

SPSS FOR INFONET CSTS, RELEASE 7.2.1, JUNE 21, 1979

|                            |              |                                  |
|----------------------------|--------------|----------------------------------|
| DEFAULT SPACE ALLOCATION.. | ALLOWS FOR.. | 23 TRANSFORMATIONS               |
| WORKSPACE 3584 WORDS       |              | 46 RECODE VALUES + LAG VARIABLES |
| TRANSPACE 512 WORDS        |              | 46 IF/COMPUTE OPERATIONS         |

|          |                                 |
|----------|---------------------------------|
| RUN NAME | CYPRUS ANVIL MINING CORPORATION |
| GET FILE | GCHSS1                          |

FILE GCHSS1 HAS 35 VARIABLES

THE SUBFILES ARE..

| NAME   | NO OF CASES |
|--------|-------------|
| GCHSS1 | 374         |

|                |   |
|----------------|---|
| COMPUTE        | NCODE=9   |
| IF             | (ROCKCODE EQ 18 AND (SEQ NE 2057 AND 2061)) NCODE=1 |
| IF             | (ROCKCODE EQ 19) NCODE=2                            |
| *SELECT IF     | (NCODE EQ 1)  |
| TASK NAME      | ROCK CODE 18 - EXCLUDING SEQ NO'S 2057 & 2061       |
| CONDESCRIPTIVE | SIO2 TO LOI   |

\*\*\*\*\* GIVEN WORKSPACE ALLOWS FOR 275 VARIABLES FOR CONDESCRIPTIVE PROBLEM \*\*\*\*\*

STATISTICS ALL

VARIABLE SI02

|          |         |           |        |          |        |
|----------|---------|-----------|--------|----------|--------|
| MEAN     | 50.297  | STD ERROR | .893   | STD DEV  | 2.961  |
| VARIANCE | 8.768   | KURTOSIS  | -.936  | SKEWNESS | -.151  |
| RANGE    | 8.730   | MINIMUM   | 45.780 | MAXIMUM  | 54.510 |
| SUM      | 553.270 |           |        |          |        |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE TI02

|          |       |           |       |          |       |
|----------|-------|-----------|-------|----------|-------|
| MEAN     | .683  | STD ERROR | .186  | STD DEV  | .617  |
| VARIANCE | .380  | KURTOSIS  | 6.133 | SKEWNESS | 2.273 |
| RANGE    | 2.260 | MINIMUM   | .100  | MAXIMUM  | 2.360 |
| SUM      | 7.510 |           |       |          |       |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE AL203

|          |         |           |        |          |        |
|----------|---------|-----------|--------|----------|--------|
| MEAN     | 17.688  | STD ERROR | .828   | STD DEV  | 2.745  |
| VARIANCE | 7.532   | KURTOSIS  | 4.260  | SKEWNESS | 1.985  |
| RANGE    | 9.770   | MINIMUM   | 14.960 | MAXIMUM  | 24.730 |
| SUM      | 194.570 |           |        |          |        |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE FE203

|          |        |           |       |          |        |
|----------|--------|-----------|-------|----------|--------|
| MEAN     | 7.998  | STD ERROR | .738  | STD DEV  | 2.449  |
| VARIANCE | 5.998  | KURTOSIS  | 3.161 | SKEWNESS | 1.785  |
| RANGE    | 8.470  | MINIMUM   | 5.580 | MAXIMUM  | 14.050 |
| SUM      | 87.980 |           |       |          |        |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE FEO

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
 VARIABLE IS EITHER MISSING FOR EVERY CASE, ALPHANUMERIC, OR HAS NUMERIC VALUES EXCEEDING 10,000,000,000,000.

VARIABLE MNO

|          |       |           |      |          |      |
|----------|-------|-----------|------|----------|------|
| MEAN     | .095  | STD ERROR | .008 | STD DEV  | .026 |
| VARIANCE | .001  | KURTOSIS  | .475 | SKEWNESS | .856 |
| RANGE    | .090  | MINIMUM   | .060 | MAXIMUM  | .150 |
| SUM      | 1.040 |           |      |          |      |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE MGO

|          |        |           |       |          |       |
|----------|--------|-----------|-------|----------|-------|
| MEAN     | 3.898  | STD ERROR | .364  | STD DEV  | 1.207 |
| VARIANCE | 1.456  | KURTOSIS  | 5.520 | SKEWNESS | 2.212 |
| RANGE    | 4.240  | MINIMUM   | 2.890 | MAXIMUM  | 7.130 |
| SUM      | 42.880 |           |       |          |       |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE CAO

|          |         |           |       |          |        |
|----------|---------|-----------|-------|----------|--------|
| MEAN     | 10.146  | STD ERROR | 1.177 | STD DEV  | 3.904  |
| VARIANCE | 15.244  | KURTOSIS  | -.163 | SKEWNESS | .067   |
| RANGE    | 13.060  | MINIMUM   | 3.390 | MAXIMUM  | 16.450 |
| SUM      | 111.610 |           |       |          |        |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE NA2O

|          |        |           |        |          |       |
|----------|--------|-----------|--------|----------|-------|
| MEAN     | 1.539  | STD ERROR | .221   | STD DEV  | .733  |
| VARIANCE | .537   | KURTOSIS  | -1.328 | SKEWNESS | -.327 |
| RANGE    | 2.090  | MINIMUM   | .300   | MAXIMUM  | 2.390 |
| SUM      | 16.930 |           |        |          |       |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE K20

|          |        |           |       |          |       |
|----------|--------|-----------|-------|----------|-------|
| MEAN     | 3.009  | STD ERROR | .290  | STD DEV  | .960  |
| VARIANCE | .923   | KURTOSIS  | .062  | SKEWNESS | -.893 |
| RANGE    | 3.110  | MINIMUM   | 1.200 | MAXIMUM  | 4.310 |
| SUM      | 33.100 |           |       |          |       |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE P205

|          |       |           |       |          |       |
|----------|-------|-----------|-------|----------|-------|
| MEAN     | .230  | STD ERROR | .047  | STD DEV  | .157  |
| VARIANCE | .025  | KURTOSIS  | 4.700 | SKEWNESS | 2.166 |
| RANGE    | .510  | MINIMUM   | .130  | MAXIMUM  | .640  |
| SUM      | 2.530 |           |       |          |       |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE S

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
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VARIABLE LOI

|          |        |           |       |          |        |
|----------|--------|-----------|-------|----------|--------|
| MEAN     | 4.420  | STD ERROR | 1.201 | STD DEV  | 3.984  |
| VARIANCE | 15.873 | KURTOSIS  | 2.110 | SKEWNESS | 1.561  |
| RANGE    | 12.610 | MINIMUM   | 1.150 | MAXIMUM  | 13.760 |
| SUM      | 48.620 |           |       |          |        |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

CYPRUS ANVIL MINING CORPORATION  
ROCK CODE 18 - EXCLUDING SEQ NO'S 2057 & 2061

01/21/80

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TRANSPACE REQUIRED.. 100 WORDS  
4 TRANSFORMATIONS  
0 RECODE VALUES + LAG VARIABLES  
23 IF/COMPUTE OPERATIONS

\*SELECT IF (NCODE EQ 2)  
TASK NAME ROCK CODE 19  
CONDESCRIPTIVE SIO2 TO LOI

\*\*\*\*\* GIVEN WORKSPACE ALLOWS FOR 275 VARIABLES FOR CONDESCRIPTIVE PROBLEM \*\*\*\*\*

STATISTICS ALL

VARIABLE SI02

|          |         |           |        |          |        |
|----------|---------|-----------|--------|----------|--------|
| MEAN     | 52.107  | STD ERROR | 1.564  | STD DEV  | 2.709  |
| VARIANCE | 7.340   | KURTOSIS  | 0.     | SKEWNESS | -1.576 |
| RANGE    | 5.030   | MINIMUM   | 49.010 | MAXIMUM  | 54.040 |
| SUM      | 156.320 |           |        |          |        |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE TI02

|          |       |           |      |          |      |
|----------|-------|-----------|------|----------|------|
| MEAN     | .467  | STD ERROR | .044 | STD DEV  | .076 |
| VARIANCE | .006  | KURTOSIS  | 0.   | SKEWNESS | .935 |
| RANGE    | .150  | MINIMUM   | .400 | MAXIMUM  | .550 |
| SUM      | 1.400 |           |      |          |      |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE AL203

|          |        |           |        |          |        |
|----------|--------|-----------|--------|----------|--------|
| MEAN     | 15.873 | STD ERROR | 1.400  | STD DEV  | 2.424  |
| VARIANCE | 5.878  | KURTOSIS  | 0.     | SKEWNESS | 1.552  |
| RANGE    | 4.520  | MINIMUM   | 14.120 | MAXIMUM  | 18.640 |
| SUM      | 47.620 |           |        |          |        |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE FE203

|          |        |           |       |          |       |
|----------|--------|-----------|-------|----------|-------|
| MEAN     | 6.543  | STD ERROR | .838  | STD DEV  | 1.451 |
| VARIANCE | 2.107  | KURTOSIS  | 0.    | SKEWNESS | -.854 |
| RANGE    | 2.860  | MINIMUM   | 4.970 | MAXIMUM  | 7.830 |
| SUM      | 19.630 |           |       |          |       |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE FEO

