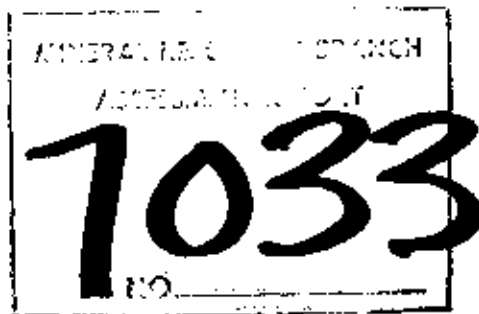


LITHOGEOCHEMISTRY STUDY,  
SOUP GROUP OF MINERAL CLAIMS  
(Omineca Mining Division)  
Latitude 56° 27'N; Longitude 126° 03'W

by

Dr. A. J. Sinclair, P. Eng.,

October 10, 1978



LITHOCHEMISTRY STUDY,  
SOUP GROUP OF MINERAL CLAIMS

Introduction

Soup claims (Nos. 1 to 10 inclusive) are 15 k southeast of Johanson Lake in Omineca Mining Division, central British Columbia. The property lies between elevations of 1300 and 2510 m above mean sea level. Access is via helicopter from Johanson Lake to a rock glacier more-or-less centrally located on the property, or by trail from Wiken Lake along Klilyul (Miller) Creek.

General Geology

The claims are underlain by andesitic lavas, augite porphyry flow rocks and dykes, minor amounts of flow breccia and pyroclastic rocks of the Upper Triassic Takla Group. The sequence is stratified with flows oriented roughly north-south and have an easterly dip of 20-30°. The sequence is offset by a number of cross faults.

A magnetite-pyrite "skarn" layer 10 to 100 feet (3 to 30m) thick extends the length of the property on surface and appears to be parallel to layering of the volcanic rocks. Locally the skarn is offset by cross faults. Chalcopyrite and erratic high Au assays in this skarn unit provide the principal basis for economic potential of the property.

A more detailed geology has been described by K.C. McTaggart in B.C.M.o.M. Assessment Report No. 675.

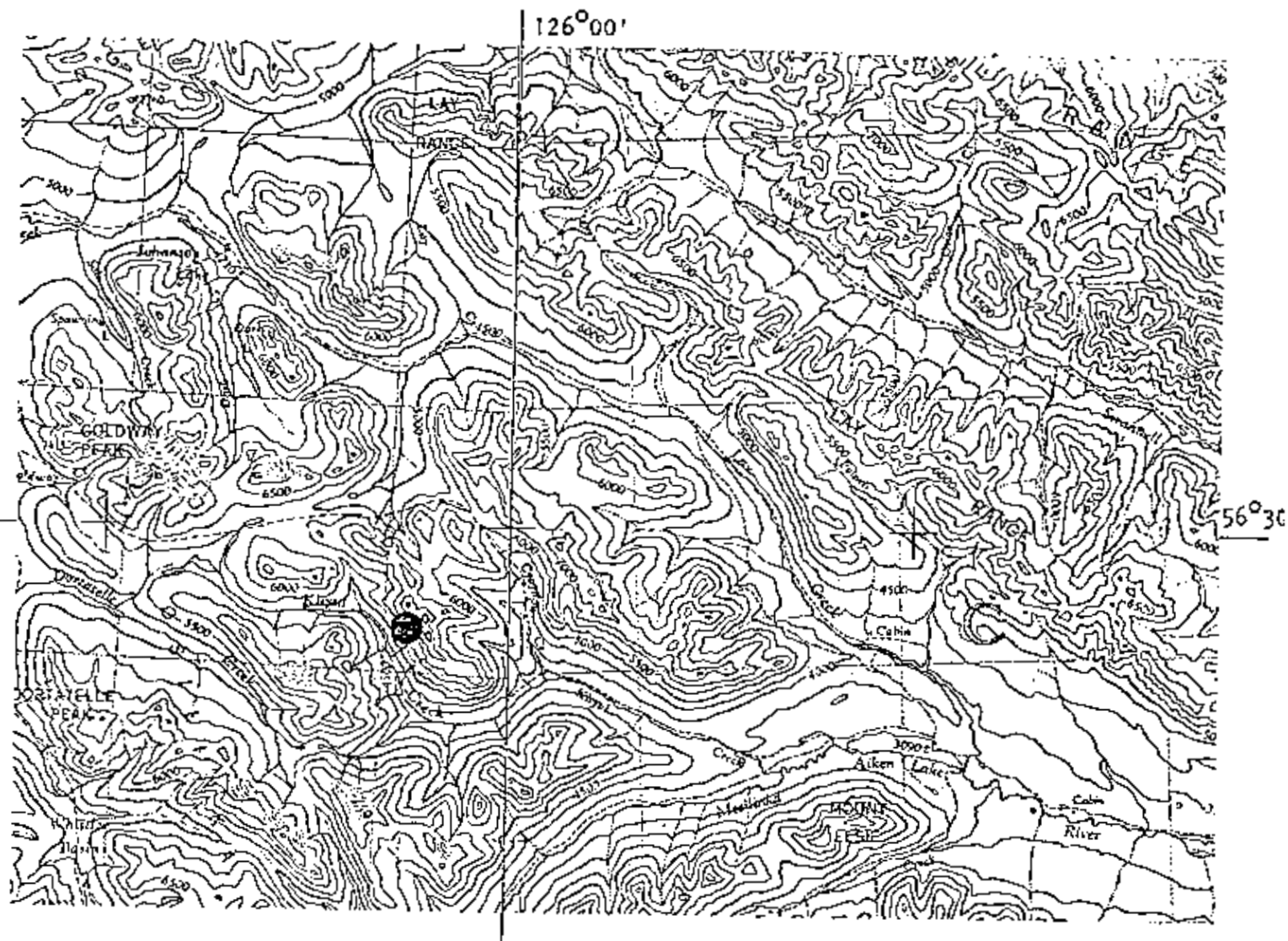


FIGURE 1  
 Location Map  
 Soup Claims  
 Kliyul Creek, Omineca Mining Division  
 NTS 94D8

Scale 1:250,000

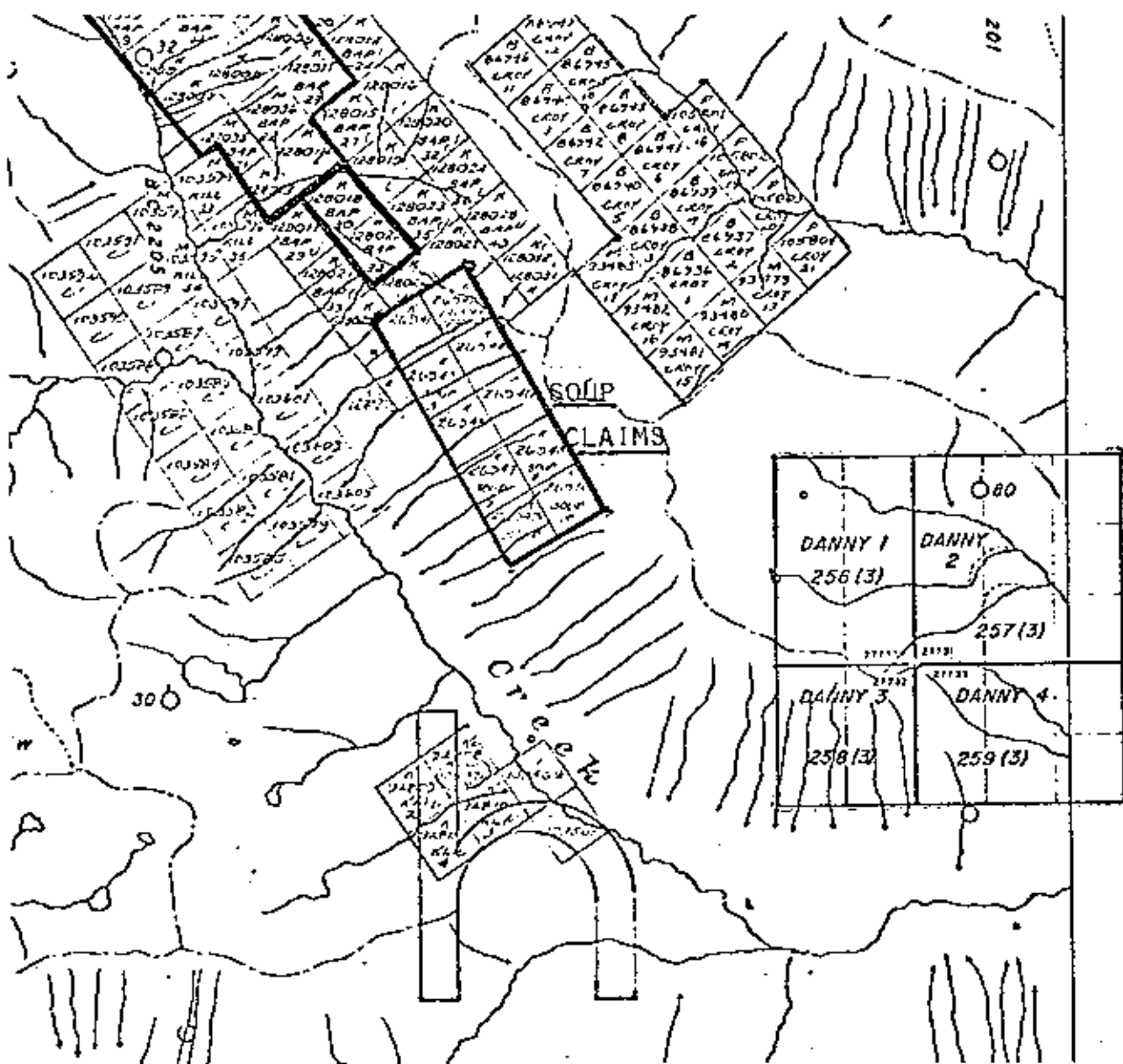


FIGURE 2

Soup Claims

Klilyul Creek, Omineca Mining Division  
NTS 94D8

Scale 1:50,000

## Sampling for Rock Geochemical Analysis

Sampling procedure has been described by Bates (1977) as follows:

"Rock sampling was designed to assess the trace metal content of a bedded magnetite-pyrite skarn (known to contain significant values in copper and gold) and adjacent footwall and hangingwall rocks. Sample lines were located in the few available zones affording virtually continuous outcrop exposure of, and adjacent to, the skarn.

A 200-foot chain (61m) was secured cross strike to, and centred on, the skarn. Station intervals were flagged every 10 feet (3m) and continuous chip samples taken of lithologies between these stations."

and

"Rock chip samples were passed through a jaw crusher and then pulverized in a shatter box." The following report by Vangeochem Laboratories Ltd. outlines the analytical procedure.

Samples were analyzed in two stages. Results of the first stage (1977) were reported on by Bates (1977) and included analytical data for Mo, Cu, Pb, Zn, Ni and Au. Subsequently, these same samples were analyzed for Ag, V, As and U. It is the purpose of this report to present these new analyses and to evaluate all the rock geochemical data for the property.

## Results

Analytical results for 201 rock samples are listed in Table 1. All data for both stages of analysis (1977 and 1978) are included for the sake of completeness.

TABLE I

	NO.	MO	CU	PS	ZN	NI	AG	V	AS	J	AU
1											
2											
3											
4	585	2	95	25	33	400	1.3	55	2	0	10
5	589	2	70	24	25	370	1.2	75	4	0	10
6	590	3	70	37	52	145	2.0	212	2	0.2	10
7	591	1	29	25	56	400	1.5	90	2	0.1	10
8	592	2	280	26	40	170	1.7	182	2	0.5	70
9	593	2	31	24	40	430	1.0	85	2	0.2	10
10	594	3	242	39	67	225	1.8	200	2	0	20
11	595	1	8	28	44	300	1.0	60	4	0	10
12	596	3	19	40	90	290	2.0	178	2	0	10
13	597	3	680	27	42	370	1.2	92	2	0	90
14	598	3	68	20	13	175	0.7	45	2	0.2	0
15	599	3	98	36	63	295	1.5	140	2	0	30
16	600	2	97	26	48	310	1.4	135	2	0	0
17	601	2	111	28	46	165	1.9	180	2	0	10
18	602	2	61	25	43	140	1.8	170	2	0	0
19	603	2	97	29	53	155	1.8	155	2	0	10
20	604	3	244	54	77	180	2.0	155	2	0	10
21	605	3	33	27	62	145	1.4	155	2	0.1	0
22	606	3	90	33	52	145	1.3	135	2	0	0
23	607	3	75	28	71	170	1.5	250	2	0	0
24	608	2	50	50	47	185	1.1	155	2	0	0
25	609	2	11	20	15	120	0.8	65	2	0	0
26	610	3	68	20	13	175	2.0	182	2	0	0
27	622	3	106	35	78	110	2.4	292	2	0	20
28	612	3	117	38	82	100	2.6	315	2	0	30
29	613	2	54	51	44	175	1.8	195	2	0	10
30	614	2	27	32	93	500	1.5	87	4	0.1	0
31	615	2	29	22	41	350	0.7	67	2	0.2	0
32	616	2	87	20	45	250	0.8	80	2	0.2	20
33	617	2	72	21	45	245	0.7	70	2	0	10
34	618	5	640	40	32	175	2.4	70	2	1.9	40
35	619	4	69	20	24	335	0.9	115	2	0.1	10
36	620	3	232	24	25	295	1.3	162	4	0.2	40
37	621	3	106	27	33	225	1.5	195	2	0.1	0
38	622	3	56	29	36	205	1.8	135	4	0	0
39	623	2	92	30	55	180	1.8	88	2	0	20
40	624	3	129	30	34	150	1.5	145	8	0.2	0
41	625	3	122	32	46	135	1.6	185	2	0	10
42	626	4	90	28	36	145	1.3	140	2	0	0
43	627	4	70	15	33	97	1.4	145	2	0.1	20
44	628	2	135	25	66	120	2.0	215	2	0	70
45	629	2	103	22	55	95	1.8	235	2	0.1	10
46	630	2	82	23	57	95	1.7	232	2	0	10
47	631	2	170	21	56	115	1.7	220	2	0.2	0
48	632	2	27	22	51	115	1.6	190	2	0.1	0
49	633	3	50	31	38	50	1.6	300	2	0	10
50	634	2	50	23	50	70	1.6	190	2	0	20
51	635	1	225	19	62	90	1.7	135	4	0.3	20
52	636	2	115	12	20	160	1.5	138	4	1.0	40
53	637	2	190	10	15	140	0.9	35	6	1.7	60
54	638	1	128	16	31	110	1.4	200	2	0.1	20
55	639	3	233	22	40	105	2.0	223	4	0.2	150
56	640	2	106	21	48	125	1.7	195	2	0	0
57	641	2	90	16	26	180	1.5	155	2	0.7	0
58	642	2	139	23	46	140	2.0	287	4	0.1	30
59	643	2	113	26	50	95	2.0	245	2	0.1	10
60	644	1	74	21	47	110	2.0	195	4	0	0

