

GEOLOGICAL and GEOCHEMICAL  
EXPLORATION REPORT

on the

CUB 1 MINERAL CLAIM  
NEW KC PROJECT

Omineca Mining Division, BC

Golden Rule Resources

21500

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EXPLORATION REPORT

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CUB 1 MINERAL CLAIM  
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Omineca Mining Division, BC

February, 1991

for

GOLDEN RULE RESOURCES LTD.

by

Michael Fox  
Consulting Geologist

**GEOLOGICAL and GEOCHEMICAL  
EXPLORATION REPORT  
CUB 1 MINERAL CLAIM**

**Latitude 56 Degrees 26'N  
Longitude 125 Degrees 56'W**

**NTS 94-C-5W**

**Omineca Mining Division, British Columbia**

**for**

**GOLDEN RULE RESOURCES LTD.  
#410, 1122 - 4TH STREET S.W.  
CALGARY, AB T2R 1M1**

**by**

**Michael Fox, Consulting Geologist  
Calgary, Alberta**

**February, 1991**

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LOG NO: JUL 16 1991 RD.

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ACTION:

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FILE NO:

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

21,500

CERTIFICATE

I, Michael Fox, hereby certify that:

1. I reside at 5008 Varsity Dr., N.W., Calgary, Alberta.
2. I received a B.Sc. in geology from the University of British Columbia in 1974.
3. I have worked in the field of mineral exploration since 1965 and I have practiced my profession as a mineral exploration geologist continuously since 1974.
4. I am a member of the Association of Professional Engineers, Geologists, and Geophysicists of Alberta.
5. I am the author of the report entitled "Geological and Geochemical Exploration Report on the CUB 1 Mineral Claim", Omineca Mining Division, British Columbia.
6. This report is based on the references cited in the bibliography, and on field work carried out in September, 1990.
7. I have no interest, direct or indirect, in the securities of Golden Rule Resources Ltd., nor any of its affiliated companies, nor do I expect to receive any.



---

Michael Fox, P.Geol.

February, 1991

SUMMARY

Helicopter supported reconnaissance geological mapping and stream silt geochemical sampling carried out at the CUB 1 claim (N.T.S. 94-C-5W) in September, 1990 indicates that a favorable geological environment is present for hosting porphyry and/or skarn type Cu-Au mineralization.

Further work is recommended.

## INTRODUCTION

### 1.1 Location and Access

The CUB 1 claim is located in N.T.S. map-area 94-C-5W approximately 360 km northwest of Prince George, B.C., astride the confluence of Kliyul Creek and Croydon Creek (Figure 1) at 56 degrees 26' N latitude and 125 degrees 56' W longitude (Figure 2). An old pack track passes through the claim and extends from the west end of a road along the north shore of Aiken Lake which links with the Omineca Road 6 km to the east. Helicopter support for the reconnaissance geological mapping and geochemical sampling described in this report was provided in part by a Northern Mountain Helicopters Ltd. Bell 206-B helicopter based temporarily at Johanson Lake and in part by a Northern Mountain Bell 206-B helicopter working under contract to Golden Rule Resources Ltd. from a temporary base at Germansen Landing, B.C.

### 1.2 Claims and Ownership

The claim is situated in the Omineca Mining Division and is entirely owned by Golden Rule Resources Ltd. of Calgary, Alberta. Claim information is summarized below.

The claim is one of 14 claims staked in the Kliyul Creek area by Golden Rule Resources Ltd. in 1990 but is not contiguous with the main claim block.

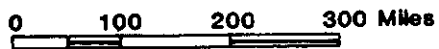
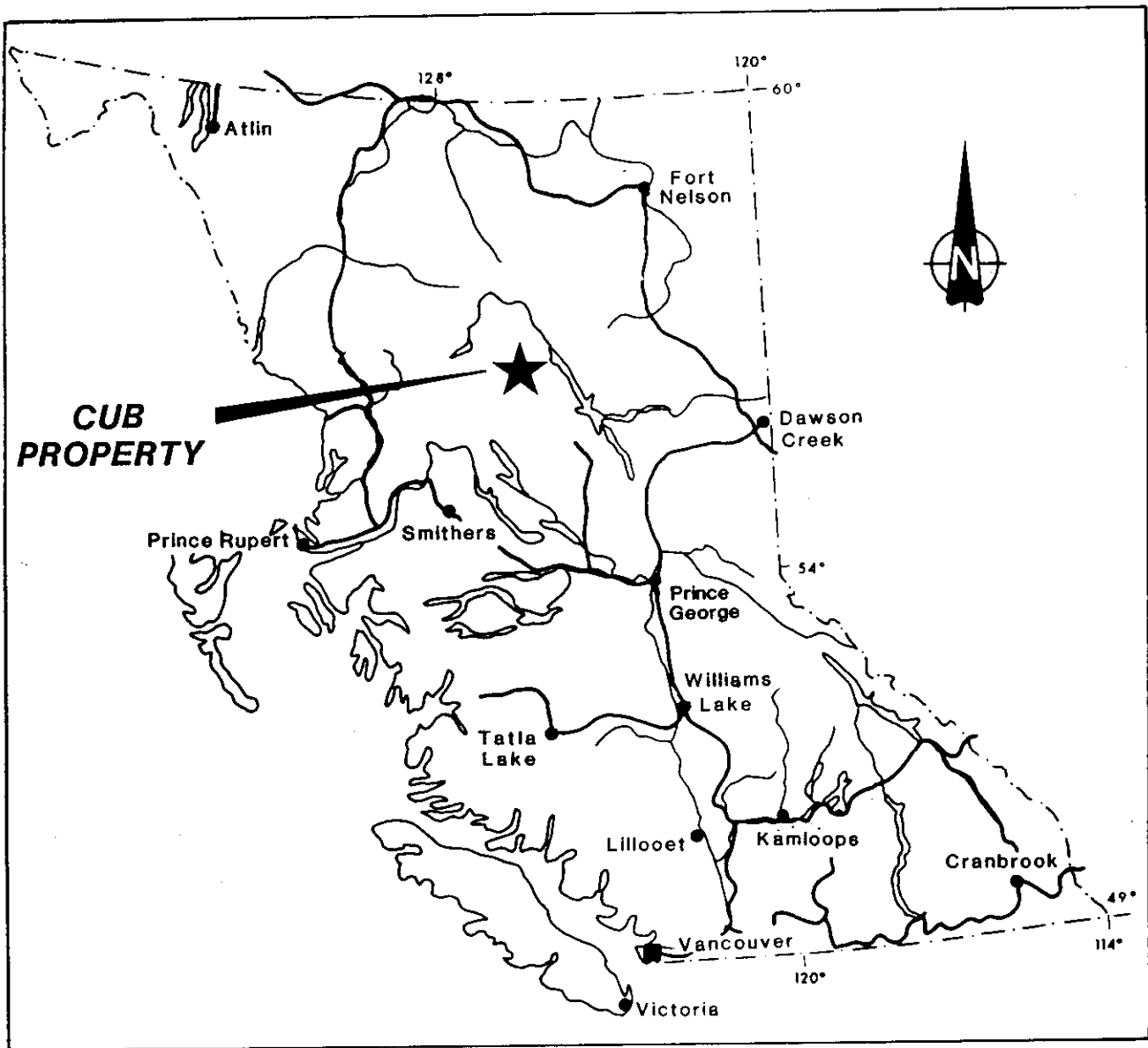
TABLE 1

