7	8	9	10
1	0.41	-0.81	-0.35	-1.64	-2.18	-3.57	-1.28	0.81	-1.70	-0.28
2	-0.81	3.55	1.51	2.97	5.27	6.66	2.91	-0.45	4.71	1.53
3	-0.35	1.51	1.42	0.39	1.89	3.13	3.39	0.87	1.75	1.25
4	-1.64	2.97	0.39	10.39	10.17	13.16	2.72	-5.67	7.45	-1.10
5	-2.18	5.27	1.89	10.17	17.97	24.15	6.96	-7.94	10.93	0.49
6	-3.57	6.66	3.13	13.16	24.15	81.00	37.42	-15.64	19.90	5.20
7	-1.28	2.91	3.39	2.72	6.96	37.42	44.41	-4.65	7.33	4.28
8	0.81	-0.45	0.87	-5.67	-7.94	-15.64	-4.65	25.05	-6.00	7.28
9	-1.70	4.71	1.75	7.45	10.93	19.90	7.33	-6.00	13.81	1.61
10	-0.28	1.53	1.25	-1.10	0.49	5.20	4.28	7.28	1.61	9.69
11	-0.10	0.60	1.11	-0.31	0.28	-0.04	1.45	0.08	2.37	-0.23
12	-3.06	6.63	1.54	16.23	20.08	29.83	6.59	-8.34	13.94	0.48
13	-2.96	9.03	1.07	15.50	25.38	26.05	-0.88	-12.68	14.18	0.34
14	-2.30	4.49	-0.54	13.85	15.56	17.57	-2.79	-10.06	9.98	-0.50
15	-0.19	1.33	2.14	-0.83	1.21	2.56	4.74	1.06	3.32	1.61
16	-3.36	5.61	2.98	17.61	25.03	55.64	25.53	-15.11	20.17	1.36
17	0.49	0.06	0.75	-3.26	-2.39	-4.90	0.28	2.43	-1.86	0.13
18	-1.28	3.44	0.63	6.84	11.60	12.41	-0.49	-5.45	6.95	-0.18
19	-1.01	2.31	-1.00	3.90	3.73	0.83	-6.65	-4.57	3.98	8.01
20	1.04	-0.55	0.81	-6.36	-8.51	-19.65	-7.17	24.19	-6.67	7.29
21	-1.73	5.73	2.70	6.81	11.53	17.28	7.13	-3.29	9.19	2.08
22	-1.90	4.95	3.29	4.74	12.98	50.98	37.56	-9.70	12.41	7.34
23	-0.13	-0.20	1.27	-1.36	-2.34	-5.36	-0.84	4.74	2.13	2.57
24	-2.28	7.55	2.12	10.13	14.89	19.52	3.85	-5.20	12.78	2.05
25	-0.02	0.80	1.16	-1.11	-0.05	2.17	4.13	1.58	0.41	1.90
26	-2.67	4.69	0.59	15.97	17.51	30.11	12.48	-12.48	15.76	3.01
27	0.09	0.70	0.87	-1.16	-0.34	-2.29	0.64	1.79	0.37	0.63

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DEV SECTION 2

ROW	CE	CO	CR	CU	LA	MN	NB	NI	PB	RB
	11	12	13	14	15	16	17	18	19	20
1	-0.10	-3.06	-2.96	-2.30	-0.19	-3.36	0.49	-1.28	-1.01	1.04
2	0.60	6.63	9.03	4.49	1.33	5.61	0.06	3.44	2.31	-0.55
3	1.11	1.54	1.07	-0.54	2.14	2.98	0.75	0.63	-1.00	0.81
4	-0.31	16.23	15.50	13.85	-0.83	17.61	-3.26	6.84	3.90	-6.36
5	0.28	20.08	25.38	15.56	1.21	25.03	-2.39	11.60	3.73	-8.51
6	-0.04	29.83	26.05	17.57	2.56	55.64	-4.90	12.41	0.83	-19.65
7	1.45	6.59	-0.88	-2.79	4.74	25.53	0.28	-0.49	-6.65	-7.17
8	0.08	-8.34	-12.68	-10.06	1.06	-15.11	2.43	-5.45	-4.57	24.19
9	2.37	13.94	14.18	9.98	3.32	20.17	-1.86	6.95	3.98	-6.67
10	-0.23	0.48	0.34	-0.50	1.61	1.36	0.13	-0.18	8.01	7.29
11	4.17	-0.72	-3.63	-2.57	5.25	2.79	1.87	-0.21	-3.40	0.46
12	-0.72	33.60	35.35	24.68	-0.91	29.77	-5.08	15.07	8.91	-10.01
13	-3.63	35.35	75.51	33.83	-4.23	21.16	-4.95	26.44	19.93	-11.80
14	-2.57	24.68	33.83	47.02	-5.04	16.57	-3.91	13.18	21.77	-11.96
15	5.25	-0.91	-4.23	-5.04	8.13	5.92	2.75	0.14	-5.24	1.75
16	2.79	29.77	21.16	16.57	5.92	70.82	-4.85	13.34	-6.55	-16.07
17	1.87	-5.08	-4.95	-3.91	2.75	-4.85	5.52	-2.17	-2.78	2.38
18	-0.21	15.07	26.44	13.18	0.14	13.34	-2.17	12.15	5.49	-5.31
19	-3.40	8.91	19.93	21.77	-5.24	-6.55	-2.78	5.49	60.15	-4.09
20	0.46	-10.01	-11.80	-11.96	1.75	-16.07	2.38	-5.31	-4.09	27.11
21	1.36	14.51	18.68	9.41	2.66	16.57	-1.06	7.68	3.20	-3.80
22	0.33	11.00	6.77	4.54	3.96	30.79	-0.43	2.74	-0.49	-12.84
23	5.38	-2.48	-5.97	-3.73	7.55	-1.49	2.62	-0.95	-1.36	4.90
24	-0.88	20.57	27.38	17.91	-0.86	15.96	-3.35	10.82	10.42	-6.25
25	1.28	-1.07	-2.64	-3.27	2.84	1.40	1.62	-0.69	-0.22	1.70
26	0.01	25.45	24.34	31.35	-0.02	37.35	-6.67	11.95	30.50	-12.51
27	1.98	-1.51	-1.63	-2.64	2.98	-0.47	1.95	-0.27	-1.58	2.20

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DEV SECTION 3

ROW	SC	SR	TH	V	Y	ZN	ZR
	21	22	23	24	25	26	27
1	-1.73	-1.90	-0.13	-2.28	-0.02	-2.67	0.09
2	5.73	4.95	-0.20	7.55	0.80	4.69	0.70
3	2.70	3.29	1.27	2.12	1.16	0.59	0.87
4	6.81	4.74	-1.36	10.13	-1.11	15.97	-1.16
5	11.53	12.98	-2.34	14.89	-0.05	17.51	-0.34
6	17.28	50.98	-5.36	19.52	2.17	30.11	-2.29
7	7.13	37.56	-0.84	3.85	4.13	12.48	0.64
8	-3.29	-9.70	4.74	-5.20	1.58	-12.48	1.79
9	9.19	12.41	2.13	12.78	0.41	15.76	0.37
10	2.08	7.34	2.57	2.05	1.90	3.01	0.63
11	1.36	0.33	5.38	-0.88	1.28	0.01	1.98
12	14.51	11.00	-2.48	20.57	-1.07	25.45	-1.51
13	18.68	6.77	-5.97	27.38	-2.64	24.34	-1.63
14	9.41	4.54	-3.73	17.91	-3.27	31.35	-2.64
15	2.66	3.96	7.55	-0.86	2.84	-0.02	2.98
16	16.57	30.79	-1.49	15.96	1.40	37.35	-0.47
17	-1.06	-0.43	2.62	-3.35	1.62	-6.67	1.95
18	7.68	2.74	-0.95	10.82	-0.69	11.95	-0.27
19	3.20	-0.49	-1.36	10.42	-0.22	30.50	-1.58
20	-3.80	-12.84	4.90	-6.25	1.70	-12.51	2.20
21	12.30	9.95	-0.22	13.51	0.80	11.78	0.49
22	9.95	51.65	-2.69	10.96	4.06	15.08	-0.06
23	-0.22	-2.69	18.11	-2.35	1.96	-1.25	2.83
24	13.51	10.96	-2.35	22.06	-0.76	17.17	-1.06
25	0.80	4.06	1.96	-0.76	2.63	-0.49	1.37
26	11.78	15.08	-1.25	17.17	-0.49	62.16	-1.75
27	0.49	-0.06	2.83	-1.06	1.37	-1.75	1.88

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VARIANCE-COVARIANCE MATRIX

D MA SECTION 1

ROW	SI02	TI02	AL203	FE203	HGO	CAO	NA20	K2O	P205	BA
	1	2	3	4	5	6	7	8	9	10
1	0.00	-0.01	-0.00	-0.02	-0.03	-0.04	-0.02	0.01	-0.02	-0.00
2	-0.01	0.04	0.02	0.04	0.06	0.08	0.03	-0.01	0.06	0.02
3	-0.00	0.02	0.02	0.00	0.02	0.04	0.04	0.01	0.02	0.01
4	-0.02	0.04	0.00	0.12	0.12	0.16	0.03	-0.07	0.09	-0.01
5	-0.03	0.06	0.02	0.12	0.21	0.29	0.08	-0.09	0.13	0.01
6	-0.04	0.08	0.04	0.16	0.29	0.96	0.45	-0.19	0.24	0.06
7	-0.02	0.03	0.04	0.03	0.08	0.45	0.53	-0.06	0.09	0.05
8	0.01	-0.01	0.01	-0.07	-0.09	-0.19	-0.06	0.30	-0.07	0.09
9	-0.02	0.06	0.02	0.09	0.13	0.24	0.09	-0.07	0.16	0.02
10	-0.00	0.02	0.01	-0.01	0.01	0.06	0.05	0.09	0.02	0.12
11	-0.00	0.01	0.01	-0.00	0.00	-0.00	0.02	0.00	0.03	-0.00
12	-0.04	0.08	0.02	0.19	0.24	0.36	0.08	-0.10	0.17	0.01
13	-0.04	0.11	0.01	0.18	0.30	0.31	-0.01	-0.15	0.17	0.00
14	-0.03	0.05	-0.01	0.16	0.19	0.21	-0.03	-0.12	0.12	-0.01
15	-0.00	0.02	0.03	-0.01	0.01	0.03	0.06	0.01	0.04	0.02
16	-0.04	0.07	0.04	0.21	0.30	0.66	0.30	-0.18	0.24	0.02
17	0.01	0.00	0.01	-0.04	-0.03	-0.06	0.00	0.03	-0.02	0.00
18	-0.02	0.04	0.01	0.08	0.14	0.15	-0.01	-0.06	0.08	-0.00
19	-0.01	0.03	-0.01	0.05	0.04	0.01	-0.08	-0.05	0.05	0.10
20	0.01	-0.01	0.01	-0.08	-0.10	-0.23	-0.09	0.29	-0.08	0.09
21	-0.02	0.07	0.03	0.08	0.14	0.21	0.08	-0.04	0.11	0.02
22	-0.02	0.06	0.04	0.06	0.15	0.61	0.45	-0.12	0.15	0.09
23	-0.00	-0.00	0.02	-0.02	-0.03	-0.06	-0.01	0.06	0.03	0.03
24	-0.03	0.09	0.03	0.12	0.18	0.23	0.05	-0.06	0.15	0.02
25	-0.00	0.01	0.01	-0.01	-0.00	0.03	0.05	0.02	0.00	0.02
26	-0.03	0.06	0.01	0.19	0.21	0.36	0.15	-0.15	0.19	0.04
27	0.00	0.01	0.01	-0.01	-0.00	-0.03	0.01	0.02	0.00	0.01

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D MA SECTION 2

ROW	CE	CO	CR	CU	LA	MN	NB	NI	PB	RB
	11	12	13	14	15	16	17	18	19	20
1	-0.00	-0.04	-0.04	-0.03	-0.00	-0.04	0.01	-0.02	-0.01	0.01
2	0.01	0.08	0.11	0.05	0.02	0.07	0.00	0.04	0.03	-0.01
3	0.01	0.02	0.01	-0.01	0.03	0.04	0.01	0.01	-0.01	0.01
4	-0.00	0.19	0.18	0.16	-0.01	0.21	-0.04	0.08	0.05	-0.08
5	0.00	0.24	0.30	0.19	0.01	0.30	-0.03	0.14	0.04	-0.10
6	-0.00	0.36	0.31	0.21	0.03	0.66	-0.06	0.15	0.01	-0.23
7	0.02	0.08	-0.01	-0.03	0.06	0.30	0.00	-0.01	-0.08	-0.09
8	0.00	-0.10	-0.15	-0.12	0.01	-0.18	0.03	-0.06	-0.05	0.29
9	0.03	0.17	0.17	0.12	0.04	0.24	-0.02	-0.08	0.05	-0.08
10	-0.00	0.01	0.00	-0.01	0.02	0.02	0.00	-0.00	0.10	0.09
11	0.05	-0.01	-0.04	-0.03	0.06	0.03	0.02	-0.00	-0.04	0.01
12	-0.01	0.40	0.42	0.29	-0.01	0.35	-0.06	0.18	0.11	-0.12
13	-0.04	0.42	0.90	0.40	-0.05	0.25	-0.06	0.31	0.24	-0.14
14	-0.03	0.29	0.40	0.56	-0.06	0.20	-0.05	0.16	0.26	-0.14
15	0.06	-0.01	-0.05	-0.06	0.10	0.07	0.03	0.00	-0.06	0.02
16	0.03	0.35	0.25	0.20	0.07	0.84	-0.06	0.16	-0.08	-0.19
17	0.02	-0.06	-0.06	-0.05	0.03	-0.06	0.07	-0.03	-0.03	0.03
18	-0.00	0.18	0.31	0.16	0.00	0.16	-0.03	0.14	0.07	-0.06
19	-0.04	0.11	0.24	0.26	-0.06	-0.08	-0.03	0.07	0.72	-0.05
20	0.01	-0.12	-0.14	-0.14	0.02	-0.19	0.03	-0.06	-0.05	0.32
21	0.02	0.17	0.22	0.11	0.03	0.20	-0.01	0.09	0.04	-0.05
22	0.00	0.13	0.08	0.05	0.05	0.37	-0.01	0.03	-0.01	-0.15
23	0.06	-0.03	-0.07	-0.04	0.09	-0.02	0.03	-0.01	-0.02	0.06
24	-0.01	0.24	0.33	0.21	-0.01	0.19	-0.04	0.13	0.12	-0.07
25	0.02	-0.01	-0.03	-0.04	0.03	0.02	0.02	-0.01	-0.00	0.02
26	0.00	0.30	0.29	0.37	-0.00	0.44	-0.08	0.14	0.36	-0.15
27	0.02	-0.02	-0.02	-0.03	0.04	-0.01	0.02	-0.00	-0.02	0.03

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D MA SECTION 3

	SC	SR	TH	V	Y	ZN	ZR
ROW	21	22	23	24	25	26	27
1	-0.02	-0.02	-0.00	-0.03	-0.00	-0.03	0.00
2	0.07	0.06	-0.00	0.09	0.01	0.06	0.01
3	0.03	0.04	0.02	0.03	0.01	0.01	0.01
4	0.08	0.06	-0.02	0.12	-0.01	0.19	-0.01
5	0.14	0.15	-0.03	0.18	-0.00	0.21	-0.00
6	0.21	0.61	-0.06	0.23	0.03	0.36	-0.03
7	0.08	0.45	-0.01	0.05	0.05	0.15	0.01
8	-0.04	-0.12	0.06	-0.06	0.02	-0.15	0.02
9	0.11	0.15	0.03	0.15	0.00	0.19	0.00
10	0.02	0.09	0.03	0.02	0.02	0.04	0.01
11	0.02	0.00	0.06	-0.01	0.02	0.00	0.02
12	0.17	0.13	-0.03	0.24	-0.01	0.30	-0.02
13	0.22	0.08	-0.07	0.33	-0.03	0.29	-0.02
14	0.11	0.05	-0.04	0.21	-0.04	0.37	-0.03
15	0.03	0.05	0.09	-0.01	0.03	-0.00	0.04
16	0.20	0.37	-0.02	0.19	0.02	0.44	-0.01
17	-0.01	-0.01	0.03	-0.04	0.02	-0.08	0.02
18	0.09	0.03	-0.01	0.13	-0.01	0.14	-0.00
19	0.04	-0.01	-0.02	0.12	-0.00	0.36	-0.02
20	-0.05	-0.15	0.06	-0.07	0.02	-0.15	0.03
21	0.15	0.12	-0.00	0.16	0.01	0.14	0.01
22	0.12	0.61	-0.03	0.13	0.05	0.18	-0.00
23	-0.00	-0.03	0.22	-0.03	0.02	-0.01	0.03
24	0.16	0.13	-0.03	0.26	-0.01	0.20	-0.01
25	0.01	0.05	0.02	-0.01	0.03	-0.01	0.02
26	0.14	0.18	-0.01	0.20	-0.01	0.74	-0.02
27	0.01	-0.00	0.03	-0.01	0.02	-0.02	0.02