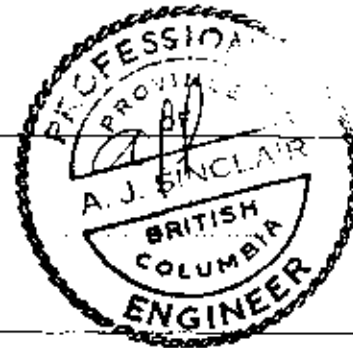
61	645	1	70	18	34	125	1.4	170	2	0	20
62	646	2	145	15	35	100	1.2	125	6	0.1	10
63	647	3	175	25	15	80	2.3	300	4	1.2	40
64	648	2	55	20	27	170	1.4	150	4	0	10
65	649	2	45	21	30	145	1.4	220	4	0.1	0
66	650	2	94	25	42	120	1.8	230	2	0	0
67	651	1	155	17	34	155	1.5	135	2	0.1	0
68	652	2	83	24	43	100	1.6	225	2	0.1	20
69	653	2	195	23	48	80	1.6	205	2	0.1	20
70	654	2	235	20	35	90	1.6	175	4	0.2	30
71	655	1	55	13	29	100	1.2	150	2	0.1	10
72	656	2	201	12	20	150	1.0	125	2	0.4	30
73	657	1	190	8	13	155	0.8	110	4	0.5	20
74	658	2	235	11	10	260	1.0	130	6	1.1	10
75	659	4	450	29	20	65	4.9	195	4	0.6	10
76	660	3	143	14	13	250	1.5	140	8	0.3	170
77	661	2	95	14	9	320	1.0	118	10	0.4	10
78	662	1	250	10	14	265	1.0	115	10	0.2	0
79	663	2	77	25	55	95	1.2	225	2	0	10
80	664	1	110	14	52	130	1.5	153	2	0.1	10
81	665	3	64	19	47	130	1.5	160	2	0	0
82	666	2	75	23	43	100	1.6	152	2	0	10
83	667	2	89	22	46	105	1.5	160	2	0.1	10
84	668	1	65	15	52	75	1.2	120	2	0.1	10
85	669	1	88	19	44	120	1.2	120	4	0.3	10
86	670	1	50	17	35	150	1.0	110	2	0	10
87	671	1	24	22	58	115	1.3	125	2	0.2	10
88	672	2	25	19	40	135	1.0	115	4	0.1	0
89	673	2	39	21	62	200	1.3	155	2	0	0
90	674	1	58	16	40	105	1.0	107	2	0	0
91	675	2	56	26	35	55	1.6	130	2	0.1	0
92	676	2	360	21	30	80	3.0	100	2	1.2	60
93	677	30	880	25	73	85	5.5	105	4	0.5	470
94	678	2	70	20	62	105	1.4	155	2	0.2	0
95	679	2	80	22	54	90	1.4	195	2	0.4	10
96	680	2	102	15	41	95	1.0	125	2	0.8	10
97	681	1	55	18	48	140	1.3	107	2	0.5	0
98	682	3	35	30	63	225	2.0	175	2	0.7	10
99	683	1	60	23	54	95	1.5	150	2	0.5	10
100	684	1	66	20	51	105	1.3	135	2	0.5	0
101	685	2	108	27	69	80	1.9	217	4	0.3	20
102	686	1	260	25	37	70	3.1	195	2	0.9	190
103	687	425	20	29	25	100	4.6	550	2	0.6	130
104	001	3	100	15	15	155	1.2	110	6	0.4	0
105	002	2	35	13	15	150	0.8	85	4	0.5	10
106	003	3	50	27	42	120	2.0	115	2	0.5	40
107	004	1	169	28	26	95	4.4	75	2	0.4	10000
108	005	2	102	27	27	110	2.9	105	2	0.3	110
109	006	2	60	25	20	175	2.0	60	4	0.1	20
110	007	2	57	22	19	175	1.6	70	4	0.3	10
111	008	2	56	15	20	155	1.6	70	4	0.1	10
112	009	1	50	24	25	125	2.2	55	4	0.1	30
113	010	1	45	25	35	110	2.2	60	4	0.1	20
114	011	3	21	18	13	160	1.1	110	4	0.1	10
115	012	2	8	22	37	130	1.4	107	4	0	0
116	013	1	124	20	15	175	1.2	60	6	0.1	0
117	014	3	106	25	25	190	1.6	60	4	0	0
118	015	3	15	23	29	130	1.5	65	4	0	0
119	016	3	142	22	40	115	1.4	65	4	0	0
120	017	2	33	22	39	135	1.4	82	2	0	0

121	018	2	27	20	17	100	1.4	80	2	0.1	0
122	019	1	90	19	26	90	1.4	85	2	0.1	10
123	020	2	106	29	35	195	3.1	70	2	0	190
124	021	1	55	19	30	225	1.4	125	4	0.1	0
125	022	2	10	20	32	330	1.3	135	4	0.6	20
126	023	1	57	19	34	225	1.2	100	2	0.7	40
127	024	1	15	13	70	225	1.3	140	2	0	20
128	025	1	50	20	49	145	1.3	130	2	0.1	10
129	026	1	33	17	40	165	1.2	95	2	0.1	20
130	027	1	112	15	35	130	1.1	90	2	0.1	30
131	028	1	42	12	34	130	0.8	60	4	0	20
132	029	1	25	17	34	160	1.0	75	2	0	10
133	030	1	164	17	33	145	1.2	92	2	0.1	20
134	031	1	470	30	60	175	3.0	115	15	1.2	100
135	032	1	123	13	37	130	1.2	145	2	0.4	20
136	033	1	45	15	37	130	1.2	130	2	0.6	10
137	034	1	44	14	30	220	1.1	125	2	0.3	10
138	035	1	90	14	29	250	0.9	112	4	0.1	110
139	036	1	143	11	35	200	1.2	105	4	0.1	100
140	037	1	64	13	18	160	1.5	133	2	0.1	30
141	038	3	213	19	35	135	1.0	100	2	0.5	20
142	039	4	113	10	13	240	0.8	62	4	0.3	10
143	040	4	290	16	12	155	1.4	90	4	2.2	10
144	041	38	300	21	11	175	1.6	130	2	1.4	230
145	042	3	170	17	21	135	1.2	130	8	0.2	50
146	043	2	34	15	25	130	1.2	135	4	0	10
147	044	2	84	15	22	145	1.1	105	3	0.3	10
148	045	2	30	16	24	125	1.2	110	8	0.2	20
149	046	1	95	20	34	115	1.5	130	4	0.1	10
150	047	2	57	14	30	140	1.1	92	4	0.2	30
151	048	3	65	17	41	85	1.5	120	4	0.4	50
152	049	2	252	19	43	130	1.3	100	4	0.4	50
153	050	3	115	19	45	155	1.5	160	4	0.5	20
154	051	2	200	13	16	210	1.3	110	6	1.1	100
155	052	1	84	13	30	135	1.0	90	4	0.3	20
156	053	2	40	15	24	195	1.0	102	2	0.1	40
157	054	2	200	10	22	155	0.7	70	4	0.1	10
158	055	2	36	15	28	135	0.9	85	4	0	0
159	056	1	26	13	21	190	1.0	80	6	0.2	40
160	057	2	50	19	24	195	0.9	72	6	0	20
161	058	2	49	22	26	135	1.0	105	6	0	20
162	059	2	77	25	34	200	1.3	115	6	0	10
163	060	4	142	32	47	110	2.2	210	4	0.1	60
164	061	6	320	43	75	110	4.7	175	2	1.1	600
165	062	2	420	23	17	165	1.5	125	6	0	20
166	063	2	182	23	10	205	1.5	120	6	0.3	10
167	064	3	370	25	10	200	1.6	145	6	0.2	70
168	065	3	260	19	9	195	1.0	110	6	0.2	20
169	066	3	285	20	13	190	1.0	85	6	0.2	90
170	067	2	400	22	15	195	1.2	85	2	0.4	100
171	068	2	210	47	30	95	1.5	115	6	0.6	350
172	069	3	198	32	32	120	1.8	170	6	0.7	120
173	070	2	230	27	29	130	2.6	167	4	2.5	90
174	071	4	200	25	27	140	5.7	110	2	1.0	150
175	072	3	190	31	25	200	1.6	147	6	0	10
176	073	2	195	27	19	195	1.4	160	6	0.1	10
177	074	3	100	25	22	135	1.3	130	6	0.1	10
178	075	3	300	21	17	230	0.9	115	4	0.2	0
179	076	3	158	17	9	175	0.8	105	6	0.1	10
180	077	2	1850	42	47	35	5.3	100	2	0	1150



131	078	3	112	38	41	95	1.5	250	4	0	40
132	079	3	135	33	49	65	2.1	190	2	0	30
133	080	4	67	40	53	100	2.3	230	4	0	10
134	081	3	62	41	50	60	2.2	150	2	0	20
135	082	2	132	37	61	125	1.9	140	2	0	0
136	083	21	430	30	47	145	1.4	135	2	0	0
137	084	3	176	27	33	210	1.5	120	4	0	10
138	085	3	165	22	34	155	1.3	115	4	0	10
139	086	4	340	28	29	160	1.2	105	2	0	10
190	087	3	350	27	46	165	1.2	122	2	0	0
191	088	92	000	45	60	295	2.9	150	6	0.4	110
192	089	5	620	46	45	155	4.0	205	2	1.4	210
193	090	2	205	40	43	100	5.1	160	2	0.9	350
194	091	37	970	45	60	120	9.2	150	2	0.4	670
195	092	3	166	34	55	1350	1.5	120	4	0	150
196	093	4	230	27	40	230	1.4	90	4	0	20
197	094	2	125	21	33	190	1.2	92	4	0	10
198	095	2	72	20	33	145	1.2	95	4	0	10
199	096	4	190	27	32	260	1.4	110	4	0	20
200	097	2	52	25	30	7170	1.2	132	4	0	10
201	098	12	128	22	13	255	0.8	35	8	0.2	20
202	099	11	126	20	7	240	1.0	110	2	0.5	10
203	100	113	500	35	35	325	6.5	173	6	0.6	650
204	101	6	420	34	30	350	4.6	550	4	0.7	200

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TO: B. P. Minerals Ltd.,  
# 405 - 1199 West Pender Street,  
Vancouver, B. C.

FROM: Mr. Conway Chun,  
Vangeochem Lab Ltd.,  
1521 Pemberton Avenue,  
North Vancouver, B. C.

SUBJECT: Analytical procedure used to determine acid soluble  
Mo, Pb, Zn, Cu, Ag in geochemical samples.

1. Sample Preparation

- (a) Soil and silt samples analyzed as received.
- (b) Rock chip samples first crushed and then pulverized to 100 mesh by using Siebtechnik Disc mill.

2. Methods of Digestion

- (a) 0.50 gram of the minus 80-mesh samples was used. Samples were weighed out by using a top-loading balance.
- (b) Samples were heated in a sand bath with nitric and perchloric acids (15% to 85% by volume of the concentrated acids respectively).
- (c) The digested samples were diluted with demineralized water to a fixed volume and shaken.

3. Method of Analysis

Mo, Pb, Zn, Cu and Ag analyses were determined by using a Techtron Atomic Absorption Spectrophotometer Model AA4 or Model AA5 with their respective hollow cathode lamp. The digested samples were aspirated directly into an air and acetylene

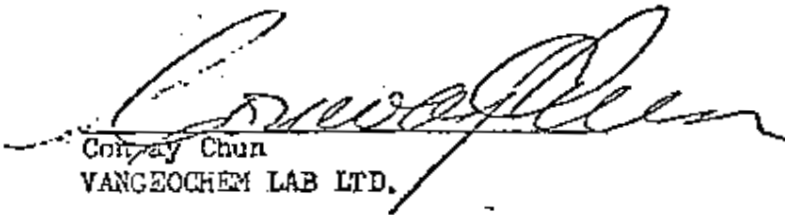
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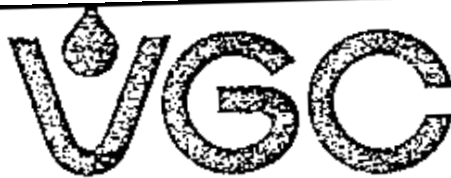
VANGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA 604-988-2

flame. Mo analyses were aspirated into nitrous oxide and acetylene flame. The results, in parts per million, were calculated by comparing a set of standards to calibrate the atomic absorption unit.

4. The analyses were supervised or determined by Mr. Conway Chun, and the laboratory staff.

  
Conway Chun  
VANGEOCHEM LAB LTD.

CC:smb



VANGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA 604-988-2177

September 12, 1975

TO: B. P. Minerals Ltd.,  
# 405 - 1199 West Pender Street,  
Vancouver, B. C.

FROM: Vangeochem Lab Ltd.,  
1521 Pemberton Avenue,  
North Vancouver, B. C.

SUBJECT: Analytical procedure used to determine Aqua Regia  
soluble gold in geochemical samples.

1. Method of Sample Preparation

- (a) Geochemical soil, silt or rock samples were received in the laboratory in wet-strength 4 x 6 Kraft paper bags.
- (b) The wet samples were dried in a ventilated oven.
- (c) The dried soil and silt samples were sifted by using a shaking machine using an 80-mesh stainless steel sieve. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.
- (d) The dried rock samples were crushed and pulverized to 80-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for later analyses.

2. Methods of Digestion

- (a) 5.00 grams of the minus 80-mesh samples were used. Samples were weighed out by using a top-loading balance into beakers.

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- (b) 20 ml of Aqua Regia (3:1 HCl:HNO<sub>3</sub>) were used to digest the samples over a hot plate vigorously.
- (c) The digested samples were filtered and the washed pulps were discarded and the filtrate was reduced to about 15 ml.
- (d) The Au complex ions were extracted into diisobutyl ketone and thiourea medium. (anion exchange liquids "Aliquate 336") See attached literature.
- (e) Separate funnels were used to separate the organic layer.

### 3. Method of Detection

The gold analyses were detected by using a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp. The results were read out on a strip chart recorder. A hydrogen lamp was used to correct any background interferences. The gold values in parts per billion were calculated by comparing them with a set of gold standards.

- 4. The analyses were supervised or determined by Mr. Conway Chun and his laboratory staff.

  
Conway Chun  
VANGEOCHEM LAB LTD.

## Data Analysis

A simple and general evaluation of the data can be made by examining means and standard deviations of each element. These provide estimates of the mean contents and a systematic approach to evaluating dispersion. These data are given in Table II where values are ppm except for Au which is given in ppb. For comparison purposes estimates of mean crustal abundances for basaltic rocks are also given (after Turekian and Wedepol, 1961).

Data can be evaluated visually by reference to two graphical procedures, histograms and probability plots. These are given in an appendix for all the data both in raw form and log transformed (base 10).

Molybdenum data are skewed even when log transformed and the probability plot indicates about 96% of a low background population and 4% (about 8 values above 6 ppm Mo) as distinctly different and higher. This high population is associated with the magnetite-pyrite skarn, a relationship especially apparent on sample lines 4, 10 and 11.

Copper has an approximate trimodal lognormal distribution. About 94% of values form a high background mostly in the range 10 to 300 ppm Cu. Two upper populations appear to be present although it is difficult to specify each precisely. Very approximately, the lower of these appears to be in the range 300 to 800 ppm Cu whereas the higher is greater than 800 ppm Cu. The highest population seems to correlate spatially with the magnetite-pyrite layer and to a lesser extent as isolated values in footwall rocks. In general, footwall rocks appear higher in copper than do hangingwall rocks.

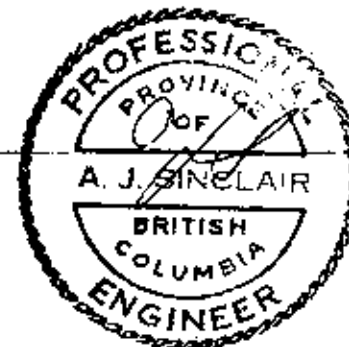
Lead has a simple density distribution with low values and low dispersion, both characteristic of basaltic rocks. There is no obvious correlation of any particular range of values with any obvious lithology.

Zinc values are also normal for basaltic rocks and the density distribution both as a histogram or a cumulative probability plot offers no suggestion of variability with respect to skarn - nonskarn or hangingwall - footwall.

TABLE II

## STATISTICAL SUMMARY

NAME	NO. OF VALUES	ARITHMETIC		LOGARITHMIC		AVERAGE BASALT (PPM)
		MEAN	STD. DEV.	MEAN	STD. DEV.	
MO	201	2.910	4.293	0.340	0.266	1.5
CU	201	197.081	382.008	2.019	0.438	87
PB	201	23.407	7.877	1.345	0.146	6
ZN	201	38.237	18.075	1.528	0.229	105
NI	201	245.927	708.366	2.208	0.259	130
AG	201	2.398	7.035	0.196	0.254	0.11
V	201	141.235	67.781	2.110	0.282	250
AS	201	3.408	1.927	0.479	0.207	2
U	201	0.439	0.351	-0.479	0.339	1
AU	201	104.595	717.924	1.035	0.679	.004



Nickel shows the presence of about four high values greater than 500 ppm that represent the only departure from a lognormal background population with expected mean and dispersion. The pattern of occurrence offers no clue as to the significance of these few high values; however, they are not related obviously to the magnetite-pyrite layer. They may simply represent olivine-rich basalts encountered in the sampling program.

