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ASSESSMENT REPORT  
on  
GEOLOGICAL MAPPING, ROCK & SOIL GEOCHEMISTRY

Loose Leg and Lead Leg Mineral Claims

Lewis Creek and Tracy Creek Area  
Fort Steele Mining Division

TRIM 82G.072 & 082  
599500 E 5517000 N

Operator  
Ruby Red Resources  
Suite 207 239 - 12<sup>th</sup> Ave SW  
Calgary, Alberta, T2P 1H6

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Report by  
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MINERAL SURVEY BRANCH  
REPORT

November, 2003

27,273

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1.10 Location and Access

The Loose Leg property is located in the Fort Steele Mining Division approximately 25 km northeast of Cranbrook, B.C., within the Wild Horse River drainage (Fig. 1). Access is via forestry roads up Lewis Creek and an old road up Tracey Creek.

1.20 Property

The Spirit Dream property includes 38 claim units in the Loose Leg, Lead Leg, Lead Leg 2 and Lead Leg 3 mineral claims (Fig. 2). The claims are owned by Darlene Lavoie of Kimberley and Gregory Ewonus of Calgary, Alberta..

1.30 Physiography

The Loose Leg property is located east of the Rocky Mountain Trench in the Hughes Range of the Rocky Mountains and straddles the ridge between the north-flowing upper part of Lewis Creek and the trench. Topography is generally steep with mainly wooded and locally rocky slopes. Elevation ranges from 1060 to 2060 meters. Forest cover includes mainly pine, fir and larch. Small parts of the claim block have been logged and are in various stages of regeneration.

1.40 History

A number of old workings are present on the the claim block, developed mainly on galena-bearing quartz veins. In 2002 a program of prospecting and rock geochemistry was conducted on the claims (Rodgers and Kennedy, 2002) with anomalous gold detected at a number of localities.

1.50 Purpose of Exploration Program

In 2003 geologic mapping was carried out on the Loose Leg claim group, primarily on the Loose Leg mineral claim, to establish a geologic framework for favourable results obtained by prospecting in 2002. In addition, a contour soil geochemistry program was completed in the north portion of the claim block to evaluate an area of favourable geology and a number of old workings.

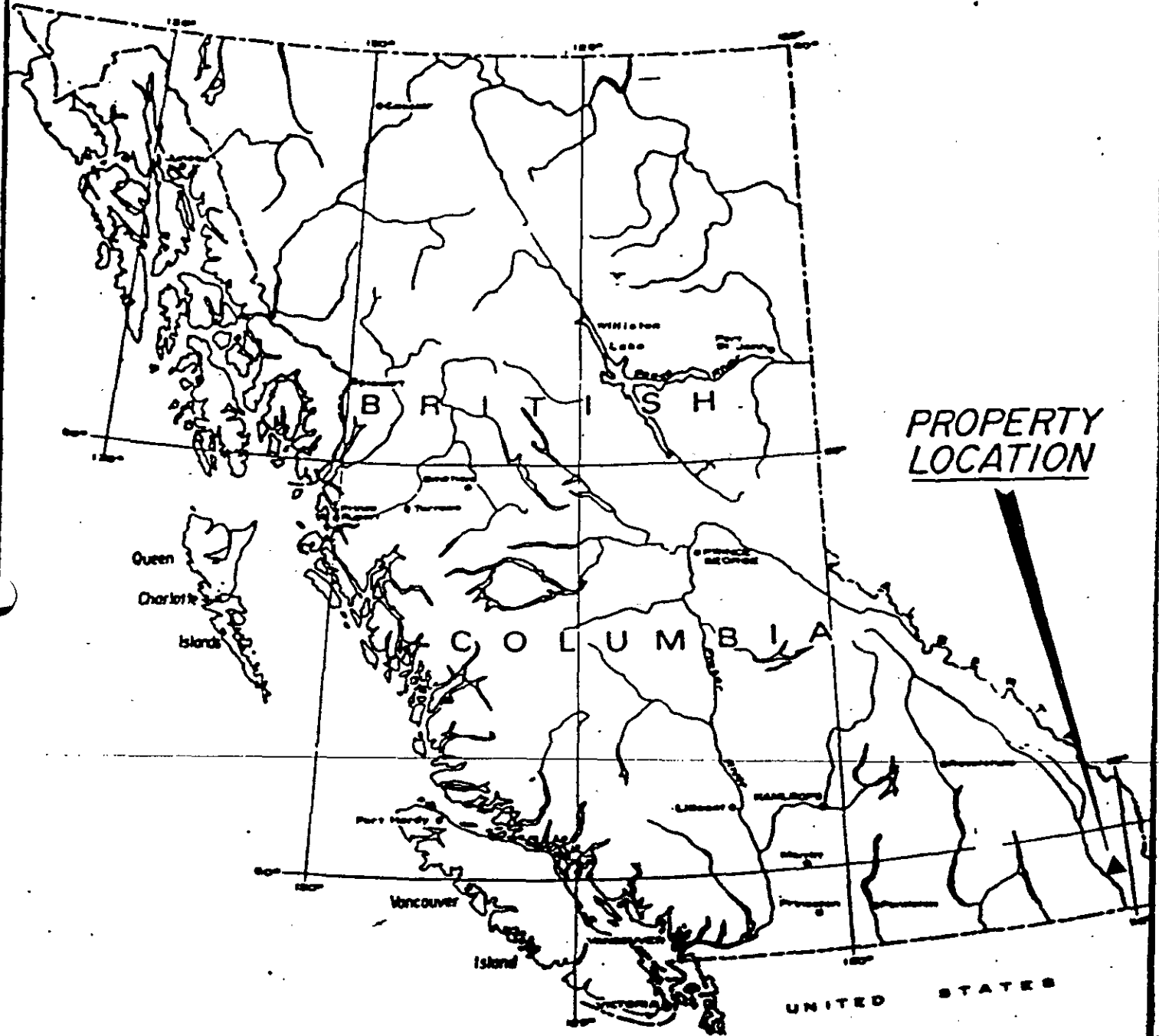
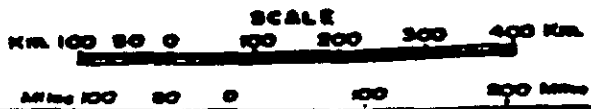