#### CLAIM LIST

CLAIM NAME	NO. OF UNITS	RECORD NO.	RECORD DATE	MAP NO.
CUB 1	20	12256	JUL 13/90	94-C-5W

### 1.3 Physiography and Glaciation

The claim lies within the Omineca Mountains subdivision of the Interior Plateau. The Johanson Lake region is entirely glaciated and is characterized by wide drift-filled major valleys. Numerous cirque basins, some occupied by tarns, and associated hanging valleys occur along both sides of Kliyul Creek, which was filled by a major valley glacier during Pleistocene time. Permanent icefields are present in the area. The terrain is rugged with steep cliff walls ringing most of the cirques. Narrow crested and razorback ridges, arretes, and cols



<b>GOLDEN RULE RESOURCES LTD.</b>	
<b>CUB PROPERTY</b>	
<b>LOCATION MAP</b>	
Date:	N.T.S.:
Revised:	<b>FIGURE 1</b>
Scale:	





are common. Elevations in the immediate area range from approximately 1160 m to 2258 m ASL. Bedrock exposures are scarce and are mainly limited to a steep stream gully on the west side of the claim. The northern 2/3 of the claim is situated over the 1 1/2 km wide, overburden covered valley of lower Kliyul Creek. The southern 1/3 of the claim covers the steep, overburden, and timber covered north facing slopes of a 2100 m high mountain range. The property is situated below treeline, which occurs at about 1500 m ASL. The valley of Kliyul Creek supports a fairly thick stand of timber below about 1400 m ASL, and dense patches of dwarf balsam occur at many locations above treeline.

#### 1.4 Previous Work

The claim is located adjacent to the Kli Group of claims (Kennco Explorations Ltd.), the KC group (Golden Rule and Ritz Resources), the JO and CRO group (Golden Rule Resources), and the claim adjoins the SOUP, KLIYUL, and LADY DIANA claims (currently being explored by Teck Corp.). All of these groups, as well as the BAP claims, located internally within the KC 1 and 2 claims, have seen considerable exploration in the past. The results of these exploration programs are described in numerous B.C. Assessment reports. Previous work has been directed towards evaluating the porphyry copper, gold-quartz vein, and copper-gold skarn potential of the area. Numerous gold bearing quartz veins have been discovered at the KC claims and gold-enriched magnetite-chalcopyrite skarns have been identified on the SOUP claims. Vancouver Stock Exchange news releases indicate that, on the Kli claims a drill-indicated tonnage of 1,000,000 tons grading 0.06 oz/t Au, 0.22 oz/t Ag, and 0.43% Cu is present, and at the KLIYUL claim, a large gossaneous zone of hydrothermally altered and mineralized quartz monzonite to hornblende diorite hosting quartz vein and stockwork Au/Cu/Mo mineralization has been drilled.

#### 1.5 1990 Program

Work carried out in 1990 at the CUB 1 claim consisted of helicopter supported reconnaissance geological mapping and stream silt sampling. A total of 1 rock and 9 stream silt samples were collected and analysed for Au and Ag by Fire Assay/AA methods, and a 30 element suite (including Au and Ag) by Induction Coupled Plasma (ICP) analysis.

## GEOLOGY

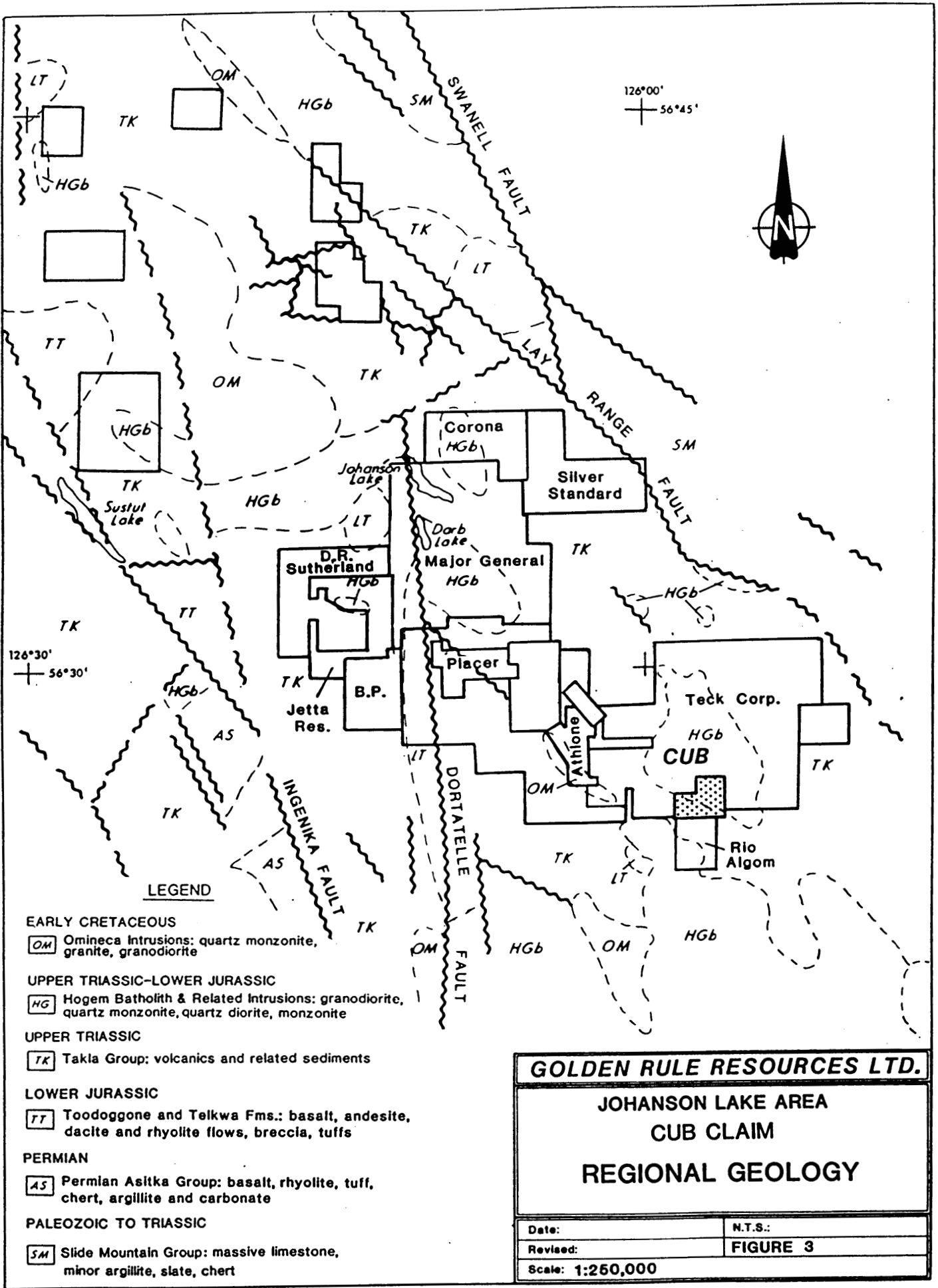
### 2.1 Regional Geology

The region surrounding the claim described in this report is underlain by an assemblage of Triassic to Jurassic basaltic to dacitic tuffs, breccias, and flows, and intercalated limestones, siltstones, sandstones, conglomerates and volcanoclastic rocks referred to as the "Takla Group". The Takla Group rocks, and a variety of plutonic rocks genetically related to Takla Group volcanic rocks comprise, in the Johanson Lake area, the northern extension of a 30 to 100 km wide, several hundred km long island arc assemblage referred to as the "Quesnel Trough", "Quesnel Terrane" and "Quesnellia" in the literature. The regional geology of the Johanson Lake area is illustrated in Figure 3 (Harper Ranch Sub-terrane ("Hr") is considered to be part of Quesnellia).

The CUB 1 claim is located along the northeastern edge of the Hogem batholith in an area of multiple intrusive phases.