Silver has a well defined bimodal lognormal distribution with a background population (93%) less than 2.8 ppm and an upper population mostly greater than 2.9 ppm. The high population in large part coincides with the magnetite-pyrite skarn.

Vanadium has a single lognormal density distribution and shows no special relationship with lithology that can be determined.

Arsenic has a single lognormal density distribution, has very low values and low dispersion. It seems to offer little potential as an indicator of minerals with economic potential.

Uranium has what appears superficially to be an unusual density distribution. The enormous proportion (>40%) of values in the class containing 0.5 ppm is, however, an artifact resulting from zero values inadvertently being assigned values of 0.5 in the computer. If this effect is removed the Uranium density distribution reduces to a simple bimodal lognormal form with about 5% of an upper population in (above 0.5 ppm) and 95% of a lower population (below 0.5 ppm). The upper population occurs almost entirely within a limited stratigraphic range within the footwall, as shown best on sample lines 10 and 11.

Gold values form a well-defined bimodal lognormal distribution consisting of about 4 percent of an upper population (>400 ppb) and 96 percent of a lower background population. The upper population is associated with high Cu and high Mo values but correlates poorly with other elements. With rare exception the high Au population coincides with the pyrite-magnetite skarn.



## Discussion

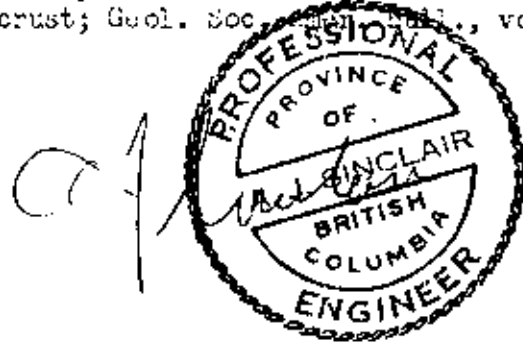
Rock geochemistry has been used in an effort to better evaluate the economic potential of the Group. In general, many of the elements occur with normal values (means and dispersions) expected in footwall and hanging-wall rocks even where a mineralized unit is not present. Four elements, Cu, Au, Ag and Mo, correlate spatially with each other and with the magnetite-pyrite skarn layer.

An abnormally high Au value in the footwall rocks on line 1 warrants investigation.

The two Uranium populations appear to have no economic potential but reflect some details of the stratigraphy of the volcanic sequence.

References

1. Bates, C. D. S., 1977, Geochemical report on the SCUP property, Soap claims 1 to 10; Sept. 1977, B. P. Minerals, submitted to B. C. Ministry of Mines and Petroleum Resources for assessment credit.
2. McTaggart, K. C., 1965, Geology of the Soap Mineral claims; B. C. Ministry of Mines and Petroleum Resources Assessment Report No. 675.
3. Turekian, K. K., and A. H. Wedepohl, 1961, Distribution of some elements in some major units of the earth's crust; Geol. Soc. London, vol. 72, p. 175-191.



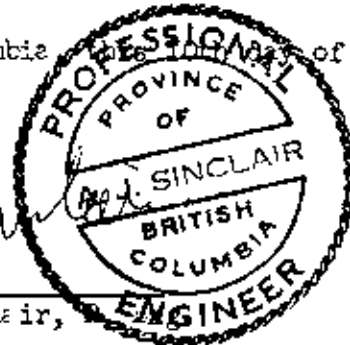
CERTIFICATE

I, Alastair J. Sinclair, of the City of Vancouver, Province of British Columbia, hereby certify:

1. That I am a Geological Engineer residing at 2972 W. 44th Ave., Vancouver, B. C.
2. That I obtained a B. A. Sc. degree in Applied Geology from the University of Toronto in 1957, an M. A. Sc. degree in Geological Engineering from the University of Toronto in 1958, and a Ph. D. in Geology from the University of British Columbia in 1964.
3. That I am a registered Professional Engineer in the Province of Ontario in the Mining Division, and in the Province of British Columbia in the Geology Division.
4. That I have practiced my profession for twenty-one years.
5. That I have an interest in the Soap Group in the form of part ownership.
6. That the accompanying report is based on analytical results supplied to me by B. P. Minerals, my personal familiarity with the property, and my awareness of geochemistry and geostatistical procedures.

Dated at Vancouver in the Province of British Columbia on the 10th day of October 1978.

  
Dr. A. J. Sinclair,



STATEMENT OF COSTS

Soup Claims 1-10 inclusive (One Group)

1.	<u>Sample Analysis</u> (Vangeochem Lab Ltd.)	
	201 samples analyzed for Ag, V, As and U	<u>\$1,457.25</u>
2.	<u>Report Preparation</u>	
	1.5 days consulting services - Dr. A. J. Sinclair	\$300.00
	Report preparation	<u>\$50.00</u>
		<u>\$1,807.25</u>

986 5211



VANGEOCHEM LAB LTD.

986 5211  
604-932-XXXX

1521 PEMBERTON AVE., NORTH VANCOUVER, B.C.  
CANADA

IN ACCOUNT WITH:

B. P. Minerals Ltd.,  
#405 - 1199 West Pender Street,  
Vancouver, B. C. V6E 2R1

INVOICE: 2 0 8 1

DATE: August 4, 1978

TERMS: NET 21 DAYS

DR REPORT 78 20 013 PROJECT: 505  
Samples from 1977 files.

ORDER NO. 78-146

201 trace analyses for U	@ \$2.75	\$ 552.75
201 trace analyses for As	@ \$2.75	552.75
201 trace analyses for Ag & V	@ \$1.75	351.75
	Total	<u>\$1,457.25</u>

B P Minerals Limited

**RECEIVED**

AUG 9 1978

Vancouver, B.C.

APPROVED FOR PAYMENT  
CHARGE 80035-458  
DATE AUG 21 1978

1033



VANGEOCHEM LAB LTD.  
1521 PEMBERTON AVE.,  
NORTH VANCOUVER, B.C.,  
CANADA V7P 2S3.

TELEPHONE: 986-8211  
AREA CODE: 604

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# Certificate of Geochemical Analyses

Samples from 1977 files-

-IN ACCOUNT WITH-

B. P. Minerals Ltd.,  
#405 - 1199 West Pender Street,  
Vancouver, B. C. V6E 2R1

Report No: 78 20 013 Page 1 of 6  
Samples Arrived: Aug. 1, 1978  
Report Completed: Aug. 4, 1978  
For Project: 505  
Analyst:  
Invoice # 2081 Job # 78-146

Attention:

Sample Marking	Ag ppm	V ppm	As ppm	U ppm		
81-23-588	1.3	55	2	nd		
589	1.2	75	4	nd		
590	2.0	212	2	0.2		
591	1.3	90	2	0.1		
592	1.7	182	2	0.5		
593	1.0	85	2	0.2		
594	1.8	200	2	nd		
595	1.0	80	4	nd		
596	2.0	178	2	nd		
597	1.2	92	2	nd		
598	0.7	45	2	0.2		
599	1.5	140	2	nd		
600	1.4	135	2	nd		
601	1.9	180	2	nd		
602	1.8	170	2	nd		
603	1.8	195	2	nd		
604	2.0	195	2	nd		
605	1.4	155	2	0.1		
606	1.3	185	2	nd		
81-23-607	1.5	230	2	nd		
81-23-608	1.1	155	2	nd		
609	0.8	65	2	nd		
610	2.0	182	2	nd		
611	2.4	292	2	nd		
612	2.6	315	2	nd		
613	1.8	195	2	nd		
614	1.5	87	4	0.1		
615	0.7	67	2	0.2		
616	0.8	80	2	0.2		
617	0.7	70	2	nd		
618	2.4	70	2	1.9		
619	0.9	115	2	0.1		
620	1.3	162	4	0.2		
621	1.5	195	2	0.1		
622	1.3	185	4	nd		
623	1.8	88	2	nd		
624	1.5	145	3	0.2		
625	1.6	185	2	nd		
81-23-626	1.3	130	2	nd		

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REMARKS: Background correction has not been applied to Ag results.  
Will be done at a later date.

Signed:

% Mo x 1.6683 = % MoS<sub>3</sub>      1 Troy oz./ton = 34.28 ppm      1 ppm = 0.0001%      nd = none detected      ppm = parts per million

All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.



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AREA CODE: 604

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**R. P. Minerals Ltd.**

Attention:

Report No: **78 20 013** Page **2** of **6**  
Samples Arrived:  
Report Completed:  
For-Project:  
Analyst:

Sample Marking	Ag ppm	V ppm	As ppm	U ppm
81-23-627	1.4	148	2	0.1
628	2.0	215	2	nd
629	1.8	235	2	0.1
630	1.7	232	2	nd
631	1.7	220	2	0.2
632	1.6	190	2	0.1
633	1.6	300	2	nd
634	1.6	190	2	nd
635	1.7	135	4	0.3
636	1.5	138	4	1.0
637	0.9	85	6	1.7
638	1.4	200	2	0.1
639	2.0	223	4	0.2
640	1.7	195	2	nd
641	1.5	153	2	0.7
642	2.0	287	4	0.1
643	2.0	245	2	0.1
644	2.0	185	4	nd
645	1.4	170	2	nd
81-23-646	1.2	125	6	0.1
81-23-647	2.3	340	4	1.2
648	1.4	160	4	nd
649	1.4	220	4	0.1
650	1.8	230	2	nd
651	1.3	135	2	0.1
652	1.6	225	2	0.1
653	1.6	205	2	0.1
654	1.6	175	4	0.2
655	1.2	150	2	0.1
656	1.0	125	2	0.4
657	0.8	110	4	0.5
658	1.0	130	6	1.1
659	4.9	195	4	0.6
660	1.5	140	8	0.3
661	1.0	118	10	0.4
662	1.0	115	10	0.2
663	1.8	228	2	nd
664	1.5	163	2	0.1
81-23-665	1.5	160	2	nd

REMARKS:

Signed:

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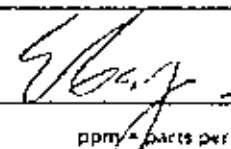
Attention:

Report No: **78 20 013** Page **3** of **6**  
 Samples Arrived:  
 Report Completed:  
 For Project:  
 Analyst:

Sample Marking	Ag ppm	V ppm	As ppm	U ppm		
81-23-666	1.6	152	2	nd		
667	1.5	160	2	0.1		
668	1.2	120	2	0.1		
669	1.2	120	4	0.3		
670	1.0	110	2	nd		
671	1.3	125	2	0.2		
672	1.0	115	4	0.1		
673	1.3	155	2	nd		
674	1.0	107	2	nd		
675	1.8	180	2	0.1		
676	3.0	100	2	1.2*		
677	5.5	105	4	0.5		
678	1.4	165	2	0.2		
679	1.4	195	2	0.4		
680	1.0	125	2	0.8		
681	1.3	107	2	0.5		
682	2.0	175	2	0.7		
683	1.5	150	2	0.5		
684	1.3	135	2	0.5		
81-23-685	1.9	217	4	0.3		
81-23-686	3.1	195	2	0.9		
81-23-687	4.6	550	2	0.6		
81-27-001	1.2	110	6	0.4		
002	0.8	85	4	0.5		
003	2.0	115	2	0.5		
004	4.4	75	2	0.4		
005	2.9	105	2	0.3		
006	2.0	60	4	0.1		
007	1.6	70	4	0.3		
008	1.6	70	4	0.1		
009	2.2	55	4	0.1		
010	2.2	60	4	0.1		
011	1.1	110	4	0.1		
012	1.4	107	4	nd		
013	1.2	60	6	0.1		
014	1.6	60	4	nd		
015	1.3	65	4	nd		
016	1.4	65	4	nd		
81-27-017	1.4	82	2	nd		

MASTER PHILING, ETC.

REMARKS:

Signed: 

% Mo x 1.6683 = % MoS<sub>2</sub>

1 Troy oz./ton = 34.26 ppm

1 ppm = 0.0001%

nd = none detected

ppm = parts per million

All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.





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Report No: **78 20 013** Page **4** of **6**  
Samples Arrived:  
Report Completed:  
For Project:  
Analyst:

Attention:

Sample Marking	Ag ppm	V ppm	As ppm	U ppm
81-27-018	1.4	80	2	0.1
019	1.4	85	2	0.1
020	3.1	70	2	nd
021	1.4	125	4	0.1
022	1.3	135	4	0.6
023	1.2	100	2	0.7
024	1.3	140	2	nd
025	1.3	180	2	0.1
026	1.2	95	2	0.1
027	1.1	90	2	0.1
028	0.8	60	4	nd
029	1.0	75	2	nd
030	1.2	92	2	0.1
031	3.6	115	15	1.2
032	1.2	145	2	0.4
033	1.2	130	2	0.6
034	1.1	125	2	0.3
035	0.9	112	4	0.1
036	1.2	105	4	0.1
81-27-037	1.5	133	2	0.1
81-27-038	1.0	100	2	0.5
039	0.8	62	4	0.3
040	1.4	90	4	2.2
041	1.6	130	2	1.4
042	1.2	130	8	0.2
043	1.2	135	4	nd
044	1.1	105	8	0.3
045	1.2	110	8	0.2
046	1.5	130	4	0.1
047	1.1	92	4	0.2
048	1.3	120	4	0.4
049	1.3	100	4	0.4
050	1.5	160	4	0.5
051	1.3	110	6	1.1
052	1.0	90	4	0.3
053	1.0	102	2	0.1
054	0.7	70	4	0.1
055	0.9	85	4	nd
81-27-056	1.0	80	6	0.2

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REMARKS:

Signed:

% Mo x 1.6682 = % MoS<sub>2</sub>

1 Troy oz./ton = 34.28 ppm

1 ppm = 0.0001%

nd = none detected

ppm = parts per million

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Report No: **78 20 013** Page **5** of **6**  
 Samples Arrived:  
 Report Completed:  
 For Project:  
 Analyst:

Attention:

Sample Marking	Ag ppm	V ppm	As ppm	U ppm		
81-27-057	0.9	72	6	nd		
058	1.0	105	6	nd		
059	1.3	115	6	nd		
060	2.2	210	4	0.1		
061	4.7	175	2	1.1		
062	1.5	125	6	nd		
063	1.5	120	6	0.3		
064	1.6	145	6	0.2		
065	1.0	110	6	0.2		
066	1.0	85	6	0.2		
067	1.2	85	2	0.4		
068	1.5	115	6	0.6		
069	1.8	170	6	0.7		
070	2.6	167	4	2.5		
071	5.7	110	2	1.0		
072	1.6	147	6	nd		
073	1.4	160	6	0.1		
074	1.3	130	6	0.1		
075	0.9	115	4	0.2		
81-27-076	0.8	105	6	0.1		
81-27-077	5.3	100	2	nd		
078	1.3	230	4	nd		
079	2.1	190	2	nd		
080	2.3	230	4	nd		
081	2.2	150	2	nd		
082	1.9	140	2	nd		
083	1.4	135	2	nd		
084	1.5	120	4	nd		
085	1.3	115	4	nd		
086	1.2	105	2	nd		
087	1.2	122	2	nd		
088	2.9	150	6	0.4		
089	4.0	205	2	1.4		
090	5.1	160	2	0.9		
091	9.2	150	2	0.4		
092	1.5	120	4	nd		
093	1.4	90	4	nd		
094	1.2	92	4	nd		
81-27-095	1.2	95	4	nd		

MASTER ANALYSIS UNIT

REMARKS:

Signed:

% Mo x 1.6683 = % MoS<sub>4</sub>      1 Troy oz./ton = 34.28 ppm      1 ppm = 0.0001%      nd = none detected      ppm = parts per million

All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.