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
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VARIABLE MNO

|          |      |           |       |          |        |
|----------|------|-----------|-------|----------|--------|
| MEAN     | .063 | STD ERROR | .007  | STD DEV  | .012   |
| VARIANCE | .000 | KURTOSIS  | 0.050 | SKEWNESS | -1.732 |
| RANGE    | .020 | MINIMUM   |       | MAXIMUM  | .070   |
| SUM      | .190 |           |       |          |        |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE MGO

|          |        |           |       |          |       |
|----------|--------|-----------|-------|----------|-------|
| MEAN     | 3.887  | STD ERROR | .760  | STD DEV  | 1.316 |
| VARIANCE | 1.732  | KURTOSIS  | 0.680 | SKEWNESS | .657  |
| RANGE    | 2.610  | MINIMUM   |       | MAXIMUM  | 5.290 |
| SUM      | 11.660 |           |       |          |       |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE CAO

|          |        |           |       |          |        |
|----------|--------|-----------|-------|----------|--------|
| MEAN     | 13.343 | STD ERROR | 2.797 | STD DEV  | 4.845  |
| VARIANCE | 23.476 | KURTOSIS  | 0.870 | SKEWNESS | 1.613  |
| RANGE    | 9.620  | MINIMUM   |       | MAXIMUM  | 18.490 |
| SUM      | 40.030 |           |       |          |        |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE NA2O

|          |       |           |       |          |       |
|----------|-------|-----------|-------|----------|-------|
| MEAN     | 1.327 | STD ERROR | .432  | STD DEV  | .748  |
| VARIANCE | .559  | KURTOSIS  | 0.890 | SKEWNESS | 1.732 |
| RANGE    | 1.300 | MINIMUM   |       | MAXIMUM  | 2.190 |
| SUM      | 3.980 |           |       |          |       |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE K20

|          |        |           |       |          |        |
|----------|--------|-----------|-------|----------|--------|
| MEAN     | 3.870  | STD ERROR | .255  | STD DEV  | .442   |
| VARIANCE | .196   | KURTOSIS  | 0.    | SKEWNESS | -1.131 |
| RANGE    | .860   | MINIMUM   | 3.380 | MAXIMUM  | 4.240  |
| SUM      | 11.610 |           |       |          |        |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE P205

|          |      |           |      |          |        |
|----------|------|-----------|------|----------|--------|
| MEAN     | .200 | STD ERROR | .025 | STD DEV  | .044   |
| VARIANCE | .002 | KURTOSIS  | 0.   | SKEWNESS | -1.630 |
| RANGE    | .080 | MINIMUM   | .150 | MAXIMUM  | .230   |
| SUM      | .600 |           |      |          |        |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE S

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
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VARIABLE LOI

|          |       |           |       |          |       |
|----------|-------|-----------|-------|----------|-------|
| MEAN     | 2.323 | STD ERROR | 1.700 | STD DEV  | 2.944 |
| VARIANCE | 8.669 | KURTOSIS  | 0.    | SKEWNESS | 1.718 |
| RANGE    | 5.220 | MINIMUM   | .500  | MAXIMUM  | 5.720 |
| SUM      | 6.970 |           |       |          |       |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

CYPRUS ANVIL MINING CORPORATION  
ROCK CODE 19

01/21/80

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TRANSPACE REQUIRED: 25 WORDS  
1 TRANSFORMATIONS  
0 RECODE VALUES + LAG VARIABLES  
3 IF/COMPUTE OPERATIONS

TASK NAME ROCK CODE 18 VS 19  
T-TEST GROUPS= NCODE(1,2)/ VARIABLES= SIO2 TO S

\*\*\*\*\* T-TEST PROBLEM REQUIRES 86 WORDS OF WORKSPACE \*\*\*\*\*

T - T E S T

| GROUP 1 = NCODE |                 | EQ   | 1.                 |                |             |                  |             |                        | * POOLED VARIANCE ESTIMATE * |             |                        | * SEPARATE VARIANCE ESTIMATE * |  |  |
|-----------------|-----------------|------|--------------------|----------------|-------------|------------------|-------------|------------------------|------------------------------|-------------|------------------------|--------------------------------|--|--|
| GROUP 2 = NCODE |                 | EQ   | 2.                 |                |             |                  |             |                        | * T DEGREES OF 2-TAIL *      |             |                        | * T DEGREES OF 2-TAIL *        |  |  |
| VARIABLE        | NUMBER OF CASES | MEAN | STANDARD DEVIATION | STANDARD ERROR | * F VALUE * | * 2-TAIL PROB. * | * T VALUE * | * DEGREES OF FREEDOM * | * 2-TAIL PROB. *             | * T VALUE * | * DEGREES OF FREEDOM * | * 2-TAIL PROB. *               |  |  |
| SI02            | GROUP 1         | 11   | 50.2973            | 2.961          | .893        |                  |             |                        |                              |             |                        |                                |  |  |
|                 | GROUP 2         | 3    | 52.1067            | 2.709          | 1.564       | 1.19             | 1.000       | -.95                   | 12                           | .360        | -1.00                  | 3.44 .389                      |  |  |
| TI02            | GROUP 1         | 11   | .6827              | .617           | .186        |                  |             |                        |                              |             |                        |                                |  |  |
|                 | GROUP 2         | 3    | .4667              | .076           | .044        | 65.23            | .054        | .59                    | 12                           | .567        | 1.13                   | 10.98 .282                     |  |  |
| AL203           | GROUP 1         | 11   | 17.6882            | 2.745          | .828        |                  |             |                        |                              |             |                        |                                |  |  |
|                 | GROUP 2         | 3    | 15.8733            | 2.424          | 1.400       | 1.28             | 1.000       | 1.03                   | 12                           | .321        | 1.12                   | 3.56 .327                      |  |  |
| FE203           | GROUP 1         | 11   | 7.9982             | 2.449          | .738        |                  |             |                        |                              |             |                        |                                |  |  |
|                 | GROUP 2         | 3    | 6.5433             | 1.451          | .838        | 2.85             | .569        | .97                    | 12                           | .353        | 1.30                   | 5.63 .240                      |  |  |
| FEO             | GROUP 1         | 0    | 0.                 | 0.             | 0.          |                  |             |                        |                              |             |                        |                                |  |  |
|                 | GROUP 2         | 0    | 0.                 | 0.             | 0.          | 0.               | 1.000       | 0.                     | 0                            | 1.000       | 0.                     | 0. 1.000                       |  |  |
| MNO             | GROUP 1         | 11   | .0945              | .026           | .008        |                  |             |                        |                              |             |                        |                                |  |  |
|                 | GROUP 2         | 3    | .0633              | .012           | .007        | 5.15             | .348        | 1.96                   | 12                           | .073        | 3.02                   | 8.30 .017                      |  |  |
| MGO             | GROUP 1         | 11   | 3.8982             | 1.207          | .364        |                  |             |                        |                              |             |                        |                                |  |  |
|                 | GROUP 2         | 3    | 3.8867             | 1.316          | .760        | 1.19             | .690        | .01                    | 12                           | .989        | .01                    | 2.99 .990                      |  |  |