### 2.2 Property Geology

Reconnaissance mapping carried out in 1990 at the CUB 1 claim and the adjacent JO and CRO claims has outlined three major units which comprise the Takla Group in this area. The lower volcanic unit, outcropping extensively along Kliyul Creek consists of a thick section of feldspar porphyritic andesitic flows and tuffs. Along the west side of Kliyul Creek the feldspar rich andesitic lavas are overlain by a southwestward dipping sedimentary package of variable thickness consisting of interlayered thin bedded argillites, calcareous tuffs, silty to gritty limestone, and siltstone. The base of the sedimentary package is marked by a regionally continuous, gossaneous, leucocratic exhalite (?) horizon composed of extremely fine grained quartz, sericite, feldspar, carbonate, and 2 - 15% extremely fine grained to coarse grained disseminated pyrrhotite. These sedimentary rocks correlate with a minor pyrite and traces of chalcopyrite are also present with easterly dipping sequence of sedimentary rocks, including silty limestones, thinly bedded argillites, calcareous tuffs and a basal sulphidic chert or exhalite unit exposed along the east side of Kliyul Creek. Overlying the sedimentary package (on both sides of Kliyul Creek) is a thick package of augite porphyritic basaltic flows and coarse breccias. The similar stratigraphic relationships, but opposing dips of the volcanic and sedimentary rocks on either side of Kliyul Creek suggests that the rocks form different limbs of a large anticlinal structure, the axis of which trends parallel to the northwesterly aligned section of Kliyul Creek. A number of small amplitude synclinal and anticlinal northeastward trending secondary folds were noted in the sedimentary rocks exposed in the west limb of the "Kliyul Creek Anticline".



**LEGEND**

**EARLY CRETACEOUS**

**OM** Omineca Intrusions: quartz monzonite, granite, granodiorite

**UPPER TRIASSIC-LOWER JURASSIC**

**HG** Hogem Batholith & Related Intrusions: granodiorite, quartz monzonite, quartz diorite, monzonite

**UPPER TRIASSIC**

**TK** Takla Group: volcanics and related sediments

**LOWER JURASSIC**

**TT** Toodoggone and Telkwa Fms.: basalt, andesite, dacite and rhyolite flows, breccia, tuffs

**PERMIAN**

**AS** Permian Asitka Group: basalt, rhyolite, tuff, chert, argillite and carbonate

**PALEOZOIC TO TRIASSIC**

**SM** Slide Mountain Group: massive limestone, minor argillite, slate, chert

<b>GOLDEN RULE RESOURCES LTD.</b>	
<b>JOHANSON LAKE AREA CUB CLAIM</b>	
<b>REGIONAL GEOLOGY</b>	
Date:	N.T.S.:
Revised:	<b>FIGURE 3</b>
Scale: 1:250,000	

The "exhalite" unit referred to above has been described variously by previous workers as a "pyritic ash", a "rhyolitic tuff", and a "silicified volcanic", but its position at the interface of the lower feldspar rich andesitic lavas, and overlying sedimentary rocks strongly suggests an exhalative origin. Disseminated sulphides also occur as bands in the overlying massive to thinly bedded argillites.

The exhalite unit and related sedimentary rocks were not found at the CUB 1 claim, which is underlain by basaltic flows and tuffs of the upper volcanic unit.

### 2.3 Economic Geology

Some encouragement was gained from the mapping, prospecting and sampling carried out at the CUB claim in 1990. Mapping of the claim is incomplete, however, and the economic potential of areas along Kliyul Creek, known to be underlain by intrusive rocks, has yet to be evaluated. Also, the geological significance of certain anomalous geochemical results, described below, has not yet been determined. The along strike proximity and similar geological environment to porphyry type Cu/Mo/Au mineralization immediately northwest of the claim also justifies more detailed geochemical exploration (soils grid) of areas of the claim underlain by intrusive rocks and the intrusive-volcanic contact.

## 3 GEOCHEMISTRY

### 3.1 Sampling and Analytical Methods

A total of 174 stream silt samples were collected during the 1990 reconnaissance work done in the area of the CUB 1 claim and adjacent JO and CRO claims. Several "character" rock chip samples were collected from the area traversed in the CUB 1 claim and stream silt samples were collected at nominal 200 m to 250 m intervals. Stream silt sample material consisted of fine, "active" silts that samplers were able to obtain at sample sites. No pre-concentration of sample material was carried out, and moss mattes were not used as a sample medium.

Silt samples were dried and sieved and a -80 mesh fraction was analysed for Au and Ag by Fire Assay/AA techniques by Terramin Research Labs Ltd. of Calgary, Alberta. Sample pulps were shipped to Acme Analytical Laboratories Ltd. of Vancouver, B.C. and analysed for 30 elements including Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, %Fe, As, U, Au, Th, Sr, Cd, Sb, Bi, V, %Ca, %P, La, Cr, %Mg, Ba, %Ti, B, %Al, %Na, %K, and W by Induction Coupled Plasma (ICP) analysis. ICP analysis utilizes a .500 g sample

digested with 3 ml of 3-1-2  $\text{HCl-HNO}_3\text{-H}_2\text{O}$  at 95 Degrees Celsius for 1 hour, followed by dilution to 10 ml with  $\text{H}_2\text{O}$ . This leach is only partial for Mn, Fe, Sn, Ca, P, La, Cr, Mg, Ba, Ti, B, and W, and the leach is limited for Na, K, and Al. Consequently, ICP analyses for the above elements - particularly K - are not reliable indicators of alteration, particularly in volcanic rocks, where the effects of K alteration might be more subtle than in intrusive rocks.

### 3.2 Statistical Analysis of Data

Cumulative probability graphs for Au, Cu, and Mo-in-stream silts data are shown in Figures 4, 5, and 6 respectively. A total of 9 stream silt samples were collected in the immediate area of the CUB 1 claim, but statistical analyses of the larger population are reiterated here for purposes of interpreting geochemical results at one CUB 1 claim.

The cumulative probability graph for Au-in-stream silt values (Figure 4) indicates that two extensively overlapping lognormal populations are present, with an anomalous threshold of 12 ppb Au, and definitely anomalous concentrations defined by values of 45 ppb Au or greater.