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—IN ACCOUNT WITH—  
**B. P. Minerals Ltd.**

Report No: **78 20 013** Page **6** of **6**  
 Samples Arrived:  
 Report Completed:  
 For Project:  
 Analyst:

Attention:

Sample Marking	Ag ppm	V ppm	As ppm	U ppm		
81-27-096	1.4	110	4	nd		
097	1.2	132	4	nd		
098	0.8	85	8	0.2		
099	1.0	110	6	0.5		
100	6.5	173	6	0.6		
81-27-101	4.6	550	4	0.7		

REMARKS:

Signed:

% Mo x 1.6683 = % MoS<sub>2</sub>      1 Troy oz./ton = 34.28 ppm      1 ppm = 0.0001%      nd = none detected      ppm = parts per million  
 All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.

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A. PENDIA

HISTOGRAMS AND CUMULATIVE PLOTS

<u>Element</u>	<u>Page</u>
Mo	A-1
Cu	A-5
Pb	A-8
Zn	A-11
Ni	A-14
Ag	A-17
V	A-20
As	A-23
U	A-26
Au	A-29

HISTOGRAMS OF GP MINERALS, FKI 6/9/78  
 NUMBER OF VALUES IS 201 VARIABLE NAME IS: MO  
 CALCULATED PARAMETERS: MEAN= 2.9104 STD.DEV.= 4.2932 VARIANCE= 18.4319 NO. VALUES= 201

CELLS PER LIMIT 100 PERCENTAGE BISECTION OF ASYMPTIC VALUES LOG LIMIT

\*\*\*\*\*  
 \*\*\*\*\*

\*\*\*WARNING\*\*\* OUTPUT FIELD WIDTH TOO SMALL. SENSITIVITY OCCURRED DURING A FORMATTED WRITE ON FORTRAN UNIT 6 WHICH IS ATTACHED TO  
 \*SINK\*. THE WRITE IS SEQUENTIAL AT RECORD NUMBER 05. FOR THIS AND ALL FUTURE OCCURRENCES OF THIS CONDITION, A  
 FIELD OF \*S WILL BE WRITTEN.

\*\*\*\*\*  
 \*\*\*\*\*

1	-8.3543	0	0.0		
2	-7.2600	0	0.0		
3	-6.2127	0	0.0		
4	-5.1394	0	0.0		
5	-4.0661	0	0.0		
6	-2.9528	0	0.0		
7	-1.9194	0	0.0		
8	-0.8461	0	0.0		
9	0.2272	0	0.0		-0.6430
10	1.3005	44	21.9	*****	0.1141
11	2.3738	84	41.8	*****	0.3754
12	3.4471	50	24.9	*****	0.5375
13	4.5204	11	5.5	*****	0.6552
14	5.5937	2	1.0	*	0.7477
15	6.6670	2	1.0	*	0.8237
16	7.7403	0	0.0		0.8860
17	8.8137	0	0.0		0.9452
18	9.8870	2	1.0	*	0.9951
19	10.9603	0	0.0		1.0398
20	12.0336	3	1.5	*	1.0804
21	13.1069	0	0.0		1.1175

LOG VALUES: MEAN= 0.3404 STD.DEV.= 0.2962 VARIANCE= 0.0779 NO. VALUES= 201

CELLS PER LIMIT 100 PERCENTAGE BISECTION OF LOGARITHMIC VALUES LOG LIMIT

1	-0.3589	0	0.0		
2	-0.2915	0	0.0		
3	-0.2253	0	0.0		
4	-0.1583	0	0.0		
5	-0.0922	0	0.0		
6	-0.0257	0	0.0		
7	0.0409	44	21.9	*****	1.0947
8	0.1074	0	0.0		1.2830
9	0.1740	0	0.0		1.4927
10	0.2405	0	0.0		1.7400
11	0.3071	84	41.8	*****	2.0261
12	0.3736	0	0.0		2.3640
13	0.4402	0	0.0		2.7551
14	0.5068	50	24.9	*****	3.2110
15	0.5733	0	0.0		3.7438



HISTOGRAMS OF BP MINERALS, FRI 8/9/78

VARIABLE NAME IS: MC

CELL NUMBER	LOWER LIMIT	WIDTH	UPPER LIMIT	APPROXIMATE CUMULATIVE PROBABILITY	PERCENTILE VALUES
1	0.469	6	3.0	*	9.7500
2	0.956	6	3.0	*	9.0364
3	0.923	2	4.0	*	6.3646
4	0.869	0	4.0	*	7.7545
5	0.556	0	4.0	*	7.1657
6	0.823	0	4.0	*	6.0510
7	0.750	0	4.0	*	6.1654
8	0.756	2	5.0	*	5.7060
9	0.723	0	5.0	*	5.2491
10	0.690	2	6.0	*	4.8953
11	0.657	0	6.0	*	4.5342
12	0.623	0	6.0	*	4.1958
13	0.590	1	11.4	*	3.8900
14	0.557	0	11.4	*	3.6031
15	0.523	0	11.4	*	3.3373
16	0.490	0	11.4	*	3.0911
17	0.457	50	36.3	*	2.8631
18	0.424	0	36.3	*	2.6519
19	0.390	0	36.3	*	2.4663
20	0.357	0	36.3	*	2.2751
21	0.324	0	36.3	*	2.1073
22	0.290	64	78.1	*	1.9519
23	0.257	0	78.1	*	1.8079
24	0.224	0	78.1	*	1.6745
25	0.191	0	78.1	*	1.5510
26	0.157	0	78.1	*	1.4366
27	0.124	0	78.1	*	1.3327
28	0.091	0	78.1	*	1.2326
29	0.050	0	78.1	*	1.1416
30	0.024	0	78.1	*	1.0573
31	-0.004	44	100.0	*	0.9754
32	-0.042	0	100.0	*	0.9072
33	-0.076	0	100.0	*	0.8432
34	-0.109	0	100.0	*	0.7783
35	-0.142	0	100.0	*	0.7209
36	-0.175	0	100.0	*	0.6671
37	-0.209	0	100.0	*	0.6164
38	-0.242	0	100.0	*	0.5720
39	-0.275	0	100.0	*	0.5306
40	-0.309	0	100.0	*	0.4914
41	-0.342	0	100.0	*	0.4552

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HISTOGRAMS OF UP MINERALS, FRI 8/9/78

VARIABLE NAME IS: NO

CELL NO	UP	MIN	SUM	COMPCT	APPROXIMATE	CUMULATIVE	PROBABILITY	PLCI	CE	BRILLIANCE	VALUES	LOW	HIGH
1	13.375	3	1.5		*							1.1265	
2	12.839	0	1.5		*							1.1085	
3	12.302	0	1.5		*							1.0900	
4	11.765	1	2.0		*							1.0705	
5	11.229	0	2.0		*							1.0500	
6	10.692	2	3.0		*							1.0295	
7	10.155	0	3.0		*							1.0085	
8	9.619	0	3.0		*							0.9875	
9	9.082	0	3.0		*							0.9665	
10	8.545	2	4.0		*							0.9317	
11	8.009	0	4.0		*							0.9036	
12	7.472	0	4.0		*							0.8754	
13	6.935	0	4.0		*							0.8471	
14	6.399	0	4.0		*							0.8061	
15	5.862	2	5.0		*							0.7650	
16	5.325	0	5.0		*							0.7239	
17	4.789	2	6.0		*							0.6828	
18	4.252	0	6.0		*							0.6416	
19	3.715	11	11.4		*							0.5970	
20	3.179	0	11.4		*							0.5523	
21	2.642	50	36.3		*							0.4219	
22	2.105	0	36.3		*							0.3233	
23	1.569	34	78.1		*							0.1556	
24	1.032	0	78.1		*							0.0117	
25	0.495	44	100.0		*							-0.3050	
26	-0.041	0	100.0		*							*****	
27	-0.578	0	100.0		*							*****	
28	-1.115	0	100.0		*							*****	
29	-1.651	0	100.0		*							*****	
30	-2.188	0	100.0		*							*****	
31	-2.725	0	100.0		*							*****	
32	-3.261	0	100.0		*							*****	
33	-3.798	0	100.0		*							*****	
34	-4.334	0	100.0		*							*****	
35	-4.871	0	100.0		*							*****	
36	-5.408	0	100.0		*							*****	
37	-5.944	0	100.0		*							*****	
38	-6.481	0	100.0		*							*****	
39	-7.018	0	100.0		*							*****	
40	-7.554	0	100.0		*							*****	
41	-8.091	0	100.0		*							*****	

5 10 20 30 40 50 60 70 80 90 95 99



HISTOGRAMS OF BP MINERALS, FRI 8/9/78

NUMBER OF VALUES IS 201 VARIABLE NAME IS: CU  
 CALCULATED PARAMETERS: MEAN= 197.0646 STD.DEV.= 382.0088 VARIANCE= 145930.7500 NO. VALUES= 201

CELL	LOWER LIMIT	NO.	PCT	PERCENTAGE	HISTOGRAM OF ARITHMETIC VALUES	UPPER LIMIT
1	-805.6687	0	0.0			*****
2	-710.1669	0	0.0			*****
3	-614.6643	0	0.0			*****
4	-519.1621	0	0.0			*****
5	-423.6599	0	0.0			*****
6	-328.1577	0	0.0			*****
7	-232.6555	0	0.0			*****
8	-137.1533	0	0.0			*****
9	-41.6511	0	0.0			*****
10	53.8511	45	22.4	*****		1.7510
11	149.3533	93	46.3	*****		2.1742
12	244.8554	33	16.4	*****		2.5969
13	340.3576	10	5.0	****		2.9519
14	435.8598	6	3.0	***		2.6593
15	531.3620	2	1.0	*		2.7254
16	626.8642	0	0.0			2.7972
17	722.3664	2	1.0	*		2.8587
18	817.8686	1	0.5			2.9127
19	913.3708	3	1.5	*		2.9636
20	1008.8730	1	0.5			3.0038
21	1104.3752	0	0.0			3.0511

END VALUES..... MEAN= 2.0193 STD.DEV.= 0.9380 VARIANCE= 0.1919 NO. VALUES= 201

CELL	LOWER LIMIT	NO.	PCT	PERCENTAGE	HISTOGRAM OF LOGARITHMIC VALUES	UPPER LIMIT
1	0.6642	0	0.0			7.4561
2	0.9790	2	1.0	*		9.5283
3	1.6682	2	1.0	*		12.2608
4	1.1580	2	1.0	*		15.7770
5	1.5075	1	0.5			20.3315
6	1.4179	5	2.5	**		26.1235
7	1.5265	11	5.5	*****		33.6151
8	1.6360	9	4.5	****		43.2552
9	1.7455	17	8.5	*****		55.6598
10	1.8550	23	11.4	*****		71.6619
11	1.9646	20	10.0	*****		92.1615
12	2.0741	29	14.4	*****		116.5514
13	2.1836	17	8.5	*****		152.6206
14	2.2931	17	8.5	*****		196.3934
15	2.4026	18	9.0	*****		252.6763
16	2.5121	7	3.5	***		325.1362
17	2.6216	5	2.5	**		413.3809
18	2.7311	4	2.0	**		538.3635
19	2.8406	2	1.0	*		692.7542
20	2.9501	4	2.0	**		891.4214
21	3.0596	1	0.5			1157.2023

HISTOGRAMS OF BP MINERALS, FRI 8/5/78

VARIABLE NAME IS: CU

CELL NUMBER	LOWER LIMIT	NO. OCCUR.	UPPER LIMIT	APPROXIMATE CUMULATIVE PROBABILITY	PLT. OF LOGARITHMIC VALUES	LOWER LIMIT
1	3.087	5	2.5			1221.6750
2	3.042	0	2.5			1076.9075
3	2.977	1	3.0			949.4150
4	2.923	1	3.0			830.4025
5	2.868	3	5.0			737.8250
6	2.813	1	5.0			650.4325
7	2.758	1	6.0			573.3000
8	2.704	0	6.0			509.4714
9	2.649	2	7.0			453.5550
10	2.594	3	8.5			392.8200
11	2.539	3	10.0			340.2050
12	2.485	1	10.0			305.2725
13	2.430	6	13.0			269.1150
14	2.375	5	15.0			237.2375
15	2.320	8	19.0			209.1300
16	2.266	12	25.0			184.3647
17	2.211	9	30.0			162.9270
18	2.156	3	31.0			143.2750
19	2.101	12	37.0			126.3051
20	2.047	11	43.0			111.3444
21	1.992	13	49.0			98.1550
22	1.937	17	56.0			86.5254
23	1.882	7	61.0			76.2001
24	1.828	13	68.0			67.2449
25	1.773	10	73.0			59.2798
26	1.718	9	77.0			52.2504
27	1.663	8	81.0			46.0683
28	1.609	6	84.0			40.6110
29	1.554	4	86.0			36.0012
30	1.499	7	90.0			31.9506
31	1.444	5	94.0			27.8223
32	1.390	5	95.0			24.5760
33	1.335	2	96.0			21.6216
34	1.280	1	96.0			19.0000
35	1.225	1	97.0			16.8029
36	1.171	2	98.0			14.8125
37	1.116	0	98.0			13.0501
38	1.061	0	98.0			11.5114
39	1.006	1	98.5			10.1478
40	0.952	1	99.0			8.9459
41	0.897	2	100.0			7.8802

HISTOGRAMS OF GP MINERALS, FRI 8/9/78

VARIABLE NAME IS: CU

CELL	LOWER LIMIT	UPPER LIMIT	NO. COMPT	APPROXIMATE CUMULATIVE PROBABILITY	PLCL OF ASYMPTOTIC VALUES	LOG(CSII)
1	1125.226	5	2.5			3.0524
2	1020.474	0	2.5	*		3.0336
3	1032.723	0	2.5	*		3.0140
4	944.972	0	2.5	*		2.9934
5	937.221	1	3.0	*		2.9718
6	855.459	0	3.0	*		2.9491
7	841.718	1	3.5	*		2.9252
8	753.927	3	5.0	*		2.8994
9	746.216	0	5.0	*		2.8724
10	656.465	0	5.0	*		2.8441
11	450.713	1	5.5	*		2.8134
12	402.562	1	6.0	*		2.7803
13	555.211	0	6.0	*		2.7465
14	567.460	0	6.0	*		2.7054
15	459.768	1	6.5	*		2.6625
16	411.997	3	6.0	*		2.6149
17	354.206	2	9.0	*		2.5614
18	316.455	3	10.4	*		2.5033
19	266.704	6	13.4	*		2.4293
20	220.553	11	16.9	*		2.3453
21	173.202	17	27.4	*		2.2366
22	125.951	22	36.3	*		2.0935
23	77.700	49	60.7	*		1.8904
24	25.949	62	91.5	*		1.9754
25	-17.402	17	100.0			*****
26	-65.553	0	100.0			*****
27	-113.504	0	100.0			*****
28	-161.655	0	100.0			*****
29	-209.806	0	100.0			*****
30	-258.597	0	100.0			*****
31	-304.408	0	100.0			*****
32	-352.059	0	100.0			*****
33	-399.810	0	100.0			*****
34	-447.561	0	100.0			*****
35	-495.312	0	100.0			*****
36	-543.063	0	100.0			*****
37	-590.814	0	100.0			*****
38	-638.565	0	100.0			*****
39	-686.316	0	100.0			*****
40	-734.067	0	100.0			*****
41	-781.818	0	100.0			*****

MADE IN U.S.A.

