GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE

KELLY CREEK MINERAL PROPERTY

Omineca Mining Division
NTS 103I/8E
54°28'N 128°08'W

for
IMPERIAL METALS CORPORATION

by
Peter R. Delancey, P. Eng.
and
Dennis Gorc

DECEMBER 1990

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1.0 **SUMMARY**

A general evaluation and rock sampling program was carried out on the Kelly Creek property from September 21 to 27, 1990. The purpose of the program was to investigate the nature of the mineralization and to make recommendations for future work.

The Kelly Creek property was actively explored from 1964 to 1971 and from 1980 to 1981. Early work included mapping, trenching, sampling and diamond drilling. This work indicated two zones - the Upper and Lower Showings with significant copper/silver mineralization. Between 1968 and 1971 Pechiney Development carried out additional drilling and drove a 1,000 ft. exploration drift into the Upper Showing. The claims were allowed to lapse. In 1980 the newly staked claims were purchased and a joint venture program was initiated by Invex Resources Ltd. and Cathedral Minerals Ltd. Work included underground and surface drilling, mapping, S.P. and I.P. surveys and soil sampling. In addition the underground workings were extended and two raises were put into the mineralized zone. Results did not meet expectations and funding was halted. The property has remained idle since 1981.

Copper-silver mineralization occurs along a NW-SE fault structure cutting subaerial Hazelton Group volcanics and a granodiorite body of the Coast Range Complex. Disseminated and fractured controlled copper sulphides are localized along the sheared contact of a distinctive andesite feldspar porphyry.

The Upper Showing mineralization occurs as disseminated and fracture controlled copper sulphides in silicified andesite, feldspar porphyry and a rhyodacite flow/breccia unit. These rocks are strongly fractured and sheared. The mineralized zone is a roughly tabular body 175 by 125 m and ranges from 5 to 30 m thick. The zone dips 30-40 degrees into the hillside. Reserve estimates are in the order of 0.5 million tons of 2% copper and 1.5 oz/tonne silver. The potential tonnage is in the order of 1 to 3 million tons of +/- 1.5% copper and +/- 1.0 oz/tonne silver.

The Lower Showing, located 330 m northwest of the Upper Showing, consists of disseminated and fracture controlled copper sulphides in granodiorite. Potassium alteration is common along the mineralized fractures. The zone is approximately 200 m long and 5 to 15 m thick. Previous sampling of trenches along the zone indicate grades in the order of 0.4% copper.

Mineralization in the Kelly Creek area is largely controlled by fracturing and local brecciation associated with a NW-SE fault roughly paralleling Kelly Creek. The specific localization of mineralization appears to be largely a function "ground preparation" in brittle rocks and along fractured intrusive contacts.

The possibilities that the Kelly Creek showings represent remobilized volcanogenic massive sulphides or alkalic copper-gold porphyry mineralization seem remote. The most likely target is disseminated and fractured controlled, low to medium grade copper/silver mineralization associated with silicification and brecciation along fault structures.

At today's metal prices neither the present or potential reserves are economic. Examination of other showings in the immediate area of Kelly Creek indicate similar discontinuous fracture controlled copper-silver mineralization.

The key claims covering the Upper and Lower Showings should be held pending increased copper and silver prices.

2.0 INTRODUCTION

Rock sampling combined with a general evaluation of the Kelly Creek property was carried out by Peter Delancey and Dennis Gorc from September 21 to 27, 1990. The last exploration program had been carried out during 1980 and 1981. Although reporting of previous exploration, including 445 m of underground exploration workings, is relatively complete, the nature and controls of the mineralizing system were unclear. The purpose of the program was to investigate the potential of the property and to make recommendations for further work. Thirty-five rock samples were collected during the course of the program. These samples were mostly of mineralized rock on the Kelly Creek property; a few samples were collected from other showings in the general area. All samples were submitted for 30-element ICP + gold analyses by acid leach/AA.

3.0 LOCATION, ACCESS AND TOPOGRAPHY

The Kelly Creek property is located in the Zymoetz River (known locally as the Copper River) area and is about 30 km east of Terrace, British Columbia (Figure 1).

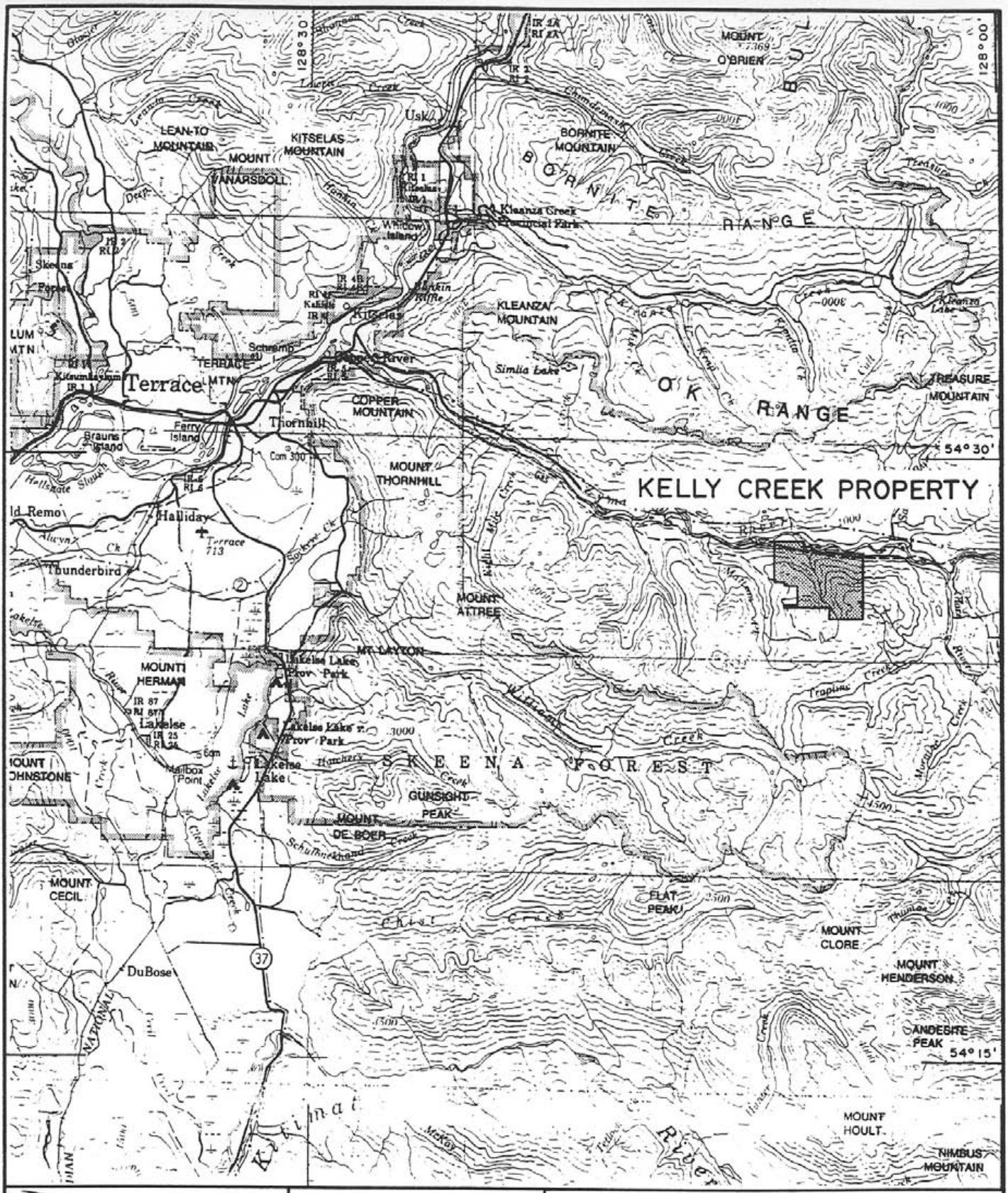
Access to the property is by Highway #16 to the Copper River logging road and along this road for approximately 35 km to Kelly Creek. A 2 km switch-back side road leads to the Showings. This side road is overgrown with bush and small trees and is not accessible by truck.

The Showings are at an elevation of 1800 feet, about 1000 feet above Copper River valley. The terrain rises in a series of steep slopes and rock bluffs from the valley floor. Most of the claim area has been logged or burnt and the slopes are covered with a dense growth of brush and fallen trees. The road is washed out immediately below the adit and would require considerable work to repair.

4.0 CLAIM STATUS

The claims are held by Imperial Metals Corporation. The status of the claims is as follows:

CLAIM NAME	UNITS	RECORD#	RECORD DATE	EXPIRY DATE
Kelly 1-2	2	2138-2139	1979/10/01	1992/10/01*
Kelly 3-6	4	2140-2143	1979/10/01	1991/10/01*
Kelly	1	2145	1979/10/16	1992/10/16*
Ann	1	2197	1979/10/16	1991/10/16*
Tim	1	2146	1979/10/16	1991/10/16*
Kelly	20	4019	1981/05/22	1993/05/22*
Kelly 2	18	4020	1981/05/22	1993/05/22*



IMPERIAL METALS CORPORATION

KELLY CREEK

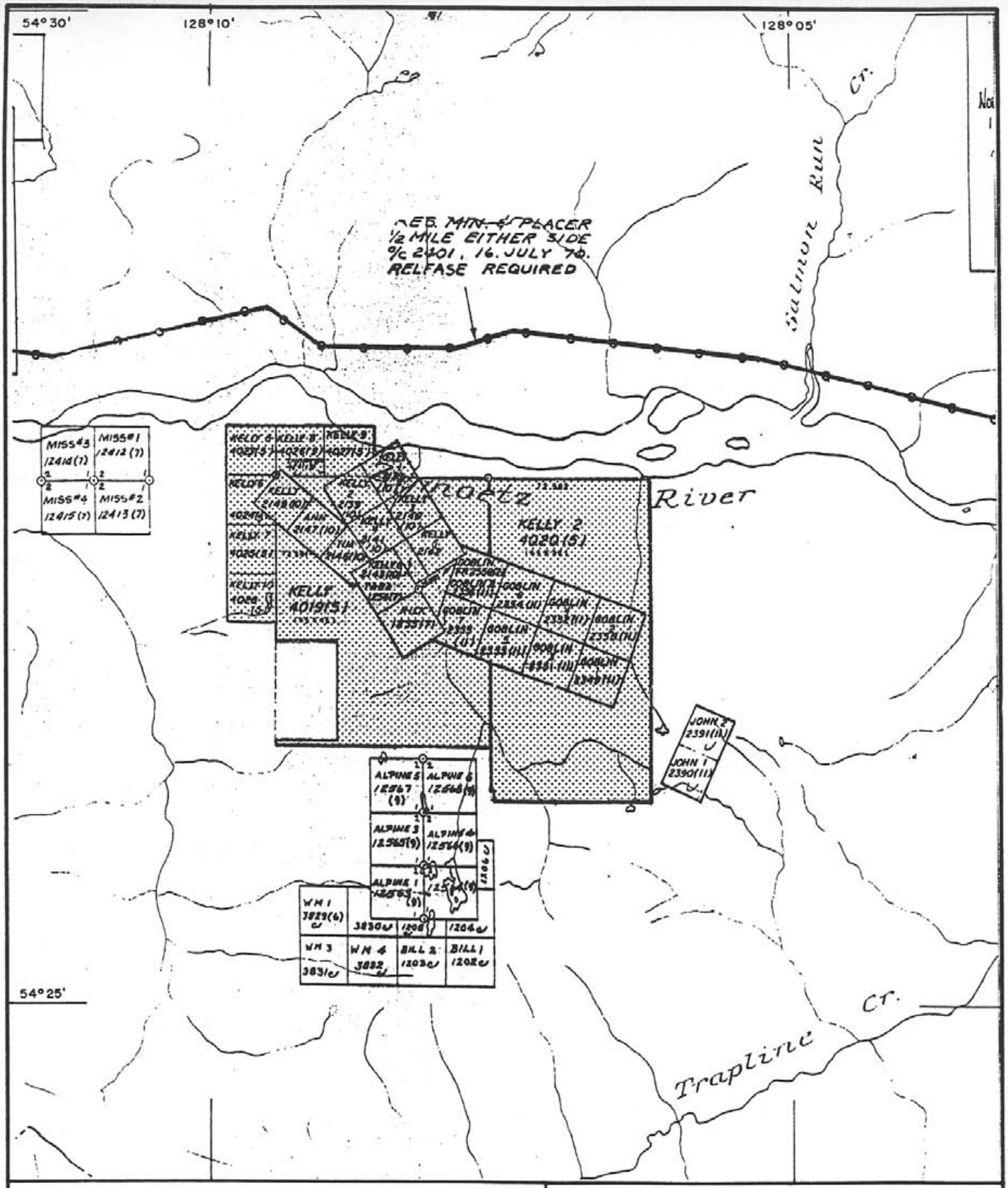
FIGURE I

N.T.S. 103I

LOCATION MAP

Km 5 0 5 10 Km

SCALE: 1 : 250 000	GEOLOGIST: P. DELANCEY, D.GORC
DATE: DECEMBER 1990	DRAWN BY: S. HAWORTH



IMPERIAL METALS CORPORATION

KELLY CREEK

FIGURE 2 N.T.S. 103I/8E

CLAIM MAP

Km 1 0 1 2 Km

SCALE: 1:50 000	GEOLOGIST: P. DELANCEY, D.GORC
DATE: DECEMBER 1990	DRAWN BY: S. HAWORTH

Kelly 5	1	4023	1981/05/22	1993/05/22*
Kelly 8	1	4026	1981/05/22	1993/05/22*
Kelly 9	1	4027	1981/05/22	1993/05/22*
Goblin 1-8	8	2349-2356	1979/11/20	1991/11/20
Goblin Fr.		2559	1980/02/29	1992/02/29
Kelly 6-7	2	4024-4025	1981/05/22	1992/05/22
Kelly 10	1	4028	1981/05/22	1992/05/22
Tara	1	1254	1978/07/21	1992/07/21
Rick	1	1255	1978/07/21	1992/07/21

* pending acceptance of this report

5.0 **HISTORY**

The property was first staked in 1964. Native Explorations Ltd. optioned the property in 1965 and carried out trenching, mapping and prospecting. Two areas of significant mineralization were outlined - the Upper Showing and the Lower Showing. In 1966 exploration included 13 diamond drill holes totalling 2947 feet, 1650 feet of trenching, 20.5 miles of geochemical survey and 7.3 miles of I.P. survey. In 1967, 7 additional holes totalling 2493 feet were drilled on the Upper Showing. In 1967 Pechiney Development optioned the property and continued exploration. The objective was to develop a large tonnage, low-grade, open-pit copper mine. During 1968 to 1970 geological mapping, soil sampling and prospecting was carried out, a 1000 foot adit was driven into the Upper Showing and 7 underground holes drilled. The claims were allowed to lapse. In 1979 the claims were acquired and a joint-venture program initiated by Invex Resources Ltd. and Cathedral Minerals Ltd. The intent of the program was to delineate the full potential of the mineralization outlined by Pechiney, paying particular attention to the precious metal values associated with the copper mineralization. During 1980, 519 m of underground drilling and 365 m of drilling from surface was completed. Geological mapping was carried out as part of a thesis (see Cheetham, 1981). Nine hundred and fifty line-meters of self potential survey and a limited soil survey was completed. Work during 1981 included 1000 m of surface diamond drilling and 142 m of underground development, and some additional mapping, soil geochemistry and I.P. were carried out over a wide area. The purpose of the underground development was to extend the workings to allow for an underground drilling station and to put 2 raises through the mineralized zone. Only one of the raises passed through significant mineralization. Although further recommendations were made to explore the down-dip extent of the mineralization from the newly developed underground drill station, the program was terminated. The property has remained dormant since that time.

6.0 REGIONAL GEOLOGY

The Kelly Creek property occurs near the boundary between the Coast Plutonic Complex and the Intermontane Belt. The volcanic and sedimentary strata in the region are dominated by the Stikine terrane, an extensive area of volcanic and sedimentary rocks covering much of west-central B.C. These rocks include volcaniclastic, sedimentary and volcanic rocks of the Early to Middle Jurassic Hazelton Group which underlies the Kelly Creek property.

The Hazelton Group is a calc-alkaline island arc assemblage characterized by numerous lateral and vertical facies changes. The Group has been divided into three formations: lowermost Telkwa Formation, Nilkitkwa Formation and Smithers Formation. The Kelly Creek property is underlain by members of the Telkwa Formation.

The formation is a mixture of marine and subaerial, reddish-purple to grey-green pyroclastic and flow rocks. Andesites and basalts are the predominant volcanic lithologies but siliceous pyroclastic flows and rhyolite flows occur locally. The rhyolites include spherulitic flows, dense vitric tuffs and welded tuffs. Thicker accumulations of felsic volcanics appear to be associated with volcanic centres. Elsewhere domes and small plugs of rhyolite and quartz-feldspar porphyry occur locally.

The above volcanic sequences overlie Triassic to Permian sedimentary rocks (limestone, greywacke, chert) and lesser greenstone.

The eastern boundary of the Coast Plutonic complex is located approximately 10 km west of the property. Several small intrusive stocks associated with the Plutonic complex are common near this boundary and several of these occur on or near the Kelly Creek property. Woodsworth et al (1985) mapped the main intrusive body on the property as Late Cretaceous to Tertiary granodiorite, tonalite and granite.

7.0 PROPERTY GEOLOGY

The property is underlain by a sequence of red and green andesites, basalts, dacites and rhyolites of the Telkwa Formation of the Hazelton Group. Regionally these rocks strike north-south and dip moderately easterly. Quin (1982) describes the sequence as variable in colour and appearance and to contain both flow rocks and tuffs. Cheetham (1981) describe many of the geological units as amygdaloidal occasionally up to 30% by volume. This

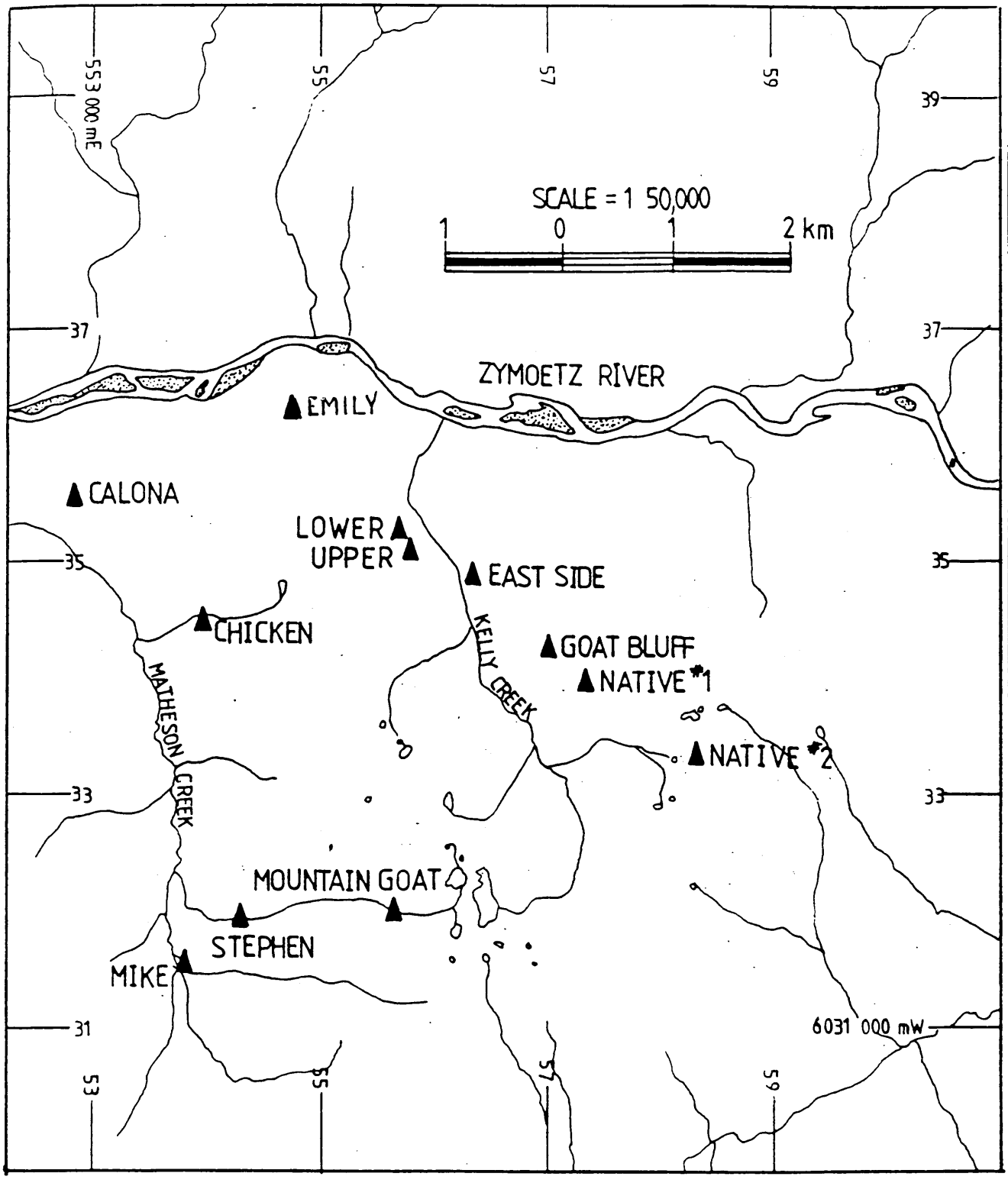
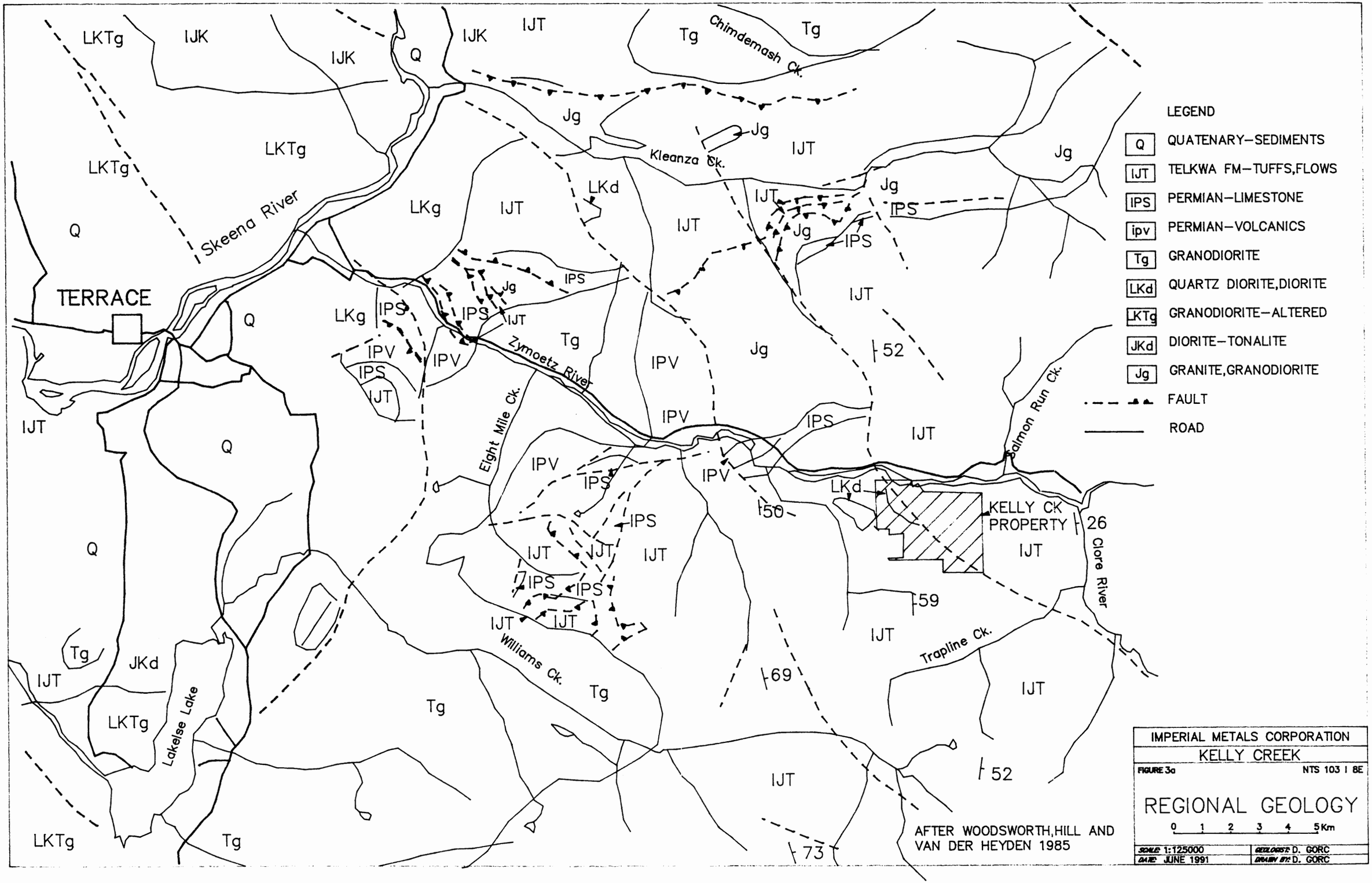
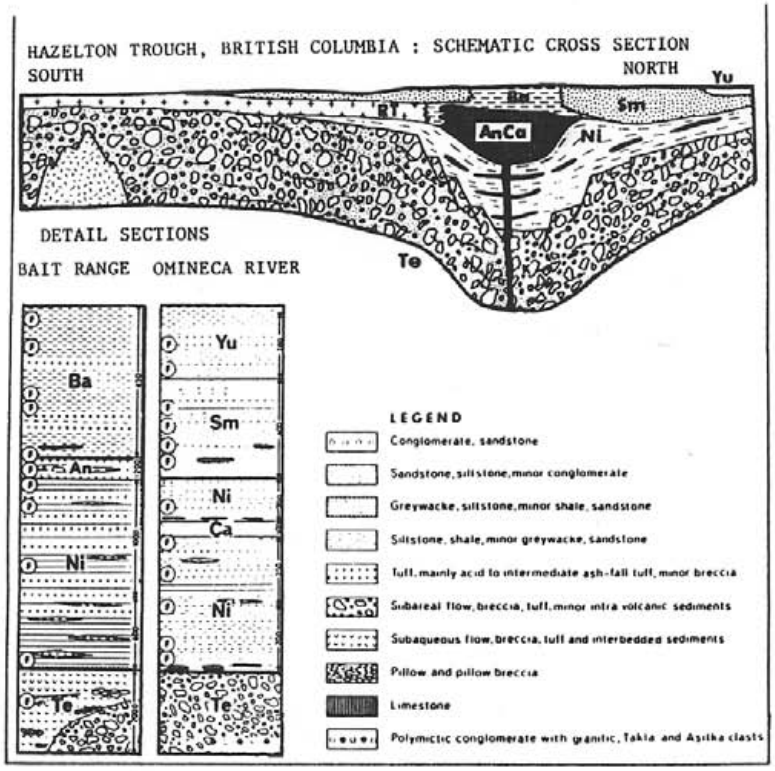


Fig. 3 Mineral showings in Kelly Creek area.


LKTg
IJK
Q
IJT
Tg
Chimdemash Ck.
Jg
Kleanza Ck.
LKTg
LKg
LKd
IJT
Skeena River
IPS
TERRACE
IPV
Zymoetz River
Eight Mile Ck.
52
Salmon Run Ck.
50
KELLY CK
PROPERTY
26
Clore River
59
Trapline Ck.
69
Williams Ck.
JKd
Lakelse Lake
73
LEGEND
QUATENARY–SEDIMENTS
TELKWA FM–TUFFS,FLOWS
PERMIAN–LIMESTONE
PERMIAN–VOLCANICS
GRANODIORITE
QUARTZ DIORITE,DIORITE
GRANODIORITE–ALTERED
DIORITE–TONALITE
GRANITE,GRANODIORITE
FAULT
ROAD
AFTER WOODSWORTH,HILL AND VAN DER HEYDEN 1985
IMPERIAL METALS CORPORATION
KELLY CREEK
FIGURE 3a
NTS 103 I 8E
REGIONAL GEOLOGY
0 1 2 3 4 5Km
SCALE 1:125000
GEOLOGIST D. GORC
DATE JUNE 1991
DRAWN BY D. GORC



. . Sinemurian to Bajocian (Jurassic) portion of the Hazelton Group, British Columbia, as an example of basalt, andesite, rhyolite volcanic-sedimentary association. ABBREVIATIONS: Sm = Smithers Fm., Ba = Bait Member; Yu = Yuen Member; Ni = Nilkitkwa Fm.; RT = Red Tuff Member; An = Ankwell Member; Ca = Carruthers Member; Te = Telkwa Fm. From Tipper and Richards (1976), courtesy of the Geological Survey of Canada and the authors.

After: Laznika (1985)

FIGURE 3b Hazelton Trough - Schematic Cross Section

feature plus the widespread hematite and magnetite within the volcanics suggests that much of the sequence is subaerial. All rocks show evidence of sub-greenschist metamorphism which appears to be a regional feature.

A distinctive rock type, occurring within the property and associated with the mineralization, is a megacrystic (3 cm) feldspar porphyry which has both intrusive and flow features characteristic of a hypabyssal intrusive. The unit is typically massive and is prominent in the area of mineralization.

The intrusives within the property are described as granodiorite quartz diorite and quartz monzonite. The intrusives are essentially unaltered.

Structure is an important control to the mineralization. The Kelly Creek property are crosscut by several faults which can be grouped into three sets:

a) NW-SE striking
b) 110°-120° strike, 30°-65°S dip
c) NE-SW striking

Regionally NW-SE striking faults are prominent several of which has been traced for several kilometers. One of these regional faults crosses the Kelly Creek property the trace of which extends along Kelly Creek below the mineralized zones.

The mineralized zones are orientated at 110° -120° strike 30°S dip. Suggesting that they are related to the 110°-120° strike set of faults.

8.0 ECONOMIC GEOLOGY

8.1 Introduction

Regionally the Hazelton Group hosts a variety of mineral deposits including gold-quartz veins, copper-silver veins, copper-zinc-silver massive sulphide and porphyry copper-molybdenum deposits. As evidenced by such geographical place names, such as Copper River and Bornite range, numerous copper showings occur in the area near Kelly Creek.

The characteristics of the Kelly Creek deposit suggest that it may belong to a subtype of the Volcanic Redbed Class of copper deposits. This type of deposit occurs within continental to very shallow marine sequences and is generally hosted by amygdaloidal flows, tuffs and

breccias. The Kelly Creek mineralization would appear to fit into a more structurally related subtype where faulting and fracturing are important ore controls.

Mineralogy of this deposit type generally includes chalcocite, bornite and chalcopyrite along with associated minerals such as calcite, epidote, chlorite, prehnite, pumpellyite, laumontie, and K-spar. Larger deposits tend to follow specific favourable lithologies with ore minerals occurring as disseminations, stringers and patchy lenses.

Smaller deposits are often associated with faulting and fault brecciation. The Kelly Creek mineralization appears to be of the latter category.

This type of deposit generally ranges in size from 1 to 10 million tons although there are a few deposits that contain 30-50 million tons. Copper grades range from 0.6 to 4.0% Cu.

The most significant copper deposit of this type in British Columbia is the Sustut Copper deposit. The Sustut deposit is hosted by volcaniclastics and flows of the Takla Group. Hematite, chalcocite, pyrite, bornite and chalcopyrite occurs as disseminations within a concordant zone just below the transition zone from subaqueous to subaerial rocks. The mineralization is believed to be due to migrating metamorphic solutions.

8.2 Mineralization

Mineralization consisting of bornite, chalcocite, bornite, covellite, chalcopyrite and pyrite has been discovered at several locations on the Kelly Creek property (see Figure 3).

The two most significant showings have been labelled the Upper and Lower Showings. The Upper Showing has been outlined with trenches, an adit, raises and diamond drill holes. The Lower Showing has been outlined with a few drill holes and a few small trenches. Both Zones remain open along strike and downdip.

The Upper Showing mineralization occurs along a zone of faulting and fracturing in andesite, feldspar porphyry and rhyodacites. Block faulting in the immediate area make stratigraphic correlations difficult. The mineralized zone is roughly tabular, striking approximately 120° and dipping 30 to 40° southwesterward into the steep hillside. The mineralization, consisting of disseminated, fracture breccia fillings of pyrite,

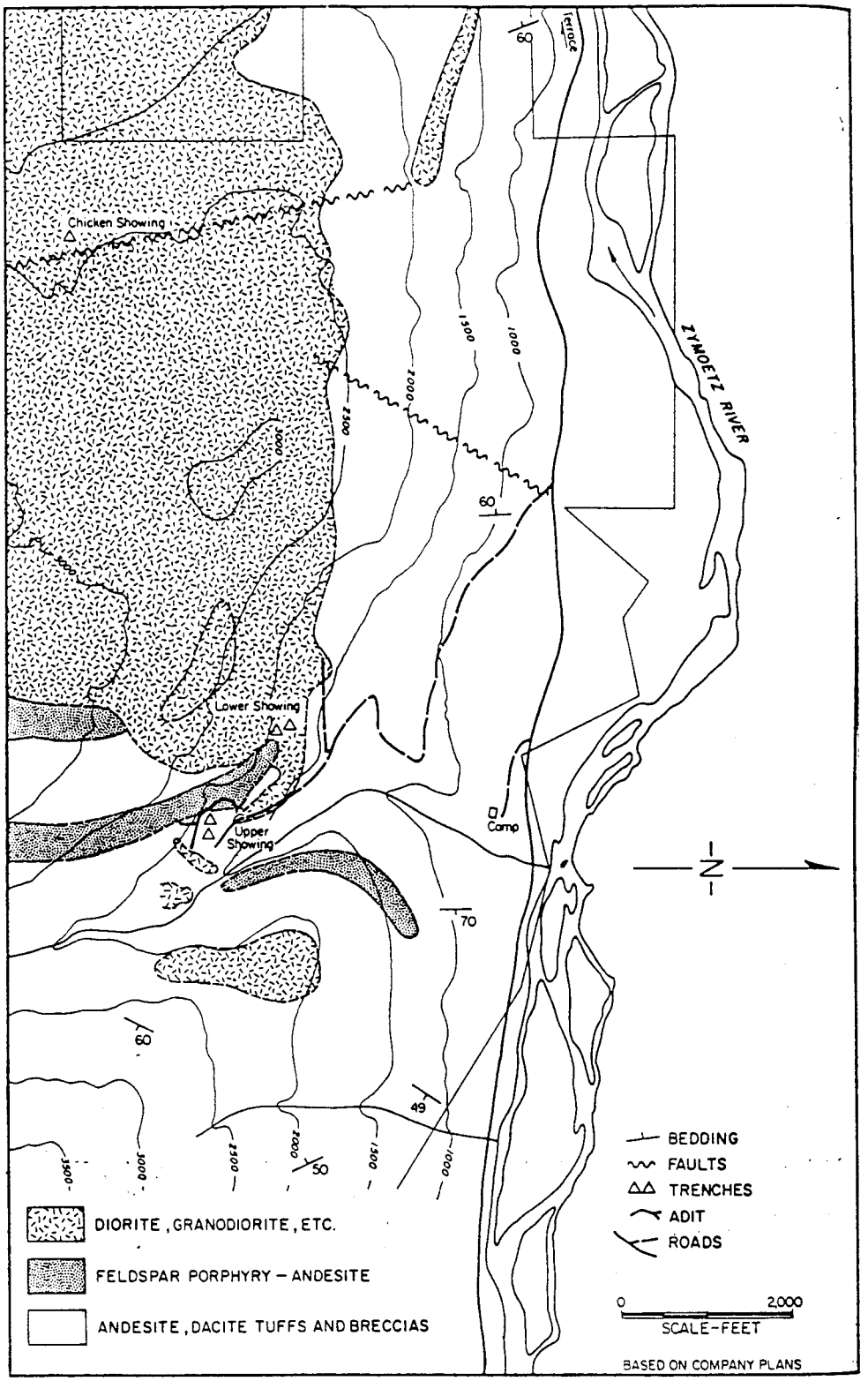


FIGURE 4 - GENERALIZED SURFACE GEOLOGY, KELLY CREEK AREA. (AFTER B.C., MMPR, GEOLOGY, EXPLORATION AND MINING 1970).