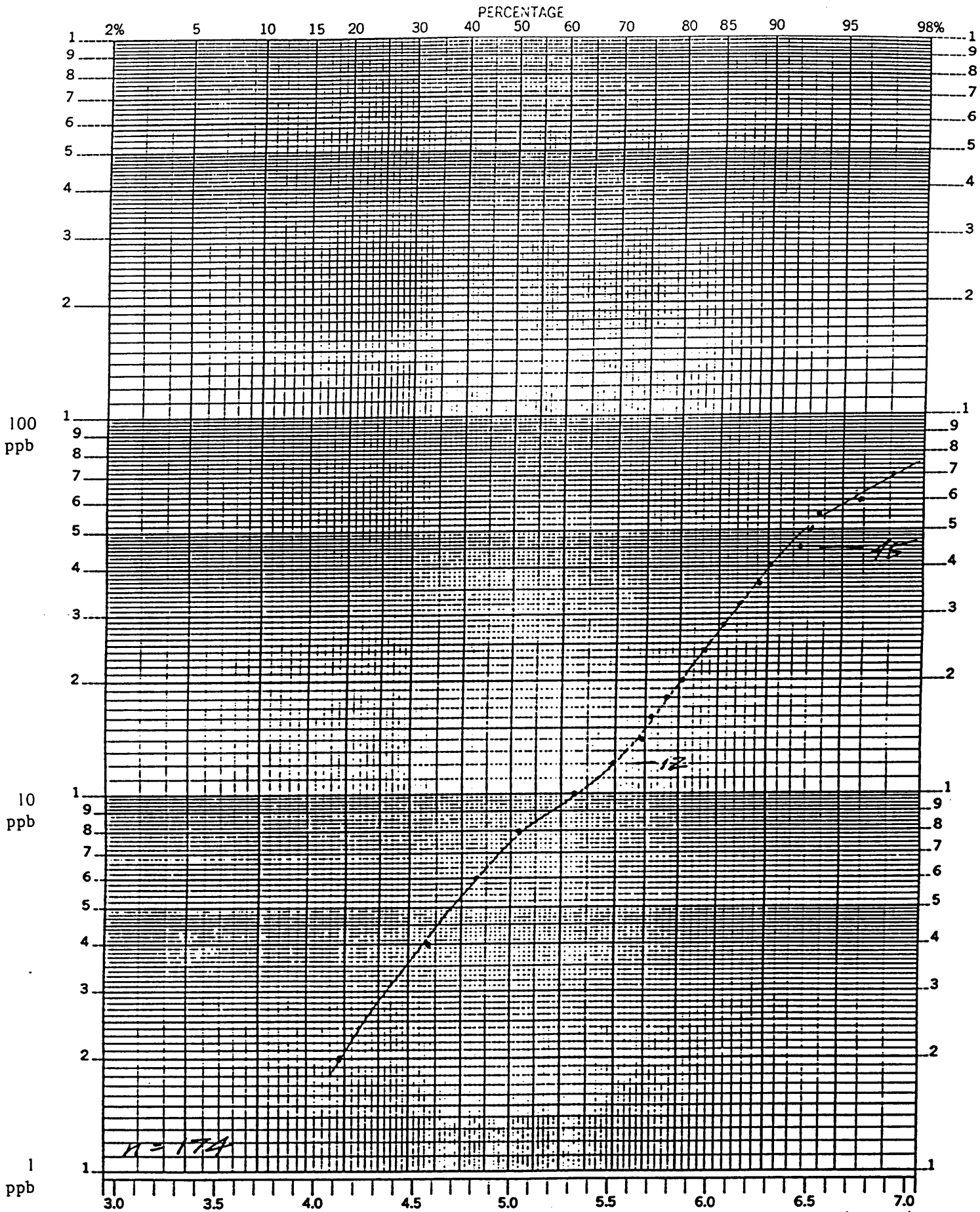
The cumulative probability graph for Cu-in-stream silt values (Figure 5) indicates that two overlapping lognormal populations are present, with an anomalous threshold of 90 ppm Cu and definitely anomalous concentrations defined by values of 250 ppm Cu or greater.

The cumulative probability graph for Mo-in-stream silt values (Figure 6) indicates that two lognormal populations are present, with an anomalous threshold of 8 ppm Mo, and definitely anomalous concentrations defined by values of 9 ppm Mo or greater.

### 3.3 Results

Mo and Cu-in-stream silt values returned from samples DK-37 to 39 collected along Kliyul Creek downstream from the mouth of Porphyry Creek define a short, coincident, weakly anomalous trend of Mo and Cu concentrations. Two anomalous Mo-in-stream silt values also occurred on Kliyul Creek immediately upstream from the mouth of Porphyry Creek (DK - 35, 36). Sampling was not carried out along Kliyul Creek below the mouth of Croydon Creek due to high water and the difficulty experienced in finding suitable sample material. Most of the CUB 1 claim therefore has not been geochemically tested.

The anomalous Mo and Cu values downstream from the mouth of Porphyry Creek may be related to known mineralization along the Porphyry Creek drainage, but the results from sample numbers DK-35 and 36 suggest another source may also be present.



CUMULATIVE PROBABILITY PLOT  
 Au-in-Stream Silts Project BC-44 (1990)

Figure 4



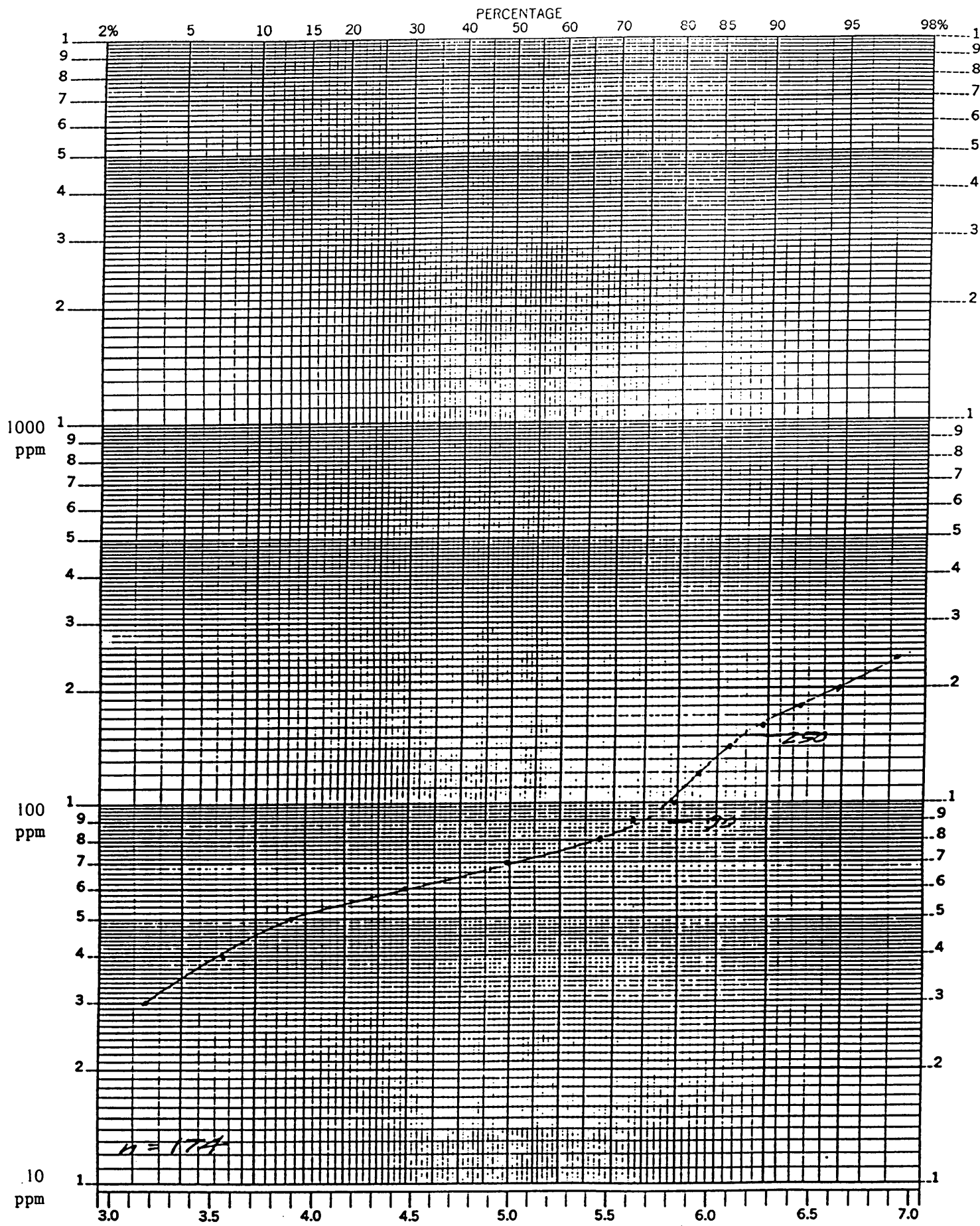
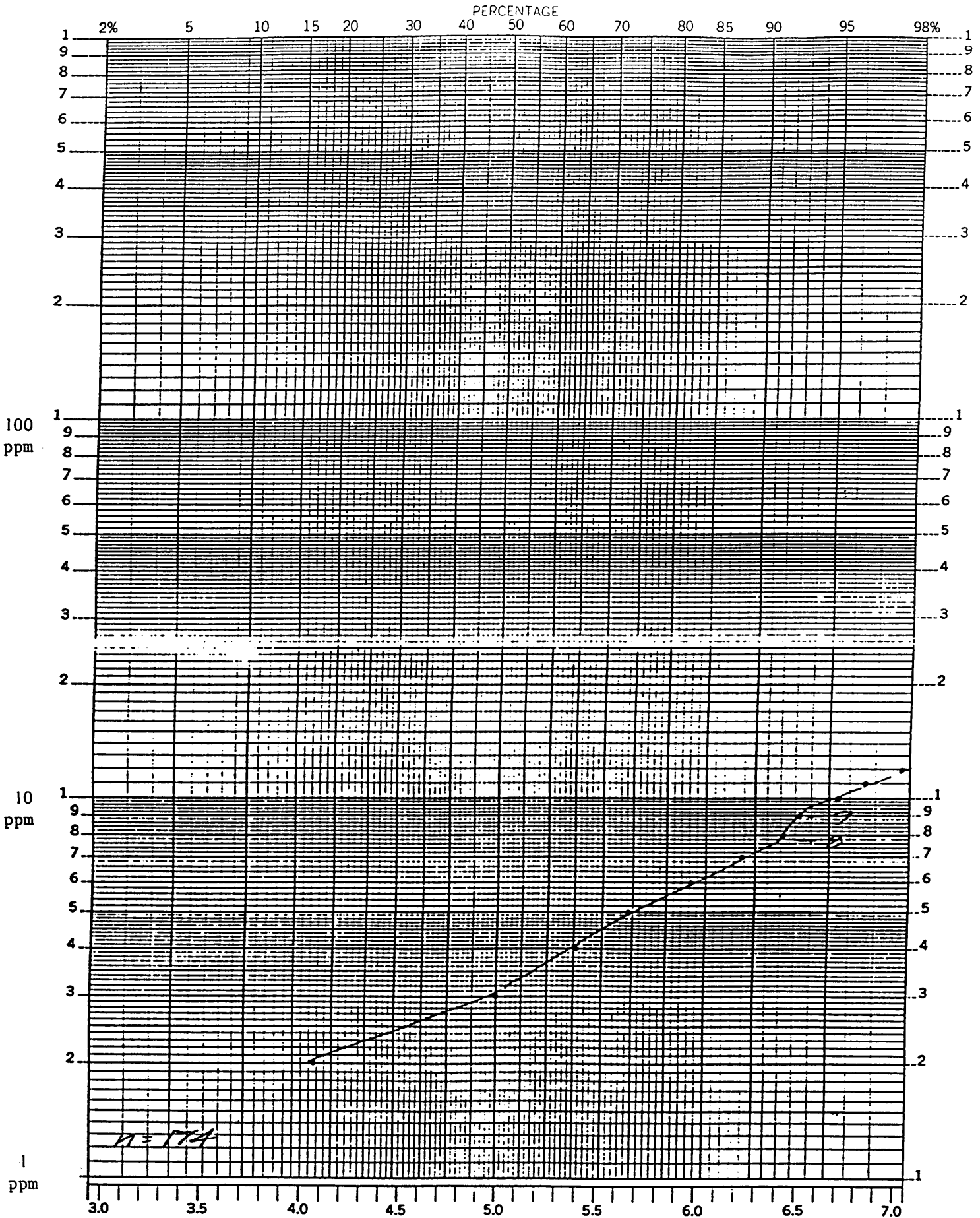