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CORRELATION MATRIX, QUE RIVER, AUSTRALIA

R MA SECTION 1

ROW	SI02	TI02	AL203	FE203	MGO	CAO	NA2O	K2O	P2O5	BA
	1	2	3	4	5	6	7	8	9	10
1	1.00	-0.67	-0.46	-0.80	-0.81	-0.62	-0.30	0.25	-0.72	-0.14
2	-0.67	1.00	0.67	0.49	0.66	0.39	0.23	-0.05	0.67	0.26
3	-0.46	0.67	1.00	0.10	0.37	0.29	0.43	0.15	0.39	0.34
4	-0.80	0.49	0.10	1.00	0.74	0.45	0.13	-0.35	0.62	-0.11
5	-0.81	0.66	0.37	0.74	1.00	0.63	0.25	-0.37	0.69	0.04
6	-0.62	0.39	0.29	0.45	0.63	1.00	0.62	-0.35	0.59	0.19
7	-0.30	0.23	0.43	0.13	0.25	0.62	1.00	-0.14	0.30	0.21
8	0.25	-0.05	0.15	-0.35	-0.37	-0.35	-0.14	1.00	-0.32	0.47
9	-0.72	0.67	0.39	0.62	0.69	0.59	0.30	-0.32	1.00	0.14
10	-0.14	0.26	0.34	-0.11	0.04	0.19	0.21	0.47	0.14	1.00
11	-0.08	0.16	0.45	-0.05	0.03	-0.00	0.11	0.01	0.31	-0.04
12	-0.83	0.61	0.22	0.87	0.82	0.57	0.17	-0.29	0.65	0.03
13	-0.53	0.55	0.10	0.55	0.69	0.33	-0.02	-0.29	0.44	0.01
14	-0.53	0.35	-0.07	0.63	0.54	0.28	-0.06	-0.29	0.39	-0.02
15	-0.11	0.25	0.63	-0.09	0.10	0.10	0.25	0.07	0.31	0.18
16	-0.63	0.35	0.30	0.65	0.70	0.73	0.46	-0.36	0.64	0.05
17	0.33	0.01	0.27	-0.43	-0.24	-0.23	0.02	0.21	-0.21	0.02
18	-0.58	0.52	0.15	0.61	0.78	0.40	-0.02	-0.31	0.54	-0.02
19	-0.20	0.16	-0.11	0.16	0.11	0.01	-0.13	-0.12	0.14	0.33
20	0.31	-0.06	0.13	-0.38	-0.39	-0.42	-0.21	0.93	-0.34	0.45
21	-0.77	0.87	0.65	0.60	0.78	0.55	0.31	-0.19	0.71	0.19
22	-0.41	0.37	0.38	0.20	0.43	0.79	0.78	-0.27	0.46	0.33
23	-0.05	-0.02	0.25	-0.10	-0.13	-0.14	-0.03	0.22	0.13	0.19
24	-0.76	0.85	0.38	0.67	0.75	0.46	0.12	-0.22	0.73	0.14
25	-0.02	0.26	0.60	-0.21	-0.01	0.15	0.38	0.19	0.07	0.38
26	-0.53	0.32	0.06	0.63	0.52	0.42	0.24	-0.32	0.54	0.12
27	0.11	0.27	0.53	-0.26	-0.06	-0.19	0.07	0.26	0.07	0.15

R MA SECTION 2

ROW	CE	CO	CR	CU	LA	MN	NB	NI	PB	RB
	11	12	13	14	15	16	17	18	19	20
1	-0.08	-0.83	-0.53	-0.53	-0.11	-0.63	0.33	-0.58	-0.20	-0.31
2	0.16	0.61	0.55	0.35	0.25	0.35	0.01	0.52	0.16	-0.06
3	0.45	0.22	0.10	-0.07	0.63	0.30	0.27	0.15	-0.11	0.13
4	-0.05	0.87	0.55	0.63	-0.09	0.65	-0.43	0.61	0.16	-0.38
5	0.03	0.82	0.69	0.54	0.10	0.70	-0.24	0.78	0.11	-0.39
6	-0.00	0.57	0.33	0.28	0.10	0.73	-0.23	0.40	0.01	-0.42
7	0.11	0.17	-0.02	-0.06	0.25	0.46	0.02	-0.02	-0.13	-0.21
8	0.01	-0.29	-0.29	-0.29	0.07	-0.36	0.21	-0.31	-0.12	0.93
9	0.31	0.65	0.44	0.39	0.31	0.64	-0.21	0.54	0.14	-0.34
10	-0.04	0.03	0.01	-0.02	0.18	0.05	0.02	-0.02	0.33	0.45
11	1.00	-0.06	-0.20	-0.18	0.90	0.16	0.39	-0.03	-0.21	0.04
12	-0.06	1.00	0.70	0.62	-0.05	0.61	-0.37	0.75	0.20	-0.33
13	-0.20	0.70	1.00	0.57	-0.17	0.29	-0.24	0.87	0.30	-0.26
14	-0.18	0.62	0.57	1.00	-0.26	0.29	-0.24	0.55	0.41	-0.33
15	0.90	-0.05	-0.17	-0.26	1.00	0.25	0.41	0.01	-0.24	0.12
16	0.16	0.61	0.29	0.29	0.25	1.00	-0.25	0.45	-0.10	-0.37
17	0.39	-0.37	-0.24	-0.24	0.41	-0.25	1.00	-0.27	-0.15	0.19
18	-0.03	0.75	0.87	0.55	0.01	0.45	-0.27	1.00	0.20	-0.29
19	-0.21	0.20	0.30	0.41	-0.24	-0.10	-0.15	0.20	1.00	-0.10
20	0.04	-0.33	-0.26	-0.33	0.12	-0.37	0.19	-0.29	-0.10	1.00
21	0.19	0.71	0.61	0.39	0.27	0.56	-0.13	0.63	0.12	-0.21
22	0.02	0.26	0.11	0.09	0.19	0.51	-0.03	0.11	-0.01	-0.34
23	0.62	-0.10	-0.16	-0.13	0.62	-0.04	0.26	-0.06	-0.04	0.22
24	-0.09	0.76	0.67	0.56	-0.06	0.40	-0.30	0.66	0.29	-0.26
25	0.39	-0.11	-0.19	-0.29	0.61	0.10	0.43	-0.12	-0.02	0.20
26	0.00	0.56	0.36	0.58	-0.00	0.56	-0.36	0.43	0.50	-0.30
27	0.71	-0.19	-0.14	-0.28	0.76	-0.04	0.61	-0.06	-0.15	0.31

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R MA SECTION 3

ROW	SC	SR	TH	V	Y	ZH	ZR			
	21	22	23	24	25	26	27			
1	-0.77	-0.41	-0.05	-0.76	-0.02	-0.53	0.11			
2	0.87	0.37	-0.02	0.85	0.26	0.32	0.27			
3	0.65	0.38	0.25	0.38	0.60	0.06	0.53			
4	0.60	0.20	-0.10	0.67	-0.21	0.63	-0.26			
5	0.78	0.43	-0.13	0.75	-0.01	0.52	-0.06			
6	0.55	0.79	-0.14	0.46	0.15	0.42	-0.19			
7	0.31	0.78	-0.03	0.12	0.38	0.24	0.07			
8	-0.19	-0.27	0.22	-0.22	0.19	-0.32	0.26			
9	0.71	0.46	0.13	0.73	0.07	0.54	0.07			
10	0.19	0.33	0.19	0.14	0.38	0.12	0.15			
11	0.19	0.02	0.62	-0.09	0.39	0.00	0.71			
12	0.71	0.26	-0.10	0.76	-0.11	0.56	-0.19			
13	0.61	0.11	-0.16	0.67	-0.19	0.36	-0.14			
14	0.39	0.09	-0.13	0.56	-0.29	0.58	-0.28			
15	0.27	0.19	0.62	-0.06	0.61	-0.00	0.76			
16	0.56	0.51	-0.04	0.40	0.10	0.56	-0.04			
17	-0.13	-0.03	0.26	-0.30	0.43	-0.36	0.61			
18	0.63	0.11	-0.06	0.66	-0.12	0.43	-0.06			
19	0.12	-0.01	-0.04	0.29	-0.02	0.50	-0.15			
20	-0.21	-0.34	0.22	-0.26	0.20	-0.30	0.31			
21	1.00	0.39	-0.01	0.82	0.14	0.43	0.10			
22	0.39	1.00	-0.09	0.32	0.35	0.27	-0.01			
23	-0.01	-0.09	1.00	-0.12	0.28	-0.04	0.49			
24	0.82	0.32	-0.12	1.00	-0.10	0.46	-0.16			
25	0.14	0.35	0.28	-0.10	1.00	-0.04	0.62			
26	0.43	0.27	-0.04	0.46	-0.04	1.00	-0.16			
27	0.10	-0.01	0.49	-0.16	0.62	-0.16	1.00			
MEANS	1.80	-0.33	1.15	0.70	0.24	-0.60	-0.18	0.24	-0.92	2.87
	2.00	0.97	1.49	1.36	1.79	2.37	1.02	1.58	1.34	1.73
	1.22	1.70	0.98	1.98	1.39	1.81	2.15			
STD DEV	0.07	0.21	0.13	0.35	0.46	0.98	0.73	0.55	0.41	0.34
	0.22	0.63	0.95	0.75	0.31	0.92	0.26	0.38	0.85	0.57
	0.38	0.78	0.46	0.51	0.18	0.86	0.15			

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Factor Analysis

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FACTOR ANALYSIS QUERIV

NO. OF CASES 85
 NO. OF VARIABLES 27

MEANS	64.40427	0.51094	14.56591	6.34241	2.83035	1.71952	1.51105	2.52023
	0.17671	968.02343	113.44705	19.28235	165.77646	64.00000	75.17647	765.61157
	11.80000	58.52940	193.75293	82.49411	21.75293	157.21176	14.20000	151.18822
	26.41176	375.69409	148.07059					

STANDARD DEVIATIONS	10.31441	0.19154	3.27057	4.42926	2.46385	2.66493	1.45898	1.50852
	0.15056	707.15527	52.62297	17.92348	280.85278	111.23655	40.42438	877.10327
	4.91304	69.24844	704.10791	49.76840	12.91810	205.98187	10.04010	107.15276
	8.98444	1164.85420	45.43361					

CORRELATION COEFFICIENTS

ROW 1	1.00000	-0.72919	-0.58683	-0.70662	-0.76601	-0.52406	-0.32945	0.27544	-0.58992	-0.14006
	-0.07993	-0.74597	-0.30501	-0.17550	-0.07900	-0.57099	0.34570	-0.38475	-0.08645	0.29445
	-0.84153	-0.47359	-0.07076	-0.79263	-0.06257	-0.14720	0.06504			
ROW 2	-0.72919	1.00000	0.68094	0.38410	0.56274	0.20448	0.14655	-0.06620	0.52581	0.11648
	0.09452	0.56831	0.31881	-0.08430	0.07026	0.33268	-0.07697	0.34357	-0.07266	-0.04743
	0.74224	0.30562	0.06688	0.81157	0.13494	-0.05872	0.22064			
ROW 3	-0.58683	0.68094	1.00000	0.03546	0.30681	0.10880	0.23554	0.20824	0.30225	0.12501
	0.35134	0.22509	-0.06396	-0.40012	0.36638	0.29586	0.13180	0.01529	-0.16256	0.23036
	0.54064	0.24708	0.33487	0.52044	0.42000	-0.09185	0.41618			
ROW 4	-0.70662	0.38410	0.03546	1.00000	0.58568	0.17072	0.09252	-0.45233	0.43148	-0.10037
	-0.11319	0.63787	0.36118	0.58196	-0.14026	0.42076	-0.48959	0.39418	0.06021	-0.46288
	0.56296	0.18783	-0.07376	0.57724	-0.27989	0.10582	-0.29569			
ROW 5	-0.70601	0.56274	0.30681	0.58568	1.00000	0.43305	0.20549	-0.50275	0.54835	0.04910
	0.04272	0.34435	0.64237	0.14933	0.03241	0.46623	-0.35999	0.68770	0.03423	-0.50206
	0.85333	0.36601	-0.01756	0.75325	-0.16123	0.05336	-0.10048			
ROW 6	-0.52406	0.20448	0.10880	0.17072	0.43305	1.00000	0.43701	-0.30245	0.22727	0.14190
	-0.18343	0.39509	0.06512	0.03967	-0.15909	0.34108	-0.23169	0.12731	0.05824	-0.36235
	0.40177	0.67916	-0.24499	0.29981	-0.01665	0.07229	-0.36444			
ROW 7	-0.32945	0.14655	0.23554	0.09252	0.20549	0.43701	1.00000	-0.48318	0.27867	0.04281
	0.12148	0.13981	-0.10381	-0.06468	0.20797	0.31413	-0.04285	-0.05675	0.10305	-0.48409
	0.21555	0.70069	-0.08271	0.14545	0.21054	0.10298	-0.00659			
ROW 8	0.27544	-0.06620	0.20824	-0.45233	-0.50275	-0.30245	-0.48318	1.00000	-0.41432	0.31532
	0.02798	-0.37639	-0.32523	-0.30672	0.04456	-0.27728	0.23719	-0.32051	-0.17515	0.94031
	-0.33889	-0.36422	0.10691	-0.27665	0.32554	-0.09474	0.23456			
ROW 9	-0.58992	0.52581	0.30225	0.43148	0.54835	0.22727	0.27867	-0.41432	1.00000	0.10125
	0.37081	0.57987	0.37255	0.21640	0.34321	0.47486	-0.14767	0.37208	0.18969	-0.42018
	0.57675	0.33280	0.30536	0.59005	0.00515	0.09589	0.10953			