----- T - T E S T -----

| GROUP 1 - NCODE |                 | EQ   | 1.                 |                |             |              |             |                    | * POOLED VARIANCE ESTIMATE * |             |                    | * SEPARATE VARIANCE ESTIMATE * |  |  |
|-----------------|-----------------|------|--------------------|----------------|-------------|--------------|-------------|--------------------|------------------------------|-------------|--------------------|--------------------------------|--|--|
| GROUP 2 - NCODE |                 | EQ   | 2.                 |                |             |              |             |                    | * T DEGREES OF 2-TAIL *      |             |                    | * T DEGREES OF 2-TAIL *        |  |  |
| VARIABLE        | NUMBER OF CASES | MEAN | STANDARD DEVIATION | STANDARD ERROR | * F VALUE * | 2-TAIL PROB. | * T VALUE * | DEGREES OF FREEDOM | 2-TAIL PROB.                 | * T VALUE * | DEGREES OF FREEDOM | 2-TAIL PROB.                   |  |  |
| -----           |                 |      |                    |                |             |              |             |                    |                              |             |                    |                                |  |  |
| CA0             | GROUP 1         | 11   | 10.1464            | 3.904          | 1.177       |              |             |                    |                              |             |                    |                                |  |  |
|                 | GROUP 2         | 3    | 13.3433            | 4.845          | 2.797       | 1.54         | .522        | -1.20              | 12                           | .252        | -1.05              | .370                           |  |  |
| -----           |                 |      |                    |                |             |              |             |                    |                              |             |                    |                                |  |  |
| NA20            | GROUP 1         | 11   | 1.5391             | .733           | .221        |              |             |                    |                              |             |                    |                                |  |  |
|                 | GROUP 2         | 3    | 1.5267             | .748           | .452        | 1.04         | .780        | .44                | 12                           | .665        | .44                | .691                           |  |  |
| -----           |                 |      |                    |                |             |              |             |                    |                              |             |                    |                                |  |  |
| K20             | GROUP 1         | 11   | 3.0091             | .960           | .290        |              |             |                    |                              |             |                    |                                |  |  |
|                 | GROUP 2         | 3    | 3.8700             | .442           | .255        | 4.71         | .375        | -1.48              | 12                           | .166        | -2.23              | .056                           |  |  |
| -----           |                 |      |                    |                |             |              |             |                    |                              |             |                    |                                |  |  |
| P205            | GROUP 1         | 11   | .2300              | .157           | .047        |              |             |                    |                              |             |                    |                                |  |  |
|                 | GROUP 2         | 3    | .2000              | .044           | .025        | 12.96        | .164        | .32                | 12                           | .755        | .56                | .586                           |  |  |
| -----           |                 |      |                    |                |             |              |             |                    |                              |             |                    |                                |  |  |
| S               | GROUP 1         | 0    | 0.                 | 0.             | 0.          |              |             |                    |                              |             |                    |                                |  |  |
|                 | GROUP 2         | 0    | 0.                 | 0.             | 0.          | 0.           | 1.000       | 0.                 | 0                            | 1.000       | 0.                 | 1.000                          |  |  |
| -----           |                 |      |                    |                |             |              |             |                    |                              |             |                    |                                |  |  |

\*SELECT IF (ROCKCODE EQ 18 OR 19 AND (SEQ NE 2057 AND 2061))  
TASK NAME ROCK CODES 18 & 19 - EXCLUDING SEQ NO'S 2057 AND 2061  
CONDESCRIPTIVE SIO2 TO LOI

\*\*\*\*\* GIVEN WORKSPACE ALLOWS FOR 275 VARIABLES FOR CONDESCRIPTIVE PROBLEM \*\*\*\*\*

STATISTICS ALL

VARIABLE SI02

|          |         |           |        |          |        |
|----------|---------|-----------|--------|----------|--------|
| MEAN     | 50.685  | STD ERROR | .778   | STD DEV  | 2.910  |
| VARIANCE | 8.467   | KURTOSIS  | -1.003 | SKEWNESS | -.307  |
| RANGE    | 8.730   | MINIMUM   | 45.780 | MAXIMUM  | 54.510 |
| SUM      | 709.590 |           |        |          |        |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE TI02

|          |       |           |       |          |       |
|----------|-------|-----------|-------|----------|-------|
| MEAN     | .636  | STD ERROR | .147  | STD DEV  | .550  |
| VARIANCE | .302  | KURTOSIS  | 8.225 | SKEWNESS | 2.635 |
| RANGE    | 2.260 | MINIMUM   | .100  | MAXIMUM  | 2.360 |
| SUM      | 8.910 |           |       |          |       |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE AL203

|          |         |           |        |          |        |
|----------|---------|-----------|--------|----------|--------|
| MEAN     | 17.299  | STD ERROR | .722   | STD DEV  | 2.701  |
| VARIANCE | 7.296   | KURTOSIS  | 3.837  | SKEWNESS | 1.730  |
| RANGE    | 10.610  | MINIMUM   | 14.120 | MAXIMUM  | 24.730 |
| SUM      | 242.190 |           |        |          |        |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE FE203

|          |         |           |       |          |        |
|----------|---------|-----------|-------|----------|--------|
| MEAN     | 7.686   | STD ERROR | .617  | STD DEV  | 2.307  |
| VARIANCE | 5.322   | KURTOSIS  | 3.918 | SKEWNESS | 1.830  |
| RANGE    | 9.080   | MINIMUM   | 4.970 | MAXIMUM  | 14.050 |
| SUM      | 107.610 |           |       |          |        |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE FEO

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VARIABLE MNO

|          |       |           |      |          |      |
|----------|-------|-----------|------|----------|------|
| MEAN     | .088  | STD ERROR | .007 | STD DEV  | .027 |
| VARIANCE | .001  | KURTOSIS  | .679 | SKEWNESS | .926 |
| RANGE    | .100  | MINIMUM   | .050 | MAXIMUM  | .150 |
| SUM      | 1.230 |           |      |          |      |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE MGO

|          |        |           |       |          |       |
|----------|--------|-----------|-------|----------|-------|
| MEAN     | 3.896  | STD ERROR | .315  | STD DEV  | 1.178 |
| VARIANCE | 1.387  | KURTOSIS  | 3.690 | SKEWNESS | 1.804 |
| RANGE    | 4.450  | MINIMUM   | 2.680 | MAXIMUM  | 7.130 |
| SUM      | 54.540 |           |       |          |       |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE CAO

|          |         |           |       |          |        |
|----------|---------|-----------|-------|----------|--------|
| MEAN     | 10.831  | STD ERROR | 1.108 | STD DEV  | 4.146  |
| VARIANCE | 17.191  | KURTOSIS  | -.163 | SKEWNESS | .206   |
| RANGE    | 15.100  | MINIMUM   | 3.390 | MAXIMUM  | 18.490 |
| SUM      | 151.640 |           |       |          |        |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE NA2O

|          |        |           |        |          |       |
|----------|--------|-----------|--------|----------|-------|
| MEAN     | 1.494  | STD ERROR | .190   | STD DEV  | .712  |
| VARIANCE | .507   | KURTOSIS  | -1.543 | SKEWNESS | -.102 |
| RANGE    | 2.090  | MINIMUM   | .300   | MAXIMUM  | 2.390 |
| SUM      | 20.910 |           |        |          |       |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE K20

|          |        |           |       |          |        |
|----------|--------|-----------|-------|----------|--------|
| MEAN     | 3.194  | STD ERROR | .250  | STD DEV  | .935   |
| VARIANCE | .874   | KURTOSIS  | .628  | SKEWNESS | -1.097 |
| RANGE    | 3.110  | MINIMUM   | 1.200 | MAXIMUM  | 4.310  |
| SUM      | 44.710 |           |       |          |        |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE P205

|          |       |           |       |          |       |
|----------|-------|-----------|-------|----------|-------|
| MEAN     | .224  | STD ERROR | .037  | STD DEV  | .139  |
| VARIANCE | .019  | KURTOSIS  | 6.300 | SKEWNESS | 2.420 |
| RANGE    | .510  | MINIMUM   | .130  | MAXIMUM  | .640  |
| SUM      | 3.130 |           |       |          |       |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE S

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
 VARIABLE IS EITHER MISSING FOR EVERY CASE, ALPHANUMERIC, OR HAS NUMERIC VALUES EXCEEDING 10,000,000,000.