Figure 5





Mo-in-Stream Silts Project BC-44 (1990)

Figure 6

The favorable geologic environment at the CUB 1 claim can not be properly evaluated by stream silt geochemistry. Grid controlled soil sampling over the steep southern 1/3 of the claim will be required to evaluate areas underlain by intrusive rocks as well as the vicinity of the volcanic - intrusive contact.

4 CONCLUSIONS AND RECOMMENDATIONS

Reconnaissance geological mapping carried out at the CUB 1 and adjacent JO 1 to 8 and CRO 1 to 5 claims during the 1990 field season has partly defined a stratigraphic sequence within the Takla Group rocks consisting of a lower feldspar rich succession of andesitic lavas and tuffs, overlain by a sedimentary package of variable thickness consisting of sulphide rich chert or exhalite, thinly laminated argillites and calcareous siltstones, and gritty to silty grey limestones. Stratigraphically above the sedimentary package is a thick succession of augite porphyry flows, tuffs, breccias, and intercalated, discontinuous and chaotically bedded laharic units consisting of large volcanic clasts enclosed in thinly bedded, silty limestones and argillites. The CUB 1 claim is underlain by flows and tuffs of the upper volcanic unit which have been intruded by satellitic intrusions of the Hogem batholith.

Previous exploration carried out in the vicinity of the CUB 1 claim at the Shell, Porphyry Creek, and Croydon mineral occurrences has been directed towards evaluating interesting vein and porphyry type Cu/Mo/Au mineralization occurring in quartz-magnetite veins and stockworks in altered, hornblende diorite as well as magnetite-chalcopyrite-gold skarns hosted by Takla Group volcanic rocks. The geological environment at the CUB 1 claim is favorable for hosting similar mineralization.

Further work at the property should consist of grid controlled soil sampling at reconnaissance (250 m x 50 m) sample intervals and grid-controlled geological mapping of the steeply-sloping southern 1/3 of the claim underlain by intrusive rocks and transected by the intrusive-volcanic contact.

Respectfully submitted,



Michael Fox, Consulting Geologist

February, 1991

5

STATEMENT OF COSTS

Supervisory Geological Personnel	\$ 600.00
Support Personnel	75.00
Field Costs	52.50
Helicopter	1,450.00
Geochemical Analyses	<u>178.75</u>
<b>TOTAL:</b>	<b><u><u>\$ 2,356.25</u></u></b>

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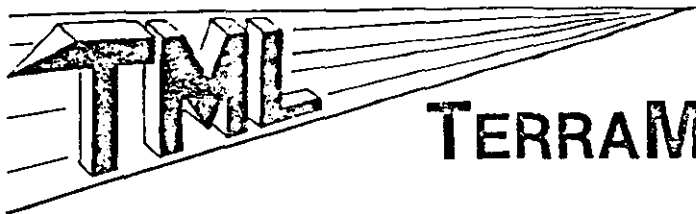
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APPENDIX I

ANALYTICAL METHODS



# TERRAMIN RESEARCH LABS LTD.

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(403) 276-8688

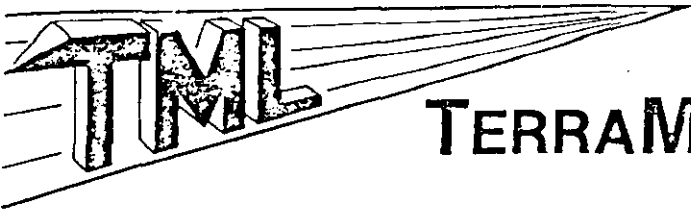
GOLDEN RULE RESOURCES

## SAMPLE PREPARATION

Soil and sediment samples are dried and sieved to -80 mesh (approx. 200 micron).

### Rock Samples:

The entire sample is crushed to approx. 1/8" maximum, and split divided to obtain a representative portion which is pulverized to -200 mesh (approx 90 micron).



# TERRAMIN RESEARCH LABS LTD.

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(403) 276-8668

GOLDEN RULE RESOURCES

## ANALYTICAL METHOD FOR GOLD AND SILVER

Approximately 1 assay ton of prepared sample is fused with a litharge/flux charge to obtain a lead button. The lead button is cupelled to obtain a prill. The prill is dissolved in nitric/hydrochloric acids (aqua regia), and the resulting solution is analysed by atomic absorption spectroscopy.