Figure 1  
Loose Leg Property Location



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400356 40035 584

5519000

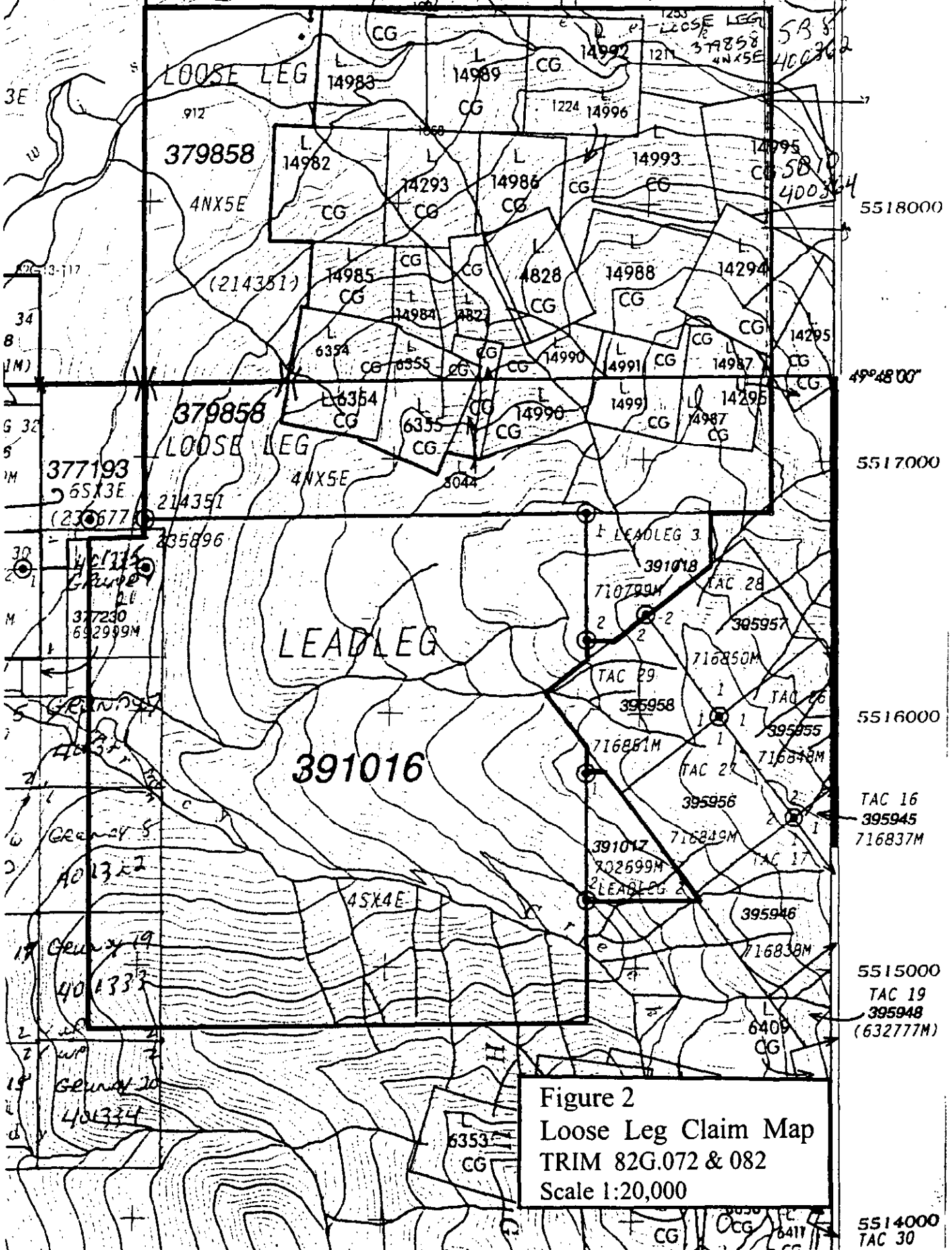


Figure 2  
 Loose Leg Claim Map  
 TRIM 82G.072 & 082  
 Scale 1:20,000

5514000  
TAC 30

## 2.00 GEOLOGY

### Stratigraphy

The Loose Leg property is underlain by mesoproterozoic Purcell Supergroup rocks of the Fort Steele and Aldridge Formations. These rocks are described by Hoy (1993):

Purcell Supergroup rocks in Fernie west-half are exposed in the Purcell Mountains and the Hughes, Lizard and Galton ranges east of the trench. Throughout the Purcell Mountains, formations are generally thick, contacts between them are gradational, and lateral facies or thickness changes are gradual. However in the northern Hughes Range the lower part of the Purcell Supergroup is markedly different, with predominantly fluvial, alluvial fan and deltaic deposits at the base, overlain by a relatively thin and heterogeneous Aldridge succession. Facies and thickness changes within the Aldridge Formation are pronounced here indicating influence of syndepositional faults or growth faults. A thick succession of turbidites, interlayered with gabbroic sills, was deposited to the south and west. The transition between these contrasting facies marks the edge of the Purcell basin in early Purcell time. The tectonic disturbance recorded in these rocks continued intermittently near the basin edge during deposition of younger, generally shallow-water sediments.