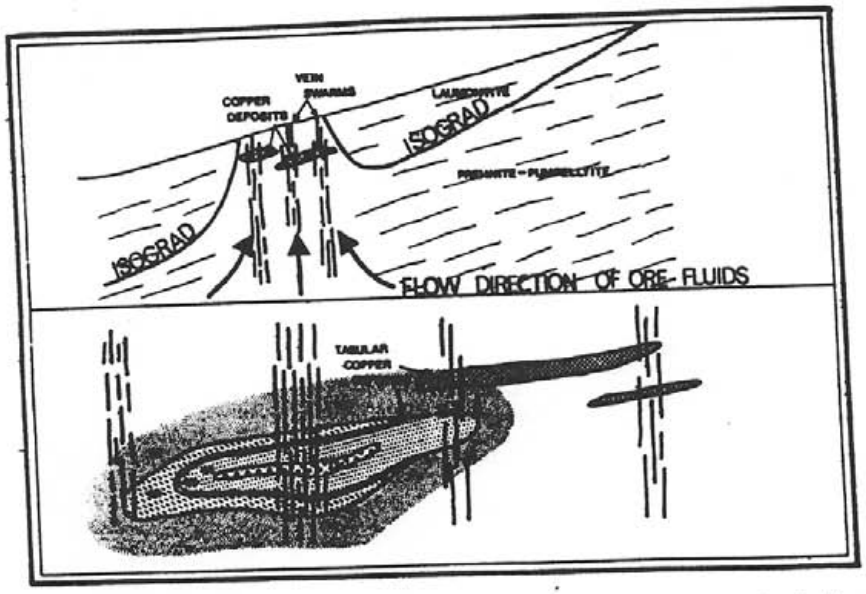


Figure 2. Conceptual model for genesis of Sustut Copper deposit. The upper diagram shows the deposit localized in a structurally controlled thermal high that caused a node-like irregularity in the regional metamorphic isograd. The lower diagram is a highly idealized illustration of copper-mineral and pyrite zoning within a mineralized tabular zone. In reality, zones overlap extensively. Vertical lines are schematic representations of vein swarms. Dominant minerals in zones are as follows: Cu-native copper; cc-chalcocite; bo-bornite; cp-chalcopyrite; py-pyrite.

After: Wilton, Sinclair (Fifth 1AGOLD Symposium)

FIGURE 4a Conceptual Model - Genesis of Sustut Copper Deposit.

chalcopyrite, bornite and minor chalcocite, is mainly localized in a felsic flow/breccia unit and in the adjacent sheared and silicified andesite porphyry. Calcite and pink K-spar alteration is locally associated with sulphides.

Reserves calculated from both surface and underground drilling (spacing 30-50m) are in the order of 244,000 tonnes of 2.87% Cu and 1.89 oz/tonne Ag at a 2.0% copper cut-off or 545,000 tonnes of 2.23% Cu and 1.48 oz/tonne Ag at a 1.5% copper cut-off. Potential geological reserves are in the order of 2 to 3 million tons of 1% Cu and 0.6 oz/tonne Ag. Although drilling has more or less delineated mineralization along strike, the down-dip extent of the mineralization has yet to be tested from the underground drill station established for that purpose.

The Lower Showing is located some 330m northwest of the Upper Showing. The mineralization of the Lower Showing is different in that it is hosted mainly in granodiorite along its contact with the andesitic porphyry body. Fine-grained andesite is noted locally. Chalcopyrite, pyrite, bornite and minor chalcocite occur as disseminations and fracture fillings in pink granodiorite. The coloration is largely due to pervasive K-spar alteration along mineralized fractures. Local silicification is associated with the copper mineralization. The zone is approximately 20-40m wide and extends approximately 150m along the E-W trend. The overall grade of the mineralization is around 0.4% copper.

The other mineralized zones on the property have received little work other than minor rock chip sampling.

During the 1990 examination of the Upper Showing and "Lower" Showings in 1990 it appeared that fracturing and brecciation were significant ore controls with the grade of mineralization noticeably increasing with more intense fracturing. The brittle very well fractured "rhyolite" unit of the Upper Showing certainly appeared to host the higher grade mineralization. Other rock types including the granodiorite hosting the Lower Showing reacted differently to the tectonic event which produced the fracturing, brecciation or ground preparation in the Lower - Upper Showing area. Examination of the trenches in the Lower Showing revealed far less fracturing than the "rhyolites" of the Upper Showing which could be in part explain the lower overall grade of the Lower Showing.

The significance of the feldspar porphyry is uncertain although there appears to be some relation to the mineralization since both the Upper and Lower Showings occur alongside the porphyry. It is possible that the massive nature of the porphyry unit affected and partially localized the fracturing and brecciation.

Other showings examined on the property were also associated with small shears and fracturing. It is interesting to note that at one of the showings, Emily Showing, a megacrystic feldspar porphyry dyke was noted.

9.0 ROCK GEOCHEMISTRY

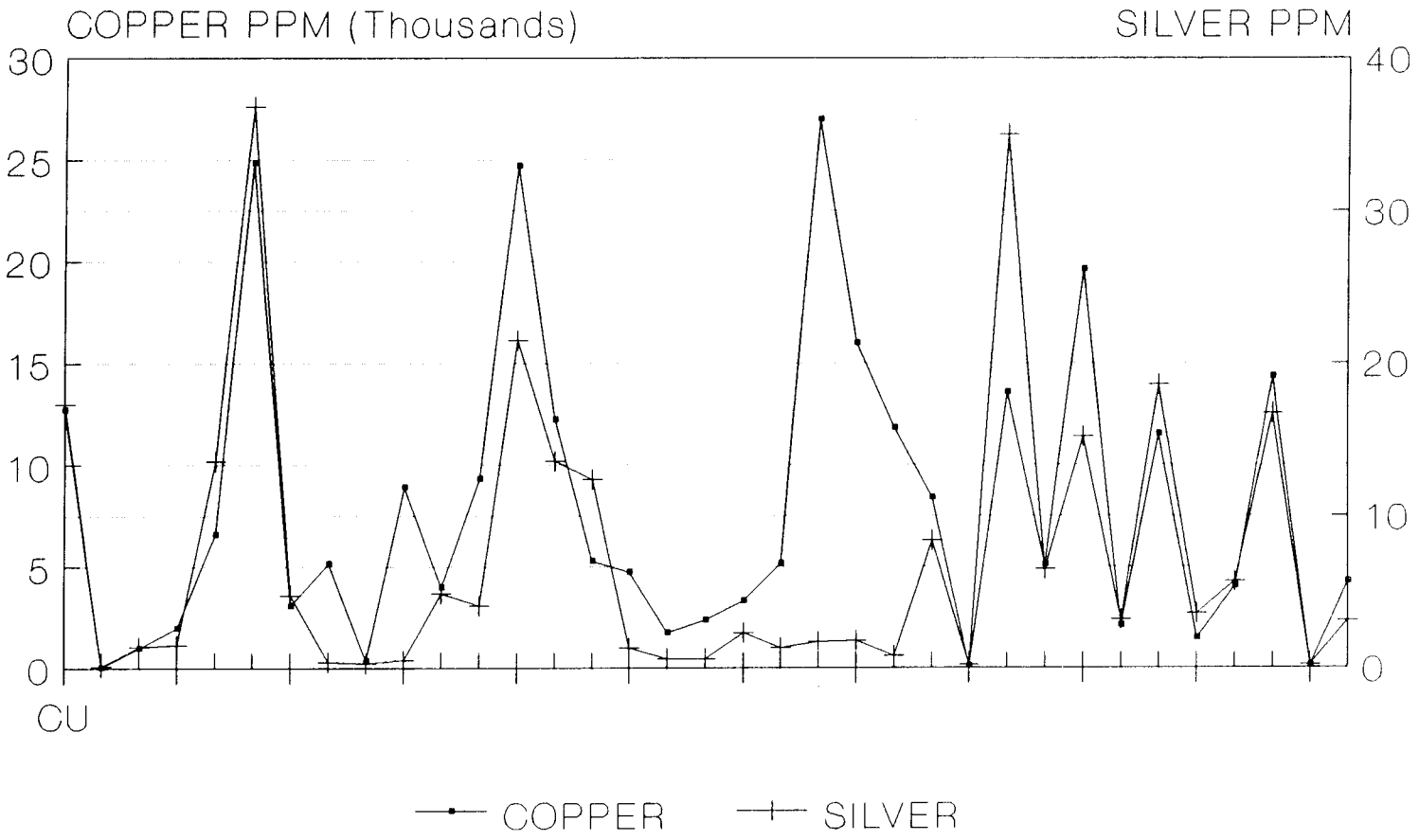
A total of 35 rock chip samples were taken of mineralization from the Lower, Upper and other showings in the Kelly Creek area. These samples were submitted to Acme Labs of Vancouver for 30 element ICP analysis and Au by atomic adsorption. From these results it was hoped that the values of trace elements may provide a means of differentiating the various showings and provide clues as to the genesis of the mineralization.

Statistical tests were on the rock geochemical data with results given in Appendix 4. Additional correlation tests were also completed and given in Appendix 5. Copper values show moderate correlation with corresponding silver and iron values. Arsenic shows good correlation with lead, iron and molybdenum values. Molybdenum also correlates well with lead and iron values. Gold shows no correlation with Mo, Cu, Pb, Ag, Zn, Fe, As, Ba or K suggesting that the anomalous gold values (samples KD-17, 18; Au 100 ppb, 550 ppb) are samples of a separate episode of mineralization.

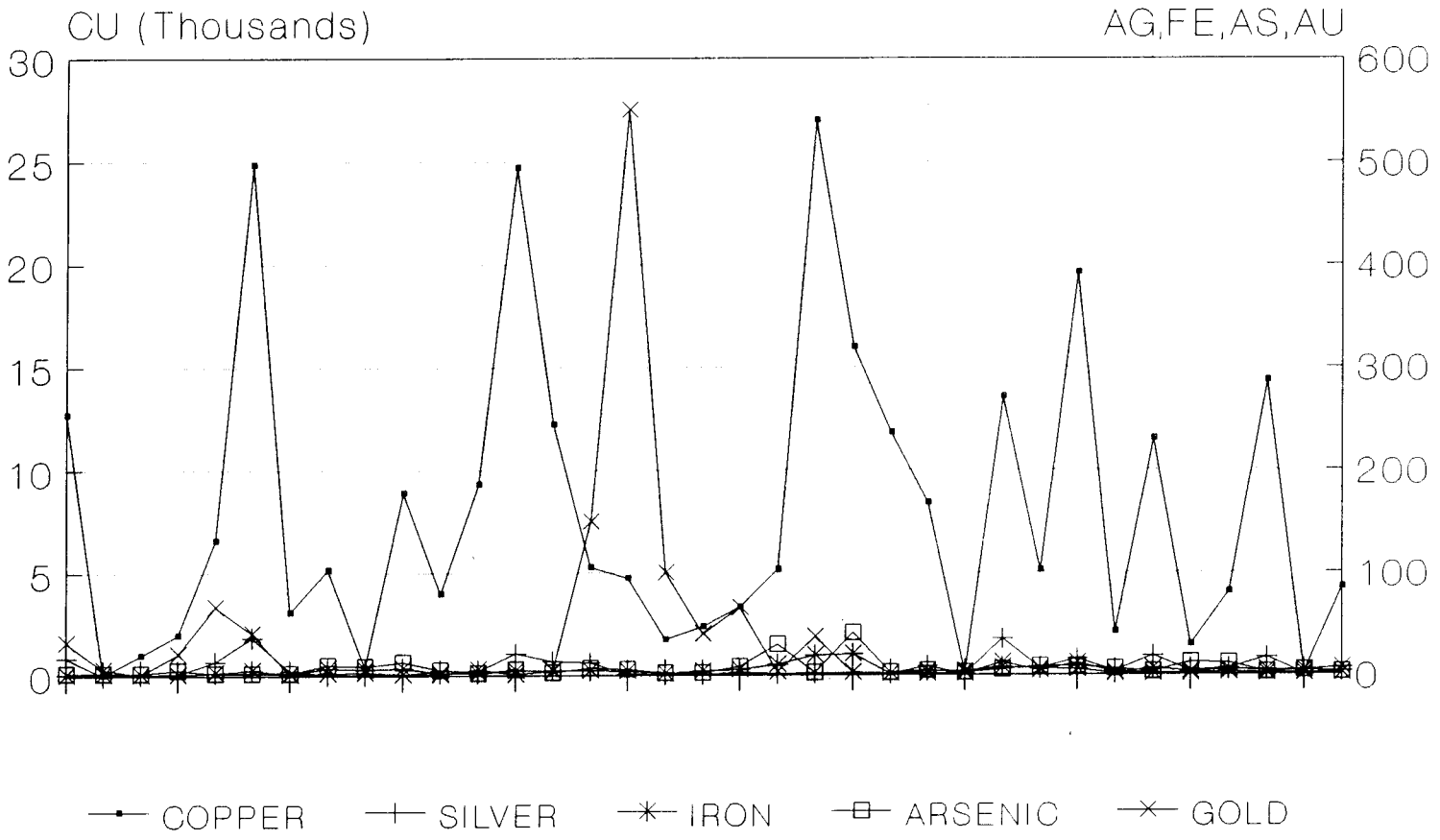
Epidote-silica-calcite altered volcanic containing 15% specular hematite, 15% pyrite and galena also appears to be an episode of mineralization separate from the copper-silver mineralization of the Upper and Lower Showings. Samples of this mineralization returned anomalous copper and lead values and only background silver values. Copper values ranged from 11,808 to 26,996 ppm Cu, and lead values from 10,877 ppm to 14,044 ppm Pb. The above mineralization was only found as float which was found approximately 100m east of the Calona Showing.

The geochemical data therefore suggests three separate mineralizing episodes.

KELLY CREEK
COPPER-SILVER



KELLY CREEK
CU-AG-FE-AS-AU



10.0 CONCLUSIONS

1. Relatively discontinuous fracture controlled copper-silver mineralization is hosted by subaerial volcanic rocks of the Hazelton Group (Upper Showing) and in granodiorite of the Coast Crystalline Complex (Lower Showing).

2. Several of the showings, including the Upper and Lower Showings occur along a NW-SE trending fault system which cuts across the area. Several cross-faults displace stratigraphy.

3. The localization of the mineralization in the immediate Kelly Creek area may be associated with a distinctive porphyritic andesite showing both intrusive and intrusive relationships. Mineralization is best developed along the sheared contacts and in a brittle felsic unit immediately adjacent to the feldspar porphyry.

4. Examination of other showings in the general area of Kelly Creek indicate local fracture controlled copper-silver mineralization of similar character to the Kelly Creek showings.

5. This continuous, fracture controlled copper-silver mineralization does not represent an attractive exploration target.

11. RECOMMENDATIONS

No exploration is recommended in the immediate future.

The key claims covering the Upper and Lower Showings should be held pending an increase in the prices of copper and silver.

Peter R. Delancey, P. Eng.

12.0 STATEMENT OF QUALIFICATIONS

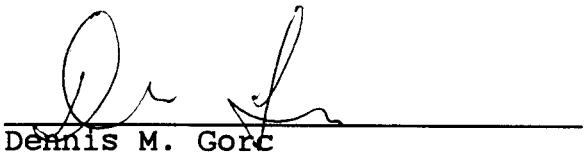
I, DENNIS M. GORC, residing at 103-2083 Coquitlam Avenue, in Port Coquitlam, British Columbia, V3B 1J4 state that:

(1) I graduated from Queen's University, Kingston, Ontario with a B.SC. (Eng.) degree in mineral exploration in May 1976.

(2) Since 1976, I have supervised mineral exploration programs in British Columbia, N.W.T., Manitoba and Ontario.

(3) I am presently employed as a geologist with Imperial Metals Corporation, Suite 800-601 West Hastings Street, Vancouver, B.C. V6B 5A6

Dated this 3 day of July, 1991, in the City of Vancouver, Province of British Columbia.



Dennis M. Gorc
IMPERIAL METALS CORPORATION
Vancouver, B.C.

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14.0 COST STATEMENT

Wages			
P. Delancey	Sept. 19, 21, 22(½), 23-27	$2,625	
D. Gorc	Sept. 19, 21, 24-27	1,200	$3,825
Accommodation, Travel, Food			
Airline tickets Vancouver-Terrace-Vancouver for D. Gorc and P. Delancey		$1,036	
Car Rental	Sept. 22-27, 1990	350	
Motel	Sept. 22-27, 1990	262	
Meals		292	
Taxi, Parking		70	2,010
Equipment			
Field supplies, gasoline, equipment			489
Geochemistry			
35 rock samples analysed for Au by AA and 30 element ICP			376
Miscellaneous			
Report - drafting, computer, typing, etc.			1,500
	TOTAL		$8,200

APPENDIX I

ROCK DESCRIPTIONS

APPENDIX I

ROCK SAMPLE DESCRIPTIONS

Sample No.	Location	Description
KD-90-1R	at road cut along access road to adit	copper mineralization alongside small shear; chalcopyrite? malachite carbonate and epidote alteration noted; grab sample
KD-90-2R	same as above	megacryst feldspar porphyry dyke some feldspar phenocrysts altered to epidote; grab sample
KD-90-3R	same as above	30 cm across upper fault; chalcocite, malachite, minor silica
KD-90-4R	along road approx. 1 km from microwave tower	malachite stained fractures, with minor chalcocite; 5 cm of silicification and pinkish alteration alongside; grab sample
KD-90-6R	adit; northernmost drift	copper mineralilzation below raise; bornite, chalcopyrite, chalcocite and malachite; fracture-controlled; some irregular thin quartz-chalcopyrite veins; grab sample
KD-90-7R	same as above	same as above
KD-90-8R	adit southernmost drift	copper mineralization within rhyolite; chalcocite, chalcopyrite, bornite, malachite fracture controlled; mineralized quartz veins to 2 cm; pink alteration and silification alongside many veins
KD-90-9R	Upper showing	50 cm across highly fractured rhyolite; patchy malachite; minor chalcopyrite along fractures; immediately below small fault
KD-90-10R	same as above	40 cm immediately below KD-90-9R; chloritic
KD-90-11R	same as above	2 cm of chloritic gouge along shear
KD-90-12R	same as above	50 cm immediately above KD-90-9R; highly fractured; irregular quartz-calcite veining
KD-90-13R	Upper Showing	fractured controlled chalcopyrite within rhyolite

Sample No.	Location	Description
KD-90-14R	Lower Showing	chalcopyrite-quartz veins in granodiorite; 5 cm of pink Kspar alteration alongside vein; float
KD-90-15R	Lower Showing	fracture controlled chalcopyrite in granodiorite; at old trench, grab sample
KD-90-16R	Lower Showing	grab sample, brecciated granodiorite, pinkish Kspar? alteration alongside fractures; chalcopyrite, malachite along fractures
KD-90-17R	Calona Showing	chalcopyrite-bornite along fractures; in massive andesite crystal tuff; 1-2 cm of epidote-Kspar alteration alongside many fractures
KD-90-18R	Calona Showing	similar to KD-90-17R
KD-90-19R	Calona Showing	3 cm across malachite stained small shear
KD-90-20R to 22R	100m to east of Calona Showing	massive epidote-silica-calcite altered volcanic containing 10-15% specular hematite and 15% pyrite; pyrite and hematite concentrated in 2 to 5 cm patches; minor galena float
KD-90-23R	near KD-90-20 to 22R	malachite, chalcopyrite along fractures in grey felsic crystal tuff, grab sample
KD-90-24R	Mountain Goat Showing	malachite, chalcopyrite along fractures in reddish weathering andesite
KD-90-25R	500m west of KD-90-20 to 22R along road	epidote-silica altered volcanic containing abundant 1 cm rosettes of specular hematite
KD-90-26R	Kelly Creek east of Upper Showing	malachite stained megacryst feldspar porphyry
KD-90-27R	East Showing	malachite, bornite, chalcopyrite, rare chalcopyrite, quartz veins within fractured andesite porphyry
KD-90-28R	East Showing	0.5 cm float chalcopyrite quartz vein in massive red andesite

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:46
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: FE

Mean - Average	4.936857	No. observations	35
Lower 95% c.i.limit	3.46711	No. missing values	0
Upper 95% c.i.limit	6.406604	Sum of frequencies	35
Adj sum of squares	622.4233	Sum of observations	172.79
Standard deviation	4.278618	Std.error of mean	.7232184
Variance	18.30657	T-value for mean=0	6.826233
Coef. of variation	.8666683	T prob level	0.0000
Skewness	2.442066	Kurtosis	7.00402
Normality Test Value	1.190	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	20.46	90-%tile	7.24
75-%tile	6.01	10-%tile	1.14
50-%tile (Median)	4.38	Range	19.61
25-%tile	2.23	75th-25th %tile	3.78
0-%tile (Minimum)	.85		

.85----------Line Plot / Box Plot----------20.46
1412 112 1 11132112 121 3 1 1 1
----[XXXXXXXXmXaXXXX]----

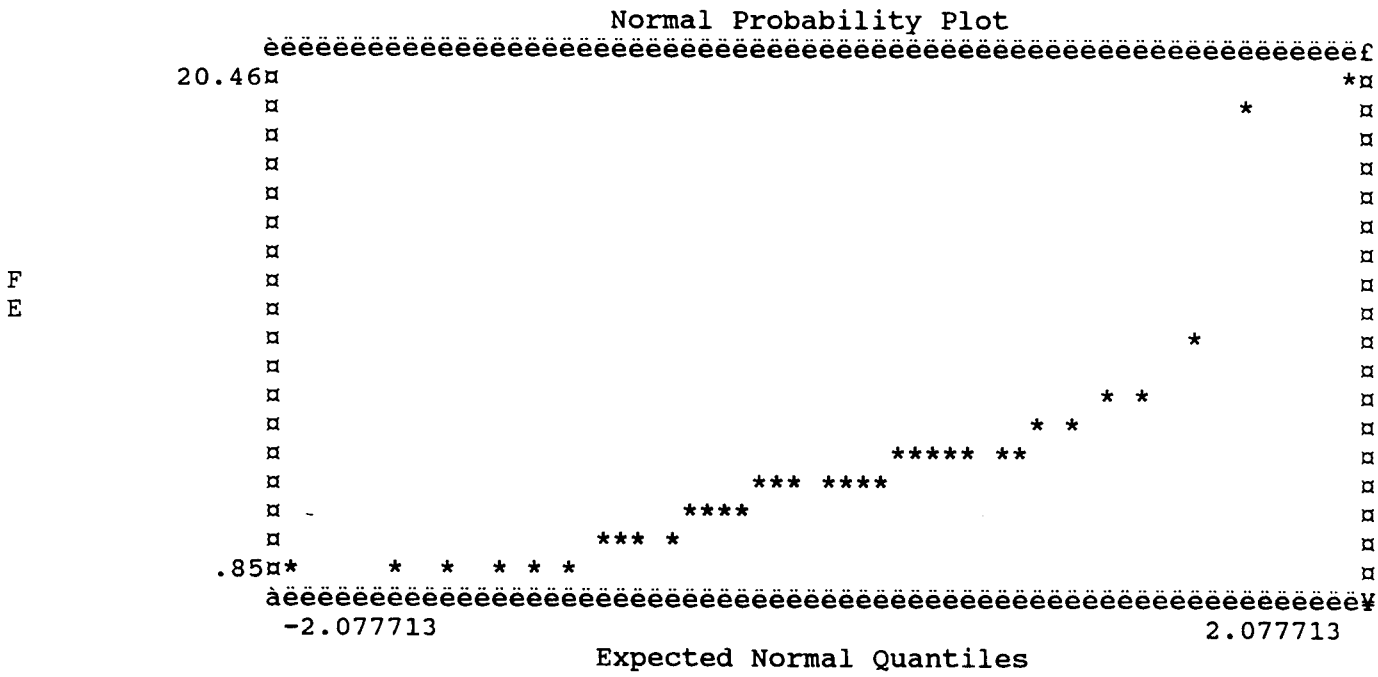
Distribution & Histogram

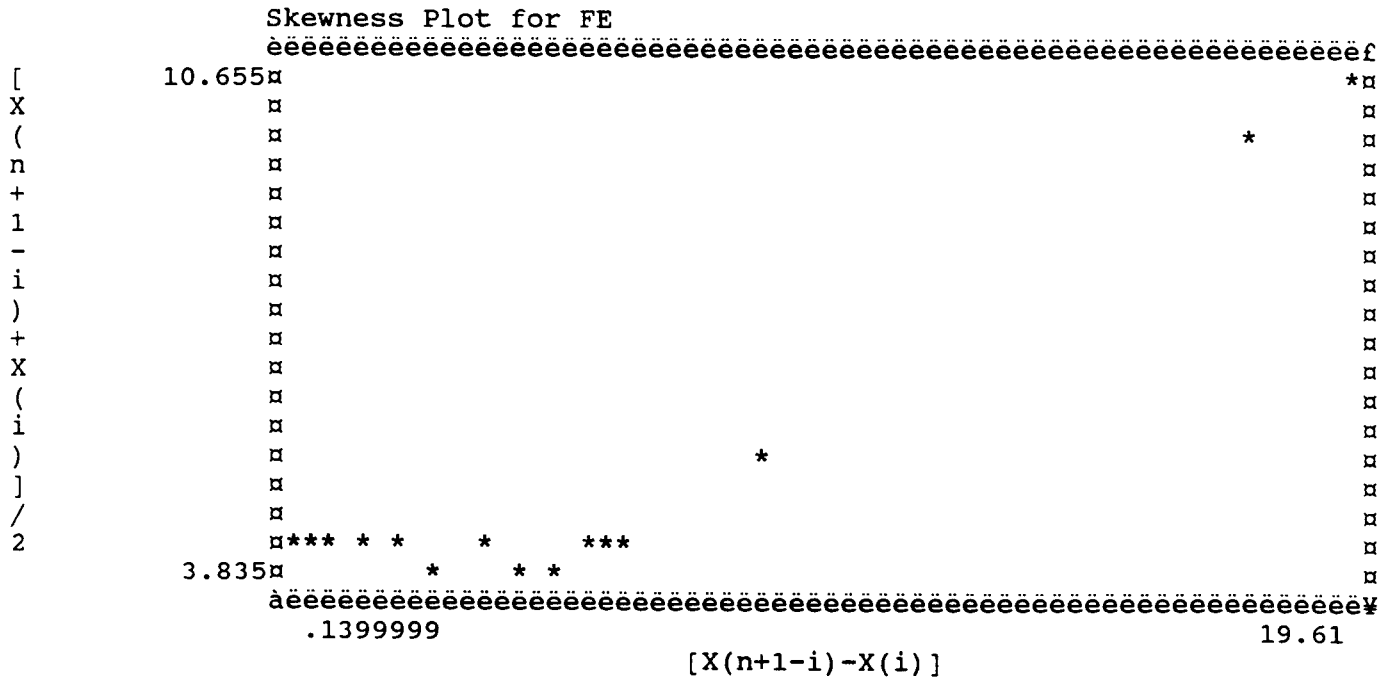
Variable: FE

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	.85	2.157333	8	22.9	8	22.9	:****
2	2.157333	3.464666	5	14.3	13	37.1	:***
3	3.464666	4.772	8	22.9	21	60.0	:****
4	4.772	6.079333	7	20.0	28	80.0	:****
5	6.079333	7.386666	4	11.4	32	91.4	:**
6	7.386666	8.693999	0	0.0	32	91.4	:
7	8.693999	10.00133	1	2.9	33	94.3	:*
8	10.00133	11.30867	0	0.0	33	94.3	:
9	11.30867	12.616	0	0.0	33	94.3	:
10	12.616	13.92333	0	0.0	33	94.3	:
11	13.92333	15.23067	0	0.0	33	94.3	:
12	15.23067	16.538	0	0.0	33	94.3	:
13	16.538	17.84533	0	0.0	33	94.3	:
14	17.84533	19.15267	1	2.9	34	97.1	:*
15	19.15267	20.46	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:46
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:48
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: AS

Mean - Average	6.628572	No. observations	35
Lower 95% c.i.limit	3.872818	No. missing values	0
Upper 95% c.i.limit	9.384325	Sum of frequencies	35
Adj sum of squares	2188.171	Sum of observations	232
Standard deviation	8.022343	Std.error of mean	1.356023
Variance	64.35799	T-value for mean=0	4.888243
Coef. of variation	1.210267	T prob level	0.0000
Skewness	3.165642	Kurtosis	11.15309
Normality Test Value	0.734	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	41	90-%tile	12
75-%tile	8	10-%tile	2
50-%tile (Median)	4	Range	39
25-%tile	2	75th-25th %tile	6
0-%tile (Minimum)	2		

2----------Line Plot / Box Plot----------41
E 2 2 3 3 1 3 1 1 1 1 1 1 1
[XXXmXXXXaXX]--------

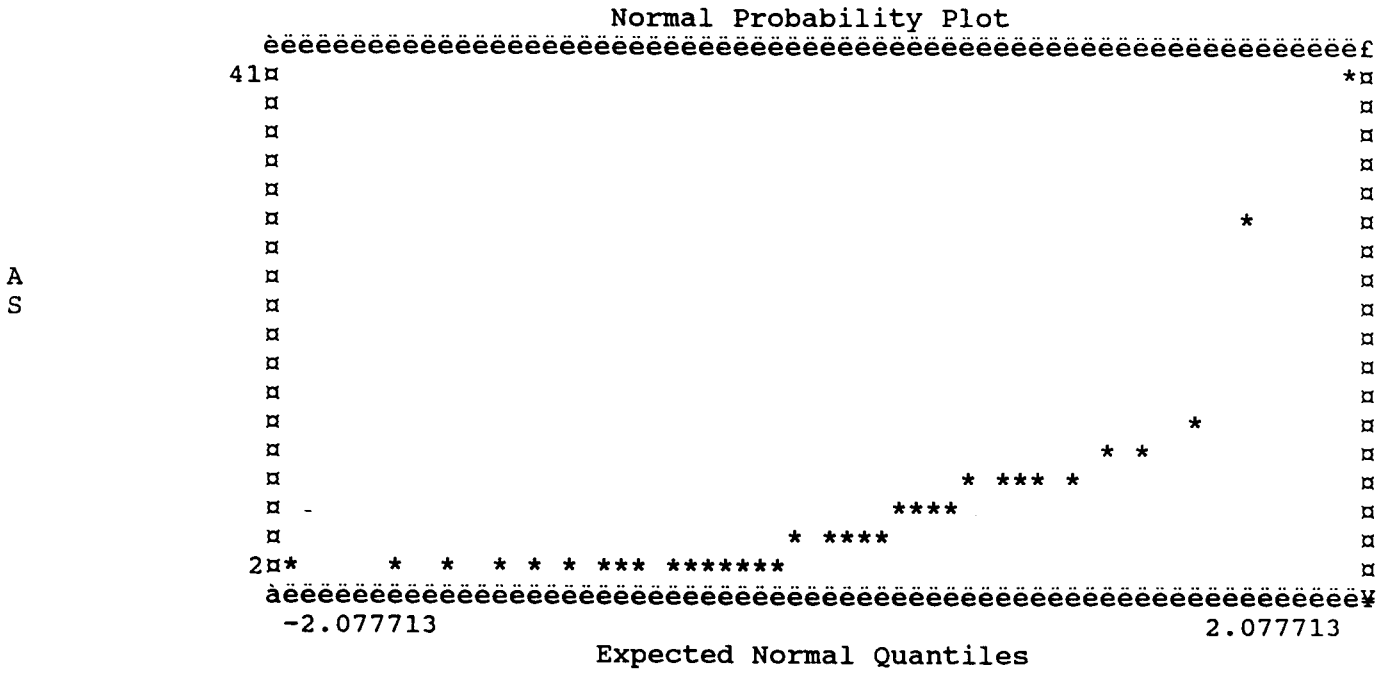
Distribution & Histogram

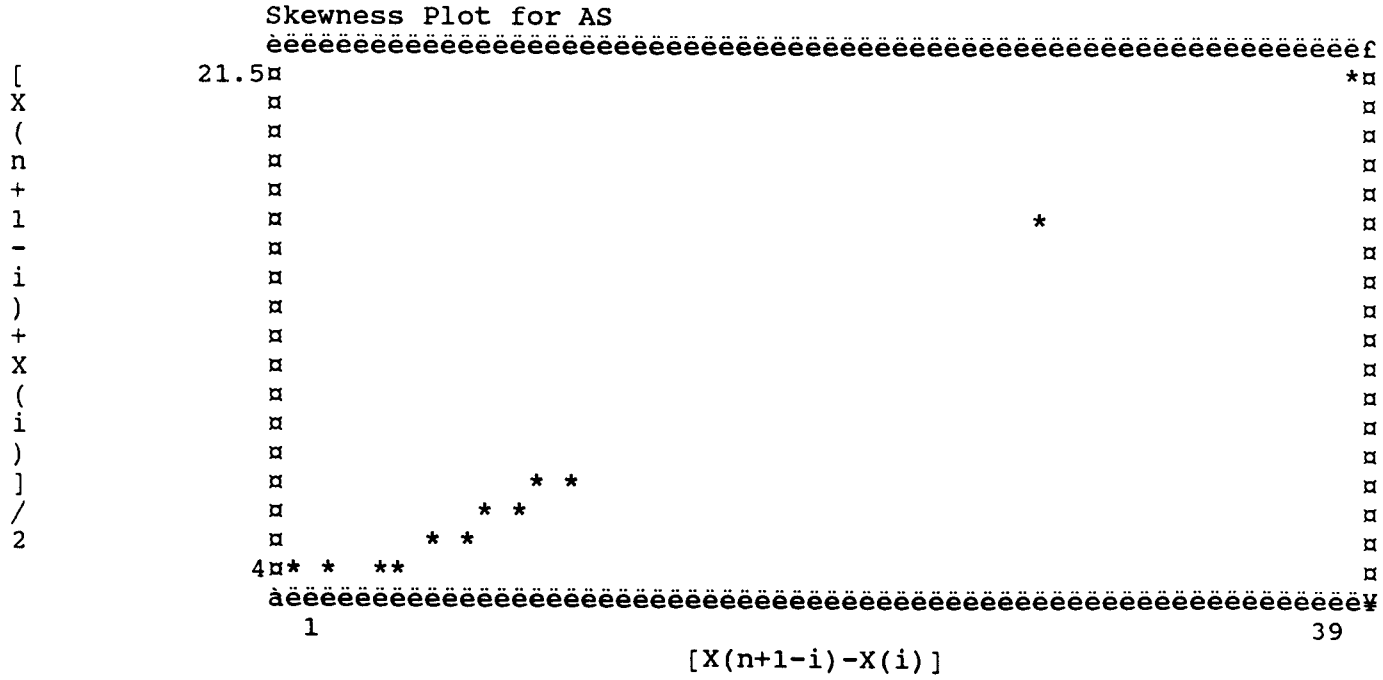
Variable: AS

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	2	4.6	18	51.4	18	51.4	:*********
2	4.6	7.2	7	20.0	25	71.4	:****
3	7.2	9.799999	4	11.4	29	82.9	:**
4	9.799999	12.4	3	8.6	32	91.4	:**
5	12.4	15	1	2.9	33	94.3	:*
6	15	17.6	0	0.0	33	94.3	:
7	17.6	20.2	0	0.0	33	94.3	:
8	20.2	22.8	0	0.0	33	94.3	:
9	22.8	25.4	0	0.0	33	94.3	:
10	25.4	28	0	0.0	33	94.3	:
11	28	30.6	1	2.9	34	97.1	:*
12	30.6	33.2	0	0.0	34	97.1	:
13	33.2	35.8	0	0.0	34	97.1	:
14	35.8	38.4	0	0.0	34	97.1	:
15	38.4	41	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:49
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:51
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: U

