GEOCHEMICAL REPORT 1989

ARC AND M & M CLAIMS

Liard Mining Division
British Columbia
NTS 104G/2

Longitude 130° 50' West
Latitude 57° 08' North

Work Period: July 2 - October 12, 1989

prepared for

KESTREL RESOURCES LTD.
1124 - 470 Granville Street
Vancouver, B.C.

by

JOHN BUCHHOLZ

April 1990

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INTRODUCTION

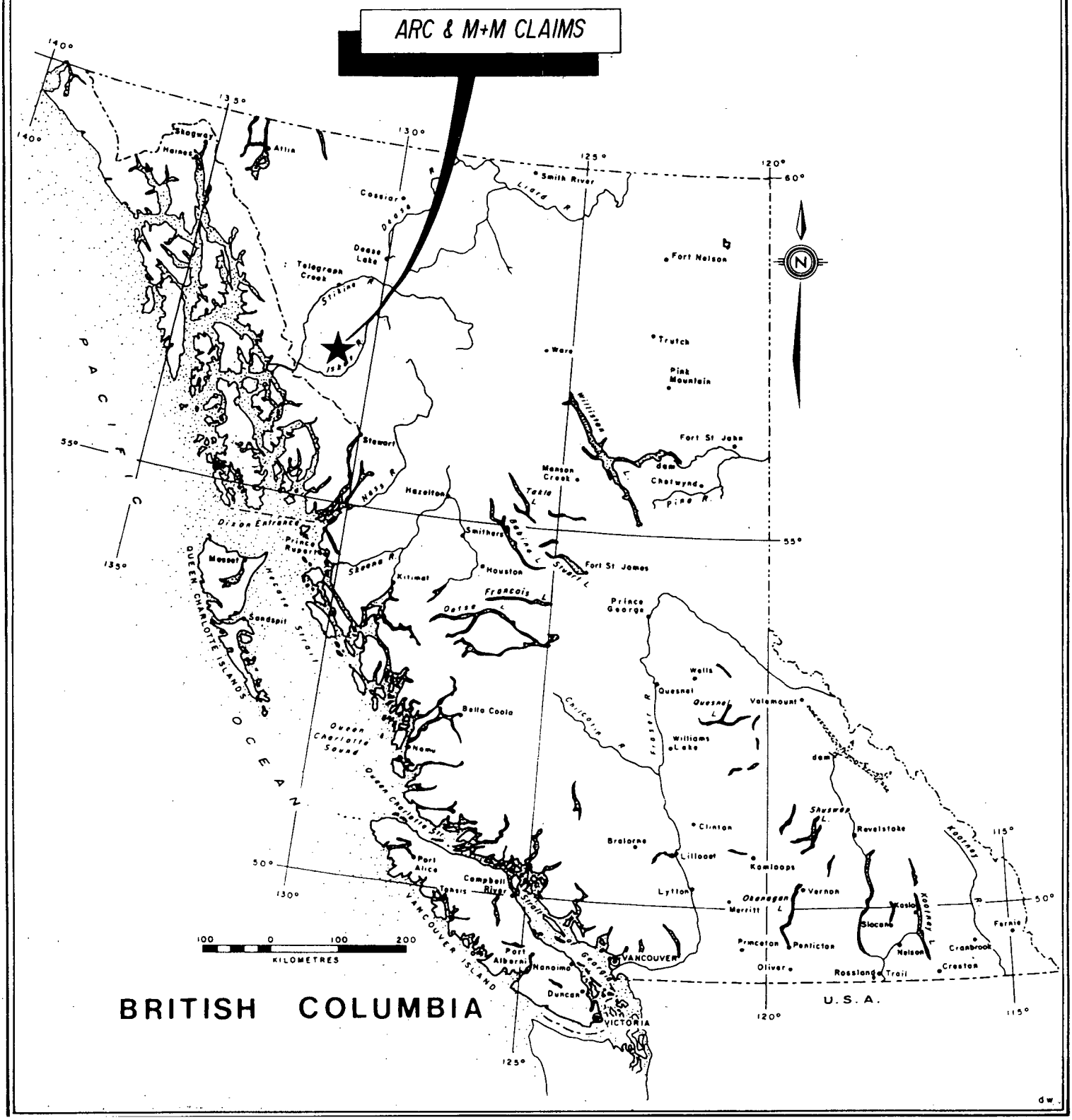
During the late fall of 1989, Kestrel Resources Ltd. completed a reconnaissance silt sample program on its Arc and M&M claims situated approximately 10 kilometres due south of Arctic Lake within the Liard Mining Division of Northwestern British Columbia. The program was undertaken to assess the mineral potential of the property and to provide information, so far as possible, required to outline additional exploration work.

LOCATION, ACCESS AND TOPOGRAPHY

The property is located within the Liard Mining Division approximately 10 kilometres due south of Arctic Lake and covers the drainage system of the central west fork of More Creek, west of Mess Creek. Latitude 57° 08' North and Longitude 130° 50' West pass through M & M 2 mineral claim near the center of the groups. Access to the property is via fixed wing aircraft from Smithers or Terrace to Bronson, which is located 110 kilometres northwest of Stewart, British Columbia, or to Forrest Kerr base camp located at the headwaters of the Forrest Kerr River. Access from Bronson or Forrest Kerr is via helicopter and via foot traverse within the claims.

Most of the property is accessible by foot or helicopter, although there are portions at higher elevations which are not readily accessible due to steep terrain or ice. Elevations range from 760 metres to 1,680 metres A.S.L. Above 1,200 metres the claims are devoid of vegetation except for shrubs and grasses, and exhibit abundant outcrop. Below this elevation the usual coast mountain evergreens, devils club and alder predominate. Precipitation exceeds 4,000 millimetres annually; temperatures range from -40° to +25° centigrade.

KESTREL RESOURCES LTD.		
LIARD MINING DIVISION, B.C. LOCATION MAP		
N.T.S. 104 B/15, 104 G/2	SCALE: As Shown	FIG.
DATE: FEB., 1990	DRAWN: J.B./dw	1



PROPERTY AND LIST OF CLAIMS

The Arc and M&M claims comprise three separate groups totalling 219 units in 14 claims grouped as listed below:

1) Arc Group

Claim Name		Record No.	No. of Units	Record Date
Arc	1	4490	3	Feb 24, 1988
	2	4491	20	" "
	3	4492	20	" "
	4	4493	20	" "
	5	4494	5	" "
M & M	4	6314	10	Sept 5, 1989
	9	6399	15	Sept 12, 1989

2) M & M 1 Group

M & M	1	6311	16	Sept 5, 1989
	2	6312	20	" "
	3	6313	20	" "
	5	6315	18	" "
	6	6316	12	" "

3) M & M 2 Group

M & M	10	6400	20	Sept 15, 1989
	11	6401	20	Sept 15, 1989

To the best of the writer's knowledge, the claims appear to have been correctly recorded.

HISTORY

Sporadic exploration efforts have continued intermittently in the Iskut River area since the turn of the century, with early activity concentrated in the area of the Stewart mining camp. As prospecting and exploration continued northward, various placer gold operations were discontinuously active along both the Iskut and Unuk Rivers.

In 1907, a prospecting party from Wrangell, Alaska staked nine mineral claims north of Johnny Mountain, the first recorded work in the area. The claims were subsequently explored and mined by the Iskut Mining Company, who in 1917 shipped a ton of high grade ore which reportedly assayed $1.20 gold, 44.2 ounces silver and 12.45% copper (B.C.M.M.A.R., 1917).

Little is known about subsequent work until 1954 when Hudson Bay Mining and Smelting Limited discovered high grade gold-silver-lead-zinc mineralization, known as the "Pickaxe" showing, on the slopes of Johnny Mountain. These claims were eventually allowed to lapse after an initial evaluation.

Several major mining companies initiated reconnaissance exploration programs in the 1960s in the Iskut River Area. Of these, Cominco Ltd. drilled several core holes in search of pyritic mineralization on Johnny Mountain. Interest in the Johnny Mountain area potential to host significant sulphide mineralization increased with Skyline Exploration Ltd.'s discovery of mineralized float on the Bronson Creek glacier in 1969, resulting in that company staking the Inel property. In 1980, the company staked the REG property on Johnny Mountain after the discovery of high grade gold-bearing veins. Exploration on both their Inel and REG properties continued to 1989.

Skyline Exploration Ltd. reported in late fall of 1989, geological reserves of their Stonehouse deposit of 740,000 tons grading 0.52 opt gold with significant silver and copper values. Underground work commenced in 1988, and after some initial production difficulties, the mine is currently in production at 350 tons per day.

The joint venture partners of Prime Resources Corporation and Cominco Ltd. are currently in the final stages of a feasibility study of their SNIP property, located immediately north of the REG property on the northern slopes of Johnny Mountain. The latest combined geological reserve for the property is 1,000,000 tons grading 0.80 opt gold.

Other advanced prospects currently undergoing intense exploration efforts in the area include Inel Resources Ltd.'s Inel property, Gulf International Minerals Ltd.'s McLymont property, Placer Dome Ltd.'s Kerr deposit and Calpine's 21 Zone Discovery.

The discovery of the Eskay Creek gold prospect (Calpine 21 Zone) in November of 1988 has done much to stimulate exploration activity in the Iskut region. The deposit occurs essentially at the upper contact of a relatively flat lying, hydrothermally-altered andesite breccia (Rhyolite) within Middle Jurassic Hazelton Group volcanic and sedimentary rocks. The effects of faulting and folding are not clearly understood at this date. The zone remains open to the northeast and downdip, although fill-in drilling at 25 metre spacing is continuing. Spectacular results have been obtained in drill core assays, particularly those in Hole No. 109, which returned 201.2 metres (660 feet) grading 30 grams per tonne gold (0.876 opt). Drill hole intersections varying from 5 to 10 metres (16 to 33 feet) and grading to 100 grams gold per tonne (2.92 opt) with an average 1,000 grams or more of silver per tonne (29.2 opt), are not uncommon. Significant values in lead and zinc are present as well. This prospect is without doubt the most important precious metal deposit ever discovered in British Columbia.

REGIONAL GEOLOGY

The Stewart - Iskut - Eskay Creek gold silver area is situated along the western margin of the Intermontaine belt of volcanic and sedimentary rocks where they join the Coast Plutonic Complex of intrusive and metamorphic rocks. The most significant host of gold-silver mineralization in the area is the Triassic to Jurassic volcanic-sedimentary Stewart complex (Hazelton group). Triasic to Tertiary plutonic rocks of the Coast Intrusion are considered to be the source of the mineralization. Jurassic sedimentary rocks of the Bowser Basin are extensively underlain by rocks of the Stewart Complex.

Within the Stewart Complex of volcanics and sedimentary rocks both narrow fractures and wide shear zones carry gold, silver and often, copper and molybdenum values associated with quartz veining. These mineralized areas are frequently close to felsic porphyry sills and dykes. The northern portion of the district appears to contain higher frequency of gold quartz veins grading to increased silver toward the south and increased copper toward the west.

The recently discovered 21 Zone on the Stikine Silver/Calpine claims to the southeast of the Arc and M & M claims, is hosted in the Mount Dilworth formation of the upper Hazelton group. The Dilworth formation has been traced to the northwest from the 21 Zone.

PROPERTY GEOLOGY

Geological Survey Map 11-1971, prepared by J.G. Souther, shows the geology of the Arc and M&M claims at a scale of 1:250,000. More detailed maps are unavailable from Government sources and Kestrel has not completed reconnaissance mapping on this property. According to Souther's work, the claims are underlain by foliated rocks of Paleozoic age, minor limestone, and associated intermediate intrusive rocks of Jurassic-Triassic age. Foliated rocks consist of phyllite, greenstone, quartz sericite - chlorite schist, argillaceous quartzite, minor chert and schistose tuff. The property is partly fault bounded near its eastern border (More

0 5 10 15Km.

1 : 250,000

KESTREL RESOURCES LTD.	
GEOLOGY MAP ARC & M+M CLAIMS	
DRAWN BDS	NTS 104 G/2
DATE : DEC 1989	FIGURE N°. 3

LEGEND

CENOZOIC

QUATERNARY
PLEISTOCENE AND RECENT

29 Fluviatile gravel; sand, silt; glacial outwash, till, alpine moraine and colluvium

28 Hot-spring deposit, tufa , aragonite

27 Olivine basalt, related pyroclastic rocks and loose tephra; younger than some of 29

TERTIARY AND QUATERNARY
UPPER TERTIARY AND PLEISTOCENE

26 Rhyolite and dacite flows, lava domes, pyroclastic rocks and related subvolcanic intrusions; minor basalt

25 Basalt, olivine basalt, dacite, related pyroclastic rocks and subvolcanic intrusions; minor rhyolite; in part younger than some 26

CRETACEOUS AND TERTIARY
UPPER CRETACEOUS AND LOWER TERTIARY
SLOKO GROUP

24 Light green, purple and white rhyolite, trachyte and dacite flows, pyroclastic rocks and derived sediments

22 23 22. Biotite leucogranite, subvolcanic stocks, dykes and sills
23. Porphyritic biotite andesite, lava domes, flows and (?) sills

SUSTUT GROUP

21 Chert-pebble conglomerate, granite-boulder conglomerate, quartzose sandstone, arkose, siltstone, carbonaceous shale and minor coal

20 Felsite, quartz-feldspar porphyry, pyritiferous felsite, orbicular rhyolite; in part equivalent to 22

19 Medium-to coarse-grained, pink biotite-hornblende quartz monzonite

JURASSIC AND/OR CRETACEOUS
POST-UPPER TRIASSIC PRE-TERTIARY

18 Hornblende diorite

17 Granodiorite, quartz diorite; minor diorite, leucogranite and migmatite

MESOZOIC

JURASSIC

MIDDLE (?) AND UPPER JURASSIC

BOWSER GROUP

16 Chert-pebble conglomerate, grit, greywacke, subgreywacke, siltstone and shale; may include some 13

MIDDLE JURASSIC

15 Basalt, pillow lava, tuff-breccia, derived volcaniclastic rocks and related subvolcanic intrusions

LOWER AND MIDDLE JURASSIC

14 Shale, minor siltstone, siliceous and calcareous siltstone, greywacke and ironstone

LOWER JURASSIC

13 Conglomerate, polymictic conglomerate; granite-boulder conglomerate, grit, greywacke, siltstone; basaltic and andesitic volcanic rocks, peperites, pillow-breccia and derived volcaniclastic rocks

TRIASSIC AND JURASSIC

POST-UPPER TRIASSIC PRE-LOWER JURASSIC

12 Syenite, orthoclase porphyry, monzonite, pyroxenite

HICKMAN BATHOLITH

10 | 11 10. Hornblende granodiorite, minor hornblende-quartz diorite 11. Hornblende, quartz diorite, hornblende-pyroxene diorite, amphibolite and pyroxene-bearing amphibolite

TRIASSIC

UPPER TRIASSIC

9 Undifferentiated volcanic and sedimentary rocks (units 5 to 8 inclusive)

8 Augite-andesite flows, pyroclastic rocks, derived volcaniclastic rocks and related subvolcanic intrusions; minor greywacke, siltstone and polymictic conglomerate

7 Siltstone, thin-bedded siliceous siltstone, ribbon chert, calcareous and dolomictic siltstone, greywacke, volcanic conglomerate, and minor limestone

6 Limestone, fetid argillaceous limestone, calcareous shale and reefoid limestone; may be in part younger than some 7 and 8

5 Greywacke, siltstone, shale; minor conglomerate, tuff and volcanic sandstone

MIDDLE TRIASSIC

4 Shale, concretionary black shale; minor calcareous shale and siltstone

PALEOZOIC

PERMIAN

MIDDLE AND UPPER PERMIAN

3 Limestone, thick-bedded mainly bioclastic limestone; minor siltstone, chert and tuff

PERMIAN AND OLDER

2 Phyllite, argillaceous quartzite, quartz-sericite schist, chlorite schist, greenstone, minor chert, schistose tuff and limestone

MISSISSIPPIAN

1 Limestone, crinoidal limestone, ferruginous limestone; maroon tuff, chert and phyllite

B Amphibolite, amphibolite gneiss; age unknown probably pre-Upper Jurassic

A Ultramafic rocks; peridotite, dunite, serpentinite; age unknown, probably pre-Lower Jurassic

Geological boundary (defined and approximate, assumed) .....

Bedding (horizontal, inclined, vertical, overturned) .....

Anticline .....

Syncline .....

Fault (defined and approximate, assumed) .....

Thrust fault, teeth on hanging-wall side (defined and approximate, assumed). .

Fossil locality ..... Ⓕ

Mineral property 15x

Glacier .....

Creek) as well as near its northwest boundary south of Arctic Lake. Northerly trending quartz veins appear to be related to this regional system but where examined and sampled, did not carry visible sulphides or significant values in precious metals.

GEOCHEMICAL PROGRAM

The program completed by Kestrel was designed to provide broad coverage with a minimum of time and cost expenditures and was successfully completed during the period July 2, October 12, 1989. A total of 29 man days were spent in accumulating 111 stream sediment samples and 149 soil contour samples. All of the sample results and locations are shown plotted on the attached sample location map (Figure 4). The samples were collected by Rangex personnel, trained and under contract to Kestrel Resources Ltd. Kestrel supplied supervision. Silt samples were collected from the active channel of the stream in Kraft paper envelopes assigned a number whose location was marked on a topographic map and described in field sample books supplied for this purpose. Features described include depth of channel, width of channel, type of material collected i.e. silt, fine sand, coarse sand, gravel, etc., colour of material collected, amount of organic content and type and percent of sulphide mineralization present.

Soil samples were collected during two separate contour traverses and stored in Kraft paper envelopes as described above. Details recorded included depth of sample (approximately 20 centimeters average depth), slope angle, slope direction, colour of soil, type of soil, sulphides present and general observations. All samples were dried at ambient temperatures then shipped to Vangeochem for analysis.

A 25 element I.C.A.P. analysis, as well as a standard F.A. and A.A. result for gold, was obtained for each silt sample collected. Soils were analyzed for gold as above and for Ag, As, Cu, Fe, Mn, Mo, Ni, Pb, Sb and Zinc, as described in Appendix II.

DISCUSSION OF RESULTS

The results of assays obtained from the soil and silt sample program do not indicate any significant economic or precious metal targets. Values for silver (ppm) and gold (ppb) are shown plotted on Figure 4 and are fully discussed by John C. Harrop of Cyberquest as are the ICAP results obtained (Appendix I).

As may be seen from a brief review of Figure 4, sample spacing along individual creeks is in most cases better than average, yielding a minimum of five samples per stream. Similarly, most of the streams draining the northern half of the claim block have been sampled, although there are 5 to 6 tributaries that did not receive any sampling. (These streams drain M&M 1 and 10 mineral claims.) The southern portion of the claim block was not sampled due to time constraints, ice, and lack of properly developed drainage.

The highest value obtained is 100 ppb Au in soil sample 05398. Silver values are consistently less than 1.0 ppm in both soil and stream sediment samples. Silver values therefore, are not useful in isolating anomalous conditions that may exist on the property. ICAP results, for the most part, did not return useful data with the exception of As and possibly Pb and Zn in stream sediment samples, all of which show some correlation with anomalous Au soil samples. The geochemical survey completed appears to be a reliable tool within the topographic - geologic setting, but inasmuch as there is no detailed geological information available to confirm this, a definite conclusion regarding this observation is unavailable.

CONCLUSIONS

1) There is no history of work on the property prior to 1988.

2) The geology underlying the Arc and M&M mineral claims appears to be favourable as host of sulphide and/or precious metal deposits in that both intrusive rocks and their related quartz veins occur within a volcanic-sedimentary assemblage of Paleozoic age.

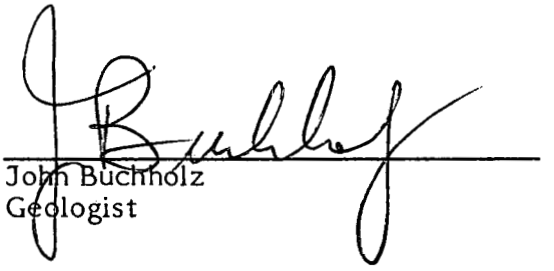
3) Stream sediment sampling results obtained have not defined any obvious exploration targets requiring follow-up work.

4) The property has received minimal exploration to date.

RECOMMENDATIONS

Due to the limited and rapid coverage of the property to date, it is recommended that the property be fully evaluated by means of reconnaissance prospecting and rock sampling, additional selected geochemical sampling, and reconnaissance geological mapping as required. Particular attention should be given to any intrusive -volcanic - sedimentary contacts as well as other features such as obvious gossans, shear zones and quartz vein systems not explored previously.

The program, as outlined above, is estimated to require a total of $150,000 as indicated in the proposed expenditures attached.



John Buchholz
Geologist

PROPOSED EXPENDITURES

Prospecting, Sampling 4 man crew, 24 days at $300/man day	$ 28,800
Geological Mapping	7,000
Geophysics - Geochem	15,000
Trenching: 12 man days at $300/man day	3,600
Room and Board: 150 man days	18,700
Helicopter: 25 hours at $800/hour	20,000
Assay: 400 samples at $20 each	8,000
Transportation, Supplies, Mob-Demob etc.	10,000
Report: Compilation and Maps	8,000
Management Fee (10%)	12,000
Contingency	$ 18,000
Total	$150,000

BIBLIOGRAPHY

Souther, J.G., Geological Survey of Canada, Paper 71-44, Map 11-1971.

APPENDIX I

GEOCHEMICAL REPORT

Geochemical Data Analysis and Interpretation on the ARC 1-5, M&M 1 - 11 Claims for Kestrel Resource Ltd.