VARIABLE LOI

|          |        |           |       |          |        |
|----------|--------|-----------|-------|----------|--------|
| MEAN     | 3.971  | STD ERROR | 1.012 | STD DEV  | 3.787  |
| VARIANCE | 14.341 | KURTOSIS  | 2.427 | SKEWNESS | 1.575  |
| RANGE    | 13.260 | MINIMUM   | .500  | MAXIMUM  | 13.760 |
| SUM      | 55.590 |           |       |          |        |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

CYPRUS ANVIL MINING CORPORATION  
ROCK CODES 18 & 19 - EXCLUDING SEQ NO'S 2057 AND 2061

01/21/80

PAGE: 16

TRANSPACE REQUIRED: 63 WORDS  
1 TRANSFORMATIONS  
0 RECODE VALUES + LAG VARIABLES  
15 IF/COMPUTE OPERATIONS

\*SELECT IF (ROCKCODE EQ 21 OR 22 OR 23 AND (SEQ NE 2074 AND 2076 AND 2078  
AND 2088))  
TASK NAME: ROCK CODES 21, 22, 23 - EXCLUDING SEQ NO'S 2074 2076 2078 2088  
CONDESCRIPTIVE: SIQ2 TO LOI

\*\*\*\*\* GIVEN WORKSPACE: ALLOWS FOR 275 VARIABLES FOR CONDESCRIPTIVE PROBLEM \*\*\*\*\*

STATISTICS ALL

MOORE  
SERIALIZED

VARIABLE SIO2

|          |         |           |        |          |        |
|----------|---------|-----------|--------|----------|--------|
| MEAN     | 45.817  | STD ERROR | 2.548  | STD DEV  | 8.826  |
| VARIANCE | 77.902  | KURTOSIS  | 4.213  | SKEWNESS | -1.697 |
| RANGE    | 34.670  | MINIMUM   | 22.500 | MAXIMUM  | 57.170 |
| SUM      | 549.800 |           |        |          |        |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

VARIABLE TIO2

|          |       |           |      |          |       |
|----------|-------|-----------|------|----------|-------|
| MEAN     | .462  | STD ERROR | .166 | STD DEV  | .575  |
| VARIANCE | .330  | KURTOSIS  | .106 | SKEWNESS | 1.259 |
| RANGE    | 1.650 | MINIMUM   | 0.   | MAXIMUM  | 1.650 |
| SUM      | 5.550 |           |      |          |       |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

VARIABLE AL203

|          |         |           |       |          |        |
|----------|---------|-----------|-------|----------|--------|
| MEAN     | 14.503  | STD ERROR | 1.176 | STD DEV  | 4.074  |
| VARIANCE | 16.598  | KURTOSIS  | -.474 | SKEWNESS | -.302  |
| RANGE    | 13.210  | MINIMUM   | 6.970 | MAXIMUM  | 20.180 |
| SUM      | 174.030 |           |       |          |        |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

VARIABLE FE203

|          |        |           |       |          |        |
|----------|--------|-----------|-------|----------|--------|
| MEAN     | 7.226  | STD ERROR | .941  | STD DEV  | 3.260  |
| VARIANCE | 10.630 | KURTOSIS  | -.502 | SKEWNESS | .789   |
| RANGE    | 10.090 | MINIMUM   | 2.840 | MAXIMUM  | 12.930 |
| SUM      | 86.710 |           |       |          |        |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

VARIABLE FEQ

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
 VARIABLE IS EITHER MISSING FOR EVERY CASE, ALPHANUMERIC, OR HAS NUMERIC VALUES EXCEEDING 10,000,000,000,000.

VARIABLE MNO

|          |       |           |        |          |      |
|----------|-------|-----------|--------|----------|------|
| MEAN     | .105  | STD ERROR | .011   | STD DEV  | .038 |
| VARIANCE | .001  | KURTOSIS  | -1.217 | SKEWNESS | .396 |
| RANGE    | .110  | MINIMUM   | .060   | MAXIMUM  | .170 |
| SUM      | 1,260 |           |        |          |      |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

VARIABLE MGO

|          |        |           |       |          |       |
|----------|--------|-----------|-------|----------|-------|
| MEAN     | 3.693  | STD ERROR | .657  | STD DEV  | 2.277 |
| VARIANCE | 5.187  | KURTOSIS  | 4.528 | SKEWNESS | 2.058 |
| RANGE    | 8.320  | MINIMUM   | 1.490 | MAXIMUM  | 9.810 |
| SUM      | 44.320 |           |       |          |       |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

VARIABLE CAO

|          |         |           |       |          |        |
|----------|---------|-----------|-------|----------|--------|
| MEAN     | 12.566  | STD ERROR | 2.467 | STD DEV  | 8.547  |
| VARIANCE | 73.056  | KURTOSIS  | 4.345 | SKEWNESS | 2.012  |
| RANGE    | 30.230  | MINIMUM   | 5.120 | MAXIMUM  | 35.350 |
| SUM      | 150.790 |           |       |          |        |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

VARIABLE NA2O

|          |        |           |      |          |       |
|----------|--------|-----------|------|----------|-------|
| MEAN     | 2.003  | STD ERROR | .415 | STD DEV  | 1.438 |
| VARIANCE | 2.067  | KURTOSIS  | .116 | SKEWNESS | 1.057 |
| RANGE    | 4.570  | MINIMUM   | .450 | MAXIMUM  | 5.020 |
| SUM      | 24.030 |           |      |          |       |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

VARIABLE K20

|          |        |           |        |          |       |
|----------|--------|-----------|--------|----------|-------|
| MEAN     | 1.958  | STD ERROR | .405   | STD DEV  | 1.402 |
| VARIANCE | 1.967  | KURTOSIS  | -1.259 | SKEWNESS | .059  |
| RANGE    | 3.920  | MINIMUM   | .100   | MAXIMUM  | 4.020 |
| SUM      | 23.500 |           |        |          |       |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

VARIABLE P205

|          |       |           |       |          |       |
|----------|-------|-----------|-------|----------|-------|
| MEAN     | .178  | STD ERROR | .023  | STD DEV  | .078  |
| VARIANCE | .006  | KURTOSIS  | -.219 | SKEWNESS | 1.004 |
| RANGE    | .240  | MINIMUM   | .090  | MAXIMUM  | .330  |
| SUM      | 2.140 |           |       |          |       |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

VARIABLE S

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
 VARIABLE IS EITHER MISSING FOR EVERY CASE, ALPHANUMERIC, OR HAS NUMERIC VALUES EXCEEDING 10,000,000,000,000.

VARIABLE LOI

|          |         |           |       |          |        |
|----------|---------|-----------|-------|----------|--------|
| MEAN     | 11.489  | STD ERROR | 2.010 | STD DEV  | 6.964  |
| VARIANCE | 48.501  | KURTOSIS  | 2.186 | SKEWNESS | 1.201  |
| RANGE    | 25.280  | MINIMUM   | 3.000 | MAXIMUM  | 28.280 |
| SUM      | 137.870 |           |       |          |        |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

CYPRUS ANVIL MINING CORPORATION  
ROCK CODES 21, 22, 23 - EXCLUDING SEQ NO'S 2074 2076 2078 2088

01/21/80

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TRANSPACE REQUIRED 113 WORDS  
1 TRANSFORMATIONS  
0 RECODE VALUES + LAG VARIABLES  
27 IF/COMPUTE OPERATIONS

FINISH

NORMAL END OF JOB.  
25 CONTROL CARDS WERE PROCESSED.  
0 ERRORS WERE DETECTED.