Mean - Average	5	No. observations	35
Lower 95% c.i.limit	.	No. missing values	0
Upper 95% c.i.limit	.	Sum of frequencies	35
Adj sum of squares	0	Sum of observations	175
Standard deviation	0	Std.error of mean	0
Variance	0	T-value for mean=0	.
Coef. of variation	0	T prob level	
Skewness	0	Kurtosis	0

100-%tile (Maximum)	5	90-%tile	5
75-%tile	5	10-%tile	5
50-%tile (Median)	5	Range	0
25-%tile	5	75th-25th %tile	0
0-%tile (Minimum)	5		

5----------Line Plot / Box Plot----------5

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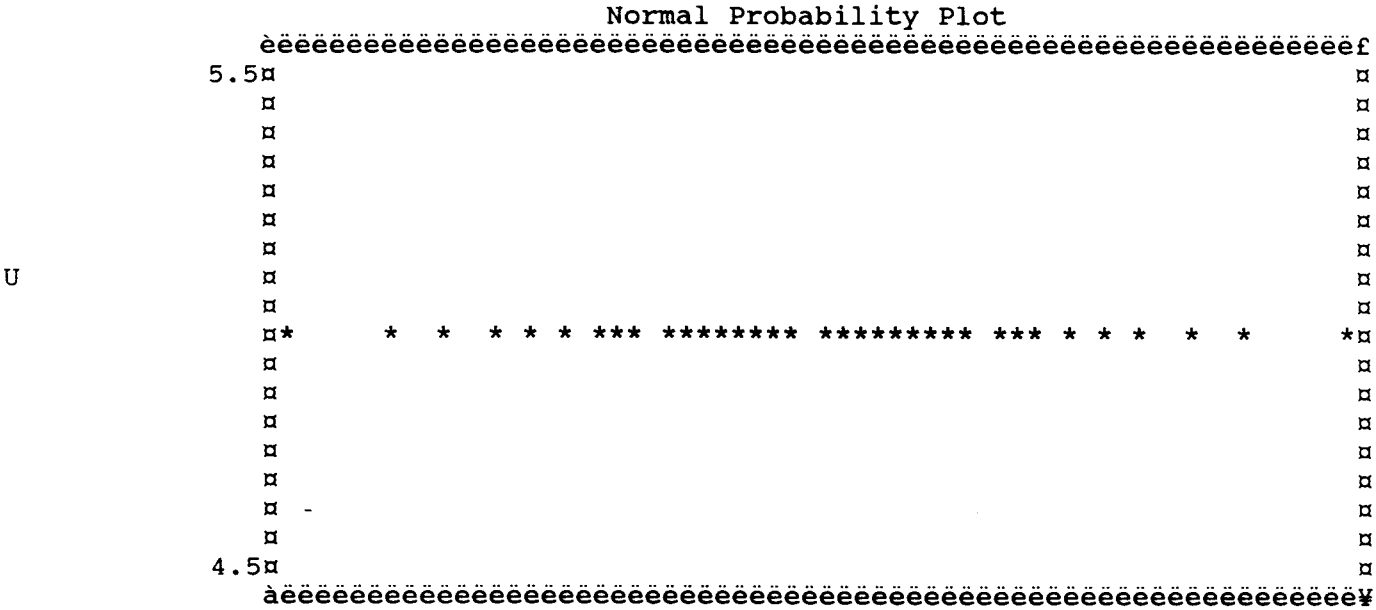
Distribution & Histogram

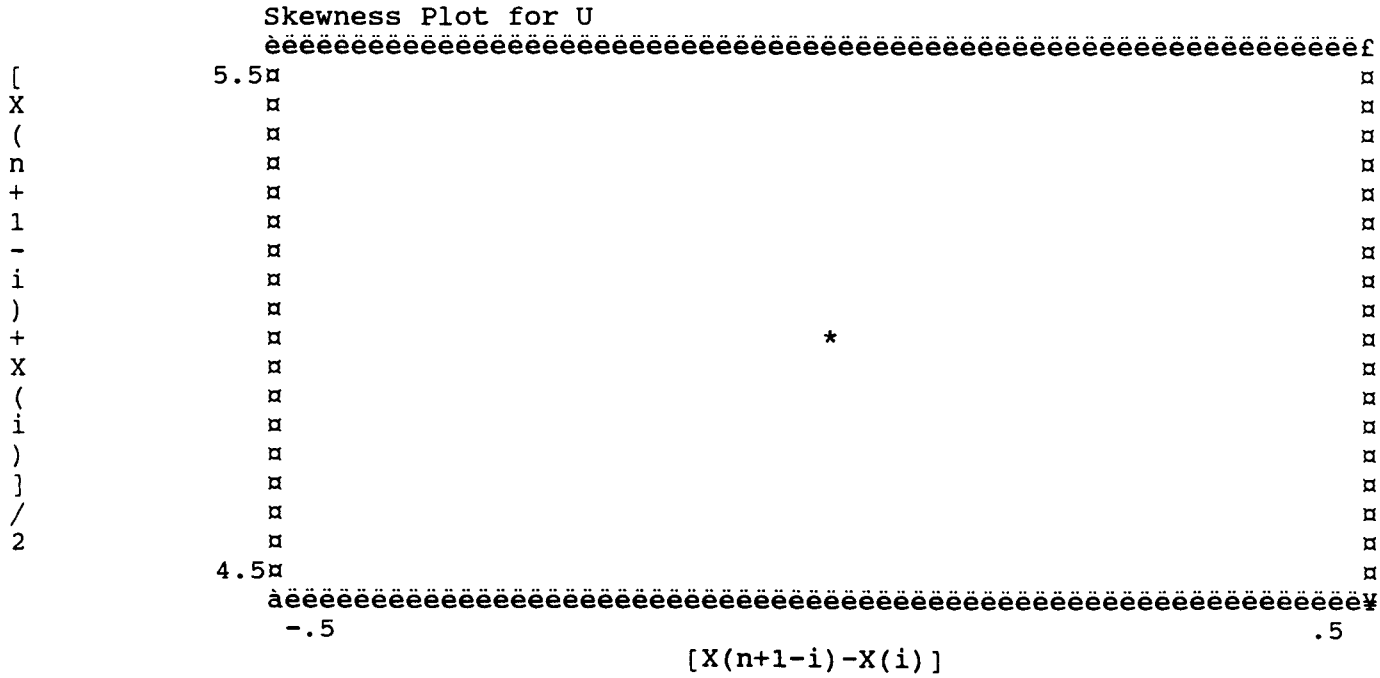
Variable: U

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	4.5	4.566667	0	0.0	0	0.0	:
2	4.566667	4.633333	0	0.0	0	0.0	:
3	4.633333	4.7	0	0.0	0	0.0	:
4	4.7	4.766667	0	0.0	0	0.0	:
5	4.766667	4.833334	0	0.0	0	0.0	:
6	4.833334	4.9	0	0.0	0	0.0	:
7	4.9	4.966667	0	0.0	0	0.0	:
8	4.966667	5.033333	35	100.0	35	100.0	:******************
9	5.033333	5.1	0	0.0	35	100.0	:
10	5.1	5.166667	0	0.0	35	100.0	:
11	5.166667	5.233334	0	0.0	35	100.0	:
12	5.233334	5.3	0	0.0	35	100.0	:
13	5.3	5.366667	0	0.0	35	100.0	:
14	5.366667	5.433333	0	0.0	35	100.0	:
15	5.433333	5.5	0	0.0	35	100.0	:

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:51
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:53
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: SR

Mean - Average	56.71429	No. observations	35
Lower 95% c.i.limit	35.80038	No. missing values	0
Upper 95% c.i.limit	77.62819	Sum of frequencies	35
Adj sum of squares	126029.1	Sum of observations	1985
Standard deviation	60.883	Std.error of mean	10.29111
Variance	3706.74	T-value for mean=0	5.511001
Coef. of variation	1.073504	T prob level	0.0000
Skewness	2.4112	Kurtosis	7.138392
Normality Test Value	0.929	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	302	90-%tile	126
75-%tile	75	10-%tile	9
50-%tile (Median)	42	Range	298
25-%tile	17	75th-25th %tile	58
0-%tile (Minimum)	4		

4----------Line Plot / Box Plot----------302
222322 1212142 11 11 1 1 11 1
--[XXXXXXmXXXaXXXX]----------

Distribution & Histogram

Variable: SR

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	4	23.86667	13	37.1	13	37.1	:*******
2	23.86667	43.73333	6	17.1	19	54.3	:***
3	43.73333	63.6	7	20.0	26	74.3	:****
4	63.6	83.46667	2	5.7	28	80.0	:*
5	83.46667	103.3333	2	5.7	30	85.7	:*
6	103.3333	123.2	1	2.9	31	88.6	:*
7	123.2	143.0667	1	2.9	32	91.4	:*
8	143.0667	162.9333	0	0.0	32	91.4	:
9	162.9333	182.8	2	5.7	34	97.1	:*
10	182.8	202.6667	0	0.0	34	97.1	:
11	202.6667	222.5333	0	0.0	34	97.1	:
12	222.5333	242.4	0	0.0	34	97.1	:
13	242.4	262.2667	0	0.0	34	97.1	:
14	262.2667	282.1333	0	0.0	34	97.1	:
15	282.1333	302	1	2.9	35	100.0	:*

Sample No.	Location	Description
KP-90-1R	Emily Showing	Chip sample across 3 m. Copper oxides and sulphides are along E-W/40S chloritized fault zone in locally silicified diorite. Chlorite-epidote-calcite alteration.
KP-90-2R	Upper Showing	Chip sample across 1m. Hanging wall sheared andesites with chalcopyrite in fractures.
KP-90-3R	Upper Showing	Chip sample across 25 m. Chalcopyrite as disseminations and fracture fillings in felsite.
KP-90-4R	Upper Showing	Sample along footwall contact, sheared andesite with disseminated and fracture controlled chalcopyrite.
KP-90-5R	Lower Showing	Disseminated and fracture controlled chalcopyrite, lesser bornite and pyrite in K-spar alt. granodiorite.
KP-90-6R	Calona Showing	Iron-carbonate altered andesite along shear.
KP-90-7R	East Side Showing	Chip sample across 3 m. Moderately silicified andesite. Chalcopyrite in "crackles". K-spar alt.

APPENDIX II

ROCK GEOCHEMICAL RESULTS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE APPENDIX 2

Imperial Metals Corporation PROJECT KELLY CREEK File # 90-4946

800 - 601 W. Hastings St., Vancouver BC V6B 5A6

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
KD-90-1R	1	12715 ✓	5	14	17.3	15	4	263	.85	2	5	ND	1	171	1.1	2	2	20	1.01	.045	3	7	.26	54	.07	5	.81	.01	.04	1	32
KD-90-2R	1	32	2	36	.1	2	1	489	1.59	2	5	ND	2	23	.2	2	2	1	.39	.031	5	2	.22	44	.10	6	.79	.04	.07	1	6
KD-90-3R	1	999	5	33	1.4	26	5	324	1.04	2	5	ND	1	302	.2	2	2	28	1.37	.064	5	12	.34	36	.14	5	1.23	.01	.03	1	1
KD-90-4R	1	1983	2	36	1.5	3	1	416	1.10	5	5	ND	5	9	.2	2	2	3	.30	.018	20	3	.02	19	.01	5	.22	.04	.09	1	21
KD-90-6R	1	6577	23	200	13.6	70	15	1681	2.62	2	5	ND	1	75	.9	3	2	46	1.31	.109	5	67	1.59	10	.15	8	1.81	.01	.03	1	67
KD-90-7R	1	24850 ✓	15	242	36.8 ✓	9	17	2909	5.36	2	5	ND	1	53	2.9	4	2	60	1.09	.094	4	7	1.99	30	.20	9	2.63	.01	.06	1	41
KD-90-8R	1	3069	8	64	4.8	7	4	726	1.64	2	5	ND	2	36	.4	2	2	19	1.14	.026	5	8	.46	52	.11	6	.73	.01	.09	1	1
KD-90-9R	1	5157	2	291	.4	161	47	2797	7.24	10	5	ND	1	50	1.5	2	2	165	1.56	.036	4	230	5.13	243	.26	7	4.98	.03	.02	1	2
KD-90-10R	1	343	2	148	.3	168	34	2693	5.92	9	5	ND	2	52	.6	2	2	154	6.26	.065	4	242	4.91	95	.26	8	5.14	.01	.04	1	3
KD-90-11R	1	8902	3	453	.5	207	57	3097	7.20	13	5	ND	1	95	1.8	2	2	147	1.11	.034	5	347	4.56	58	.27	8	5.92	.11	.03	1	1
KD-90-12R	1	3989	12	116	4.9	14	9	889	2.28	5	5	ND	1	30	.4	2	2	29	.52	.072	4	11	.85	42	.17	8	1.43	.11	.12	1	1
KD-90-13R	1	9327 ✓	10	97	4.1	15	10	1066	2.23	2	5	ND	1	90	.7	2	2	39	.79	.063	3	9	.83	30	.17	8	1.26	.03	.07	1	6
KD-90-14R	1	24711 ✓	6	164	21.5	3	12	2495	4.93	6	5	ND	2	13	2.0	3	2	53	.50	.116	10	2	1.24	127	.04	9	1.58	.01	.09	1	1
KD-90-15R	1	12229 ✓	10	160	13.6	7	12	1552	4.42	3	5	ND	1	5	1.2	4	2	35	.21	.102	8	5	1.00	132	.01	11	1.41	.01	.12	1	4
KD-90-16R	1	5260	41	171	12.4	2	12	1606	4.69	7	5	ND	3	50	.4	2	2	54	.55	.155	11	2	1.22	166	.11	9	1.49	.02	.10	1	150
KD-90-17R	1	4724	12	101	1.3	27	31	1024	4.10	6	5	ND	1	42	.5	2	2	101	.68	.089	2	21	3.12	13	.22	9	2.87	.03	.01	1	550
KD-90-18R	1	1735	11	16	.6	9	5	304	1.42	2	5	ND	1	114	.2	2	2	40	1.10	.034	2	7	.56	6	.14	6	1.12	.01	.01	1	100
KD-90-18R (DUP)	1	2369	12	114	.6	20	25	997	3.92	2	5	ND	1	38	.2	2	2	165	.65	.102	2	16	2.29	75	.14	8	2.64	.04	.03	1	40
KD-90-19R	1	3328	3	81	2.3	16	26	1235	5.08	8	5	ND	1	50	.5	3	2	109	1.78	.103	5	12	2.31	43	.04	7	2.65	.04	.04	1	66
KD-90-20R	11	5153	14044 ✓	265	1.3	5	11	794	9.89	30	5	ND	1	33	1.8	3	2	18	.28	.020	2	7	.30	15	.01	2	1.38	.01	.08	1	3
KD-90-21R	7	26996 ✓	10205 ✓	104	1.7	8	22	525	18.88	2	5	ND	2	12	2.7	6	2	5	.11	.015	2	30	.15	5	.01	2	.83	.01	.04	1	37
KD-90-22R	9	15963 ✓	10877 ✓	107	1.8	8	22	482	20.46	41	5	ND	1	4	1.6	4	2	6	.07	.013	2	6	.35	2	.01	2	.89	.01	.02	1	2
KD-90-23R	2	11808 ✓	114	1	.8	1	1	419	1.14	2	5	ND	4	23	1.1	2	2	3	1.13	.005	19	1	.03	53	.01	4	.36	.05	.05	1	1
KD-90-24R	1	8405	23	107	8.4	2	3	1038	3.65	4	5	ND	2	80	1.1	2	2	24	.68	.122	14	1	.69	17	.24	10	1.09	.06	.04	1	1
KD-90-25R	1	94	77	84	.2	11	9	1049	3.17	2	5	ND	1	126	.3	2	2	27	3.72	.039	2	3	.89	8	.08	9	1.60	.01	.01	2	1
KD-90-26R	1	13554 ✓	6	475	35.0 ✓	24	21	2434	7.04	5	5	ND	2	19	1.0	3	2	218	.92	.169	9	10	1.97	75	.48	7	1.97	.05	.01	1	12
KD-90-27R	1	5080	34	173	6.5	14	21	1458	6.01	8	5	ND	2	20	1.0	2	2	125	1.49	.157	15	7	1.61	88	.05	7	1.99	.02	.11	1	4
KD-90-28R	1	19603 ✓	21	116	15.2	14	18	956	5.32	8	5	ND	2	8	2.3	5	2	100	.41	.138	11	8	1.26	83	.05	7	1.44	.01	.09	1	11
KP-90-1R	1	2102	9	80	3.2	32	10	527	1.17	6	5	ND	1	176	.2	2	2	20	1.09	.061	4	17	.87	36	.11	6	1.32	.01	.04	1	2
KP-90-2R	1	11522 ✓	12	238	18.6	39	18	1555	6.03	3	5	ND	1	51	1.9	3	2	109	2.39	.128	5	56	1.88	30	.07	8	2.20	.01	.11	1	1
KP-90-3R	4	1465	26	147	3.6	18	7	988	2.73	12	5	ND	1	47	.2	2	2	47	.84	.069	7	47	.83	52	.24	10	1.32	.04	.10	1	1
KP-90-4R	1	4028	16	261	5.7	68	24	2437	4.64	11	5	ND	1	43	.9	2	2	94	3.50	.074	4	74	2.87	68	.23	9	2.88	.01	.07	1	2
KP-90-5R	1	14340 ✓	14	179	16.7	7	10	2117	4.28	2	5	ND	2	14	1.3	2	2	43	.49	.107	11	22	1.20	128	.05	9	1.51	.01	.10	1	1
KP-90-6R	1	110	11	76	.2	35	14	1412	4.38	4	5	ND	4	17	.3	2	2	45	.54	.054	12	19	.25	75	.01	8	.72	.03	.15	1	1
KP-90-7R	1	4265	12	165	3.1	17	22	1409	6.37	2	5	ND	2	14	.9	2	2	133	.56	.186	16	15	1.57	106	.06	7	1.87	.02	.11	1	1
STANDARD C/AU-R	17	57	38	129	7.1	72	31	1052	3.95	42	22	7	40	56	19.3	15	18	58	.46	.096	39	60	.89	183	.07	41	1.89	.06	.13	12	530

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: OCT 1 1990 DATE REPORT MAILED: Oct 4/90. SIGNED BY..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

/ ASSAY RECOMMENDED

APPENDIX III

STATISTICAL REPORT

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:27
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: MO

Mean - Average	1.8	No. observations	35
Lower 95% c.i.limit	.9931068	No. missing values	0
Upper 95% c.i.limit	2.606893	Sum of frequencies	35
Adj sum of squares	187.6	Sum of observations	63
Standard deviation	2.348967	Std.error of mean	.3970479
Variance	5.517647	T-value for mean=0	4.533458
Coef. of variation	1.304982	T prob level	0.0001
Skewness	3.099604	Kurtosis	8.9556

100-%tile (Maximum)	11	90-%tile	4
75-%tile	1	10-%tile	1
50-%tile (Median)	1	Range	10
25-%tile	1	75th-25th %tile	0
0-%tile (Minimum)	1		

1----------Line Plot / Box Plot----------11
U 1 1 1 1 1
m-----a----------

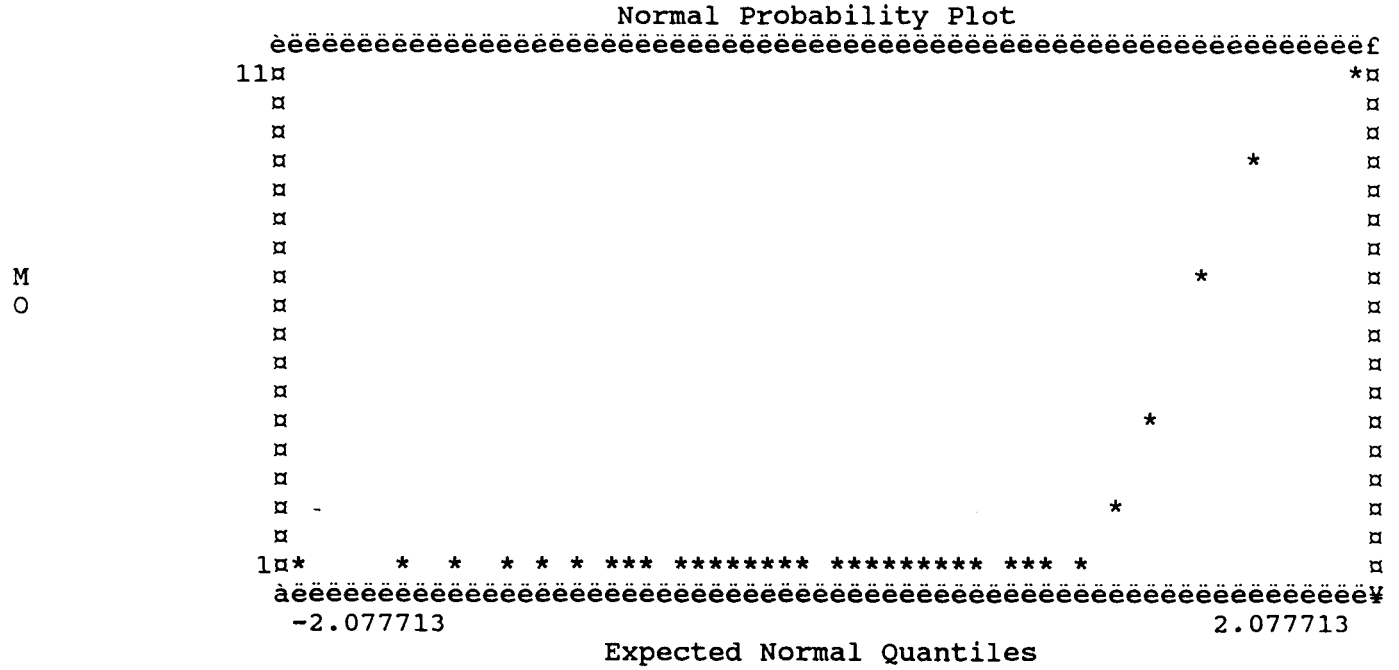
Distribution & Histogram

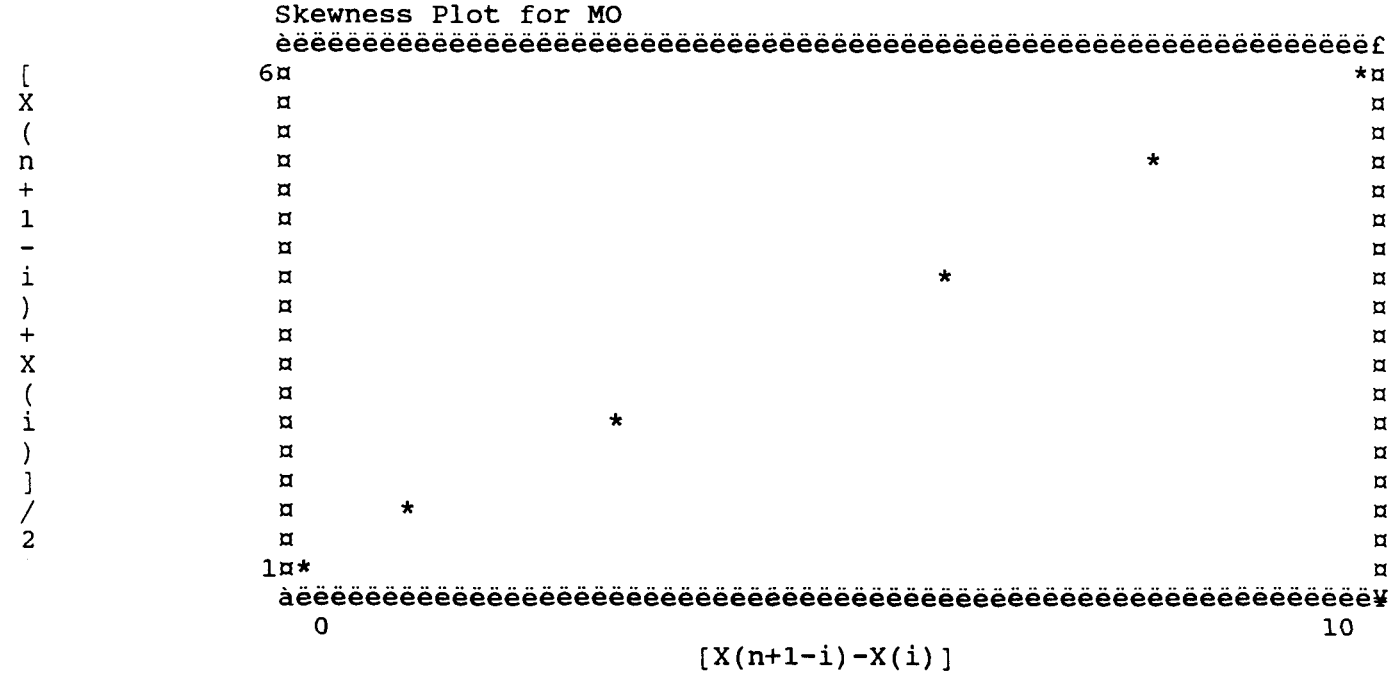
Variable: MO

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	1	1.666667	30	85.7	30	85.7	:***************
2	1.666667	2.333334	1	2.9	31	88.6	:*
3	2.333334	3	0	0.0	31	88.6	:
4	3	3.666667	0	0.0	31	88.6	:
5	3.666667	4.333334	1	2.9	32	91.4	:*
6	4.333334	5	0	0.0	32	91.4	:
7	5	5.666667	0	0.0	32	91.4	:
8	5.666667	6.333334	0	0.0	32	91.4	:
9	6.333334	7	0	0.0	32	91.4	:
10	7	7.666667	1	2.9	33	94.3	:*
11	7.666667	8.333334	0	0.0	33	94.3	:
12	8.333334	9	0	0.0	33	94.3	:
13	9	9.666667	1	2.9	34	97.1	:*
14	9.666667	10.33333	0	0.0	34	97.1	:
15	10.33333	11	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:28
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:29
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: CU

Mean - Average	7908.2	No. observations	35
Lower 95% c.i.limit	5353.823	No. missing values	0
Upper 95% c.i.limit	10462.58	Sum of frequencies	35
Adj sum of squares	1.880056E+09	Sum of observations	276787
Standard deviation	7436.112	Std.error of mean	1256.932
Variance	5.529576E+07	T-value for mean=0	6.291668
Coef. of variation	.9403039	T prob level	0.0000
Skewness	1.18791	Kurtosis	.6991543
Normality Test Value	1.421	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	26996	90-%tile	19603
75-%tile	12229	10-%tile	343
50-%tile (Median)	5153	Range	26964
25-%tile	2102	75th-25th %tile	10127
0-%tile (Minimum)	32		

```
32----------Line Plot / Box Plot----------26996
31 11121 1112 14   1    1 11     111 1 1 1    1          1             11     1
 -----[XXXXXXXXmXXXXXXXaXXXXXXXXXXX]----------
```

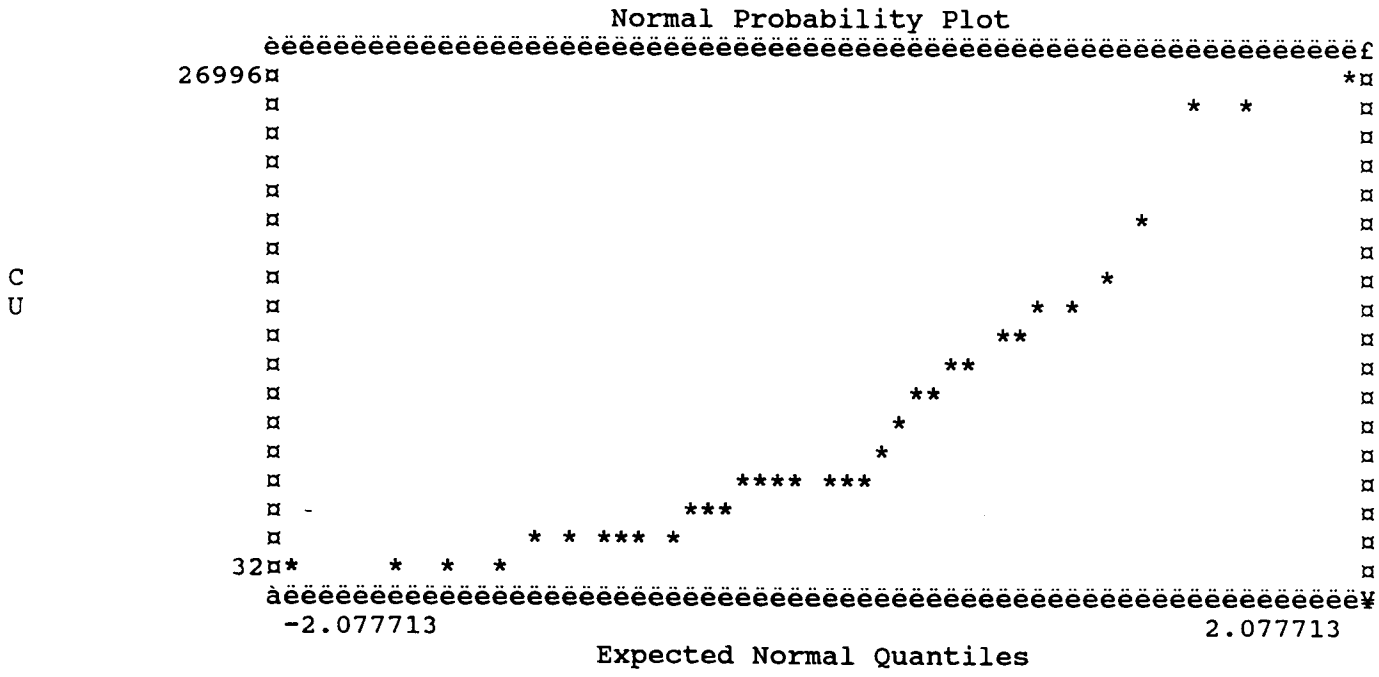
Distribution & Histogram

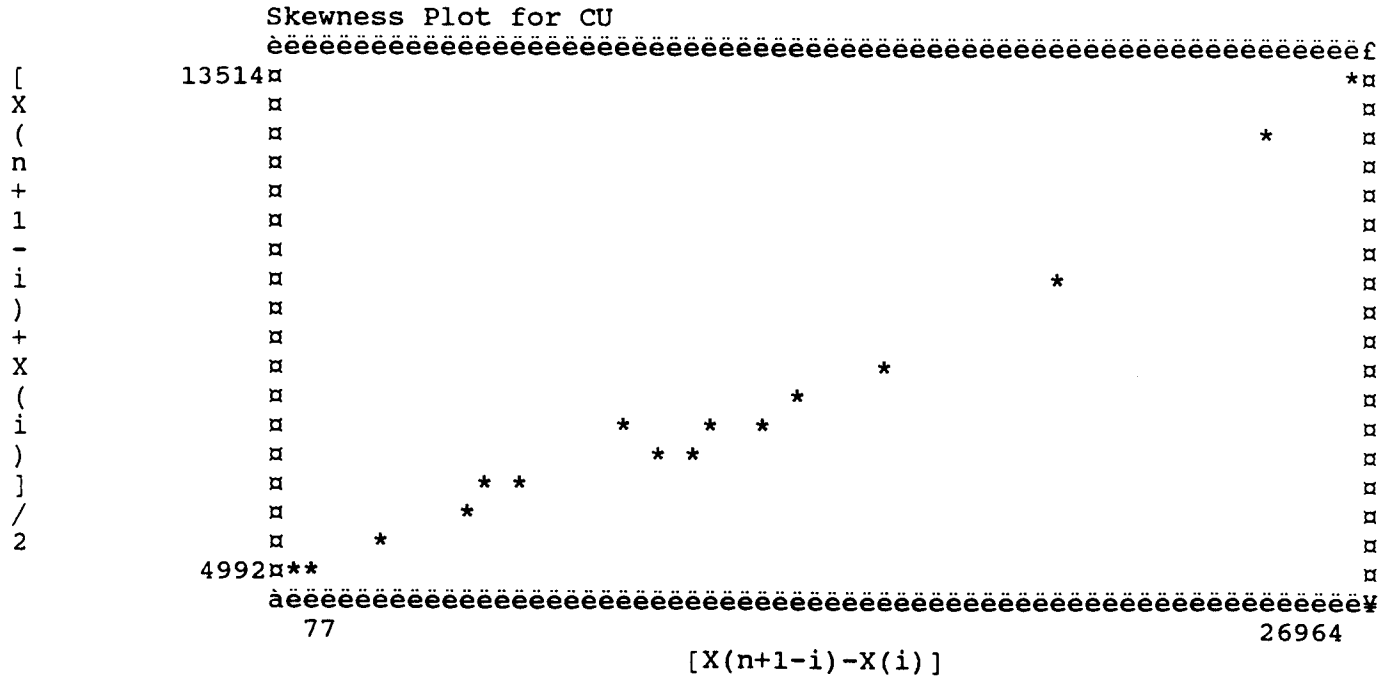
Variable: CU

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	32	1829.6	7	20.0	7	20.0	:****
2	1829.6	3627.2	5	14.3	12	34.3	:***
3	3627.2	5424.8	8	22.9	20	57.1	:****
4	5424.8	7222.4	1	2.9	21	60.0	:*
5	7222.4	9020	2	5.7	23	65.7	:*
6	9020	10817.6	1	2.9	24	68.6	:*
7	10817.6	12615.2	3	8.6	27	77.1	:**
8	12615.2	14412.8	3	8.6	30	85.7	:**
9	14412.8	16210.4	1	2.9	31	88.6	:*
10	16210.4	18008	0	0.0	31	88.6	:
11	18008	19805.6	1	2.9	32	91.4	:*
12	19805.6	21603.2	0	0.0	32	91.4	:
13	21603.2	23400.8	0	0.0	32	91.4	:
14	23400.8	25198.4	2	5.7	34	97.1	:*
15	25198.4	26996	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:30
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:32
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: PB