The Fort Steele Formation is exposed along the western edge of the Loose Leg property and is described by Hoy as:

The Fort Steele Formation comprises predominantly cross-bedded and massive quartz arenite, quartz and feldspathic wacke and siltstone, interpreted to be primarily deposits of a braided fluvial system. The formation is characterized by thick sections of massive and crossbedded quartz arenite and a number of large fining-upward cycles, termed megacycles, that are several hundred meters thick. Fine-grained siltstone and argillite facies are not abundant, comprising less than 10 per cent of the total exposed succession. These are interpreted to be alluvial fan and fan-delta deposits.

The Aldridge Formation conformably overlies the Fort Steele Formation on the Loose Leg property. The lower part of the Aldridge Formation is divided by Hoy (1993) into six distinctive units, A1a to A1f. These units are further described by Hoy:

The basal member of unit A1 (A1a) ... consists of medium to dark grey to black, finely laminated argillite and siltstone. Flaser and lenticular bedding occur occasionally and graded siltstone-argillite couplets up to 3 centimeters thick may define bedding. Its basal part is generally coarser grained and may include minor quartz wacke, siltstone and wacke with dolomitic cement.

A1b is a conspicuous unit, from 20 to more than 100 meters thick, characterized by abundant carbonate and referred to as the "carbonate marker unit". It consists primarily of interlayered silty or argillaceous dolomite, dolomitic argillite or siltstone interbedded on a 2 to 3 meter scale. Dolomitic layers are brown weathering, commonly finely laminated and may contain isolated mound-shaped stromatolites or cryptal algal mat deposits. Lenticular beds, crossbeds, scours and ripple marks are common within siltstone or dolomitic siltstone. Grey limestone, interbedded with dolomite, is prominent near the top of Unit A1b just north of Wasa Creek; thinly interbedded chert and dolomite, and pods of brown-weathering dolomite in siltstone are occasionally present.

Unit A1b grades upward into A1c, a succession of interbedded argillite and siltstone. South of Lewis Creek, A1c can be subdivided into three subunits. These include a massive to faintly laminated black graphitic argillite, overlain by a lighter coloured grey, greenish grey or tan, finely laminated siltstone or silty argillite and, finally, a medium to dark grey, rusty weathering, massive to faintly laminated argillite. Rusty weathering dolomite pods, minor calcareous argillite and rare, thin silty quartzite layers occur locally within the two upper subunits.

Unit A1d is a distinctive unit south of Lewis Creek that hosts both the Kootenay King and Estella lead-zinc deposits. It consists largely of buff-weathering dolomitic siltstone interlayered with buff to grey, finely laminated argillite. Sedimentary structures, including lenticular bedding, flaser bedding, tangential crossbedding and graded siltstone-argillite couplets, commonly with flame or load casts at their base, are conspicuous. To the south, the unit becomes a coarser grained tan siltstone or wacke with only minor argillite or dolomitic siltstone. To the north it changes to a dark, finely laminated argillite with only minor interbedded siltstone. Contacts with underlying argillite of unit A1c and overlying, generally dolomite-free siltstone and argillite of Unit A1f are gradational across many tens of meters.

Unit A1f comprises siltstone and argillite with minor dolomitic siltstone and occasional wacke and quartz arenite beds. Graded bedding is common and ripple crosslaminations, lenticular bedding and mud-chip breccias occur in the middle and upper parts of the unit. The contact with the overlying middle Aldridge is placed at the base of the first, prominent, thick-bedded quartz wacke turbidite sequence.

A number of thick, massive to faintly laminated quartz arenite or quartz wacke beds (referred to as 'quartzites' and mapped as Unit A1e) occur within A1d and less commonly within A1c.

Middle Aldridge Formation rocks exposed in the southwest corner of the claim block include grey to rusty weathering quartz wacke and siltstone interbedded with silty argillite.

Geologic mapping in 2003 was focused on the northern portion of the claim block (i.e. mainly on the Loose Leg mineral claim). A normal stratigraphic sequence is present with Fort Steele Formation quartzites and siltstones at the northern and northeastern edges of the property. Overlying A1 stratigraphy occurs above the Fort Steele Formation with middle Aldridge turbidites present on the Estella Mine road north of Tracy Creek.

### Structure

Limited geologic mapping and poor bedrock exposure has hindered understanding structure of the Loose Leg property in detail. What appears to be a low angle fault occurs along the eastern boundary of the Loose Leg mineral claim. Two adits are developed in or near this structure, and have galena and chalcopryite-bearing quartz veining in the dump material. Seven samples collected from the adits (L-03-2 to 8) have up to 713 ppb Au / tonne. Rock sample L-03-9 was taken from a large fault zone about 230 m south of the adits and returned 706 ppb Au. A number of northwest-striking high angle faults recognized on the property host galena-bearing quartz veining which has been the focus of previous exploration activity in the form of numerous adits (Fig. 3). In some cases bedrock exposures are insufficient to place confidence in defining a specific geologic unit and local unresolved structural complexities may well be present. The northwest-striking faults offset units of stratigraphy but with apparent minor vertical displacement.

It appears the area of the Loose Leg property has been tectonically active in both Proterozoic and Cretaceous times.

### Intrusions

Narrow Proterozoic age gabbroic Moyie Sills or dikes occur within the upper units of Aldridge A1 stratigraphy. Only two small gabbro sills (dikes?) were mapped; both are along the Estella road. Gabbro float was noted at a few other localities indicating there are a number of small gabbro intrusions present.