SPSS FOR INFONET CSTS, RELEASE 7.2.1, JUNE 21, 1979

DEFAULT SPACE ALLOCATION... ALLOWS FOR... 23 TRANSFORMATIONS  
WORKSPACE 3584 WORDS 46 RECODE VALUES + LAG VARIABLES  
TRANSPACE 512 WORDS 46 IF/COMPUTE OPERATIONS

RUN\_NAME CYPRUS ANVIL MINING CORPORATION  
GET FILE GCHSS3

FILE GCHSS3 HAS 35 VARIABLES  
THE SUBFILES ARE..

| NAME   | NO OF CASES |
|--------|-------------|
| GCHSS3 | 374         |

COMPUTE NCODE=9  
IF (ROCKCODE EQ 18 AND (SEQ NE 2057 AND 2061)) NCODE=1  
IF (ROCKCODE EQ 19) NCODE=2

COMPUTE NCODE2=9  
IF (ROCKCODE EQ 18 OR 19 AND (SEQ NE 2057 AND 2061)) NCODE2=1  
IF (ROCKCODE EQ 21 OR 22 OR 23 AND (SEQ NE 2074 AND 2076 AND 2078 AND 2088)) NCODE2=2

\*SELECT IF (NCODE EQ 1)  
TASK NAME ROCK CODE 18 - EXCLUDING SEQ NO'S 2057 & 2061  
CONDESCRIPTIVE SIO2 TO LOI

\*\*\*\*\* GIVEN WORKSPACE ALLOWS FOR 275 VARIABLES FOR CONDESCRIPTIVE PROBLEM \*\*\*\*\*

STATISTICS ALL

VARIABLE SI02

|          |         |           |        |          |        |
|----------|---------|-----------|--------|----------|--------|
| MEAN     | 52.684  | STD ERROR | 1.023  | STD DEV  | 3.391  |
| VARIANCE | 11.501  | KURTOSIS  | -.810  | SKEWNESS | -.864  |
| RANGE    | 9.470   | MINIMUM   | 46.430 | MAXIMUM  | 55.900 |
| SUM      | 579.520 |           |        |          |        |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE TI02

|          |       |           |       |          |       |
|----------|-------|-----------|-------|----------|-------|
| MEAN     | .702  | STD ERROR | .188  | STD DEV  | .623  |
| VARIANCE | .388  | KURTOSIS  | 6.025 | SKEWNESS | 2.255 |
| RANGE    | 2.280 | MINIMUM   | .110  | MAXIMUM  | 2.390 |
| SUM      | 7.720 |           |       |          |       |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE AL203

|          |         |           |        |          |        |
|----------|---------|-----------|--------|----------|--------|
| MEAN     | 18.512  | STD ERROR | .846   | STD DEV  | 2.805  |
| VARIANCE | 7.867   | KURTOSIS  | 4.382  | SKEWNESS | 2.014  |
| RANGE    | 9.970   | MINIMUM   | 15.780 | MAXIMUM  | 25.750 |
| SUM      | 203.630 |           |        |          |        |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE FE203

|          |        |           |       |          |        |
|----------|--------|-----------|-------|----------|--------|
| MEAN     | 8.337  | STD ERROR | .720  | STD DEV  | 2.388  |
| VARIANCE | 5.701  | KURTOSIS  | 3.245 | SKEWNESS | 1.873  |
| RANGE    | 7.780  | MINIMUM   | 6.480 | MAXIMUM  | 14.260 |
| SUM      | 91.710 |           |       |          |        |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE FEO

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
 VARIABLE IS EITHER MISSING FOR EVERY CASE, ALPHANUMERIC, OR HAS NUMERIC VALUES EXCEEDING 10,000,000,000.

VARIABLE MNO

|          |       |           |       |          |      |
|----------|-------|-----------|-------|----------|------|
| MEAN     | .098  | STD ERROR | .008  | STD DEV  | .028 |
| VARIANCE | .001  | KURTOSIS  | 1.270 | SKEWNESS | .906 |
| RANGE    | .100  | MINIMUM   | .060  | MAXIMUM  | .160 |
| SUM      | 1.080 |           |       |          |      |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE MGO

|          |        |           |       |          |       |
|----------|--------|-----------|-------|----------|-------|
| MEAN     | 4.059  | STD ERROR | .350  | STD DEV  | 1.160 |
| VARIANCE | 1.345  | KURTOSIS  | 6.253 | SKEWNESS | 2.392 |
| RANGE    | 3.930  | MINIMUM   | 3.300 | MAXIMUM  | 7.230 |
| SUM      | 44.650 |           |       |          |       |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE CAO

|          |         |           |       |          |        |
|----------|---------|-----------|-------|----------|--------|
| MEAN     | 10.605  | STD ERROR | 1.197 | STD DEV  | 3.971  |
| VARIANCE | 15.766  | KURTOSIS  | 7.325 | SKEWNESS | -.147  |
| RANGE    | 13.110  | MINIMUM   | 3.530 | MAXIMUM  | 16.640 |
| SUM      | 116.660 |           |       |          |        |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE NA2O

|          |        |           |        |          |       |
|----------|--------|-----------|--------|----------|-------|
| MEAN     | 1.600  | STD ERROR | .227   | STD DEV  | .754  |
| VARIANCE | .569   | KURTOSIS  | -1.381 | SKEWNESS | -.303 |
| RANGE    | 2.100  | MINIMUM   | .350   | MAXIMUM  | 2.450 |
| SUM      | 17.600 |           |        |          |       |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE K20

|          |        |           |       |          |        |
|----------|--------|-----------|-------|----------|--------|
| MEAN     | 3.161  | STD ERROR | .307  | STD DEV  | 1.018  |
| VARIANCE | 1.035  | KURTOSIS  | .055  | SKEWNESS | -1.069 |
| RANGE    | 3.140  | MINIMUM   | 1.220 | MAXIMUM  | 4.360  |
| SUM      | 34.770 |           |       |          |        |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE P205

|          |       |           |       |          |       |
|----------|-------|-----------|-------|----------|-------|
| MEAN     | .238  | STD ERROR | .048  | STD DEV  | .158  |
| VARIANCE | .025  | KURTOSIS  | 4.711 | SKEWNESS | 2.169 |
| RANGE    | .520  | MINIMUM   | .130  | MAXIMUM  | .650  |
| SUM      | 2.620 |           |       |          |       |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

VARIABLE S

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
 VARIABLE IS EITHER MISSING FOR EVERY CASE, ALPHANUMERIC, OR HAS NUMERIC VALUES EXCEEDING 10,000,000,000,000.

VARIABLE LOI

|          |    |           |    |          |    |
|----------|----|-----------|----|----------|----|
| MEAN     | 0. | STD ERROR | 0. | STD DEV  | 0. |
| VARIANCE | 0. | KURTOSIS  | 0. | SKEWNESS | 0. |
| RANGE    | 0. | MINIMUM   | 0. | MAXIMUM  | 0. |
| SUM      | 0. |           |    |          |    |

VALID OBSERVATIONS - 11 MISSING OBSERVATIONS - 0

CYPRUS ANVIL MINING CORPORATION  
ROCK CODE 18 - EXCLUDING SEQ NO'S 2057 & 2061

01/21/80

PAGE 5

TRANSPACE REQUIRED 298 WORDS  
7 TRANSFORMATIONS  
0 RECODE VALUES + LAG VARIABLES  
71 IF/COMPUTE OPERATIONS

\*SELECT IF (NCODE EQ 2)  
TASK NAME ROCK CODE 19  
CONDESCRIPTIVE SIO2 TO LOI

\*\*\*\*\* GIVEN WORKSPACE ALLOWS FOR 275 VARIABLES FOR CONDESCRIPTIVE PROBLEM \*\*\*\*\*

STATISTICS ALL

VARIABLE SI02

|          |         |           |        |          |        |
|----------|---------|-----------|--------|----------|--------|
| MEAN     | 53.320  | STD ERROR | .721   | STD DEV  | 1.248  |
| VARIANCE | 1.558   | KURTOSIS  | 0.     | SKEWNESS | -.736  |
| RANGE    | 2.470   | MINIMUM   | 51.980 | MAXIMUM  | 54.450 |
| SUM      | 159.960 |           |        |          |        |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE TI02

|          |       |           |      |          |      |
|----------|-------|-----------|------|----------|------|
| MEAN     | .473  | STD ERROR | .043 | STD DEV  | .075 |
| VARIANCE | .006  | KURTOSIS  | 0.   | SKEWNESS | .199 |
| RANGE    | .150  | MINIMUM   | .400 | MAXIMUM  | .550 |
| SUM      | 1.420 |           |      |          |      |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE AL203

|          |        |           |        |          |        |
|----------|--------|-----------|--------|----------|--------|
| MEAN     | 16.230 | STD ERROR | 1.275  | STD DEV  | 2.208  |
| VARIANCE | 4.877  | KURTOSIS  | 0.     | SKEWNESS | 1.732  |
| RANGE    | 3.840  | MINIMUM   | 14.940 | MAXIMUM  | 18.780 |
| SUM      | 48.690 |           |        |          |        |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE FE203

|          |        |           |       |          |       |
|----------|--------|-----------|-------|----------|-------|
| MEAN     | 6.673  | STD ERROR | .758  | STD DEV  | 1.312 |
| VARIANCE | 1.722  | KURTOSIS  | 0.    | SKEWNESS | -.691 |
| RANGE    | 2.600  | MINIMUM   | 5.270 | MAXIMUM  | 7.870 |
| SUM      | 20.020 |           |       |          |       |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE FE0

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
 VARIABLE IS EITHER MISSING FOR EVERY CASE, ALPHANUMERIC, OR HAS NUMERIC VALUES EXCEEDING 10,000,000,000.