John C. Harrop
(CyberQuest Exploration Systems Ltd)

1) Soil Samples

The results of 149 soil samples analyzed by 10 element ICP and AA (for Au only) were examined. These soil samples were taken along rough contours at 25 m spacing on the ridge near the common border of the ARC 2 and ARC 3 claims. Three elements, Ag, Mo and Sb were not considered in the data analysis due to their low range of values close to detection limit. The remaining elements were examined by probability plot analysis. Thresholds were then determined with the exception of Au and Zn since their probability plots were unable to distinguish component populations. Zn values greater than mean plus two standard deviations were considered outliers and treated as anomalous. Since Zn more closely approximated a log-normal distribution than a normal distribution mean and standard deviation were calculated on log transformed data. Two samples returned Au values significantly above background: 05398 - 100 ppb Au, 05405 - 50 ppb Au.

Although few conspicuously anomalous values were returned, an As anomaly of eight adjacent samples (05404 - 05411) coinciding with the 50 ppb Au has been identified. With a threshold of 60.6 ppm this may be seen as a low intensity anomaly, however the continuity, statistical significance and minor Au (+ Mn and Pb) association of the anomaly make it the largest feature that may reflect mineralization found in the soil data.

	AG	AS	CU	FE (%)	MN
N OF CASES	147	147	147	147	147
MINIMUM	0.100	0.000	14.000	1.770	335.000
MAXIMUM	1.000	247.000	1056.000	13.060	18496.000
MEAN	0.213	21.503	96.639	4.995	1366.408
STANDARD DEV	0.144	32.135	103.289	1.295	1524.281
SKEWNESS(G1)	1.998	3.633	6.271	2.482	9.816
KURTOSIS(G2)	5.913	17.931	51.142	10.987	107.132
THRESHOLD		60.6	185.8	7.27	1576
DETECTION	0.1	3	1	0.01	1

	MO	NI	PB	ZN
N OF CASES	147	147	147	147
MINIMUM	0.000	11.000	14.000	41.000
MAXIMUM	5.000	110.000	130.000	782.000
MEAN	1.837	31.116	41.769	140.857
STANDARD DEV	0.899	12.247	13.404	86.027
SKEWNESS(G1)	0.553	2.703	2.571	4.551
KURTOSIS(G2)	0.766	12.989	12.247	26.618
THRESHOLD		44.2	64.8	284.4
DETECTION	1	1	2	1

Table 1: Summary Statistics and Thresholds for Soil Sample Data. (147 samples) All values in ppm except where marked. Zn threshold is calculated from log transformed data. All other thresholds calculated by probability plot analysis.

Samples returning Cu values greater than 185.8 ppm (05326, 05328, 05334, 05335, 05339, 05340, 05361, 05362, 05409) weresporadically located including three pairs of adjacent samples. No obvious patterns relating to mineralization or lithology were apparent in the Cu distribution.

Anomalous Mn samples were found to be sporadically located with some correlation to high Fe values. Several high Cu values may be explained by their coincidence with high Mn. Five high Mn samples coincide with the As anomaly mentioned above. Fe and Ni show now spatially meaningful anomalies.

Three adjacent high Pb values are coincident with the above mentioned As anomaly. Otherwise not additional Pb samples are of interest. Four contiguous high Zn samples (05419 - 05422) do not

correlate with any other elemental anomalies. Due to the hydromorphic dispersion patterns of Zn, and the frequency of the metal in contamination no further comment on this is warranted without additional knowledge of the site.

2) Stream Sediment Samples

The results of 111 stream sediment samples analyzed by 25 element ICP and AA (for Au only) were examined. Interpretation of the stream sediment results cannot be conducted in vacuo, but must be integrated with the known geology and alteration characteristics of the property. The dominant signal in the data, as would be expected, is the underlying lithology of each sample's catchment basin. Sensitivity to recognizing anomalies can be significantly increased when the geology of the basins can be determined independently from the geochemistry.

Eleven elements Ag, Bi, Cd, Co, K, Mo, Na, Sb, Sn, U and W were not considered due to their low range of values near or below the detection limit. The remaining elements were examined by probability plot analysis and when possible thresholds were determined. The elements Au, As, Ba, Ni, Pb and Sr could not be analyzed by probability plot and a threshold of mean plus two standard deviations was used to arbitrarily identify outliers. Of these Sr was found to more closely fit a log-normal than normal distribution, thus mean and standard deviation were calculated from log transformed data. Three of these elements, Ba, Ni and Sr gave scattered high values and showed no meaningful interpretation. Strong spatially consistent lithologic and/or alteration signatures were indicated by Al, Cr, Cu, Mg and P. More sporadic lithologic signatures were given by Ca, Fe, Mn, and Zn.

As was found to indicate six outliers, of which an isolated 'high' value (57 ppm) coincided with 'high' Pb (90 ppm) and Zn

(407 ppm) was of the most interest (see sample 06079). Three 'high' As values were found in the same drainage in the southwestern corner of the sampled area (samples 05456, 05457, 05462). Based on the As anomaly observed in the soil samples, As may be the better indicator of mineralization related elements. Pb indicated two pairs of 'high' values (samples 05461, 05462 and 05651, 05652). Au gave no significant high values, the highest being 30 ppb Au in sample 05653.

Most striking was the inverse correlation between Cr and P values. Mg and Fe tended to correlate with Cr but not at consistently as the Cr-P relationship. This most likely reflects a high-Cr, low-P rock unit and a low-Cr, high-P rock unit that can be traced by drainage across the claims. A high Zn population roughly correlated with high Cr but was more sporadic than P. Cu and Al show a consistent depletion or anomalously low population. This population is isolated to the hillside draining the soil sampled ridge in the northwestern corner of the claims. Again, this is most likely a rock unit, or an alteration pattern indicated in the stream sediments.

	AL (%)	AS	BA	CA (%)	CO
MINIMUM	1.220	3.000	51.000	0.190	10.000
MAXIMUM	3.840	57.000	283.000	2.620	44.000
MEAN	2.637	16.784	142.532	0.551	22.523
STANDARD DEV	0.608	7.696	56.077	0.319	4.578
SKEWNESS(G1)	-0.208	1.395	0.404	4.092	1.042
KURTOSIS(G2)	-0.356	5.183	-0.766	21.623	4.155
THRESHOLD	1.75	29.8	254.686	0.74	
DETECTION	0.01	3	1	0.01	1

	CR	CU	FE (%)	K (%)	MG (%)
MINIMUM	8.000	25.000	2.700	0.060	0.690
MAXIMUM	65.000	244.000	6.370	1.180	3.170
MEAN	29.919	82.919	4.219	0.240	1.684
STANDARD DEV	13.327	31.852	0.610	0.172	0.429
SKEWNESS(G1)	0.131	1.250	0.773	3.387	0.735
KURTOSIS(G2)	-0.707	4.983	0.946	12.529	0.841
THRESHOLD	22.3	44.5	4.90		1.83
DETECTION	1	1	0.01	0.01	0.01

	MN	NI	P (%)	PB	SR
MINIMUM	588.000	9.000	0.040	18.000	14.000
MAXIMUM	5297.000	36.000	0.410	111.000	189.000
MEAN	1159.090	22.270	0.116	36.486	48.351
STANDARD DEV	519.108	5.555	0.080	11.264	26.604
SKEWNESS(G1)	5.050	0.271	1.555	3.599	2.107
KURTOSIS(G2)	35.496	-0.329	2.206	19.811	7.184
THRESHOLD	1614	33.4	0.101	49.4	114.4
DETECTION	1	1	0.01	2	1

	ZN
MINIMUM	64.000
MAXIMUM	407.000
MEAN	108.099
STANDARD DEV	40.191
SKEWNESS(G1)	3.819
KURTOSIS(G2)	25.533
THRESHOLD	101.7
DETECTION	1

Table 2: Summary Statistics and Thresholds for Stream Sediment Data. (111 Samples) All values in ppm except where noted. See text for explanation of threshold calculation.

Certificate

I, John C. Harrop, of 605 - 150 East 15th Street, North Vancouver, B.C., hereby certify that:

1. I am a graduate of the University of British Columbia (1983) with a Bachelor of Science degree in Geology.

2. I have been practising my profession of mineral exploration, geochemistry and data analysis since 1983.

3. I have not received, nor do I expect to receive, any interest, direct or indirect, in Kestrel Resources Ltd. or in any of its associated companies.

4. I have no interest in any claims within 20 km of the ARC 1 - 5 and
M&M 1 - 11 groups of claims.

5. The present report is based on information received from Kestrel Resources Ltd without having visited the property.

dated this 9th day of April, 1990

John Harrop

John C. Harrop
CyberQuest Exploration Systems Ltd

Kestrel Resources - M&M ARC Claims, Soil Data

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

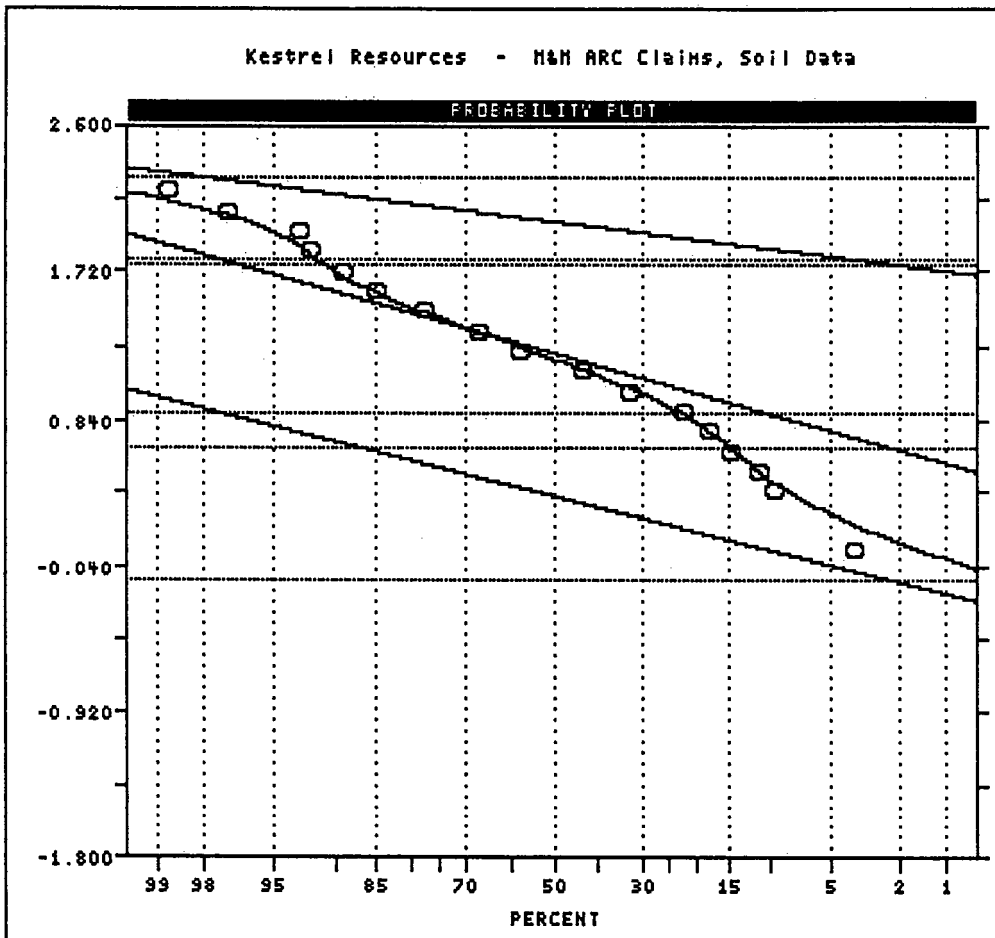
Variable =	As ppm	Unit =		N =	121
Mean =	1.1717	Min =	0.0000	1st Quartile =	0.9542
Std. Dev. =	0.4840	Max =	2.3927	Median =	1.2041
CV % =	41.3084	Skewness =	-0.2909	3rd Quartile =	1.4771

Anti-Log Mean = 14.847 Anti-Log Std. Dev. : (-) 4.871
(+) 45.253

(# of bins = 21 - bin size = 0.1196)

%	cum %	antilog	cls int	
0.00	0.41	0.871	-0.0598	
3.31	3.69	1.148	0.0598	***
0.00	3.69	1.512	0.1795	
0.00	3.69	1.991	0.2991	
5.79	9.43	2.623	0.4187	*****
1.65	11.07	3.454	0.5384	*
3.31	14.34	4.550	0.6580	***
3.31	17.62	5.993	0.7776	***
4.13	21.72	7.893	0.8973	****
10.74	32.38	10.397	1.0169	*********
10.74	43.03	13.694	1.1365	*********
14.88	57.79	18.037	1.2562	**********
9.09	66.80	23.758	1.3758	********
10.74	77.46	31.292	1.4954	*********
7.44	84.84	41.216	1.6151	******
4.13	88.93	54.288	1.7347	****
3.31	92.21	71.506	1.8543	***
0.83	93.03	94.184	1.9740	*
4.13	97.13	124.054	2.0936	****
1.65	98.77	163.397	2.2132	*
0.00	98.77	215.218	2.3329	
0.83	99.59	283.475	2.4525	*

0 1 2 3 4



LOGARITHMIC VALUES

VARIABLE = As ppm
UNIT =
N = 121
N CI = 21

POPULATIONS

Pop.	Mean	Std.Dev.	%
1	0.3741	0.2536	14.3
2	1.2352	0.2827	78.9
3	2.0191	0.1277	6.8

THRESHOLDS

Pop.		
1	-0.1331	0.8812
2	0.6697	1.8007
3	1.7637	2.2746

CLASS INTERVAL ML
PARAMETER ESTIMATES

Kestrel Resources - M&M ARC Claims, Soil Data

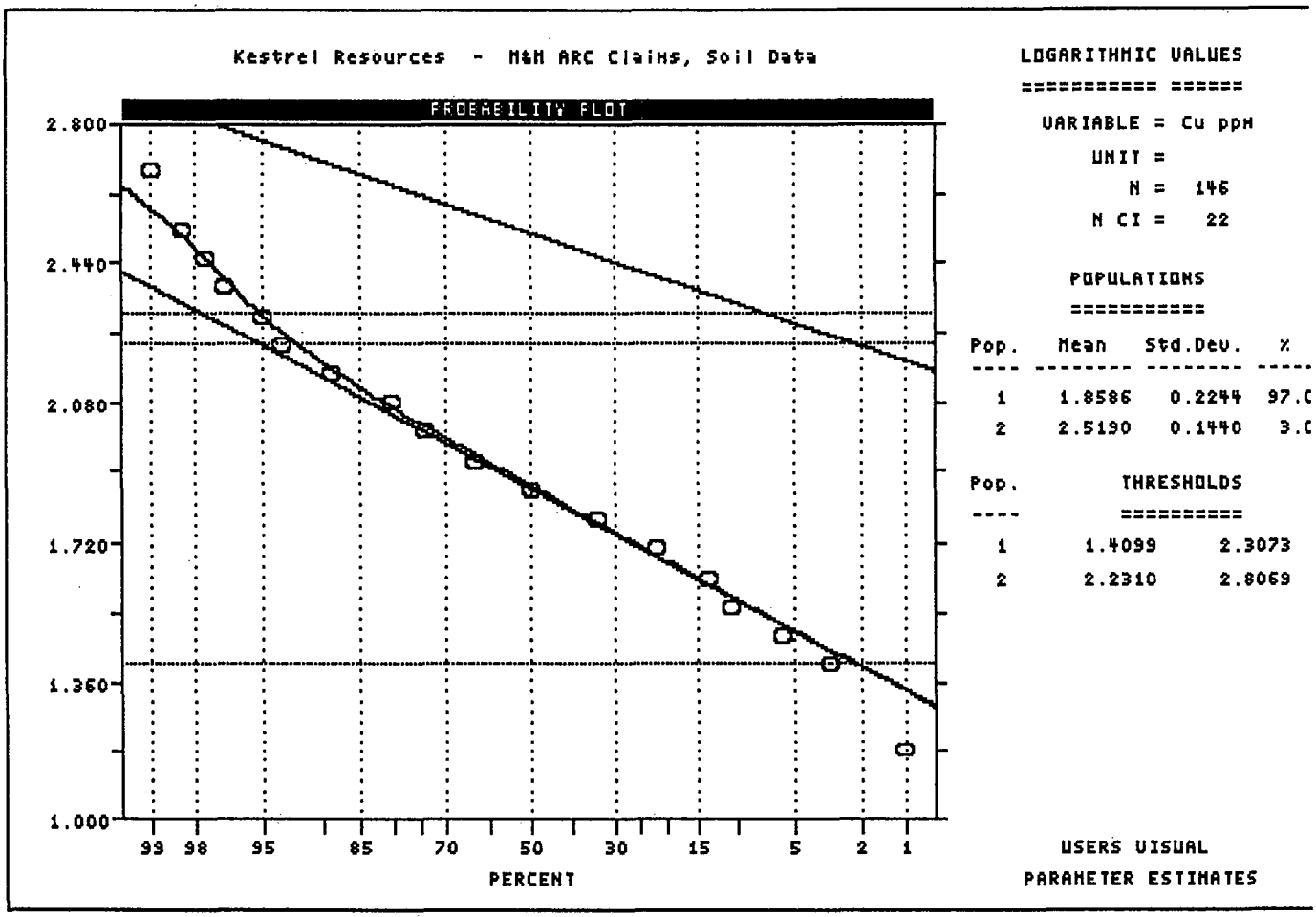
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable =	Cu ppm	Unit =		N =	146
Mean =	1.8776	Min =	1.1461	1st Quartile =	1.7364
Std. Dev. =	0.2497	Max =	2.7177	Median =	1.8692
CV % =	13.2974	Skewness =	0.2939	3rd Quartile =	2.0149

Anti-Log Mean = 75.447 Anti-Log Std. Dev. : (-) 42.458
(+) 134.066

%	cum %	antilog	cls int	(# of bins = 22 - bin size = 0.0748)
0.00	0.34	12.844	1.1087	
0.68	1.02	15.260	1.1835	*
0.00	1.02	18.129	1.2584	
0.00	1.02	21.539	1.3332	
2.05	3.06	25.589	1.4081	**
2.74	5.78	30.401	1.4829	***
4.79	10.54	36.118	1.5577	*****
2.74	13.27	42.910	1.6326	***
8.22	21.43	50.979	1.7074	********
12.33	33.67	60.566	1.7822	************
15.75	49.32	71.955	1.8571	**********
13.70	62.93	85.487	1.9319	**********
10.96	73.81	101.563	2.0067	**********
6.16	79.93	120.662	2.0816	******
8.90	88.78	143.353	2.1564	*********
4.79	93.54	170.310	2.2312	*****
1.37	94.90	202.337	2.3061	*
2.05	96.94	240.387	2.3809	**
0.68	97.62	285.592	2.4557	*
0.68	98.30	339.299	2.5306	*
0.00	98.30	403.104	2.6054	
0.68	98.98	478.909	2.6803	*
0.68	99.66	568.968	2.7551	*

0 1 2 3 4


Kestrel Resources - M&M ARC Claims, Soil Data
PROBABILITY PLOT
2.800
2.440
2.080
1.720
1.360
1.000
99 98 95 85 70 50 30 15 5 2 1
PERCENT
LOGARITHMIC VALUES
VARIABLE = Cu ppm
UNIT =
N = 146
N CI = 22
POPULATIONS
Pop. Mean Std.Dev. %
1 1.8586 0.2244 97.0
2 2.5190 0.1440 3.0
Pop. THRESHOLDS
1 1.4099 2.3073
2 2.2310 2.8069
USERS VISUAL
PARAMETER ESTIMATES

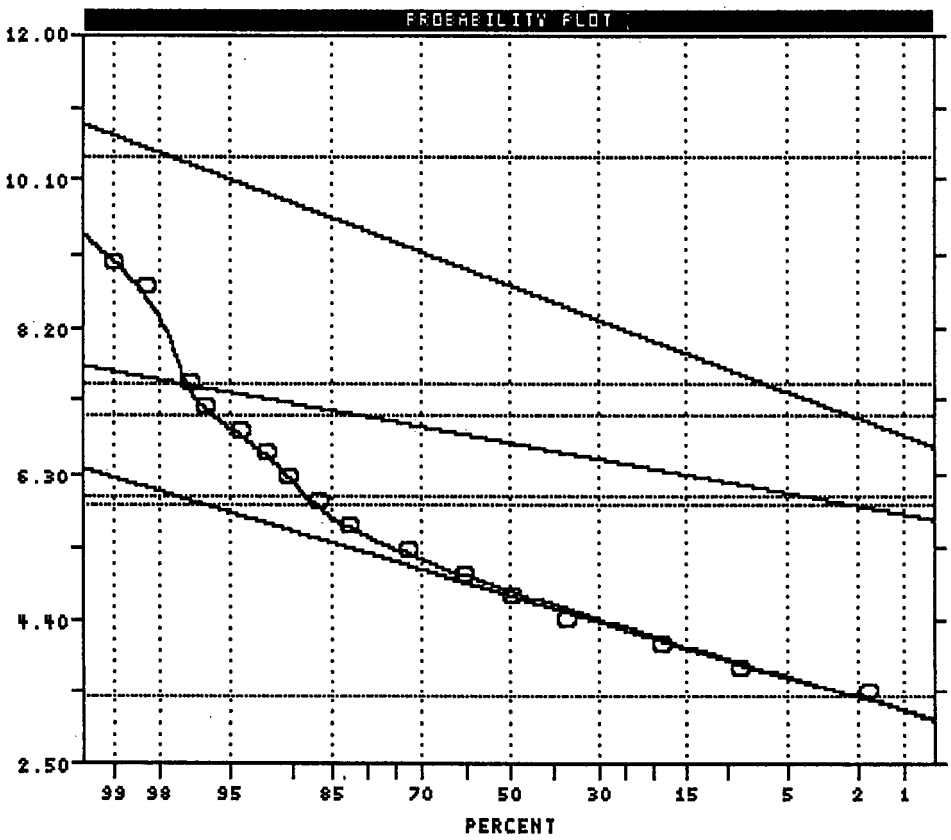
Kestrel Resources - M&M ARC Claims, Soil Data

SUMMARY STATISTICS and HISTOGRAM — ARITHMETIC VALUES

Variable =	Fe %	Unit =		N =	145
Mean =	4.962	Min =	3.320	1st Quartile =	4.245
Std. Dev. =	1.084	Max =	9.850	Median =	4.730
CV % =	21.845	Skewness =	1.691	3rd Quartile =	5.393