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ROW 10	-0.14006	0.11648	0.12501	-0.10037	0.04910	0.14190	0.04281	0.31532	0.10125	1.00000
	-0.08247	0.10479	-0.11060	0.09347	0.02911	0.14315	-0.12249	-0.06944	0.50607	0.23883
	0.02228	0.26495	-0.01088	0.03784	0.27956	0.36953	-0.03154			
ROW 11	-0.07993	0.09452	0.35134	-0.11319	0.04272	-0.18343	0.12148	0.02798	0.37081	-0.01247
	1.00000	0.04640	0.11577	-0.13293	0.96565	0.03445	0.36715	0.12691	-0.01006	0.10827
	0.09102	-0.01545	0.68066	-0.00962	0.28250	-0.01252	0.67857			
ROW 12	-0.74597	0.56831	0.22509	0.63787	0.84435	0.39509	0.13581	-0.37639	0.57987	0.00479
	0.04640	1.00000	0.64953	0.25320	0.01684	0.47491	-0.38302	0.71339	0.04328	-0.39994
	0.81221	0.26860	-0.04841	0.73355	-0.13254	0.09908	-0.12209			
ROW 13	-0.30501	0.31881	-0.06396	0.36118	0.04237	0.06512	-0.10381	-0.32523	0.37255	-0.11060
	0.11577	0.64953	1.00000	0.20440	0.07243	0.13502	-0.21039	0.92679	0.01704	-0.31541
	0.54560	-0.00930	0.02158	0.43819	-0.28907	0.03746	0.09394			
ROW 14	-0.17550	-0.08430	-0.40012	0.58196	0.14933	0.03967	-0.06468	-0.30672	0.21640	0.09347
	-0.13293	0.25320	0.20440	1.00000	-0.18564	0.04185	-0.29769	0.20560	0.33226	-0.33103
	0.06125	0.01868	-0.08671	0.08285	-0.32546	0.20801	-0.32409			
ROW 15	-0.07900	0.07026	0.36638	-0.14026	0.03241	-0.15909	0.20797	0.04456	0.34321	0.02911
	0.96565	0.01684	0.07243	-0.18564	1.00000	0.07574	0.35215	0.05764	-0.04207	0.10493
	0.05680	0.08393	0.67609	-0.04218	0.37481	-0.02207	0.67901			
ROW 16	-0.57099	0.33298	0.29586	0.42076	0.46623	0.34108	0.31413	-0.27228	0.47486	0.14315
	0.03445	0.47491	0.13502	0.04185	0.07574	1.00000	-0.21741	0.24508	0.08127	-0.29738
	0.50414	0.38163	0.14446	0.41606	0.13489	0.11351	-0.09927			
ROW 17	0.34570	-0.07697	0.13180	-0.48959	-0.35999	-0.23169	-0.04285	0.23719	-0.14767	-0.12249
	0.36715	-0.38302	-0.21039	-0.29769	0.35215	-0.21741	1.00000	-0.26334	-0.18067	0.30008
	-0.30991	-0.12856	0.40965	-0.32196	0.36355	-0.19765	0.54576			
ROW 18	-0.38475	0.34357	0.01529	0.39418	0.68770	0.12731	-0.05675	-0.32051	0.37208	-0.06944
	0.12691	0.71339	0.92679	0.20560	0.09764	0.24508	-0.26334	1.00000	0.02167	-0.31698
	0.56796	0.05578	0.01788	0.46638	-0.20280	0.05694	0.07603			
ROW 19	-0.08645	-0.02266	-0.16256	0.06021	0.03423	0.05824	0.10305	-0.17515	0.18969	0.50607
	-0.03006	0.04328	0.01704	0.33226	-0.04207	0.08127	-0.18067	0.02167	1.00000	-0.16942
	-0.00658	0.04490	-0.00743	-0.05094	0.01268	0.87145	-0.12827			
ROW 20	0.29645	-0.04743	0.23036	-0.46288	-0.50206	-0.36235	-0.48409	0.94031	-0.42018	0.23883
	-0.10827	-0.39994	-0.31541	-0.33103	0.10493	-0.29738	0.30008	-0.31698	-0.16942	1.00000
	-0.13470	-0.43781	0.13970	-0.25210	0.27480	-0.10164	0.31359			
ROW 21	-0.84153	0.74224	0.54064	0.56296	0.85333	0.40177	0.21555	-0.33889	0.57675	0.02228
	0.09102	0.81221	0.54560	0.06125	0.05680	0.50414	-0.30991	0.56796	-0.00658	-0.33470
	1.00000	0.30710	0.02792	0.89670	-0.12281	0.01957	-0.08528			
ROW 22	-0.47359	0.30562	0.24708	0.18783	0.36601	0.67916	0.70069	-0.36422	0.33880	0.26495
	-0.01545	0.26860	-0.00930	0.01868	0.08393	0.38163	-0.12856	0.05578	0.04490	-0.43781
	0.36710	1.00000	-0.03325	0.29139	0.18729	0.06603	-0.13576			

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ROW 23	-0.07076	0.06688	0.33487	-0.07376	-0.01756	-0.24499	-0.08271	0.10691	0.30536	-0.01088
	0.68066	-0.04841	0.02158	-0.08671	0.67609	0.14446	0.40965	0.01788	-0.00743	0.13970
	0.02792	-0.03325	1.00000	0.00367	0.20166	0.01826	0.56835			
ROW 24	-0.79263	0.81157	0.52044	0.57724	0.75325	0.29981	0.14545	-0.27665	0.59005	0.03784
	-0.00962	0.73355	0.43819	0.08289	-0.04218	0.41606	-0.32196	0.46638	-0.05094	-0.25210
	0.69670	0.29139	0.00367	1.00000	-0.15379	-0.03119	-0.13447			
ROW 25	-0.06257	0.13494	0.42000	-0.27989	-0.16123	-0.01665	0.21054	0.32554	0.00515	0.27956
	0.28250	-0.13254	-0.28907	-0.32546	0.37481	0.13489	0.36355	-0.20280	0.01268	0.27480
	-0.12281	0.18729	0.20166	-0.15379	1.00000	0.06917	0.44573			
ROW 26	-0.14720	-0.05872	-0.09185	0.10582	0.05336	0.07229	0.10298	-0.05474	0.09589	0.36953
	-0.01252	0.09908	0.03746	0.20801	-0.02207	0.11391	-0.19765	0.05694	0.87145	-0.10164
	0.01957	0.06603	0.01826	-0.03119	0.06917	1.00000	-0.08241			
ROW 27	0.06504	0.22064	0.41618	-0.29569	-0.10048	-0.36444	-0.00659	0.23456	0.10953	-0.03154
	0.67857	-0.12209	0.09394	-0.32409	0.67901	-0.09927	0.54576	0.07603	-0.12827	0.31359
	-0.08528	-0.13576	0.56835	-0.13447	0.44573	-0.08241	1.00000			
EIGENVALUES	8.19561	4.52366	2.73574	2.42255	2.17057	1.19460				
CUMULATIVE PERCENTAGE OF EIGENVALUES	0.30354	0.47108	0.57241	0.66213	0.74252	0.78677				
EIGENVECTORS										
VECTOR 1	0.30732	-0.23301	-0.11918	-0.25235	-0.31560	-0.17758	-0.12504	0.19694	-0.24572	-0.01796
	-0.01289	-0.30743	-0.20410	-0.09523	-0.00872	-0.20756	0.15391	-0.22312	-0.04150	0.20203
	-0.31373	-0.17298	0.00665	-0.29284	0.05320	-0.04575	0.05871			
VECTOR 2	0.08529	-0.18166	-0.33532	0.12026	-0.01049	0.08440	-0.04813	-0.15033	-0.13597	-0.03354
	-0.37197	0.00048	0.00849	0.21352	-0.38122	-0.05812	-0.25241	-0.00459	0.09334	-0.17537
	-0.07568	-0.02573	-0.32760	-0.05635	-0.27230	0.06717	-0.38673			
VECTOR 3	-0.09994	-0.01574	0.10998	-0.09733	-0.08441	0.28932	0.37132	-0.01524	0.01631	0.31792
	-0.08148	-0.12121	-0.34871	-0.06039	-0.01496	0.15921	-0.01493	-0.30377	0.25625	-0.05575
	-0.06845	0.38274	-0.07334	-0.07439	0.26951	0.24150	-0.10684			
VECTOR 4	0.12224	-0.25136	-0.27115	0.03928	-0.02337	-0.11831	0.08750	-0.27890	0.17540	0.01179
	0.29052	-0.01719	0.13720	0.27258	0.27817	-0.01191	0.05000	0.11791	0.36875	-0.25716
	-0.14188	-0.02219	0.23725	-0.20732	-0.04988	0.32251	0.12478			
VECTOR 5	0.08844	-0.11617	-0.06156	-0.05052	-0.00519	0.15055	0.33382	-0.35014	0.00192	-0.42409
	0.07239	-0.07712	-0.07003	-0.13677	0.08556	0.00485	0.14733	-0.08065	-0.38039	-0.33595
	-0.05459	0.22527	-0.01465	-0.08466	-0.05358	-0.37517	0.00070			
VECTOR 6	0.16869	-0.03676	-0.09910	-0.42095	0.16027	0.22851	0.08420	0.00774	-0.17575	0.14712
	-0.05915	0.10124	0.40869	-0.35997	-0.01770	-0.16297	0.07444	0.40478	0.06856	-0.01106
	0.01852	0.12787	-0.25661	-0.10744	0.11876	0.10366	0.12321			

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FACTOR MATRIX (6 FACTORS)

VARIABLE 1 0.87978	0.18141	-0.16530	0.19026	0.13029	0.18437
VARIABLE 2 -0.66705	-0.38636	-0.02603	-0.39123	-0.17115	-0.04017
VARIABLE 3 -0.34120	-0.71319	0.18191	-0.42203	-0.09069	-0.10832
VARIABLE 4 -0.72243	0.25577	-0.16098	0.06114	-0.07443	-0.46008
VARIABLE 5 -0.90351	-0.02231	-0.13961	-0.03637	-0.00765	0.17517
VARIABLE 6 -0.50838	0.17950	0.47853	-0.18415	0.22180	0.24976
VARIABLE 7 -0.35797	-0.10237	0.61417	0.13682	0.49181	0.09203
VARIABLE 8 0.56380	-0.31973	-0.02521	-0.43410	-0.51585	0.00846
VARIABLE 9 -0.70345	-0.28919	0.02698	0.27300	0.00282	-0.19209
VARIABLE 10 -0.05142	-0.07133	0.52584	0.01835	-0.62481	0.16080
VARIABLE 11 -0.03689	-0.79114	-0.13477	0.45219	0.10739	-0.06465
VARIABLE 12 -0.88011	0.00103	-0.20049	-0.02676	-0.11362	0.11066
VARIABLE 13 -0.58431	0.01806	-0.57676	0.21355	-0.10317	0.44669
VARIABLE 14 -0.27261	0.45414	-0.09988	0.42425	-0.20150	-0.39344

VARIABLE 15 -0.02497	-0.81082	-0.02474	0.43296	0.12606	-0.01934
VARIABLE 16 -0.59420	-0.12360	0.26333	-0.01854	0.00714	-0.17812
VARIABLE 17 0.44060	-0.53684	-0.02470	0.07782	0.21706	0.08136
VARIABLE 18 -0.63876	-0.00975	-0.50244	0.18353	-0.11882	0.44241
VARIABLE 19 -0.11882	0.19851	0.42383	0.57394	-0.56043	0.07494
VARIABLE 20 0.57837	-0.37299	-0.09222	-0.40026	-0.49495	-0.01209
VARIABLE 21 -0.89813	-0.16096	-0.11321	-0.22083	-0.08042	0.02024
VARIABLE 22 -0.49522	-0.05473	0.63306	-0.03453	0.33188	0.13976
VARIABLE 23 0.01903	-0.69677	-0.12130	0.36927	-0.02158	-0.28047
VARIABLE 24 -0.83834	-0.11986	-0.12304	-0.32268	-0.12473	-0.11743
VARIABLE 25 0.15229	-0.57915	0.44577	-0.07764	-0.07895	0.12980
VARIABLE 26 -0.13098	0.14286	0.39945	0.50197	-0.55863	0.11330
VARIABLE 27 0.16807	-0.82253	-0.17672	0.19421	0.00103	0.13466

ITERATION CYCLE	VARIANCES
0	0.254312
1	0.291403
2	0.292766
3	0.292777
4	0.292777
5	0.292777
6	0.292777
7	0.292777
8	0.292777

ROTATED FACTOR MATRIX (6 FACTORS)

VARIABLE 1 0.90198	-0.00046	-0.30912	-0.03784	-0.02152	0.10198
VARIABLE 2 -0.82047	-0.23813	0.09147	-0.19524	-0.03891	0.03145
VARIABLE 3 -0.55349	-0.62540	0.25206	-0.30186	-0.00855	-0.06319
VARIABLE 4 -0.67588	0.39802	-0.04783	0.23947	0.04069	-0.39707
VARIABLE 5 -0.84839	0.15917	0.00580	0.19305	0.14427	0.25525
VARIABLE 6 -0.34403	0.27131	0.54778	-0.08191	0.29198	0.28487
VARIABLE 7 -0.12834	-0.04270	0.66178	0.19414	0.52835	0.10859
VARIABLE 8 0.25646	-0.41396	-0.10293	-0.53925	-0.57994	-0.02228
VARIABLE 9 -0.64470	-0.14663	0.14437	0.44951	0.11626	-0.13068
VARIABLE 10 -0.06518	-0.05983	0.53144	0.02155	-0.61780	0.16859
VARIABLE 11 -0.08199	-0.77356	-0.11194	0.47971	0.12069	-0.05723
VARIABLE 12 -0.85293	0.17923	-0.05775	0.20004	0.03656	0.19067
VARIABLE 13 -0.54420	0.13592	-0.47881	0.36947	-0.00094	0.49978
VARIABLE 14 -0.13995	0.49308	-0.06441	0.47108	-0.17441	-0.37652

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VARIABLE 15 -0.05554	-0.79647	-0.00500	0.45418	0.13574	-0.01403
VARIABLE 16 -0.54734	-0.00458	0.35776	0.12544	0.10199	-0.12680
VARIABLE 17 0.35921	-0.61705	-0.08438	-0.01693	0.15300	0.04606
VARIABLE 18 -0.59856	0.11933	-0.39597	0.35247	-0.00756	0.50048
VARIABLE 19 0.05206	0.21095	0.43325	0.56924	-0.56332	0.07738
VARIABLE 20 0.25932	-0.46894	-0.17039	-0.50582	-0.55995	-0.04337
VARIABLE 21 -0.93867	0.02601	0.03578	0.01983	0.07983	0.10579
VARIABLE 22 -0.30742	0.03490	0.70257	0.06185	0.39641	0.17195
VARIABLE 23 -0.07224	-0.68892	-0.10776	0.38541	-0.01547	-0.27538
VARIABLE 24 -0.92282	0.05700	0.01684	-0.09283	0.02870	-0.03483
VARIABLE 25 0.07522	-0.60107	0.42877	-0.10776	-0.09646	0.12136
VARIABLE 26 0.01208	0.15591	0.41248	0.50524	-0.55570	0.11867
VARIABLE 27 0.02870	-0.84088	-0.18435	0.18199	-0.00879	0.12961

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CHECK ON COMMUNALITIES

VARIABLE	ORIGINAL	FINAL	DIFFERENCE
1	0.92142	0.92141	0.00001
2	0.77887	0.77886	0.00000
3	0.85620	0.85620	0.00000
4	0.83419	0.83419	0.00000
5	0.86838	0.86837	0.00001
6	0.66514	0.66514	0.00000
7	0.78489	0.78488	0.00000
8	0.87535	0.87535	0.00000
9	0.69064	0.69064	0.00000
10	0.70082	0.70082	0.00000
11	0.86561	0.86561	0.00000
12	0.84066	0.84065	0.00001
13	0.93018	0.93018	0.00000
14	0.66592	0.66592	0.00000
15	0.86238	0.86238	0.00000
16	0.46982	0.46981	0.00000
17	0.54273	0.54273	0.00000
18	0.90409	0.90408	0.00000
19	0.88226	0.88226	0.00000
20	0.88747	0.88747	0.00000
21	0.90101	0.90101	0.00000
22	0.77987	0.77987	0.00000
23	0.71606	0.71606	0.00000
24	0.86578	0.86578	0.00000
25	0.58643	0.58643	0.00000
26	0.77400	0.77400	0.00000
27	0.79189	0.79189	0.00000

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Cluster Analysis

CLUSTERANALYSE QUE RIVER, AUSTRALIEN, APRIL 1978

R-MODE PRINCIPAL COMPONENTS ANALYSIS ON DISTANCE FUNCTION MATRIX

PRINCIPAL FACTOR ANALYSIS OF VARIABLES

FACTOR 1
NUMBER OF ITERATIONS EQUALS 0
VARIANCE EXTRACTED EQUALS 17.632

FACTOR 2
NUMBER OF ITERATIONS EQUALS 2
VARIANCE EXTRACTED EQUALS 2.348

FACTOR 3
NUMBER OF ITERATIONS EQUALS 3
VARIANCE EXTRACTED EQUALS 1.162

PRINCIPAL AXIS FACTOR LOADINGS

	F 1	F 2	F 3	F 4	F 5	F 6	F 7	F 8	F 9	F 10	HSG
1	0.711	0.261	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.636
2	0.799	0.299	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.728
3	0.722	0.439	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.760
4	0.873	-0.213	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.807
5	0.842	-0.159	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.734
6	0.799	-0.295	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.726
7	0.808	-0.081	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.660
8	0.798	0.269	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.709
9	0.857	-0.115	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.748
10	0.845	-0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.718
11	0.830	0.234	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.769
12	0.849	-0.130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.753
13	0.803	-0.306	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.738
14	0.805	-0.388	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.797
15	0.808	0.338	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.768
16	0.850	-0.302	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.814
17	0.784	0.388	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.764
18	0.841	-0.341	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.823
19	0.731	-0.415	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.782
20	0.798	0.276	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.713
21	0.818	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.680
22	0.809	-0.217	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.701
23	0.858	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.735
24	0.844	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.713
25	0.804	0.380	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.791
26	0.787	-0.408	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.785
27	0.798	0.438	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.829
	17.832	2.548									
	66.044	8.698									