VARIABLE MNO

|          |      |           |      |          |        |
|----------|------|-----------|------|----------|--------|
| MEAN     | .063 | STD ERROR | .007 | STD DEV  | .012   |
| VARIANCE | .000 | KURTOSIS  | 0.   | SKEWNESS | -1.732 |
| RANGE    | .020 | MINIMUM   | .050 | MAXIMUM  | .070   |
| SUM      | .190 |           |      |          |        |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE MGO

|          |        |           |       |          |       |
|----------|--------|-----------|-------|----------|-------|
| MEAN     | 3.960  | STD ERROR | .720  | STD DEV  | 1.247 |
| VARIANCE | 1.556  | KURTOSIS  | 0.    | SKEWNESS | .834  |
| RANGE    | 2.460  | MINIMUM   | 2.850 | MAXIMUM  | 5.310 |
| SUM      | 11.880 |           |       |          |       |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE CAO

|          |        |           |       |          |        |
|----------|--------|-----------|-------|----------|--------|
| MEAN     | 13.760 | STD ERROR | 3.123 | STD DEV  | 5.409  |
| VARIANCE | 29.258 | KURTOSIS  | 0.    | SKEWNESS | .826   |
| RANGE    | 10.670 | MINIMUM   | 8.940 | MAXIMUM  | 19.610 |
| SUM      | 41.280 |           |       |          |        |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE NA2O

|          |       |           |      |          |       |
|----------|-------|-----------|------|----------|-------|
| MEAN     | 1.353 | STD ERROR | .429 | STD DEV  | .742  |
| VARIANCE | .551  | KURTOSIS  | 0.   | SKEWNESS | 1.723 |
| RANGE    | 1.310 | MINIMUM   | .900 | MAXIMUM  | 2.210 |
| SUM      | 4.060 |           |      |          |       |

VALID OBSERVATIONS = 3 MISSING OBSERVATIONS = 0

VARIABLE K20

|          |        |           |       |          |       |
|----------|--------|-----------|-------|----------|-------|
| MEAN     | 3.953  | STD ERROR | .201  | STD DEV  | .348  |
| VARIANCE | .121   | KURTOSIS  | 0.    | SKEWNESS | -.712 |
| RANGE    | .690   | MINIMUM   | 3.580 | MAXIMUM  | 4.270 |
| SUM      | 11.860 |           |       |          |       |

VALID OBSERVATIONS - 3 MISSING OBSERVATIONS - 0

VARIABLE P205

|          |      |           |      |          |        |
|----------|------|-----------|------|----------|--------|
| MEAN     | .203 | STD ERROR | .027 | STD DEV  | .046   |
| VARIANCE | .002 | KURTOSIS  | 0.   | SKEWNESS | -1.732 |
| RANGE    | .080 | MINIMUM   | .150 | MAXIMUM  | .230   |
| SUM      | .610 |           |      |          |        |

VALID OBSERVATIONS - 3 MISSING OBSERVATIONS - 0

VARIABLE S

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
 VARIABLE IS EITHER MISSING FOR EVERY CASE, ALPHANUMERIC, OR HAS NUMERIC VALUES EXCEEDING 10,000,000,000,000.

VARIABLE LOI

|          |    |           |    |          |    |
|----------|----|-----------|----|----------|----|
| MEAN     | 0. | STD ERROR | 0. | STD DEV  | 0. |
| VARIANCE | 0. | KURTOSIS  | 0. | SKEWNESS | 0. |
| RANGE    | 0. | MINIMUM   | 0. | MAXIMUM  | 0. |
| SUM      | 0. |           |    |          |    |

VALID OBSERVATIONS - 3 MISSING OBSERVATIONS - 0

CYPRUS ANVIL MINING CORPORATION  
ROCK CODE 19

01/21/80

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TRANSPACE REQUIRED 25 WORDS  
1 TRANSFORMATIONS  
0 RECODE VALUES + LAG VARIABLES  
3 IF/COMPUTE OPERATIONS

TASK NAME ROCK CODE 18 VS 19  
T-TEST GROUPS= NCODE(1,2)/ VARIABLES= S102 TO S

\*\*\*\*\* T-TEST PROBLEM REQUIRES 86 WORDS OF WORKSPACE \*\*\*\*\*



T - T E S T

GROUP 1 - NCODE EQ 1:  
GROUP 2 - NCODE EQ 2:

| VARIABLE | NUMBER OF CASES | MEAN    | STANDARD DEVIATION | STANDARD ERROR | * POOLED VARIANCE ESTIMATE * |                  | * SEPARATE VARIANCE ESTIMATE * |                        |                  |             |                        |                  |  |
|----------|-----------------|---------|--------------------|----------------|------------------------------|------------------|--------------------------------|------------------------|------------------|-------------|------------------------|------------------|--|
|          |                 |         |                    |                | * F VALUE *                  | * 2-TAIL PROB. * | * T VALUE *                    | * DEGREES OF FREEDOM * | * 2-TAIL PROB. * | * T VALUE * | * DEGREES OF FREEDOM * | * 2-TAIL PROB. * |  |
| CAO      |                 |         |                    |                |                              |                  |                                |                        |                  |             |                        |                  |  |
| GROUP 1  | 11              | 10.6055 | 3.971              | 1.197          |                              |                  |                                |                        |                  |             |                        |                  |  |
| GROUP 2  | 3               | 13.7600 | 5.409              | 3.123          | 1.86                         | .411             | -1.14                          | 12                     | .276             | -.94        | 2.62                   | .415             |  |
| NA20     |                 |         |                    |                |                              |                  |                                |                        |                  |             |                        |                  |  |
| GROUP 1  | 11              | 1.6000  | .754               | .227           |                              |                  |                                |                        |                  |             |                        |                  |  |
| GROUP 2  | 3               | 1.3533  | .742               | .429           | 1.03                         | 1.000            | .50                            | 12                     | .624             | .51         | 3.23                   | .646             |  |
| K20      |                 |         |                    |                |                              |                  |                                |                        |                  |             |                        |                  |  |
| GROUP 1  | 11              | 3.1609  | 1.018              | .307           |                              |                  |                                |                        |                  |             |                        |                  |  |
| GROUP 2  | 3               | 3.9533  | .348               | .201           | 8.53                         | .229             | -1.29                          | 12                     | .220             | -2.16       | 10.63                  | .054             |  |
| P205     |                 |         |                    |                |                              |                  |                                |                        |                  |             |                        |                  |  |
| GROUP 1  | 11              | .2382   | .158               | .048           |                              |                  |                                |                        |                  |             |                        |                  |  |
| GROUP 2  | 3               | .2033   | .046               | .027           | 11.64                        | .178             | .37                            | 12                     | .719             | .64         | 11.56                  | .534             |  |
| S        |                 |         |                    |                |                              |                  |                                |                        |                  |             |                        |                  |  |
| GROUP 1  | 0               | 0.      | 0.                 | 0.             |                              |                  |                                |                        |                  |             |                        |                  |  |
| GROUP 2  | 0               | 0.      | 0.                 | 0.             | 0.                           | 1.000            | 0.                             | 0                      | 1.000            | 0.          | 0.                     | 1.000            |  |