Cretaceous age felsic intrusions, which appear to be syenites, intrude the sedimentary rocks on the Loose Leg property as narrow dikes and sills, and as matrix to breccias. Earlier prospecting defined widespread breccias on the property but geologic mapping has covered only a few of these occurrences although syenite float was observed in a number of localities (Fig. 3). The bulk of the syenite float occurs near the contact of Fort Steele Formation and overlying Aldridge A1 stratigraphy. The competency contrast between the massive and brittle Fort Steele Quartzites and overlying more distinctly bedded A1a sediments may have focused this felsic intrusive activity. Some syenite float was also noted near the A1b - A1c boundary near 9400E 7430N. Felsic intrusions may be related to the Estella stock (a short distance south of the Loose Leg claim group) which has been dated at 115 Ma (Hoy, 1993).



Anomalous gold occurs near syenite intrusions; sample L-03-1 which ran 596 ppb Au / tonne is close to a syenite dike / breccia complex. This proximal association suggests a genetic relationship between the syenite intrusion and gold.

A series of narrow carbonate-altered mafic dikes which are probably Cretaceous in age, have been identified across much of the property and are commonly within northwest structures. Similar intrusions are known to be present on nearby claims where anomalous gold is also present, supporting a genetic relationship between these mafic dikes and gold mineralization.

### Mineralization

Anomalous gold mineralization has been identified at a number of localities and within different host rocks on the Loose Leg property. Gold occurs with quartz veins, quartz-dolomite veins, base metal -bearing quartz veins, in fault zones and in limonite breccia.

A number of adits on the property were visited during the course of geologic mapping in 2003. These typically were driven on base metal (lead, zinc and copper) -bearing quartz veins and are hosted by Fort Steele Formation quartzites, A1b and A1c stratigraphy (Fig. 3). The adits appear to be close to fault structures which have not been exposed by the workings. Quartz veins and quartz vein breccia zones exposed in the workings tend to be developed parallel or sub-parallel to the host stratigraphy. Many of the quartz veins and quartz vein breccia zones observed are lensey in character. Most of the workings have visible galena and Chalcopyrite with less common sphalerite. Anomalous molybdenum, silver and gold are also present. These workings were sampled during a prospecting program in 2002 and were reported on by Rodgers and Kennedy (2002).

A limonite breccia occurs near 9440E 8100N and was trenched (now sloughed in) by previous workers. Float of similar material is present over a small area in the vicinity of the trench. Previous sampling (Rodgers and Kennedy, 2002) returned up to 178 ppb Au / tonne with anomalous copper, lead, zinc and silver.

## 3.00 GEOCHEMISTRY

### 3.10 Soil Geochemistry

One hundred ninety-eight soil samples were collected from the Loose Leg claim group in 2003. One hundred ninety-five soil samples were collected from three separate contour lines in the northern part of the claim group, on the Loose Leg mineral claim (Figs. 2, 3 & 4). Collection lines are approximately 100 meters vertically apart, at elevations of 1200 m (L12), 1300 m (L13) and 1400 m (L14). An additional three samples (R1, 2 & 3) were collected from above the main Estella Mine road within an area of limonitic alteration associated with felsic intrusive float.

Soils were collected from the 'B' horizon at an approximate depth of 15 cm, placed in Kraft paper bags, dried and then shipped to ACME Analytical Laboratories at 852 East Hastings Street, Vancouver, B.C., V6A 1R6, and analyzed for a 30 element ICP package and geochemical gold by standard analytical techniques. Soil sample contour lines are shown on Figure 3; sample sites and individual values for gold are shown in Figure 4. Complete geochemical analyses are provided in Appendix 1.

Most of the samples have <10 ppb Au / tonne. Anomalous values in gold are present on all three soil lines with occasional clusters of higher gold values. Better gold values were obtained near two northwest oriented stream gullies which drain areas with old workings. Anomalous copper, lead and zinc are commonly associated with the higher gold values, reflecting the base metal mineralization seen in the adit dumps. Both of these northwest oriented stream gullies evidently host fault zones and the base metal -bearing quartz veins tested by the adits are probably related to the fault structures. Previous sampling of the adit quartz veins returned anomalous Mo, Pb, Zn, Ag and Au (Rodgers and Kennedy, 2002).

The eastern-most sample taken on L14 is below the northern of two adits which explored a copper / lead -bearing quartz vein system associated with a low angle(?) fault zone and the higher gold, lead and copper values seen in the sample reflect this surface mineralization.

One cluster of high gold values, on L13 near 1400S is currently unexplained but may reflect mineralization associated with brecciation in the upper part of the Fort Steele Formation. Weakly anomalous copper and lead are associated with this cluster of higher gold values.

### 3.20 Rock Geochemistry

Fifteen rock samples were collected as part of the 2002 mapping program. Rock samples were shipped to ACME Analytical Laboratories at 852 East Hastings Street, Vancouver, B.C., V6A 1R6, and analyzed for a 30 element ICP package and geochemical gold. Sample locations with gold values in ppb are given in Figure 3 and complete geochemical analyses are in Appendix 2. Descriptions of the rock samples are given in Appendix 3. Anomalous gold was detected in isolated quartz veins near occurrences of syenite and carbonate-altered mafic dikes, in quartz-dolomite veins and in large fault zones.