HISTOGRAMS OF GP MINERALS, FKI H/9776

NUMBER OF VALUES IS 201 VARIABLE NAME IS: PB  
 CALCULATED PARAMETERS: MEAN= 23.4080 STD.DEV.= 7.6767 VARIANCE= 62.0428 NO. VALUES= 201

CELL	BASE	LIMIT	NO.	PERCENTAGE	CUMULATIVE PERCENTAGE	LOG LIMIT
1	2.7314	0	0.0			0.4364
2	4.7006	0	0.0			0.6722
3	6.6698	0	0.0			0.8241
4	8.6390	1	0.5			0.9365
5	10.6081	4	2.0	**		1.0296
6	12.5773	5	2.5	**		1.0999
7	14.5465	10	5.0	*****		1.1626
8	16.5157	15	7.5	*****		1.2179
9	18.4849	18	9.0	*****		1.2661
10	20.4541	28	13.9	*****		1.3108
11	22.4232	25	12.4	*****		1.3507
12	24.3924	16	9.0	*****		1.3873
13	26.3616	17	8.5	*****		1.4210
14	28.3308	18	9.0	*****		1.4523
15	30.3000	11	5.5	*****		1.4814
16	32.2692	7	3.5	***		1.5081
17	34.2384	3	1.5	*		1.5345
18	36.2076	2	1.0	*		1.5598
19	38.1768	7	3.5	***		1.5810
20	40.1460	5	2.5	**		1.6030
21	42.1152	2	1.0	*		1.6235

LOG VALUES: MEAN= 1.2453 STD.DEV.= 0.1562 VARIANCE= 0.0214 NO. VALUES= 201

CELL	BASE	LIMIT	NO.	PERCENTAGE	CUMULATIVE PERCENTAGE	LOG LIMIT
1	0.9610	0	0.0			9.1597
2	0.9561	0	0.0			9.9573
3	1.9347	4	2.0	**		10.8513
4	1.0712	2	1.0	*		11.7521
5	1.1070	3	1.5	*		12.6109
6	1.1443	4	2.0	**		13.9414
7	1.1909	19	9.5	*****		15.1652
8	1.2374	2	1.0	*		16.9560
9	1.2535	6	3.0	**		17.9991
10	1.2965	21	10.4	*****		19.5198
11	1.3270	27	13.4	*****		21.2303
12	1.3636	27	13.4	*****		23.0072
13	1.4001	19	9.5	*****		25.1267
14	1.4366	15	7.5	*****		27.3302
15	1.4732	12	6.0	*****		29.7293
16	1.5097	13	6.5	*****		32.3340
17	1.5463	5	2.5	**		35.1776
18	1.5828	7	3.5	***		38.2650
19	1.6194	6	3.0	***		41.6249
20	1.6559	4	2.0	**		45.2764
21	1.6924	2	1.0	*		49.2534

HISTOGRAMS OF BP MINERALS, FRI 8/5/78

VARIABLE NAME IS: P0

CELL NUMBER	LIMIT	LOG	PROB	APPROXIMATE CUMULATIVE PROBABILITY	EMPIRICAL QUANTILE
1	1.702	0	0.0	0.0	50.3005
2	1.683	0	0.0	0.0	48.2261
3	1.665	1	0.5	0.5	46.2412
4	1.647	3	2.0	2.0	44.3301
5	1.628	1	2.5	2.5	42.5045
6	1.610	2	3.5	3.5	40.7581
7	1.592	4	5.5	5.5	39.1780
8	1.574	6	8.5	8.5	37.6690
9	1.555	2	9.5	9.5	35.9253
10	1.537	2	10.4	10.4	34.4452
11	1.519	2	11.4	11.4	33.0261
12	1.501	5	13.9	13.9	31.6625
13	1.482	3	15.4	15.4	30.3605
14	1.464	6	16.4	16.4	29.1101
15	1.446	12	24.4	24.4	27.9108
16	1.428	11	29.4	29.4	26.7609
17	1.409	4	31.2	31.2	25.6584
18	1.391	13	38.2	38.2	24.6013
19	1.373	6	41.3	41.3	23.5877
20	1.354	13	47.3	47.3	22.6159
21	1.336	15	54.1	54.1	21.6842
22	1.318	10	59.2	59.2	20.7906
23	1.300	17	68.2	68.2	19.9343
24	1.281	0	68.2	68.2	19.1130
25	1.263	11	73.6	73.6	18.3256
26	1.245	10	78.6	78.6	17.5706
27	1.227	8	82.6	82.6	16.8467
28	1.208	0	82.6	82.6	16.1526
29	1.190	2	83.6	83.6	15.4871
30	1.172	13	94.0	94.0	14.8491
31	1.153	0	90.0	90.0	14.2373
32	1.135	6	93.0	93.0	13.6508
33	1.117	0	93.0	93.0	13.0864
34	1.099	4	95.0	95.0	12.5441
35	1.080	6	95.0	95.0	12.0321
36	1.062	3	98.5	98.5	11.5364
37	1.044	0	96.5	96.5	11.0611
38	1.026	2	97.5	97.5	10.6054
39	1.007	0	97.5	97.5	10.1685
40	0.989	4	99.5	99.5	9.7488
41	0.971	0	99.5	99.5	9.3479

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HISTOGRAMS OF BP MINERALS, FRI 8/9/76

VARIABLE NAME IS: PB

CELL NUMBER	MIN	MAX	COUNT	PERCENT	APPROXIMATE CUMULATIVE PERCENTILE	LOG VALUE
1	42.007	5	2.5			1.6299
2	41.622	1	3.0			1.6193
3	40.637	1	3.5			1.6089
4	39.653	4	5.5			1.5985
5	38.668	1	6.0			1.5874
6	37.684	5	8.5			1.5762
7	36.699	2	9.5			1.5647
8	35.715	0	9.5			1.5528
9	34.730	2	10.4			1.5407
10	33.745	2	11.4			1.5282
11	32.761	1	11.9			1.5154
12	31.776	4	13.4			1.5021
13	30.792	3	15.4			1.4884
14	29.807	6	16.4			1.4745
15	28.823	5	20.4			1.4597
16	27.838	7	24.4			1.4448
17	26.853	11	29.4			1.4293
18	25.869	4	31.3			1.4128
19	24.884	13	31.3			1.3954
20	23.900	6	41.3			1.3764
21	22.915	12	47.3			1.3601
22	21.930	15	54.7			1.3410
23	20.946	10	59.7			1.3211
24	19.961	17	68.2			1.3002
25	18.977	11	73.6			1.2782
26	17.992	10	78.6			1.2551
27	17.008	0	78.6			1.2306
28	16.023	8	82.6			1.2047
29	15.038	2	83.6			1.1772
30	14.054	13	90.0			1.1476
31	13.069	6	93.0			1.1163
32	12.085	4	95.0			1.0822
33	11.101	3	96.5			1.0453
34	10.116	2	97.5			1.0090
35	9.131	4	99.5			0.9605
36	8.146	0	99.5			0.9113
37	7.162	1	100.0			0.8593
38	6.177	0	100.0			0.7908
39	5.193	0	100.0			0.7154
40	4.208	0	100.0			0.6241
41	3.223	0	100.0			0.5282

LIFE SCIENCE

HISTOGRAMS OF BP MINERALS, FRI 8/5/78  
 NUMBER OF VALUES IS 201 VARIABLE NAME IS ZN  
 CALCULATED PARAMETERS: MEAN= 38.2388 STD.DEV.= 18.0719 VARIANCE= 326.5928 NO. VALUES= 201

CELL NUMBER	LOWER LIMIT	NO.	PERCENTAGE	HISTOGRAM OF ARITHMETIC VALUES	LOG LIMIT
1	-9.2000	0	0.0		
2	-4.8820	0	0.0		
3	-0.1640	0	0.0		
4	4.3540	0	0.0		
5	8.6719	1	0.5		0.9389
6	13.3559	15	7.5	*****	0.9460
7	17.4079	12	6.0	*****	1.1260
8	22.4250	13	6.5	*****	1.2553
9	26.9420	15	7.5	*****	1.3507
10	31.4610	19	9.5	*****	1.4309
11	35.9790	24	11.9	*****	1.4976
12	40.4970	20	10.0	*****	1.5501
13	45.0150	20	10.0	*****	1.6074
14	49.5330	18	9.0	*****	1.6534
15	54.0510	11	5.5	****	1.6949
16	58.5690	6	3.0	***	1.7326
17	63.0870	11	5.5	****	1.7677
18	67.6050	2	1.0	*	1.7999
19	72.1230	3	1.5	*	1.8302
20	76.6410	2	1.0	*	1.8581
21	81.1590	3	1.5	*	1.8845

LOG VALUES: MEAN= 1.5285 STD.DEV.= 0.2294 VARIANCE= 0.0526 NO. VALUES= 201

CELL NUMBER	LOWER LIMIT	NO.	PERCENTAGE	HISTOGRAM OF LOGARITHMIC VALUES	LOG LIMIT
1	3.9263	0	0.0		5.4378
2	0.9837	3	1.5	*	9.8321
3	1.3810	2	1.0	*	10.5906
4	1.0964	2	1.0	*	12.5419
5	1.1557	8	4.0	***	14.3173
6	1.2151	8	4.0	***	15.3525
7	1.2704	4	2.0	**	16.6379
8	1.3277	9	4.5	***	21.2668
9	1.3850	7	3.5	**	24.2709
10	1.4424	14	7.0	*****	27.0769
11	1.4998	16	8.0	*****	31.0354
12	1.5571	27	13.4	*****	36.2676
13	1.6145	21	10.4	*****	41.1590
14	1.6718	20	10.0	*****	46.6037
15	1.7292	21	10.5	*****	52.5860
16	1.7865	11	5.5	****	61.1042
17	1.8438	12	6.0	*****	69.7476
18	1.9012	5	2.5	**	79.6501
19	1.9585	6	3.0	***	90.9401
20	2.0159	1	0.5	*	103.7231
21	2.0732	2	1.0	*	118.3000

HISTOGRAMS OF BP MINERALS, PRI 874778

VARIABLE NAME IS: ZN

CELL	LOWER LIMIT	WIDTH	CUMULATIVE	APPROXIMATE CUMULATIVE PROBABILITY PLOT OF LOGARITHMIC VALUES	CELL CENTER
1	2.050	0	0.0		22.3382
2	2.059	0	0.0		114.5204
3	2.060	0	0.0		107.2048
4	2.002	0	0.0		100.3549
5	1.573	0	0.0		93.7435
6	1.544	3	1.5	*	87.5415
7	1.916	2	2.5	*	82.3231
8	1.697	3	4.0	*	77.2637
9	1.856	3	5.5	*	72.1402
10	1.830	3	7.0	*	67.5314
11	1.801	2	8.0	*	63.2169
12	1.772	1	15.4	*	59.1781
13	1.743	2	14.4	*	55.3473
14	1.715	10	19.4	*	51.3561
15	1.686	7	22.4	*	48.5450
16	1.657	16	30.8	*	45.4435
17	1.629	13	37.3	*	42.5402
18	1.600	16	49.3	*	39.3224
19	1.571	4	47.3	*	37.2762
20	1.543	15	54.7	*	34.3966
21	1.514	12	60.7	*	32.6071
22	1.485	5	63.2	*	30.5601
23	1.457	14	70.1	*	28.6264
24	1.429	4	72.1	*	26.7575
25	1.399	5	74.6	*	25.3856
26	1.371	10	74.6	*	23.4625
27	1.342	3	81.1	*	21.4625
28	1.313	2	82.1	*	20.5741
29	1.285	5	84.6	*	19.2634
30	1.256	2	85.6	*	19.0327
31	1.227	4	87.6	*	16.8636
32	1.199	2	88.6	*	15.3022
33	1.170	6	91.5	*	14.7526
34	1.141	1	92.0	*	13.8475
35	1.113	7	95.5	*	12.9628
36	1.084	0	95.5	*	12.1347
37	1.055	1	96.0	*	11.3594
38	1.027	1	96.5	*	10.6337
39	0.998	3	98.0	*	9.9543
40	0.969	0	98.0	*	9.3184
41	0.941	3	99.5	*	8.7232

MULTIPLIER



HISTOGRAMS OF BP MINERALS, FRI 8/5/70

VARIABLE NAME ISZ 2N

CELL NUMBER	MIN	MAX	COUNT	PERCENT	APPROXIMATE CUMULATIVE PROBABILITY	PLOT OF MISSING VALUES	VALUES
1	82.274	5	2.5				1.9124
2	80.035	1	3.0				1.9033
3	77.770	2	4.0				1.8708
4	75.516	1	4.5				1.8700
5	73.257	1	5.0				1.8040
6	70.997	2	6.0				1.8512
7	68.738	1	6.5				1.8372
8	66.479	2	7.5				1.8227
9	64.219	1	8.0				1.8077
10	61.960	8	11.4				1.7921
11	59.700	3	13.4				1.7760
12	57.441	0	15.4				1.7592
13	55.182	2	16.4				1.7416
14	52.922	7	17.4				1.7236
15	50.663	5	20.4				1.7047
16	48.404	5	22.4				1.6849
17	46.144	12	28.4				1.6641
18	43.885	13	35.3				1.6423
19	41.625	7	38.3				1.6194
20	39.366	13	45.3				1.5951
21	37.107	4	47.3				1.5695
22	34.847	15	54.7				1.5422
23	32.588	12	60.7				1.5131
24	30.328	5	63.2				1.4819
25	28.069	14	70.1				1.4482
26	25.810	5	74.6				1.4118
27	23.550	10	79.6				1.3720
28	21.291	3	81.6				1.3282
29	19.032	7	84.6				1.2795
30	16.772	6	87.0				1.2240
31	14.513	8	91.5				1.1618
32	12.253	8	95.5				1.0833
33	9.994	5	98.0				0.9947
34	7.735	3	99.5			*	0.8804
35	5.475	1	100.0			*	0.7364
36	3.216	0	100.0			*	0.5073
37	0.957	0	100.0			*	-0.2163
38	-1.303	0	100.0			*	
39	-3.562	0	100.0			*	
40	-5.822	0	100.0			*	
41	-8.081	0	100.0			*	

MINERALS

HISTOGRAMS OF BP MINERALS, FRI 8/9/78

NUMBER OF VALUES IS

201 VARIABLE NAME IS: NI

CALCULATED PARAMETERS: MEAN= 245.9303 STD-DEV= 708.3677 VARIANCE= 501784.7500 NO. VALUES= 201

CELL NUMBER	LOWER LIMIT	UPPER LIMIT	PERCENTAGE	HISTOGRAM OF ARITHMETIC VALUES	CELL NUMBER
1	-1625.5354	0	0.0	*****	
2	-1436.4430	0	0.0	*****	
3	-1259.2510	0	0.0	*****	
4	-1082.2603	0	0.0	*****	
5	-905.1682	0	0.0	*****	
6	-728.0764	0	0.0	*****	
7	-550.9846	0	0.0	*****	
8	-373.8920	0	0.0	*****	
9	-196.8004	0	0.0	*****	
10	-16.7093	0	0.0	*****	
11	157.3629	107	53.2	*****	2.1970
12	334.4737	62	30.8	*****	2.5244
13	511.5869	0	0.0	****	2.7089
14	688.6989	0	0.0		2.8850
15	865.7510	0	0.0		2.9374
16	1042.8430	1	0.5		3.0162
17	1219.9391	0	0.0		3.0864
18	1397.0271	1	0.5		3.1452
19	1574.1241	0	0.0		3.1975
20	1751.2112	0	0.0		3.2451
21	1928.3032	0	0.0		3.2852

LOG VALUES: MEAN= 2.2075 STD-DEV= 0.2592 VARIANCE= 0.0672 NO. VALUES= 201

CELL NUMBER	LOWER LIMIT	UPPER LIMIT	PERCENTAGE	HISTOGRAM OF LOGARITHMIC VALUES	CELL NUMBER
1	1.5275	0	0.0		33.6327
2	1.5922	0	0.0		36.1037
3	1.6570	0	0.0		45.3972
4	1.7219	1	0.5		52.7335
5	1.7857	2	1.0	**	61.1357
6	1.8515	4	2.0	**	71.0331
7	1.9163	4	2.0	**	82.4054
8	1.9811	17	8.5	*****	95.7375
9	2.0459	22	10.8	*****	111.1458
10	2.1107	17	8.5	*****	129.5336
11	2.1755	23	11.4	*****	145.8009
12	2.2403	33	16.4	*****	173.9103
13	2.3051	33	16.4	*****	201.3500
14	2.3699	13	6.5	*****	234.3945
15	2.4348	11	5.5	*****	272.1162
16	2.4996	6	3.0	***	315.7136
17	2.5644	5	2.5	**	366.7576
18	2.6292	4	2.0	**	425.7044
19	2.6940	1	0.5		494.3110
20	2.7588	1	0.5		573.8572
21	2.8236	0	0.0		668.2260