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SQUARE ROOT OF FACTOR MATRIX

	F 1	F 2	F 3	F 4	F 5	F 6	F 7	F 8	F 9	F 10	HSG
1	0.711	0.361									
2	0.475	0.110									
3	0.649	0.353									
4	0.403	-0.601									
5	0.157	-0.211									
6	0.145	-0.266									
7	0.086	-0.139									
8	0.114	0.133									
9	0.090	-0.058									
10	0.063	-0.096									
11	0.085	0.198									
12	0.039	-0.073									
13	0.057	-0.207									
14	0.057	-0.216									
15	0.025	0.090									
16	0.042	-0.107									
17	0.037	0.133									
18	0.023	-0.075									
19	0.037	-0.146									
20	0.019	0.049									
21	0.027	0.017									
22	0.024	-0.046									
23	0.025	0.000									
24	0.018	-0.006									
25	0.026	0.093									
26	0.015	-0.059									
27	0.020	0.082									

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BETA COEFFICIENTS

	F 1	F 2	F 3	F 4	F 5	F 6	F 7	F 8	F 9	F 10
1	0.03988	0.19353								
2	0.04481	0.12722								
3	0.04050	0.20820								
4	0.04894	-0.09086								
5	0.04723	-0.06761								
6	0.04481	-0.12558								
7	0.04532	-0.03467								
8	0.04475	0.11454								
9	0.04236	-0.04898								
10	0.04739	-0.02726								
11	0.04655	0.12033								
12	0.04759	-0.07664								
13	0.04501	-0.13042								
14	0.04515	-0.10424								
15	0.04533	0.14384								
16	0.04769	-0.12871								
17	0.04597	0.16451								
18	0.04715	-0.14509								
19	0.04377	-0.17683								
20	0.04474	0.11738								
21	0.04588	0.04420								
22	0.04536	-0.09224								
23	0.04309	0.06303								
24	0.04734	0.00224								
25	0.04510	0.18194								
26	0.04411	-0.17364								
27	0.04475	0.15670								

NORMALIZED FACTOR MEASUREMENTS, UNWEIGHTED

1	0.34610	0.70297	44	0.40668	0.59127
2	0.06314	0.57980	45	0.23735	0.59683
3	0.79148	0.50215	46	0.37886	0.38723
4	0.90772	0.50977	47	0.50730	0.95293
5	0.56052	0.82764	48	0.89896	0.31715
6	0.39517	0.68372	49	0.23918	0.74854
7	0.39721	0.70969	50	0.27992	0.75659
8	0.09298	0.49095	51	0.56035	0.48725
9	0.51343	0.89650	52	0.42600	0.49879
10	0.62029	0.57018	53	0.39869	0.78568
11	0.67627	0.54375	54	0.79790	0.00000
12	0.43796	0.75443	55	1.00000	0.44239
13	0.40466	0.73469	56	0.20403	0.66093
14	0.56925	0.99798	57	0.49286	0.45273
	0.54785	0.63707	58	0.48051	0.39247
	0.67263	0.60553	59	0.70068	0.36586
17	0.61006	0.62967	60	0.86883	0.58522
18	0.58928	0.17353	61	0.46776	0.59681
19	0.00000	0.05138	62	0.48421	0.38887
20	0.07333	0.32335	63	0.74279	0.24795
21	0.65358	0.48150	64	0.35246	0.46733
22	0.44056	0.26393	65	0.43164	0.36557
23	0.74223	0.42957	66	0.24696	0.70866
24	0.68457	0.53342	67	0.70535	0.56209
25	0.47456	1.00000	68	0.47322	0.39697
26	0.22709	0.69871	69	0.38716	0.75359
27	0.22515	0.52203	70	0.67021	0.40156
28	0.71730	0.37447	71	0.76319	0.47332
29	0.55079	0.33107	72	0.20945	0.72482
30	0.54050	0.70622	73	0.19369	0.72250
31	0.70566	0.82700	74	0.71696	0.49146
32	0.42766	0.77279	75	0.22782	0.71001
33	0.28653	0.70332	76	0.35007	0.73923
34	0.33457	0.59827	77	0.64572	0.87527
35	0.34324	0.72407	78	0.31635	0.66408
36	0.57402	0.96270	79	0.21139	0.70994
37	0.22569	0.73555	80	0.55079	0.53811
38	0.97429	0.69775	81	0.61075	0.51402
39	0.59163	0.88594	82	0.24404	0.73953
40	0.79797	0.75790	83	0.59975	0.53468
41	0.23245	0.34510	84	0.45210	0.60570
42	0.73079	0.44449	85	0.57618	0.92907
43	0.63214	0.41384			

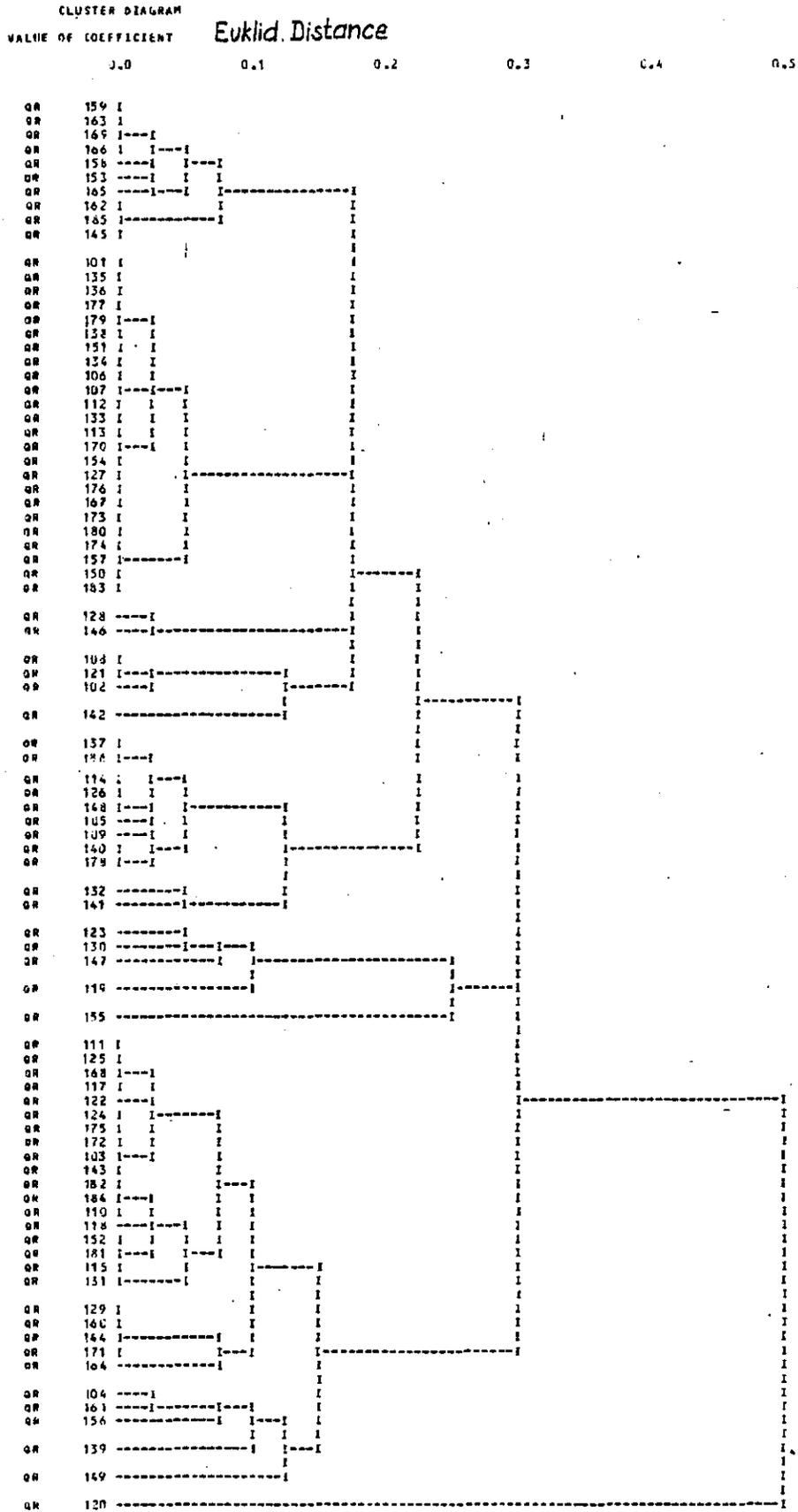
193173

CLUSTER TYPE 6 ANALYSIS

LEFT SAMPLE NUMBER	RIGHT SAMPLE NUMBER	DISTANCE FUNCTION	NO. IN LEFT	NO. IN RIGHT
58	62	0.0036512	1	1
1	34	0.0051313	1	1
58	68	0.0078531	2	1
49	82	0.0072387	1	1
26	75	0.0080109	1	1
11	24	0.0093723	1	1
72	79	0.0106086	1	1
72	73	0.0123740	2	1
35	76	0.0117610	1	1
61	84	0.0127323	1	1
28	59	0.0132326	1	1
12	32	0.0148831	1	1
1	35	0.0229126	2	2
37	50	0.0154296	1	1
26	66	0.0141239	2	1
81	83	0.0165515	1	1
23	74	0.0179225	1	1
13	69	0.0182181	1	1
6	7	0.0184225	1	1
23	71	0.0265287	2	1
26	72	0.0226301	3	3
37	33	0.0303442	2	1
36	85	0.0239604	1	1
33	71	0.0242753	1	1
11	67	0.0242247	2	1
36	14	0.0371541	2	1
8	20	0.0268007	1	1
12	13	0.0295022	2	2
26	56	0.0380107	6	1
1	78	0.0404236	4	1
12	53	0.0250696	4	1
23	3	0.0378467	3	1
26	49	0.0325056	7	2
51	80	0.0365980	1	1
1	37	0.0419135	5	3
30	77	0.0389887	1	1
58	65	0.0388125	3	1
81	10	0.0340418	2	1
25	47	0.0405443	1	1
1	6	0.0573374	8	2
81	17	0.0636967	3	1
61	44	0.0383106	2	1
23	42	0.0419102	4	1
11	16	0.0433193	3	1
28	43	0.0469747	2	2
15	30	0.0491748	1	1
58	57	0.0505273	4	1
81	51	0.0521045	4	2
11	21	0.0605015	4	1
52	64	0.0526829	1	1
8	2	0.0532860	2	1
5	9	0.0532988	1	1
27	45	0.0535860	1	1
5	39	0.0601206	2	2
58	52	0.0820122	5	2
36	25	0.0593480	3	2
4	60	0.0600215	1	1
11	23	0.0687268	5	5
1	12	0.0650256	10	5

58	61	0.1236286	7	3
1	26	0.0970420	15	9
4	55	0.1084667	2	1
31	40	0.0815344	1	1
81	15	0.0953055	6	2
28	63	0.1086794	4	1
22	29	0.0913022	1	1
22	46	0.1041746	2	1
1	58	0.2005174	24	10
36	5	0.0752333	5	4
1	27	0.1050003	34	2
11	81	0.1052074	10	8
11	28	0.1303728	18	5
36	31	0.1662076	9	2
4	38	0.1354344	3	1
4	48	0.1730453	4	1
22	18	0.1469336	3	1
11	4	0.1889490	23	5
8	41	0.1717850	3	1
22	54	0.2992283	4	1
1	8	0.1963924	36	4
1	36	0.2721027	40	11
1	22	0.3443909	51	5
1	11	0.2457936	56	28
1	19	0.5346296	84	1

174



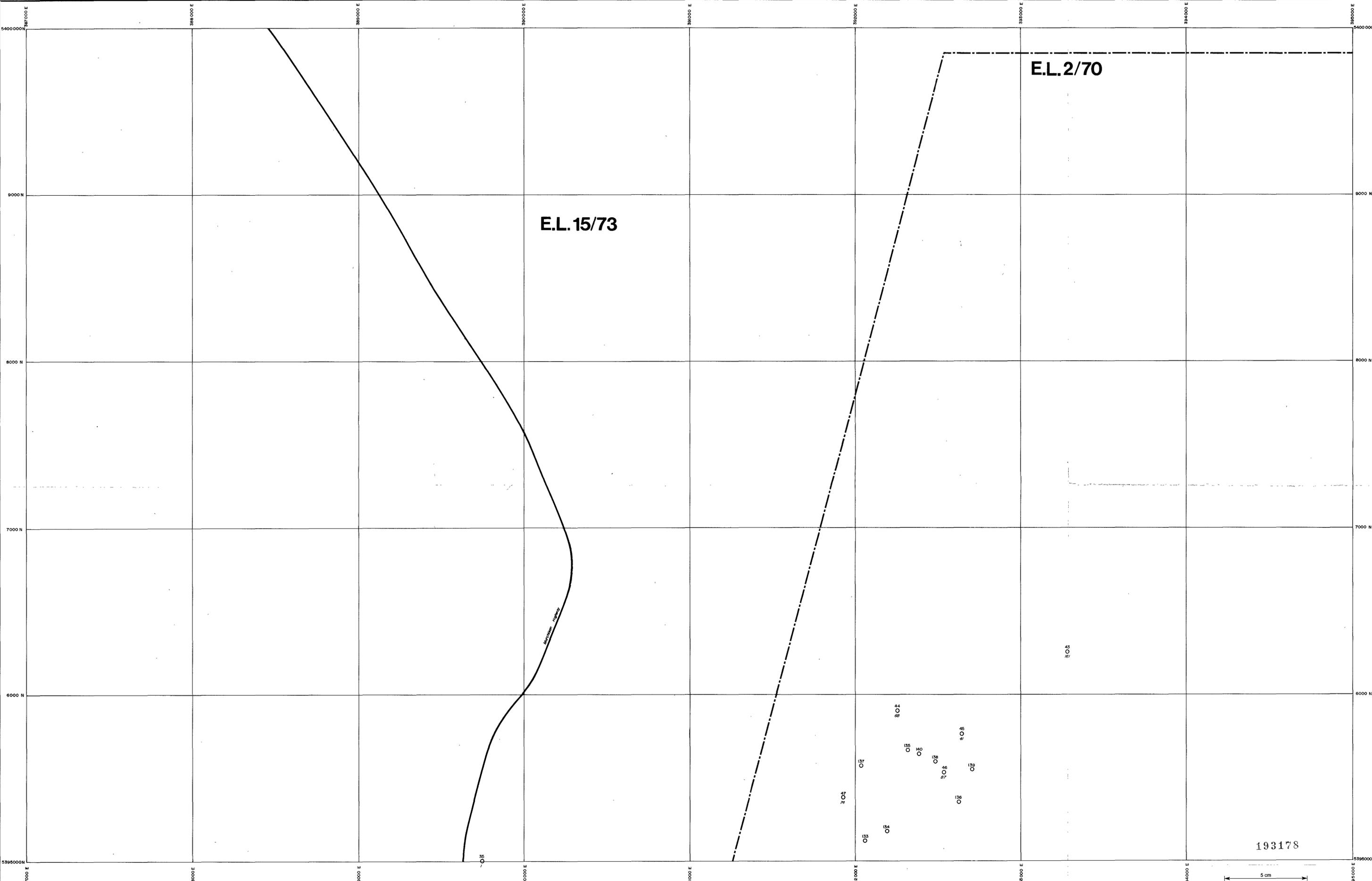
193177

79-1327
(Vol 3/3)

OPEN FILE

ROCK GEOCHEMICAL RESULTS
FOR SAMPLES WITHIN
EL's 2/70 & 15/73.