%	cum %	cls int	(# of bins = 22 - bin size = 0.311)
0.00	0.34	3.165	
1.38	1.71	3.475	*
6.90	8.56	3.786	*******
9.66	18.15	4.097	**********
18.62	36.64	4.408	******************
12.41	48.97	4.719	************
11.03	59.93	5.030	**********
12.41	72.26	5.341	************
10.34	82.53	5.652	**********
4.14	86.64	5.963	****
3.45	90.07	6.274	****
2.07	92.12	6.585	**
2.07	94.18	6.896	**
2.07	96.23	7.207	**
0.69	96.92	7.518	*
0.00	96.92	7.829	
0.00	96.92	8.140	
0.00	96.92	8.451	
1.38	98.29	8.762	*
0.69	98.97	9.073	*
0.00	98.97	9.384	
0.00	98.97	9.695	
0.69	99.66	10.005	*

0 1 2 3 4



ARITHMETIC VALUES

VARIABLE = Fe %

UNIT =

N = 145

N CI = 22

POPULATIONS

Pop.	Mean	Std.Dev.	%
1	4.686	0.660	90.0
2	6.693	0.398	7.0
3	8.720	0.837	3.0

Pop.	THRESHOLDS	
1	3.367	6.006
2	5.897	7.489
3	7.046	10.394

USERS VISUAL PARAMETER ESTIMATES

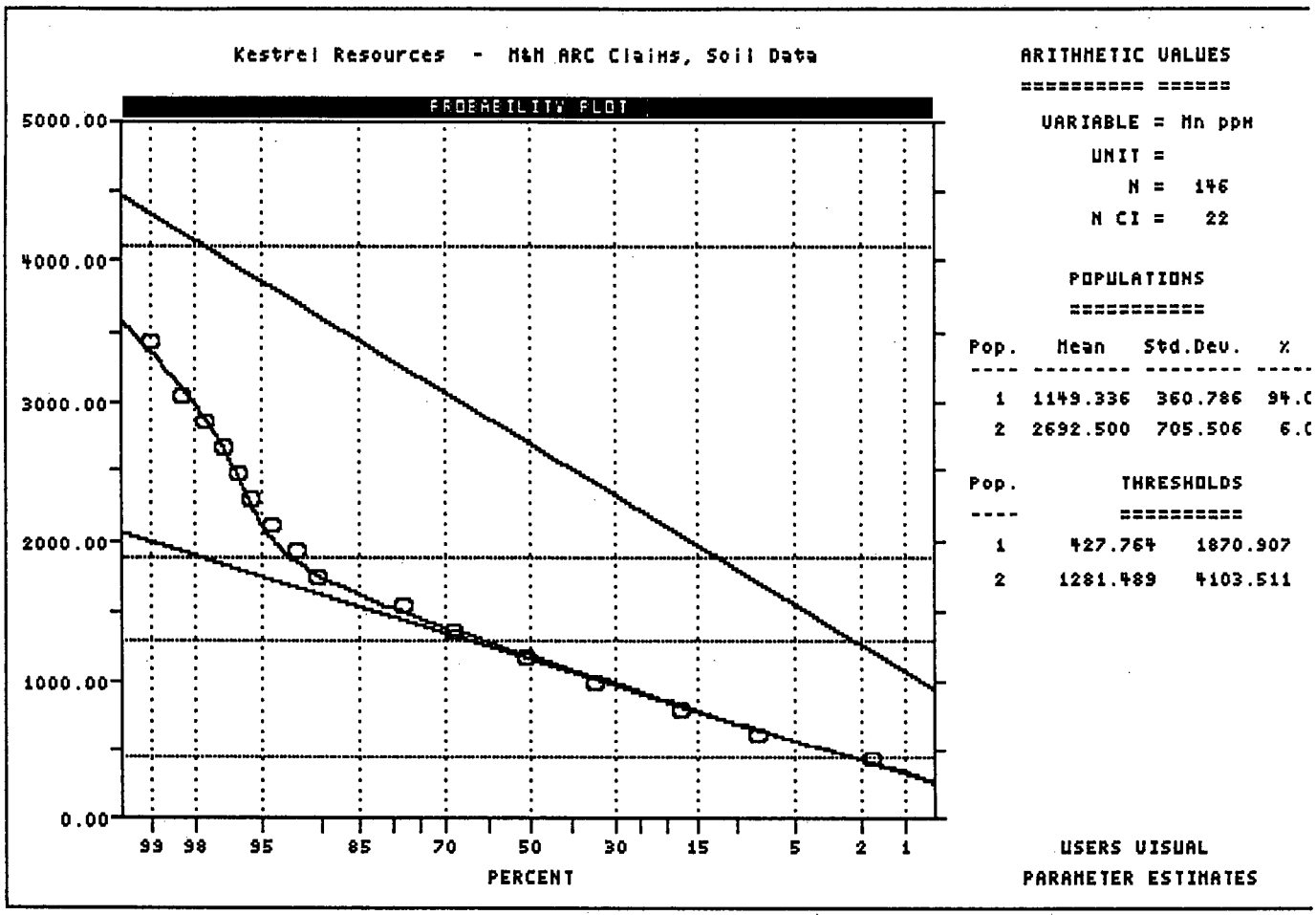
Kestrel Resources - M&M ARC Claims, Soil Data

SUMMARY STATISTICS and HISTOGRAM — ARITHMETIC VALUES

Variable =	Mn ppm	Unit =		N =	146
Mean =	1249.082	Min =	335.000	1st Quartile =	870.000
Std. Dev. =	549.537	Max =	4274.000	Median =	1177.000
CV % =	43.995	Skewness =	1.984	3rd Quartile =	1462.000

%	cum %	cls int	(# of bins = 22 - bin size = 187.571)
0.00	0.34	241.214	
1.37	1.70	428.786	*
6.16	7.82	616.357	******
9.59	17.35	803.929	**********
17.12	34.35	991.500	******************
16.44	50.68	1179.071	*****************
17.12	67.69	1366.643	******************
10.27	77.89	1554.214	**********
12.33	90.14	1741.786	************
2.05	92.18	1929.357	**
2.05	94.22	2116.929	**
1.37	95.58	2304.500	*
0.68	96.26	2492.071	*
0.68	96.94	2679.643	*
0.68	97.62	2867.214	*
0.68	98.30	3054.786	*
0.00	98.30	3242.357	
0.68	98.98	3429.929	*
0.00	98.98	3617.500	
0.00	98.98	3805.071	
0.00	98.98	3992.643	
0.00	98.98	4180.214	
0.68	99.66	4367.786	*

0 1 2 3 4


Kestrel Resources - M&M ARC Claims, Soil Data
PROBABILITY PLOT
5000.00
4000.00
3000.00
2000.00
1000.00
0.00
99 98 95 85 70 50 30 15 5 2 1
PERCENT
ARITHMETIC VALUES
VARIABLE = Mn ppm
UNIT =
N = 146
N CI = 22
POPULATIONS
Pop. Mean Std.Dev. %
1 1149.336 360.786 94.(
2 2692.500 705.506 6.(
Pop. THRESHOLDS
1 427.764 1870.907
2 1281.489 4103.511
USERS VISUAL
PARAMETER ESTIMATES

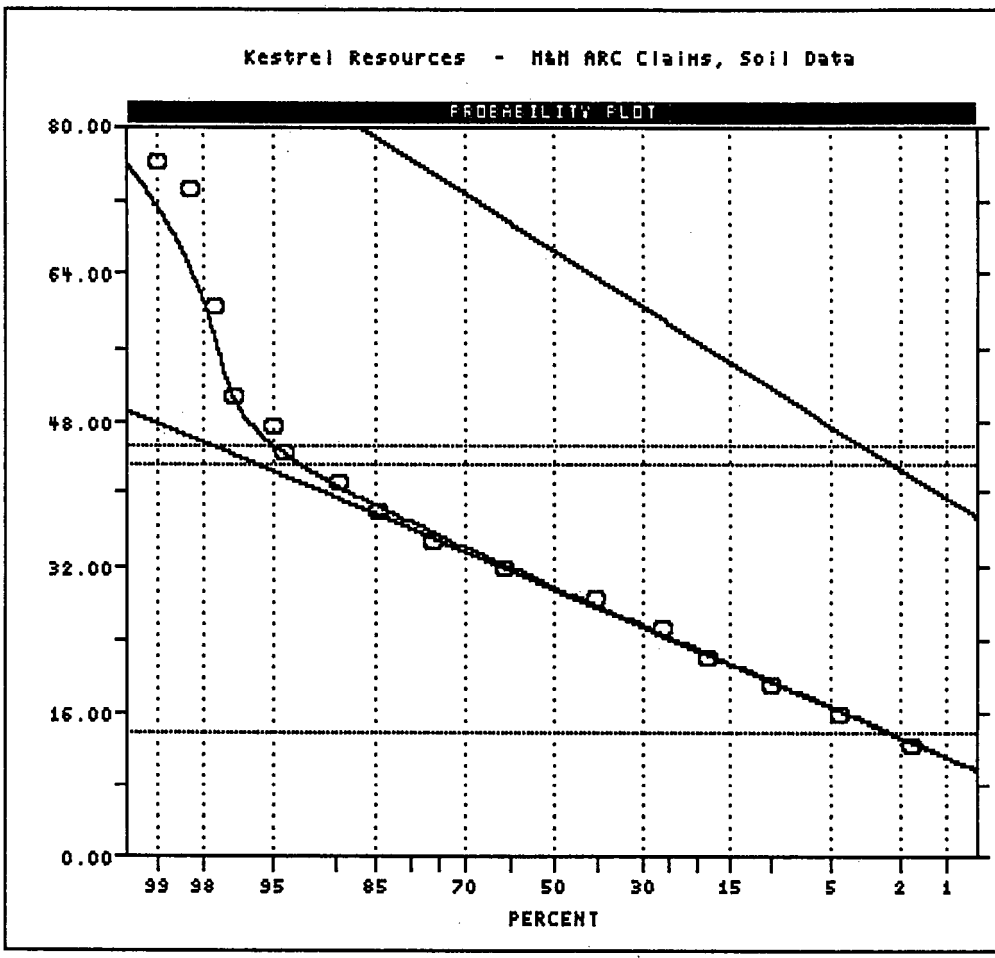
Kestrel Resources - M&M ARC Claims, Soil Data

SUMMARY STATISTICS and HISTOGRAM — ARITHMETIC VALUES

Variable =	Ni ppm	Unit =		N =	146
Mean =	30.575	Min =	11.000	1st Quartile =	25.000
Std. Dev. =	10.383	Max =	78.000	Median =	30.000
CV % =	33.958	Skewness =	1.583	3rd Quartile =	34.000

%	cum %	cls int	(# of bins = 22 - bin size = 3.190)
0.00	0.34	9.405	
1.37	1.70	12.595	*
2.74	4.42	15.786	***
5.48	9.86	18.976	******
8.22	18.03	22.167	********
7.53	25.51	25.357	********
14.38	39.80	28.548	**********
21.23	60.88	31.738	**********
15.07	75.85	34.929	**********
8.90	84.69	38.119	*********
4.79	89.46	41.310	*****
4.79	94.22	44.500	*****
0.68	94.90	47.690	*
2.05	96.94	50.881	**
0.00	96.94	54.071	
0.00	96.94	57.262	
0.68	97.62	60.452	*
0.00	97.62	63.643	
0.00	97.62	66.833	
0.00	97.62	70.024	
0.68	98.30	73.214	*
0.68	98.98	76.405	*
0.68	99.66	79.595	*

0 1 2 3 4



ARITHMETIC VALUES

VARIABLE = Ni ppm

UNIT =

N = 146

N CI = 22

POPULATIONS

Pop.	Mean	Std.Dev.	%
1	29.444	7.893	97.(
2	66.600	11.760	3.(

Pop.	THRESHOLDS	
1	13.657	45.230
2	43.080	90.120

USERS VISUAL PARAMETER ESTIMATES

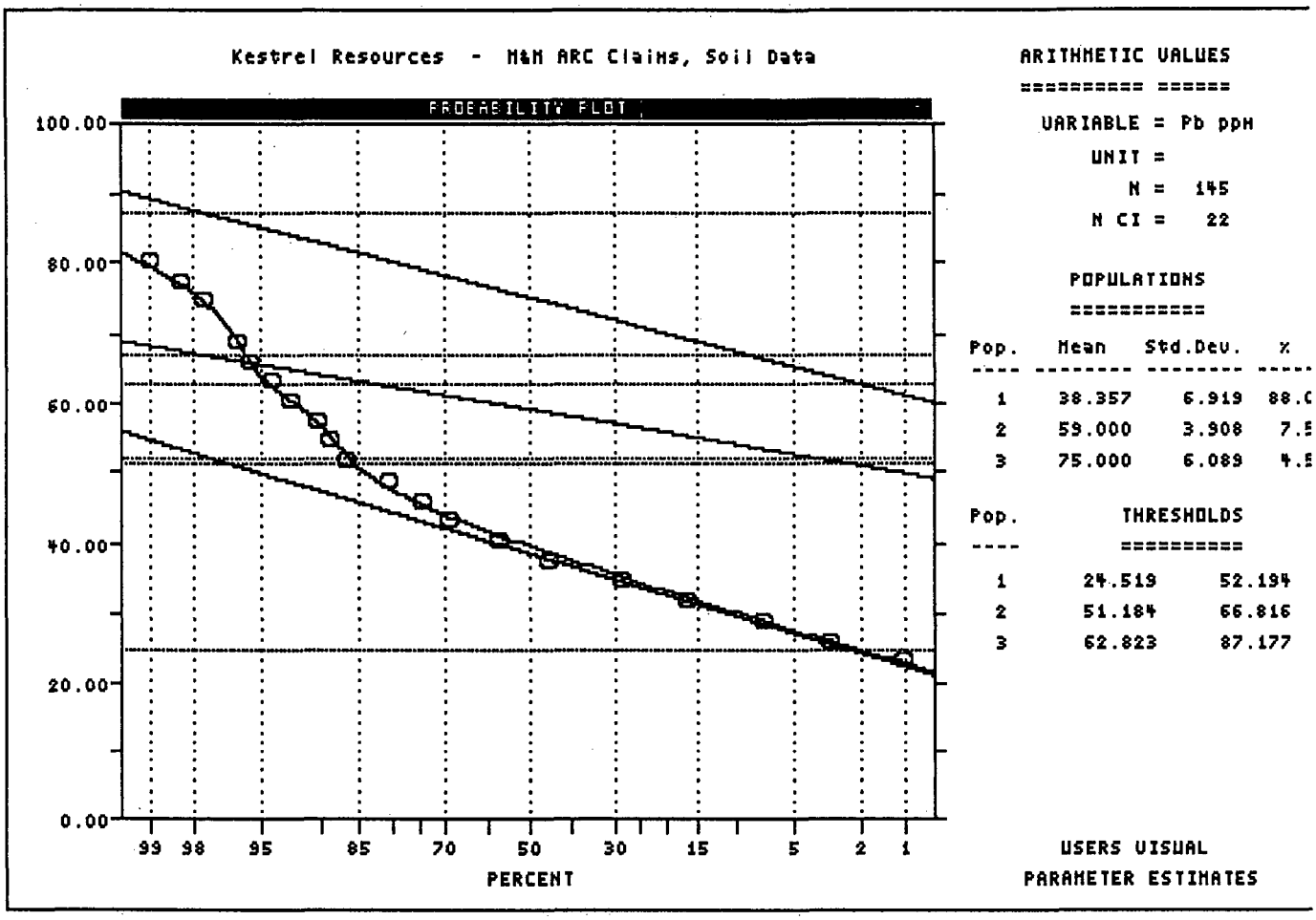
Kestrel Resources - M&M ARC Claims, Soil Data

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable =	Pb ppm	Unit =		N =	145
Mean =	41.352	Min =	22.000	1st Quartile =	34.000
Std. Dev. =	11.071	Max =	82.000	Median =	39.000
CV % =	26.772	Skewness =	1.317	3rd Quartile =	46.250

%	cum %	cls int	(# of bins = 22 - bin size = 2.857)
0.00	0.34	20.571	
0.69	1.03	23.429	*
2.07	3.08	26.286	**
4.14	7.19	29.143	****
8.97	16.10	32.000	*********
12.41	28.42	34.857	************
16.55	44.86	37.714	**********
12.41	57.19	40.571	************
11.72	68.84	43.429	**********
5.52	74.32	46.286	******
6.21	80.48	49.143	******
6.21	86.64	52.000	******
2.07	88.70	54.857	**
1.38	90.07	57.714	*
2.76	92.81	60.571	***
1.38	94.18	63.429	*
1.38	95.55	66.286	*
0.69	96.23	69.143	*
0.00	96.23	72.000	
1.38	97.60	74.857	*
0.69	98.29	77.714	*
0.69	98.97	80.571	*
0.69	99.66	83.429	*

0 1 2 3 4


Kestrel Resources - M&M ARC Claims, Soil Data
PROBABILITY PLOT
100.00
80.00
60.00
40.00
20.00
0.00
99 98 95 85 70 50 30 15 5 2 1
PERCENT
ARITHMETIC VALUES
VARIABLE = Pb ppm
UNIT =
N = 145
N CI = 22
POPULATIONS
Pop. Mean Std.Dev. %
1 38.357 6.919 88.0
2 59.000 3.908 7.5
3 75.000 6.089 4.5
Pop. THRESHOLDS
1 24.519 52.194
2 51.184 66.816
3 62.823 87.177
USERS VISUAL
PARAMETER ESTIMATES

Kestrel Resources - M&M ARC Claims, Soil Data

##

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable =	Zn ppm	Unit =		N =	147
Mean =	2.1063	Min =	1.6128	1st Quartile =	2.0086
Std. Dev. =	0.1738	Max =	2.8932	Median =	2.0792
CV % =	8.2505	Skewness =	1.2454	3rd Quartile =	2.1896

Anti-Log Mean = 127.730 Anti-Log Std. Dev. : (-) 85.607
(+) 190.578

%	cum %	antilog	cls int	(# of bins = 22 - bin size = 0.0610)
0.00	0.34	38.221	1.5823	
0.68	1.01	43.982	1.6433	*
0.00	1.01	50.611	1.7042	
0.68	1.69	58.239	1.7652	*
0.68	2.36	67.017	1.8262	*
3.40	5.74	77.119	1.8872	****
6.12	11.82	88.743	1.9481	******
14.29	26.01	102.119	2.0091	***************
21.77	47.64	117.511	2.0701	**********************
15.65	63.18	135.223	2.1311	**********
12.93	76.01	155.605	2.1920	**********
9.52	85.47	179.059	2.2530	**********
4.76	90.20	206.048	2.3140	*****
3.40	93.58	237.105	2.3749	****
2.04	95.61	272.843	2.4359	**
2.04	97.64	313.968	2.4969	**
0.00	97.64	361.292	2.5579	
0.00	97.64	415.748	2.6188	
0.00	97.64	478.413	2.6798	
0.00	97.64	550.523	2.7408	
1.36	98.99	633.502	2.8017	*
0.00	98.99	728.988	2.8627	
0.68	99.66	838.867	2.9237	*

0 1 2 3 4

##

Kestrel Resources - M&M ARC Claims, Stream Sedim

##

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable =	Al %	Unit =		N =	111
Mean =	0.4082	Min =	0.0864	1st Quartile =	0.3522
Std. Dev. =	0.1101	Max =	0.5843	Median =	0.4200
CV % =	26.9749	Skewness =	-0.8798	3rd Quartile =	0.4903

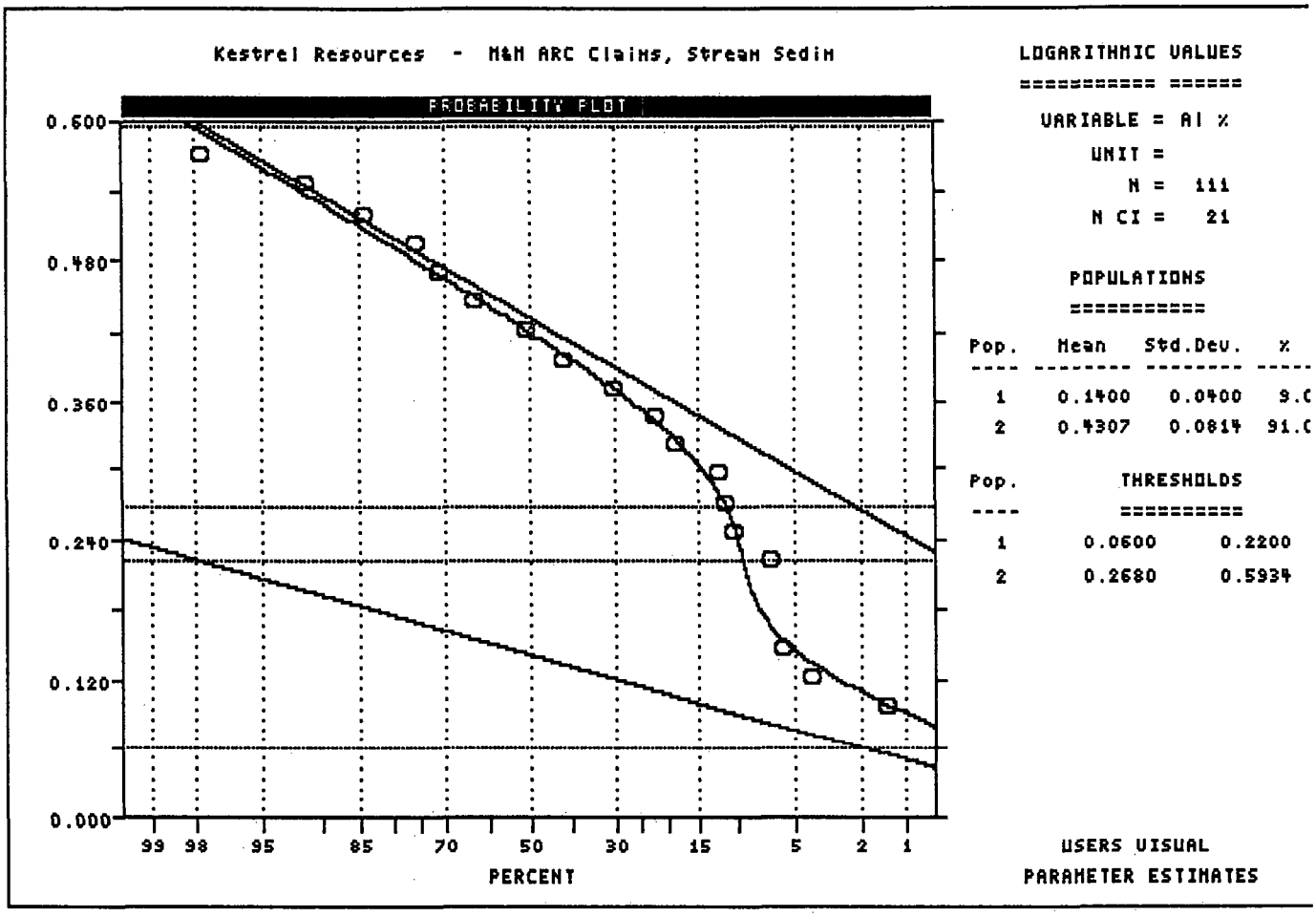
Anti-Log Mean = 2.560 Anti-Log Std. Dev. : (-) 1.986
(+) 3.298