\*SELECT IF (NCODE2 EQ 1)  
TASK NAME ROCK CODES 18 & 19 - EXCLUDING SEQ NO'S 2057 & 2061  
CONDESCRIPTIVE SIO2 TO LOI

\*\*\*\*\* GIVEN WORKSPACE ALLOWS FOR 275 VARIABLES FOR CONDESCRIPTIVE PROBLEM \*\*\*\*\*

STATISTICS ALL

110

MOORE  
SERIALIZED  
1  
2  
3

110

VARIABLE SI02

|          |         |           |        |          |        |
|----------|---------|-----------|--------|----------|--------|
| MEAN     | 52.820  | STD ERROR | .809   | STD DEV  | 3.027  |
| VARIANCE | 9.160   | KURTOSIS  | -.059  | SKEWNESS | -1.032 |
| RANGE    | 9.470   | MINIMUM   | 46.430 | MAXIMUM  | 55.900 |
| SUM      | 739.480 |           |        |          |        |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE TI02

|          |       |           |       |          |       |
|----------|-------|-----------|-------|----------|-------|
| MEAN     | .653  | STD ERROR | .148  | STD DEV  | .555  |
| VARIANCE | .308  | KURTOSIS  | 8.099 | SKEWNESS | 2.619 |
| RANGE    | 2.280 | MINIMUM   | .110  | MAXIMUM  | 2.390 |
| SUM      | 9.140 |           |       |          |       |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE AL203

|          |         |           |        |          |        |
|----------|---------|-----------|--------|----------|--------|
| MEAN     | 18.023  | STD ERROR | .744   | STD DEV  | 2.783  |
| VARIANCE | 7.746   | KURTOSIS  | 4.089  | SKEWNESS | 1.761  |
| RANGE    | 10.810  | MINIMUM   | 14.940 | MAXIMUM  | 25.750 |
| SUM      | 252.320 |           |        |          |        |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE FE203

|          |         |           |       |          |        |
|----------|---------|-----------|-------|----------|--------|
| MEAN     | 7.981   | STD ERROR | .607  | STD DEV  | 2.270  |
| VARIANCE | 5.152   | KURTOSIS  | 4.045 | SKEWNESS | 1.909  |
| RANGE    | 8.990   | MINIMUM   | 5.270 | MAXIMUM  | 14.260 |
| SUM      | 111.730 |           |       |          |        |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE FEO

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
 VARIABLE IS EITHER MISSING FOR EVERY CASE, ALPHANUMERIC, OR HAS NUMERIC VALUES EXCEEDING 10,000,000,000,000.

VARIABLE MNO

|          |       |           |       |          |      |
|----------|-------|-----------|-------|----------|------|
| MEAN     | .091  | STD ERROR | .008  | STD DEV  | .029 |
| VARIANCE | .001  | KURTOSIS  | 1.111 | SKEWNESS | .939 |
| RANGE    | .110  | MINIMUM   | .050  | MAXIMUM  | .160 |
| SUM      | 1.270 |           |       |          |      |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE MGO

|          |        |           |       |          |       |
|----------|--------|-----------|-------|----------|-------|
| MEAN     | 4.038  | STD ERROR | .302  | STD DEV  | 1.130 |
| VARIANCE | 1.276  | KURTOSIS  | 4.435 | SKEWNESS | 1.977 |
| RANGE    | 4.380  | MINIMUM   | 2.850 | MAXIMUM  | 7.230 |
| SUM      | 56.530 |           |       |          |       |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE CAO

|          |         |           |       |          |        |
|----------|---------|-----------|-------|----------|--------|
| MEAN     | 11.281  | STD ERROR | 1.147 | STD DEV  | 4.293  |
| VARIANCE | 18.433  | KURTOSIS  | .010  | SKEWNESS | .192   |
| RANGE    | 16.080  | MINIMUM   | 3.530 | MAXIMUM  | 19.610 |
| SUM      | 157.940 |           |       |          |        |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE NA2O

|          |        |           |        |          |       |
|----------|--------|-----------|--------|----------|-------|
| MEAN     | 1.547  | STD ERROR | .195   | STD DEV  | .730  |
| VARIANCE | .533   | KURTOSIS  | -1.569 | SKEWNESS | -.081 |
| RANGE    | 2.100  | MINIMUM   | .350   | MAXIMUM  | 2.450 |
| SUM      | 21.660 |           |        |          |       |

VALID OBSERVATIONS = 14 MISSING OBSERVATIONS = 0

VARIABLE K20

|          |        |           |       |          |        |
|----------|--------|-----------|-------|----------|--------|
| MEAN     | 3.331  | STD ERROR | .258  | STD DEV  | .964   |
| VARIANCE | .929   | KURTOSIS  | .944  | SKEWNESS | -1.342 |
| RANGE    | 3.140  | MINIMUM   | 1.220 | MAXIMUM  | 4.360  |
| SUM      | 46.630 |           |       |          |        |

VALID OBSERVATIONS - 14 MISSING OBSERVATIONS - 0

VARIABLE P205

|          |       |           |       |          |       |
|----------|-------|-----------|-------|----------|-------|
| MEAN     | .231  | STD ERROR | .037  | STD DEV  | .140  |
| VARIANCE | .020  | KURTOSIS  | 6.320 | SKEWNESS | 2.426 |
| RANGE    | .520  | MINIMUM   | .130  | MAXIMUM  | .650  |
| SUM      | 3.230 |           |       |          |       |

VALID OBSERVATIONS - 14 MISSING OBSERVATIONS - 0

VARIABLE S

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
 VARIABLE IS EITHER MISSING FOR EVERY CASE, ALPHANUMERIC, OR HAS NUMERIC VALUES EXCEEDING 10,000,000,000.

VARIABLE LOI

|          |    |           |    |          |    |
|----------|----|-----------|----|----------|----|
| MEAN     | 0. | STD ERROR | 0. | STD DEV  | 0. |
| VARIANCE | 0. | KURTOSIS  | 0. | SKEWNESS | 0. |
| RANGE    | 0. | MINIMUM   | 0. | MAXIMUM  | 0. |
| SUM      | 0. |           |    |          |    |

VALID OBSERVATIONS - 14 MISSING OBSERVATIONS - 0

CYPRUS ANVIL MINING CORPORATION  
ROCK CODES 18 & 19 - EXCLUDING SEQ NO'S 2057 & 2061

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TRANSPACE REQUIRED 25 WORDS  
1 TRANSFORMATIONS  
0 RECODE VALUES + LAG VARIABLES  
3 IF/COMPUTE OPERATIONS

\*SELECT IF (NCODE2 EQ 2)  
TASK NAME ROCK CODES 21, 22, 23 - EXCLUDING SEQ NO'S 2074 2076 2078 2088  
CONDESCRIPTIVE SIO2 TO LOI

\*\*\*\*\* GIVEN WORKSPACE ALLOWS FOR 275 VARIABLES FOR CONDESCRIPTIVE PROBLEM \*\*\*\*\*

STATISTICS ALL

VARIABLE SI02

|          |         |           |        |          |        |
|----------|---------|-----------|--------|----------|--------|
| MEAN     | 51.414  | STD ERROR | 2.286  | STD DEV  | 7.919  |
| VARIANCE | 62.716  | KURTOSIS  | 3.502  | SKEWNESS | -1.261 |
| RANGE    | 32.230  | MINIMUM   | 31.380 | MAXIMUM  | 63.610 |
| SUM      | 616.970 |           |        |          |        |

VALID OBSERVATIONS - 12 MISSING OBSERVATIONS - 0

VARIABLE TI02

|          |       |           |      |          |       |
|----------|-------|-----------|------|----------|-------|
| MEAN     | .502  | STD ERROR | .177 | STD DEV  | .613  |
| VARIANCE | .375  | KURTOSIS  | .180 | SKEWNESS | 1.271 |
| RANGE    | 1.770 | MINIMUM   | 0.   | MAXIMUM  | 1.770 |
| SUM      | 6.020 |           |      |          |       |

VALID OBSERVATIONS - 12 MISSING OBSERVATIONS - 0

VARIABLE AL203

|          |         |           |       |          |        |
|----------|---------|-----------|-------|----------|--------|
| MEAN     | 16.206  | STD ERROR | 1.102 | STD DEV  | 3.817  |
| VARIANCE | 14.573  | KURTOSIS  | -.998 | SKEWNESS | -.250  |
| RANGE    | 11.990  | MINIMUM   | 9.720 | MAXIMUM  | 21.710 |
| SUM      | 194.470 |           |       |          |        |

VALID OBSERVATIONS - 12 MISSING OBSERVATIONS - 0

VARIABLE FE203

|          |        |           |       |          |        |
|----------|--------|-----------|-------|----------|--------|
| MEAN     | 8.008  | STD ERROR | .942  | STD DEV  | 3.263  |
| VARIANCE | 10.645 | KURTOSIS  | -.028 | SKEWNESS | 1.015  |
| RANGE    | 10.280 | MINIMUM   | 3.960 | MAXIMUM  | 14.240 |
| SUM      | 96.100 |           |       |          |        |

VALID OBSERVATIONS - 12 MISSING OBSERVATIONS - 0

VARIABLE FE0

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
 VARIABLE IS EITHER MISSING FOR EVERY CASE, ALPHANUMERIC, OR HAS NUMERIC VALUES EXCEEDING 10,000,000,000,000.