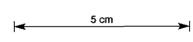
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E.L. 15/73

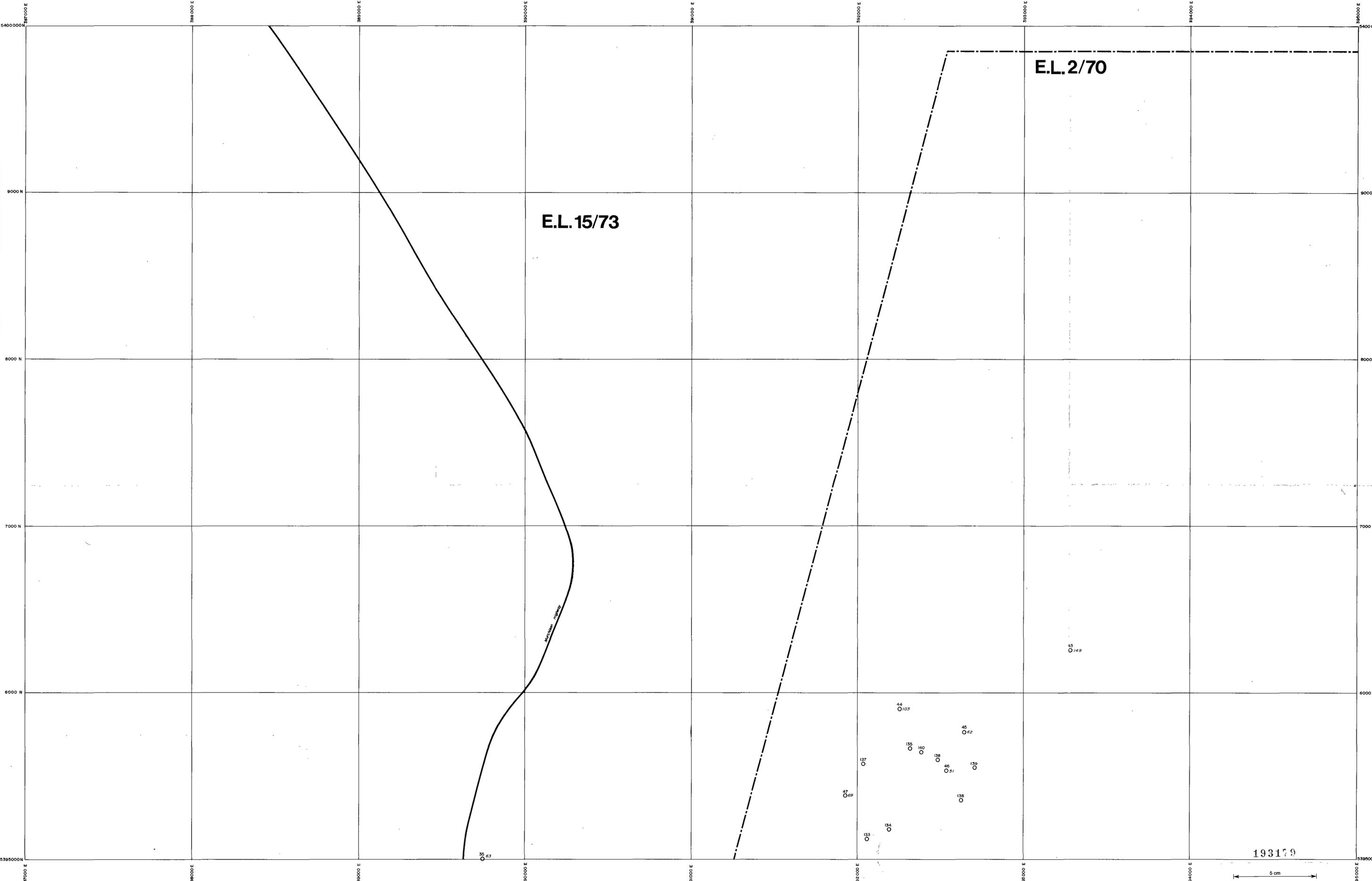
E.L. 2/70

193178



137
136
135
134
104
105
106

Aberfoyle Exploration Pty Ltd TASMANIA MACKINTOSH & HATFIELD E.L.'s QUE RIVER AREA Cu - p.p.m.		Location code
		Date Dec 1978
Geology W German Federal Govt	79-1327	Scale: 1:10,000
Drawn R.J.E., J.B.		Plate No. 099
Checked		QR 109a (Cu)
Revised by	Date	SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES

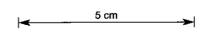


E.L. 15/73

E.L. 2/70

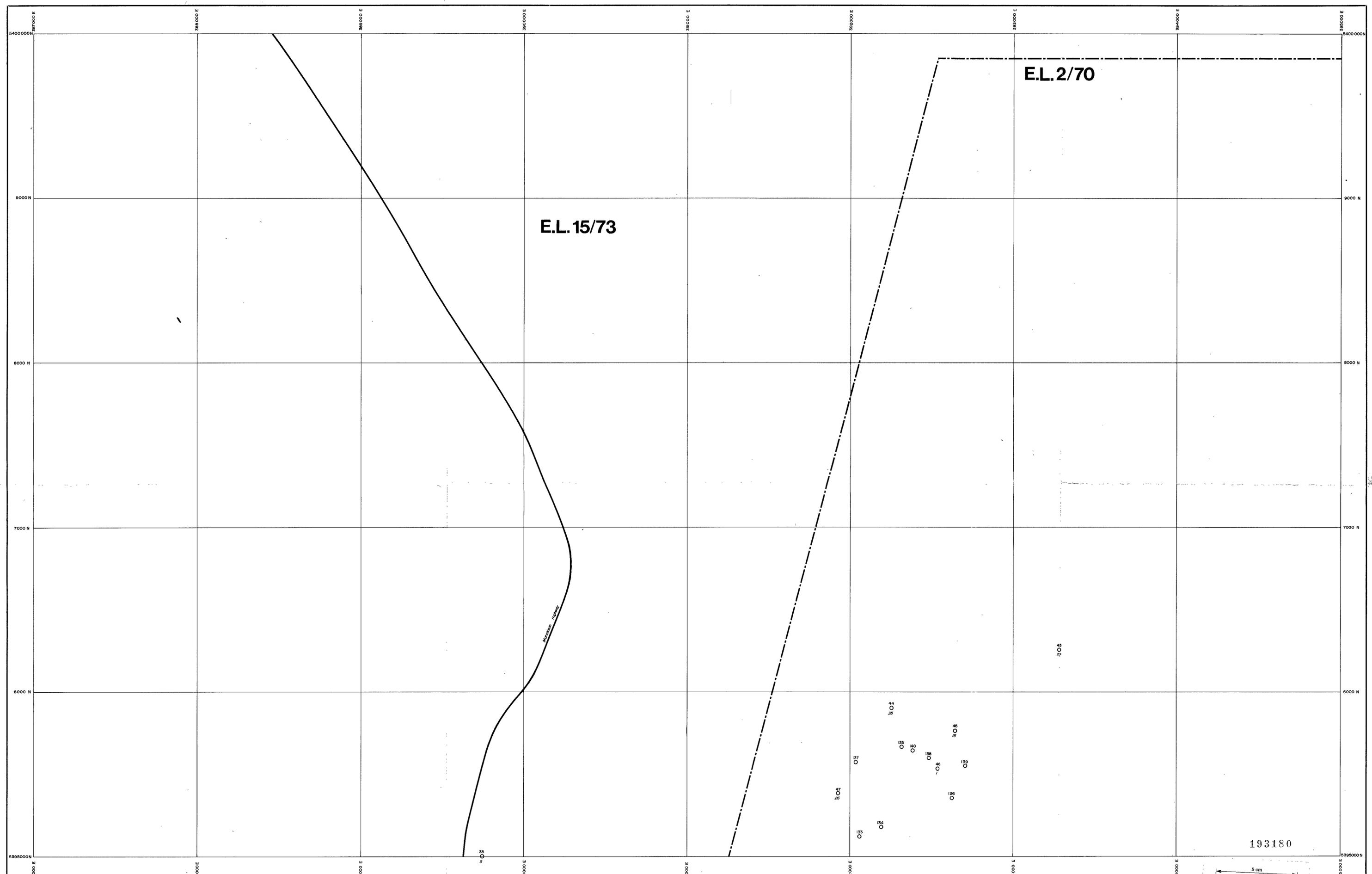
Mackintosh Hatfield

193179



58
O Sample location & number
/3/ Result in ppm

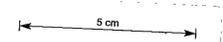
Aberfoyle Exploration Pty Ltd		TASMANIA MACKINTOSH & HATFIELD E.L.'s		Location code
Geology	W German Federal Gov't	79-4327	Date Dec 1978	
Drawn	R J E, J B	QUE RIVER AREA		Scale 1:10,000
Traced		Ce - p.p.m.		Plate No 6705
Checked		SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES		QR 109a (Ce)
Revised by	Date			



E.L. 15/73

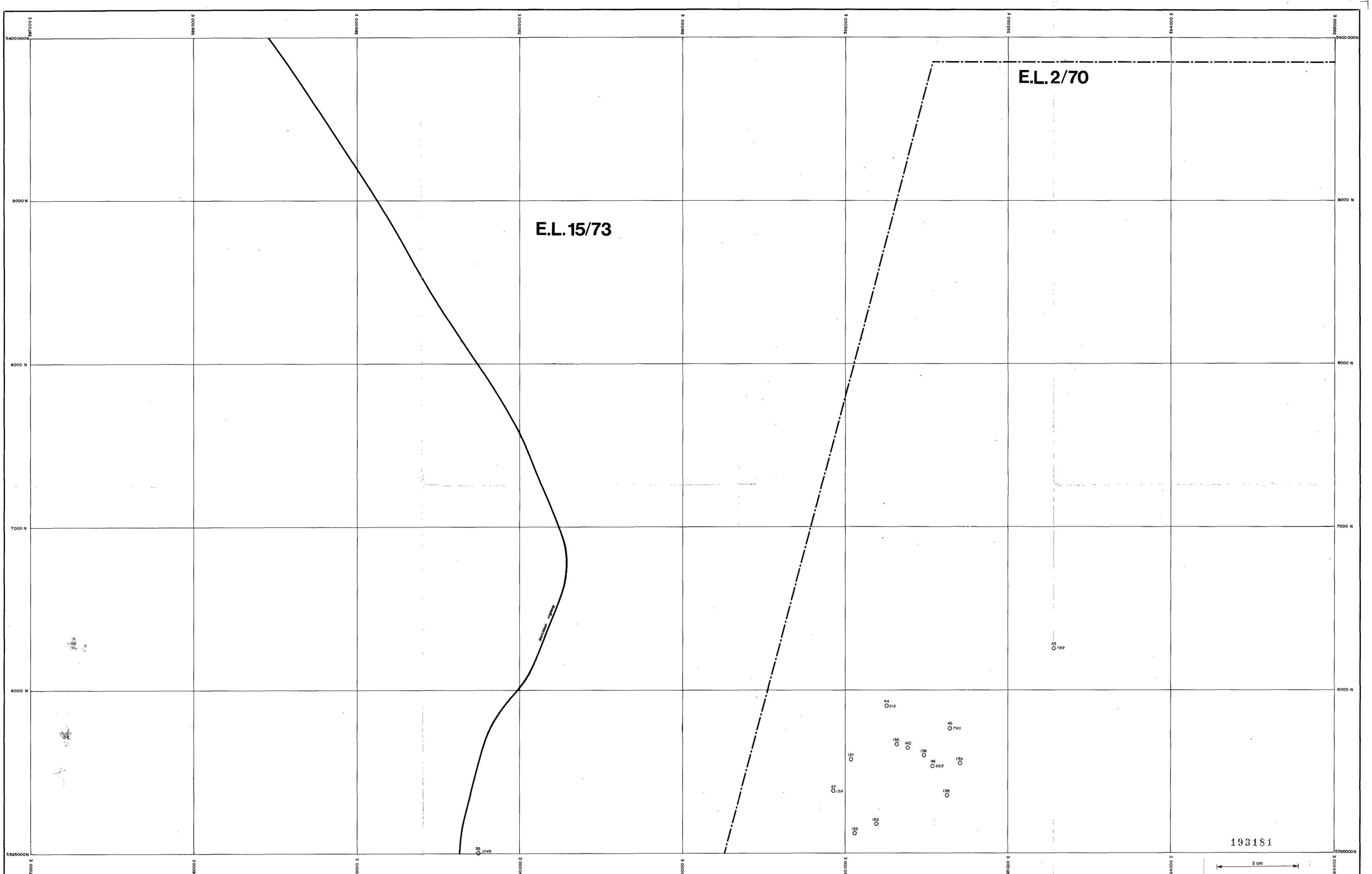
E.L. 2/70

193180



58
O Sample location & number
137 Result in p.p.m.

Aberfoyle Exploration Pty Ltd Geology W German Federal Govt Drawn: RJE, JB Traced: RJE, JB Checked: Revised by: Date		TASMANIA MACKINTOSH & HATFIELD EL's QUE RIVER AREA Co p.p.m. SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES		Location code Date Dec 1978 Scale 1:10,000 Plate No 6697 QR 109(a) Co
		79-1327 193180		



E.L. 15/73

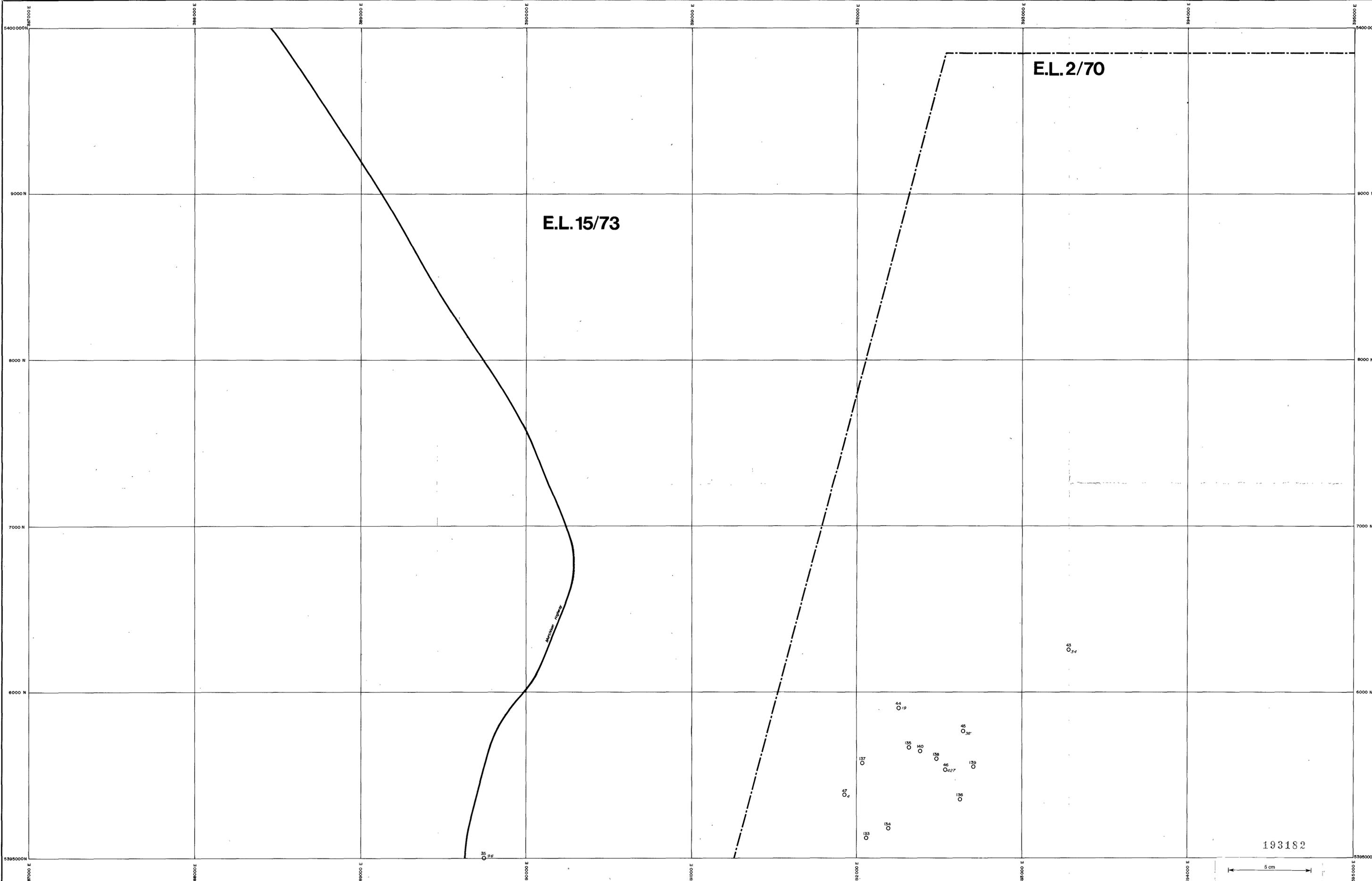
E.L. 2/70

193181

5 cm

38
O Sample location & number
47
O Result in ppm

Aberfoyle Exploration Pty Ltd	
Geology: W German Federal Gov't	TASMANIA MACKINTOSH & HATFIELD E.L.'s
Drawn: R.J.E., J.B.	Location code: 19-132.7
Checked: _____	Date: Dec 1978
Revised by: _____	Date: _____
QUE RIVER AREA Ba - p.p.m.	
SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES	
Scale: 1:10,000	Plate No: 6693
	QR 109 a (Ba)