(# of bins = 21 - bin size = 0.0249)

%	cum %	antilog	cls int	
0.00	0.45	1.186	0.0739	
0.90	1.34	1.255	0.0988	*
2.70	4.02	1.330	0.1237	**
1.80	5.80	1.408	0.1486	*
0.00	5.80	1.491	0.1735	
0.00	5.80	1.579	0.1984	
0.90	6.70	1.672	0.2233	*
3.60	10.27	1.771	0.2482	***
0.90	11.16	1.875	0.2731	*
0.90	12.05	1.986	0.2980	*
6.31	18.30	2.103	0.3229	*****
3.60	21.88	2.227	0.3478	***
8.11	29.91	2.359	0.3727	******
11.71	41.52	2.498	0.3976	*********
9.01	50.45	2.645	0.4225	*******
12.61	62.95	2.801	0.4474	**********
8.11	70.98	2.967	0.4723	******
4.50	75.45	3.142	0.4972	****
9.01	84.37	3.327	0.5221	*******
7.21	91.52	3.524	0.5470	******
6.31	97.77	3.731	0.5719	*****
1.80	99.55	3.952	0.5968	*

0 1 2 3 4

##


Kestrel Resources - M&M ARC Claims, Stream Sedim
PROBABILITY PLOT
0.600
0.480
0.360
0.240
0.120
0.000
99 98 95 85 70 50 30 15 5 2 1
PERCENT
LOGARITHMIC VALUES
VARIABLE = Al %
UNIT =
N = 111
N CI = 21
POPULATIONS
Pop. Mean Std.Dev. %
1 0.1400 0.0400 9.0
2 0.4307 0.0819 91.0
Pop. THRESHOLDS
1 0.0600 0.2200
2 0.2680 0.5934
USERS VISUAL
PARAMETER ESTIMATES

Kestrel Resources - M&M ARC Claims, Stream Sedim

SUMMARY STATISTICS and HISTOGRAM — ARITHMETIC VALUES

Variable =	As ppm	Unit =		N =	110
Mean =	16.418	Min =	3.000	1st Quartile =	11.000
Std. Dev. =	6.693	Max =	32.000	Median =	16.000
CV % =	40.766	Skewness =	0.304	3rd Quartile =	22.000

%	cum %	cls int	(# of bins = 21 - bin size = 1.450)
0.00	0.45	2.275	
1.82	2.25	3.725	*
0.91	3.15	5.175	*
1.82	4.95	6.625	*
6.36	11.26	8.075	*****
5.45	16.67	9.525	****
6.36	22.97	10.975	*****
7.27	30.18	12.425	******
6.36	36.49	13.875	*****
10.00	46.40	15.325	********
10.91	57.21	16.775	********
8.18	65.32	18.225	******
4.55	69.82	19.675	****
3.64	73.42	21.125	***
8.18	81.53	22.575	******
3.64	85.14	24.025	***
3.64	88.74	25.475	***
1.82	90.54	26.925	*
3.64	94.14	28.375	***
0.91	95.05	29.825	*
3.64	98.65	31.275	***
0.91	99.55	32.725	*

0 1 2 3 4

Kestrel Resources - M&M ARC Claims, Stream Sedim

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable =	Ba ppm	Unit =		N =	111
Mean =	142.532	Min =	51.000	1st Quartile =	95.000
Std. Dev. =	56.077	Max =	283.000	Median =	134.000
CV % =	39.343	Skewness =	0.403	3rd Quartile =	184.000

%	cum %	cls int	(# of bins = 22 - bin size = 11.048)
0.00	0.45	45.476	
0.90	1.34	56.524	*
5.41	6.70	67.571	****
8.11	14.73	78.619	******
7.21	21.88	89.667	******
5.41	27.23	100.714	****
9.01	36.16	111.762	*******
9.01	45.09	122.810	*******
3.60	48.66	133.857	***
5.41	54.02	144.905	****
5.41	59.38	155.952	****
4.50	63.84	167.000	****
6.31	70.09	178.048	*****
8.11	78.12	189.095	******
4.50	82.59	200.143	****
4.50	87.05	211.190	****
4.50	91.52	222.238	****
0.90	92.41	233.286	*
2.70	95.09	244.333	**
0.90	95.98	255.381	*
2.70	98.66	266.429	**
0.00	98.66	277.476	
0.90	99.55	288.524	*

0 1 2 3 4

Kestrel Resources - M&M ARC Claims, Stream Sedim

##

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

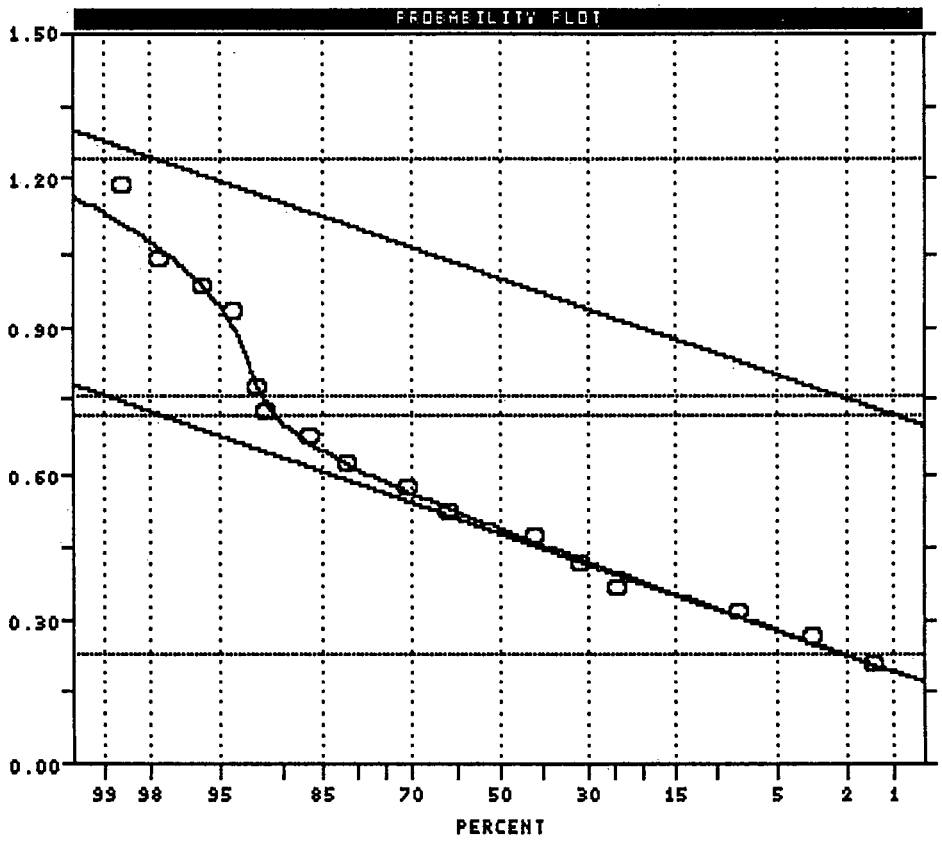
Variable =	Ca %	Unit =		N =	109
Mean =	0.517	Min =	0.190	1st Quartile =	0.380
Std. Dev. =	0.188	Max =	1.220	Median =	0.495
CV % =	36.319	Skewness =	1.359	3rd Quartile =	0.592

%	cum %	cls int	(# of bins = 21 - bin size = 0.051)
0.00	0.45	0.164	
0.92	1.36	0.216	*
1.83	3.18	0.267	*
4.59	7.73	0.319	****
16.51	24.09	0.370	**********
7.34	31.36	0.422	******
10.09	41.36	0.473	********
20.18	61.36	0.525	**********
9.17	70.45	0.576	*******
11.01	81.36	0.628	********
5.50	86.82	0.679	****
4.59	91.36	0.731	****
0.92	92.27	0.782	*
0.00	92.27	0.834	
0.00	92.27	0.885	
1.83	94.09	0.937	*
1.83	95.91	0.988	*
1.83	97.73	1.040	*
0.00	97.73	1.091	
0.00	97.73	1.143	
0.92	98.64	1.194	*
0.92	99.55	1.246	*

0 1 2 3 4

##

Kestrel Resources - M&M ARC Claims, Stream Sedim



ARITHMETIC VALUES

VARIABLE = Ca %

UNIT =

N = 109

N CI = 21

POPULATIONS

Pop.	Mean	Std.Dev.	%
1	0.975	0.123	92.5
2	1.000	0.120	7.5

Pop.	THRESHOLDS	
1	0.229	0.720
2	0.760	1.240

USERS VISUAL PARAMETER ESTIMATES

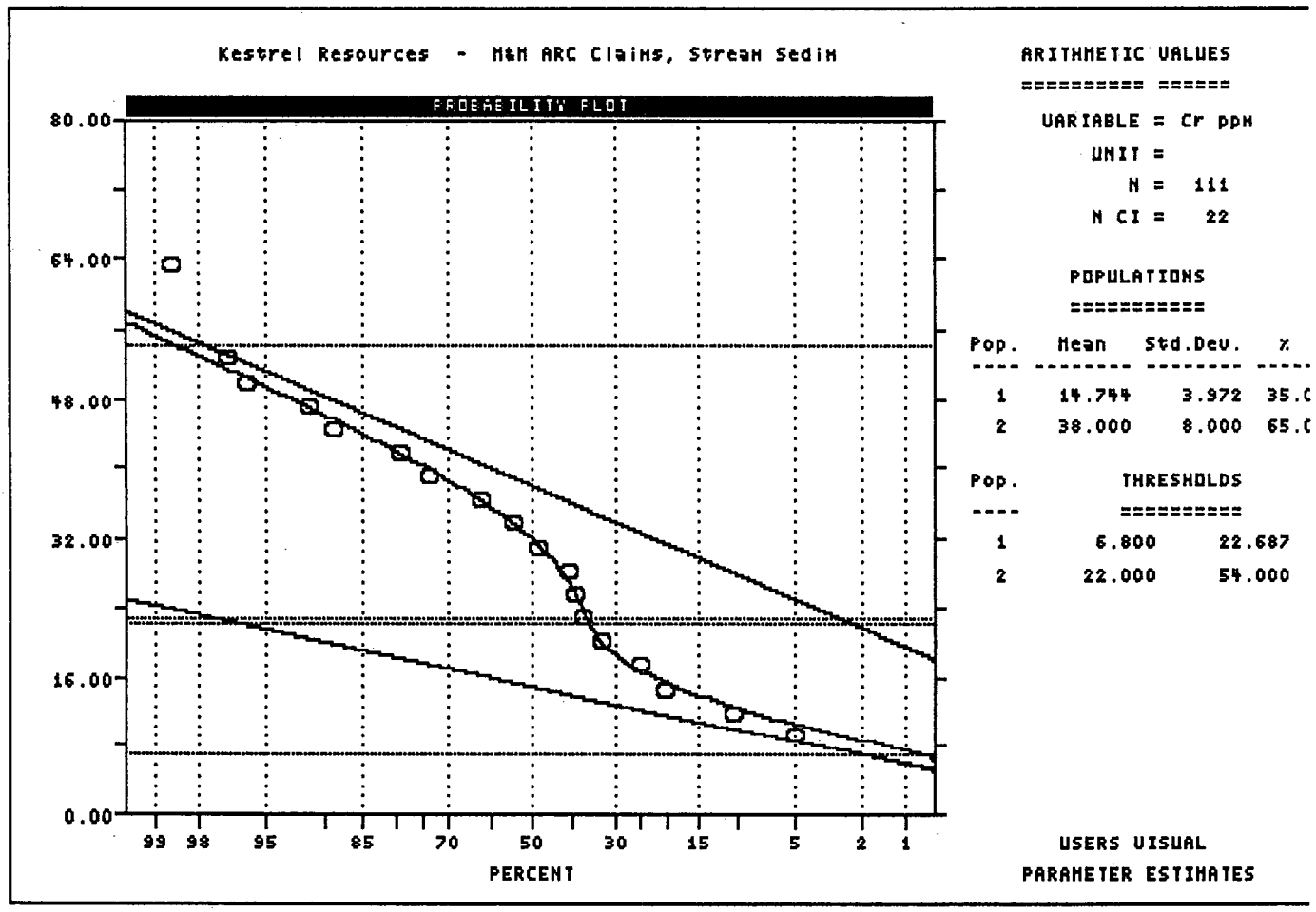
Kestrel Resources - M&M ARC Claims, Stream Sedim

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable =	Cr ppm	Unit =		N =	111
Mean =	29.919	Min =	8.000	1st Quartile =	17.250
Std. Dev. =	13.327	Max =	65.000	Median =	32.000
CV % =	44.545	Skewness =	0.131	3rd Quartile =	40.000

%	cum %	cls int	(# of bins = 22 - bin size = 2.714)
0.00	0.45	6.643	
4.50	4.91	9.357	****
5.41	10.27	12.071	****
9.91	20.09	14.786	********
4.50	24.55	17.500	****
8.11	32.59	20.214	******
4.50	37.05	22.929	****
1.80	38.84	25.643	*
1.80	40.63	28.357	*
7.21	47.77	31.071	******
6.31	54.02	33.786	*****
8.11	62.05	36.500	******
11.71	73.66	39.214	*********
5.41	79.02	41.929	****
9.91	88.84	44.643	********
2.70	91.52	47.357	**
4.50	95.98	50.071	****
0.90	96.87	52.786	*
0.00	96.87	55.500	
0.00	96.87	58.214	
0.00	96.87	60.929	
1.80	98.66	63.643	*
0.90	99.55	66.357	*

0 1 2 3 4


Kestrel Resources - M&M ARC Claims, Stream Sedim
PROBABILITY PLOT
80.00
64.00
48.00
32.00
16.00
0.00
99 98 95 85 70 50 30 15 5 2 1
PERCENT
ARITHMETIC VALUES
VARIABLE = Cr ppm
UNIT =
N = 111
N CI = 22
POPULATIONS
Pop. Mean Std.Dev. %
1 14.744 3.972 35.(
2 38.000 8.000 65.(
Pop. THRESHOLDS
1 6.800 22.687
2 22.000 54.000
USERS VISUAL
PARAMETER ESTIMATES

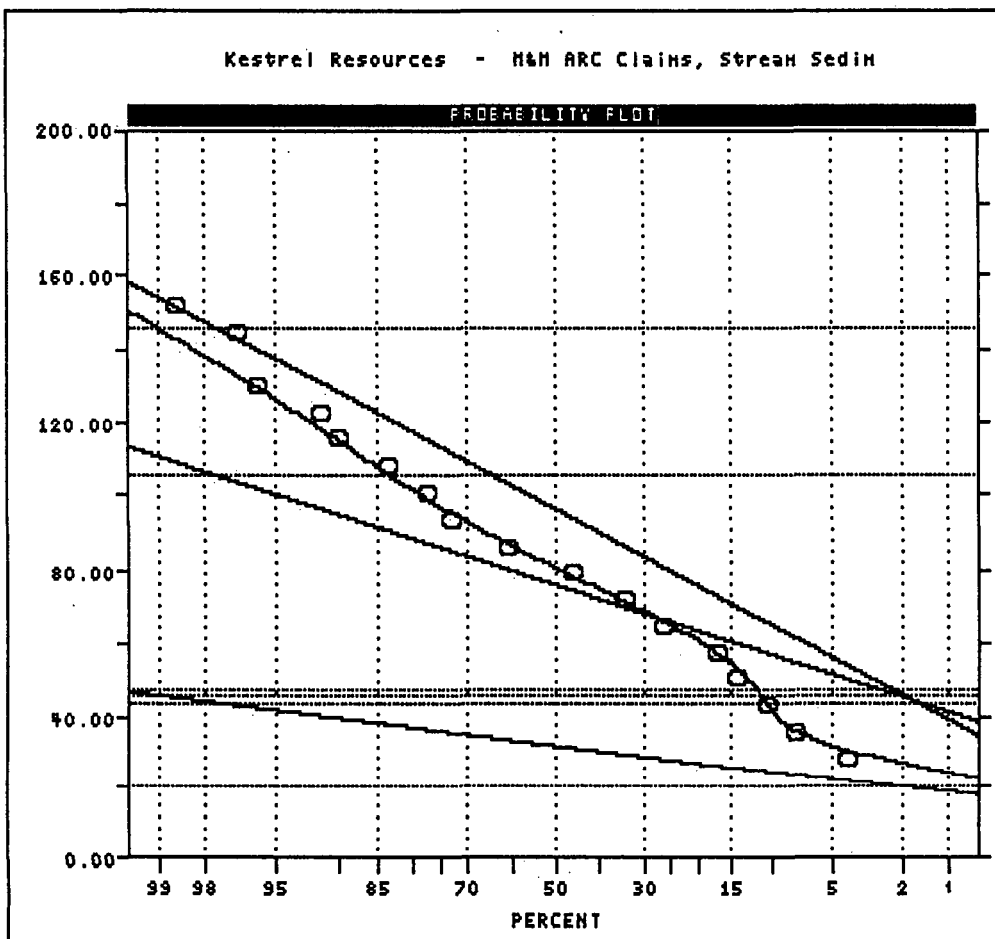
Kestrel Resources - M&M ARC Claims, Stream Sedim

SUMMARY STATISTICS and HISTOGRAM — ARITHMETIC VALUES

Variable =	Cu ppm	Unit =		N =	110
Mean =	81.455	Min =	25.000	1st Quartile =	63.500
Std. Dev. =	27.994	Max =	170.000	Median =	84.000
CV % =	34.368	Skewness =	0.259	3rd Quartile =	96.500

%	cum %	cls int	(# of bins = 21 - bin size = 7.250)
0.00	0.45	21.375	
3.64	4.05	28.625	***
3.64	7.66	35.875	***
2.73	10.36	43.125	**
3.64	13.96	50.375	***
2.73	16.67	57.625	**
9.09	25.68	64.875	*******
8.18	33.78	72.125	******
11.82	45.50	79.375	*********
15.45	60.81	86.625	**********
11.82	72.52	93.875	*********
4.55	77.03	101.125	****
6.36	83.33	108.375	*****
6.36	89.64	115.625	*****
1.82	91.44	122.875	*
4.55	95.95	130.125	****
0.00	95.95	137.375	
0.91	96.85	144.625	*
1.82	98.65	151.875	*
0.00	98.65	159.125	
0.00	98.65	166.375	
0.91	99.55	173.625	*

0 1 2 3 4



ARITHMETIC VALUES

VARIABLE = Cu ppm

UNIT =

N = 110

N CI = 21

POPULATIONS

Pop.	Mean	Std.Dev.	%
1	31.458	5.832	9.1
2	75.499	14.850	45.5
3	96.084	24.702	45.1

Pop.	THRESHOLDS	
1	19.794	43.121
2	45.800	105.198
3	46.681	145.488

INCOMPLETE ITERATION

PARAMETER ESTIMATES

Kestrel Resources - M&M ARC Claims, Stream Sedim

##

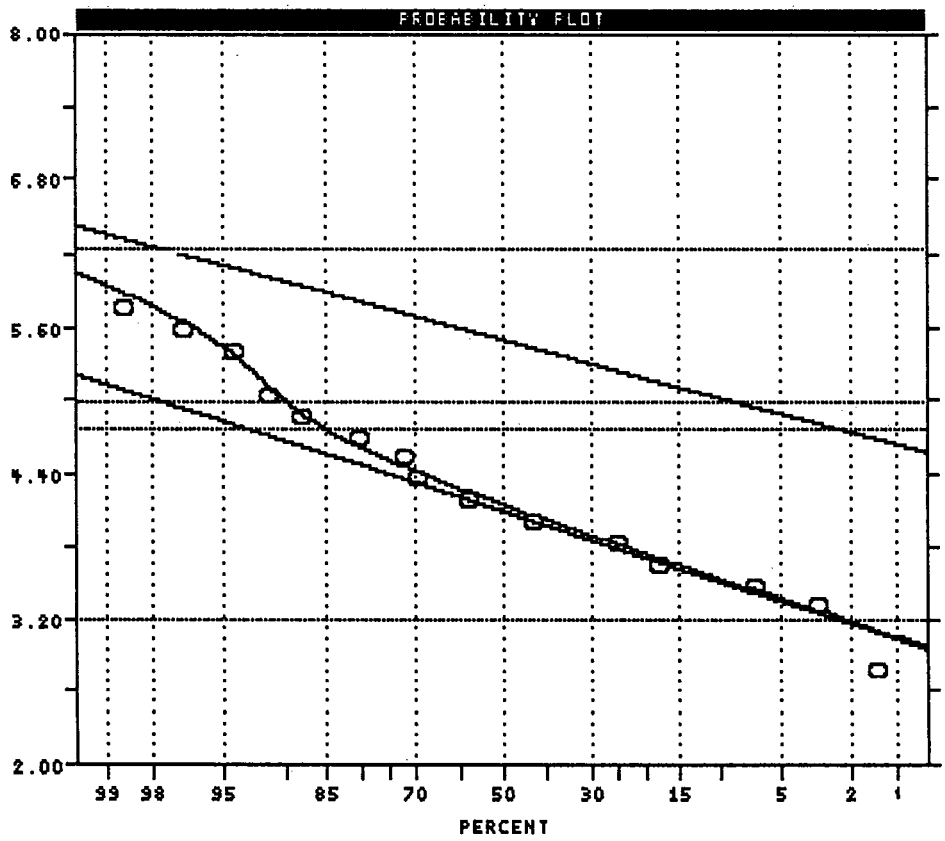
SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable =	Fe %	Unit =		N =	111
Mean =	4.219	Min =	2.700	1st Quartile =	3.833
Std. Dev. =	0.610	Max =	6.370	Median =	4.130
CV % =	14.453	Skewness =	0.770	3rd Quartile =	4.590