DIAGRAMS OF EP MINERALS, FWI 8/6/78

VARIABLE NAME IS: NI

CRISTALINOGR. LIMITE	W. (GROSS)	APPROXIMATE CUMULATIVE PROBABILITY PLUS DE LOGARITHMIC VALUES	LABILIDADE	
1	2.840	4	2.0	691.5520
2	2.807	0	2.0	641.8286
3	2.775	0	2.0	592.6302
4	2.743	0	2.0	543.8444
5	2.710	0	2.0	495.0690
6	2.678	1	2.5	446.2070
7	2.645	0	2.5	441.9670
8	2.613	1	3.0	410.1640
9	2.581	2	4.0	380.8950
10	2.548	2	5.0	351.2320
11	2.516	3	6.5	327.9160
12	2.483	3	8.0	304.3410
13	2.451	5	10.4	282.4560
14	2.419	1	10.9	262.1490
15	2.386	7	14.4	243.3000
16	2.354	5	16.4	225.8370
17	2.321	4	21.4	207.5710
18	2.289	13	27.5	194.5020
19	2.257	9	32.1	183.5170
20	2.224	10	40.3	167.5580
21	2.192	13	46.8	155.4410
22	2.159	27	63.2	144.3120
23	2.127	9	64.7	133.9350
24	2.094	5	69.2	124.3050
25	2.062	7	72.6	115.3670
26	2.030	12	78.6	107.0720
27	1.997	14	85.6	99.3740
28	1.965	11	91.0	92.2760
29	1.932	4	91.0	85.5470
30	1.900	7	94.5	79.4420
31	1.868	0	96.5	73.7300
32	1.835	2	97.5	68.4290
33	1.803	2	98.5	63.5090
34	1.770	1	99.0	58.9430
35	1.738	1	99.5	54.7040
36	1.706	0	99.5	50.7710
37	1.673	1	100.0	47.1210
38	1.641	0	100.0	43.7320
39	1.608	0	100.0	40.5880
40	1.576	0	100.0	37.6700
41	1.544	0	100.0	34.9610

HISTOGRAMS OF EP MINERALS, PKI 8/9/70

VARIABLE NAME IS: NI

CELL	LOWER LIMIT	NO. COMPT	APPROXIMATE CUMULATIVE PROBABILITY	PLU OF SKILOGRAPHIC VALUES	LOG LIKLI
1	1572.500	2	1.0	*	3.2950
2	1854.022	0	1.0	*	3.2751
3	1755.476	0	1.0	*	3.2942
4	1706.533	0	1.0	*	3.2242
5	1616.389	0	1.0	*	3.2091
6	1527.638	0	1.0	*	3.1570
7	1441.292	9	1.0	*	3.1558
8	1352.747	0	1.0	*	3.1312
9	1264.201	1	1.0	*	3.1018
10	1175.655	0	1.5	*	3.0723
11	1087.109	0	1.5	*	3.0383
12	558.562	0	1.5	*	2.9996
13	918.017	1	2.0	*	2.9960
14	621.471	0	2.0	*	2.9140
15	732.525	0	2.0	*	2.8691
16	644.379	0	2.0	*	2.8091
17	555.833	0	2.0	*	2.7775
18	467.286	1	2.5	*	2.6690
19	378.740	3	4.0	*	2.5783
20	290.193	12	10.0	*	2.4627
21	201.650	25	22.4	*	2.3045
22	113.104	100	75.1	*	2.0935
23	24.559	50	100.0	*	1.5502
24	-63.987	0	100.0	*	1.5502
25	-152.533	0	100.0	*	1.5502
26	-241.078	0	100.0	*	1.5502
27	-329.624	0	100.0	*	1.5502
28	-418.170	0	100.0	*	1.5502
29	-506.715	0	100.0	*	1.5502
30	-595.261	0	100.0	*	1.5502
31	-683.807	0	100.0	*	1.5502
32	-772.352	0	100.0	*	1.5502
33	-860.898	0	100.0	*	1.5502
34	-949.444	0	100.0	*	1.5502
35	-1037.989	0	100.0	*	1.5502
36	-1126.535	0	100.0	*	1.5502
37	-1215.081	0	100.0	*	1.5502
38	-1303.626	0	100.0	*	1.5502
39	-1392.172	0	100.0	*	1.5502
40	-1480.718	0	100.0	*	1.5502
41	-1569.263	0	100.0	*	1.5502

5 10 20 30 40 50 60 70 80 90 99

PRINTED BY: 11/11/70

HISTOGRAMS OF UP MINERALS, FRI 8/9/78  
 NUMBER OF VALUES IS 201 VARIABLE NAME IS: AC  
 CALCULATED PARAMETERS: MEAN= 2.3965 STD.DEV.= 7.0350 VARIANCE= 49.4909 NO. VALUES= 201

CELL NUMBER	MINI	NO	PERCENTAGE	HISTOGRAM OF ARITHMETIC VALUES	LOG MINI
1	-16.3084	0	0.0		*****
2	-14.3056	0	0.0		*****
3	-12.5509	0	0.0		*****
4	-10.7921	0	0.0		*****
5	-9.0334	0	0.0		*****
6	-7.2746	0	0.0		*****
7	-5.5154	0	0.0		*****
8	-3.7572	0	0.0		*****
9	-1.9984	0	0.0		*****
10	-0.2397	0	0.0		*****
11	1.5191	12	6.2	*****	0.1816
12	3.2178	9	2.9	*****	0.5156
13	5.0360	7	3.2	***	0.7021
14	6.7953	5	2.5	**	0.8122
15	8.5540	0	0.0		0.9322
16	10.3128	1	0.5		1.0134
17	12.0713	0	0.0		1.0816
18	13.8303	0	0.0		1.1408
19	15.5890	0	0.0		1.1928
20	17.3476	0	0.0		1.2392
21	19.1062	0	0.0		1.2812

LOG VALUES: MEAN= 0.1961 STD.DEV.= 0.2535 VARIANCE= 0.0643 NO. VALUES= 201

CELL NUMBER	MINI	NO	PERCENTAGE	HISTOGRAM OF LOGARITHMIC VALUES	LOG MINI
1	-0.4649	0	0.0		0.3393
2	-0.4080	0	0.0		0.3927
3	-0.3420	0	0.0		0.4543
4	-0.2752	0	0.0		0.5257
5	-0.2159	0	0.0		0.6063
6	-0.1529	4	2.0	**	0.7039
7	-0.0841	8	4.0	***	0.8149
8	-0.0257	6	3.0	***	0.9425
9	0.0327	15	7.5	*****	1.0806
10	0.1010	29	14.4	*****	1.2619
11	0.1699	41	20.4	*****	1.4602
12	0.2270	32	15.9	*****	1.6590
13	0.2812	19	9.5	*****	1.9551
14	0.3545	17	8.5	*****	2.2623
15	0.4175	6	3.0	***	2.6172
16	0.4813	3	1.5	*	3.0250
17	0.5447	2	1.0	*	3.5050
18	0.6081	2	1.0	*	4.0557
19	0.6714	3	1.5	*	4.6429
20	0.7348	4	2.0	**	5.4302
21	0.7982	2	1.0	*	6.2832

HISTOGRAMS OF EP MINERALS, FRI 8/5/76

VARIABLE NAME IS: AG

CELL NUMBER	LOWER LIMIT	UPPER LIMIT	APPROXIMATE CUMULATIVE PROBABILITY	PROBABILITY PLOT OF LOG-NORMAL VALUES	CELL NUMBER
11	0.514	31	1.51	*	6.5169
21	0.762	11	2.0	*	6.0263
31	0.751	11	2.53	*	5.6320
41	0.7191	21	3.51	*	5.2357
51	0.6871	21	4.51	*	4.8473
61	0.6561	31	6.21	*	4.5243
71	0.6241	11	6.91	*	4.2064
81	0.5921	11	7.01	*	3.9104
91	0.5611	01	7.01	*	3.6352
101	0.5291	11	7.51	*	3.3794
111	0.4971	01	7.51	*	3.1416
121	0.4651	31	9.01	*	2.9205
131	0.4341	21	10.01	*	2.7150
141	0.4021	21	10.91	*	2.5240
151	0.3711	21	11.91	*	2.3461
161	0.3391	61	14.91	*	2.1812
171	0.3071	11	15.41	*	2.0276
181	0.2751	151	22.91	*	1.8851
191	0.2441	111	28.41	*	1.7524
201	0.2121	51	30.81	*	1.6241
211	0.1801	131	37.31	*	1.5145
221	0.1491	191	46.81	*	1.4075
231	0.1171	201	56.71	*	1.3061
241	0.0851	211	67.21	*	1.2167
251	0.0541	231	78.61	*	1.1311
261	0.0221	61	81.51	*	1.0515
271	-0.0101	151	91.01	*	0.9775
281	-0.0421	01	91.01	*	0.9001
291	-0.0731	61	94.51	*	0.8448
301	-0.1051	61	98.51	*	0.7853
311	-0.1371	01	98.51	*	0.7311
321	-0.1691	41	100.01	*	0.6787
331	-0.2011	01	100.01	*	0.6309
341	-0.2321	01	100.01	*	0.5809
351	-0.2631	01	100.01	*	0.5453
361	-0.2951	01	100.01	*	0.5069
371	-0.3271	01	100.01	*	0.4712
381	-0.3581	01	100.01	*	0.4391
391	-0.3901	01	100.01	*	0.4072
401	-0.4221	01	100.01	*	0.3766
411	-0.4551	01	100.01	*	0.3479

1 5 10 20 30 40 50 60 70 80 90 95 99

HISTOGRAMS OF EP MINERALS

HISTOGRAMS OF EP MINERALS, FRI 8/9/78

VARIABLE NAME IS: AG

CELL NO.	MIN.	MAX.	UNIT	APPROXIMATE PERCENTAGE	APPROXIMATE PERCENTAGE	APPROXIMATE PERCENTAGE	APPROXIMATE PERCENTAGE	APPROXIMATE PERCENTAGE	APPROXIMATE PERCENTAGE	APPROXIMATE PERCENTAGE	APPROXIMATE PERCENTAGE	APPROXIMATE PERCENTAGE	APPROXIMATE PERCENTAGE	APPROXIMATE PERCENTAGE	APPROXIMATE PERCENTAGE	APPROXIMATE PERCENTAGE	APPROXIMATE PERCENTAGE	APPROXIMATE PERCENTAGE
1	19.546	2	1.0	*														1.2711
2	18.667	0	1.0	*														1.2711
3	17.787	0	1.0	*														1.2501
4	16.908	0	1.0	*														1.2281
5	16.029	0	1.0	*														1.2061
6	15.149	0	1.0	*														1.1841
7	14.270	0	1.0	*														1.1621
8	13.391	0	1.0	*														1.1401
9	12.511	0	1.0	*														1.1181
10	11.632	0	1.0	*														1.0961
11	10.752	0	1.0	*														1.0741
12	9.873	0	1.0	*														1.0521
13	8.994	1	1.5	*														0.9999
14	8.114	0	1.5	*														0.9343
15	7.235	0	1.5	*														0.8544
16	6.355	1	2.0	*														0.7745
17	5.476	2	3.0	*														0.6946
18	4.597	2	6.0	*														0.6147
19	3.717	2	7.0	*														0.5702
20	2.838	0	10.0	*														0.4510
21	1.959	23	21.4	*														0.2420
22	1.079	121	81.6	*														0.0332
23	0.200	37	100.0	*														-0.6950
24	-0.679	0	100.0	*														
25	-1.559	0	100.0	*														
26	-2.438	0	100.0	*														
27	-3.318	0	100.0	*														
28	-4.197	0	100.0	*														
29	-5.076	0	100.0	*														
30	-5.956	0	100.0	*														
31	-6.835	0	100.0	*														
32	-7.714	0	100.0	*														
33	-8.594	0	100.0	*														
34	-9.473	0	100.0	*														
35	-10.352	0	100.0	*														
36	-11.232	0	100.0	*														
37	-12.111	0	100.0	*														
38	-12.991	0	100.0	*														
39	-13.870	0	100.0	*														
40	-14.749	0	100.0	*														
41	-15.629	0	100.0	*														

PAGE 01 OF 01

HISTOGRAMS OF SP MINERALS, PKI 87977A  
 NUMBER OF VALUES IS 201 VARIABLE NAME IS V  
 CALCULATED PARAMETERS: MEAN= 141.2388 STD.DEV.= 27.7600 VARIANCE= 4094.1289 NO.VALUES= 201

CELL	VALUES	COUNT	PERCENTAGE	HISTOGRAM OF ARITHMETIC VALUES	LCG VALUES
1	-36.0639	0	0.0		
2	-16.7589	0	0.0		
3	-2.7939	0	0.0		
4	14.1510	0	0.0		1.1500
5	31.0540	0	0.0		1.4927
6	46.0910	1	0.5		1.9016
7	64.5800	8	4.0	****	1.8125
8	81.4310	18	9.0	*****	1.9134
9	98.0760	22	10.9	*****	1.7951
10	115.0210	26	12.9	*****	2.0658
11	132.7660	23	11.4	*****	2.1231
12	149.7110	25	12.4	*****	2.1753
13	166.6560	19	9.5	*****	2.2218
14	183.6010	14	7.0	*****	2.2639
15	200.5460	17	8.5	*****	2.3022
16	217.4910	8	4.0	****	2.3374
17	234.4359	10	5.0	*****	2.3700
18	251.3809	3	1.5	*	2.4003
19	268.3259	0	0.0		2.4287
20	285.2710	0	0.0		2.4555
21	302.2161	3	1.5	*	2.4803

LCG VALUES: MEAN= 2.1105 STD.DEV.= 0.1618 VARIANCE= 0.0262 NO. VALUES= 201

CELL	VALUES	COUNT	PERCENTAGE	HISTOGRAM OF ARITHMETIC VALUES	LCG VALUES
1	1.6331	0	0.0		47.9649
2	1.6786	1	0.5		47.7063
3	1.7241	0	0.0		52.9711
4	1.7695	2	1.0	*	59.2167
5	1.8150	9	4.5	****	65.3375
6	1.8604	2	1.0	*	72.5147
7	1.9059	7	3.5	***	80.4173
8	1.9514	11	5.5	****	89.4029
9	1.9968	11	5.5	****	99.2691
10	2.0423	26	12.9	*****	110.2241
11	2.0877	18	9.0	*****	122.3632
12	2.1332	23	11.4	*****	135.8945
13	2.1787	15	7.5	*****	150.4514
14	2.2241	15	7.5	*****	167.5435
15	2.2696	17	8.5	*****	186.8329
16	2.3151	15	7.5	*****	208.5626
17	2.3605	9	4.5	****	229.3586
18	2.4060	7	3.5	***	254.6657
19	2.4514	0	0.0		282.7744
20	2.4969	3	1.5	*	313.9807
21	2.5424	2	1.0	*	348.6305