Mean - Average	1019.571	No. observations	35
Lower 95% c.i.limit	-133.8415	No. missing values	0
Upper 95% c.i.limit	2172.984	Sum of frequencies	35
Adj sum of squares	3.833278E+08	Sum of observations	35685
Standard deviation	3357.729	Std.error of mean	567.5598
Variance	1.127435E+07	T-value for mean=0	1.796412
Coef. of variation	3.293275	T prob level	0.0813
Skewness	3.221911	Kurtosis	9.241698
Normality Test Value	0.826	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	14044	90-%tile	114
75-%tile	23	10-%tile	2
50-%tile (Median)	12	Range	14042
25-%tile	6	75th-25th %tile	17
0-%tile (Minimum)	2		

2----------Line Plot / Box Plot----------14044
V1 1 1 1
m- a

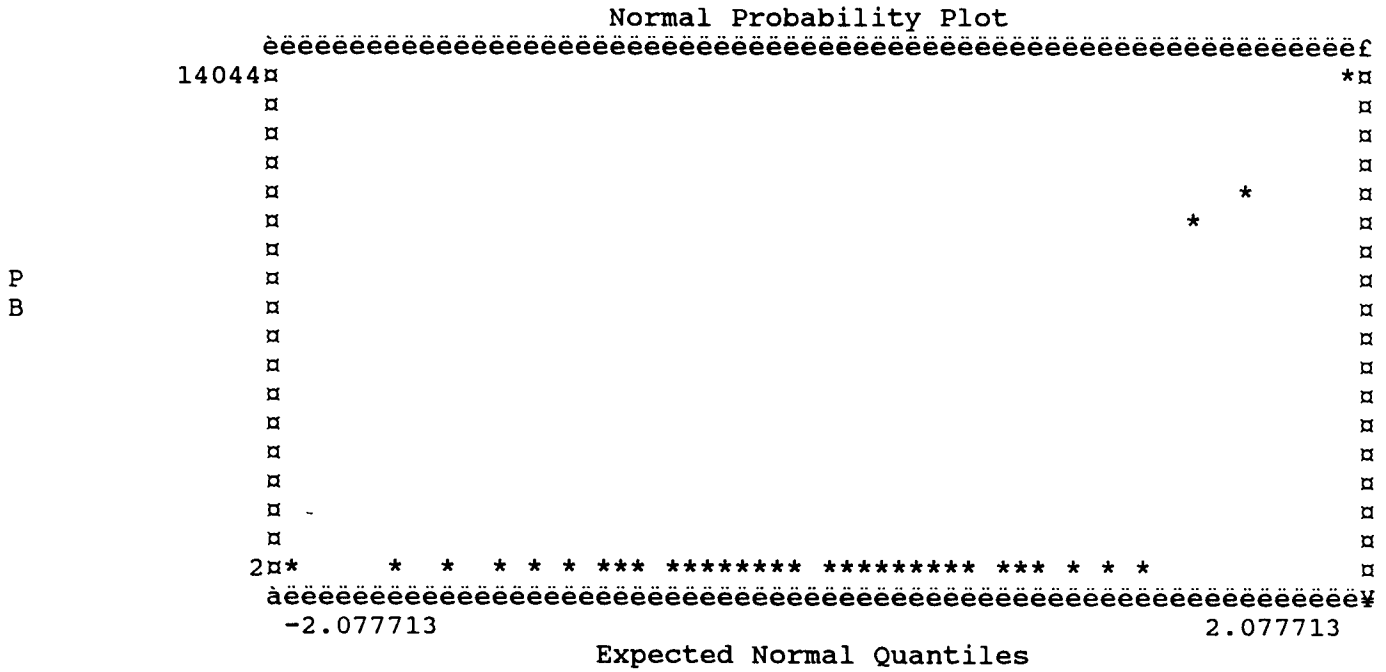
Distribution & Histogram

Variable: PB

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	2	938.1334	32	91.4	32	91.4	:**********
2	938.1334	1874.267	0	0.0	32	91.4	:
3	1874.267	2810.4	0	0.0	32	91.4	:
4	2810.4	3746.533	0	0.0	32	91.4	:
5	3746.533	4682.667	0	0.0	32	91.4	:
6	4682.667	5618.8	0	0.0	32	91.4	:
7	5618.8	6554.934	0	0.0	32	91.4	:
8	6554.934	7491.067	0	0.0	32	91.4	:
9	7491.067	8427.2	0	0.0	32	91.4	:
10	8427.2	9363.334	0	0.0	32	91.4	:
11	9363.334	10299.47	1	2.9	33	94.3	:*
12	10299.47	11235.6	1	2.9	34	97.1	:*
13	11235.6	12171.73	0	0.0	34	97.1	:
14	12171.73	13107.87	0	0.0	34	97.1	:
15	13107.87	14044	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:32
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn



----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:34
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: ZN

Mean - Average	146.1429	No. observations	35
Lower 95% c.i.limit	108.733	No. missing values	0
Upper 95% c.i.limit	183.5527	Sum of frequencies	35
Adj sum of squares	403248.3	Sum of observations	5115
Standard deviation	108.9047	Std.error of mean	18.40826
Variance	11860.24	T-value for mean=0	7.938982
Coef. of variation	.7451938	T prob level	0.0000
Skewness	1.417701	Kurtosis	2.498559
Normality Test Value	1.649	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	475	90-%tile	265
75-%tile	179	10-%tile	33
50-%tile (Median)	116	Range	474
25-%tile	80	75th-25th %tile	99
0-%tile (Minimum)	1		

1----------Line Plot / Box Plot----------475
1 2 12 1 121 23 3 2 1221 1 11 2 1 1 1
--------[XXXXXmXXXXaXXXX]----------

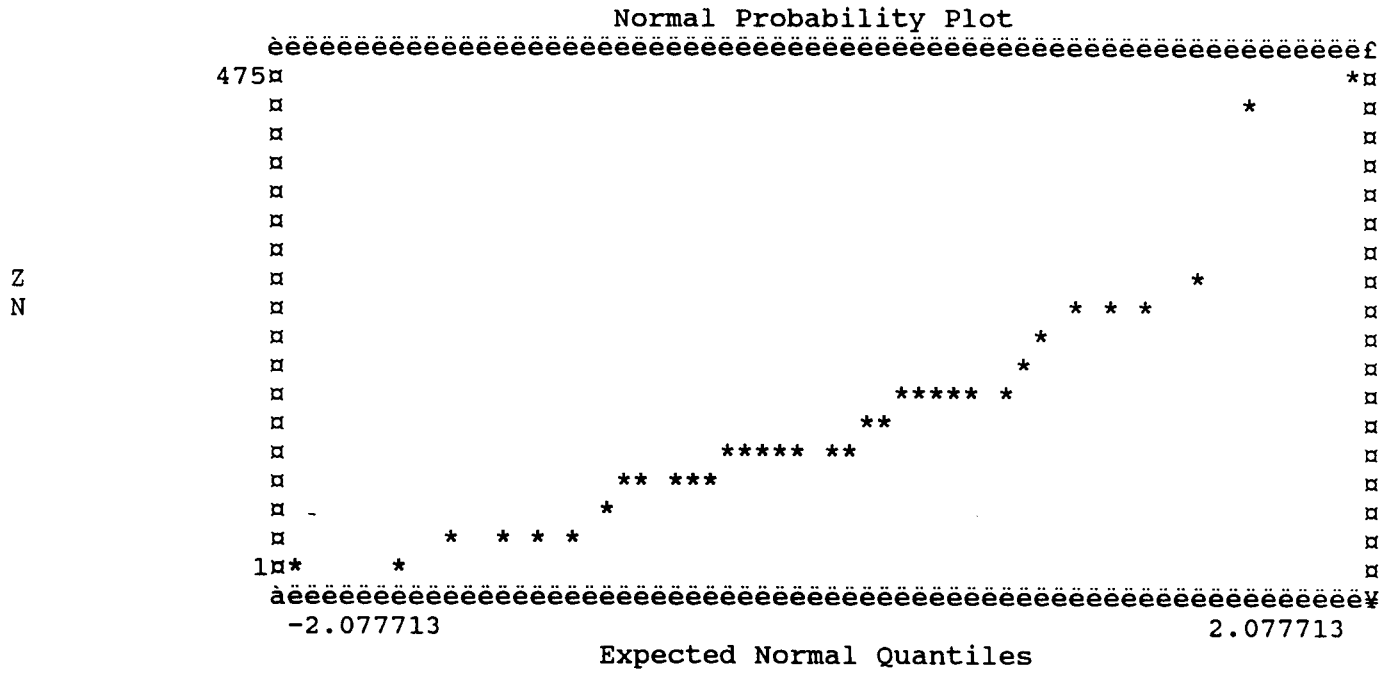
Distribution & Histogram

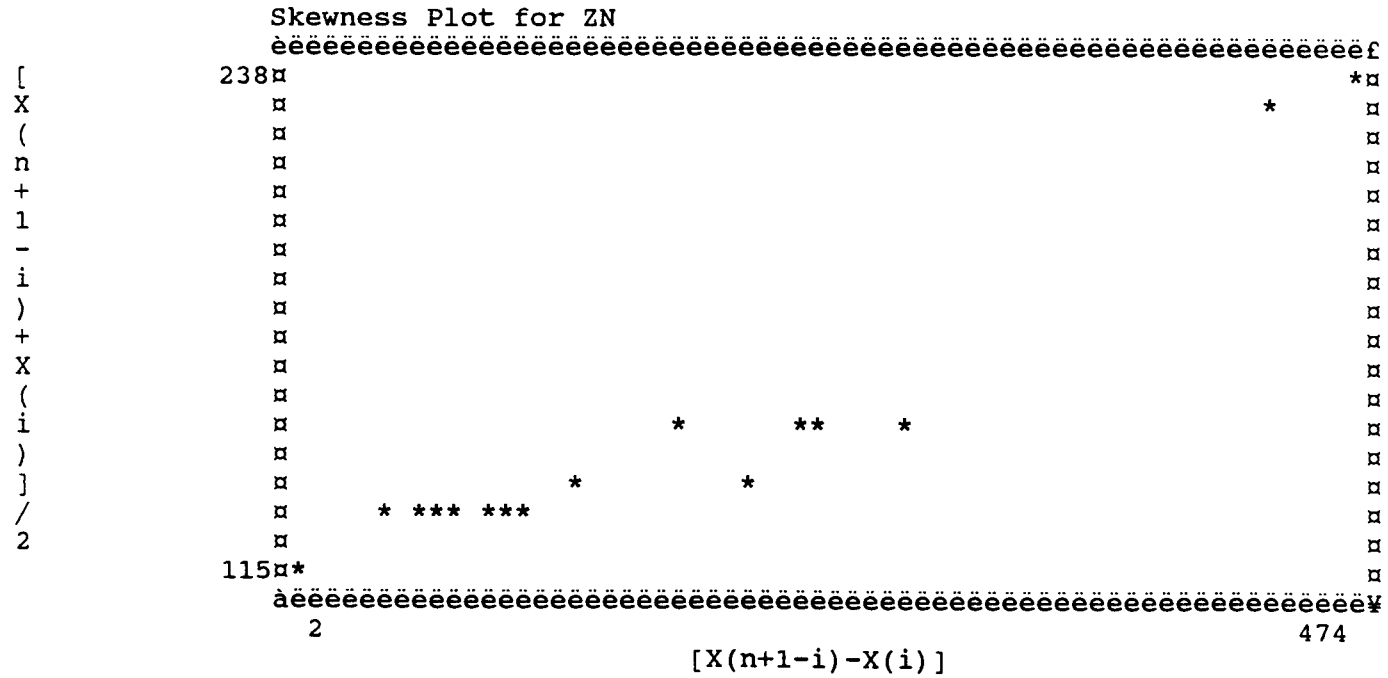
Variable: ZN

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	1	32.6	3	8.6	3	8.6	:**
2	32.6	64.2	4	11.4	7	20.0	:**
3	64.2	95.8	4	11.4	11	31.4	:**
4	95.8	127.4	8	22.9	19	54.3	:****
5	127.4	159	2	5.7	21	60.0	:*
6	159	190.6	6	17.1	27	77.1	:***
7	190.6	222.2	1	2.9	28	80.0	:*
8	222.2	253.8	2	5.7	30	85.7	:*
9	253.8	285.4	2	5.7	32	91.4	:*
10	285.4	317	1	2.9	33	94.3	:*
11	317	348.6	0	0.0	33	94.3	:
12	348.6	380.2	0	0.0	33	94.3	:
13	380.2	411.8	0	0.0	33	94.3	:
14	411.8	443.4	0	0.0	33	94.3	:
15	443.4	475	2	5.7	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:35
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:36
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: AG

Mean - Average	7.428571	No. observations	35
Lower 95% c.i.limit	4.174093	No. missing values	0
Upper 95% c.i.limit	10.68305	Sum of frequencies	35
Adj sum of squares	3051.851	Sum of observations	260
Standard deviation	9.474194	Std.error of mean	1.601431
Variance	89.76034	T-value for mean=0	4.638709
Coef. of variation	1.275372	T prob level	0.0000
Skewness	1.779126	Kurtosis	2.953858
Normality Test Value	0.667	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	36.8	90-%tile	18.6
75-%tile	13.6	10-%tile	.3
50-%tile (Median)	3.2	Range	36.7
25-%tile	.8	75th-25th %tile	12.8
0-%tile (Minimum)	.1		

```
.1----------Line Plot / Box Plot----------36.8
45 51112 12 1 1   1       1  2  1  1 1 1     1                          1   1
-[XXXXXmXXXXXXXXXaXXXXXXXXXXXXX]----------
```

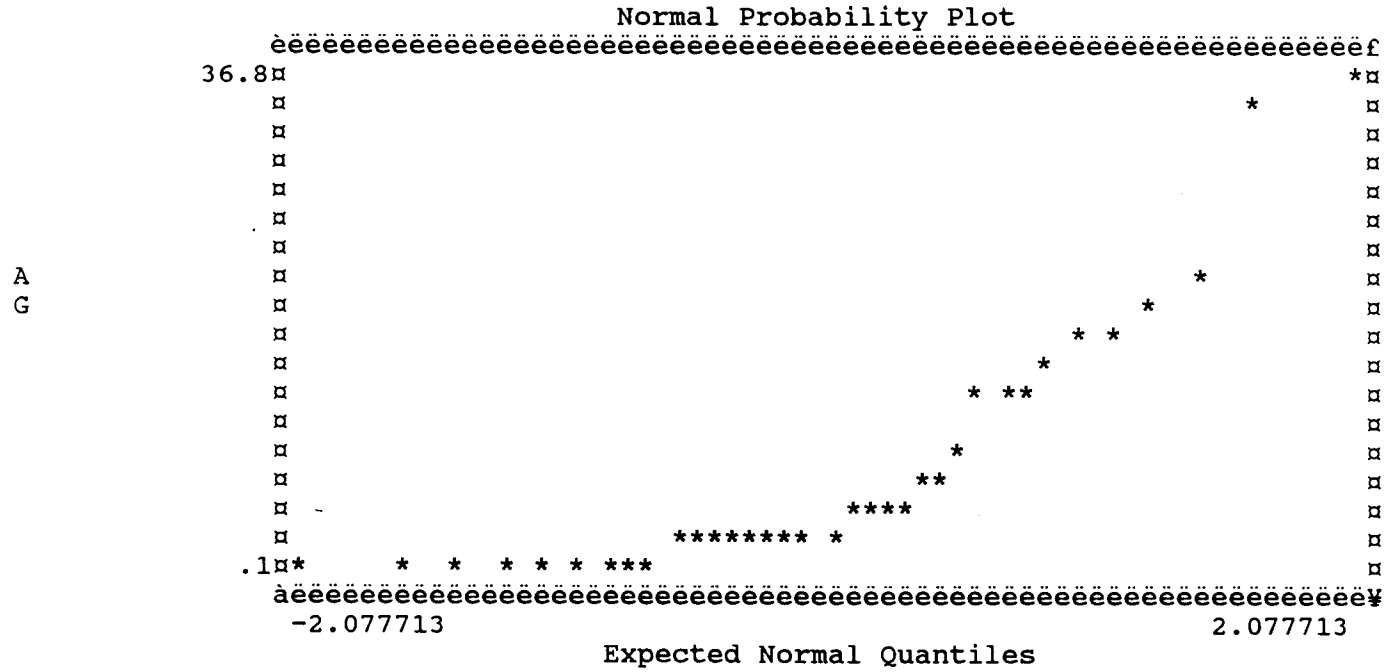
Distribution & Histogram

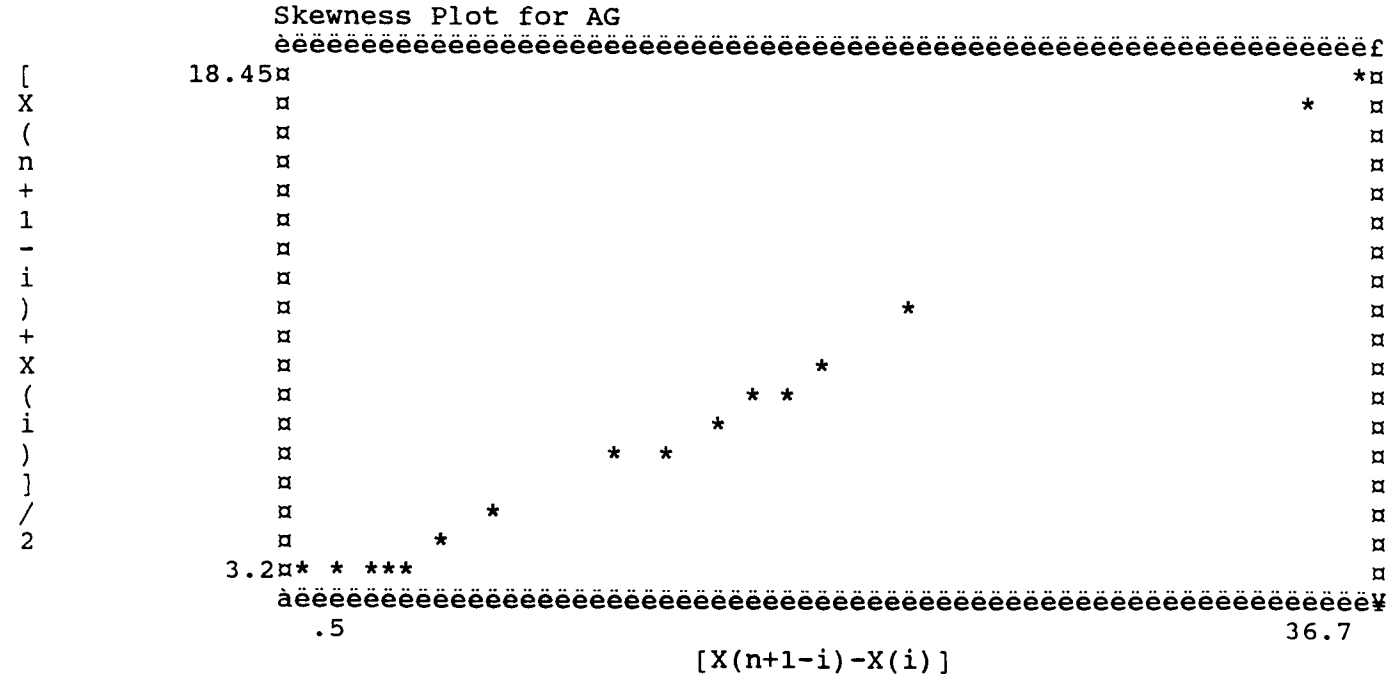
Variable: AG

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	.1	2.546667	16	45.7	16	45.7	:********
2	2.546667	4.993333	6	17.1	22	62.9	:***
3	4.993333	7.44	2	5.7	24	68.6	:*
4	7.44	9.886667	1	2.9	25	71.4	:*
5	9.886667	12.33333	0	0.0	25	71.4	:
6	12.33333	14.78	3	8.6	28	80.0	:**
7	14.78	17.22667	2	5.7	30	85.7	:*
8	17.22667	19.67333	2	5.7	32	91.4	:*
9	19.67333	22.12	1	2.9	33	94.3	:*
10	22.12	24.56667	0	0.0	33	94.3	:
11	24.56667	27.01333	0	0.0	33	94.3	:
12	27.01333	29.46	0	0.0	33	94.3	:
13	29.46	31.90667	0	0.0	33	94.3	:
14	31.90667	34.35333	0	0.0	33	94.3	:
15	34.35333	36.8	2	5.7	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:37
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:39
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: NI

Mean - Average	30.97143	No. observations	35
Lower 95% c.i.limit	14.1412	No. missing values	0
Upper 95% c.i.limit	47.80165	Sum of frequencies	35
Adj sum of squares	81616.97	Sum of observations	1084
Standard deviation	48.99489	Std.error of mean	8.281648
Variance	2400.499	T-value for mean=0	3.739766
Coef. of variation	1.581938	T prob level	0.0007
Skewness	2.664983	Kurtosis	6.521319
Normality Test Value	0.751	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	207	90-%tile	70
75-%tile	27	10-%tile	2
50-%tile (Median)	14	Range	206
25-%tile	7	75th-25th %tile	20
0-%tile (Minimum)	1		

1----------Line Plot / Box Plot----------207
42441531 21 111 11 1 1 1
--[XXmXXXX]a---------------

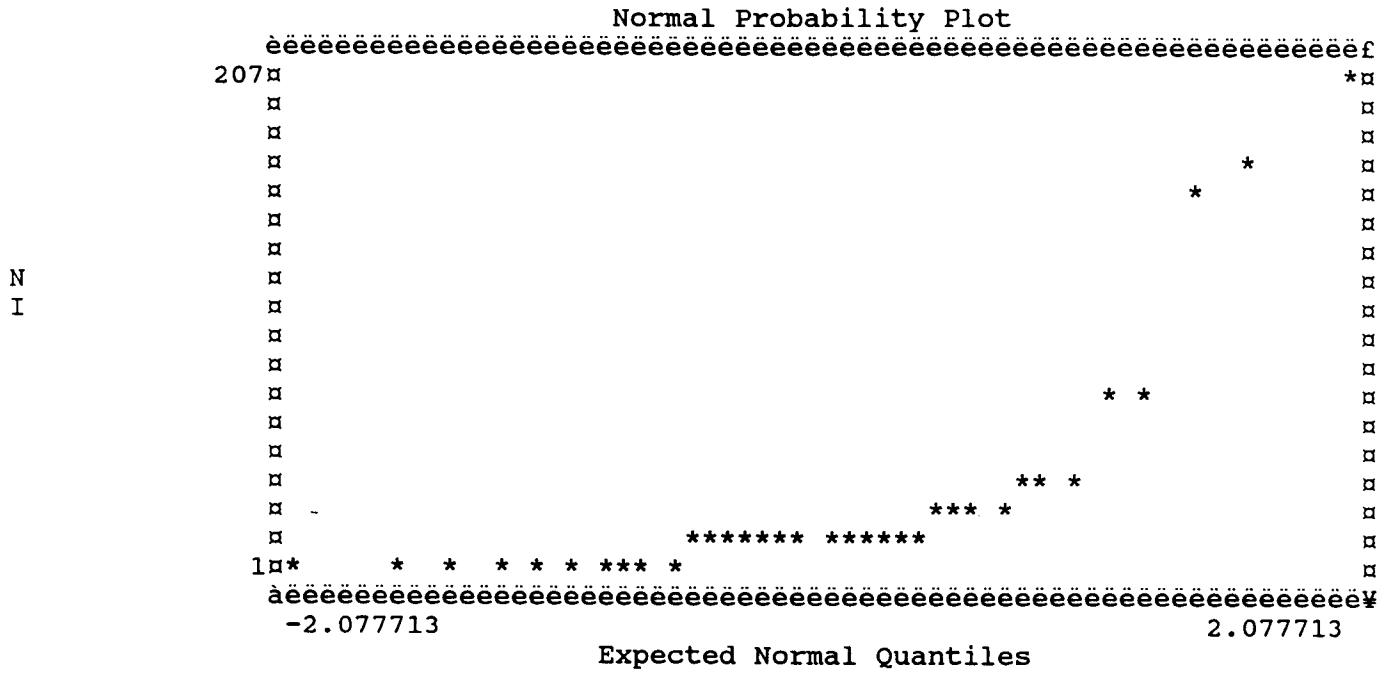
Distribution & Histogram

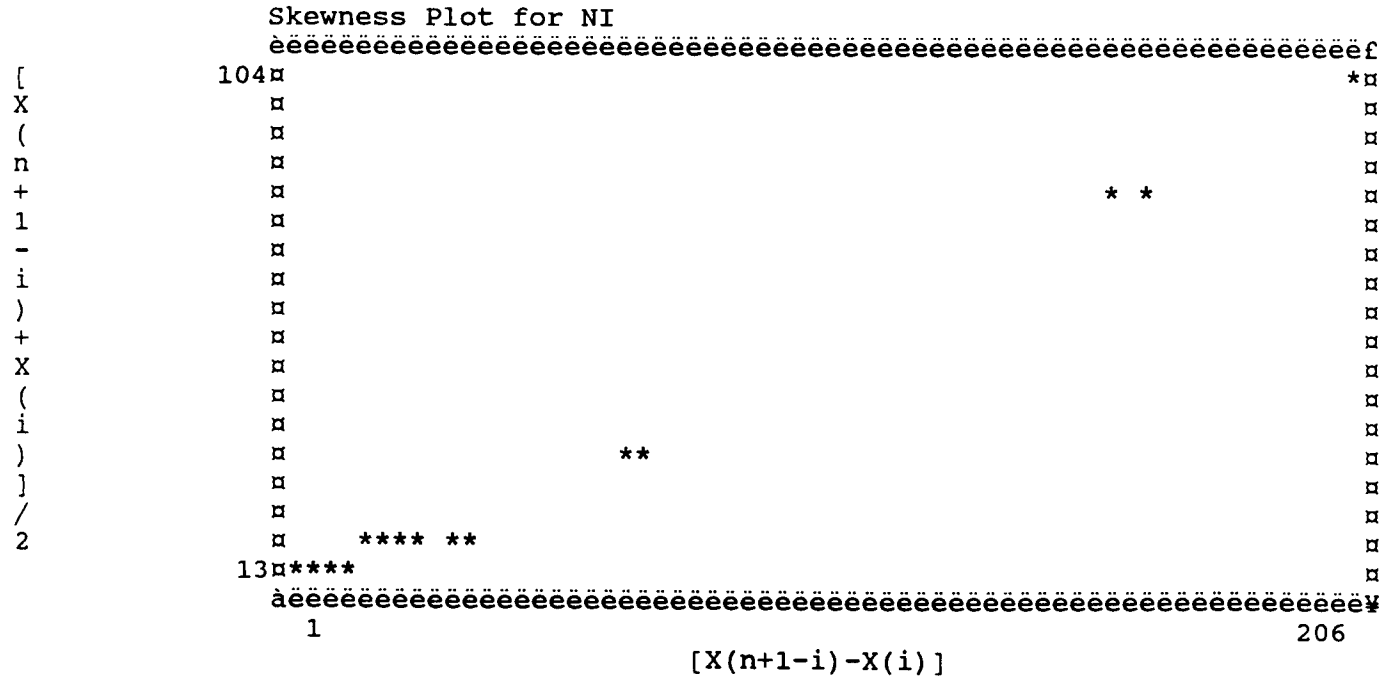
Variable: NI

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	1	14.73333	18	51.4	18	51.4	:*********
2	14.73333	28.46667	9	25.7	27	77.1	:*****
3	28.46667	42.2	3	8.6	30	85.7	:**
4	42.2	55.93333	0	0.0	30	85.7	:
5	55.93333	69.66667	1	2.9	31	88.6	:*
6	69.66667	83.4	1	2.9	32	91.4	:*
7	83.4	97.13333	0	0.0	32	91.4	:
8	97.13333	110.8667	0	0.0	32	91.4	:
9	110.8667	124.6	0	0.0	32	91.4	:
10	124.6	138.3333	0	0.0	32	91.4	:
11	138.3333	152.0667	0	0.0	32	91.4	:
12	152.0667	165.8	1	2.9	33	94.3	:*
13	165.8	179.5333	1	2.9	34	97.1	:*
14	179.5333	193.2667	0	0.0	34	97.1	:
15	193.2667	207	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:39
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:41
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: CO

Mean - Average	16	No. observations	35
Lower 95% c.i.limit	11.69422	No. missing values	0
Upper 95% c.i.limit	20.30578	Sum of frequencies	35
Adj sum of squares	5342	Sum of observations	560
Standard deviation	12.53466	Std.error of mean	2.118744
Variance	157.1176	T-value for mean=0	7.551644
Coef. of variation	.7834161	T prob level	0.0000
Skewness	1.429439	Kurtosis	2.68459
Normality Test Value	1.443	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	57	90-%tile	31
75-%tile	22	10-%tile	3
50-%tile (Median)	12	Range	56
25-%tile	7	75th-25th %tile	15
0-%tile (Minimum)	1		

1----------Line Plot / Box Plot----------57
3 12 2 1 2 313 11 1 2 23 11 1 1 1 1 1
-----[XXXXXXmXXXXXaXXXXXXX]----------

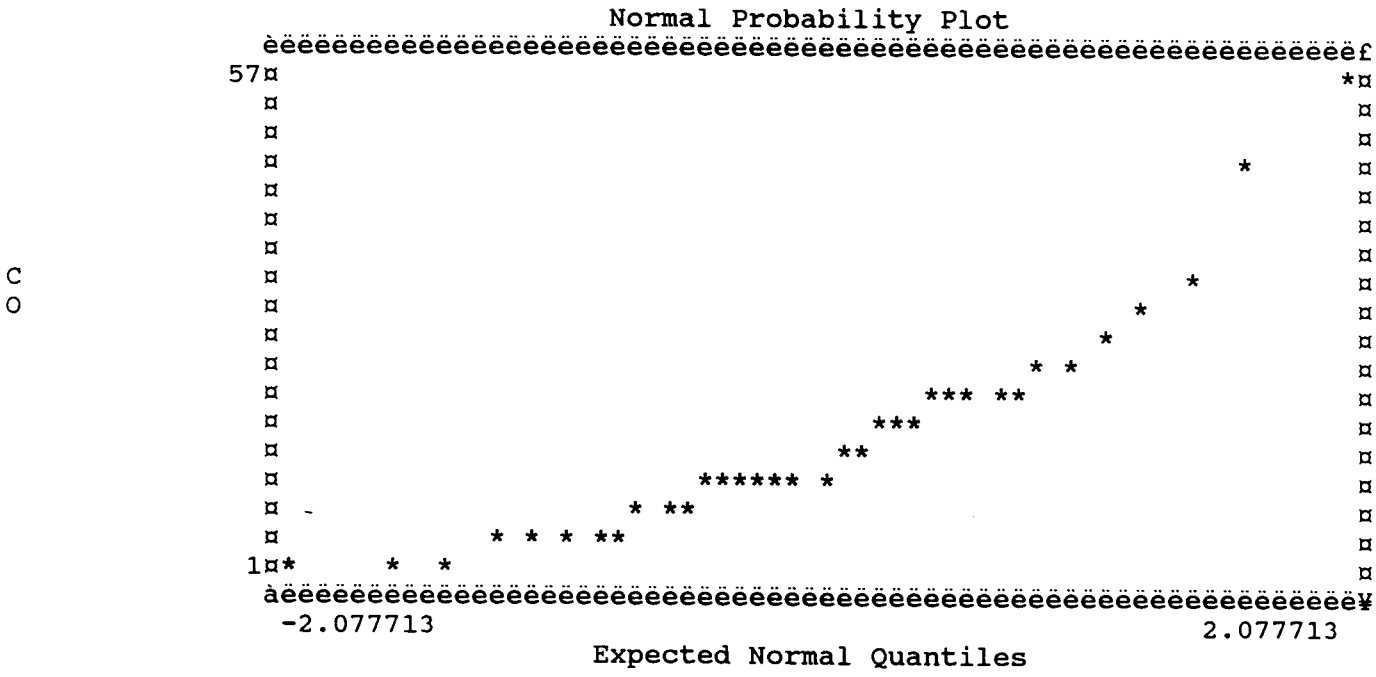
Distribution & Histogram

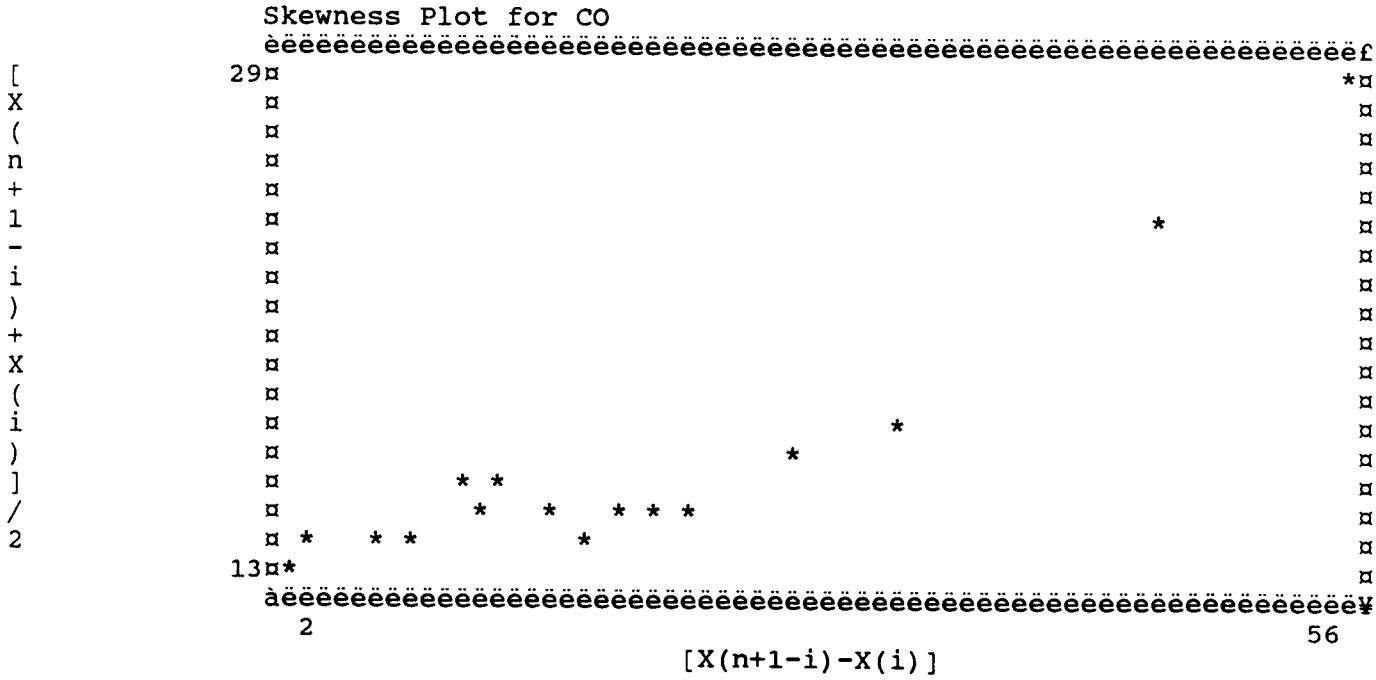
Variable: CO

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	1	4.733334	6	17.1	6	17.1	:***
2	4.733334	8.466667	3	8.6	9	25.7	:**
3	8.466667	12.2	9	25.7	18	51.4	:*****
4	12.2	15.93333	2	5.7	20	57.1	:*
5	15.93333	19.66667	3	8.6	23	65.7	:**
6	19.66667	23.4	5	14.3	28	80.0	:***
7	23.4	27.13333	3	8.6	31	88.6	:**
8	27.13333	30.86667	0	0.0	31	88.6	:
9	30.86667	34.6	2	5.7	33	94.3	:*
10	34.6	38.33333	0	0.0	33	94.3	:
11	38.33333	42.06667	0	0.0	33	94.3	:
12	42.06667	45.8	0	0.0	33	94.3	:
13	45.8	49.53333	1	2.9	34	97.1	:*
14	49.53333	53.26667	0	0.0	34	97.1	:
15	53.26667	57	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:42
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:43
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: MN