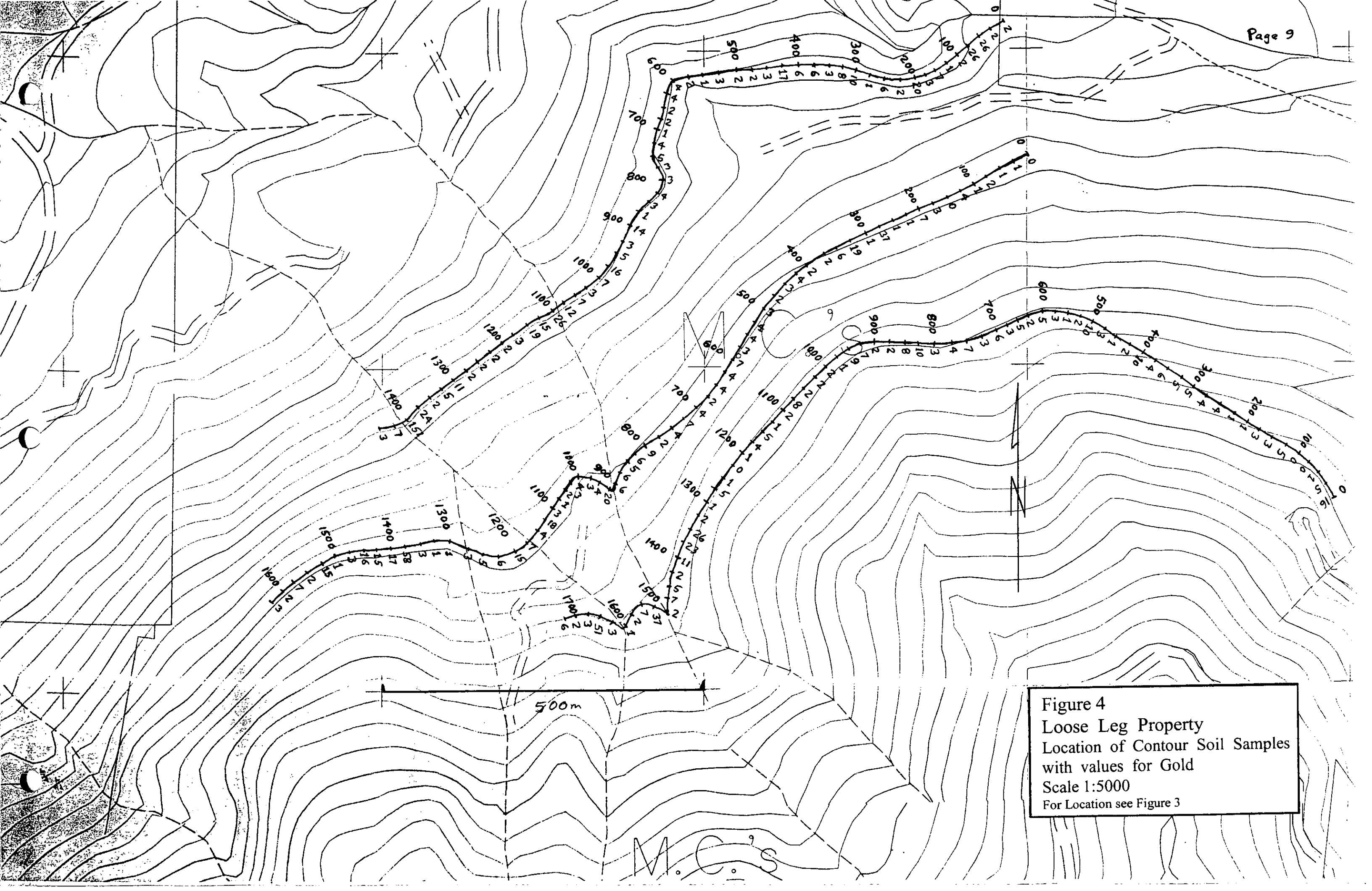


Figure 4  
Loose Leg Property  
Location of Contour Soil Samples  
with values for Gold  
Scale 1:5000  
For Location see Figure 3

M.C.S.

#### 4.00 CONCLUSIONS AND RECOMMENDATIONS

1. Evidence of tectonic and intrusive activity favourable for both precious metal and base metal mineralization is widespread on the Loose Leg claim where geologic mapping was more focused in 2003. Gold mineralization and base metal -bearing quartz veins and quartz vein breccias are located within or near northwest faults.
2. Both felsic syenite and carbonate-altered mafic intrusions which occur on the property are evidently related to gold and base metal mineralization.
3. Three contour soil lines detected gold and base metal mineralization in the vicinity of old workings, demonstrating the effectiveness of soil sampling as an exploration technique. Unexplained anomalies warrant follow-up exploration.
4. Quartz veins and quartz vein breccias within old workings which are anomalous in gold, silver and base metals are hosted by at least three distinct units of stratigraphy (Fort Steele, A1b and A1c). As considerable stratigraphic variability exists on the claim group, mineralization may be preferentially developed with certain stratigraphy.
5. *Geologic mapping should be completed on the property with an emphasis on defining fault structures. Additional soil geochemistry, possible ground geophysics and trenching should be used to test areas of structure for anomalous gold mineralization.*

#### 5.00 REFERENCES

- Hoy, T., 1979, Geology of the Estella-Kootenay King area, Hughes Range, southeastern British Columbia: BCMEMPR, Preliminary Map 36, and notes to accompany Preliminary Map 36.
- Hoy, T., 1993 Geology of the Purcell Supergroup in the Fernie west-half map area, southeastern British Columbia: British Columbia Ministry of Energy, Mines and Petroleum Resources Bulletin 84.
- Rodgers, G.M., and Kennedy, C., 2002, Prospecting and Geochemical report, Loose Leg and Lead Leg mineral claims, Wild Horse Creek area, Fort Steele Mining Division, BC Assessment Report #26976.