HISTOGRAMS OF EP MINERALS, FRI 8/5/76

VARIABLE NAME IS: V

CELL	LOWER LIMIT	NO. COMPT	APPROXIMATE CUMULATIVE PERCENTAGE	PLOT OF LOGARITHMIC VALUES	TABLED LIMIT
1	2.554	2	1.0		357.8740
2	2.531	1	1.5	*	339.0250
3	2.509	0	1.5	*	322.3054
4	2.486	1	2.0	*	305.8694
5	2.463	2	3.0	*	290.2715
6	2.440	1	3.5	*	275.4066
7	2.417	0	3.5		261.4211
8	2.395	0	3.5		248.0561
9	2.372	1	4.0	*	235.4382
10	2.349	8	8.0	*	223.4523
11	2.326	5	10.4	*	212.3374
12	2.304	4	12.4	*	201.2299
13	2.281	10	17.4	*	190.9602
14	2.258	9	21.9	*	181.2253
15	2.235	8	25.4	*	171.9434
16	2.213	5	28.4	*	163.2129
17	2.190	11	33.8	*	154.8698
18	2.167	9	36.3	*	146.9910
19	2.145	7	41.4	*	139.4452
20	2.122	9	46.3	*	132.3015
21	2.099	8	50.2	*	125.6507
22	2.076	14	57.2	*	119.2241
23	2.054	10	62.2	*	113.1441
24	2.031	11	67.7	*	107.3743
25	2.008	11	73.1	*	101.8960
26	1.985	5	75.6	*	96.7023
27	1.963	6	78.6	*	91.7739
28	1.940	6	81.6	*	87.0910
29	1.917	9	86.1	*	82.5957
30	1.895	5	88.6	*	78.3349
31	1.872	3	90.3	*	74.3551
32	1.849	1	90.5	*	70.6393
33	1.826	6	93.5	*	67.0370
34	1.804	4	95.5	*	63.5184
35	1.781	1	96.0	*	60.3741
36	1.758	9	95.5	*	57.2453
37	1.735	2	99.5	*	54.5755
38	1.713	0	99.5	*	51.6007
39	1.690	0	99.5	*	48.9593
40	1.667	0	99.5	*	46.4720
41	1.644	1	100.0	*	44.1122

PAGE 10 OF 10

HISTOGRAMS OF BP MINERALS, FRI 8/9/78

VARIABLE NAME IS: V

CELL NUMBER	LOWER LIMIT	NO. OCCUR	UPPER LIMIT	APPROXIMATE CUMULATIVE PROBABILITY PLU. OF ARITHMETIC VALUES	LOG 211111
1	336.451	4	2.0		2.43691
2	257.579	11	2.5		2.47421
3	284.506	11	3.0		2.46171
4	281.033	11	3.5		2.44001
5	272.561	0	3.5		2.43551
6	264.064	0	3.5		2.42171
7	252.616	0	3.5		2.40761
8	247.143	0	3.5		2.39291
9	230.670	1	4.0		2.37761
10	230.198	2	5.0		2.36211
11	221.725	7	8.5		2.34561
12	213.252	4	10.4		2.32891
13	204.780	4	12.4		2.31131
14	196.307	2	13.4		2.29291
15	187.834	11	16.9		2.27381
16	179.362	9	24.4		2.25371
17	170.889	5	25.9		2.23271
18	162.416	6	26.9		2.21361
19	153.944	10	33.8		2.18741
20	145.471	9	38.3		2.16281
21	136.999	8	42.3		2.13671
22	128.526	16	50.2		2.10991
23	120.053	8	54.2		2.07941
24	111.581	17	62.7		2.04761
25	103.108	20	72.6		2.01231
26	94.635	8	76.6		1.97611
27	86.163	11	82.1		1.93531
28	77.690	13	88.6		1.89041
29	69.217	10	93.5		1.84021
30	60.745	5	96.0		1.78351
31	52.272	7	99.5		1.71931
32	43.799	1	100.0		1.64151
33	35.327	0	100.0		1.54811
34	26.854	0	100.0		1.42901
35	18.382	0	100.0		1.28491
36	9.909	0	100.0		0.99631
37	1.436	0	100.0		0.15721
38	-7.036	0	100.0		*****
39	-15.504	0	100.0		*****
40	-23.982	0	100.0		*****
41	-32.459	0	100.0		*****

5 10 20 30 40 50 60 70 80 90 99

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HISTOGRAMS OF KP MINERALS, FRI 8/9/78  
 NUMBER OF VALUES IS 201 VARIABLE NAME IS: AS  
 CALCULATED PARAMETERS: MEAN= 3.4080 STD.DEV.= 1.4268 VARIANCE= 3.7127 NO. VALUES= 201

CELL	LOWER LIMIT	NO.	PCT	PERCENTAGE	HISTOGRAM OF ARITHMETIC VALUES	LOG LIMIT
1	-1.6500	0	0.0			*****
2	-1.1663	0	0.0			*****
3	-0.6826	0	0.0			*****
4	-0.2049	0	0.0			*****
5	0.2768	0	0.0			-0.5576
6	0.7565	0	0.0			-0.1200
7	1.2402	0	0.0			0.3435
8	1.7220	0	0.0			0.2369
9	2.2037	107	53.2	*****	*****	0.3434
10	2.6854	0	0.0			0.4293
11	3.1671	0	0.0			0.5007
12	3.6488	0	0.0			0.5622
13	4.1305	61	30.3	*****	*****	0.6150
14	4.6122	0	0.0			0.6689
15	5.0939	0	0.0			0.7071
16	5.5757	0	0.0			0.7463
17	6.0574	24	11.9	*****		0.7625
18	6.5391	0	0.0			0.8125
19	7.0208	0	0.0			0.8464
20	7.5025	0	0.0			0.8752
21	7.9842	0	0.0			0.9022

LOG VALUES: MEAN= 0.4766 STD.DEV.= 0.2070 VARIANCE= 0.0428 NO. VALUES= 201

CELL	LOWER LIMIT	NO.	PCT	PERCENTAGE	HISTOGRAM OF LOGARITHMIC VALUES	LOG LIMIT
1	-0.3647	0	0.0			0.3616
2	-0.0130	0	0.0			0.9706
3	0.0368	0	0.0			1.0434
4	0.0505	0	0.0			1.2316
5	0.1423	0	0.0			1.3676
6	0.1549	0	0.0			1.5636
7	0.2458	0	0.0			1.7610
8	0.2475	0	0.0			1.9539
9	0.3353	107	53.2	*****	*****	2.2449
10	0.4010	0	0.0			2.5177
11	0.4526	0	0.0			2.8303
12	0.5045	0	0.0			3.1452
13	0.5563	0	0.0			3.5976
14	0.6080	61	30.3	*****	*****	4.0551
15	0.6597	0	0.0			4.5082
16	0.7115	0	0.0			5.1463
17	0.7632	0	0.0			5.7975
18	0.8150	24	11.9	*****		6.5311
19	0.8667	0	0.0			7.3575
20	0.9185	0	0.0			8.2665
21	0.9702	0	0.0			9.3374

HISTOGRAMS OF EP MINERALS, FRI 8/5/76

VARIABLE NAME IS: AS

CELL NO	LOWER LIMIT	WIDTH	UPPER LIMIT	APPROXIMATE CUMULATIVE PROBABILITY	PLOT OF LOGARITHMIC VALUES	TABLE LIMIT
1	0.983	3	1.51	*		9.6197
2	0.957	0	1.51	*		9.7633
3	0.921	0	1.51	*		8.5192
4	0.904	0	1.51	*		8.7453
5	0.880	6	4.51	*		7.5830
6	0.854	0	4.51	*		7.1416
7	0.828	0	4.51	*		6.7235
8	0.802	0	4.51	*		6.3194
9	0.776	24	16.4	*		5.9228
10	0.750	0	16.4	*		5.8273
11	0.724	0	16.4	*		5.3019
12	0.699	0	16.4	*		4.9952
13	0.673	0	16.4	*		4.7063
14	0.647	0	16.4	*		4.4341
15	0.621	0	16.4	*		4.1777
16	0.595	61	46.8	*		3.9360
17	0.569	0	46.8	*		3.7034
18	0.543	0	46.8	*		3.4930
19	0.517	0	46.8	*		3.2919
20	0.492	0	46.8	*		3.1015
21	0.466	3	46.8	*		2.9221
22	0.440	0	46.8	*		2.7531
23	0.414	0	46.8	*		2.5935
24	0.388	0	46.8	*		2.4430
25	0.362	0	46.8	*		2.3025
26	0.336	0	46.8	*		2.1693
27	0.310	0	46.8	*		2.0435
28	0.285	107	100.0	*		1.9257
29	0.259	0	100.0	*		1.8143
30	0.233	0	100.0	*		1.7074
31	0.207	3	100.0	*		1.6035
32	0.181	0	100.0	*		1.5174
33	0.155	0	100.0	*		1.4296
34	0.129	0	100.0	*		1.3459
35	0.103	0	100.0	*		1.2650
36	0.076	0	100.0	*		1.1856
37	0.052	0	100.0	*		1.1265
38	0.026	0	100.0	*		1.0813
39	-0.003	0	100.0	*		0.9999
40	-0.026	0	100.0	*		0.9421
41	-0.052	0	100.0	*		0.8976

1 5 10 20 30 40 50 60 70 80 90 95 99

HISTOGRAMS OF BP MINERALS, FRI 8/5/76

VARIABLE NAME IS: AS

CELL	LOWER	TIME	N	CUMSPCT	APPROXIMATE	CUMULATIVE	PROBABILITY	PLW	GE	ARITHMETIC	VALUES	LUG	TIME
1		8.105	3	1.5	*								0.5067
2		7.864	6	4.5	*								0.8456
3		7.623	0	4.5	*								0.8821
4		7.382	0	4.5	*								0.8682
5		7.141	0	4.5	*								0.8533
6		6.900	0	4.5	*								0.8384
7		6.660	0	4.5	*								0.8234
8		6.419	0	4.5	*								0.8075
9		6.178	0	4.5	*								0.7908
10		5.937	24	16.4	*	*							0.7736
11		5.696	0	16.4	*	*							0.7566
12		5.455	0	16.4	*	*							0.7396
13		5.214	0	16.4	*	*							0.7226
14		4.974	0	16.4	*	*							0.7056
15		4.733	0	16.4	*	*							0.6886
16		4.492	0	16.4	*	*							0.6716
17		4.251	0	16.4	*	*							0.6546
18		4.010	0	16.4	*	*							0.6376
19		3.769	61	46.8	*	*	*						0.5762
20		3.528	0	46.8	*	*	*						0.5676
21		3.287	0	46.8	*	*	*						0.5169
22		3.047	0	46.8	*	*	*						0.4838
23		2.806	0	46.8	*	*	*						0.4488
24		2.565	0	46.8	*	*	*						0.4091
25		2.324	0	46.8	*	*	*						0.3652
26		2.083	0	46.8	*	*	*						0.3167
27		1.842	107	100.0	*	*	*					*	0.2653
28		1.601	0	100.0	*	*	*					*	0.2046
29		1.360	0	100.0	*	*	*					*	0.1337
30		1.120	0	100.0	*	*	*					*	0.0491
31		0.879	0	100.0	*	*	*					*	-0.0352
32		0.638	0	100.0	*	*	*					*	-0.1553
33		0.397	0	100.0	*	*	*					*	-0.4312
34		0.156	0	100.0	*	*	*					*	-0.6060
35		-0.085	0	100.0	*	*	*					*	*****
36		-0.326	0	100.0	*	*	*					*	*****
37		-0.567	0	100.0	*	*	*					*	*****
38		-0.807	0	100.0	*	*	*					*	*****
39		-1.048	0	100.0	*	*	*					*	*****
40		-1.289	0	100.0	*	*	*					*	*****
41		-1.530	0	100.0	*	*	*					*	*****

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HISTOGRAMS OF OF MINERALS, FRE 8/9/76  
 NUMBER OF VALUES IS 201 VARIABLE NAME IS: C  
 CALCULATED PARAMETERS: MEAN= 0.2577 STD.DEV.= 0.3988 VARIANCE= 0.1591 NO. VALUES= 201

CELL	LOWER LIMIT	NO	PCT	PERCENTAGE HISTOGRAM OF ARITHMETIC VALUES	LOG	LIMIT
1	-0.7892	0	0.0		*****	
2	-0.6655	0	0.0		*****	
3	-0.5694	0	0.0		*****	
4	-0.4901	0	0.0		*****	
5	-0.3904	0	0.0		*****	
6	-0.2907	0	0.0		*****	
7	-0.1910	0	0.0		*****	
8	-0.0913	0	0.0		*****	
9	0.3084	73	36.3	*****		-2.0732
10	0.1082	45	22.4	*****		-0.9600
11	0.2079	22	10.9	*****		-0.6822
12	0.3076	11	5.5	*****		-0.5121
13	0.4073	11	5.5	*****		-0.3904
14	0.5070	11	5.5	*****		-0.2590
15	0.6067	6	3.0	***		-0.2173
16	0.7064	5	2.5	**		-0.1710
17	0.8061	1	0.5	*		-0.0936
18	0.9058	2	1.0	*		-0.0430
19	1.0055	2	1.0	*		0.0024
20	1.1052	3	1.5	*		0.0434
21	1.2049	3	1.5	*		0.0809

LOG VALUES: MEAN= -0.4765 STD.DEV.= 0.3490 VARIANCE= 0.1199 NO. VALUES= 201

CELL	LOWER LIMIT	NO	PCT	PERCENTAGE HISTOGRAM OF LOGARITHMIC VALUES	LOG	LIMIT
1	-1.3684	0	0.0			0.0424
2	-1.2637	0	0.0			0.0920
3	-1.1909	0	0.0			0.2033
4	-1.1142	0	0.0			0.3769
5	-1.0294	0	0.0			0.5455
6	-0.8947	45	22.4	*****		0.8136
7	-0.8599	0	0.0			0.8361
8	-0.7751	0	0.0			0.8674
9	-0.6903	2	1.0	*****		0.2040
10	-0.6056	0	0.0			0.2479
11	-0.5208	11	5.5	*****		0.3014
12	-0.4361	0	0.0			0.3663
13	-0.3514	11	5.5	*****		0.4453
14	-0.2666	6	3.0	*****		0.5412
15	-0.1819	6	3.0	***		0.6576
16	-0.0971	5	2.5	**		0.7996
17	-0.0124	3	1.5	*		0.9719
18	0.0724	5	2.5	**		1.1813
19	0.1571	5	2.5	**		1.4359
20	0.2419	1	0.5	*		1.7453
21	0.3266	1	0.5	*		2.1214

HISTOGRAMS OF BP MINERALS, FRI 4/5/78

VARIABLE NAME IS: U

CELL NO.	PERCENT	NO. OF OBS.	APPROXIMATE CUMULATIVE PROBABILITY	PLOT OF LOGNORMATIVE VALUES	ADJUSTED
1	0.348	1	0.5	*	2.2272
2	0.305	1	1.0	*	2.3204
3	0.263	1	1.5	*	1.8326
4	0.221	1	2.0	*	1.6622
5	0.178	0	2.0	*	1.5077
6	0.136	2	3.0	*	1.3675
7	0.094	0	3.0	*	1.2404
8	0.051	3	4.5	*	1.1251
9	0.009	3	6.0	*	1.0205
10	-0.034	2	7.0	*	0.9256
11	-0.076	2	8.0	*	0.8395
12	-0.118	1	8.5	*	0.7615
13	-0.161	5	10.9	*	0.6907
14	-0.203	0	10.9	*	0.6265
15	-0.245	6	13.9	*	0.5683
16	-0.288	0	13.9	*	0.5154
17	-0.330	84	55.7	*	3.4675
18	-0.373	0	55.7	*	0.4241
19	-0.415	11	61.2	*	0.3846
20	-0.457	0	61.2	*	0.3489
21	-0.500	0	61.2	*	0.3169
22	-0.542	11	65.7	*	0.2870
23	-0.584	0	65.7	*	0.2603
24	-0.627	0	65.7	*	0.2361
25	-0.669	0	65.7	*	0.2142
26	-0.712	22	77.8	*	0.1943
27	-0.754	0	77.8	*	0.1762
28	-0.796	0	77.8	*	0.1595
29	-0.839	0	77.8	*	0.1450
30	-0.881	0	77.8	*	0.1315
31	-0.923	0	77.8	*	0.1193
32	-0.966	0	77.8	*	0.1062
33	-1.008	45	100.0	*	0.0931
34	-1.051	0	100.0	*	0.0800
35	-1.093	0	100.0	*	0.0677
36	-1.135	0	100.0	*	0.0572
37	-1.177	0	100.0	*	0.0464
38	-1.220	0	100.0	*	0.0362
39	-1.262	0	100.0	*	0.0256
40	-1.305	0	100.0	*	0.0145
41	-1.347	0	100.0	*	0.0052