Mean - Average	1318.943	No. observations	35
Lower 95% c.i.limit	1033.303	No. missing values	0
Upper 95% c.i.limit	1604.583	Sum of frequencies	35
Adj sum of squares	2.350924E+07	Sum of observations	46163
Standard deviation	831.5338	Std.error of mean	140.5549
Variance	691448.4	T-value for mean=0	9.38383
Coef. of variation	.6304547	T prob level	0.0000
Skewness	.7065347	Kurtosis	-.5799494
Normality Test Value	1.047	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	3097	90-%tile	2693
75-%tile	1681	10-%tile	416
50-%tile (Median)	1049	Range	2834
25-%tile	527	75th-25th %tile	1154
0-%tile (Minimum)	263		

263----------Line Plot / Box Plot----------3097
111 2 22 1 1 1 1222 1 21 111 1 1 21 1 1 1 1
---[XXXXXXXXXXXXXXmXXXXXXaXXXXXXXXX]----------

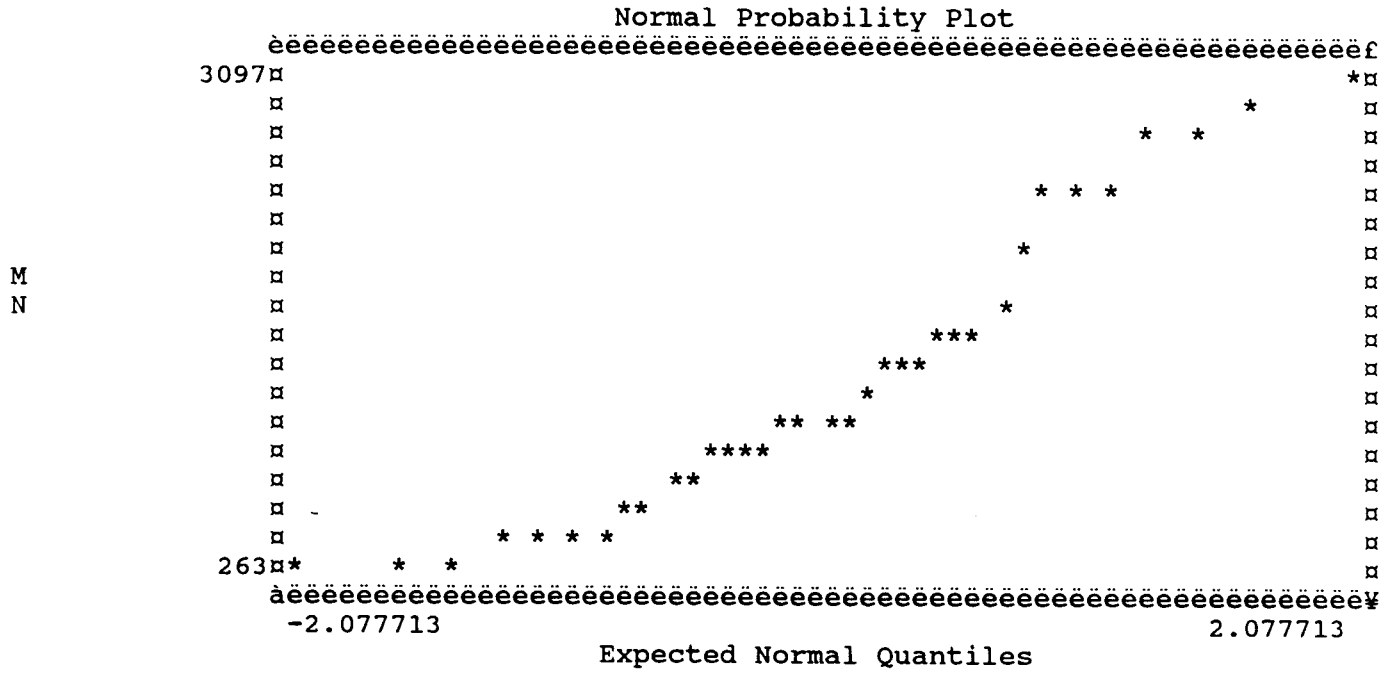
Distribution & Histogram

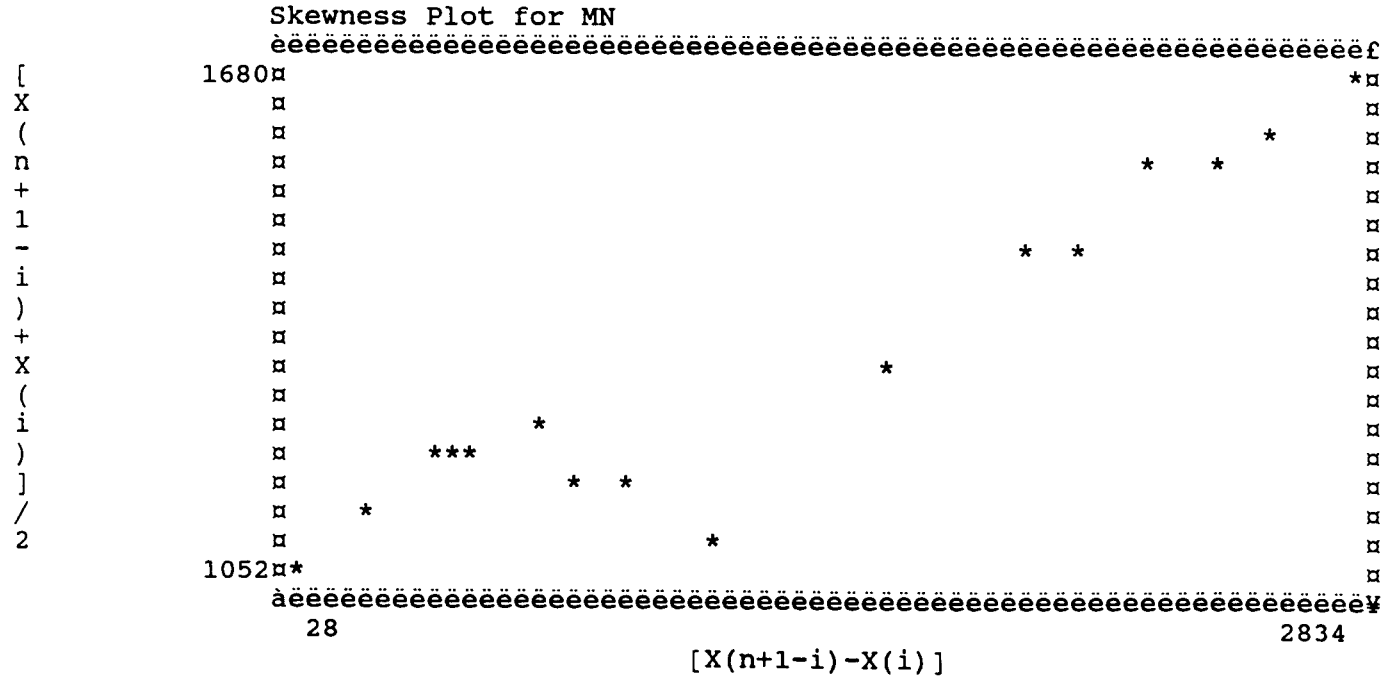
Variable: MN

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	263	451.9334	5	14.3	5	14.3	:***
2	451.9334	640.8667	4	11.4	9	25.7	:**
3	640.8667	829.8	2	5.7	11	31.4	:*
4	829.8	1018.733	4	11.4	15	42.9	:**
5	1018.733	1207.667	4	11.4	19	54.3	:**
6	1207.667	1396.6	1	2.9	20	57.1	:*
7	1396.6	1585.533	5	14.3	25	71.4	:***
8	1585.533	1774.467	2	5.7	27	77.1	:*
9	1774.467	1963.4	0	0.0	27	77.1	:
10	1963.4	2152.334	1	2.9	28	80.0	:*
11	2152.334	2341.267	0	0.0	28	80.0	:
12	2341.267	2530.2	3	8.6	31	88.6	:**
13	2530.2	2719.133	1	2.9	32	91.4	:*
14	2719.133	2908.067	1	2.9	33	94.3	:*
15	2908.067	3097	2	5.7	35	100.0	:*

----------Descriptive Statistics----------

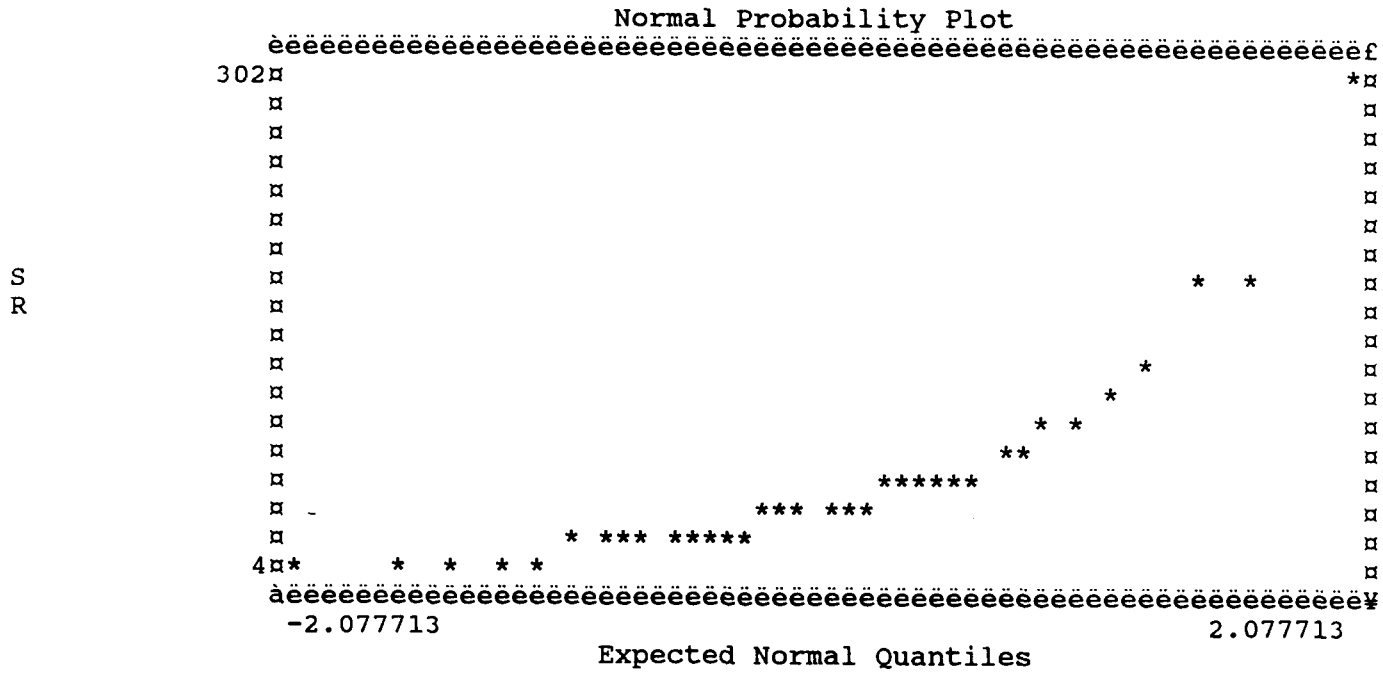
Date/Time 06-09-1991 15:01:44
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

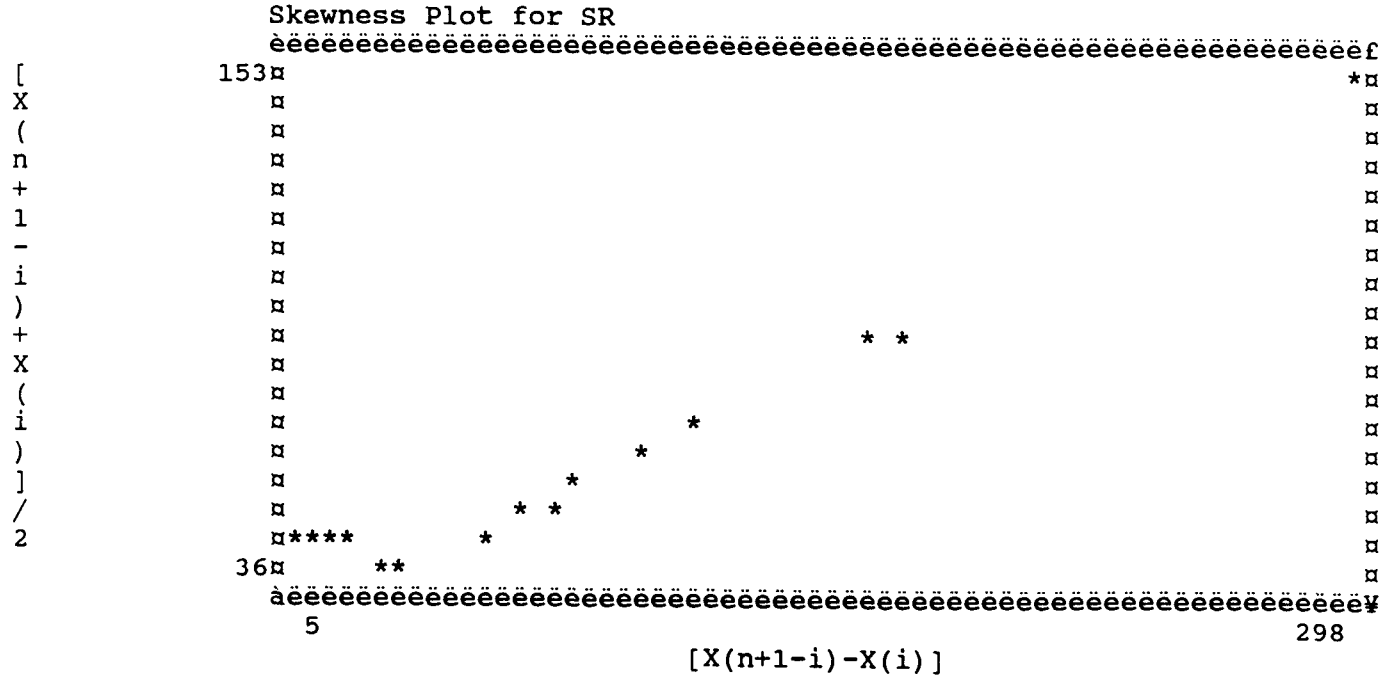




----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:54
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:55
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: CD

Mean - Average	.9857143	No. observations	35
Lower 95% c.i.limit	.7264848	No. missing values	0
Upper 95% c.i.limit	1.244944	Sum of frequencies	35
Adj sum of squares	19.36286	Sum of observations	34.5
Standard deviation	.7546495	Std.error of mean	.127559
Variance	.5694958	T-value for mean=0	7.727514
Coef. of variation	.7655864	T prob level	0.0000
Skewness	.9195591	Kurtosis	.1257819
Normality Test Value	1.047	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	2.9	90-%tile	2
75-%tile	1.5	10-%tile	.2
50-%tile (Median)	.9	Range	2.7
25-%tile	.3	75th-25th %tile	1.2
0-%tile (Minimum)	.2		

.2----------Line Plot / Box Plot----------2.9
7 2 3 2 1 1 3 2 3 1 1 1 1 2 1 1 1 1 1
---[XXXXXXXXXXXXXXXXmXXaXXXXXXXXXXXXXX]----------

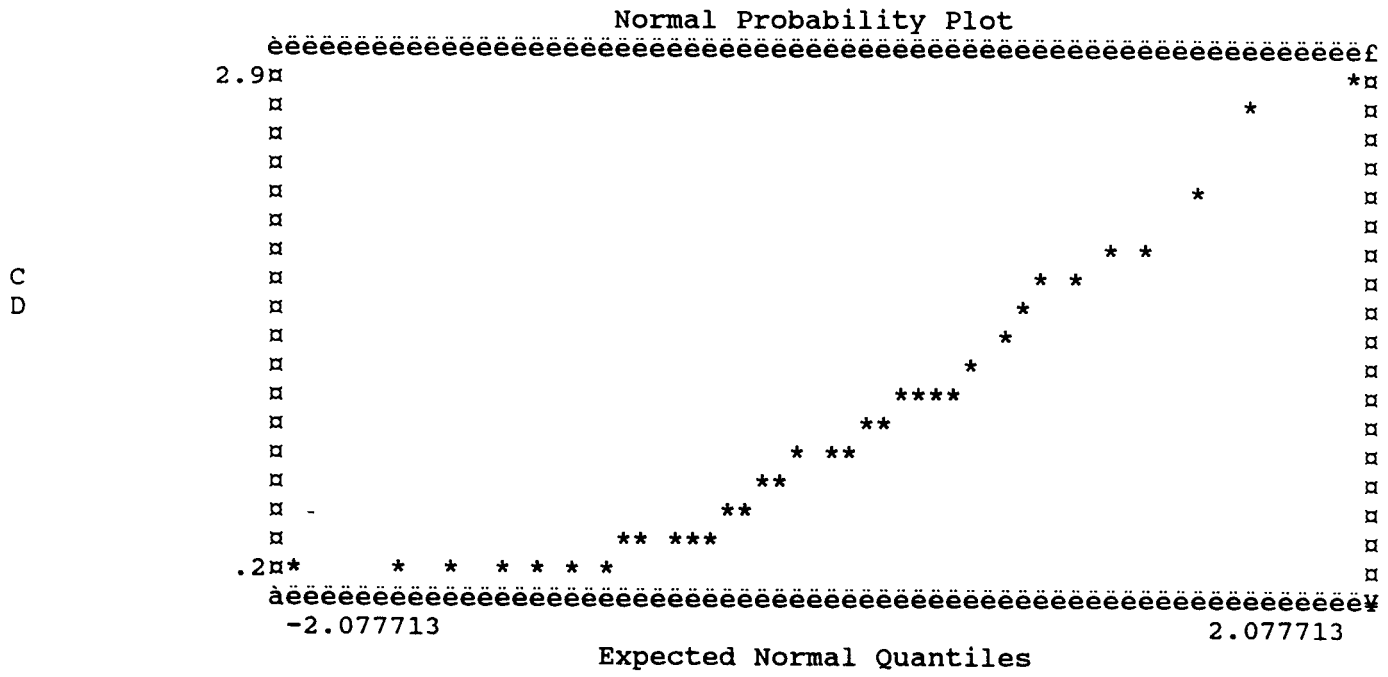
Distribution & Histogram

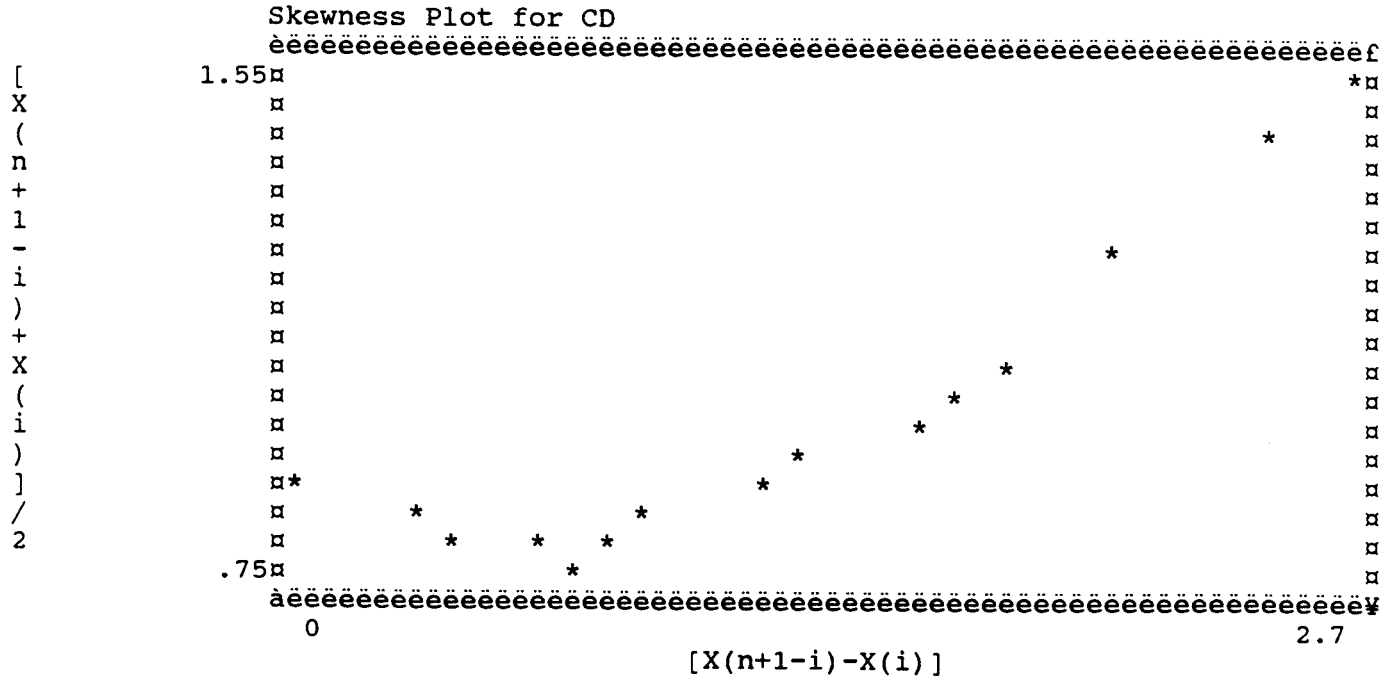
Variable: CD

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	.2	.38	9	25.7	9	25.7	:*****
2	.38	.56	5	14.3	14	40.0	:***
3	.56	.74	2	5.7	16	45.7	:*
4	.74	.92	3	8.6	19	54.3	:**
5	.92	1.1	2	5.7	21	60.0	:*
6	1.1	1.28	4	11.4	25	71.4	:**
7	1.28	1.46	1	2.9	26	74.3	:*
8	1.46	1.64	2	5.7	28	80.0	:*
9	1.64	1.82	2	5.7	30	85.7	:*
10	1.82	2	2	5.7	32	91.4	:*
11	2	2.18	0	0.0	32	91.4	:
12	2.18	2.36	1	2.9	33	94.3	:*
13	2.36	2.54	0	0.0	33	94.3	:
14	2.54	2.72	1	2.9	34	97.1	:*
15	2.72	2.9	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:56
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:58
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: SB

Mean - Average	2.542857	No. observations	35
Lower 95% c.i.limit	2.206052	No. missing values	0
Upper 95% c.i.limit	2.879662	Sum of frequencies	35
Adj sum of squares	32.68572	Sum of observations	89
Standard deviation	.9804818	Std.error of mean	.1657317
Variance	.9613445	T-value for mean=0	15.34322
Coef. of variation	.3855827	T prob level	0.0000
Skewness	2.057482	Kurtosis	4.126989

100-%tile (Maximum)	6	90-%tile	4
75-%tile	3	10-%tile	2
50-%tile (Median)	2	Range	4
25-%tile	2	75th-25th %tile	1
0-%tile (Minimum)	2		

2----------Line Plot / Box Plot----------6

```
O                    6                   3                   1                   1
mXXXXXXXXXXaXXXXXXXX]-------------------
```

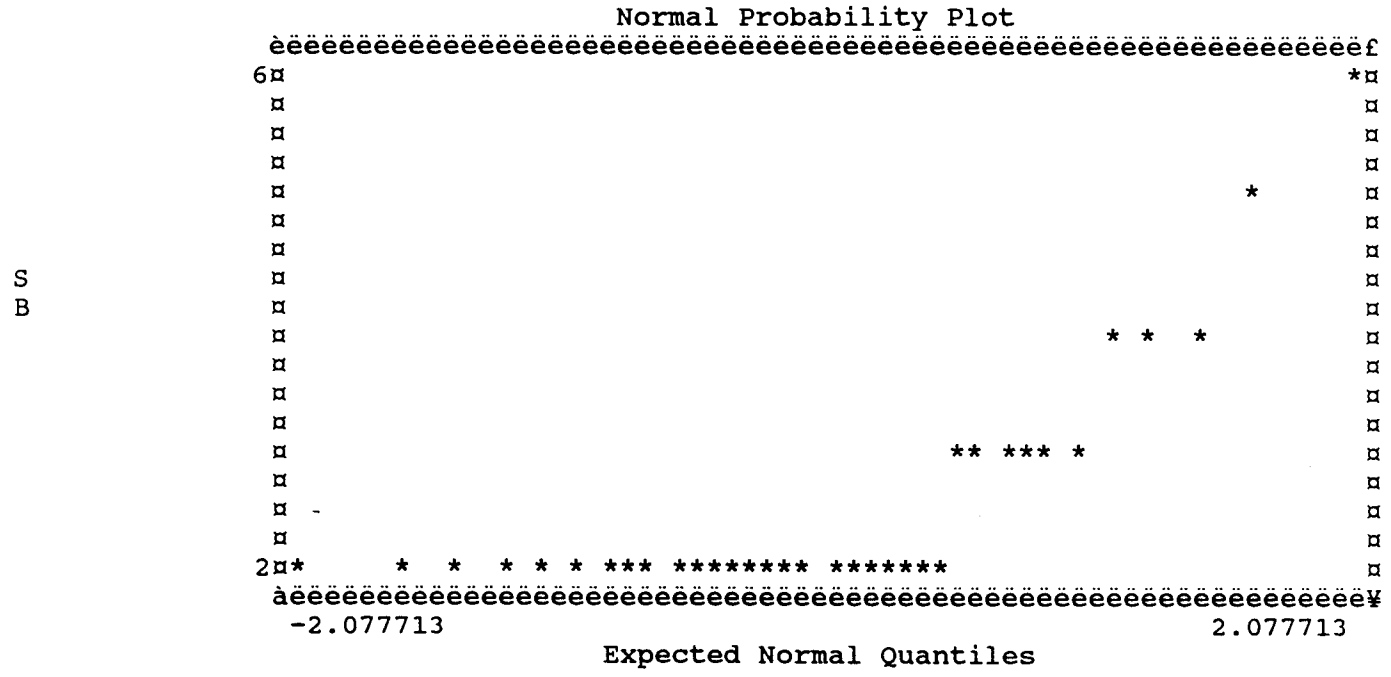
Distribution & Histogram

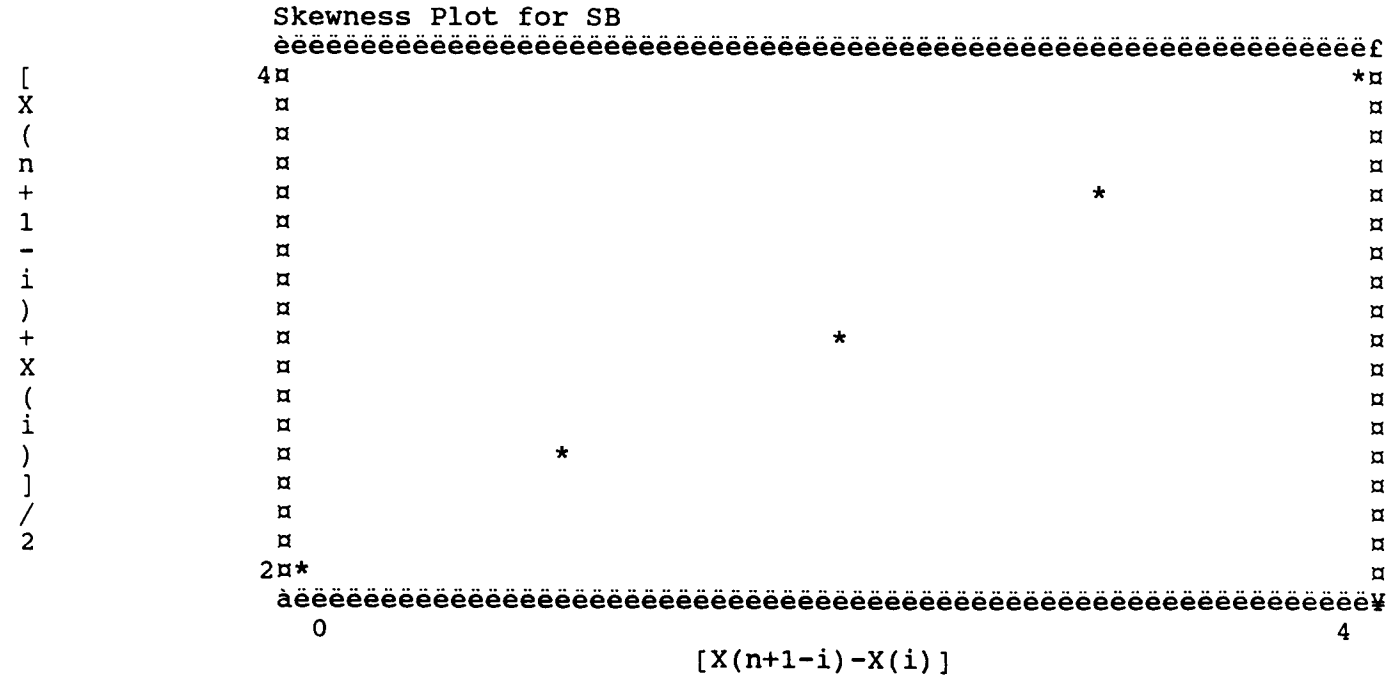
Variable: SB

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	2	2.266667	24	68.6	24	68.6	:**********
2	2.266667	2.533333	0	0.0	24	68.6	:
3	2.533333	2.8	0	0.0	24	68.6	:
4	2.8	3.066667	6	17.1	30	85.7	:***
5	3.066667	3.333334	0	0.0	30	85.7	:
6	3.333334	3.6	0	0.0	30	85.7	:
7	3.6	3.866667	0	0.0	30	85.7	:
8	3.866667	4.133333	3	8.6	33	94.3	:**
9	4.133333	4.4	0	0.0	33	94.3	:
10	4.4	4.666667	0	0.0	33	94.3	:
11	4.666667	4.933333	0	0.0	33	94.3	:
12	4.933333	5.2	1	2.9	34	97.1	:*
13	5.2	5.466667	0	0.0	34	97.1	:
14	5.466667	5.733334	0	0.0	34	97.1	:
15	5.733334	6	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:01:58
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:02:00
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: BI

Mean - Average	2	No. observations	35
Lower 95% c.i.limit	.	No. missing values	0
Upper 95% c.i.limit	.	Sum of frequencies	35
Adj sum of squares	0	Sum of observations	70
Standard deviation	0	Std.error of mean	0
Variance	0	T-value for mean=0	.
Coef. of variation	0	T prob level	
Skewness	0	Kurtosis	0
100-%tile (Maximum)	2	90-%tile	2
75-%tile	2	10-%tile	2
50-%tile (Median)	2	Range	0
25-%tile	2	75th-25th %tile	0
0-%tile (Minimum)	2		