VARIABLE MNO

|          |       |           |       |          |      |
|----------|-------|-----------|-------|----------|------|
| MEAN     | .120  | STD ERROR | .012  | STD DEV  | .043 |
| VARIANCE | .002  | KURTOSIS  | -.849 | SKEWNESS | .574 |
| RANGE    | .120  | MINIMUM   | .070  | MAXIMUM  | .190 |
| SUM      | 1.440 |           |       |          |      |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

VARIABLE MGO

|          |        |           |       |          |        |
|----------|--------|-----------|-------|----------|--------|
| MEAN     | 4.094  | STD ERROR | .675  | STD DEV  | 2.339  |
| VARIANCE | 5.470  | KURTOSIS  | 5.102 | SKEWNESS | 2.179  |
| RANGE    | 8.420  | MINIMUM   | 2.080 | MAXIMUM  | 10.500 |
| SUM      | 49.130 |           |       |          |        |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

VARIABLE CAO

|          |         |           |       |          |        |
|----------|---------|-----------|-------|----------|--------|
| MEAN     | 15.013  | STD ERROR | 3.557 | STD DEV  | 12.322 |
| VARIANCE | 151.834 | KURTOSIS  | 5.672 | SKEWNESS | 2.290  |
| RANGE    | 43.510  | MINIMUM   | 5.780 | MAXIMUM  | 49.290 |
| SUM      | 180.160 |           |       |          |        |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

VARIABLE NA20

|          |        |           |      |          |       |
|----------|--------|-----------|------|----------|-------|
| MEAN     | 2.258  | STD ERROR | .462 | STD DEV  | 1.602 |
| VARIANCE | 2.566  | KURTOSIS  | .275 | SKEWNESS | 1.063 |
| RANGE    | 5.200  | MINIMUM   | .510 | MAXIMUM  | 5.710 |
| SUM      | 27.100 |           |      |          |       |

VALID OBSERVATIONS = 12 MISSING OBSERVATIONS = 0

VARIABLE K20

|          |        |           |        |          |       |
|----------|--------|-----------|--------|----------|-------|
| MEAN     | 2.186  | STD ERROR | .441   | STD DEV  | 1.528 |
| VARIANCE | 2.336  | KURTOSIS  | -1.313 | SKEWNESS | -.022 |
| RANGE    | 4.230  | MINIMUM   | .110   | MAXIMUM  | 4.340 |
| SUM      | 26.230 |           |        |          |       |

VALID OBSERVATIONS - 12 MISSING OBSERVATIONS - 0

VARIABLE P205

|          |       |           |       |          |      |
|----------|-------|-----------|-------|----------|------|
| MEAN     | .199  | STD ERROR | .023  | STD DEV  | .080 |
| VARIANCE | .006  | KURTOSIS  | -.123 | SKEWNESS | .965 |
| RANGE    | .240  | MINIMUM   | .120  | MAXIMUM  | .360 |
| SUM      | 2.390 |           |       |          |      |

VALID OBSERVATIONS - 12 MISSING OBSERVATIONS - 0

VARIABLE S

STATISTICS CAN NOT BE COMPUTED FOR THIS VARIABLE.  
 VARIABLE IS EITHER MISSING FOR EVERY CASE, ALPHANUMERIC, OR HAS NUMERIC VALUES EXCEEDING 10,000,000,000.

VARIABLE LOI

|          |    |           |    |          |    |
|----------|----|-----------|----|----------|----|
| MEAN     | 0. | STD ERROR | 0. | STD DEV  | 0. |
| VARIANCE | 0. | KURTOSIS  | 0. | SKEWNESS | 0. |
| RANGE    | 0. | MINIMUM   | 0. | MAXIMUM  | 0. |
| SUM      | 0. |           |    |          |    |

VALID OBSERVATIONS - 12 MISSING OBSERVATIONS - 0

CYPRUS ANVIL MINING CORPORATION  
ROCK CODES 21, 22, 23 - EXCLUDING SEQ NO'S 2074 2076 2078 2088

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TRANSPACE REQUIRED: 25 WORDS  
1 TRANSFORMATIONS  
0 RECODE VALUES + LAG VARIABLES  
3 IF/COMPUTE OPERATIONS

TASK NAME ROCK CODES 18 19 VS 21 22 23  
T-TEST GROUPS= NCODE2 (1,2)/ VARIABLES= S102 TO S

\*\*\*\*\* T-TEST PROBLEM REQUIRES 86 WORDS OF WORKSPACE \*\*\*\*\*

T - T E S T

GROUP 1 = NCODE2 EQ 1.  
GROUP 2 = NCODE2 EQ 2.

| VARIABLE | NUMBER OF CASES | MEAN    | STANDARD DEVIATION | STANDARD ERROR | * POOLED VARIANCE ESTIMATE * |              |         | * SEPARATE VARIANCE ESTIMATE * |              |         |                    |              |  |
|----------|-----------------|---------|--------------------|----------------|------------------------------|--------------|---------|--------------------------------|--------------|---------|--------------------|--------------|--|
|          |                 |         |                    |                | F VALUE                      | 2-TAIL PROB. | T VALUE | DEGREES OF FREEDOM             | 2-TAIL PROB. | T VALUE | DEGREES OF FREEDOM | 2-TAIL PROB. |  |
| SI02     |                 |         |                    |                |                              |              |         |                                |              |         |                    |              |  |
| GROUP 1  | 14              | 52.8200 | 3.027              | .809           |                              |              |         |                                |              |         |                    |              |  |
| GROUP 2  | 12              | 51.4142 | 7.919              | 2.286          | 6.85                         | .002         | .62     | 24                             | .544         | .58     | 13.74              | .571         |  |
| TI02     |                 |         |                    |                |                              |              |         |                                |              |         |                    |              |  |
| GROUP 1  | 14              | .6529   | .555               | .148           |                              |              |         |                                |              |         |                    |              |  |
| GROUP 2  | 12              | .5017   | .613               | .177           | 1.22                         | .728         | .66     | 24                             | .516         | .65     | 22.51              | .519         |  |
| AL203    |                 |         |                    |                |                              |              |         |                                |              |         |                    |              |  |
| GROUP 1  | 14              | 18.0229 | 2.783              | .744           |                              |              |         |                                |              |         |                    |              |  |
| GROUP 2  | 12              | 16.2058 | 3.817              | 1.102          | 1.88                         | .277         | 1.40    | 24                             | .174         | 1.37    | 19.82              | .187         |  |
| FE203    |                 |         |                    |                |                              |              |         |                                |              |         |                    |              |  |
| GROUP 1  | 14              | 7.9807  | 2.270              | .607           |                              |              |         |                                |              |         |                    |              |  |
| GROUP 2  | 12              | 8.0083  | 3.263              | .942           | 2.07                         | .214         | -.03    | 24                             | .980         | -.02    | 19.22              | .981         |  |
| FEO      |                 |         |                    |                |                              |              |         |                                |              |         |                    |              |  |
| GROUP 1  | 0               | 0.      | 0.                 | 0.             |                              |              |         |                                |              |         |                    |              |  |
| GROUP 2  | 0               | 0.      | 0.                 | 0.             | 0.                           | 1.000        | 0.      | 0                              | 1.000        | 0.      | 0.                 | 1.000        |  |
| MNO      |                 |         |                    |                |                              |              |         |                                |              |         |                    |              |  |
| GROUP 1  | 14              | .0907   | .029               | .008           |                              |              |         |                                |              |         |                    |              |  |
| GROUP 2  | 12              | .1200   | .043               | .012           | 2.17                         | .185         | -2.07   | 24                             | .049         | -2.01   | 18.91              | .058         |  |
| MGO      |                 |         |                    |                |                              |              |         |                                |              |         |                    |              |  |
| GROUP 1  | 14              | 4.0379  | 1.130              | .302           |                              |              |         |                                |              |         |                    |              |  |
| GROUP 2  | 12              | 4.0942  | 2.339              | .675           | 4.29                         | .016         | -.08    | 24                             | .937         | -.08    | 15.32              | .940         |  |



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ROCK CODES 18 19 VS 21 22 23

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FINISH

NORMAL END OF JOB.  
30 CONTROL CARDS WERE PROCESSED.  
0 ERRORS WERE DETECTED.