%	cum %	cls int	(# of bins = 22 - bin size = 0.175)
0.00	0.45	2.613	
0.90	1.34	2.787	*
0.00	1.34	2.962	
0.00	1.34	3.137	
1.80	3.13	3.312	*
3.60	6.70	3.486	***
10.81	17.41	3.661	********
7.21	24.55	3.836	******
18.02	42.41	4.011	**************
15.32	57.59	4.185	**********
11.71	69.20	4.360	*********
2.70	71.88	4.535	**
8.11	79.91	4.710	******
8.11	87.95	4.885	******
3.60	91.52	5.059	***
0.00	91.52	5.234	
2.70	94.20	5.409	**
2.70	96.87	5.584	**
1.80	98.66	5.758	*
0.00	98.66	5.933	
0.00	98.66	6.108	
0.00	98.66	6.283	
0.90	99.55	6.457	*

0 1 2 3 4

##



ARITHMETIC VALUES

VARIABLE = Fe %

UNIT =

N = 111

N CI = 22

POPULATIONS

Pop.	Mean	Std.Dev.	%
1	4.088	0.454	91.0
2	5.492	0.368	9.0

Pop.	THRESHOLDS	
1	3.180	4.995
2	4.757	6.228

USERS VISUAL PARAMETER ESTIMATES

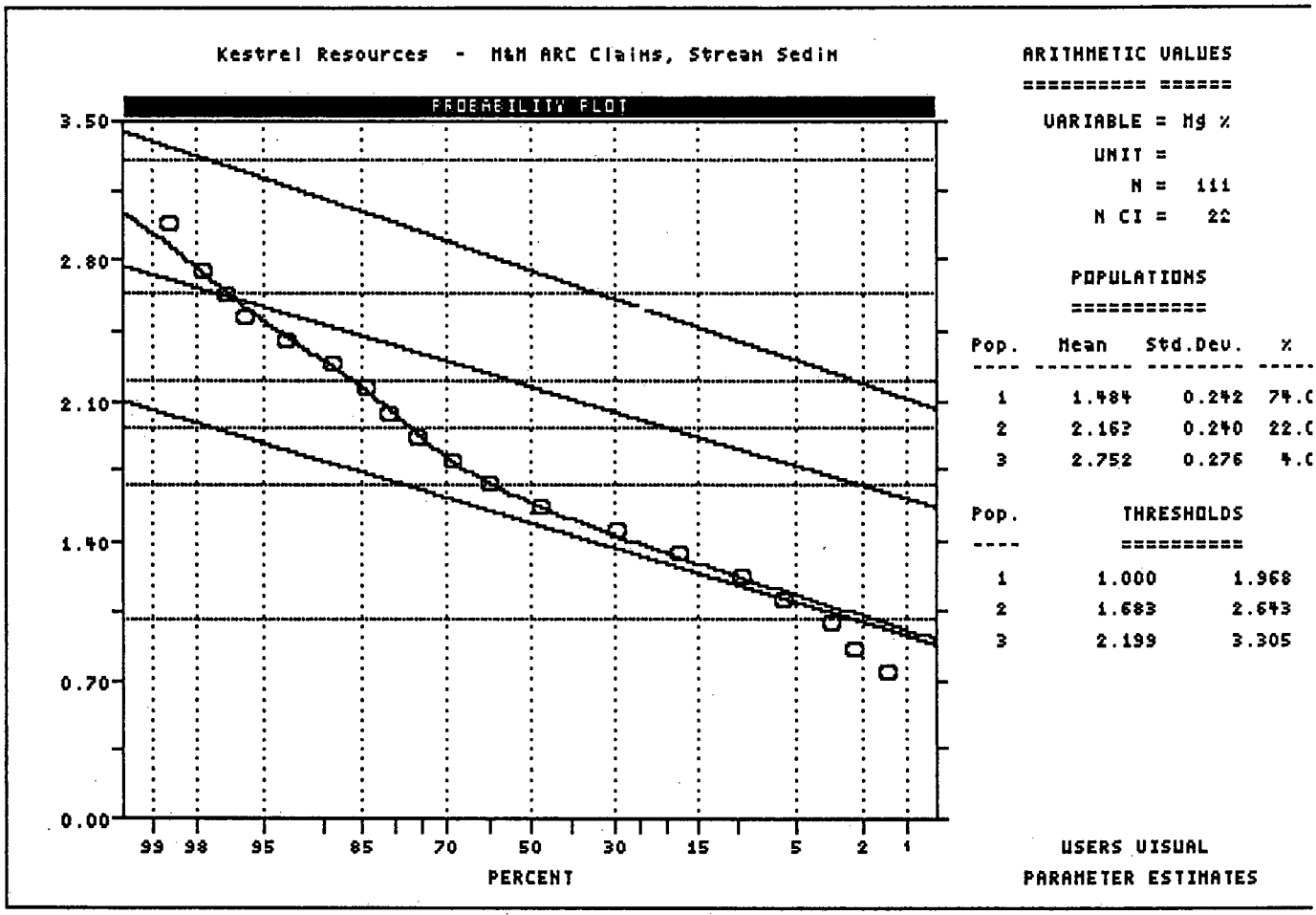
Kestrel Resources - M&M ARC Claims, Stream Sedim

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable =	Mg %	Unit =		N =	111
Mean =	1.684	Min =	0.690	1st Quartile =	1.410
Std. Dev. =	0.429	Max =	3.170	Median =	1.585
CV % =	25.485	Skewness =	0.732	3rd Quartile =	1.905

%	cum %	cls int	(# of bins = 22 - bin size = 0.118)
0.00	0.45	0.631	
0.90	1.34	0.749	*
0.90	2.23	0.867	*
0.90	3.13	0.985	*
2.70	5.80	1.103	**
3.60	9.38	1.221	***
8.11	17.41	1.340	******
11.71	29.02	1.458	*********
18.02	46.88	1.576	**********
12.61	59.38	1.694	**********
9.01	68.30	1.812	*******
7.21	75.45	1.930	******
5.41	80.80	2.048	****
3.60	84.37	2.166	***
4.50	88.84	2.284	****
4.50	93.30	2.402	****
2.70	95.98	2.520	**
0.90	96.87	2.639	*
0.90	97.77	2.757	*
0.00	97.77	2.875	
0.90	98.66	2.993	*
0.00	98.66	3.111	
0.90	99.55	3.229	*

0 1 2 3 4


Kestrel Resources - M&M ARC Claims, Stream Sedim
PROBABILITY PLOT
3.50
2.80
2.10
1.40
0.70
0.00
99 98 95 85 70 50 30 15 5 2 1
PERCENT
ARITHMETIC VALUES
VARIABLE = Hg %
UNIT =
N = 111
N CI = 22
POPULATIONS
Pop. Mean Std.Dev. %
1 1.484 0.242 74.0
2 2.162 0.240 22.0
3 2.752 0.276 4.0
Pop. THRESHOLDS
1 1.000 1.968
2 1.683 2.643
3 2.199 3.305
USERS VISUAL
PARAMETER ESTIMATES

Kestrel Resources - M&M ARC Claims, Stream Sedim

SUMMARY STATISTICS and HISTOGRAM — LOGARITHMIC VALUES

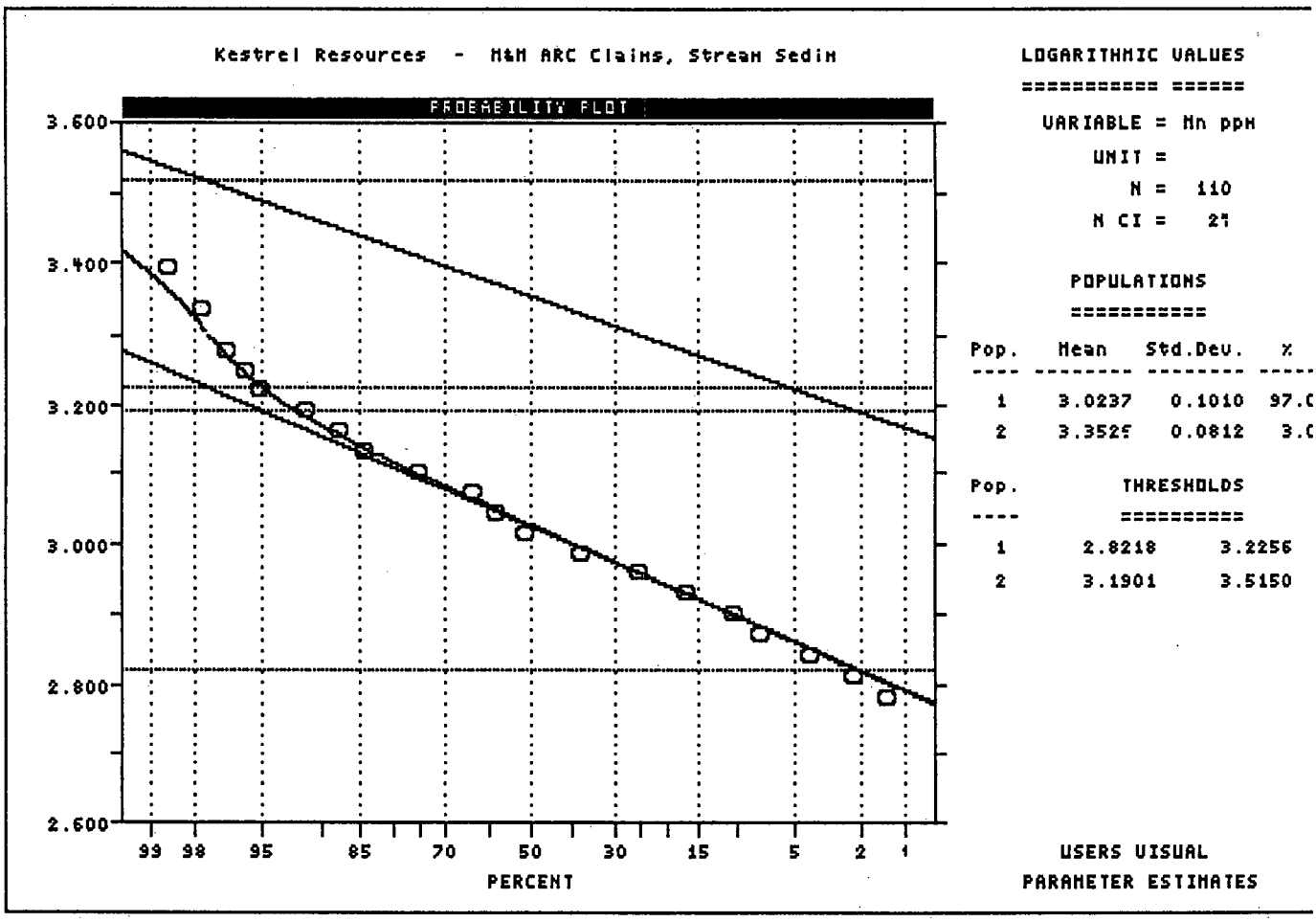
Variable =	Mn ppm	Unit =		N =	110
Mean =	3.0335	Min =	2.7694	1st Quartile =	2.9595
Std. Dev. =	0.1160	Max =	3.4417	Median =	3.0154
CV % =	3.8252	Skewness =	0.5936	3rd Quartile =	3.1028

Anti-Log Mean = 1080.208 Anti-Log Std. Dev. : (-) 826.934 (+) 1411.054

(# of bins = 24 - bin size = 0.0292)

%	cum %	antilog	cls int	
0.00	0.45	568.541	2.7548	
0.91	1.35	608.125	2.7840	*
0.91	2.25	650.465	2.8132	*
1.82	4.05	695.753	2.8425	*
3.64	7.66	744.195	2.8717	***
2.73	10.36	796.009	2.9009	**
6.36	16.67	851.430	2.9301	*****
8.18	24.77	910.710	2.9594	******
12.73	37.39	974.118	2.9886	**********
13.64	50.90	1041.940	3.0178	**********
7.27	58.11	1114.484	3.0471	******
5.45	63.51	1192.079	3.0763	****
11.82	75.23	1275.076	3.1055	*********
9.09	84.23	1363.853	3.1348	*******
3.64	87.84	1458.810	3.1640	***
3.64	91.44	1560.378	3.1932	***
3.64	95.05	1669.018	3.2225	***
0.91	95.95	1785.222	3.2517	*
0.91	96.85	1909.517	3.2809	*
0.00	96.85	2042.465	3.3102	
0.91	97.75	2184.670	3.3394	*
0.00	97.75	2336.776	3.3686	
0.91	98.65	2499.472	3.3978	*
0.00	98.65	2673.496	3.4271	
0.91	99.55	2859.636	3.4563	*

0 1 2 3 4


Kestrel Resources - M&M ARC Claims, Stream Sedim
PROBABILITY PLOT
3.600
3.400
3.200
3.000
2.800
2.600
99 98 95 85 70 50 30 15 5 2 1
PERCENT
LOGARITHMIC VALUES
VARIABLE = Mn ppm
UNIT =
N = 110
N CI = 2%
POPULATIONS
Pop. Mean Std.Dev. %
1 3.0237 0.1010 97.0
2 3.3525 0.0812 3.0
Pop. THRESHOLDS
1 2.8218 3.2256
2 3.1901 3.5150
USERS VISUAL
PARAMETER ESTIMATES

Kestrel Resources - M&M ARC Claims, Stream Sedim

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable =	Ni ppm	Unit =		N =	111
Mean =	22.270	Min =	9.000	1st Quartile =	18.250
Std. Dev. =	5.555	Max =	36.000	Median =	22.000
CV % =	24.942	Skewness =	0.270	3rd Quartile =	26.000

%	cum %	cls int	(# of bins = 18 - bin size = 1.588)
0.00	0.45	8.206	
0.90	1.34	9.794	*
0.00	1.34	11.382	
0.90	2.23	12.971	*
5.41	7.59	14.559	****
9.01	16.52	16.147	*******
2.70	19.20	17.735	**
9.01	28.13	19.324	*******
12.61	40.63	20.912	**********
17.12	57.59	22.500	**********
10.81	68.30	24.088	********
4.50	72.77	25.676	****
9.91	82.59	27.265	********
2.70	85.27	28.853	**
3.60	88.84	30.441	***
6.31	95.09	32.029	*****
0.90	95.98	33.618	*
2.70	98.66	35.206	**
0.90	99.55	36.794	*

0 1 2 3 4

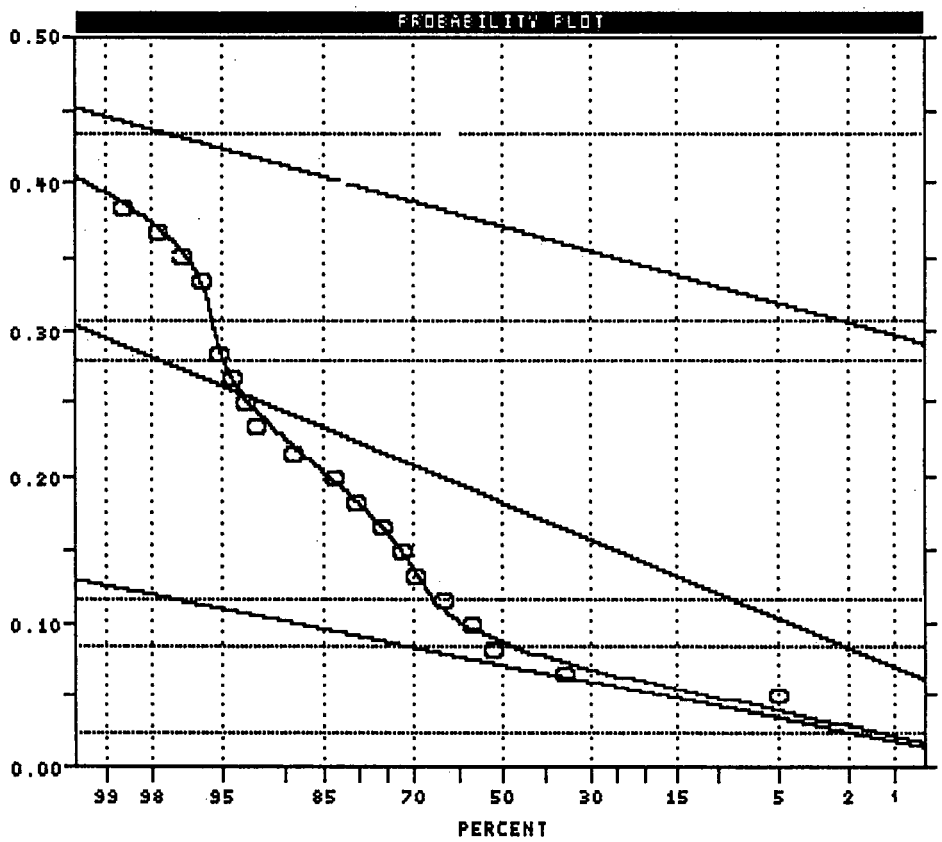
Kestrel Resources - M&M ARC Claims, Stream Sedim

SUMMARY STATISTICS and HISTOGRAM — ARITHMETIC VALUES

Variable =	P %	Unit =		N =	111
Mean =	0.116	Min =	0.040	1st Quartile =	0.060
Std. Dev. =	0.080	Max =	0.410	Median =	0.080
CV % =	69.185	Skewness =	1.548	3rd Quartile =	0.150

%	cum %	cls int	(# of bins = 23 - bin size = 0.017)
0.00	0.45	0.032	
4.50	4.91	0.048	****
30.63	35.27	0.065	**********
16.22	51.34	0.082	**********
5.41	56.70	0.099	****
6.31	62.95	0.116	*****
6.31	69.20	0.133	*****
2.70	71.88	0.149	**
3.60	75.45	0.166	***
4.50	79.91	0.183	****
3.60	83.48	0.200	***
5.41	88.84	0.217	****
3.60	92.41	0.233	***
0.90	93.30	0.250	*
0.90	94.20	0.267	*
0.90	95.09	0.284	*
0.00	95.09	0.301	
0.00	95.09	0.318	
0.90	95.98	0.334	*
0.90	96.87	0.351	*
0.90	97.77	0.368	*
0.90	98.66	0.385	*
0.00	98.66	0.402	
0.90	99.55	0.418	*

0 1 2 3 4



ARITHMETIC VALUES

VARIABLE = P %
UNIT =
N = 111
N CI = 23

POPULATIONS

Pop.	Mean	Std.Dev.	%
1	0.070	0.023	64.(
2	0.182	0.049	31.5
3	0.370	0.032	4.5

THRESHOLDS

Pop.		
1	0.024	0.116
2	0.085	0.279
3	0.306	0.434

USERS VISUAL
PARAMETER ESTIMATES

Kestrel Resources - M&M ARC Claims, Stream Sedim

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable =	Pb ppm	Unit =		N =	109
Mean =	35.312	Min =	18.000	1st Quartile =	31.000
Std. Dev. =	7.064	Max =	57.000	Median =	35.000
CV % =	20.005	Skewness =	0.405	3rd Quartile =	39.000

%	cum %	cls int	(# of bins = 18 - bin size = 2.294)
0.00	0.45	16.853	
0.92	1.36	19.147	*
1.83	3.18	21.441	*
1.83	5.00	23.735	*
4.59	9.55	26.029	****
5.50	15.00	28.324	****
7.34	22.27	30.618	******
13.76	35.91	32.912	**********
18.35	54.09	35.206	**********
12.84	66.82	37.500	**********
8.26	75.00	39.794	******
12.84	87.73	42.088	**********
4.59	92.27	44.382	****
1.83	94.09	46.676	*
1.83	95.91	48.971	*
0.92	96.82	51.265	*
0.00	96.82	53.559	
1.83	98.64	55.853	*
0.92	99.55	58.147	*

0 1 2 3 4

Kestrel Resources - M&M ARC Claims, Stream Sedim

##

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable =	Sr ppm	Unit =		N =	111
Mean =	48.351	Min =	14.000	1st Quartile =	31.250
Std. Dev. =	26.604	Max =	189.000	Median =	43.000
CV % =	55.023	Skewness =	2.098	3rd Quartile =	56.500

%	cum %	cls int	(# of bins = 22 - bin size = 8.333)
0.00	0.45	9.833	
5.41	5.80	18.167	****
13.51	19.20	26.500	**********
9.91	29.02	34.833	********
21.62	50.45	43.167	******************
19.82	70.09	51.500	*****************
7.21	77.23	59.833	******
4.50	81.70	68.167	****
4.50	86.16	76.500	****
5.41	91.52	84.833	****
3.60	95.09	93.167	***
0.90	95.98	101.500	*
1.80	97.77	109.833	*
0.00	97.77	118.167	
0.00	97.77	126.500	
0.00	97.77	134.833	
0.00	97.77	143.167	
0.90	98.66	151.500	*
0.00	98.66	159.833	
0.00	98.66	168.167	
0.00	98.66	176.500	
0.00	98.66	184.833	
0.90	99.55	193.167	*