2----------Line Plot / Box Plot----------2

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m

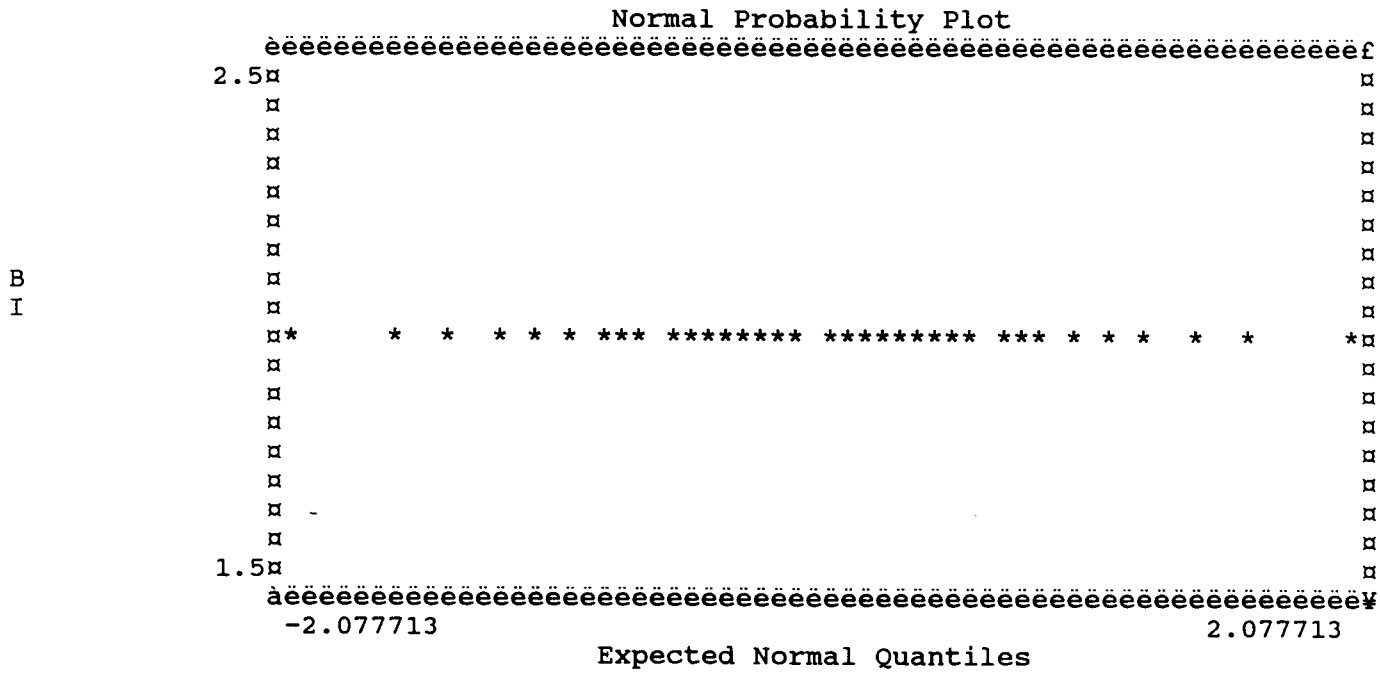
Distribution & Histogram

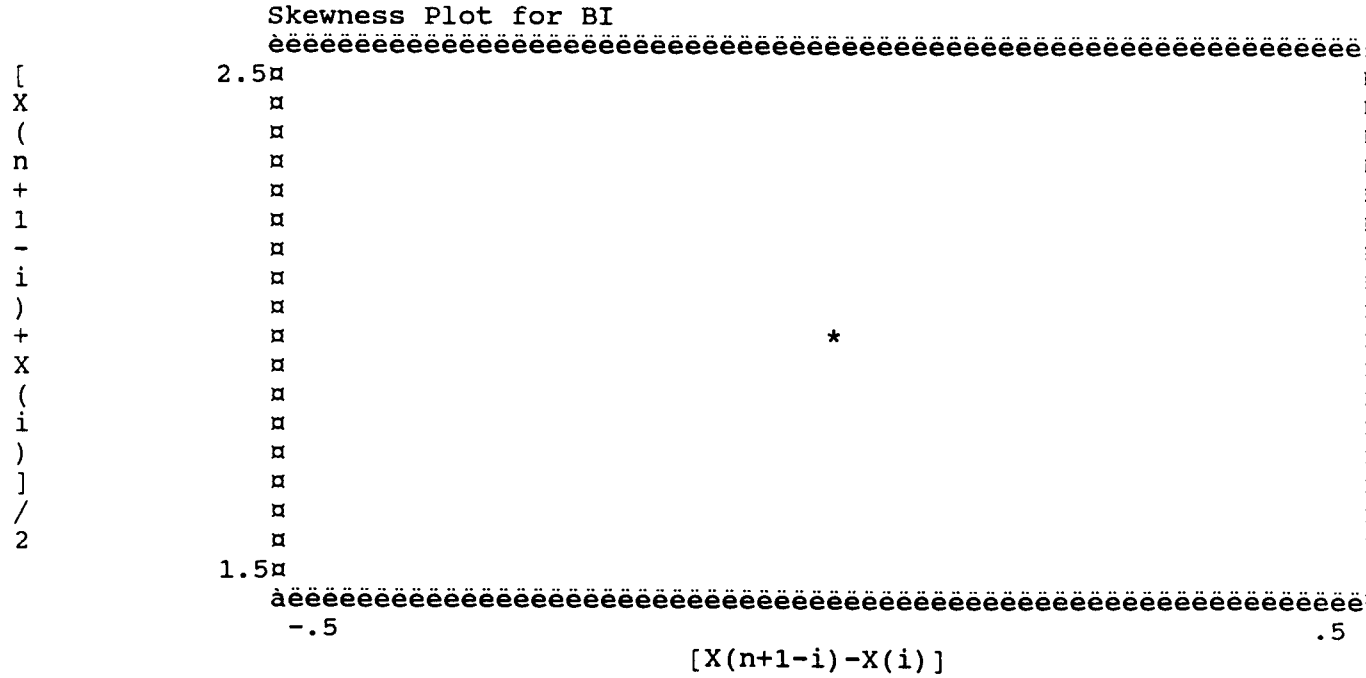
Variable: BI

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	1.5	1.566667	0	0.0	0	0.0	:
2	1.566667	1.633333	0	0.0	0	0.0	:
3	1.633333	1.7	0	0.0	0	0.0	:
4	1.7	1.766667	0	0.0	0	0.0	:
5	1.766667	1.833333	0	0.0	0	0.0	:
6	1.833333	1.9	0	0.0	0	0.0	:
7	1.9	1.966667	0	0.0	0	0.0	:
8	1.966667	2.033333	35	100.0	35	100.0	:******************
9	2.033333	2.1	0	0.0	35	100.0	:
10	2.1	2.166667	0	0.0	35	100.0	:
11	2.166667	2.233333	0	0.0	35	100.0	:
12	2.233333	2.3	0	0.0	35	100.0	:
13	2.3	2.366667	0	0.0	35	100.0	:
14	2.366667	2.433333	0	0.0	35	100.0	:
15	2.433333	2.5	0	0.0	35	100.0	:

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:02:01
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:02:02
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: V

Mean - Average	65.28571	No. observations	35
Lower 95% c.i.limit	45.69386	No. missing values	0
Upper 95% c.i.limit	84.87757	Sum of frequencies	35
Adj sum of squares	110599.1	Sum of observations	2285
Standard deviation	57.03434	Std.error of mean	9.640563
Variance	3252.916	T-value for mean=0	6.771981
Coef. of variation	.8736113	T prob level	0.0000
Skewness	.958121	Kurtosis	1.533651E-02
Normality Test Value	1.187	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	218	90-%tile	154
75-%tile	109	10-%tile	5
50-%tile (Median)	45	Range	217
25-%tile	20	75th-25th %tile	89
0-%tile (Minimum)	1		

1----------Line Plot / Box Plot----------218

```
131   22112 1 2121 2 1           1  2  2     1 1    1  1   2                    1
 ------[XXXXXXXXmXXXXXXaXXXXXXXXXXXXXXX]---------------
```

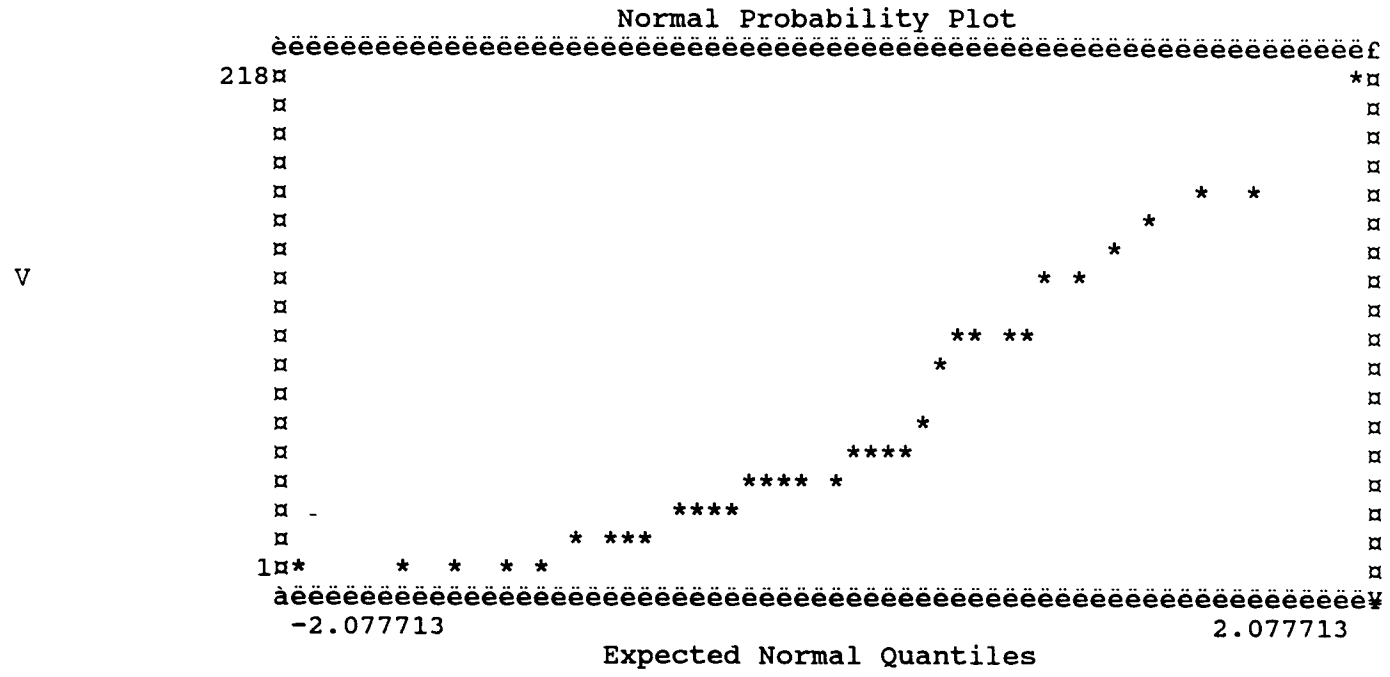
Distribution & Histogram

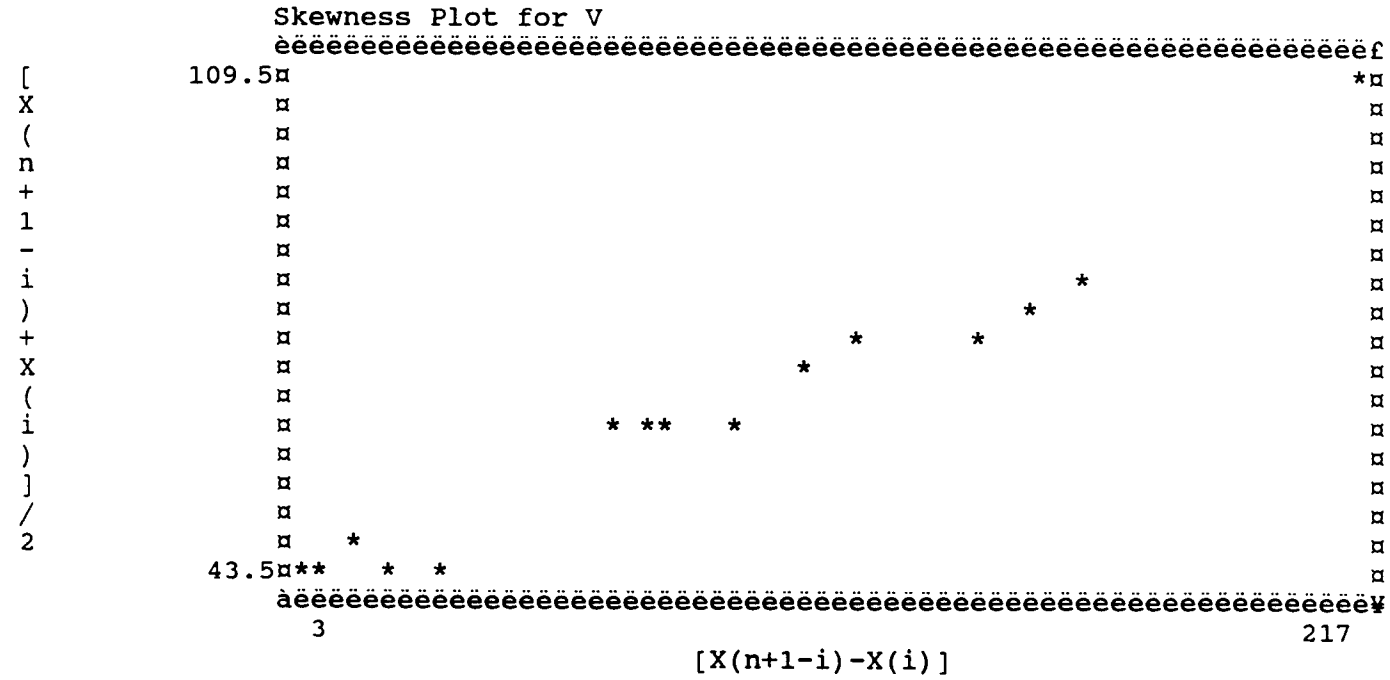
Variable: V

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	1	15.46667	5	14.3	5	14.3	:***
2	15.46667	29.93333	8	22.9	13	37.1	:****
3	29.93333	44.4	4	11.4	17	48.6	:**
4	44.4	58.86667	5	14.3	22	62.9	:***
5	58.86667	73.33333	1	2.9	23	65.7	:*
6	73.33333	87.8	0	0.0	23	65.7	:
7	87.8	102.2667	3	8.6	26	74.3	:**
8	102.2667	116.7333	2	5.7	28	80.0	:*
9	116.7333	131.2	1	2.9	29	82.9	:*
10	131.2	145.6667	1	2.9	30	85.7	:*
11	145.6667	160.1333	2	5.7	32	91.4	:*
12	160.1333	174.6	2	5.7	34	97.1	:*
13	174.6	189.0667	0	0.0	34	97.1	:
14	189.0667	203.5333	0	0.0	34	97.1	:
15	203.5333	218	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:02:03
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:02:05
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: CA

Mean - Average	1.158286	No. observations	35
Lower 95% c.i.limit	.7433781	No. missing values	0
Upper 95% c.i.limit	1.573193	Sum of frequencies	35
Adj sum of squares	49.6025	Sum of observations	40.54
Standard deviation	1.207848	Std.error of mean	.2041636
Variance	1.458897	T-value for mean=0	5.673322
Coef. of variation	1.042789	T prob level	0.0000
Skewness	2.783118	Kurtosis	9.237919
Normality Test Value	0.927	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	6.26	90-%tile	2.39
75-%tile	1.31	10-%tile	.28
50-%tile (Median)	.84	Range	6.19
25-%tile	.5	75th-25th %tile	.8099999
0-%tile (Minimum)	.07		

```
.07----------Line Plot / Box Plot----------6.26
11122241211116  2 11  1      1          1  1                    1
   --[XXXXmXXXaX]-------------
```

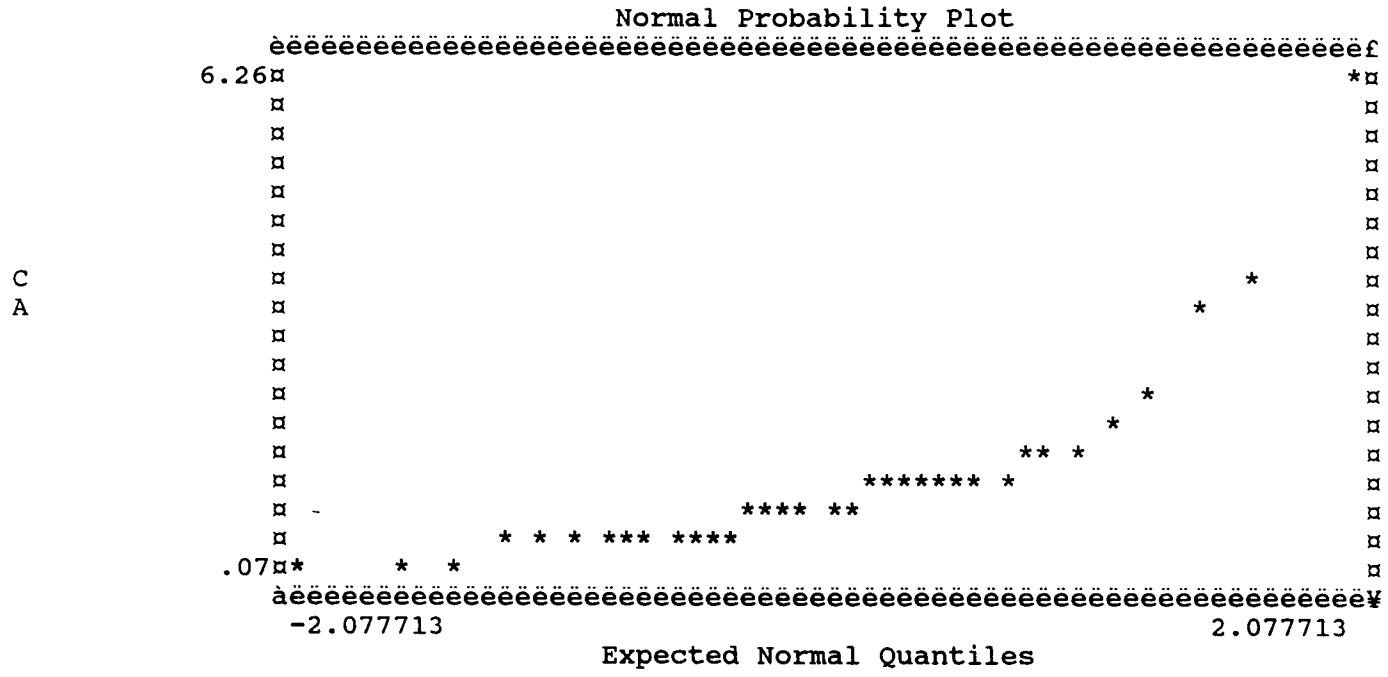
Distribution & Histogram

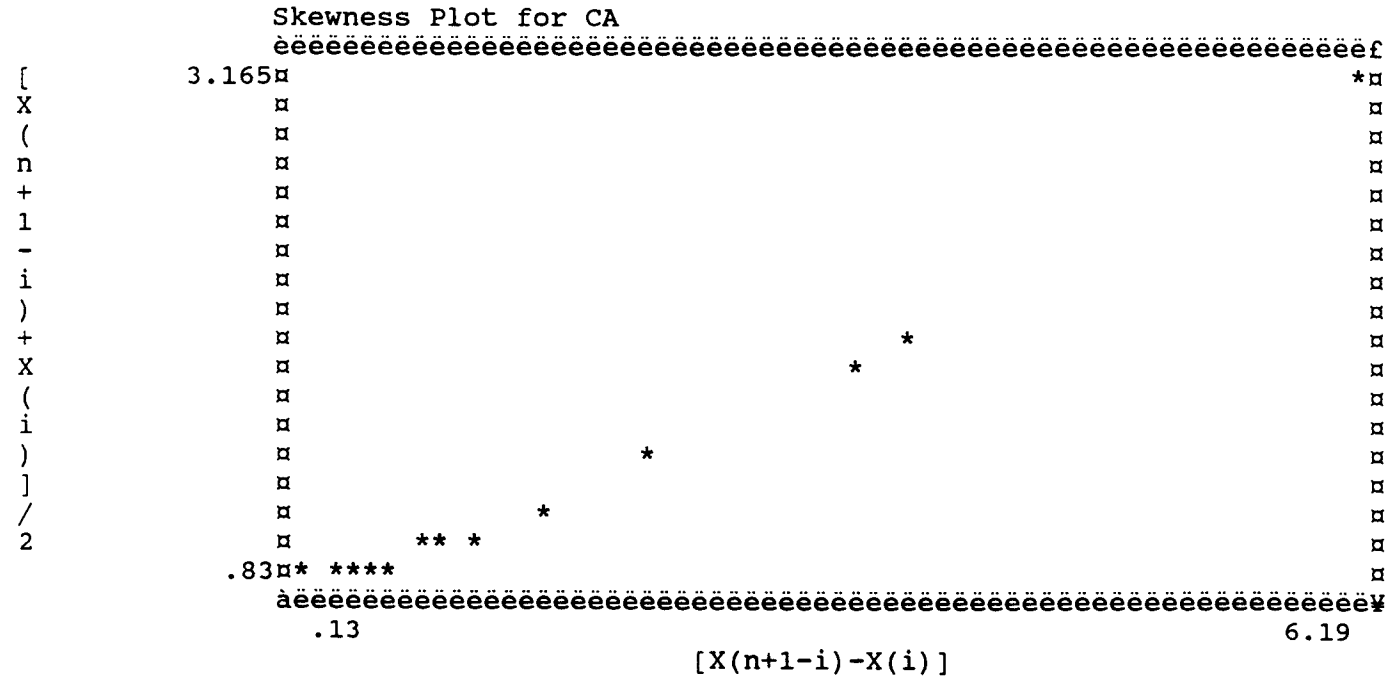
Variable: CA

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	.07	.4826667	7	20.0	7	20.0	:****
2	.4826667	.8953334	11	31.4	18	51.4	:******
3	.8953334	1.308	8	22.9	26	74.3	:****
4	1.308	1.720667	4	11.4	30	85.7	:**
5	1.720667	2.133333	1	2.9	31	88.6	:*
6	2.133333	2.546	1	2.9	32	91.4	:*
7	2.546	2.958667	0	0.0	32	91.4	:
8	2.958667	3.371333	0	0.0	32	91.4	:
9	3.371333	3.784	2	5.7	34	97.1	:*
10	3.784	4.196667	0	0.0	34	97.1	:
11	4.196667	4.609334	0	0.0	34	97.1	:
12	4.609334	5.022	0	0.0	34	97.1	:
13	5.022	5.434667	0	0.0	34	97.1	:
14	5.434667	5.847333	0	0.0	34	97.1	:
15	5.847333	6.26	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:02:05
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:02:07
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: LA

Mean - Average	6.914286	No. observations	35
Lower 95% c.i.limit	5.163969	No. missing values	0
Upper 95% c.i.limit	8.664603	Sum of frequencies	35
Adj sum of squares	882.7429	Sum of observations	242
Standard deviation	5.095393	Std.error of mean	.8612785
Variance	25.96303	T-value for mean=0	8.027932
Coef. of variation	.7369369	T prob level	0.0000
Skewness	1.147873	Kurtosis	.4102551
Normality Test Value	1.271	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	20	90-%tile	15
75-%tile	11	10-%tile	2
50-%tile (Median)	5	Range	18
25-%tile	3	75th-25th %tile	8
0-%tile (Minimum)	2		

2----------Line Plot / Box Plot----------20
7 2 6 7 1 1 1 1 3 1 1 1 1 1 1
----[XXXXXXXXmXXXXXXXaXXXXXXXXXXXXXXXXX]----------

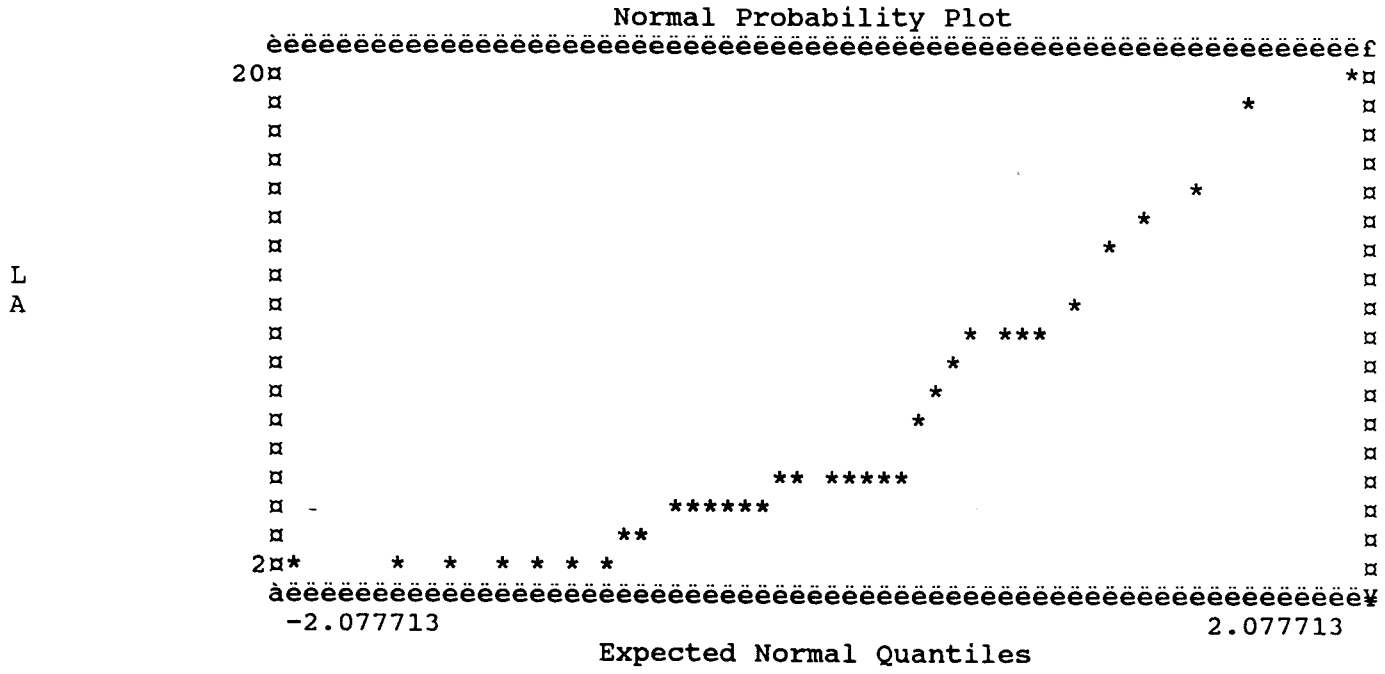
Distribution & Histogram

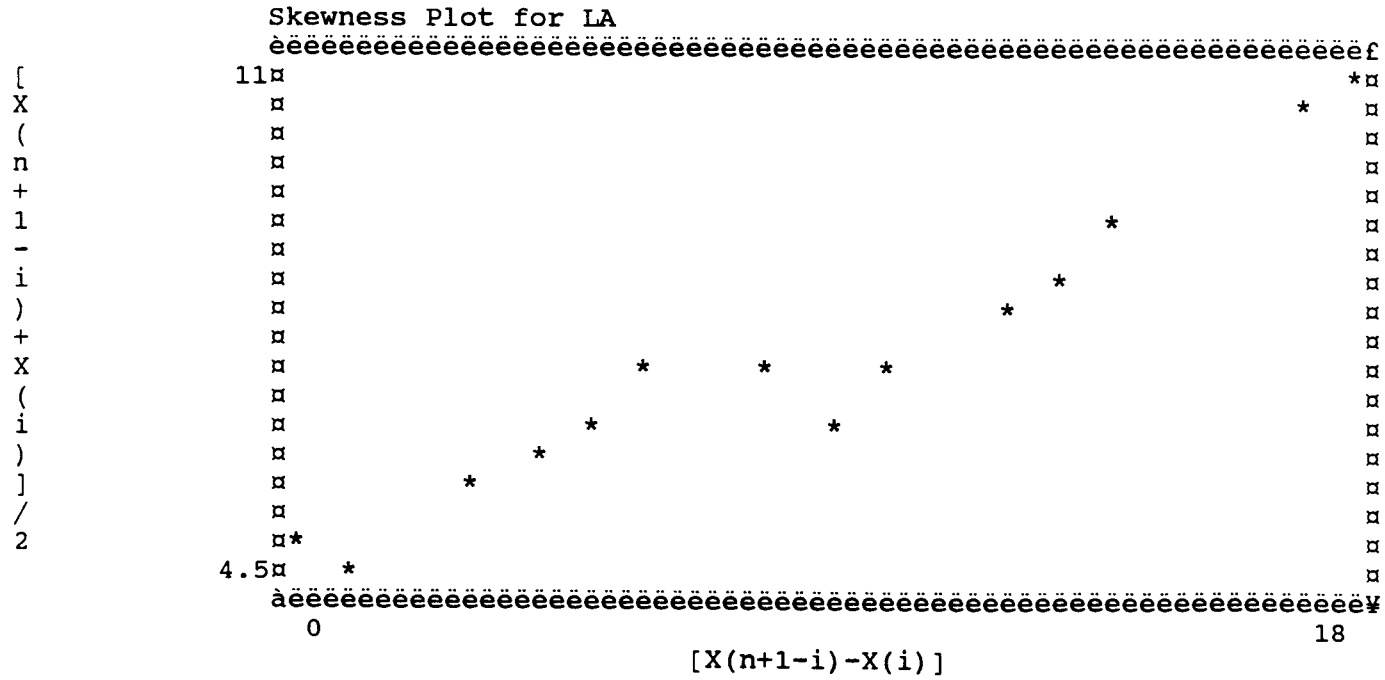
Variable: LA

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	2	3.2	9	25.7	9	25.7	:*****
2	3.2	4.4	6	17.1	15	42.9	:***
3	4.4	5.6	7	20.0	22	62.9	:****
4	5.6	6.8	0	0.0	22	62.9	:
5	6.8	8	1	2.9	23	65.7	:*
6	8	9.200001	2	5.7	25	71.4	:*
7	9.200001	10.4	1	2.9	26	74.3	:*
8	10.4	11.6	3	8.6	29	82.9	:**
9	11.6	12.8	1	2.9	30	85.7	:*
10	12.8	14	0	0.0	30	85.7	:
11	14	15.2	2	5.7	32	91.4	:*
12	15.2	16.4	1	2.9	33	94.3	:*
13	16.4	17.6	0	0.0	33	94.3	:
14	17.6	18.8	0	0.0	33	94.3	:
15	18.8	20	2	5.7	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:02:08
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:35
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: CR

Mean - Average	38.08571	No. observations	35
Lower 95% c.i.limit	11.71162	No. missing values	0
Upper 95% c.i.limit	64.45981	Sum of frequencies	35
Adj sum of squares	200426.8	Sum of observations	1333
Standard deviation	76.77828	Std.error of mean	12.9779
Variance	5894.904	T-value for mean=0	2.93466
Coef. of variation	2.015934	T prob level	0.0059
Skewness	3.056633	Kurtosis	9.055528
Normality Test Value	0.685	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	347	90-%tile	74
75-%tile	22	10-%tile	2
50-%tile (Median)	10	Range	346
25-%tile	6	75th-25th %tile	16
0-%tile (Minimum)	1		

1----------Line Plot / Box Plot----------347
777222 1 1 1 11 1 1 1
-[mXX]--a--------

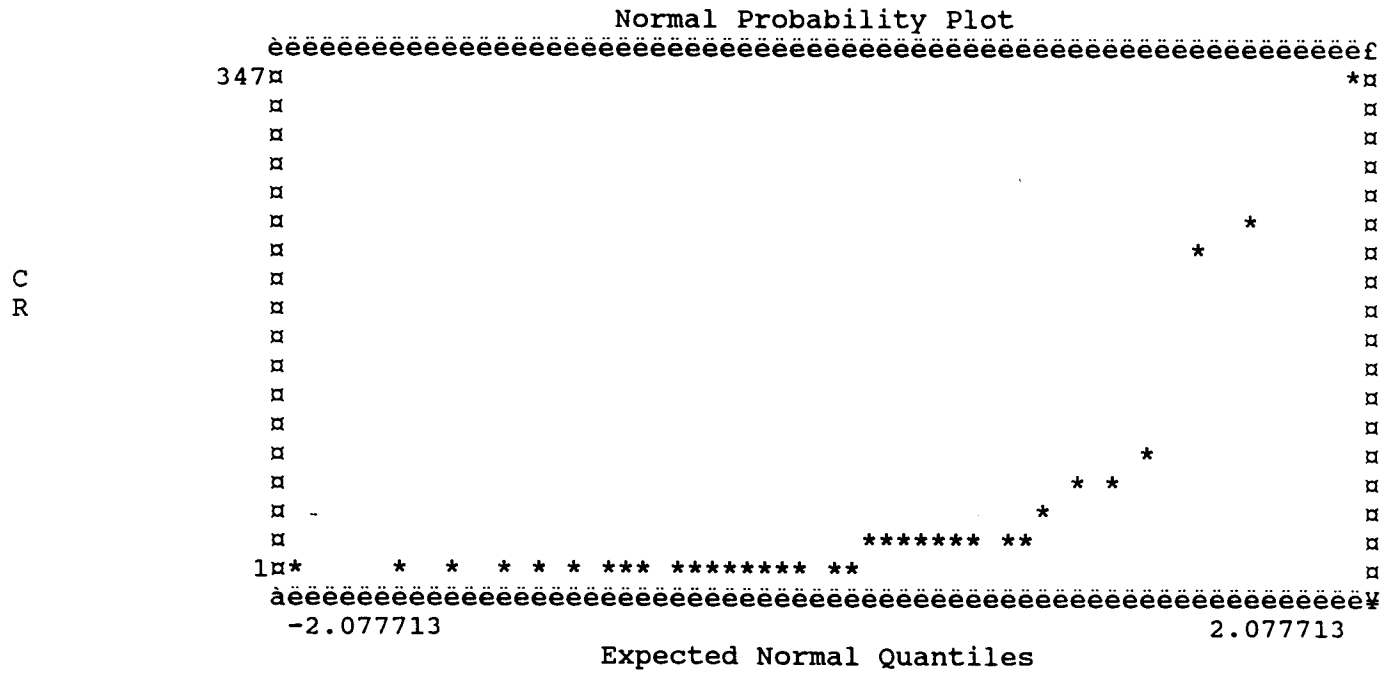
Distribution & Histogram

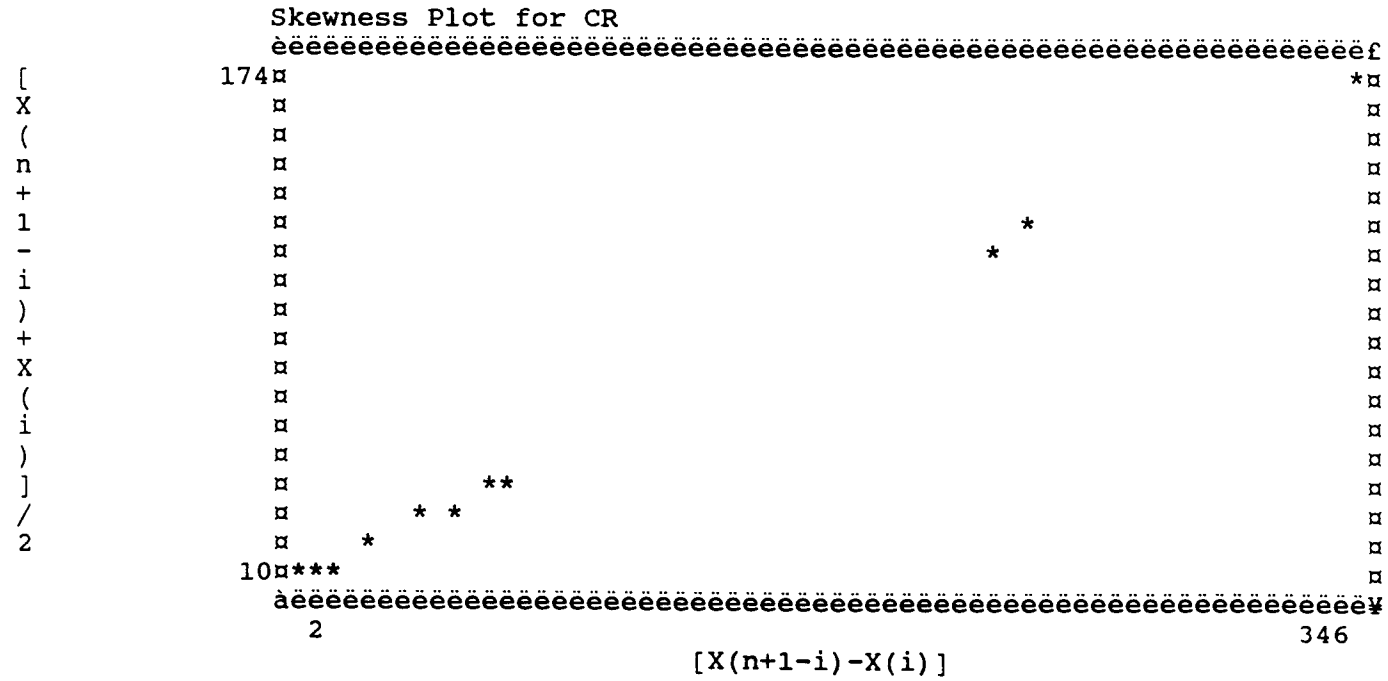
Variable: CR

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	1	24.06667	27	77.1	27	77.1	:**********
2	24.06667	47.13334	2	5.7	29	82.9	:*
3	47.13334	70.20001	2	5.7	31	88.6	:*
4	70.20001	93.26667	1	2.9	32	91.4	:*
5	93.26667	116.3333	0	0.0	32	91.4	:
6	116.3333	139.4	0	0.0	32	91.4	:
7	139.4	162.4667	0	0.0	32	91.4	:
8	162.4667	185.5333	0	0.0	32	91.4	:
9	185.5333	208.6	0	0.0	32	91.4	:
10	208.6	231.6667	1	2.9	33	94.3	:*
11	231.6667	254.7333	1	2.9	34	97.1	:*
12	254.7333	277.8	0	0.0	34	97.1	:
13	277.8	300.8667	0	0.0	34	97.1	:
14	300.8667	323.9334	0	0.0	34	97.1	:
15	323.9334	347	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:36
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:37
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: MG