APPENDIX II

ANALYTICAL RESULTS



GEOCHEMICAL ANALYSIS CERTIFICATE

Golden Rule Resources Ltd. File # 90-4927 Page 1  
410 - 1122 - 4th St. S.W., Calgary AB T2R 1M1

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	U ppm
74919	5	27	2	11	.1	4	6	156	2.00	2	5	ND	1	99	.2	2	2	34	.72	.077	3	80	.35	29	.08	3	1.04	.11	.05	2
74920	3	679	3	30	.7	40	25	215	3.92	4	5	ND	1	69	.3	2	3	60	.97	.052	2	57	.98	38	.14	4	1.70	.13	.04	1
74921	3	878	7	13	.6	14	12	166	2.94	2	5	ND	1	117	.5	2	2	40	1.62	.048	3	37	.36	103	.13	3	2.05	.17	.05	2
74922	10	597	9	7	.3	11	15	106	2.42	2	5	ND	1	79	.2	2	2	31	1.34	.062	3	56	.23	33	.13	3	1.45	.14	.06	1
74923	4	151	2	6	.1	3	7	187	1.87	2	5	ND	1	45	.2	2	2	31	.72	.095	4	55	.24	35	.07	2	.74	.09	.05	2
74924	11	259	4	13	.1	3	8	178	1.83	3	5	ND	1	49	.2	2	2	26	.66	.091	4	59	.22	26	.07	2	.70	.08	.04	1
74925	1	15	11	66	.4	31	15	1359	5.42	5	5	ND	1	90	.2	2	2	48	12.64	.043	4	44	1.11	217	.01	4	.51	.01	.15	1
74926	1	65	4	43	.6	19	16	1024	4.42	9	8	ND	1	81	.2	2	2	55	17.35	.009	2	22	2.05	19	.01	8	.33	.01	.11	1
74927	4	280	8	28	.2	13	18	318	3.90	2	5	ND	1	36	.2	2	2	57	1.25	.082	4	50	.64	68	.17	3	1.66	.14	.20	2
74928	15	163	6	37	.4	36	16	232	4.32	24	5	ND	1	46	.5	6	2	82	.81	.050	5	77	1.08	27	.26	3	1.67	.14	.09	1
74929	3	102	6	49	.6	27	16	502	5.06	4	5	ND	1	48	1.0	3	2	113	1.44	.079	4	67	1.48	20	.31	5	2.55	.16	.05	1
74930	1	38	11	63	.4	35	13	834	3.30	181	8	ND	1	83	.2	3	2	49	7.22	.057	3	53	1.51	130	.01	5	.46	.02	.12	1
74931	8	103	5	46	.4	27	17	502	4.58	3	5	ND	1	8	.5	2	2	117	1.62	.065	5	58	.96	12	.33	4	2.12	.07	.01	1
74932	1	38	5	47	.4	50	18	793	3.47	15	12	ND	1	53	.2	2	2	61	10.98	.021	2	76	2.55	72	.01	5	.54	.01	.06	1
74933	5	95	8	81	.6	36	19	837	5.95	7	5	ND	1	14	.8	6	2	163	1.54	.050	3	67	2.25	12	.34	8	3.19	.05	.03	1
74934	1	13019	22	114	9.4	19	22	936	6.40	9	5	2	1	55	1.6	4	2	253	1.59	.374	17	28	1.78	65	.19	5	1.88	.05	.30	1
74935	1	5757	8	78	4.6	111	73	728	4.14	2	5	ND	1	27	.8	2	2	146	.76	.072	6	164	2.35	167	.24	2	2.06	.14	1.49	1
74936	6	149	8	47	.4	12	12	694	5.20	6	5	ND	1	43	.2	2	2	106	.86	.118	4	46	1.03	43	.17	2	1.82	.15	.72	2
74937	21	630	23	58	5.8	7	55	214	14.44	88	11	ND	1	26	.2	4	4	108	.13	.112	2	82	1.38	81	.12	4	.74	.02	.20	1
74938	4	84	6	76	.6	27	15	602	5.24	3	5	ND	1	57	.2	3	2	56	3.53	.069	3	31	1.42	40	.14	2	1.98	.03	.08	1
74939	3	76	6	55	.3	11	14	623	4.46	2	5	ND	1	27	.2	2	2	20	2.80	.054	2	18	1.04	61	.20	2	1.62	.03	.12	1
74940	1	25	11	32	.8	3	6	362	6.01	2	5	ND	1	23	.3	3	2	40	.36	.047	2	29	1.47	49	.40	2	1.47	.02	.10	1
74941	11	7451	4	94	10.3	19	16	795	5.40	7	12	ND	1	43	1.0	3	4	70	8.03	.029	2	91	1.59	52	.05	2	1.72	.01	.19	1
74942	12	115	9	20	.4	25	14	274	4.36	10	5	ND	1	105	.4	2	2	67	1.35	.061	5	45	.40	15	.23	4	1.74	.11	.04	2
74943	2	1113	18	102	.5	7	24	1769	10.71	5	5	ND	4	8	.2	6	3	90	.38	.135	8	27	1.56	79	.01	5	2.98	.01	.20	1
74944	3	235	3	18	.3	19	20	326	3.73	3	5	ND	1	54	.2	2	3	85	.93	.089	3	47	1.06	59	.18	2	1.93	.16	.24	1
74945	3	99	2	10	.2	16	12	127	1.94	5	5	ND	2	30	.2	2	3	39	.49	.063	4	46	.31	257	.18	3	.63	.08	.16	1
74946	1	83	14	77	.5	39	23	1090	5.82	16	7	ND	1	78	.2	4	2	97	6.15	.048	2	81	2.70	21	.10	3	3.24	.02	.05	1
74947	1	78	8	53	.5	18	17	564	3.93	2	5	ND	1	70	.5	3	2	94	1.71	.051	2	42	1.42	233	.27	2	2.46	.21	.97	1
74948	9	31	5	37	.3	23	13	339	3.08	5	5	ND	1	51	.6	2	2	70	1.12	.059	2	64	1.03	43	.19	2	2.21	.26	.59	2
74949	1	5	12	130	.1	8	14	1804	4.62	2	5	ND	6	72	.2	2	2	164	.55	.113	13	21	.09	136	.01	7	.42	.02	.08	1
74950	7	159	7	29	.3	38	21	230	3.53	3	5	ND	1	240	.5	3	3	54	3.11	.072	5	65	.45	45	.14	6	3.22	.30	.10	2
74951	7	219	9	16	.3	37	16	90	2.83	3	5	ND	2	254	.7	4	2	47	2.09	.070	5	58	1.35	51	.15	4	2.71	.31	.10	1
74952	1	80	11	32	.6	5	22	223	4.84	6	5	ND	1	22	.5	4	2	81	.53	.044	2	30	1.66	9	.14	2	2.26	.11	.02	1
74953	2	193	7	39	.7	12	20	263	4.38	5	5	ND	1	38	.3	3	2	107	.98	.024	2	47	1.30	10	.14	2	2.47	.18	.02	2
74954	3	186	9	55	.5	9	15	359	4.65	4	5	ND	1	47	.4	2	2	67	.82	.029	2	48	1.49	97	.11	2	3.15	.22	.52	1
STANDARD C	18	61	37	131	7.0	68	32	1052	3.95	40	17	8	39	53	18.5	16	19	56	.46	.095	37	58	.89	181	.08	36	1.89	.07	.13	11

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

DATE RECEIVED: SEP 27 1990 DATE REPORT MAILED: Oct 5/90 SIGNED BY: C. Leung, D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Job#: 90-235