## 6.00 STATEMENT OF EXPENDITURES

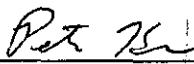
Collection and analysis of 198 soil samples @ \$19.00 / sample	\$3762.00
Preparation and analysis of 15 rock samples @ \$18.00	270.00
Shipping	75.00
Geologic Mapping 7 days @ \$321.00 / day	2247.00
4X4 vehicle 6 days @ \$80.25 / day	481.50
Base map preparation, drafting	200.00
Report 2 days @ \$321.00 / day	642.00
Report and field supplies	79.56
Total cost	<u>\$7757.06</u>

## 7.00 AUTHOR'S QUALIFICATIONS

As author of this report I, Peter Klewchuk, certify that:

1. I am an independent consulting geologist with offices at 246 Moyie Street, Kimberley, B.C.
2. I am a graduate geologist with a B.Sc. degree (1969) from the University of British Columbia and an M.Sc. degree (1972) from the University of Calgary.
3. I am a Fellow of the Geological Association of Canada and a member of the Association of Professional Engineers and Geoscientists of British Columbia.
4. I have been actively involved in mining and exploration geology, primarily in the province of British Columbia, for the past 28 years.
5. I have been employed by major mining companies and provincial government geological departments.

Dated at Kimberley, British Columbia, this 15<sup>th</sup> day of November, 2003.

  
Peter Klewchuk  
P. Geo.



## Appendix 3 Description of Rock Samples

- L-03-1 Limonitic quartz vein. Granular, banded quartz. Strong dark orange-brown limonite (from py?). Small vugs.
- L-03-2 Limonitic northern seam in brecciated quartzites at adit.
- L-03-3 Southern rusty seam in quartz at adit.
- L-03-4 Dolomite-quartz breccia with fine disseminated py. In dolomitic siltstone unit.
- L-03-5 Sample of weaker limonitic gouge and thin broken up QV in fault zone.
- L-03-6 Fractured quartz with disseminated py, cpy. Lower part of exposed fault zone.
- L-03-7 Limonitic (medium brown, yellow-light orange) clay fault gouge. Grab out of south wall of adit.
- L-03-8 QV fragments off dump with PbS. Some is rusty, some not.
- L-03-9 Weakly limonitic fault gouge. In road cut. Looks like large fault.
- L-03-10 Sample of fragments of sub-horizontal, sub-parallel to bedding limonitic QV. Thin, rusty, vuggy.
- L-03-11 Thin limonitic QV on bedding planes at 160/68E
- L-03-12 Quartz-dolomite vein at 049/81SE. Disseminated pyrite, dolomite. Part of QV breccia developed parallel to hinge of fold.
- L-03-13 Narrow bedding-parallel rusty quartz veins ~1 cm wide. Flat bedding - veins may reflect flat structure.
- L-03-14 Float hematite / limonite / QV breccia. Buff weathered and some dense siliceous patches - may be altered tourmalinite.
- L-03-15 Quartz-dolomite vein. 25 cm wide but pinches out over 10-12 m. Sample at junction with 4 cm wide cross-cutting bedding-parallel vein.

GEOCHEMICAL ANALYSIS CERTIFICATE

Ruby Red Resources Inc. PROJECT LOOSE LEG File # A303664 Page 1  
207 - 239 - 12th Ave S.W., Calgary AB T2R 1H6 Submitted by: Peter Klewchuk