0 1 2 3 4

##

Kestrel Resources - M&M ARC Claims, Stream Sedim

##

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable =	Sr ppm	Unit =		N =	111
Mean =	1.6309	Min =	1.1461	1st Quartile =	1.4948
Std. Dev. =	0.2137	Max =	2.2765	Median =	1.6335
CV % =	13.1006	Skewness =	0.1420	3rd Quartile =	1.7520

Anti-Log Mean = 42.750 Anti-Log Std. Dev. : (-) 26.138
(+) 69.920

%	cum %	antilog	cls int	(# of bins = 22 - bin size = 0.0538)
0.00	0.45	13.159	1.1192	
0.90	1.34	14.895	1.1730	*
0.90	2.23	16.860	1.2269	*
4.50	6.70	19.085	1.2807	****
4.50	11.16	21.603	1.3345	****
2.70	13.84	24.454	1.3883	**
7.21	20.98	27.680	1.4422	******
3.60	24.55	31.332	1.4960	***
5.41	29.91	35.467	1.5498	****
9.91	39.73	40.146	1.6036	********
19.82	59.38	45.443	1.6575	**********
10.81	70.09	51.439	1.7113	********
6.31	76.34	58.226	1.7651	*****
4.50	80.80	65.909	1.8189	****
3.60	84.37	74.606	1.8728	***
7.21	91.52	84.449	1.9266	******
4.50	95.98	95.592	1.9804	****
0.90	96.87	108.205	2.0342	*
0.90	97.77	122.482	2.0881	*
0.00	97.77	138.643	2.1419	
0.90	98.66	156.936	2.1957	*
0.00	98.66	177.643	2.2495	
0.90	99.55	201.083	2.3034	*

0 1 2 3 4

##

Kestrel Resources - M&M ARC Claims, Stream Sedim

##
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

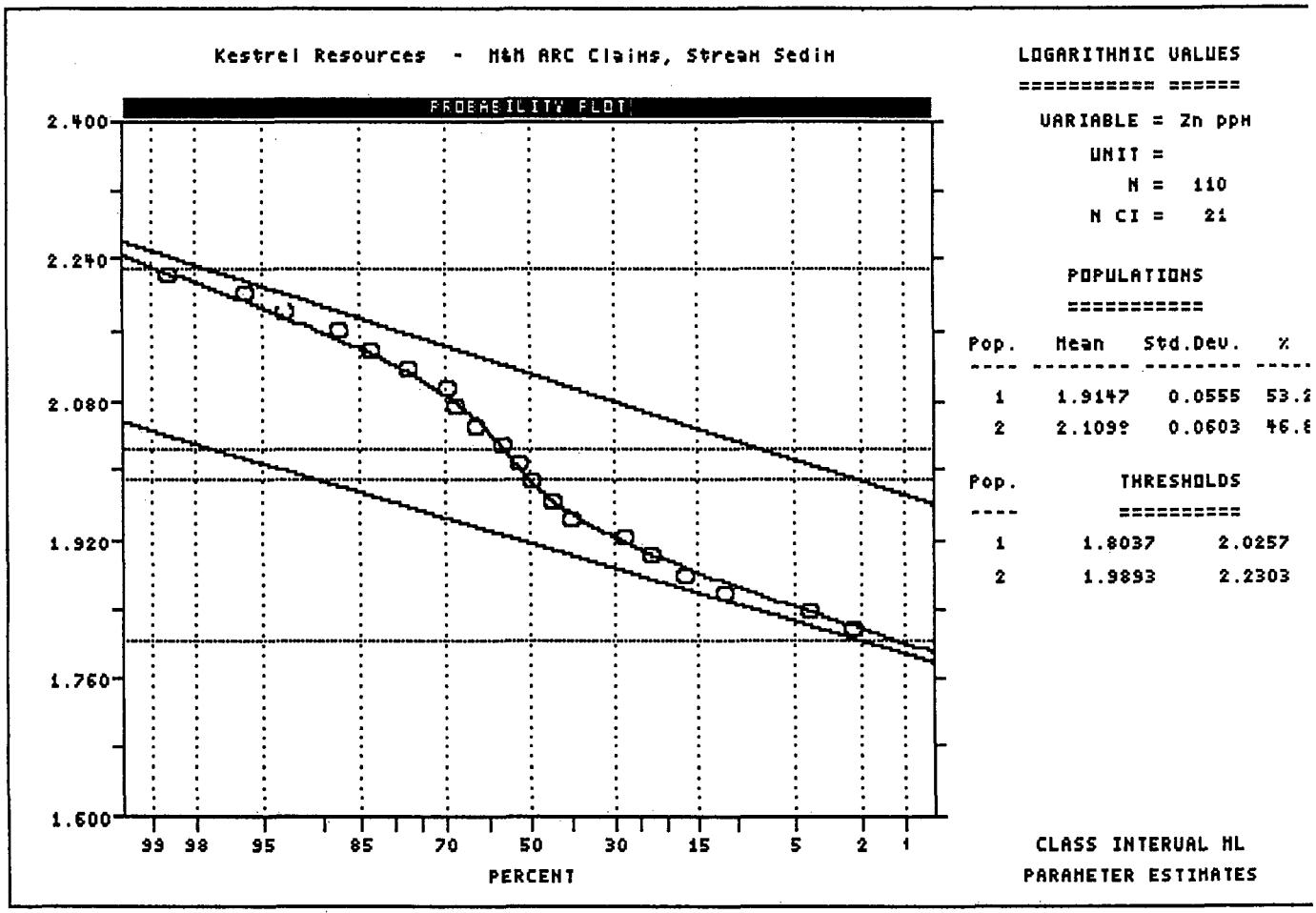
Variable =	Zn ppm	Unit =		N =	110
Mean =	2.0075	Min =	1.8062	1st Quartile =	1.9138
Std. Dev. =	0.1152	Max =	2.2355	Median =	2.0000
CV % =	5.7390	Skewness =	0.1585	3rd Quartile =	2.1106

Anti-Log Mean = 101.746 Anti-Log Std. Dev. : (-) 78.038
(+) 132.657

%	cum %	antilog	cls int	(# of bins = 21 - bin size = 0.0215)
0.00	0.45	62.438	1.7954	
1.82	2.25	65.601	1.8169	*
1.82	4.05	68.926	1.8384	*
7.27	11.26	72.418	1.8598	******
5.45	16.67	76.088	1.8813	****
5.45	22.07	79.944	1.9028	****
5.45	27.48	83.994	1.9243	****
11.82	39.19	88.251	1.9457	*********
4.55	43.69	92.723	1.9672	****
5.45	49.10	97.421	1.9887	****
2.73	51.80	102.358	2.0101	**
4.55	56.31	107.544	2.0316	****
6.36	62.61	112.994	2.0531	*****
4.55	67.12	118.720	2.0745	****
1.82	68.92	124.736	2.0960	*
8.18	77.03	131.056	2.1175	******
6.36	83.33	137.697	2.1389	*****
4.55	87.84	144.675	2.1604	****
5.45	93.24	152.006	2.1819	****
2.73	95.95	159.708	2.2033	**
2.73	98.65	167.801	2.2248	**
0.91	99.55	176.304	2.2463	*

0 1 2 3 4

##


Kestrel Resources - M&M ARC Claims, Stream Sedim
PROBABILITY PLOT
2.400
2.240
2.080
1.920
1.760
1.600
99 98 95 85 70 50 30 15 5 2 1
PERCENT
LOGARITHMIC VALUES
VARIABLE = Zn ppm
UNIT =
N = 110
N CI = 21
POPULATIONS
Pop. Mean Std.Dev. %
1 1.9147 0.0555 53.2
2 2.1092 0.0603 46.8
Pop. THRESHOLDS
1 1.8037 2.0257
2 1.9893 2.2303
CLASS INTERVAL ML
PARAMETER ESTIMATES

APPENDIX II

ANALYSIS METHOD AND ASSAY CERTIFICATES

VANGEOCHEM SAMPLE ANALYSIS DESCRIPTION

The lithogeochemical samples were properly bagged, described and labelled in the field. Later, they were shipped by air and ground weight to Vangeochem Lab Ltd. in Vancouver, B.C. for analysis under the supervision of professional assayers. All of the samples were analyzed for gold, using fire assay and atomic absorption procedures, and for a 25-element suite by inductively coupled argon plasma (ICAP) methods.

At Vangeochem Lab Ltd., each rock sample was ground to -100 mesh and a 0.5 gram pulp was digested with 5 millilitres of 3:2:1 hydrochloric acid to nitric acid to water at 95°C for 90 minutes, and then diluted to 10 millilitres with water. The resulting precipitate was then analyzed by ICAP methods for: silver, aluminum, arsenic, barium, bismuth, calcium, cadmium, cobalt, chromium, copper, iron, potassium, magnesium, manganese, molybdenum, sodium, nickel, phosphorus, lead, antimony, tin, strontium, uranium, tungsten and zinc.

A 20.0 to 30.0 gram pulp was split from each of the ground samples, mixed with flux, fused at 1,900°F to form a button, and subsequently digested in an aqua regia solution. This solution was then analyzed for gold by a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp.

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
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● (604) 251-5656
● FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD.
BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

REPORT NUMBER: 890753 GA JOB NUMBER: 890753 **RANGEX SERVICES LTD.**

SAMPLE #	Au ppb
05451	5
05452	10
05453	15
05454	20
05455	10
05456	10
05457	20
05458	15
05459	5
05460	10
05461	10
05462	10
05463	5
05464	10
05465	5
05466	10
05626	10
05627	5
05628	nd
05629	nd
05630	nd
05631	15
05632	15
05633	15
05634	10
05635	5
05636	15
05637	10
05638	10
05639	nd
05640	15
05641	10
05642	10
05643	10
05644	nd
05645	10
05646	5
05647	5
05648	15
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Au ppb
05649	nd
05650	20
05651	10
05652	20
05653	30
05654	20
05655	25
05656	10
05657	nd
05658	15
05659	10
05660	15
05661	20
05662	20
05663	5
05664	nd
05951	15
05952	10
06053	10
06054	5
06055	10
06056	nd
06057	5
06058	5
06059	5
06060	20
06061	15
06062	nd
06063	15
06064	15
06065	nd
06066	10
06067	5
06076	10
06077	10
06078	5
06079	15
06080	20
06081	5
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Au ppb
06082	15
06083	5
06084	nd
06085	5
06086	15
06087	10
06088	nd
06089	10
06101	15
06102	5
06103	15
06104	5
06105	10
06106	10
06107	15
06108	10
06109	10
06110	5
06111	15
06112	nd
06113	15
06114	10
06115	10
06116	10
06117	15
06118	15
06119	20
06120	15
06121	10
06122	nd
06123	15
06124	5
06125	5

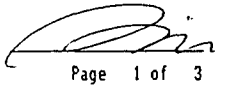
DETECTION LIMIT 5

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED
[redacted] Triumph Street, Vancouver, B.C. [redacted]
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Pd, Pt, Sn, Sr and W.

ANALYST: 

REPORT #: 890753 PA | RANGEX SERVICES | Proj: | Date In: 89/10/16 | Date Out:89/10/26 | Att: K KAYE

Sample Number	Ag	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
05451	0.2	2.31	16	142	<3	0.49	0.3	21	13	80	4.30	0.21	1.89	1210	3	0.01	26	0.20	33	<2	<2	53	<5	<3	100
05452	0.3	3.41	22	108	4	1.18	0.1	38	10	87	5.74	0.36	3.17	1237	3	0.01	15	0.36	44	<2	8	82	<5	<3	104
05453	0.3	3.05	19	179	<3	0.73	0.1	26	12	71	5.51	0.29	2.51	1410	3	0.01	14	0.34	40	<2	2	95	<5	<3	109
05454	0.3	2.55	27	86	<3	0.28	0.3	24	21	109	4.76	0.19	2.36	963	2	0.01	19	0.11	42	<2	<2	25	<5	<3	116
05455	0.3	2.57	22	143	<3	0.37	0.3	25	18	115	4.83	0.21	2.28	1278	3	0.01	22	0.15	44	<2	<2	46	<5	<3	122
05456	0.2	2.78	30	172	<3	0.35	0.5	25	20	113	4.88	0.21	2.42	1348	4	0.01	21	0.14	46	<2	<2	48	<5	<3	128
05457	0.2	2.78	30	173	<3	0.37	0.5	26	20	124	4.99	0.22	2.34	1470	3	0.01	22	0.15	44	<2	<2	53	<5	<3	133
05458	0.1	2.61	27	128	<3	0.63	0.3	24	20	125	4.60	0.24	2.22	1286	3	0.01	23	0.14	40	<2	<2	44	<5	<3	127
05459	0.2	2.67	22	134	<3	0.34	0.3	24	20	118	4.63	0.20	2.34	1314	3	0.01	24	0.12	45	<2	<2	37	<5	<3	132
05460	0.1	2.22	17	116	<3	0.28	0.3	22	13	124	4.17	0.17	1.95	1155	2	0.01	14	0.12	40	<2	<2	28	<5	<3	123
05461	0.2	2.48	27	109	<3	0.25	0.3	26	18	140	4.82	0.19	2.25	1203	2	0.01	20	0.11	55	<2	<2	19	<5	<3	155
05462	0.1	2.55	31	119	<3	0.27	0.3	26	17	148	4.87	0.19	2.26	1249	2	0.01	20	0.12	50	<2	<2	20	<5	<3	163
05463	0.2	2.23	16	117	<3	0.44	0.2	18	21	41	4.55	0.21	1.04	1635	5	0.01	23	0.17	28	<2	<2	66	<5	<3	145
05464	0.1	2.07	16	196	<3	0.62	0.5	19	21	33	6.37	0.31	0.89	5297	11	0.01	20	0.14	32	<2	<2	105	<5	<3	129
05465	0.1	1.76	8	154	<3	0.61	0.1	14	18	33	3.52	0.21	0.82	2471	3	0.07	18	0.12	23	<2	<2	93	<5	<3	116
05466	0.1	1.72	8	66	<3	0.70	0.1	10	16	25	3.15	0.21	0.69	1219	5	0.01	9	0.11	20	<2	<2	109	<5	<3	99
05626	0.2	2.72	25	186	<3	0.53	0.2	23	40	84	3.76	0.20	1.41	978	1	0.01	24	0.06	31	<2	<2	39	<5	<3	84
05627	0.3	2.83	17	130	<3	0.53	0.2	24	38	87	3.84	0.20	1.41	959	2	0.01	22	0.07	32	<2	<2	37	<5	<3	81
05628	0.2	1.99	18	141	<3	0.51	0.1	15	29	52	2.70	0.16	0.99	588	1	0.01	15	0.06	23	<2	<2	37	<5	<3	77
05629	0.2	2.37	29	191	<3	0.51	0.1	19	34	66	3.33	0.18	1.27	783	1	0.01	20	0.06	28	<2	<2	38	<5	<3	73
05630	0.2	2.44	22	163	<3	0.40	0.1	18	32	63	3.27	0.16	1.21	835	1	0.01	20	0.06	30	<2	<2	32	<5	<3	76
05631	0.1	3.59	16	263	<3	0.28	0.2	20	50	49	4.17	0.18	1.45	1461	2	0.01	24	0.12	39	<2	<2	28	<5	<3	108
05632	0.3	3.74	25	88	<3	0.32	0.2	23	49	80	4.05	0.18	1.56	1239	2	0.01	32	0.09	42	<2	<2	31	<5	<3	94
05633	0.3	3.04	23	119	<3	0.44	0.1	21	38	92	3.55	0.18	1.43	621	1	0.01	21	0.06	34	<2	<2	39	<5	<3	85
05634	0.2	3.28	20	92	<3	0.42	0.3	25	42	94	3.97	0.19	1.59	901	2	0.01	26	0.07	39	<2	<2	36	<5	<3	88
05635	0.2	2.71	25	106	<3	0.53	0.2	23	34	92	3.68	0.19	1.31	863	2	0.01	22	0.07	36	<2	<2	34	<5	<3	91
05636	0.1	3.27	32	261	<3	0.36	0.1	28	61	149	4.94	0.22	1.85	2765	2	0.01	31	0.05	42	<2	<2	18	<5	<3	72
05637	0.1	2.89	23	159	<3	0.34	0.2	24	62	68	4.41	0.19	1.81	1809	2	0.01	30	0.05	32	<2	<2	15	<5	<3	64
05638	0.2	2.47	22	149	<3	0.34	0.2	21	38	60	4.19	0.18	1.41	1405	2	0.01	25	0.07	32	<2	<2	18	<5	<3	67
05639	0.1	2.78	18	238	<3	0.39	0.2	20	39	59	4.24	0.19	1.59	1758	2	0.01	24	0.06	30	<2	<2	14	<5	<3	70
05640	0.1	3.57	15	184	<3	0.63	0.3	23	31	102	3.98	0.22	1.71	1156	2	0.01	21	0.07	39	<2	<2	40	<5	<3	91
05641	0.2	2.76	19	195	<3	0.47	0.3	21	35	68	3.87	0.19	1.64	985	1	0.01	21	0.06	36	<2	<2	33	<5	<3	91
05642	0.1	2.69	14	234	<3	0.39	0.3	18	31	59	3.97	0.18	1.63	905	1	0.01	18	0.06	36	<2	<2	25	<5	<3	97
05643	0.3	3.84	14	126	<3	0.67	0.2	23	52	107	3.83	0.22	1.89	1155	2	0.01	26	0.07	41	<2	<2	47	<5	<3	83
05644	0.2	2.82	10	162	<3	0.55	0.3	22	40	87	3.54	0.19	1.71	826	<1	0.01	29	0.07	32	<2	<2	45	<5	<3	85
05645	0.1	3.24	11	208	<3	0.58	0.2	20	38	85	3.51	0.20	1.51	864	1	0.01	24	0.08	33	<2	<2	43	<5	<3	84
05646	0.2	3.55	19	182	<3	0.46	0.3	22	37	99	4.16	0.20	1.51	1160	2	0.01	22	0.09	42	<2	<2	35	<5	<3	112
05647	0.3	2.30	16	202	<3	0.73	0.3	19	14	71	4.04	0.24	1.41	1323	3	0.01	15	0.19	36	<2	<2	83	<5	<3	145
05648	0.3	2.23	10	165	<3	0.67	0.3	18	16	62	3.98	0.23	1.46	1185	3	0.01	15	0.18	35	<2	<2	71	<5	<3	136
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< = Less than Minimum is = Insufficient Sample ns = No sample > = Greater than Maximum ANOMALOUS RESULTS = Further Analyses by Alternate Methods Suggested

REPORT #: 890753 PA RANGEX SERVICES Proj: Date In: 89/10/16 Date Out:89/10/26 Att: K KAYE