HISTOGRAMS OF GP MINERALS, FRI 8/9/78

VARIABLE NAME IS: 0

CELL NUMBER	LOWER LIMIT	NO. COUNT	APPROXIMATE CUMULATIVE PROBABILITY	PLUVE	SOLIDIFICATION VALUES	LOG LIKELI
1	1.295	6	3.0	*		0.1121
2	1.251	2	3.0	*		0.0971
3	1.207	0	3.0	*		0.0816
4	1.163	3	4.5	*		0.0656
5	1.119	0	4.5	*		0.0499
6	1.075	2	6.0	*		0.0315
7	1.031	0	6.0	*		0.0134
8	0.988	2	7.0	*		-0.0055
9	0.944	0	7.0	*		-0.0232
10	0.900	2	8.0	*		-0.0459
11	0.856	0	8.0	*		-0.0676
12	0.812	0	8.0	*		-0.0904
13	0.768	1	8.5	*		-0.1145
14	0.724	0	8.5	*		-0.1400
15	0.681	5	10.5	*		-0.1672
16	0.637	0	10.5	*		-0.1961
17	0.593	6	13.9	*		-0.2271
18	0.549	0	13.9	*		-0.2605
19	0.505	0	13.9	*		-0.2965
20	0.461	4	55.7	*		-0.3361
21	0.417	0	55.7	*		-0.3775
22	0.374	11	61.2	*		-0.4277
23	0.330	0	61.2	*		-0.4819
24	0.286	11	66.7	*		-0.5439
25	0.242	0	66.7	*		-0.6153
26	0.198	22	77.6	*		-0.7031
27	0.154	0	77.6	*		-0.8110
28	0.110	0	77.6	*		-0.9571
29	0.067	45	100.0	*		-1.1771
30	0.023	0	100.0	*		-1.6447
31	-0.021	0	100.0	*		*****
32	-0.065	0	100.0	*		*****
33	-0.109	0	100.0	*		*****
34	-0.153	0	100.0	*		*****
35	-0.197	0	100.0	*		*****
36	-0.240	0	100.0	*		*****
37	-0.284	0	100.0	*		*****
38	-0.328	0	100.0	*		*****
39	-0.372	0	100.0	*		*****
40	-0.416	0	100.0	*		*****
41	-0.460	0	100.0	*		*****

VALUE OF ENERGY MADE IN COLUMN

1 5 10 20 30 40 50 60 70 80 90 99



HISTOGRAMS OF BP MINERALS, FRI 8/9/76

NUMBER OF VALUES IS 201 VARIABLE NAME IS: AU  
 CALCULATED PARAMETERS: MEAN= 104.4826 STD.DEV.= 717.4438 VARIANCE= 514725.7500 NO. VALUES= 201

CELL NUMBER	MINI	NO.	PERCENTAGE	HISTOGRAM OF ARITHMETIC VALUES	MINI
1	-1778.8079	0	0.0		*****
2	-1555.4470	0	0.0		*****
3	-1420.0862	0	0.0		*****
4	-1240.7255	0	0.0		*****
5	-1061.3649	0	0.0		*****
6	-882.0041	0	0.0		*****
7	-702.6428	0	0.0		*****
8	-523.2820	0	0.0		*****
9	-343.9211	0	0.0		*****
10	-164.5602	0	0.0		*****
11	14.8008	110	54.7	*****	1.1753
12	194.1617	75	39.3	*****	2.2652
13	379.5227	5	2.5	**	2.5723
14	552.8838	1	0.5		2.7426
15	726.2449	1	0.5		2.8647
16	899.6060	2	1.0	*	2.9596
17	1072.9670	1	0.5		3.0378
18	1246.3281	1	0.5		3.1039
19	1419.6892	0	0.0		3.1618
20	1593.0503	0	0.0		3.2119
21	1766.4113	0	0.0		3.2573

LOG VALUES: MEAN= 1.0297 STD.DEV.= 0.6786 VARIANCE= 0.4719 NO. VALUES= 201

CELL NUMBER	MINI	NO.	PERCENTAGE	HISTOGRAM OF LOG VALUES	MINI
1	-1.2717	0	0.0		0.3535
2	-1.0520	0	0.0		0.3687
3	-0.8324	0	0.0		0.3841
4	-0.6127	0	0.0		0.3999
5	-0.3931	0	0.0		0.4161
6	-0.1734	46	22.9	*****	0.4328
7	0.0462	1	0.5		1.1124
8	0.2659	0	0.0		1.3446
9	0.4855	0	0.0		3.3587
10	0.7052	0	0.0		5.3722
11	0.9248	0	0.0		7.4109
12	1.1445	63	31.3	*****	13.9474
13	1.3641	33	16.4	*****	23.1283
14	1.5838	11	5.5	****	33.3524
15	1.8034	4	2.0	****	43.5563
16	2.0231	10	5.0	****	105.4614
17	2.2427	9	4.5	****	174.8614
18	2.4624	5	2.5	**	289.9973
19	2.6820	3	1.5	*	480.6884
20	2.9017	1	0.5		797.4333
21	3.1213	4	2.0	**	1322.3842

HISTOGRAMS OF SP MINERALS, FBI 2/5/76

VARIABLE NAME IS: AU

CELL	CENTER	WIDTH	CUMULATIVE	APPROXIMATE CUMULATIVE PERCENTAGE	PLI	DE	LOGARITHMIC VALUE	ORIGINAL VALUE
1	3.176	1	0.5	*				1500.5732
2	3.608	0	0.5	*				1165.2854
3	2.457	2	1.5	*				404.9135
4	2.647	2	2.5	*				702.7192
5	2.737	1	3.0	*				545.7034
6	2.627	1	3.5	*				473.7715
7	2.517	2	4.5	*				329.0637
8	2.407	0	4.5	*				255.5564
9	2.298	3	6.0	*				190.4524
10	2.188	3	7.5	*				154.1101
11	2.078	5	10.0	*				119.6750
12	1.968	7	13.4	*				92.9554
13	1.858	3	14.9	*				72.1648
14	1.749	6	17.4	*				56.0442
15	1.639	2	18.9	*				43.3217
16	1.529	9	23.4	*				33.7472
17	1.419	11	28.9	*				26.2455
18	1.309	0	28.9	*				20.3612
19	1.199	33	45.3	*				15.4272
20	1.090	0	45.3	*				12.2900
21	0.980	63	76.6	*			*	9.5449
22	0.870	0	76.6	*			*	7.4119
23	0.760	0	76.6	*			*	5.7550
24	0.650	0	76.6	*			*	4.4667
25	0.540	0	76.6	*			*	3.4710
26	0.431	0	76.6	*			*	2.6954
27	0.321	0	76.6	*			*	2.0932
28	0.211	0	76.6	*			*	1.6255
29	0.101	0	76.6	*			*	1.2629
30	-0.008	1	77.1	*			*	0.9807
31	-0.118	0	77.1	*			*	0.7612
32	-0.228	0	77.1	*			*	0.5611
33	-0.338	66	100.0	*			*	0.4250
34	-0.448	0	100.0	*			*	0.3265
35	-0.558	0	100.0	*			*	0.2700
36	-0.668	0	100.0	*			*	0.2210
37	-0.777	0	100.0	*			*	0.1669
38	-0.887	0	100.0	*			*	0.1290
39	-0.997	0	100.0	*			*	0.1007
40	-1.107	0	100.0	*			*	0.0782
41	-1.217	0	100.0	*			*	0.0601

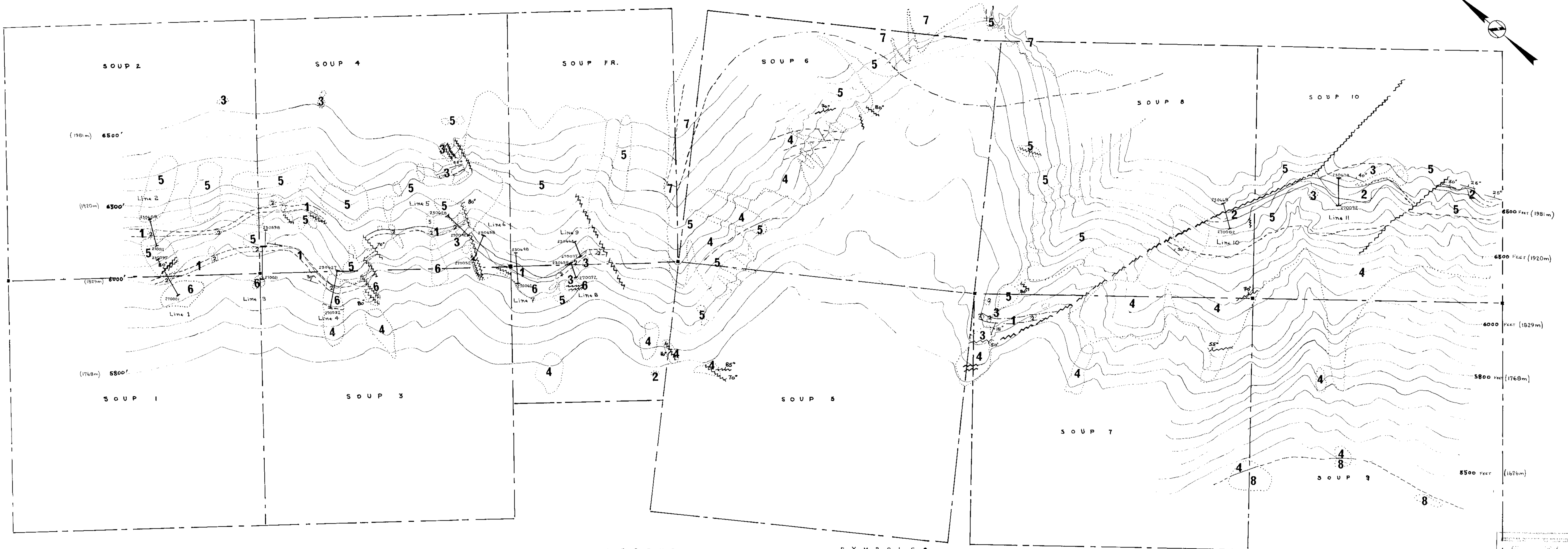
MADE IN CANADA

HISTOGRAMS OF UP MINERALS, FRI 8/4/78

VARIABLE NAME IS: AJ

CELL	LOWER LIMIT	NO. IMPACT	APPROX. CORR.	CUMULATIVE PROBABILITY	PLOT OF TRANSFORMED VALUES	LLS LIMIT
1	1853.315	1	0.5	*		3.2079
2	1783.637	0	0.5	*		3.2464
3	1673.959	0	0.5	*		3.2237
4	1584.281	0	0.5	*		3.1948
5	1454.604	0	0.5	*		3.1745
6	1404.926	0	0.5	*		3.1477
7	1315.248	0	0.5	*		3.1150
8	1225.570	0	0.5	*		3.0883
9	1135.892	1	1.0	*	*	3.0553
10	1046.214	0	1.0	*	*	3.0196
11	506.536	1	1.5	*	*	2.9807
12	506.858	1	2.0	*	*	2.9374
13	777.180	1	2.5	*	*	2.8905
14	687.502	0	2.5	*	*	2.8373
15	597.824	1	3.0	*	*	2.7766
16	508.146	0	3.0	*	*	2.7060
17	418.468	1	3.5	*	*	2.6217
18	328.790	2	4.0	*	*	2.5169
19	239.112	0	4.5	*	*	2.3786
20	149.434	0	4.0	*	*	2.1744
21	59.756	18	17.9	*	*	1.7744
22	-29.922	165	100.0		*	*****
23	-119.600	0	100.0		*	*****
24	-239.278	0	100.0		*	*****
25	-358.956	0	100.0		*	*****
26	-478.634	0	100.0		*	*****
27	-598.312	0	100.0		*	*****
28	-717.990	0	100.0		*	*****
29	-837.668	0	100.0		*	*****
30	-957.346	0	100.0		*	*****
31	-1077.024	0	100.0		*	*****
32	-1196.702	0	100.0		*	*****
33	-1316.380	0	100.0		*	*****
34	-1436.058	0	100.0		*	*****
35	-1555.736	0	100.0		*	*****
36	-1675.414	0	100.0		*	*****
37	-1795.092	0	100.0		*	*****
38	-1914.770	0	100.0		*	*****
39	-2034.448	0	100.0		*	*****
40	-2154.126	0	100.0		*	*****
41	-2273.804	0	100.0		*	*****

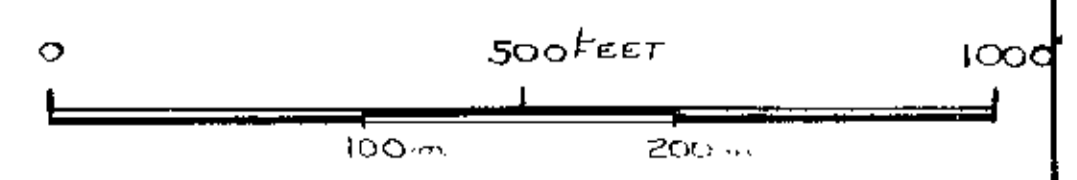
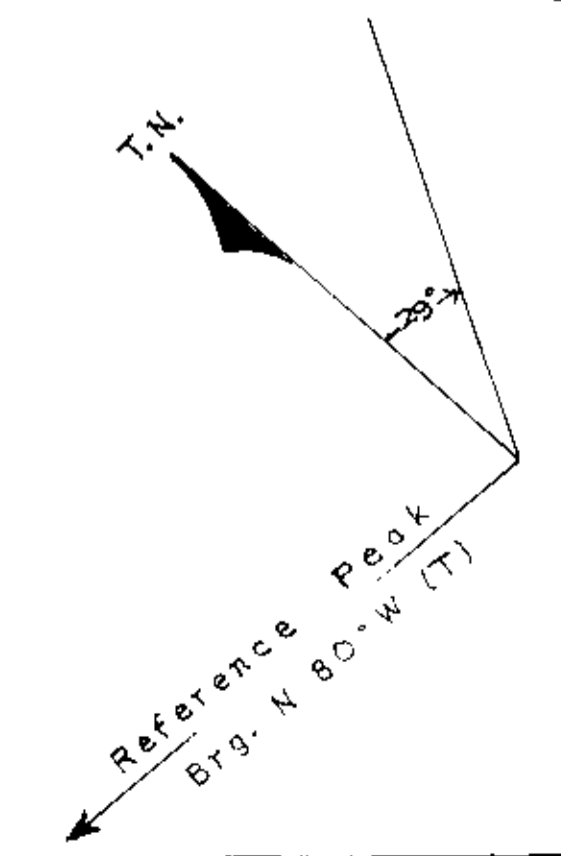
5 10 20 30 40 50 60 70 80 90 99



Geology after K.C. McTaggart, 1965 B.C.D.M. Assessment Report No. 675  
 Complete sequence of sample numbers for Rock Chip Sample Section Lines found in Appendix I.

- LEGEND**
- 8 Quartz Monzonite
  - 7 Diorite
  - 6 Microdiorite Sill
  - 5 Augite porphyry flows, minor flow breccias
  - 4 Andesite, minor feldspar & augite porphyry flows, tuff.
  - 3 Barren siliceous, pyritic rock
  - 2 Massive magnetite with some chalcopyrite and/or derived indigenous limonite gossan
  - 1 Sub-crop of mineral deposit indicated by float

- SYMBOLS**
- Contact - defined, approx, assumed
  - Fault - defined, approx.
  - Attitude
  - Contours (Interval 50')
  - Outcrop areas
  - Claim post
  - Chip Sampling Line with Sample Range



7033  
 NO.

BP Minerals Limited

**SOUP CLAIMS**  
 Rock Chip Sample Location

SCALE	DATE	NTS 94D8	FIG. 3
To accompany report:		PROJ	

Scale 1" = 400 ft  
1 block = 1600 ft sq

The Anthony Group  
T.J.W - 6 UNITS  
T.J.W-B 3 UNITS  
T.J.W-C 2 UNITS

7033

T. J. W.  
57 (8)

T. J. W-B  
4  
(6)

Old Highway Rd

SWAMP

Drill hole No 3

SWAMP

Drill hole No 1

Old Highway Rd

Road to Murphy Lake

5939

CORNER POST

7033

Road To Lac LaPêche