Mean - Average	1.417714	No. observations	35
Lower 95% c.i.limit	.9590433	No. missing values	0
Upper 95% c.i.limit	1.876385	Sum of frequencies	35
Adj sum of squares	60.61822	Sum of observations	49.62
Standard deviation	1.335249	Std.error of mean	.2256982
Variance	1.782889	T-value for mean=0	6.28146
Coef. of variation	.941832	T prob level	0.0000
Skewness	1.514186	Kurtosis	1.934677
Normality Test Value	1.786	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	5.13	90-%tile	3.12
75-%tile	1.97	10-%tile	.22
50-%tile (Median)	1	Range	5.11
25-%tile	.35	75th-25th %tile	1.62
0-%tile (Minimum)	.02		

```
.02----------------------Line Plot / Box Plot----------------------5.13
2 1132 11 1 23 1  22    3   1 2    2       1  1                    1     1  1
   --[XXXXXXXXXmXXXXXaXXXXXXXX]----------------
```

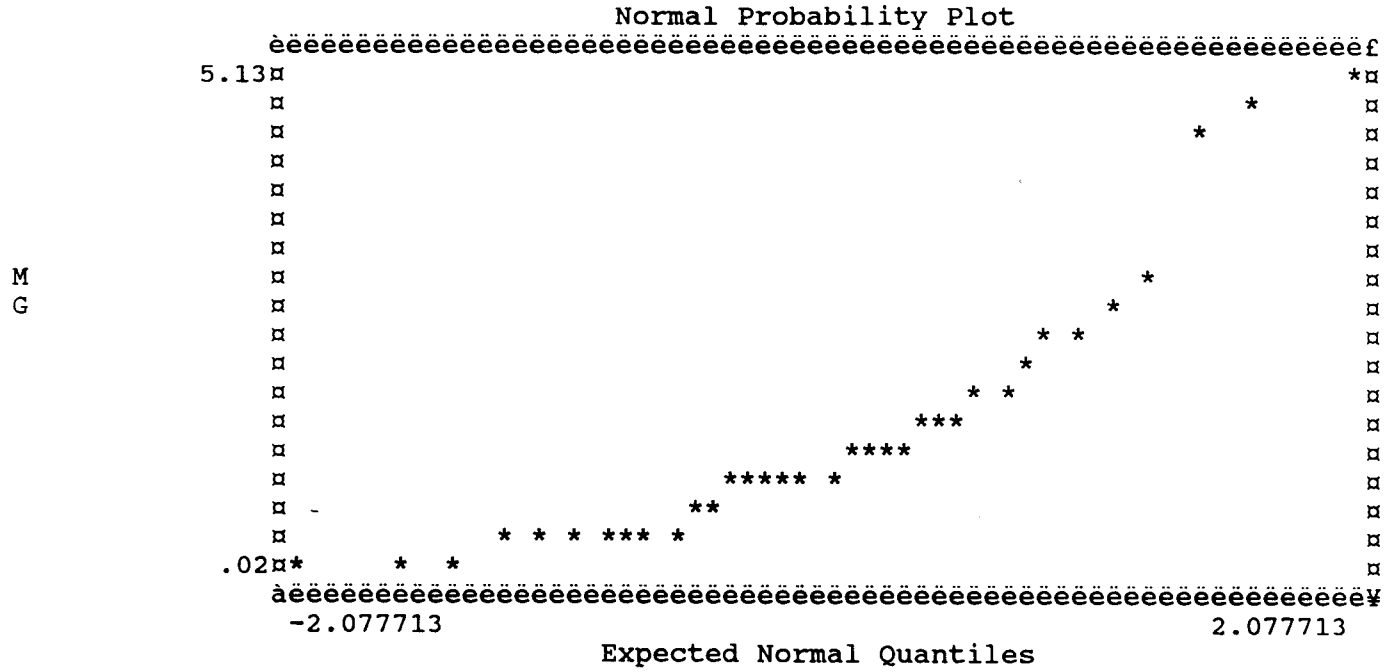
Distribution & Histogram

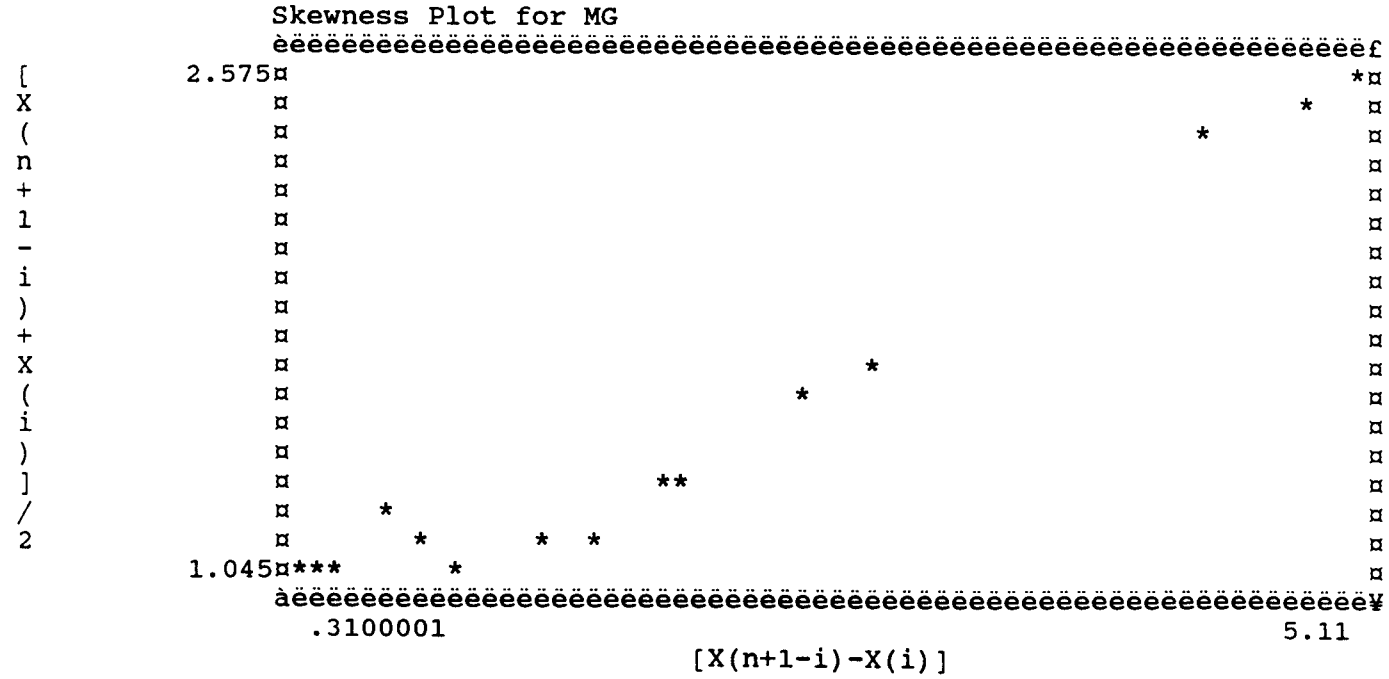
Variable: MG

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	.02	.3606667	9	25.7	9	25.7	:*****
2	.3606667	.7013333	3	8.6	12	34.3	:**
3	.7013333	1.042	6	17.1	18	51.4	:***
4	1.042	1.382667	4	11.4	22	62.9	:**
5	1.382667	1.723333	3	8.6	25	71.4	:**
6	1.723333	2.064	3	8.6	28	80.0	:**
7	2.064	2.404667	2	5.7	30	85.7	:*
8	2.404667	2.745333	0	0.0	30	85.7	:
9	2.745333	3.086	1	2.9	31	88.6	:*
10	3.086	3.426667	1	2.9	32	91.4	:*
11	3.426667	3.767334	0	0.0	32	91.4	:
12	3.767334	4.108	0	0.0	32	91.4	:
13	4.108	4.448667	0	0.0	32	91.4	:
14	4.448667	4.789333	1	2.9	33	94.3	:*
15	4.789333	5.13	2	5.7	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:38
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:40
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: BA

Mean - Average	60.45714	No. observations	35
Lower 95% c.i.limit	42.62548	No. missing values	0
Upper 95% c.i.limit	78.2888	Sum of frequencies	35
Adj sum of squares	91618.69	Sum of observations	2116
Standard deviation	51.91018	Std.error of mean	8.774423
Variance	2694.667	T-value for mean=0	6.890156
Coef. of variation	.8586278	T prob level	0.0000
Skewness	1.586523	Kurtosis	3.342871
Normality Test Value	1.435	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	243	90-%tile	128
75-%tile	83	10-%tile	8
50-%tile (Median)	52	Range	241
25-%tile	19	75th-25th %tile	64
0-%tile (Minimum)	2		

```
2----------Line Plot / Box Plot----------243
1211211  3 2 21 221  1  3 1 1 1  1    111        1                        1
  ----[XXXXXXXXXmXXaXXXXXX]--------------
```

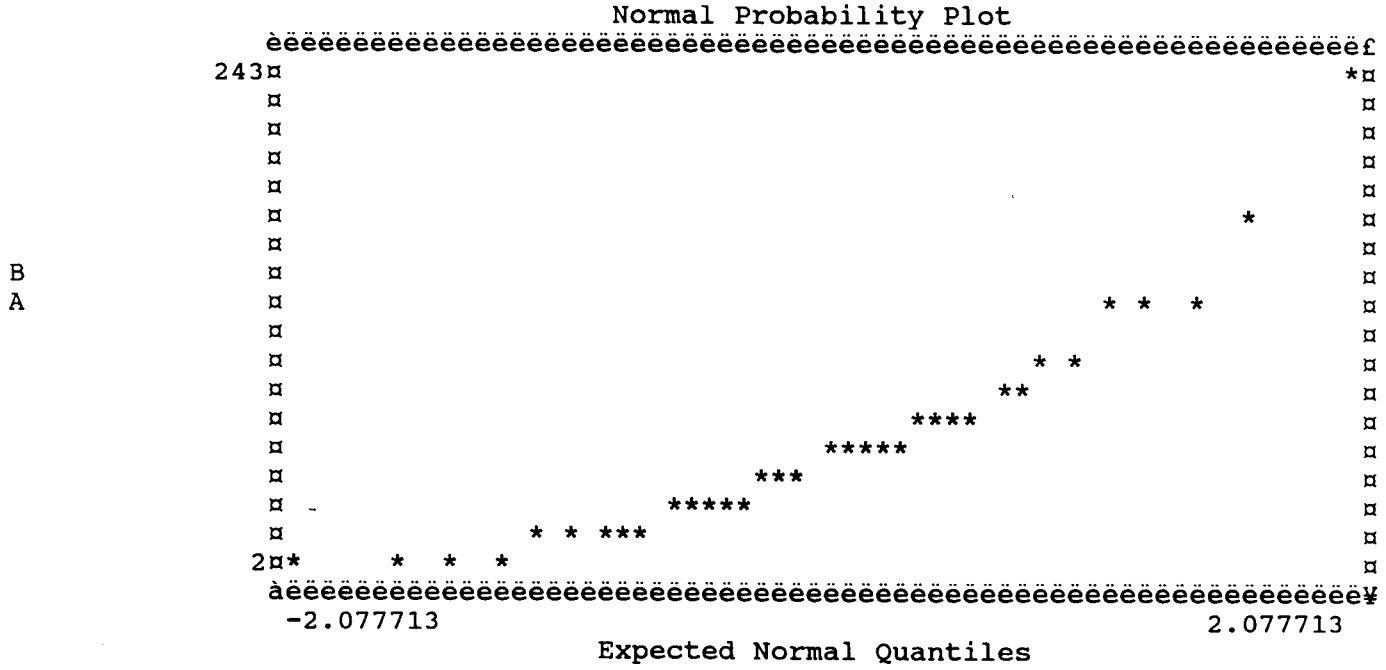
Distribution & Histogram

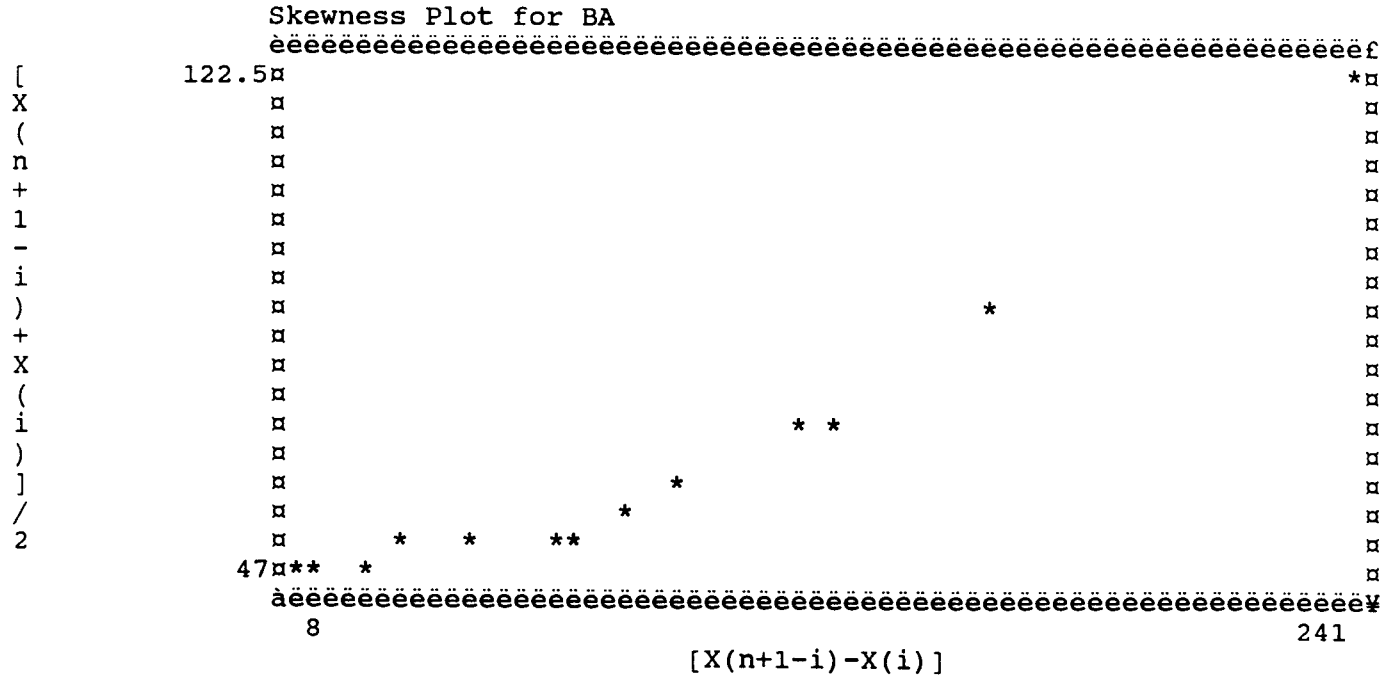
Variable: BA

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	2	18.06667	8	22.9	8	22.9	:****
2	18.06667	34.13334	4	11.4	12	34.3	:**
3	34.13334	50.20001	5	14.3	17	48.6	:***
4	50.20001	66.26667	5	14.3	22	62.9	:***
5	66.26667	82.33334	4	11.4	26	74.3	:**
6	82.33334	98.40001	3	8.6	29	82.9	:**
7	98.40001	114.4667	1	2.9	30	85.7	:*
8	114.4667	130.5333	2	5.7	32	91.4	:*
9	130.5333	146.6	1	2.9	33	94.3	:*
10	146.6	162.6667	0	0.0	33	94.3	:
11	162.6667	178.7333	1	2.9	34	97.1	:*
12	178.7333	194.8	0	0.0	34	97.1	:
13	194.8	210.8667	0	0.0	34	97.1	:
14	210.8667	226.9334	0	0.0	34	97.1	:
15	226.9334	243	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:41
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:42
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: B

Mean - Average	7.114286	No. observations	35
Lower 95% c.i.limit	6.347208	No. missing values	0
Upper 95% c.i.limit	7.881363	Sum of frequencies	35
Adj sum of squares	169.5429	Sum of observations	249
Standard deviation	2.233059	Std.error of mean	.377456
Variance	4.986555	T-value for mean=0	18.84799
Coef. of variation	.3138839	T prob level	0.0000
Skewness	-.8577345	Kurtosis	.4879193
Normality Test Value	1.325	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	11	90-%tile	9
75-%tile	9	10-%tile	4
50-%tile (Median)	8	Range	9
25-%tile	6	75th-25th %tile	3
0-%tile (Minimum)	2		

2----------Line Plot / Box Plot----------11
3 1 3 4 6 8 7 2 1
----------[XXXXXXXXaXXXXXXXmXXXXXXXXX]

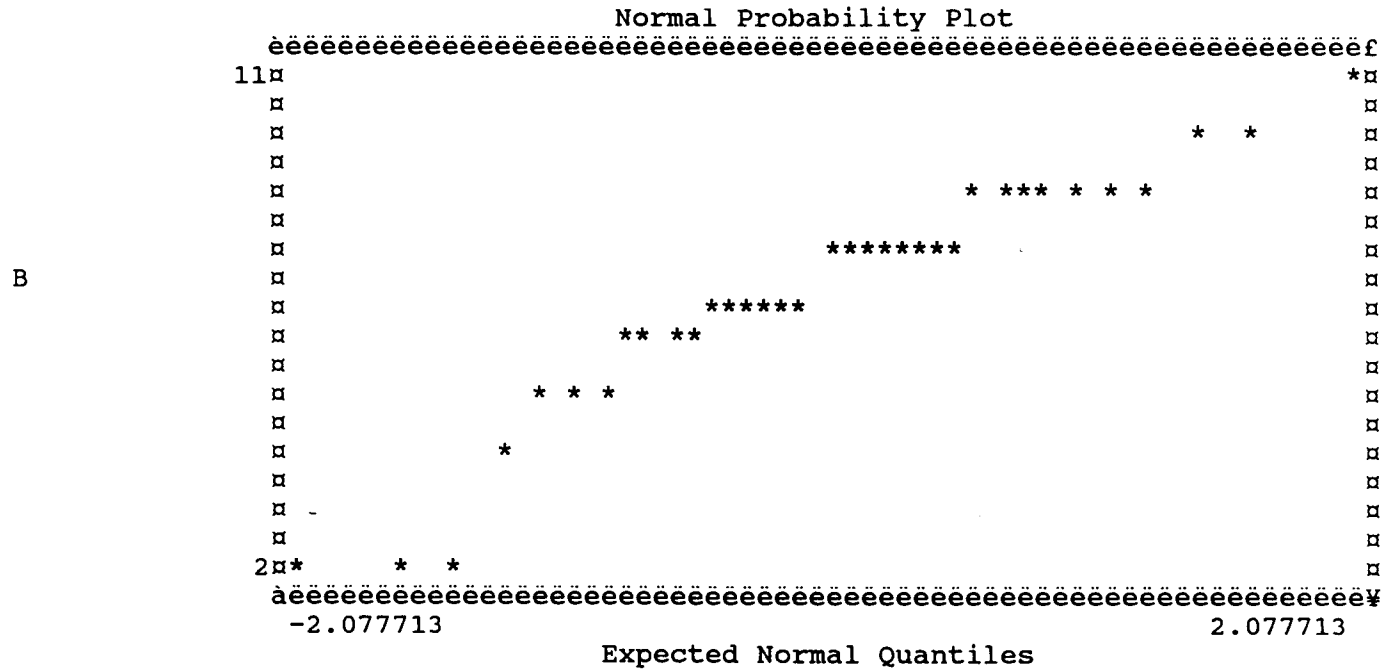
Distribution & Histogram

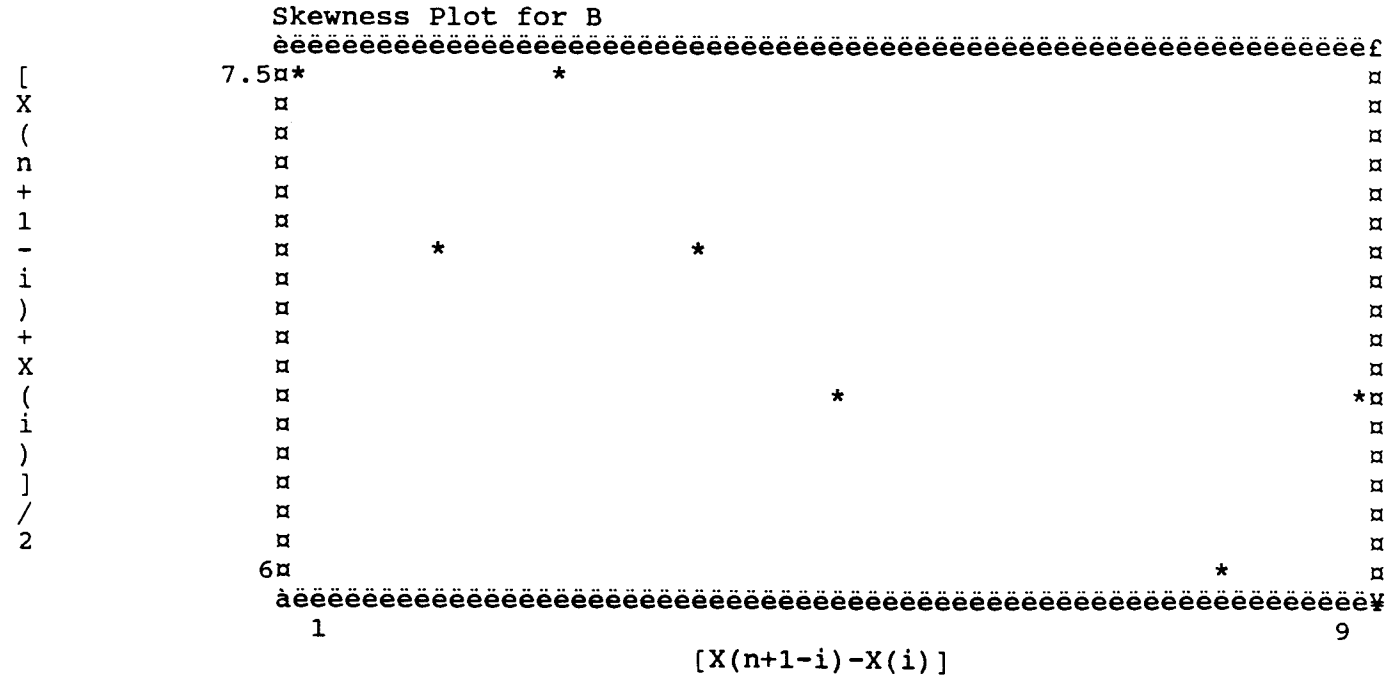
Variable: B

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	2	2.6	3	8.6	3	8.6	:**
2	2.6	3.2	0	0.0	3	8.6	:
3	3.2	3.8	0	0.0	3	8.6	:
4	3.8	4.4	1	2.9	4	11.4	:*
5	4.4	5	0	0.0	4	11.4	:
6	5	5.6	3	8.6	7	20.0	:**
7	5.6	6.2	4	11.4	11	31.4	:**
8	6.2	6.8	0	0.0	11	31.4	:
9	6.8	7.4	6	17.1	17	48.6	:***
10	7.4	8	0	0.0	17	48.6	:
11	8	8.6	8	22.9	25	71.4	:****
12	8.6	9.200001	7	20.0	32	91.4	:****
13	9.200001	9.8	0	0.0	32	91.4	:
14	9.8	10.4	2	5.7	34	97.1	:*
15	10.4	11	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:43
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:45
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: NA

Mean - Average	2.685714E-02	No. observations	35
Lower 95% c.i.limit	1.808858E-02	No. missing values	0
Upper 95% c.i.limit	3.562571E-02	Sum of frequencies	35
Adj sum of squares	2.215429E-02	Sum of observations	.94
Standard deviation	2.552639E-02	Std.error of mean	4.314748E-03
Variance	6.515966E-04	T-value for mean=0	6.224499
Coef. of variation	.9504507	T prob level	0.0000
Skewness	2.128586	Kurtosis	4.895614

100-%tile (Maximum)	.11	90-%tile	.05
75-%tile	.04	10-%tile	.01
50-%tile (Median)	.01	Range	.1
25-%tile	.01	75th-25th %tile	.03
0-%tile (Minimum)	.01		

```
.01----------Line Plot / Box Plot----------.11
I       3       4       5       2       1                                2
mXXXXXXXXXXXXXaXXXXXXXXX]--------
```

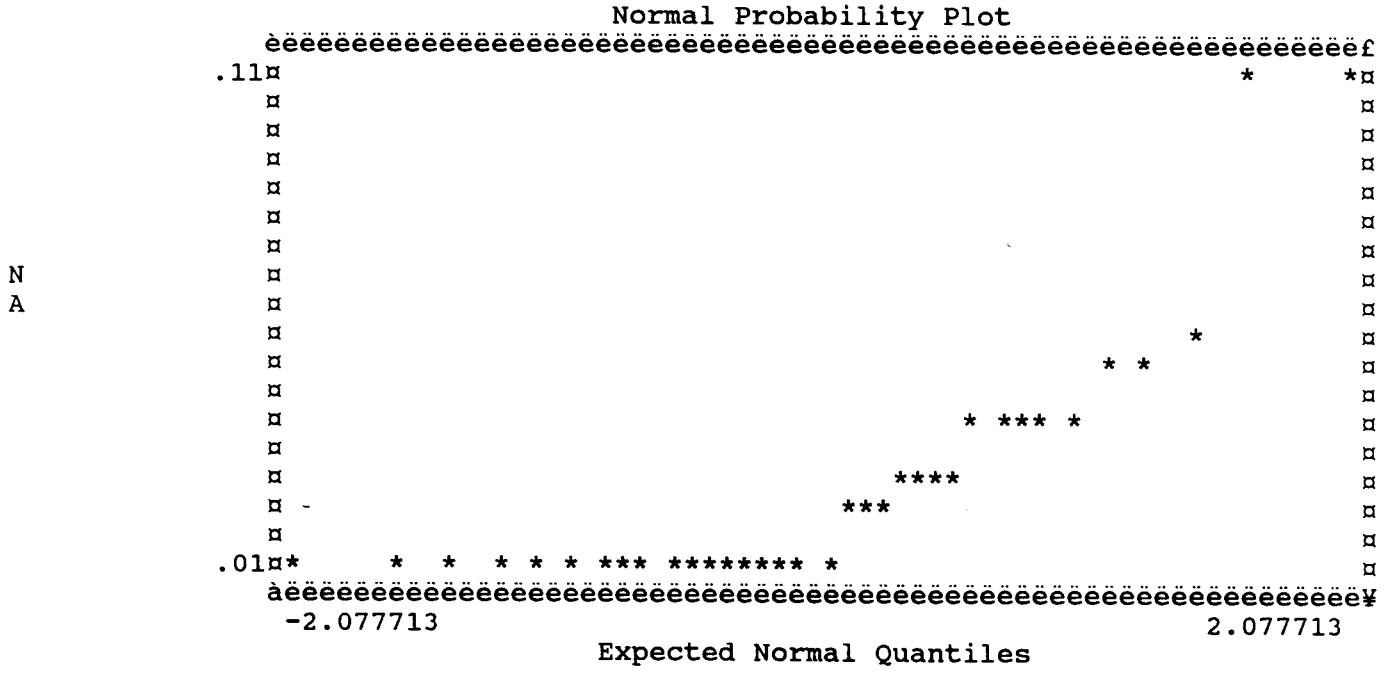
Distribution & Histogram

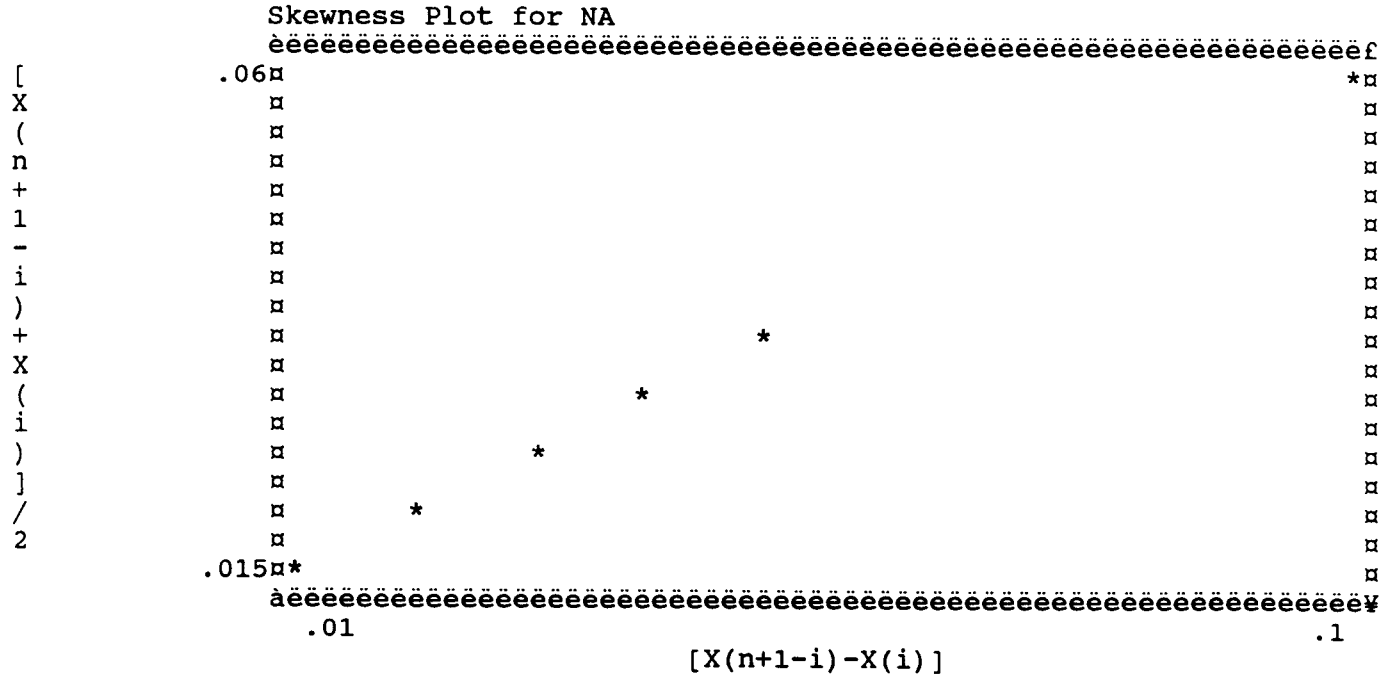
Variable: NA

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	.01	1.666E-02	18	51.4	18	51.4	:*********
2	1.666E-02	2.333E-02	3	8.6	21	60.0	:**
3	2.333E-02	.03	4	11.4	25	71.4	:**
4	.03	3.666E-02	0	0.0	25	71.4	:
5	3.666E-02	4.333E-02	5	14.3	30	85.7	:***
6	4.333E-02	.05	2	5.7	32	91.4	:*
7	.05	5.666E-02	0	0.0	32	91.4	:
8	5.666E-02	6.333E-02	1	2.9	33	94.3	:*
9	6.333E-02	.07	0	0.0	33	94.3	:
10	.07	7.666E-02	0	0.0	33	94.3	:
11	7.666E-02	8.333E-02	0	0.0	33	94.3	:
12	8.333E-02	.09	0	0.0	33	94.3	:
13	.09	9.666E-02	0	0.0	33	94.3	:
14	9.666E-02	.1033333	0	0.0	33	94.3	:
15	.1033333	.11	2	5.7	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:45
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:47
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: K

Mean - Average	6.342857E-02	No. observations	35
Lower 95% c.i.limit	.0501521	No. missing values	0
Upper 95% c.i.limit	7.670505E-02	Sum of frequencies	35
Adj sum of squares	5.078857E-02	Sum of observations	2.22
Standard deviation	3.864947E-02	Std.error of mean	6.532953E-03
Variance	1.493781E-03	T-value for mean=0	9.709021
Coef. of variation	.6093385	T prob level	0.0000
Skewness	.2907919	Kurtosis	-1.007535
Normality Test Value	0.947	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	.15	90-%tile	.11
75-%tile	.1	10-%tile	.01
50-%tile (Median)	.06	Range	.14
25-%tile	.03	75th-25th %tile	.07
0-%tile (Minimum)	.01		

```
.01----------Line Plot / Box Plot----------.15
4     2    4     6    1     1    3     1     4    3     3    2                1
-----------[XXXXXXXXXXXXXXXXmXaXXXXXXXXXXXXXXXXXXX]------
```