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.3	2.7	2.1	41	<1	3.5	3.7	455	1.76	.6	1.9	.5	4.3	78	<1	<1	.2	34	.56	.075	7	11.7	.47	187	.115	1	.82	.070	.44	1.4	<.01	2.1	.3	<.05	4	<.5	15.0
L12 05	.5	5.6	13.3	63	<1	9.7	4.2	574	1.14	3.4	.1	2.0	1.6	12	.1	.2	.2	11	.07	.037	7	6.4	.15	160	.038	3	1.25	.012	.07	.1	.02	.8	1	<.05	4	<.5	15.0
L12 25S	.6	6.2	15.2	54	<1	11.1	5.2	578	1.38	4.0	.2	1.5	2.4	13	<1	.2	.3	12	.07	.020	9	7.7	.18	149	.039	1	1.31	.010	.08	.1	.02	.9	1	<.05	4	<.5	15.0
L12 50S	.6	7.5	17.6	44	<1	11.2	6.2	697	1.75	2.9	.2	25.8	3.1	26	.1	.3	.3	13	.27	.011	11	8.6	.25	182	.051	2	1.85	.014	.10	.2	.01	1.9	1	<.05	5	<.5	15.0
L12 75S	.8	10.5	17.7	34	<1	15.4	8.5	250	2.14	4.7	.3	25.8	5.4	15	<1	.5	.4	13	.21	.016	15	10.6	.32	117	.031	4	1.45	.005	.17	.1	.03	2.1	1	<.05	4	<.5	15.0
L12 100S	.3	1.5	2.5	5	<1	2.6	1.2	51	.52	1.1	.3	1.5	4.4	4	<1	.3	.1	4	.03	.008	12	3.2	.08	28	.002	1	.33	<.001	.07	<.1	.01	.4	<.1	<.05	1	<.5	15.0
L12 125S	.4	37.0	10.3	31	<1	13.4	10.0	1187	1.72	1.8	.4	1.3	2.8	36	.1	.2	.3	13	.32	.012	9	8.5	.23	107	.078	3	2.20	.018	.18	.1	.03	2.2	1	<.05	6	<.5	15.0
L12 150S	.5	49.7	12.6	37	<1	14.5	10.8	307	2.01	2.0	.4	6.6	3.0	52	<1	.2	.4	15	.38	.014	8	8.4	.33	45	.069	5	2.22	.028	.14	.1	.02	2.8	1	<.05	6	<.5	15.0
L12 175S	1.0	76.0	14.4	36	<1	19.2	18.7	654	2.29	2.4	.5	3.4	4.2	42	.1	.3	.6	15	.33	.017	11	10.7	.43	85	.066	16	2.39	.027	.16	.1	.02	2.7	1	<.05	5	<.5	15.0
L12 200S	.9	17.7	14.9	41	<1	18.6	24.7	966	2.83	4.7	.9	19.5	5.9	80	.1	.6	.5	11	4.21	.033	14	12.2	.52	64	.019	5	1.21	.020	.16	<.1	.05	2.3	1	<.05	3	.5	15.0
L12 225S	.8	11.7	15.6	60	<1	14.0	8.8	563	1.51	2.4	.3	2.1	2.8	27	<1	.2	.3	13	.20	.018	9	7.4	.20	98	.049	3	1.71	.018	.11	.1	.02	1.6	1	<.05	5	<.5	15.0
L12 250S	1.9	21.2	46.3	124	<1	21.9	13.0	837	2.69	8.7	.6	6.0	5.6	37	.2	.6	.5	13	.49	.040	16	8.4	.20	129	.033	5	1.60	.006	.18	.1	.02	2.8	1	<.05	4	<.5	15.0
L12 275S	2.0	30.4	42.5	160	<1	27.2	14.8	1061	2.97	10.9	.4	.9	6.8	29	.3	.7	.6	14	.38	.025	15	9.2	.28	128	.044	4	2.11	.007	.16	.1	.03	2.6	1	<.05	5	<.5	15.0
L12 300S	3.1	52.1	33.9	90	.3	30.2	17.9	417	3.22	12.5	.8	9.5	7.9	49	.6	1.0	.5	4	5.16	.046	12	6.3	.56	45	.001	1	1.13	<.001	.11	<.1	.06	2.1	1	.13	3	1.3	7.5
RE L12 300S	3.1	47.4	32.9	86	.4	26.0	16.8	386	2.90	11.8	.9	13.5	8.0	48	.4	1.0	.5	4	4.86	.044	15	6.0	.57	47	.002	5	1.14	<.001	.11	<.1	.08	2.0	1	.10	2	1.2	7.5
L12 325S	1.2	27.3	15.5	59	.2	13.4	9.1	506	1.52	9.5	.7	8.2	3.1	74	.5	.7	.2	1	14.36	.063	4	3.0	.30	56	.001	8	.55	<.001	.07	<.1	.09	1.3	1	.09	1	.9	15.0
L12 350S	.9	18.0	41.6	92	<1	16.3	10.0	505	2.30	6.0	.2	2.5	5.5	24	.2	.5	.3	10	1.44	.018	16	9.6	.43	120	.022	6	1.34	.009	.15	.1	.05	2.9	1	<.05	3	<.5	15.0
L12 375S	.9	16.2	36.1	93	<1	17.9	10.7	305	2.55	6.7	.3	5.6	6.6	19	.1	.6	.3	12	.43	.022	21	10.8	.45	137	.025	4	1.52	.008	.12	.1	.03	3.7	1	<.05	4	<.5	15.0
L12 400S	.9	31.5	28.5	53	.1	15.8	10.5	410	1.87	10.4	.3	5.7	1.6	51	.3	.8	.3	9	8.62	.067	10	7.4	.81	89	.011	11	.76	.005	.07	.1	.09	1.5	<.1	.08	2	<.5	15.0
L12 425S	.7	17.6	32.4	55	<1	16.2	10.4	422	2.34	6.4	.2	16.7	5.5	24	.1	.5	.4	14	1.90	.017	18	10.7	.45	122	.037	5	1.46	.015	.18	.1	.05	3.2	1	<.05	4	<.5	15.0
L12 450S	.7	12.9	29.5	54	<1	15.3	9.0	169	2.54	6.5	.3	2.9	4.5	15	<1	.4	.4	14	.25	.010	14	9.6	.35	128	.047	2	1.81	.011	.10	.1	.02	2.9	1	<.05	5	<.5	15.0
L12 475S	.6	10.4	19.3	52	<1	14.5	8.4	446	2.62	5.3	.3	1.5	3.9	21	.1	.3	.3	15	.41	.013	11	11.1	.39	171	.061	4	2.16	.013	.17	.1	.03	3.2	1	<.05	6	<.5	15.0
L12 500S	.3	7.0	11.9	48	<1	12.4	5.2	148	1.51	5.0	.2	1.5	1.9	26	<1	.1	.2	13	.24	.010	6	7.5	.21	201	.075	3	2.40	.036	.07	.1	.03	1.6	1	<.05	6	<.5	15.0
L12 525S	.3	7.5	14.2	39	<1	12.5	5.6	213	1.60	3.5	.3	2.6	3.1	29	.1	.1	.2	13	.40	.011	10	8.9	.30	202	.089	3	2.50	.034	.12	.1	.02	2.8	1	<.05	6	<.5	15.0
L12 550S	.3	8.9	12.9	40	<1	12.8	5.7	173	1.61	4.2	.5	.9	2.9	33	.1	<1	.2	15	.32	.023	8	8.9	.26	221	.097	2	2.63	.035	.09	.2	.03	2.5	1	<.05	7	<.5	15.0
L12 575S	.3	7.3	13.9	49	<1	12.8	5.8	251	1.57	3.7	.4	1.6	2.8	29	.1	.1	.2	17	.30	.028	9	9.6	.25	212	.088	2	2.61	.028	.11	.1	.03	2.3	1	<.05	6	<.5	15.0
L12 600S	.9	18.8	27.3	56	<1	22.3	12.9	272	2.87	8.4	.4	4.1	6.1	18	.2	.5	.4	17	.53	.014	18	14.0	.67	203	.038	3	2.15	.004	.08	.1	.02	4.6	1	<.05	6	<.5	15.0
L12 625S	.7	21.5	38.0	69	.1	18.4	12.3	1180	2.53	6.8	.3	4.0	4.8	33	.3	.5	.4	18	3.03	.035	17	13.7	.76	311	.025	7	1.69	.001	.22	.1	.05	4.0	1	<.05	4	<.5	15.0
L12 650S	.6	15.5	20.0	56	<1	19.8	9.5	354	2.55	4.2	.3	1.6	4.8	22	.1	.3	.2	15	.49	.014	14	13.4	.61	220	.063	4	2.26	.017	.14	.1	.03	4.1	1	<.05	6	<.5	15.0
L12 675S	.7	14.2	27.0	65	<1	19.8	10.4	660	2.71	4.0	.3	1.5	6.6	18	.2	.4	.4	17	.54	.012	20	15.4	.71	302	.043	5	2.10	.011	.20	.1	.02	4.4	1	<.05	6	<.5	15.0
L12 700S	.4	7.2	15.4	84	<1	11.6	5.9	366	2.22	3.0	.2	1.3	3.2	23	.1	.1	.2	14	.28	.023	9	11.3	.35	268	.087	5	2.97	.020	.22	.1	.02	2.9	1	<.05	7	<.5	15.0
L12 725S	.5	22.6	26.5	44	.1	16.5	8.7	478	2.00	4.4	.3	3.8	3.6	49	.4	.6	.3	11	8.06	.032	11	12.0	.88	217	.025	5	1.50	.012	.13	.1	.08	3.2	1	<.05	5	<.5	7.5
L12 750S	.8	19.6	28.4	46	.1	14.1	9.2	605	1.90	9.3	.3	4.9	2.7	69	.3	1.0	.3	10	7.40	.055	11	9.7	.88	147	.022	10	1.09	.006	.24	.1	.08	2.4	1	.06	3	.5	15.0
L12 775S	.7	16.1	25.4	117	<1	19.4	9.3	499	2.67	5.5	.2	3.0	5.4	19	.1	.5	.3	17	.80	.027	17	14.6	.72	276	.029	6	1.87	.004	.22	.1	.04	4.4	1	<.05	4	<.5	15.0
L12 800S	1.2	23.9	128.5	72	.1	20.4	11.8	373	2.82	10.2	.4	3.1	6.1	16	.1	.9	.4	14	.91	.022	19	11.5	.56	127	.024	3	1.55</										