E.L. 15/73

E.L. 2/70

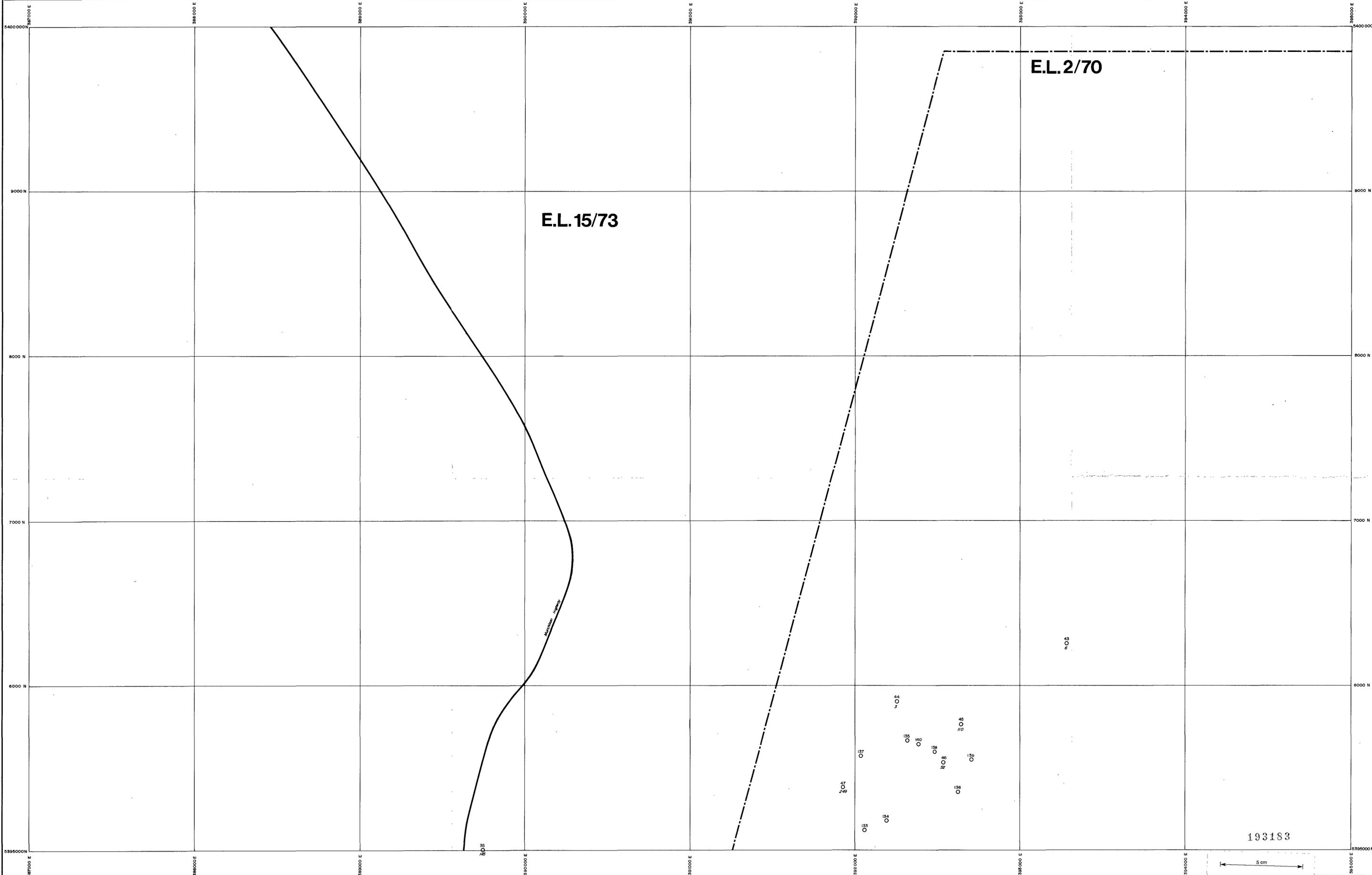
Mackintosh Pipeline

193182

5 cm

○ Sample location & number
 / Result in ppm

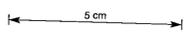
Aberfoyle Exploration Pty Ltd	
Geology: W German Federal Gov't	TASMANIA 79-1527
Drawn: R.J.E., J.B.	MACKINTOSH & HATFIELD E.L.'s
Checked:	QUE RIVER AREA
Revised by: Date:	Pb - p.p.m.
SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES	
Location code: 109a	Date: Dec 1978
Scale: 1:10,000	6703
	QR 109a (Pb)



E.L. 15/73

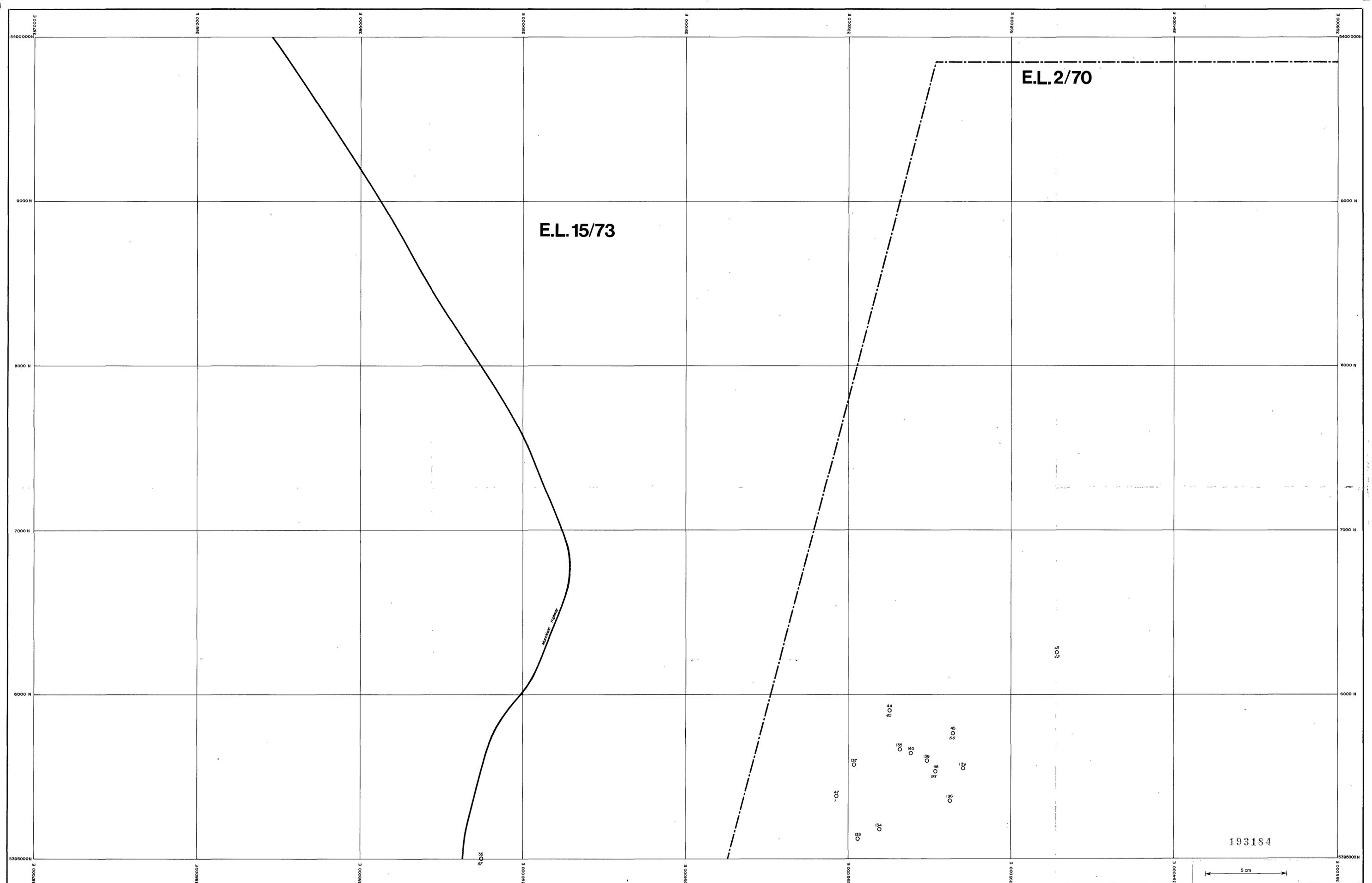
E.L. 2/70

193183



○ Sample location & number
 43r Result in ppm

Aberfoyle Exploration Pty Ltd Geology: W German Federal Govt Drawn: R J E., J B Traced: R J E., J B Checked: _____ Revised by: _____ Date: _____		TASMANIA MACKINTOSH & HATFIELD E.L.'s QUE RIVER AREA Sr p.p.m.		Location code Date: Dec 1978 Scale: 1:10,000 Plate No: 6595 QR 109(a) Sr
		79-1327 SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES		



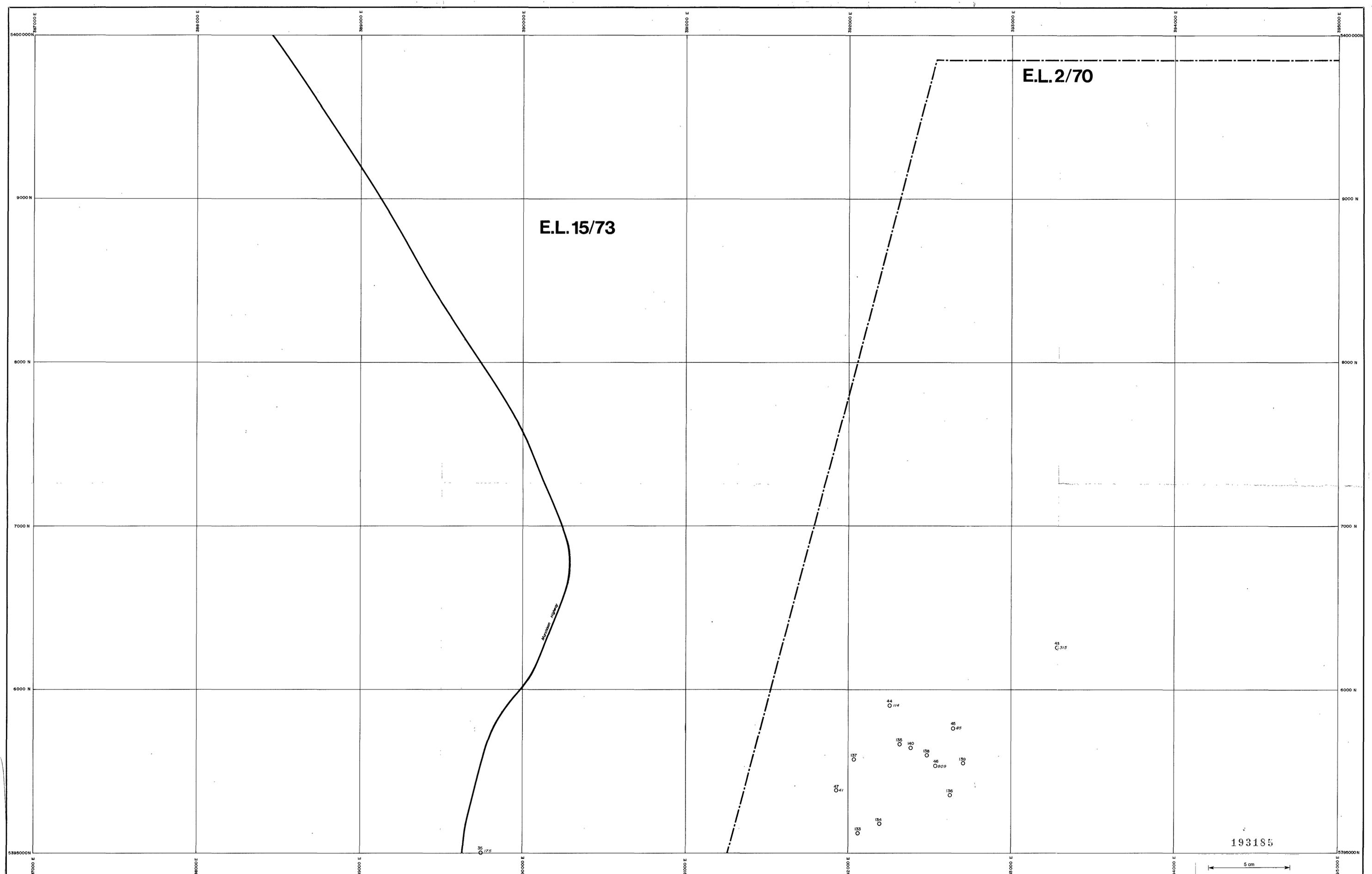
193184

5 cm

Aberfoyle Exploration Pty Ltd

Geology	W German Federal Gov't	79-1527	TASMANIA	Location code
Drawn	R J E., J B		MACKINTOSH & HATFIELD EL's	Date Dec 1978
Traced	R J E., J B		QUE RIVER AREA	Scale 1:10,000
Checked			Rb p.p.m.	Plate #
Revised by	Date		SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES	OR 109(a) Rb 6691

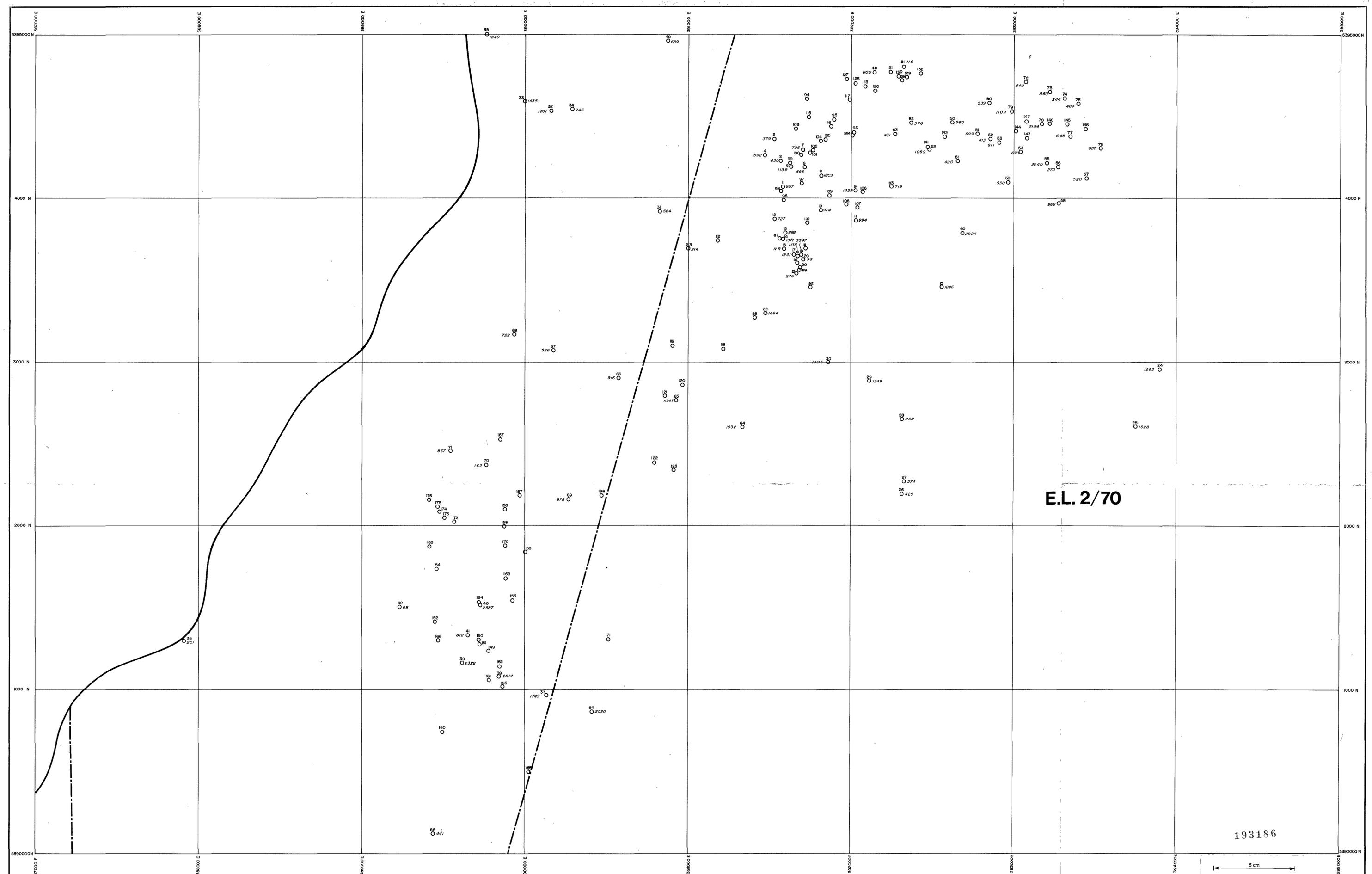
O Sample location & number
/Rb Result in ppm