Project:

Sample Number	Au ppb	Ag ppm
74919	2	0.05
74920	2	0.45
74921	16	0.40
74922	28	0.18
74923	2	0.01
74924	2	0.04
74925	2	0.05
74926	4	0.13
74927	2	0.07
74928	2	0.04
74929	2	0.13
74930	4	0.16
74931	2	0.02
74932	2	0.04
74933	4	0.05
74934	506	8.90
74935	164	4.40
74936	8	0.08
74937	60	5.40
74938	2	0.17
74939	2	0.04
74940	2	0.32
74941	410	11.00
74942	6	0.17
74943	4	0.22
74944	2	0.14
74945	4	0.05
74946	2	0.15
74947	2	0.14
74948	2	0.06
74949	2	0.01
74950	2	0.14
74951	2	0.10
74952	14	0.24
74956	12	0.22
74959	2	0.25
74961	2	0.09
74964	2	0.06
74965	2	0.06
74966	2	0.01

DC-A2 {

DC-32 {

DC-A2 {

DC-32 {

DC-37 {

DC-38 (Bait)



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	H ppm
JRG-19	5	36	8	96	.2	28	25	1457	4.20	4	5	ND	1	35	.2	2	2	80	.64	.048	2	89	1.97	66	.13	3	2.57	.05	.08	1
JRG-20	3	70	2	102	.2	26	25	1184	5.65	5	5	ND	1	34	.4	2	2	96	.63	.050	2	83	2.45	59	.09	4	3.54	.04	.07	1
JRG-21	3	77	6	83	.3	30	23	916	4.57	2	5	ND	1	53	.2	2	2	91	.89	.060	2	96	2.42	44	.16	3	2.95	.04	.06	1
JRG-22	3	78	2	82	.2	30	24	923	4.89	6	5	ND	1	47	.4	2	2	96	.86	.062	2	92	2.52	43	.15	4	3.17	.04	.06	2
JRG-23	3	62	4	86	.2	31	23	988	5.17	3	5	ND	1	39	.2	2	2	96	.66	.056	2	93	2.62	42	.12	3	3.40	.04	.06	1
JRG-24	3	69	2	83	.1	31	23	964	4.96	8	5	ND	1	48	.3	3	2	103	.82	.063	2	96	2.58	52	.14	4	3.30	.04	.07	1
JRG-25	4	62	4	84	.3	38	23	969	5.10	4	5	ND	1	53	.2	2	2	102	.76	.060	2	119	2.75	54	.14	3	3.43	.05	.09	1
JRG-26	3	71	7	77	.1	33	24	1105	5.07	6	5	ND	1	44	.3	2	2	104	.63	.052	2	92	2.48	50	.12	3	3.37	.04	.05	1
JRG-27	4	51	6	86	.1	34	24	1048	4.92	2	5	ND	1	45	.2	2	2	97	.67	.057	2	104	2.60	48	.14	2	3.24	.04	.06	1
JRG-28	2	72	2	88	.1	38	24	865	5.07	8	5	ND	1	45	.3	3	2	103	.63	.057	3	105	2.68	43	.12	4	3.30	.03	.05	1
JRG-29	2	55	2	83	.1	36	24	935	4.85	6	5	ND	1	47	.4	2	2	99	.67	.060	2	97	2.63	39	.13	4	3.19	.03	.05	1
JRG-30	2	58	5	85	.3	36	23	971	4.93	3	5	ND	1	45	.2	2	2	92	.66	.056	2	101	2.60	41	.13	2	3.23	.03	.05	1
JRG-31	2	53	2	83	.1	34	24	1001	4.88	5	5	ND	1	43	.4	2	2	98	.64	.062	2	86	2.61	39	.13	3	3.15	.03	.04	1
JRG-32	2	51	2	82	.1	34	23	960	4.86	2	5	ND	1	45	.2	2	2	93	.66	.059	2	89	2.59	40	.13	2	3.13	.03	.05	1
JRG-33	3	59	5	93	.1	36	24	1022	5.03	9	5	ND	1	52	.2	3	2	103	.74	.059	2	104	2.65	56	.14	3	3.39	.05	.08	1
JRG-34	2	60	4	86	.1	36	24	993	5.00	5	5	ND	1	48	.6	2	2	98	.68	.056	2	98	2.62	45	.14	3	3.28	.03	.05	1
JRG-35	2	59	2	88	.1	36	24	999	5.06	5	5	ND	1	48	.2	2	2	98	.69	.054	2	104	2.66	48	.14	2	3.35	.03	.05	1
JRG-36	3	44	6	69	.3	27	21	801	4.64	3	5	ND	1	40	.2	2	2	88	.76	.032	2	96	2.54	30	.22	3	3.30	.04	.06	1
JRG-37	3	58	2	74	.1	27	22	819	4.72	11	5	ND	1	43	.5	2	2	99	.84	.036	2	96	2.47	31	.22	2	3.30	.04	.04	1
JRG-38	3	39	4	73	.2	27	21	812	4.56	2	5	ND	1	39	.2	2	2	83	.75	.034	2	88	2.45	28	.21	2	3.15	.03	.04	1
JRG-39	2	48	4	69	.2	29	21	812	4.71	2	5	ND	1	45	.2	2	2	94	.65	.028	2	92	2.56	35	.18	2	3.27	.03	.03	1
JRG-40	2	49	7	80	.1	29	22	918	4.64	2	5	ND	1	43	.4	2	2	89	.68	.049	2	84	2.43	36	.16	2	3.04	.03	.04	1
JRG-41	2	60	6	86	.1	33	22	940	5.05	4	5	ND	1	44	.3	2	2	94	.57	.050	2	91	2.62	43	.14	2	3.30	.02	.04	1
JRG-42	2	52	4	80	.1	32	22	931	4.89	3	5	ND	1	43	.5	2	2	96	.61	.050	2	98	2.58	43	.15	2	3.25	.03	.05	1
JRG-43	3	53	2	96	.1	29	18	786	4.50	6	5	ND	1	154	.5	2	2	63	2.68	.047	2	80	1.92	54	.16	2	2.81	.03	.04	1
JRG-44	3	377	4	81	1.0	30	22	908	4.70	7	5	ND	1	45	.4	2	2	94	.75	.056	2	94	2.48	38	.17	2	3.13	.04	.05	1
JRG-45	2	75	2	77	.2	29	21	909	4.67	2	5	ND	1	41	.2	2	2	89	.64	.050	2	86	2.46	36	.16	2	3.07	.03	.04	1
JRG-46	2	67	2	79	.1	31	22	948	4.80	6	5	ND	1	46	.6	3	2	97	.71	.054	2	94	2.53	41	.17	3	3.20	.04	.05	1
JRG-47	2	59	5	78	.2	32	22	895	4.84	7	5	ND	1	44	.3	2	2	90	.62	.050	2	93	2.52	39	.16	2	3.14	.03	.04	1
JRG-48	3	53	4	77	.1	30	21	955	4.74	2	5	ND	1	49	.3	2	2	91	.66	.052	2	93	2.48	43	.16	3	3.17	.04	.05	1
JRG-49	4	69	2	99	.2	35	22	1361	5.26	16	5	ND	1	25	.2	2	2	118	.42	.070	4	115	2.30	56	.12	2	3.68	.05	.07	1
JRG-50	6	56	2	127	.1	26	26	2313	5.68	21	5	ND	1	41	1.1	2	2	109	.70	.049	2	92	2.48	33	.17	3	3.72	.05	.02	1
JRG-51	10	95	15	105	.1	62	14	939	2.87	8	5	ND	2	27	.2	2	2	46	.38	.057	8	200	1.40	88	.04	3	2.05	.06	.14	1
JRG-52	3	85	5	104	.1	28	22	1009	5.68	11	5	ND	1	37	.7	3	2	94	.69	.043	3	87	2.53	45	.13	3	3.83	.04	.06	1
JRG-53	3	76	4	99	.1	27	20	949	5.51	7	5	ND	1	36	.6	2	3	85	.68	.041	3	80	2.47	41	.13	2	3.65	.04	.05	1
JRG-54	3	77	2	94	.1	30	21	991	5.46	11	5	ND	1	36	.6	3	2	90	.66	.047	3	83	2.42	46	.12	2	3.52	.04	.06	1
STANDARD C	18	58	37	131	6.7	70	31	1052	3.95	38	18	7	39	53	18.7	17	21	57	.47	.095	39	55	.92	181	.07	34	1.89	.06	.14	11

BC-33  
← Sample - W. Fork

Dark Crack

TERRAMIN RESEARCH LABS Ltd.