Sample Number	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sn ppm	Sr ppm	U ppm	W ppm	Zn ppm
05649	0.2	2.37	11	180	<3	0.72	4.2	20	10	87	4.12	0.23	1.54	1323	1	0.17	14	0.19	38	<2	<2	62	<5	<3	162
05650	0.1	2.39	16	176	<3	0.62	0.3	18	13	91	4.24	0.22	1.58	1317	2	0.01	16	0.18	41	<2	<2	59	<5	<3	160
05651	0.1	2.82	27	147	<3	0.57	0.4	21	9	88	4.56	0.22	1.77	1244	2	0.08	15	0.23	57	<2	<2	64	<5	<3	157
05652	0.1	3.23	25	167	<3	0.66	0.4	25	9	86	5.29	0.26	1.96	1580	2	0.01	13	0.28	55	<2	<2	74	<5	<3	172
05653	0.1	2.78	18	158	<3	0.50	0.1	25	20	103	5.39	0.24	2.49	1604	2	0.01	20	0.22	38	<2	<2	62	<5	<3	150
05654	0.1	2.41	21	121	<3	0.38	0.4	23	14	110	4.59	0.18	2.09	1423	2	0.01	18	0.15	35	<2	<2	48	<5	<3	132
05655	0.2	3.10	21	222	<3	0.99	0.4	27	9	82	5.62	0.32	2.29	2081	2	0.23	14	0.33	38	<2	2	79	<5	<3	144
05656	0.1	2.47	22	94	<3	0.38	0.3	25	20	110	5.01	0.19	2.33	1018	2	0.01	23	0.11	42	<2	<2	26	<5	<3	134
05657	0.1	2.66	26	82	<3	0.27	0.4	27	22	113	5.36	0.19	2.53	936	2	0.01	22	0.09	44	<2	<2	18	<5	<3	127
05658	0.1	2.29	26	103	<3	0.24	0.3	24	13	124	4.59	0.16	2.08	1085	1	0.01	18	0.10	48	<2	<2	17	<5	<3	151
05659	0.1	1.22	12	67	<3	0.95	0.1	18	33	27	3.60	0.25	1.47	788	1	0.13	30	0.19	18	<2	<2	72	<5	<3	73
05660	0.1	1.33	16	112	<3	0.55	0.2	22	34	36	4.19	0.21	1.46	1068	2	0.19	34	0.22	25	<2	2	55	<5	<3	84
05661	0.1	1.29	17	73	<3	0.89	0.1	18	37	26	3.84	0.25	1.52	854	1	0.21	33	0.22	20	<2	<2	75	<5	<3	72
05662	0.1	1.29	16	101	<3	0.72	0.1	20	32	32	3.86	0.22	1.39	917	1	0.24	31	0.21	24	<2	2	63	<5	<3	77
05663	0.1	1.40	13	85	<3	0.98	0.1	22	41	29	4.14	0.27	1.60	980	2	0.28	34	0.26	26	<2	2	84	<5	<3	78
05664	0.1	1.31	14	82	<3	0.89	0.1	18	37	27	3.81	0.24	1.47	922	1	0.28	31	0.24	24	<2	2	75	<5	<3	71
05951	0.2	1.70	22	127	<3	0.48	0.1	23	36	42	3.98	0.18	1.22	1092	2	0.17	34	0.13	28	<2	2	49	<5	<3	93
05952	0.2	2.12	12	184	<3	0.45	0.4	25	42	49	4.79	0.21	1.26	1467	4	0.12	36	0.13	33	<2	2	43	<5	<3	131
06053	0.1	2.47	15	99	<3	0.48	0.1	22	32	59	3.54	0.17	1.47	738	<1	0.01	20	0.04	30	<2	<2	45	<5	<3	65
06054	0.1	2.52	9	117	<3	0.50	0.1	22	33	59	3.50	0.17	1.47	733	1	0.01	20	0.04	28	<2	<2	45	<5	<3	66
06055	0.1	2.87	9	98	<3	0.48	0.3	24	36	73	4.31	0.19	1.77	925	2	0.01	32	0.05	35	<2	<2	43	<5	<3	108
06056	0.1	2.89	7	112	<3	0.42	0.1	23	32	65	4.15	0.17	1.70	958	1	0.01	24	0.05	31	<2	<2	37	<5	<3	103
06057	0.2	3.01	13	67	<3	0.52	0.1	27	43	88	4.12	0.19	1.58	775	1	0.01	26	0.07	35	<2	<2	47	<5	<3	71
06058	0.2	3.43	3	68	<3	0.48	0.3	27	45	93	4.28	0.19	1.71	882	1	0.01	26	0.05	41	<2	<2	50	<5	<3	87
06059	0.1	3.21	10	78	<3	0.50	0.4	26	37	84	4.31	0.19	1.67	1036	1	0.01	25	0.05	36	<2	<2	45	<5	<3	73
06060	0.1	2.83	9	68	<3	0.51	0.1	24	37	74	3.93	1.18	1.58	821	1	0.01	22	0.05	33	<2	<2	45	<5	<3	71
06061	0.1	3.40	9	72	<3	0.59	0.1	27	44	85	4.36	0.22	1.87	940	1	0.01	27	0.05	32	<2	<2	51	<5	<3	79
06062	0.2	3.58	11	68	<3	0.60	0.1	29	48	91	4.60	0.23	1.99	969	2	0.01	26	0.05	37	<2	<2	52	<5	<3	75
06063	0.2	3.73	6	73	<3	0.45	0.1	26	43	86	4.28	0.18	1.67	986	2	0.01	25	0.08	42	<2	<2	43	<5	<3	86
06064	0.3	3.28	5	67	<3	0.53	0.1	26	42	84	4.15	0.19	1.84	936	1	0.01	25	0.05	34	<2	<2	46	<5	<3	77
06065	0.1	3.15	8	66	<3	0.52	0.2	27	42	78	4.27	0.19	1.91	992	1	0.01	26	0.05	35	<2	<2	44	<5	<3	82
06066	0.1	3.60	3	77	<3	0.59	0.4	30	48	84	4.84	0.23	2.19	999	2	0.01	28	0.05	39	<2	<2	49	<5	<3	87
06067	0.1	3.37	8	86	<3	0.55	0.3	27	43	84	4.33	0.21	1.97	1022	1	0.01	28	0.04	36	<2	<2	46	<5	<3	81
06076	0.2	2.08	21	145	<3	0.33	0.1	17	46	97	3.75	0.15	1.47	704	1	0.01	20	0.06	32	<2	<2	21	<5	<3	96
06077	0.1	2.36	24	244	<3	0.33	0.2	22	29	121	4.18	0.16	1.39	1245	1	0.01	21	0.06	41	<2	<2	21	<5	<3	114
06078	0.2	2.74	6	218	<3	0.19	0.1	16	32	62	3.66	0.13	1.16	1321	1	0.01	20	0.04	36	<2	<2	20	<5	<3	86
06079	0.1	2.64	57	189	<3	0.36	0.1	44	31	244	5.50	0.22	1.59	1471	3	0.01	27	0.07	90	<2	<2	25	<5	<3	407
06080	0.1	2.16	15	186	<3	0.33	0.2	20	27	52	4.61	0.18	1.19	1209	1	0.01	20	0.05	36	<2	<2	21	<5	<3	103
06081	0.2	2.41	11	259	<3	0.42	0.3	21	30	86	3.98	0.17	1.27	1214	1	0.01	17	0.07	111	<2	<2	26	<5	<3	159
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< = Less than Minimum is = Insufficient Sample ns = No sample > = Greater than Maximum ANOMALOUS RESULTS = Further Analyses by Alternate Methods Suggested

REPORT #: 890753 PA RANGEX SERVICES Proj: Date In: 89/10/16 Date Out:89/10/26 Att: K KAYE

Sample Number	Ag	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
06082	0.3	3.15	30	232	<3	0.43	0.2	32	41	170	4.76	0.21	2.08	1578	2	0.01	27	0.06	48	<2	<2	32	<5	<3	148
06083	0.2	2.10	8	173	<3	0.32	0.4	18	26	72	3.63	0.15	1.25	943	1	0.01	17	0.06	33	<2	<2	23	<5	<3	103
06084	0.2	2.36	11	174	<3	0.34	0.1	18	31	78	3.84	0.16	1.31	1027	1	0.01	21	0.07	32	<2	<2	26	<5	<3	108
06085	0.2	2.43	16	173	<3	0.33	0.3	21	35	129	3.95	1.02	1.35	1216	1	0.01	22	0.09	39	<2	<2	24	<5	<3	114
06086	0.2	2.28	15	283	<3	0.50	0.1	17	23	88	3.40	0.16	1.28	969	1	0.01	15	0.09	29	<2	<2	27	<5	<3	97
06087	0.1	2.59	19	205	<3	0.37	0.3	22	30	112	4.12	0.16	1.57	1079	1	0.01	21	0.08	36	<2	<2	29	<5	<3	108
06088	0.2	2.53	16	201	<3	0.36	0.2	21	22	103	4.00	0.15	1.53	1075	1	0.01	15	0.07	34	<2	<2	27	<5	<3	103
06089	0.2	2.31	15	200	<3	0.34	0.1	21	23	104	3.79	0.14	1.39	1186	1	0.01	17	0.07	36	<2	<2	24	<5	<3	101
06101	0.2	2.85	13	106	<3	0.49	0.3	26	65	75	4.16	0.16	1.96	1000	1	0.01	31	0.05	30	<2	<2	41	<5	<3	82
06102	0.2	2.62	9	98	<3	0.45	0.3	24	37	73	3.93	0.88	1.67	930	1	0.01	23	0.05	30	<2	<2	42	<5	<3	83
06103	0.1	2.74	15	148	<3	0.52	0.4	21	40	76	3.81	0.15	1.66	887	1	0.01	22	0.06	26	<2	<2	37	<5	<3	78
06104	0.2	2.85	13	104	<3	0.48	0.4	25	40	78	4.25	0.15	1.82	991	1	0.01	24	0.05	31	<2	<2	45	<5	<3	84
06105	0.2	2.77	14	102	<3	0.45	0.3	24	35	75	3.88	0.13	1.62	888	1	0.01	21	0.04	32	<2	<2	37	<5	<3	75
06106	0.2	3.50	10	118	<3	0.53	0.4	27	42	102	4.50	0.80	1.86	1028	1	0.01	25	0.05	36	<2	<2	43	<5	<3	92
06107	0.1	3.43	9	134	<3	0.61	0.4	19	44	88	3.58	0.13	1.49	740	1	0.01	22	0.09	31	<2	<2	42	<5	<3	87
06108	0.1	3.52	7	92	<3	0.63	0.2	23	42	86	4.07	0.14	1.81	812	1	0.01	27	0.08	35	<2	<2	45	<5	<3	93
06109	0.1	3.07	10	103	<3	0.62	0.1	18	39	75	3.41	0.12	1.48	656	1	0.01	20	0.08	28	<2	<2	41	<5	<3	110
06110	0.2	3.49	10	81	<3	0.50	0.3	27	45	81	4.50	0.69	2.03	812	1	0.01	28	0.06	36	<2	<2	42	<5	<3	89
06111	0.2	3.62	12	115	<3	0.60	0.4	29	49	97	4.82	0.14	2.16	1001	2	0.01	31	0.06	36	<2	<2	49	<5	<3	86
06112	0.2	2.65	13	59	<3	0.50	0.2	23	36	73	3.66	0.10	1.50	800	1	0.01	23	0.05	30	<2	<2	43	<5	<3	72
06113	0.2	2.52	13	51	<3	0.48	0.3	23	37	69	3.76	0.57	1.51	670	1	0.01	30	0.05	30	<2	<2	44	<5	<3	72
06114	0.1	1.78	10	221	<3	0.74	0.1	15	12	46	3.40	0.11	1.06	1267	3	0.01	16	0.17	28	<2	<2	149	<5	<3	133
06115	0.1	2.08	16	212	<3	0.59	0.3	16	14	48	3.98	0.53	1.33	957	3	0.01	18	0.18	32	<2	<2	84	<5	<3	129
06116	0.2	2.07	18	208	<3	0.45	0.3	17	13	56	3.87	0.50	1.32	1080	2	0.01	18	0.20	35	<2	<2	52	<5	<3	127
06117	0.1	2.17	15	214	<3	0.50	0.3	19	13	72	4.17	0.48	1.39	1305	1	0.01	22	0.20	35	<2	<2	57	<5	<3	150
06118	0.1	2.24	22	251	<3	0.48	0.3	17	15	62	3.94	0.08	1.38	1105	2	0.01	20	0.20	34	<2	<2	57	<5	<3	131
06119	0.1	2.33	18	199	<3	0.60	0.4	19	15	74	4.02	0.43	1.52	1010	1	0.01	19	0.19	38	<2	<2	85	<5	<3	142
06120	0.1	2.02	19	183	<3	0.55	0.6	21	14	80	4.59	0.41	1.41	1417	1	0.01	19	0.21	35	<2	<2	41	<5	<3	129
06121	0.1	1.97	22	142	<3	0.45	0.4	19	12	76	4.06	0.06	1.46	1066	1	0.01	16	0.15	34	<2	<2	33	<5	<3	136
06122	0.2	1.69	24	74	<3	2.27	0.5	21	13	108	3.93	0.14	1.72	841	1	0.01	20	0.11	34	<2	<2	78	<5	<3	139
06123	0.2	1.67	17	86	<3	2.62	0.3	18	12	96	3.55	0.14	1.71	875	1	0.01	19	0.11	31	<2	<2	85	<5	<3	117
06124	0.3	3.21	16	145	<3	1.01	0.3	24	9	64	5.58	0.09	2.88	1267	3	0.01	12	0.41	42	<2	4	189	<5	<3	142
06125	0.2	3.27	13	110	<3	1.22	0.2	29	8	86	5.05	0.30	2.67	1337	2	0.01	13	0.38	44	<2	5	86	<5	<3	140
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

RESULTS = Further Analyses by Alternate Methods Suggested

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MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

REPORT NUMBER: 890710 GA JOB NUMBER: 890710 **RANGEX SERVICES LTD.**

SAMPLE #	Au ppb
05301	5
05302	10
05303	5
05304	15
05305	10
05306	nd
05307	15
05308	10
05309	10
05310	10
05311	15
05312	10
05313	5
05314	10
05315	10
05316	nd
05317	10
05318	25
05319	10
05320	10
05321	10
05322	nd
05323	nd
05324	10
05325	20
05326	20
05327	nd
05328	15
05329	5
05330	5
05331	5
05332	20
05333	20
05334	10
05335	10
05336	5
05337	10
05338	nd
05339	20
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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RENO, NEVADA, U.S.A.

SAMPLE #	Au ppb
05340	5
05341	nd
05342	nd
05343	5
05344	10
05345	20
05346	20
05347	10
05348	5
05349	5
05350	15
05351	15
05352	10
05353	5
05354	10
05355	10
05356	10
05357	5
05358	20
05359	20
05360	15
05361	20
05362	20
05363	15
05364	5
05365	15
05366	20
05367	20
05368	20
05369	10
05369 R	15
05370	10
05370 R	15
05371	5
05372	10
05373	15
05374	5
05375	10
05376	5
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Au ppb
05377	nd
05378	nd
05379	nd
05380	nd
05381	nd
05382	nd
05383	nd
05384	nd
05385	nd
05386	nd
05387	5
05388	nd
05389	25
05390	5
05391	5
05392	nd
05393	nd
05394	15
05395	5
05396	15
05397	15
05398	100
05399	5
05400	5
05401	5
05402	nd
05403	nd
05404	10
05405	50
05406	nd
05407	5
05408	5
05409	nd
05410	5
05411	nd
05412	nd
05413	5
05414	10
05415	nd
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Au ppb
05416	10
05417	10
05418	nd
05419	nd
05420	5
05421	nd
05422	10
05423	5
05424	10
05425	5
05426	nd
05427	nd
05428	nd
05429	5
05430	10
05431	5
05432	nd
05433	nd
05434	nd
05435	nd
05436	nd
05437	nd
05438	10
05439	10
05440	nd
05441	nd
05442	nd
05443	10
05444	5
05445	nd

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

ARC 1-5

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RENO, NEVADA, U.S.A.

REPORT #: 890710 PA RANGEX

Sample Number	Ag ppm	As ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Sb ppm	Zn ppm
05301	0.2	<3	25	5.18	1559	1	20	25	<2	99
05302	0.2	9	31	4.84	1300	2	29	29	<2	92
05303	0.2	<3	33	4.60	986	2	28	30	<2	99
05304	0.2	<3	59	4.30	1094	1	44	29	<2	99
05305	0.1	<3	30	5.44	1542	3	30	33	<2	98
05306	0.1	<3	58	5.14	1692	1	41	29	<2	113
05307	0.1	9	153	7.17	920	2	29	39	<2	78
05308	0.1	<3	33	5.35	1426	3	32	34	<2	109
05309	0.1	<3	46	5.55	1285	2	39	40	<2	112
05310	0.1	<3	44	4.29	860	1	30	34	<2	90
05311	0.1	<3	60	5.06	1126	2	41	45	<2	160
05312	0.1	<3	14	3.45	335	2	11	31	<2	67
05313	0.2	<3	22	4.06	384	1	17	47	<2	69
05314	0.1	<3	51	5.03	1325	2	17	47	<2	117
05315	0.2	<3	29	3.74	758	1	16	39	<2	71
05316	0.1	<3	44	4.13	936	1	27	39	<2	88
05317	0.1	<3	113	5.48	1612	2	29	50	<2	154
05318	0.1	<3	63	4.41	1017	1	39	37	<2	111
05319	0.1	<3	83	4.97	1365	1	42	41	<2	111
05320	0.1	21	70	6.49	1763	2	34	36	<2	139
05321	0.1	6	46	8.94	3422	3	42	47	<2	132
05322	0.1	<3	129	5.29	1328	2	36	49	<2	132
05323	0.2	<3	141	6.08	2406	2	28	46	<2	120
05324	0.3	<3	135	4.76	1297	2	29	47	<2	114
05325	0.3	5	161	4.32	1425	2	31	44	<2	102
05326	1.0	34	1056	4.52	4274	2	21	59	<2	118
05327	0.3	<3	97	3.88	1208	1	35	38	<2	106
05328	0.4	14	212	4.26	890	2	36	48	<2	126
05329	0.1	10	141	4.85	896	2	28	50	<2	131
05330	0.4	20	109	4.70	1222	2	32	43	<2	103
05331	0.3	6	78	4.25	1096	1	38	41	<2	93
05332	0.4	38	177	>10.00	18496	5	42	72	<2	252
05333	0.4	<3	137	4.46	1247	1	48	42	<2	105
05334	0.3	5	408	4.51	1162	2	36	45	<2	104
05335	0.6	<3	237	4.07	600	2	22	51	<2	95
05336	0.4	5	87	3.74	614	2	18	43	<2	106
05337	0.3	<3	35	3.96	810	2	14	54	<2	85
05338	0.3	<3	84	3.53	572	1	26	42	<2	69
05339	0.2	<3	522	3.75	605	1	30	40	<2	70
Minimum Detection	0.1	3	1	0.01	1	1	1	2	2	1
Maximum Detection	50.0	2000	20000	10.00	20000	1000	20000	20000	2000	20000

< = Less than Minimum is = Insufficient Sample ns = No sample > = Greater than Maximum

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RENO, NEVADA, U.S.A.

REPORT #: 890710 PA RANGEX

Sample Number	Ag	As	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Zn
	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
05340	0.1	3	252	4.06	800	1	29	37	<2	81
05341	0.1	9	95	5.24	1474	1	27	34	<2	92
05342	0.2	8	98	4.36	815	1	26	38	<2	105
05343	0.2	18	124	4.22	729	1	35	34	<2	100
05344	0.1	13	139	4.63	1205	1	38	33	<2	104
05345	0.2	<3	60	3.77	855	<1	37	22	<2	90
05346	0.2	<3	74	4.32	1040	1	43	27	<2	91
05347	0.1	4	110	5.09	1592	1	40	32	<2	121
05348	0.1	<3	67	4.18	981	1	43	26	<2	89
05349	0.2	20	94	4.65	1385	1	41	37	<2	197
05350	0.1	5	69	5.30	1588	1	30	32	<2	126
05351	0.1	<3	51	4.23	714	1	30	35	<2	96
05352	0.2	<3	36	4.34	749	2	13	59	<2	116
05353	0.1	<3	58	3.92	871	1	36	30	<2	90
05354	0.1	<3	56	3.97	833	1	34	28	<2	104
05355	0.1	6	70	4.26	808	1	41	31	<2	102
05356	0.1	<3	60	4.36	613	1	30	35	<2	115
05357	0.2	3	53	4.25	525	1	28	34	<2	111
05358	0.3	9	78	4.34	1154	2	34	33	<2	121
05359	0.5	45	89	5.41	1428	1	31	130	<2	263
05360	0.3	50	90	4.80	750	2	30	63	<2	240
05361	0.7	48	308	8.61	2940	2	25	41	<2	206
05362	0.2	23	238	6.34	1865	2	25	44	<2	146
05363	0.1	25	89	5.09	1295	1	33	34	<2	113
05364	0.1	36	121	4.98	1505	2	31	68	<2	208
05365	0.2	31	116	4.96	1686	1	36	45	<2	125
05366	0.1	35	95	4.63	1112	1	49	48	<2	167
05367	0.3	53	168	5.87	1691	2	31	55	<2	185
05368	0.1	21	79	4.94	1432	1	33	30	<2	116
05369	0.1	35	128	6.19	2207	1	30	33	<2	181
05369 B	0.2	36	102	6.73	1069	2	32	42	<2	177
05370	0.3	18	76	5.37	1310	1	29	35	<2	137
05370 B	0.1	10	67	4.07	924	1	32	31	<2	92
05371	0.1	60	91	5.32	928	2	29	45	<2	170
05372	0.1	11	61	3.68	666	1	38	27	<2	80
05373	0.1	20	61	4.35	852	1	26	65	<2	147
05374	0.2	11	63	4.29	797	1	37	34	<2	128
05375	0.2	14	68	4.42	1058	1	35	35	<2	112
05376	0.2	15	67	4.18	562	1	31	42	<2	142
Minimum Detection	0.1	3	1	0.01	1	1	1	2	2	1
Maximum Detection	50.0	2000	20000	10.00	20000	1000	20000	20000	2000	20000

< = Less than Minimum is = Insufficient Sample ns = No sample > = Greater than Maximum

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REPORT #: 890710 PA RANGEX

Sample Number	Ag	As	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Zn
	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
05377	0.1	10	79	4.04	619	1	33	43	<2	152
05378	0.1	8	68	4.55	1141	2	26	37	<2	108
05379	0.1	16	66	4.27	946	<1	33	35	<2	90
05380	0.1	12	54	4.66	1114	2	23	36	<2	106
05381	0.1	4	70	4.72	1066	<1	33	38	<2	120
05382	0.2	<3	57	4.51	826	<1	27	42	<2	116
05383	0.1	<3	70	4.23	879	1	33	33	<2	108
05384	0.2	11	50	6.17	1619	<1	31	40	<2	139
05385	0.1	9	76	4.68	892	1	34	38	<2	123
05386	0.1	4	55	4.88	869	2	31	37	<2	128
05387	0.1	7	56	4.11	847	1	30	31	<2	106
05388	0.2	12	76	4.68	935	1	32	35	<2	150
05389	0.2	10	37	4.36	1304	2	17	34	<2	142
05390	0.1	4	76	4.17	1109	1	30	31	<2	102
05391	0.2	27	132	8.69	1908	3	59	54	<2	215
05392	0.1	8	76	4.01	982	1	33	26	<2	84
05393	0.1	11	78	4.74	1084	1	26	31	<2	115
05394	0.1	7	99	4.79	666	2	26	43	<2	155
05395	0.2	22	161	6.07	1992	2	34	36	<2	157
05396	0.1	19	82	5.10	1676	2	23	36	<2	123
05397	0.3	11	76	5.40	1508	2	32	33	<2	130
05398	0.2	39	53	6.90	2053	2	19	39	<2	177
05399	0.2	16	74	5.52	999	2	24	31	<2	142
05400	0.3	17	82	5.46	1622	2	20	36	<2	141
05401	0.1	17	71	5.65	1738	2	20	31	<2	134
05402	0.3	28	101	5.58	1642	2	25	41	<2	157
05403	0.3	19	78	5.09	1379	2	21	30	<2	120
05404	0.3	111	95	5.12	1450	3	25	47	<2	159
05405	0.5	247	105	5.95	2018	3	19	51	<2	160
05406	0.4	125	141	5.53	1328	3	26	59	<2	198
05407	0.2	100	123	5.88	1159	3	30	52	<2	155
05408	0.5	98	133	5.51	1653	3	28	58	<2	215
05409	0.5	151	199	6.72	2658	3	32	82	<2	279
05410	0.5	104	169	6.54	2243	3	25	75	<2	189
05411	0.4	103	151	6.97	1640	3	26	78	<2	219
05412	0.3	55	164	5.69	1396	2	21	56	<2	158
05413	0.2	13	60	4.17	1279	2	13	39	<2	104
05414	0.3	24	94	4.90	1132	2	26	43	<2	128
05415	0.5	31	97	5.39	847	3	50	51	<2	194
Minimum Detection	0.1	3	1	0.01	1	1	1	2	2	1
Maximum Detection	50.0	2000	20000	10.00	20000	1000	20000	20000	2000	20000

< = Less than Minimum is = Insufficient Sample ns = No sample > = Greater than Maximum

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1988 TRIUMPH ST.
VANCOUVER, B.C. V5L 1K5
● (604) 251-5656
● FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD.
BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

REPORT #: 890710 PA RANGEX

Sample Number	Ag	As	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Zn
	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
05416	0.3	24	84	5.05	1277	3	45	40	<2	153
05417	0.1	17	120	5.09	1043	2	33	41	<2	151
05418	0.1	23	69	5.89	1365	3	24	40	<2	173
05419	0.1	24	43	9.85	1589	3	17	42	<2	285
05420	0.2	26	105	6.59	1399	3	30	51	<2	557
05421	0.2	37	99	5.43	1145	3	29	73	<2	782
05422	0.1	27	59	4.75	1161	3	29	61	<2	570
05423	0.1	18	48	5.23	1305	4	29	47	<2	274
05424	0.1	23	63	5.14	1348	3	27	36	<2	170
05425	0.1	73	78	7.51	2704	3	33	32	<2	117
05426	0.5	31	62	5.23	1316	3	44	37	<2	119
05427	0.6	63	115	6.09	1504	3	110	65	<2	222
05428	0.4	30	69	5.32	1345	3	75	50	<2	175
05429	0.4	62	63	5.00	1579	3	71	51	<2	144
05430	0.2	44	55	4.06	1208	2	24	46	<2	160
05431	0.3	34	61	5.77	1571	5	78	50	<2	152
05432	0.3	12	35	4.56	1187	3	26	37	<2	124
05433	0.2	17	46	3.75	759	2	20	35	<2	115
05434	0.2	16	47	4.45	1177	2	27	39	<2	129
05435	0.2	16	40	4.19	780	2	24	39	<2	145
05436	0.2	13	38	4.06	607	2	29	36	<2	113
05437	0.3	15	32	3.62	550	2	32	38	<2	71
05438	0.1	14	30	4.44	1220	3	29	37	<2	88
05439	0.1	10	22	3.32	712	2	12	31	<2	58
05440	0.1	30	47	3.84	1044	2	17	37	<2	84
05441	0.2	<3	29	1.77	617	3	14	14	<2	41
05442	0.2	17	61	4.34	1393	2	27	36	<2	134
05443	0.2	17	43	3.71	1156	2	20	41	<2	84
05444	0.1	12	39	3.63	1671	3	18	38	<2	104
05445	0.2	11	46	3.89	1249	2	20	33	<2	89
Minimum Detection	0.1	3	1	0.01	1	1	1	2	2	1
Maximum Detection	50.0	2000	20000	10.00	20000	1000	20000	20000	2000	20000

< = Less than Minimum is ▫ Insufficient Sample ns ▫ No sample > = Greater than Maximum

APPENDIX III

STATEMENT OF QUALIFICATIONS

CERTIFICATE

I, JOHN BUCHHOLZ, of 10370 Monte Bella Road, Winfield, British Columbia do hereby certify that:

1) I was employed by Kestrel Resources Ltd. during the months of July - December, 1989 as Exploration Geologist to conduct geological mapping and property examinations on their Iskut River mineral claims.