58
O Sample location & number
137 Result in ppm

Aberfoyle Exploration Pty Ltd		TASMANIA MACKINTOSH & HATFIELD EL's		Location code
Geology	W German Federal Gov't	79-1327	Date: Dec 1978	
Drawn		QUE RIVER AREA		Scale 1:10,000
Traced	R.J.E., J.B.	Zn - p.p.m.		Plate No 6701
Checked		SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES		QR 109a (Zn)
Revised by	Date			

193185

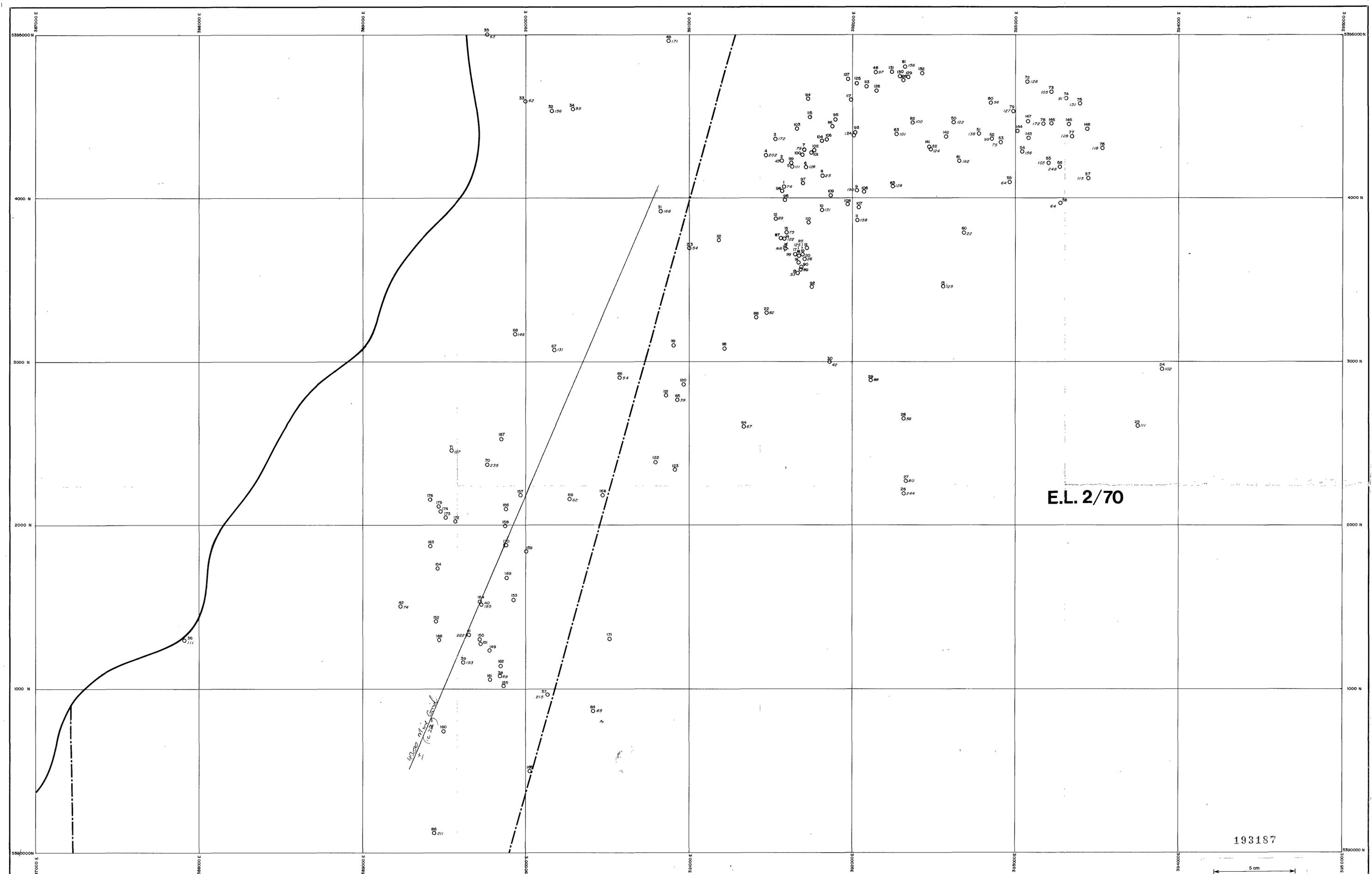


E.L. 2/70

193186

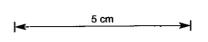
58
○ Sample location & number
57
○ Result in ppm

		TASMANIA		Location code
		MACKINTOSH & HATFIELD E.L.'s		Date Dec 1978
Beechem W German Federal Gov't Drawn: R.J.E., J.B. Traced: R.J.E., J.B. Checked: Revised by: Date:		15-1327 QUE RIVER AREA Ba - p.p.m. SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES		Scale: 1:10,000 Plate No 6694 QR 109 b (Ba)



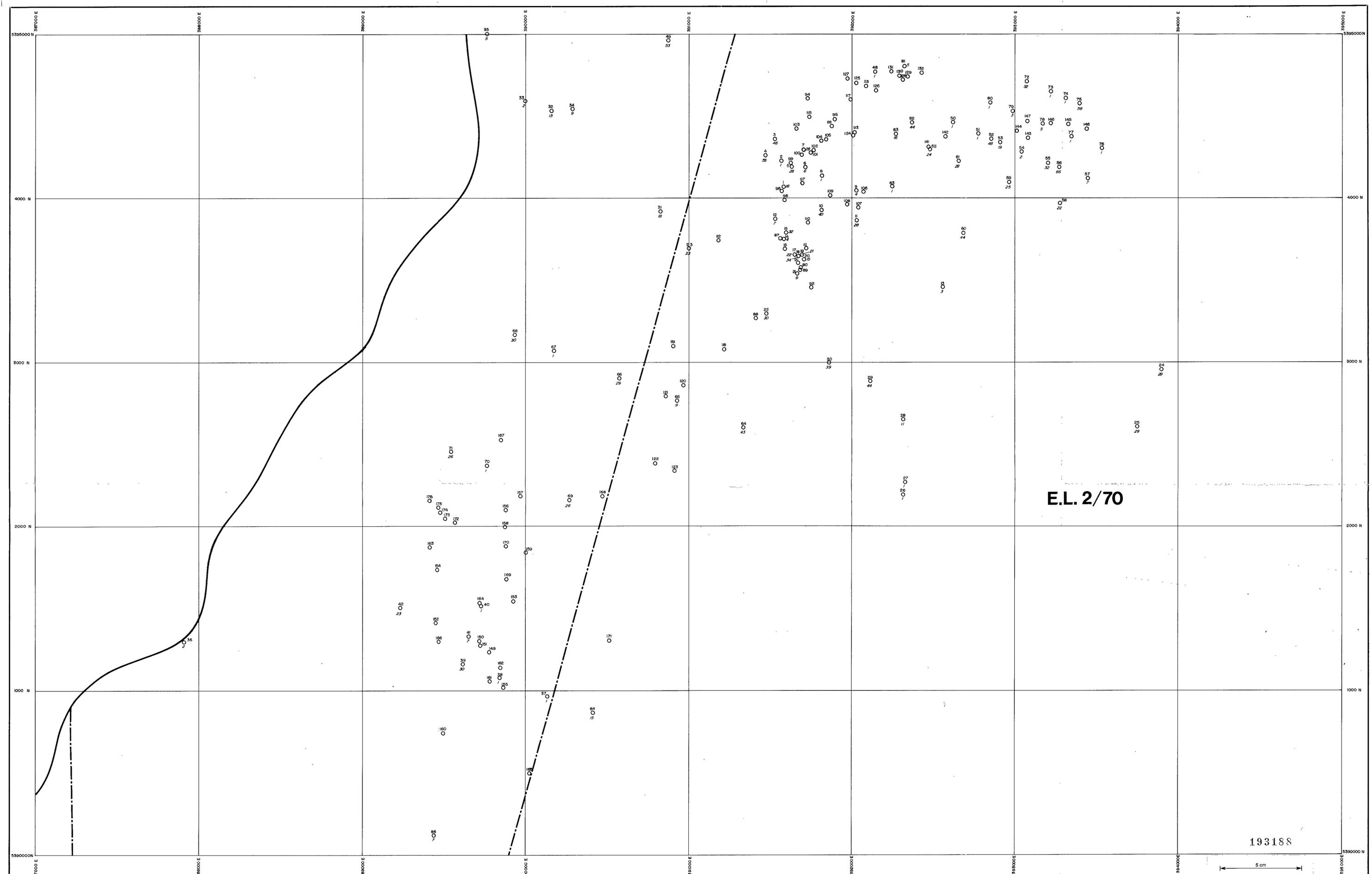
E.L. 2/70

193187



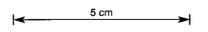
○ Sample location & number
 /3/ Result in ppm

Aberfoyle Exploration Pty Ltd	
Geochem: W German Federal Govt	TASMANIA MACKINTOSH & HATFIELD E.L.'s QUE RIVER AREA Ce - p.p.m.
Drawn	79-1327
Traced	R J E, J B
Checked	Date
Revised by	Date
Location code	Date Dec 1978
Scale 1:10,000	Scale 1:10,000
Plate No. 6706 QR 109b (Ce)	SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES



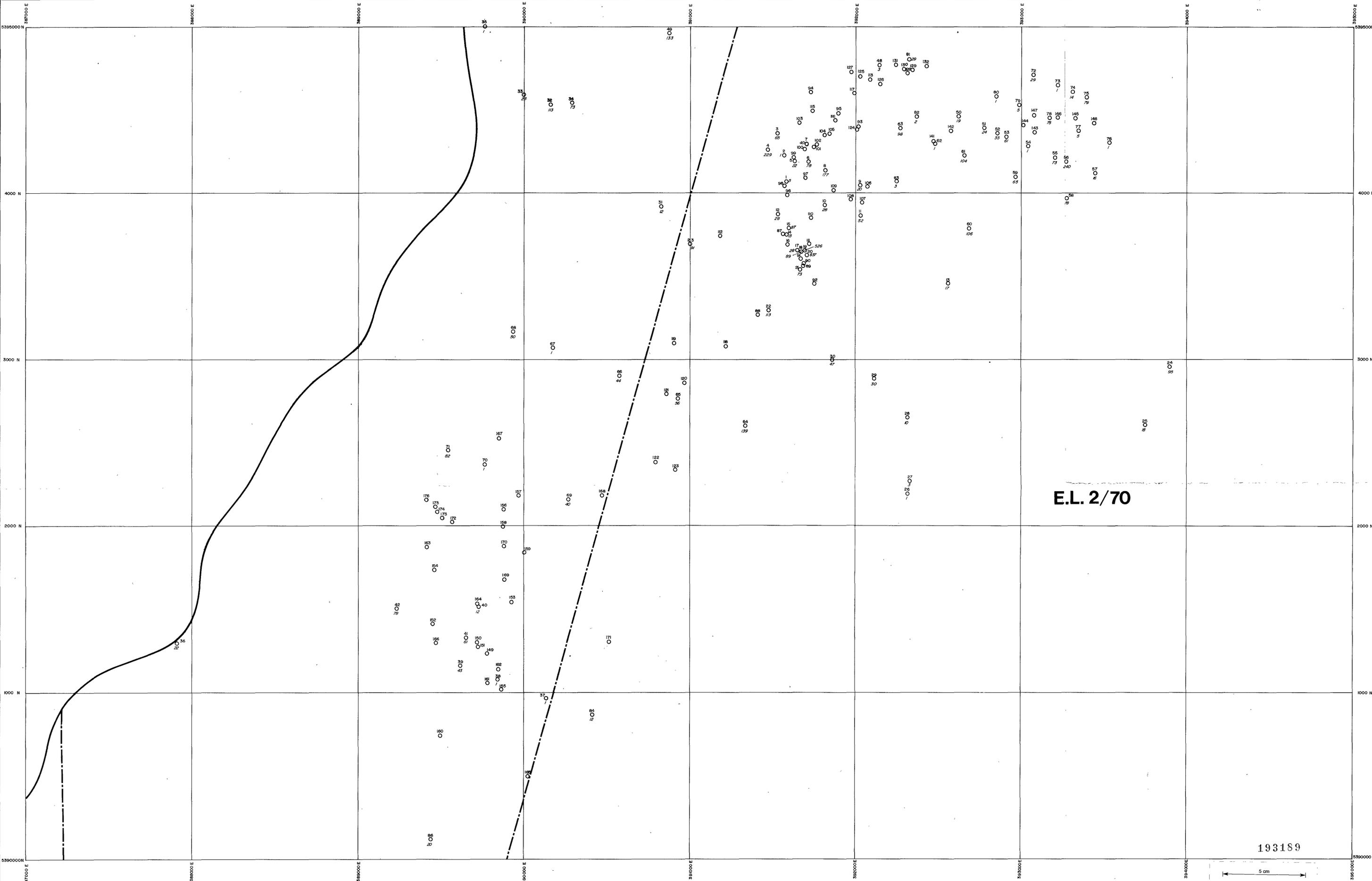
E.L. 2/70

193188



08 Sample location & number
 73/ Result in ppm

Aberfoyle Exploration Pty Ltd	
Geochem W German Federal Govt	TASMANIA MACKINTOSH & HATFIELD E.L.'s
Drawn	Date Dec. 1978
Traced R J E, J B	Scale 1:10,000
Checked	Plate No. 6698
Revised by Date	GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES



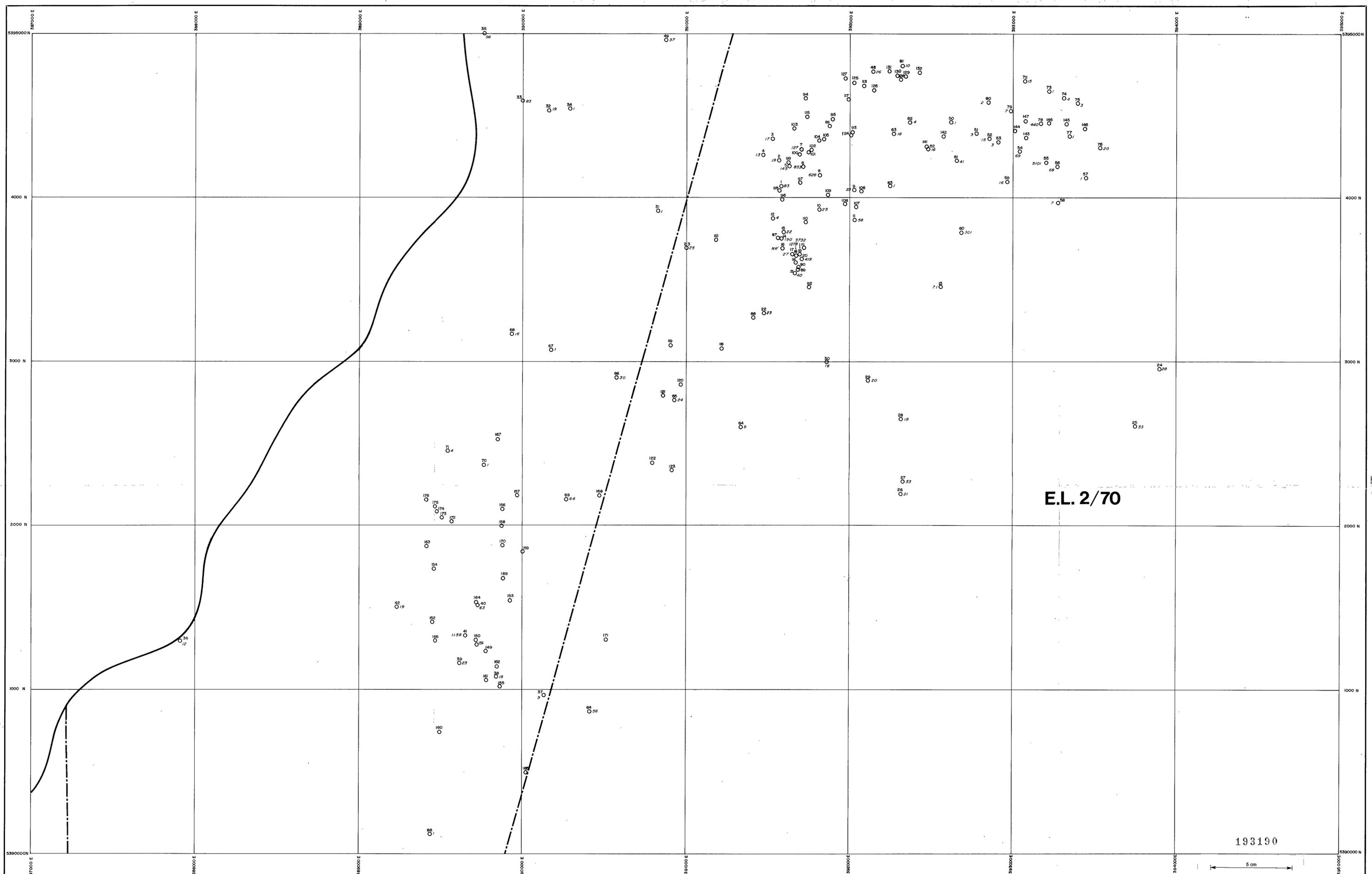
E.L. 2/70

193189



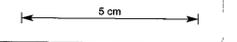
○ Sample location & number
 ● Result in ppm

Aberfoyle Exploration Pty Ltd		TASMANIA MACKINTOSH & HATFIELD E.L.'s QUE RIVER AREA Cu - p.p.m.		Location code
Gechem	W German Federal Gov't	101-1027		Date
Drawn				Dec 1978
Traced	RJE, JJB			Scale
Checked				1:10,000
Revised by	Date			Plate No
				6700
				QR 109b (Cu)
SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES				



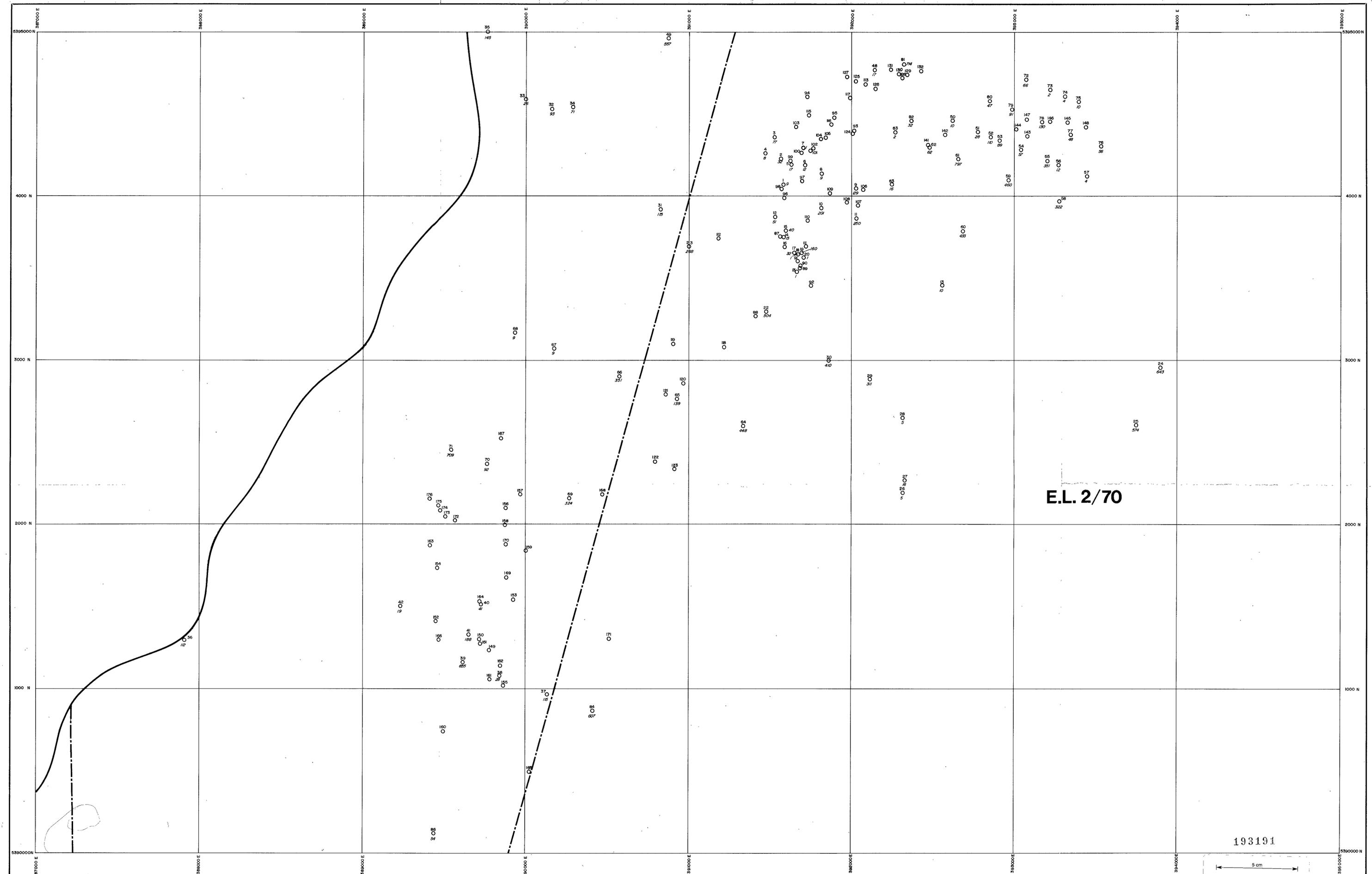
E.L. 2/70

193190



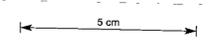
- 58 ○ Sample location & number
- 57 / Result in ppm

Aberfoyle Exploration Pty Ltd	
Gechem W German Federal Gov't	TASMANIA MACKINTOSH & HATFIELD E.L.'s
Drawn	19-1327
Traced R.J.E., J.B.	QUE RIVER AREA
Checked	Pb - p.p.m.
Revised by Date	Date
Location code	Date Dec 1978
Scale 1:10,000	Scale 1:10,000
Plate No 6704	Plate No 6704
SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES	QR 109b (Pb)



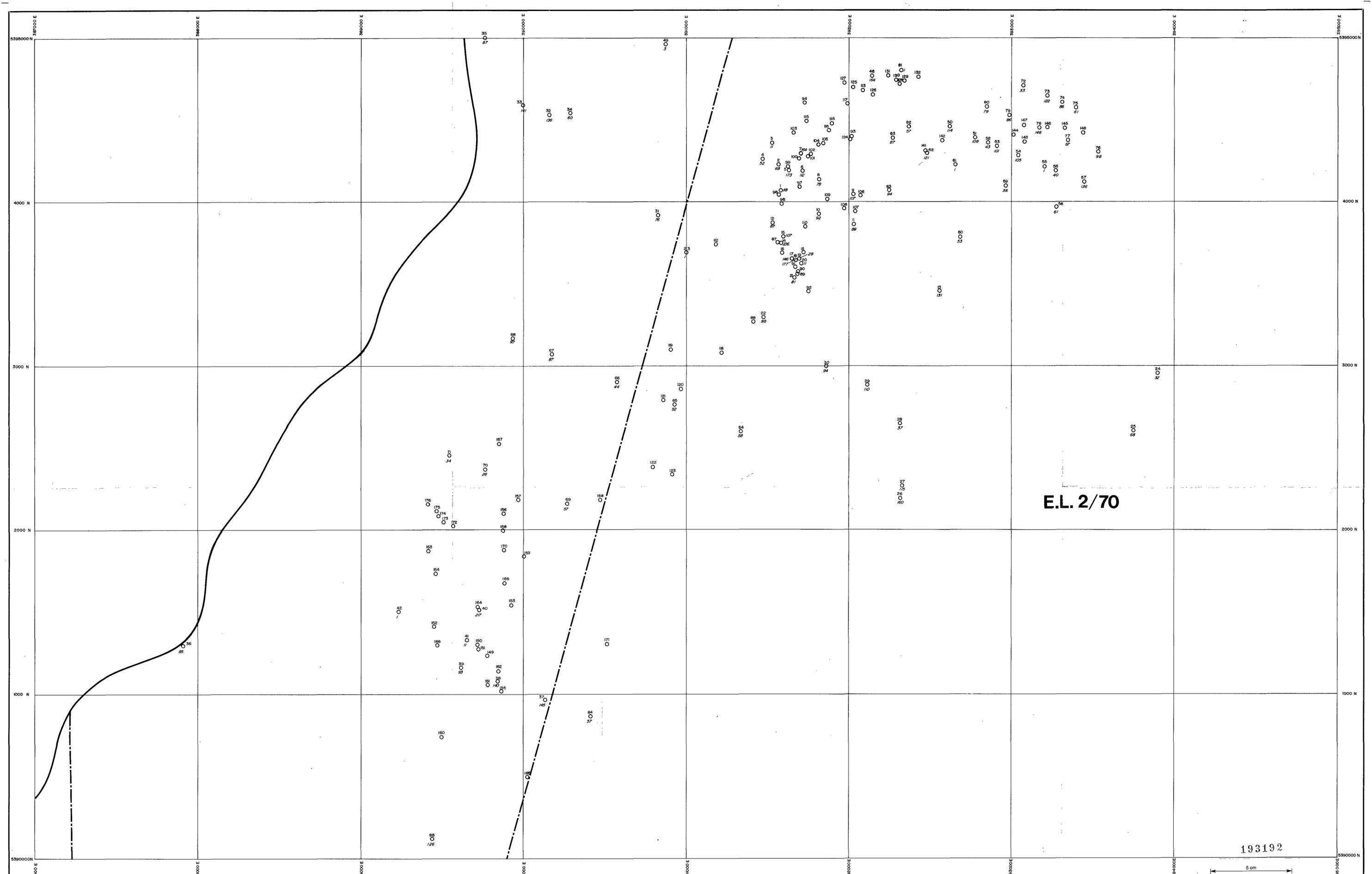
E.L. 2/70

193191

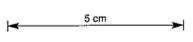


○ Sample location & number
 / Result in ppm

		TASMANIA		Location code
		MACKINTOSH & HATFIELD E.L.'s		Date Dec 1978
Gechem W German Federal Govt Drawn R J E, J B Traced R J E, J B Checked Revised by Date		79-1327 QUE RIVER AREA Sr p.p.m. SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES		Scale 1:10,000 Plate No 6696 QR 109(b) Sr

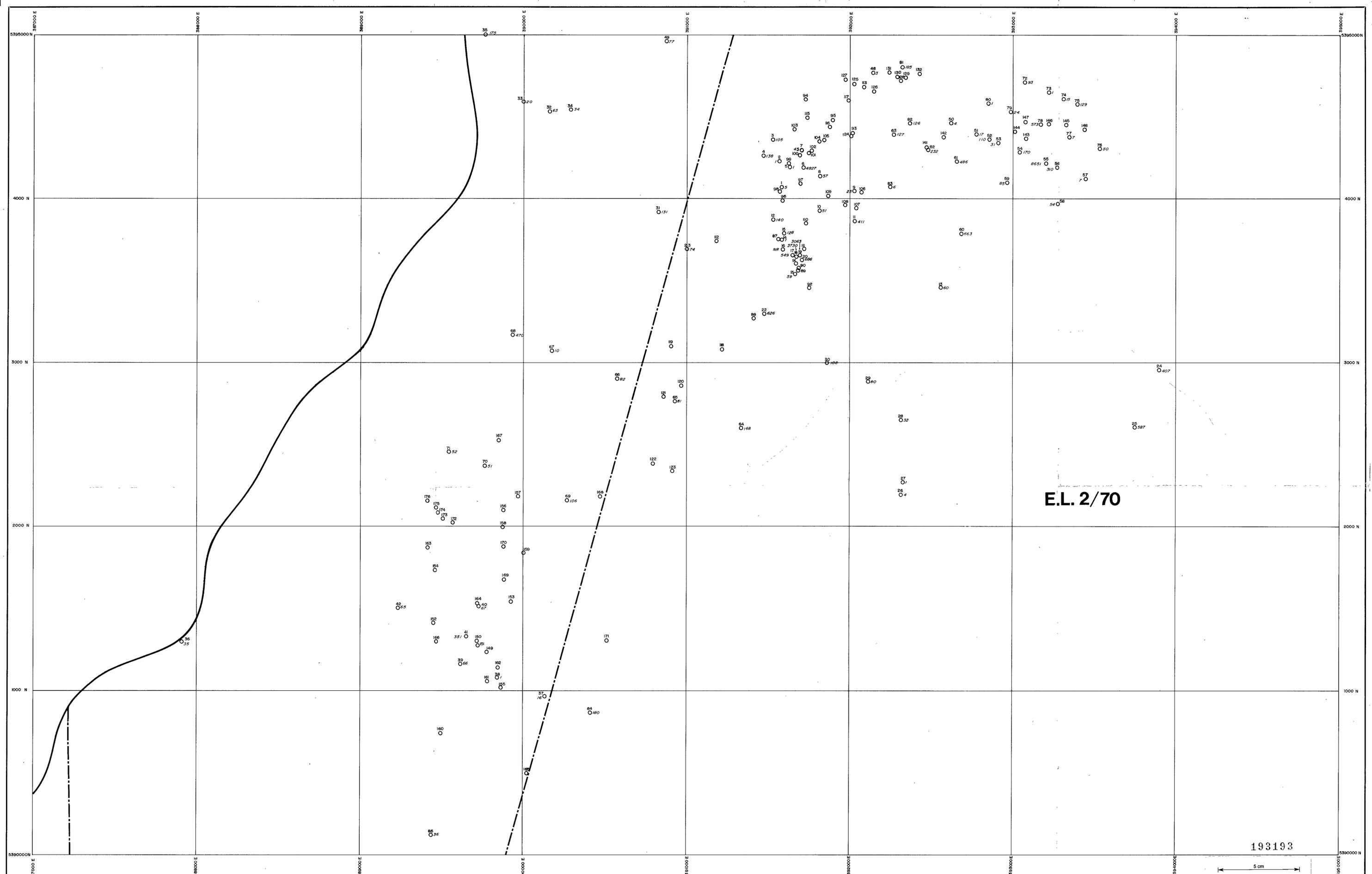


193192



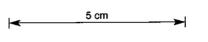
58 Sample location & number
 37 Result in ppm

Aberfoyle Exploration Pty Ltd		TASMANIA MACKINTOSH & HATFIELD E.L.'s QUE RIVER AREA Rb p.p.m.	
Geochem	W German Federal Gov't	19-1327	Location code
Drawn			Date Dec. 1978
Traced	R J E, J B		Scale 1: 10,000
Checked			Plate No 6692
Revised by	Date	SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES	



E.L. 2/70

193193



○ Sample location & number
/3/ Result in ppm

Aberfoyle Exploration Pty Ltd		TASMANIA MACKINTOSH & HATFIELD E.L.'s	
Geochem: W German Federal Gov't	79-1327	Location code:	
Drawn:	RJE, JJB	Date:	Dec 1978
Traced:		Scale:	1:10,000
Checked:		Plate No:	6702
Revised by:		Date:	
Zn - p.p.m.		SAMPLE LOCATIONS FOR ROCK GEOCHEM STUDY FOR WEST GERMAN FEDERAL INST OF GEOSCIENCES & NATURAL RESOURCES	
		QR 109 b (Zn)	