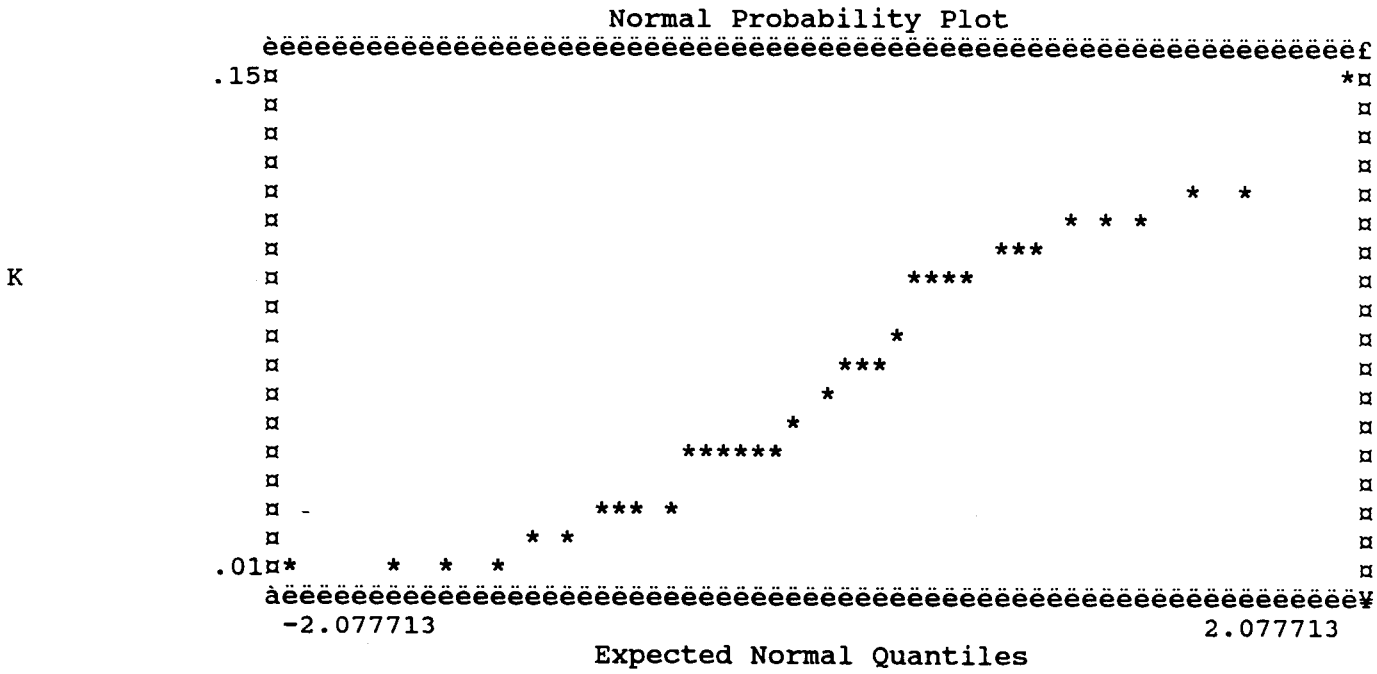
Distribution & Histogram

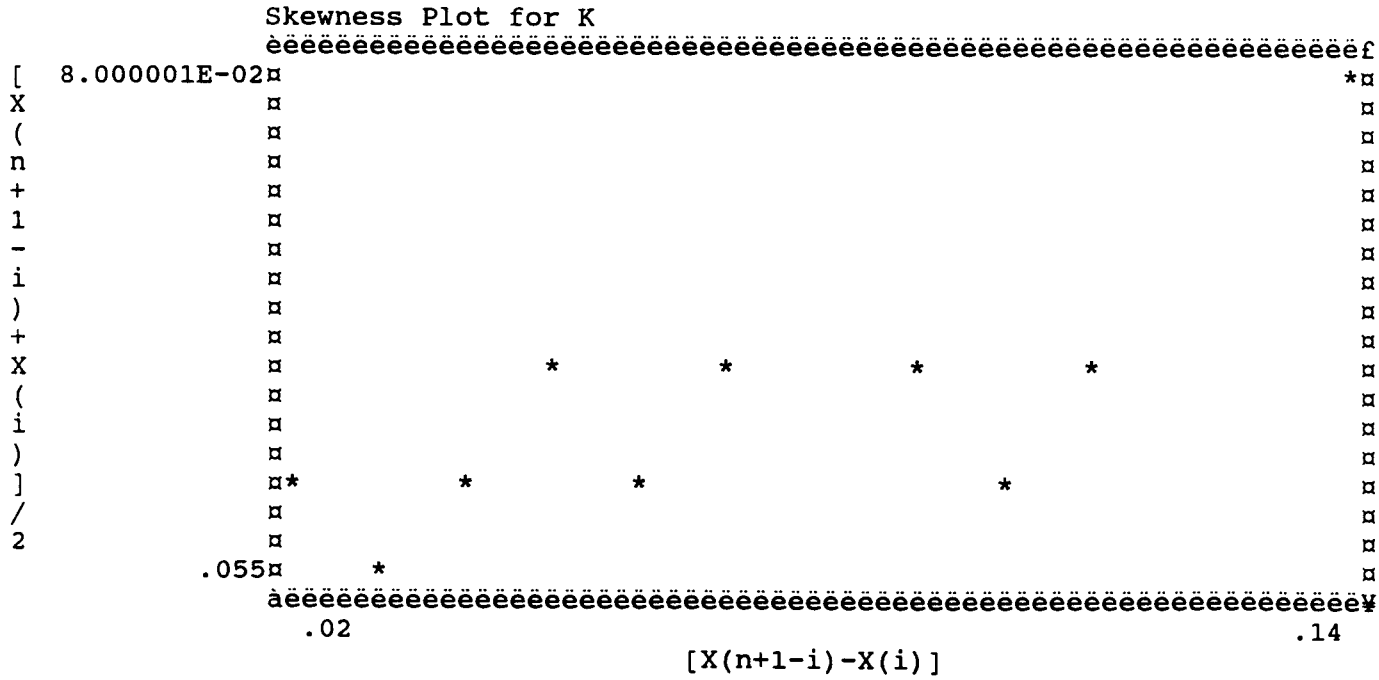
Variable: K

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	.01	1.933E-02	4	11.4	4	11.4	:**
2	1.933E-02	2.866E-02	2	5.7	6	17.1	:*
3	2.866E-02	.038	4	11.4	10	28.6	:**
4	.038	4.733E-02	6	17.1	16	45.7	:***
5	4.733E-02	5.666E-02	1	2.9	17	48.6	:*
6	5.666E-02	.066	1	2.9	18	51.4	:*
7	.066	7.533E-02	3	8.6	21	60.0	:**
8	7.533E-02	8.466E-02	1	2.9	22	62.9	:*
9	8.466E-02	.094	4	11.4	26	74.3	:**
10	.094	.1033333	3	8.6	29	82.9	:**
11	.1033333	.1126667	3	8.6	32	91.4	:**
12	.1126667	.122	2	5.7	34	97.1	:*
13	.122	.1313333	0	0.0	34	97.1	:
14	.1313333	.1406667	0	0.0	34	97.1	:
15	.1406667	.15	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:48
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:49
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: W

Mean - Average	1.028571	No. observations	35
Lower 95% c.i.limit	.9705077	No. missing values	0
Upper 95% c.i.limit	1.086635	Sum of frequencies	35
Adj sum of squares	.9714286	Sum of observations	36
Standard deviation	.1690308	Std.error of mean	2.857143E-02
Variance	2.857143E-02	T-value for mean=0	36
Coef. of variation	.1643355	T prob level	0.0000
Skewness	5.91608	Kurtosis	35

100-%tile (Maximum)	2	90-%tile	1
75-%tile	1	10-%tile	1
50-%tile (Median)	1	Range	1
25-%tile	1	75th-25th %tile	0
0-%tile (Minimum)	1		

1----------Line Plot / Box Plot----------2
Y 1
m a

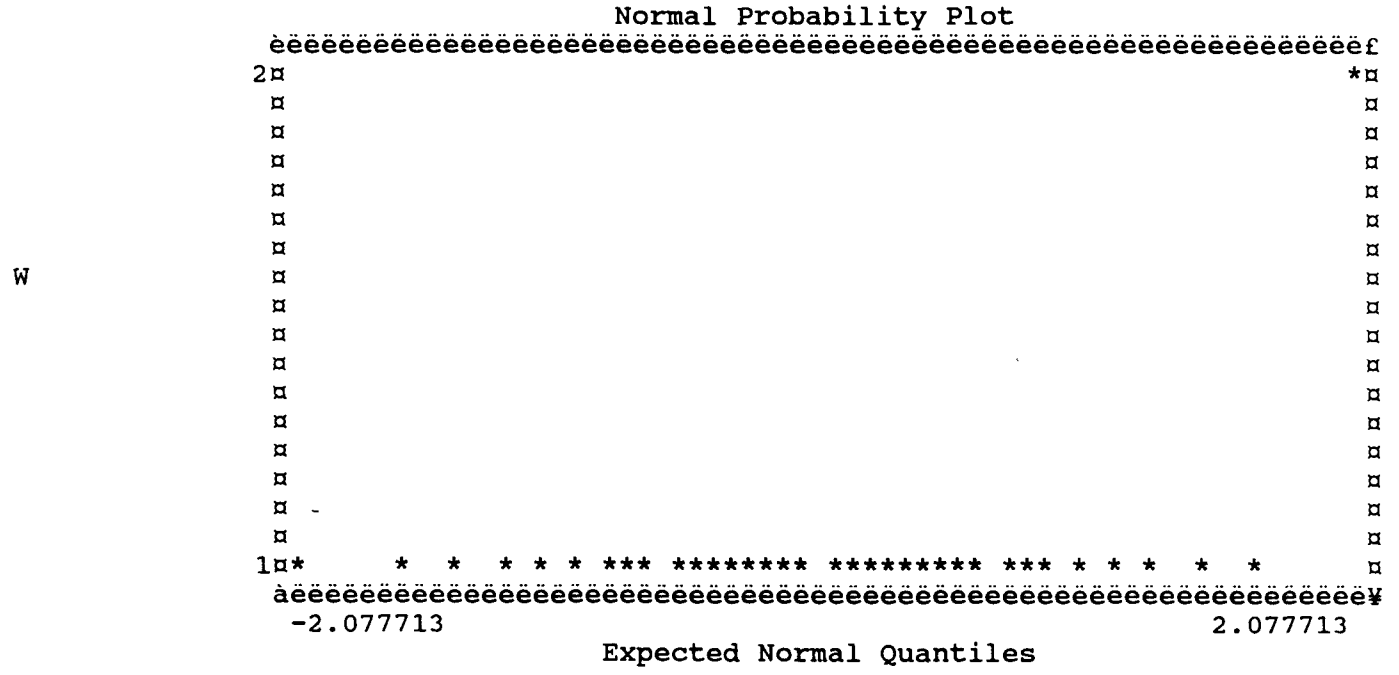
Distribution & Histogram

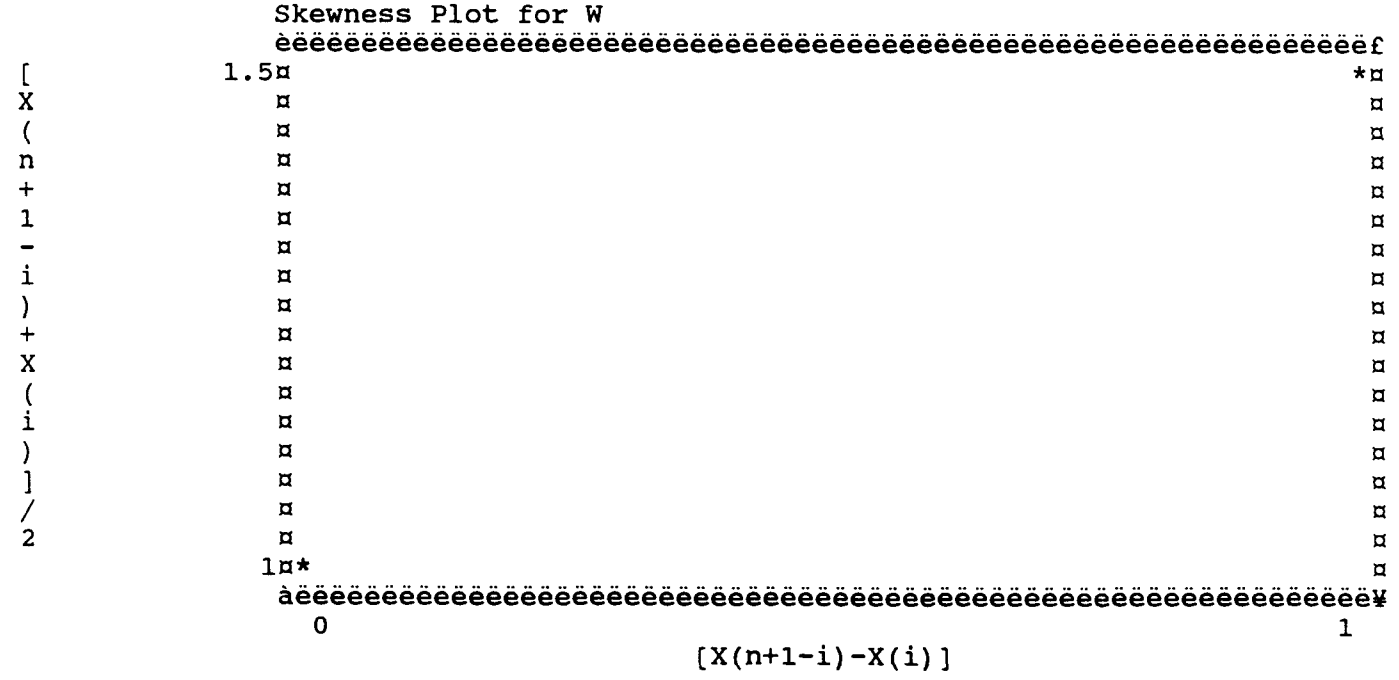
Variable: W

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	1	1.066667	34	97.1	34	97.1	:******************
2	1.066667	1.133333	0	0.0	34	97.1	:
3	1.133333	1.2	0	0.0	34	97.1	:
4	1.2	1.266667	0	0.0	34	97.1	:
5	1.266667	1.333333	0	0.0	34	97.1	:
6	1.333333	1.4	0	0.0	34	97.1	:
7	1.4	1.466667	0	0.0	34	97.1	:
8	1.466667	1.533333	0	0.0	34	97.1	:
9	1.533333	1.6	0	0.0	34	97.1	:
10	1.6	1.666667	0	0.0	34	97.1	:
11	1.666667	1.733333	0	0.0	34	97.1	:
12	1.733333	1.8	0	0.0	34	97.1	:
13	1.8	1.866667	0	0.0	34	97.1	:
14	1.866667	1.933333	0	0.0	34	97.1	:
15	1.933333	2	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:50
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:52
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn

Detail Report

Variable: AUPPB

Mean - Average	33.54286	No. observations	35
Lower 95% c.i.limit	.6896674	No. missing values	0
Upper 95% c.i.limit	66.39605	Sum of frequencies	35
Adj sum of squares	310996.7	Sum of observations	1174
Standard deviation	95.63975	Std.error of mean	16.16607
Variance	9146.961	T-value for mean=0	2.074893
Coef. of variation	2.85127	T prob level	0.0456
Skewness	4.954767	Kurtosis	26.65292
Normality Test Value	0.831	Reject if > 1.129(10%)	1.197(5%)
100-%tile (Maximum)	550	90-%tile	67
75-%tile	32	10-%tile	1
50-%tile (Median)	3	Range	549
25-%tile	1	75th-25th %tile	31
0-%tile (Minimum)	1		

1----------Line Plot / Box Plot----------550
L311112 2 1 1 1
mXXX]a----

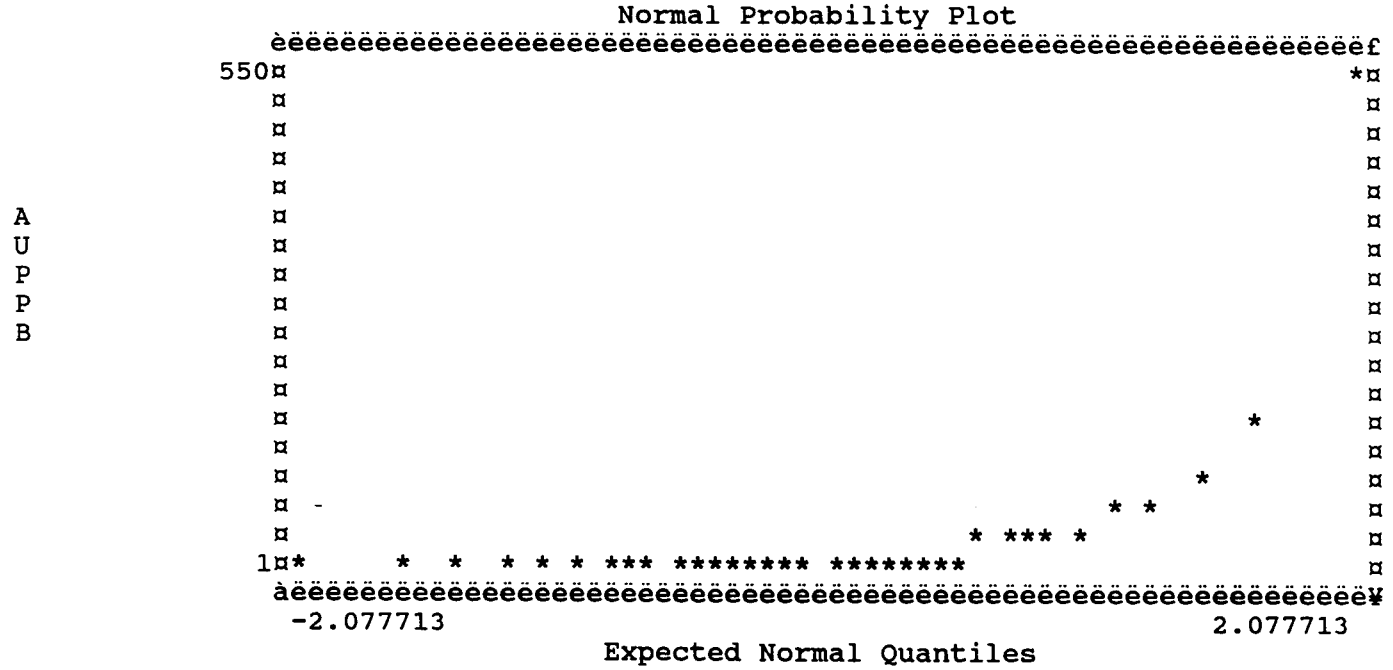
Distribution & Histogram

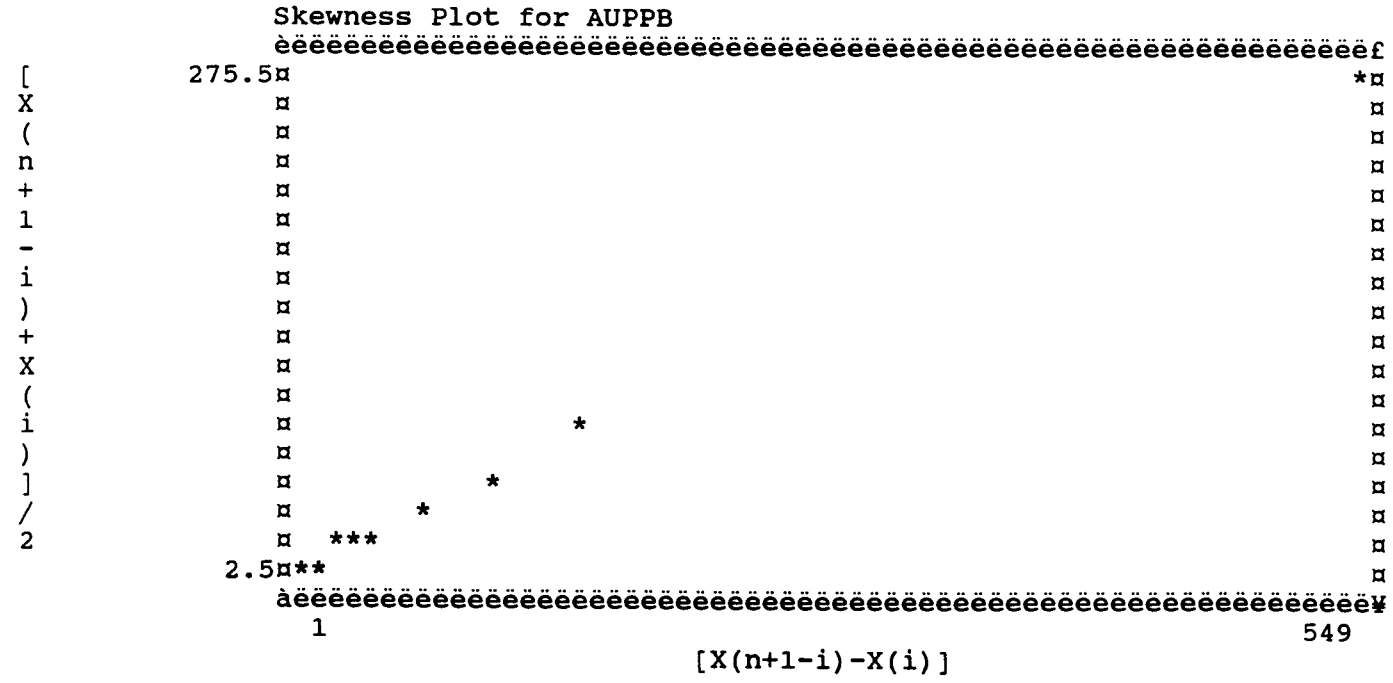
Variable: AUPPB

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	1	37.6	28	80.0	28	80.0	:**********
2	37.6	74.2	4	11.4	32	91.4	:**
3	74.2	110.8	1	2.9	33	94.3	:*
4	110.8	147.4	0	0.0	33	94.3	:
5	147.4	184	1	2.9	34	97.1	:*
6	184	220.6	0	0.0	34	97.1	:
7	220.6	257.2	0	0.0	34	97.1	:
8	257.2	293.8	0	0.0	34	97.1	:
9	293.8	330.4	0	0.0	34	97.1	:
10	330.4	367	0	0.0	34	97.1	:
11	367	403.6	0	0.0	34	97.1	:
12	403.6	440.2	0	0.0	34	97.1	:
13	440.2	476.8	0	0.0	34	97.1	:
14	476.8	513.4	0	0.0	34	97.1	:
15	513.4	550	1	2.9	35	100.0	:*

----------Descriptive Statistics----------

Date/Time 06-09-1991 15:04:52
Data Base Name C:\stats\ncss\data\kellync
Description Imported from A:kellync.prn





APPENDIX IV

REGRESSION/CORRELATION REPORT

----------Multiple Regression----------

)ate/Time 06-10-1991 06:16:06
)ata Base Name C:\stats\ncss\data\kellyncc
)escription Imported from A:kellync.prn

Descriptive Statistics

)olumn	Mean	Standard Deviation
4O	1.8	2.348967
:U	7908.2	7436.112
?B	1019.571	3357.729
\G	7.428571	9.474193
;N	146.1429	108.9047
?E	4.936857	4.278617
\S	6.628572	8.022343
3A	60.45714	51.91018
(	6.342857E-02	3.864947E-02
\UPPB	33.54286	95.63975
:U	7908.2	7436.112

Correlations

	MO	CU	PB	AG	ZN	FE
4O	1.0000	0.2290	0.9708	-0.2099	0.0552	0.7227
CU	0.2290	1.0000	0.2867	0.6258	0.2219	0.4905
PB	0.9708	0.2867	1.0000	-0.1907	0.0640	0.7776
AG	-0.2099	0.6258	-0.1907	1.0000	0.4336	-0.0197
ZN	0.0552	0.2219	0.0640	0.4336	1.0000	0.3080
FE	0.7227	0.4905	0.7776	-0.0197	0.3080	1.0000
AS	0.7685	0.0483	0.7136	-0.1993	0.2418	0.6368
BA	-0.3106	0.0334	-0.3107	0.1451	0.3091	-0.0495
C	-0.0732	0.0027	-0.1087	0.1021	-0.0645	-0.1416
AUPPB	-0.0873	-0.0758	-0.0676	-0.0661	-0.1040	-0.0495
CU	0.2290	1.0000	0.2867	0.6258	0.2219	0.4905

Correlations

	AS	BA	K	AUPPB	CU
4O	0.7685	-0.3106	-0.0732	-0.0873	0.2290
CU	0.0483	0.0334	0.0027	-0.0758	1.0000
PB	0.7136	-0.3107	-0.1087	-0.0676	0.2867
AG	-0.1993	0.1451	0.1021	-0.0661	0.6258
ZN	0.2418	0.3091	-0.0645	-0.1040	0.2219
FE	0.6368	-0.0495	-0.1416	-0.0495	0.4905
AS	1.0000	-0.0950	-0.1030	-0.0628	0.0483
BA	-0.0950	1.0000	0.2833	-0.1382	0.0334
K	-0.1030	0.2833	1.0000	-0.2820	0.0027
AUPPB	-0.0628	-0.1382	-0.2820	1.0000	-0.0758
CU	0.0483	0.0334	0.0027	-0.0758	1.0000

----------Multiple Regression----------

)ate/Time 06-10-1991 06:16:07
)ata Base Name C:\stats\ncss\data\kellyncc
)escription Imported from A:kellync.prn

Multiple Regression Report

)ependent Variable: CU

Independent /ariable	Parameter Estimate	Stndized Estimate	Standard Error	t-value (b=0)	Prob. Level	Seq. R-Sqr	Simple R-Sqr
Intercept	0	0.0000	0	0.00	1.0000		
1O	0	0.0000	0	999.00	0.0000	0.0524	0.0524
:U	1	1.0000	0	999.00	0.0000	1.0000	1.0000
?B	0	0.0000	0	999.00	0.0000	1.0000	0.0822
\G	0	0.0000	0	999.00	0.0000	1.0000	0.3917
?N	0	0.0000	0	999.00	0.0000	1.0000	0.0492
?E	0	0.0000	0	999.00	0.0000	1.0000	0.2406
\S	0	0.0000	0	999.00	0.0000	1.0000	0.0023
3A	0	0.0000	0	999.00	0.0000	1.0000	0.0011
(	0	0.0000	0	999.00	0.0000	1.0000	0.0000
\UPPB	0	0.0000	0	999.00	0.0000	1.0000	0.0058

Analysis of Variance Report

)ependent Variable: CU

Source	df	Sums of Squares (Sequential)	Mean Square	F-Ratio	Prob. Level
Constant	1	2.188887E+09	2.188887E+09		
1odel	10	1.880056E+09	1.880056E+08	0.00	0.000
Error	24	0	0		
Total	34	1.880056E+09	5.529576E+07		

Root Mean Square Error	0
1ean of Dependent Variable	7908.2
Coefficient of Variation	0
R Squared	1.0000
\djusted R Squared	1.0000

----------Multiple Regression----------

Date/Time	06-10-1991 06:16:08
Data Base Name	C:\stats\ncss\data\kellyncc
Description	Imported from A:kellync.prn

Individual Regressor Report

Dependent Variable:	CU		
Independent Variable:	MO		
Parameter Estimate	0		
95% Conf. Int. for b	0	0	
Std. Parameter Estimate	0		
Standard Error	0	Variance of Parameter	0
T for Parameter = 0	999	Prob. Level	0.0000
Simple Correlation	0.2290	Simple R Squared	0.0524
Partial Correlation	0.0000	Partial R Squared	0.0000
		Sequential R Squared	0.0524
		Overall R Squared	1.0000
Sequential Sum Squares	9.856868E+07	Model Sum of Squares	1.880056E+09
Last Sum Squares	0	Total Sum of Squares	1.880056E+09
Mean	1.8	R Squared with other Xs	0.9611
Standard Deviation	2.348967	Variance Inflation	25.70941
Diagonal of Inverse	.1370437	Tolerance	0.0389

Individual Regressor Report

Dependent Variable:	CU		
Independent Variable:	CU		
Parameter Estimate	1		
95% Conf. Int. for b	0	0	
Std. Parameter Estimate	1		
Standard Error	0	Variance of Parameter	0
T for Parameter = 0	999	Prob. Level	0.0000
Simple Correlation	1.0000	Simple R Squared	1.0000
Partial Correlation	1.0000	Partial R Squared	1.0000
		Sequential R Squared	1.0000
		Overall R Squared	1.0000
Sequential Sum Squares	1.781487E+09	Model Sum of Squares	1.880056E+09
Last Sum Squares	4.967805E+08	Total Sum of Squares	1.880056E+09
Mean	7908.2	R Squared with other Xs	0.7358
Standard Deviation	7436.112	Variance Inflation	3.78448
Diagonal of Inverse	2.012962E-09	Tolerance	0.2642

----------Multiple Regression----------

Date/Time	06-10-1991 06:16:08
Data Base Name	C:\stats\ncss\data\kellyncc
Description	Imported from A:kellync.prn

Individual Regressor Report

Dependent Variable:	CU		
Independent Variable:	PB		
Parameter Estimate	0		
95% Conf. Int. for b	0	0	
Std. Parameter Estimate	0		
Standard Error	0	Variance of Parameter	0
T for Parameter = 0	999	Prob. Level	0.0000
Simple Correlation	0.2867	Simple R Squared	0.0822
Partial Correlation	0.0000	Partial R Squared	0.0000
		Sequential R Squared	1.0000
		Overall R Squared	1.0000
Sequential Sum Squares	0	Model Sum of Squares	1.880056E+09
Last Sum Squares	0	Total Sum of Squares	1.880056E+09
Mean	1019.571	R Squared with other Xs	0.9610
Standard Deviation	3357.729	Variance Inflation	25.67394
Diagonal of Inverse	6.697647E-08	Tolerance	0.0390

Individual Regressor Report

Dependent Variable:	CU		
Independent Variable:	AG		
Parameter Estimate	0		
95% Conf. Int. for b	0	0	
Std. Parameter Estimate	0		
Standard Error	0	Variance of Parameter	0
T for Parameter = 0	999	Prob. Level	0.0000
Simple Correlation	0.6258	Simple R Squared	0.3917
Partial Correlation	0.0000	Partial R Squared	0.0000
		Sequential R Squared	1.0000
		Overall R Squared	1.0000
Sequential Sum Squares	0	Model Sum of Squares	1.880056E+09
Last Sum Squares	0	Total Sum of Squares	1.880056E+09
Mean	7.428571	R Squared with other Xs	0.7071
Standard Deviation	9.474194	Variance Inflation	3.413618
Diagonal of Inverse	1.11854E-03	Tolerance	0.2929

----------Multiple Regression----------

Date/Time	06-10-1991 06:16:09
Data Base Name	C:\stats\ncss\data\kellyncc
Description	Imported from A:kellync.prn

Individual Regressor Report

Dependent Variable:	CU		
Independent Variable:	ZN		
Parameter Estimate	0		
95% Conf. Int. for b	0	0	
Std. Parameter Estimate	0		
Standard Error	0	Variance of Parameter	0
T for Parameter = 0	999	Prob. Level	0.0000
Simple Correlation	0.2219	Simple R Squared	0.0492
Partial Correlation	0.0000	Partial R Squared	0.0000
		Sequential R Squared	1.0000
		Overall R Squared	1.0000
Sequential Sum Squares	0	Model Sum of Squares	1.880056E+09
Last Sum Squares	0	Total Sum of Squares	1.880056E+09
Mean	146.1429	R Squared with other Xs	0.5053
Standard Deviation	108.9047	Variance Inflation	2.021449
Diagonal of Inverse	5.012915E-06	Tolerance	0.4947

Individual Regressor Report

Dependent Variable:	CU		
Independent Variable:	FE		
Parameter Estimate	0		
95% Conf. Int. for b	0	0	
Std. Parameter Estimate	0		
Standard Error	0	Variance of Parameter	0
T for Parameter = 0	999	Prob. Level	0.0000
Simple Correlation	0.4905	Simple R Squared	0.2406
Partial Correlation	0.0000	Partial R Squared	0.0000
		Sequential R Squared	1.0000
		Overall R Squared	1.0000
Sequential Sum Squares	0	Model Sum of Squares	1.880056E+09
Last Sum Squares	0	Total Sum of Squares	1.880056E+09
Mean	4.936857	R Squared with other Xs	0.8036
Standard Deviation	4.278618	Variance Inflation	5.09126
Diagonal of Inverse	8.179737E-03	Tolerance	0.1964

----------Multiple Regression----------

)ate/Time 06-10-1991 06:16:10
)ata Base Name C:\stats\ncss\data\kellyncc
)escription Imported from A:kellync.prn

Individual Regressor Report

)ependent Variable:	CU		
[ndependent Variable:	AS		
?arameter Estimate	0		
)5% Conf. Int. for b	0	0	
3td. Parameter Estimate	0		
3tandard Error	0	Variance of Parameter	0
[for Parameter = 0	999	Prob. Level	0.0000
3imple Correlation	0.0483	Simple R Squared	0.0023
?artial Correlation	0.0000	Partial R Squared	0.0000
		Sequential R Squared	1.0000
		Overall R Squared	1.0000
3equential Sum Squares	0	Model Sum of Squares	1.880056E+09
3ast Sum Squares	0	Total Sum of Squares	1.880056E+09
1ean	6.628572	R Squared with other Xs	0.7176
3tandard Deviation	8.022343	Variance Inflation	3.540793
)iagonal of Inverse	1.618152E-03	Tolerance	0.2824

Individual Regressor Report

)ependent Variable:	CU		
[ndependent Variable:	BA		
?arameter Estimate	0		
)5% Conf. Int. for b	0	0	
3td. Parameter Estimate	0		
3tandard Error	0	Variance of Parameter	0
[for Parameter = 0	999	Prob. Level	0.0000
3imple Correlation	0.0334	Simple R Squared	0.0011
?artial Correlation	0.0000	Partial R Squared	0.0000
		Sequential R Squared	1.0000
		Overall R Squared	1.0000
3equential Sum Squares	0	Model Sum of Squares	1.880056E+09
3ast Sum Squares	0	Total Sum of Squares	1.880056E+09
1ean	60.45714	R Squared with other Xs	0.3537
3tandard Deviation	51.91018	Variance Inflation	1.547236
)iagonal of Inverse	1.688778E-05	Tolerance	0.6463

----------Multiple Regression----------

)ate/Time	06-10-1991 06:16:10
)ata Base Name	C:\stats\ncss\data\kellyncc
)escription	Imported from A:kellync.prn

Individual Regressor Report

)ependent Variable:	CU
Independent Variable:	K

?arameter Estimate	0		
)5% Conf. Int. for b	0	0	
Std. Parameter Estimate	0		
Standard Error	0	Variance of Parameter	0
T for Parameter = 0	999	Prob. Level	0.0000
Simple Correlation	0.0027	Simple R Squared	0.0000
?artial Correlation	0.0000	Partial R Squared	0.0000
		Sequential R Squared	1.0000
		Overall R Squared	1.0000
Sequential Sum Squares	0	Model Sum of Squares	1.880056E+09
Last Sum Squares	0	Total Sum of Squares	1.880056E+09
Mean	6.342857E-02	R Squared with other Xs	0.2263
Standard Deviation	3.864947E-02	Variance Inflation	1.292466
)iagonal of Inverse	25.44798	Tolerance	0.7737

Individual Regressor Report

)ependent Variable:	CU
Independent Variable:	AUPPB

?arameter Estimate	0		
)5% Conf. Int. for b	0	0	
Std. Parameter Estimate	0		
Standard Error	0	Variance of Parameter	0
T for Parameter = 0	999	Prob. Level	0.0000
Simple Correlation	-.0758	Simple R Squared	0.0058
?artial Correlation	0.0000	Partial R Squared	0.0000
		Sequential R Squared	1.0000
		Overall R Squared	1.0000
Sequential Sum Squares	0	Model Sum of Squares	1.880056E+09
Last Sum Squares	0	Total Sum of Squares	1.880056E+09
Mean	33.54286	R Squared with other Xs	0.1142
Standard Deviation	95.63975	Variance Inflation	1.128986
)iagonal of Inverse	3.63022E-06	Tolerance	0.8858

KELLY 3 2140

KELLY 5 2142

KELLY 6 2143

GOBLIN 8 2356

GOBLIN 7 2355

KD-90-1R, -2R, -3R
= 600 metres

KP-90-7P

EAST SIDE SHOWING

KD-90-27R, -28R

KP-90-5R

KD-90-14R

KD-90-15R, -16R

GOBLIN FR 2559

LOWER SHOWING

KD-90-6R, -7R, -8R

KD-90-9R to -12R

KD-90-13R

KP-90-2R, 3R, -4R

UPPER SHOWING

KD-90-26R (float)

KELLY 4 2141

TIM 2146

TARA 1254

RICK 1255

KELLY 4019

LEGEND

Bedding	Cliff	GEOLOGY:	
Fault, Observed	Creek	Andesite	Dacite
Fault, Implied	Contour (25 m)	Porphyritic Andesite	Rhyodacite
Calcite Vein	Air Photo Lineament	Intrusive	Fragmental Tuff
Quartz Vein	Road	Altered Intrusive	Agglomerate
Outcrop	Drill Site	Feldspar Porphyry	Andesitic Tuff
Float	Grid Line (1981)	Crystal Tuff	Basic Dyke
Slide	Sample Location (1990)	Rhyolite	
Underground Workings, Adit			

NOTE: Base map is by Quin (1982), "Final Report - Kelly Creek Copper Group, Kelly Creek Joint Venture, January 1982"

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,743

IMPERIAL METALS CORPORATION

KELLY CREEK

FIGURE 5 N.T.S. 103I/8E

ROCK GEOCHEMISTRY & SURFACE GEOLOGY

Metres 50 0 50 100 150 200 Metres

SCALE: 1:2500	GEOLOGIST: P. DELANCEY, D. GORC
DATE: DECEMBER 1990	DRAWN BY: S. HAWORTH