2) I am a graduate of the University of British Columbia having obtained a degree in Geology (B.A.) in 1962.

3) I have practised my profession during the periods 1962-1974 and 1987 to present on various exploration projects ranging from grass roots to underground programs.

4) I am familiar with and have personally examined the property described in the body of this report in September of 1988 and supervised the work during October 1989, at which time I acted on behalf of Kestrel Resources Ltd. in conducting their on-going exploration program on this property.

5) I have no interest in the property described herein, nor in securities of Kestrel Resources Ltd., nor do I expect to receive any such interest.

6) I hereby authorize Kestrel Resources Ltd. or any associated company to present this report or parts thereof, in any statement of material facts in any prospectus or other documentation submitted to fulfill regulatory requirements.

DATED at Vancouver, British Columbia, this 20 day of April 1990.

JOHN BUCHHOLZ

APPENDIX IV

ITEMIZED COST STATEMENT

ARC GROUP

ARC 1 - 5, M & M 4 AND 9

Personnel Expenses

D. Blanchflower	Geologist	1 day at $300/day	$ 300.00
B. Chase	Prospector	1 day at $225/day	225.00
R. Durocher	Sampler	5 days at $175/day	875.00
J. Elmore	Sampler	7 days at $150/day	1,050.00
Total Personnel Expenses			**$ 2,450.00**

Field Expenses

Man Support	14 days at $120/day	$ 1,750.00
Aviation		
Helicopter	(Northern Mountain Helicopter)	3,141.45
Fixed Wing	(Central Mountain Air Ltd.)	1,017.00
Assaying	(Van Geochem Labs Ltd.)	1,845.50
Drafting and Maps		135.59
Travel and Accommodation		268.66
Field Expendables		293.69
Freight		142.02
Equipment Rentals		131.21
Customs Brokerage		224.24
Expediting		100.00
Total Field Expenses		**$ 9,049.36**
Management Fee (10% on Field Expenses only)		904.94
Report Expenses		1,750.00
TOTAL COST 1989 PROGRAM		**$14,154.30**

M & M 1 GROUP

M & M 1, 2, 3, 5, 6

Personnel Expenses

J. Buchholz	Geologist	1 day at $300/day	$ 300.00
R. Riedel	Prospector	3 days at $200/day	600.00
R. Durocher	Sampler	2 days at $175/day	350.00
J. Lee	Sampler	3 days at $175/day	525.00
C. Bilquist	Sampler	2 days at $175/day	350.00
Total Personnel Expenses			$ 2,125.00

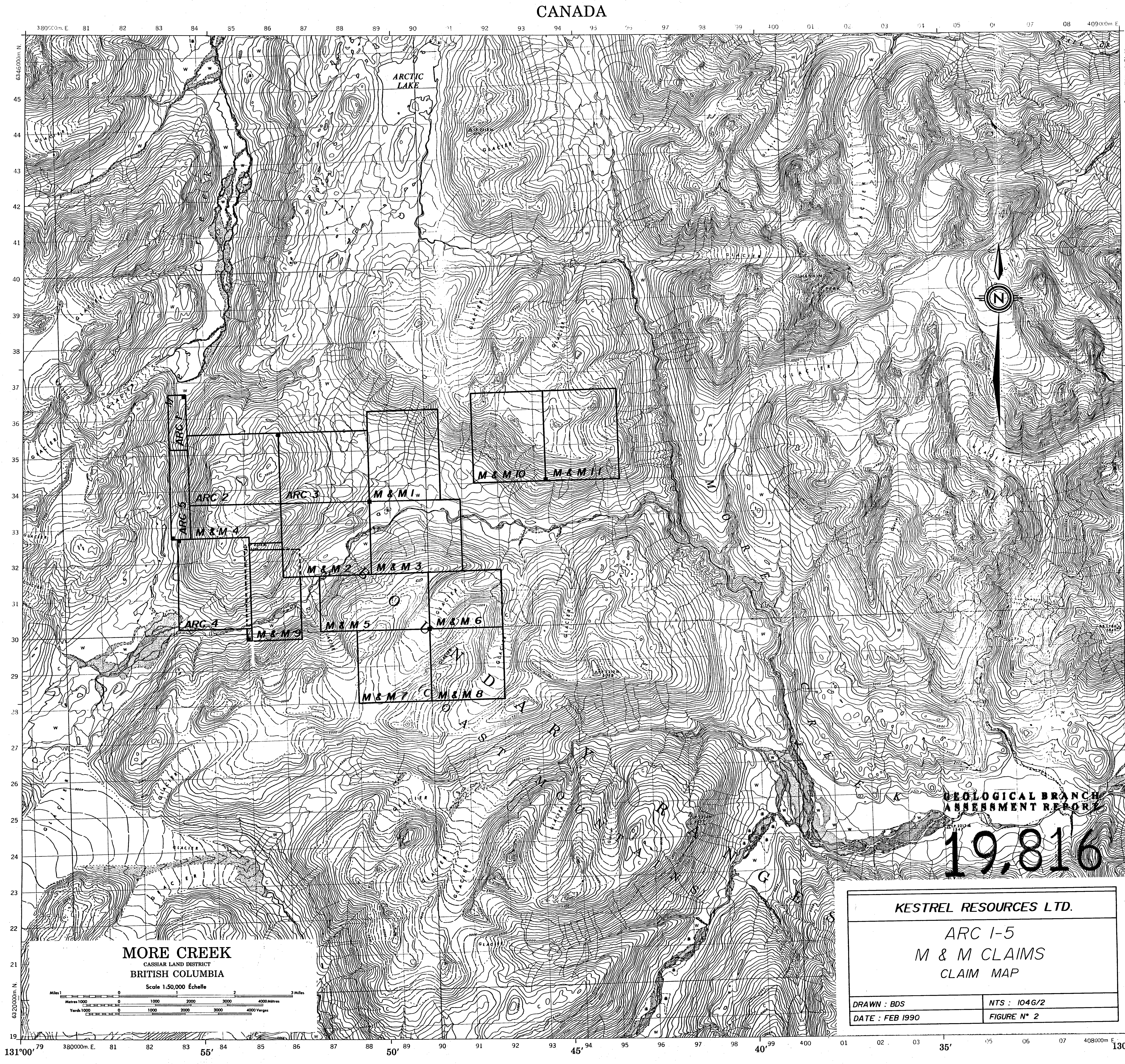
Field Expenses

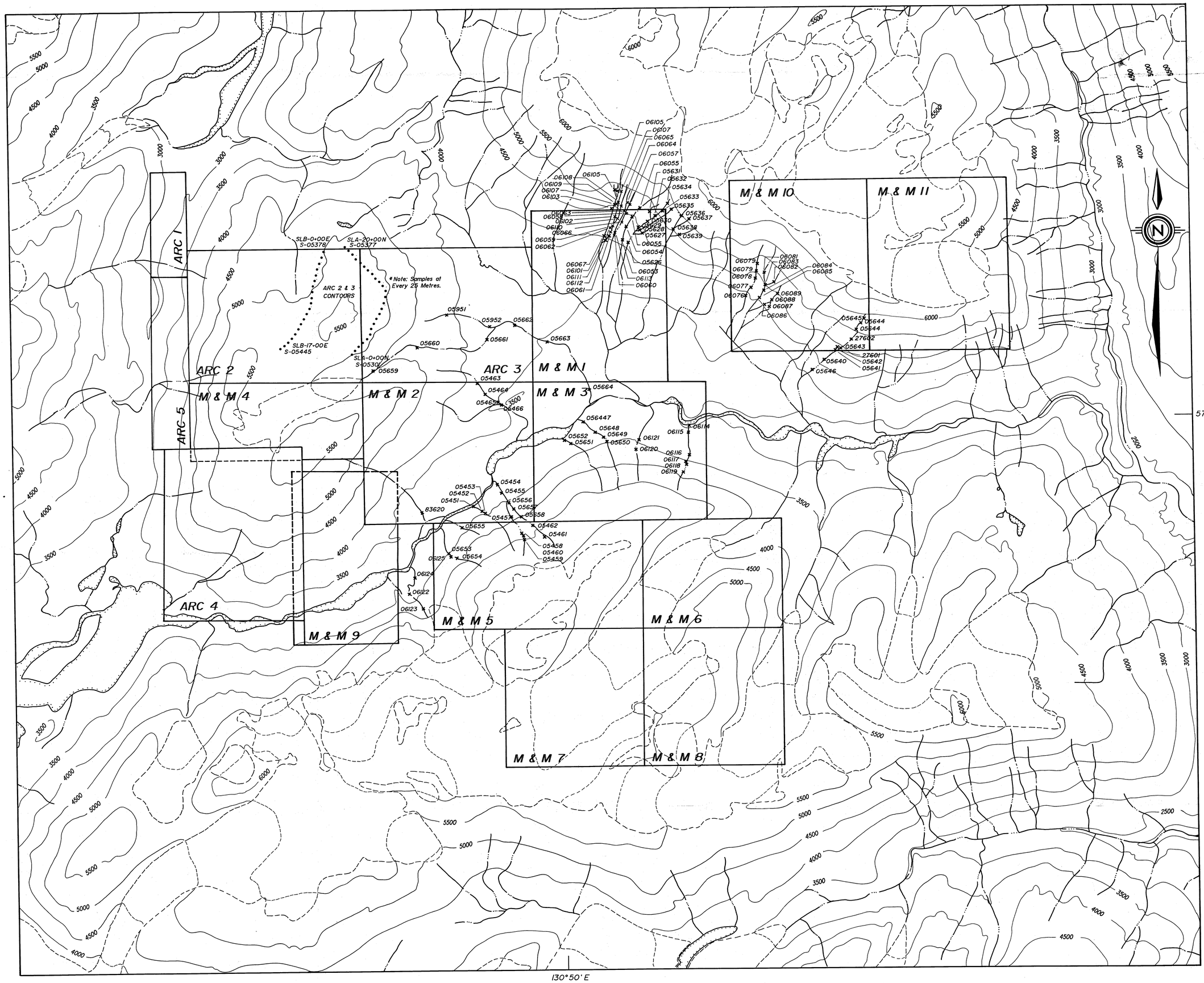
Room and Board		$ 1,375.00
Aviation		
Helicopter	(Northern Mountain Helicopter)	3,313.49
Fixed Wing	(Central Mountain Air Ltd.)	918.97
Assaying	(Van Geochem Labs Ltd.)	975.00
Drafting and Maps		132.26
Field Expendables		266.24
Freight		138.08
Equipment Rentals		118.94
Customs Brokerage		165.45
Expediting		89.58
Total Field Expenses		$ 7,736.54
Management Fee (10% on Field Expenses only)		773.65
Report Expenses		1,750.00
TOTAL COST 1989 PROGRAM		**$12,385.19**

M & M 2 GROUP

M & M 10, 11

Personnel Expenses			
R. Riedel	Prospector	2 days at $200/day	$ 400.00
R. Durocher	Sampler	2 days at $175/day	350.00
Total Personnel Expenses			**$ 750.00**
Field Expenses			
Room and Board	4 man days at $125/man day		$ 500.00
Aviation			
Helicopter	(Northern Mountain Helicopter)		546.18
Fixed Wing	(Central Mountain Air Ltd.)		196.05
Assaying	(Van Geochem Labs Ltd.)		208.00
Travel and Accommodation			51.95
Drafting and Maps			106.88
Field Expendables			56.80
Freight			108.12
Equipment Rentals			25.37
Customs Brokerage			35.60
Expediting			19.11
Total Field Expenses			**$ 1,854.06**
Management Fee (10% on Field Expenses only)			185.41
Report Expenses			1,300.00
TOTAL COST 1989 PROGRAM			**$ 4,089.47**


CANADA
ARCTIC LAKE
ARC 1
ARC 2
ARC 3
ARC 4
ARC 5
M & M 1
M & M 2
M & M 3
M & M 4
M & M 5
M & M 6
M & M 7
M & M 8
M & M 9
M & M 10
M & M 11
BOUNDARY RANGES
COAST MOUNTAINS
MORE CREEK
GEOLOGICAL BRANCH
ASSESSMENT REPORT
19,816
KESTREL RESOURCES LTD.
ARC 1-5
M & M CLAIMS
CLAIM MAP
DRAWN : BDS
NTS : 104G/2
DATE : FEB 1990
FIGURE N° 2
MORE CREEK
CASSIAR LAND DISTRICT
BRITISH COLUMBIA
Scale 1:50,000 Échelle
57°15'
57°00'
131°00'
130°30'



SOIL SAMPLES

SAMPLE #	Au ppb	Ag ppm
05301	5	0.2
05302	10	0.2
05303	10	0.2
05304	15	0.4
05305	10	0.1
05306	nd	0.1
05307	15	0.2
05308	10	0.2
05309	5	0.2
05310	10	0.2
05311	15	0.1
05312	nd	0.1
05313	5	0.2
05314	10	0.2
05315	10	0.2
05316	nd	0.1
05317	5	0.1
05318	10	0.1
05319	10	0.1
05320	10	0.1
05321	10	0.1
05322	nd	0.2
05323	nd	0.2
05324	15	0.3
05325	30	0.3
05326	20	0.3
05327	nd	0.2
05328	5	0.1
05329	5	0.1
05330	5	0.4
05331	5	0.3
05332	10	0.4
05333	20	0.4
05334	10	0.4
05335	10	0.6
05336	10	0.1
05337	nd	0.2
05338	nd	0.2
05339	20	0.2
05340	nd	0.1
05341	nd	0.1
05342	5	0.2
05343	5	0.2
05344	10	0.1
05345	30	0.3
05346	20	0.2
05347	10	0.1
05348	5	0.1
05349	5	0.2
05350	15	0.1
05351	15	0.1
05352	5	0.1
05353	5	0.1
05354	10	0.2
05355	10	0.1
05356	10	0.2
05357	5	0.2
05358	20	0.3
05359	20	0.5
05360	15	0.2
05361	30	0.7
05362	20	0.4
05363	15	0.1
05364	5	0.1
05365	15	0.2
05366	20	0.1
05367	20	0.3
05368	20	0.2
05369	20	0.1
05369 R	15	0.2
05370	10	0.3
05370 R	10	0.2
05371	5	0.1
05372	10	0.1
05373	15	0.1
05374	5	0.2
05375	10	0.2
05376	5	0.2
05377	nd	0.1
05378	nd	0.1
05379	nd	0.1
05380	nd	0.1
05381	nd	0.1
05382	nd	0.2
05383	nd	0.1
05384	nd	0.2
05385	nd	0.1
05386	nd	0.1
05387	5	0.1
05388	nd	0.2
05389	25	0.2
05390	10	0.2
05391	5	0.2
05392	nd	0.1
05393	nd	0.1
05394	15	0.2
05395	15	0.2
05396	nd	0.2
05397	15	0.3
05398	100	0.3
05399	5	0.3
05400	5	0.3
05401	5	0.3
05402	nd	0.3
05403	nd	0.3
05404	10	0.2
05405	nd	0.4
05406	nd	0.4
05407	5	0.2
05408	5	0.2
05409	5	0.5
05410	nd	0.1
05411	nd	0.1
05412	nd	0.3
05413	5	0.2
05414	10	0.2
05415	nd	0.3
05416	10	0.3
05417	10	0.1
05418	nd	0.2
05419	5	0.2
05420	5	0.2
05421	nd	0.2
05422	5	0.1
05423	10	0.1
05424	5	0.1
05425	5	0.1
05426	nd	0.2
05427	nd	0.2
05428	10	0.1
05429	10	0.1
05430	nd	0.2
05431	nd	0.2
05432	nd	0.2
05433	nd	0.2
05434	nd	0.2
05435	nd	0.2
05436	nd	0.2
05437	nd	0.2
05438	10	0.1
05439	10	0.1
05440	nd	0.1
05441	nd	0.2
05442	nd	0.2
05443	10	0.2
05444	5	0.1
05445	nd	0.2

SILT SAMPLES

SAMPLE #	Au ppb	Ag ppm
05451	5	0.2
05452	10	0.3
05453	15	0.3
05454	20	0.3
05455	10	0.3
05456	10	0.2
05457	10	0.2
05458	10	0.2
05459	5	0.1
05460	10	0.1
05461	10	0.2
05462	5	0.2
05463	5	0.1
05464	10	0.2
05465	5	0.1
05466	10	0.1
05626	10	0.2
05627	5	0.3
05628	nd	0.2
05629	nd	0.2
05630	nd	0.2
05631	15	0.3
05632	15	0.3
05633	10	0.2
05634	10	0.2
05635	5	0.2
05636	15	0.1
05637	10	0.1
05638	10	0.2
05639	nd	0.1
05640	15	0.1
05641	10	0.1
05642	10	0.1
05643	10	0.2
05644	nd	0.2
05645	10	0.1
05646	10	0.2
05647	10	0.1
05648	15	0.3
05649	nd	0.1
05650	10	0.1
05651	10	0.1
05652	30	0.1
05653	nd	0.2
05654	20	0.1
05655	10	0.1
05656	10	0.1
05657	nd	0.1
05658	15	0.1
05659	10	0.1
05660	20	0.1
05661	15	0.2
05662	nd	0.2
05663	15	0.2
05664	nd	0.1
05951	10	0.2
05952	10	0.2
05953	10	0.2
06053	5	0.1
06054	5	0.1
06055	10	0.1
06056	nd	0.1
06057	5	0.2
06058	5	0.2
06059	5	0.1
06060	20	0.1
06061	15	0.2
06062	nd	0.2
06063	15	0.2
06064	15	0.2
06065	nd	0.1
06066	10	0.1
06067	10	0.1
06076	10	0.1
06077	10	0.1
06078	5	0.2
06079	15	0.2
06080	20	0.1
06081	5	0.1
06082	15	0.3
06083	5	0.2
06084	nd	0.2
06085	15	0.2
06086	nd	0.2
06087	10	0.1
06088	nd	0.2
06089	10	0.2
06101	15	0.1
06102	10	0.2
06103	10	0.2
06104	15	0.2
06105	10	0.2
06106	10	0.3
06107	15	0.3
06108	nd	0.2
06109	10	0.2
06110	15	0.2
06111	15	0.2
06112	nd	0.2
06113	15	0.2
06114	10	0.2
06115	10	0.2
06116	10	0.2
06117	10	0.2
06118	15	0.1
06119	10	0.1
06120	10	0.1
06121	10	0.1
06122	nd	0.2
06123	15	0.2
06124	5	0.2
06125	5	0.2

nd = none detected — = not analysed is = insufficient sample

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,816

LEGEND

- × SILT SAMPLES
- • GEOCHEMICAL SOILS
- GLACIER

Scale 1:20,000

0 0.5 1.0 1.5 2.0

KILOMETRES

KESTREL RESOURCES LTD.

ARC &
M & M CLAIMS

GEOCHEMICAL SOIL & SILT SAMPLING

DRAWN : BDS	NTS : 104G/2
DATE : FEB 1990	FIGURE N° 4