Job#: 90-228

Project: BC-32

Sample Number	Au ppb	Ag ppm
JRG- 15	2	0.07
16	8	0.14
17	2	0.04
18	10	0.07
19	28	0.05
20	36	0.06
21	6	0.07
22	10	0.07
23	2	0.04
24	4	0.05
25	4	0.03
26	2	0.02
27	6	0.04
28	6	0.05
29	4	0.04
30	2	0.03
31	6	0.03
32	32	0.04
33	2	0.02
34	14	0.04
35	4	0.04
36	2	0.01
37 ✓	6	0.01
38 ✓	4	0.01
39 ✓	2	0.01
40 ✓	8	0.03
41	18	0.03
42	4	0.02
43	6	0.08
44	2	0.10
45	4	0.10
46	2	0.07
47	2	0.05
48	2	0.04
49	.6	0.06
50	2	0.04
51	8	0.18
52	4	0.11
53	10	0.10
54	10	0.09



16

317000m. E.

18

19

20

65  
6264000m. N.

63

62

61

60

59

58

57

LEGEND

Intrusive Rocks

JURASSIC TO CRETACEOUS

Hogen Batholith

- mon Monzonite, quartz monzonite
- qdi Quartz diorite
- md Monzodiorite, local monzogabbro

Volcanic and Sedimentary Rocks

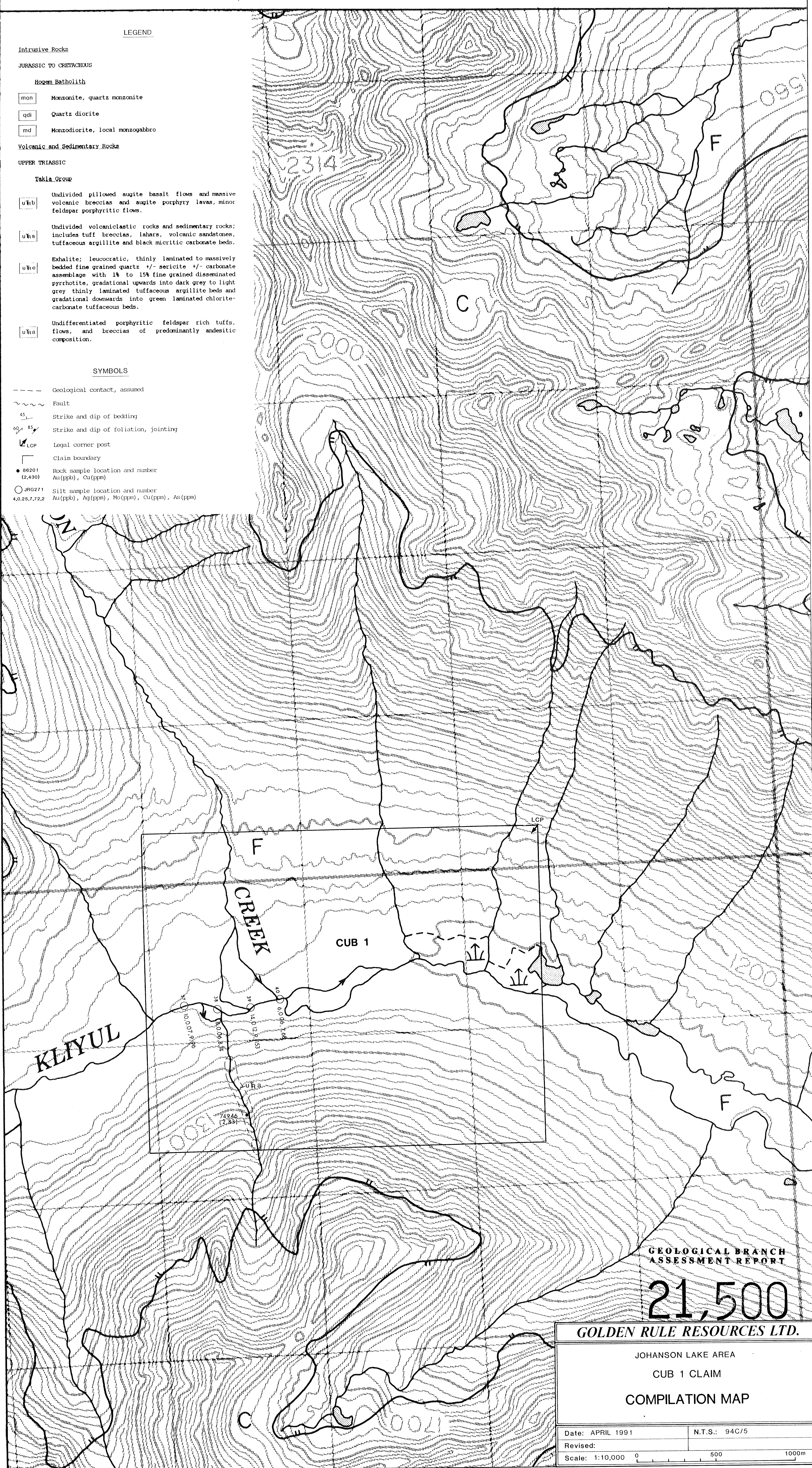
UPPER TRIASSIC

Takla Group

- u1b Undivided pillowed augite basalt flows and massive volcanic breccias and augite porphyry lavas, minor feldspar porphyritic flows.
- u1s Undivided volcanoclastic rocks and sedimentary rocks; includes tuff breccias, lahars, volcanic sandstones, tuffaceous argillite and black micritic carbonate beds.
- u1o Exhalite; leucocratic, thinly laminated to massively bedded fine grained quartz +/- sericite +/- carbonate assemblage with 1% to 15% fine grained disseminated pyrrhotite, gradational upwards into dark grey to light grey thinly laminated tuffaceous argillite beds and gradational downwards into green laminated chlorite-carbonate tuffaceous beds.
- u1a Undifferentiated porphyritic feldspar rich tuffs, flows, and breccias of predominantly andesitic composition.

SYMBOLS

- Geological contact, assumed
- ~ Fault
- 45° Strike and dip of bedding
- 60° 85° Strike and dip of foliation, jointing
- LCP Legal corner post
- ┌ Claim boundary
- 86201 (2,430) Rock sample location and number Au(ppb), Cu(ppm)
- JRG271 (4,025,7,12,2) Silt sample location and number Au(ppb), Ag(ppm), Mo(ppm), Cu(ppm), As(ppm)



GEOLOGICAL BRANCH ASSESSMENT REPORT

21,500  
GOLDEN RULE RESOURCES LTD.

JOHANSON LAKE AREA  
CUB 1 CLAIM  
COMPILATION MAP

Date: APRIL 1991	N.T.S.: 94C/5
Revised:	
Scale: 1:10,000	0 500 1000m