ACME ANALYTICAL



ACME ANALYTICAL

SAMPLE#	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	W	Hg	Sc	Tl	S	Ga	Se	Sample
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	gn	
G-1	1.4	2.6	2.0	36	<.1	3.4	3.5	486	1.78	.6	1.8	1.1	4.3	73	<.1	<.1	.1	39	.49	.080	7	12.2	.47	188	.128	<.1	.90	.076	.42	1.5	<.01	2.0	.3	<.05	4	<.5	15.0
L12 825S	1.1	10.4	37.9	118	<.1	15.7	8.3	386	2.69	5.7	.4	3.8	5.3	14	.1	.5	.4	15	.24	.012	13	10.5	.31	145	.045	3	1.82	.007	.19	.1	.02	3.2	.1	<.05	5	<.5	15.0
L12 850S	.9	11.0	35.0	126	<.1	14.7	7.6	204	2.27	5.4	.4	2.8	4.2	20	<.1	.4	.3	16	.17	.009	10	8.5	.28	162	.060	2	2.22	.014	.12	.1	.01	2.5	.1	<.05	6	<.5	15.0
L12 875S	.7	7.8	45.5	596	.1	11.0	8.5	342	2.56	3.8	.9	1.2	4.6	46	.1	.3	.3	12	.38	.009	13	7.8	.36	167	.045	4	2.27	.018	.16	.1	.03	2.6	.1	<.05	5	.5	15.0
L12 900S	2.2	48.7	81.4	270	.1	27.2	18.5	496	3.69	10.9	.3	14.2	7.6	15	.3	1.3	.6	10	.49	.013	20	8.2	.36	98	.019	2	1.32	.005	.18	.1	.03	3.5	<.1	<.05	3	<.5	15.0
L12 925S	2.0	37.3	78.2	307	.1	20.8	10.3	338	3.11	11.9	.6	2.9	6.5	22	.3	.9	.4	12	.26	.015	17	8.0	.30	113	.048	3	1.89	.001	.17	.1	.03	3.4	.1	<.05	5	<.5	15.0
L12 950S	1.4	21.4	72.8	89	.1	20.4	12.7	444	2.85	10.2	.2	4.5	6.3	16	.1	.8	.4	9	.25	.014	20	6.5	.18	79	.019	<.1	1.13	.003	.13	.1	.03	2.7	.1	<.05	3	<.5	15.0
L12 975S	2.3	35.1	48.2	59	.1	21.0	10.7	255	2.41	10.6	.3	15.6	9.3	15	.1	1.0	.3	2	.65	.017	21	2.7	.11	47	.002	1	.54	<.001	.07	<.1	.04	2.3	<.1	<.05	1	.6	15.0
L12 1000S	2.9	24.8	51.0	149	.1	28.9	13.7	1061	3.50	15.4	.7	7.1	6.2	46	.4	.9	.5	13	.47	.018	14	8.9	.27	221	.046	3	2.19	.010	.24	.1	.04	3.9	.1	<.05	5	.6	15.0
L12 1025S	1.0	9.8	24.5	79	<.1	20.4	7.4	220	1.74	8.6	.2	3.0	2.8	32	.1	.2	.2	16	.18	.011	7	7.3	.19	170	.068	3	2.18	.028	.10	.1	.02	1.9	.1	<.05	5	<.5	15.0
L12 1050S	3.6	44.4	60.7	91	.1	39.1	17.9	604	4.52	28.8	.8	6.8	6.6	26	.1	1.1	.7	15	.36	.015	19	11.7	.29	131	.040	1	2.07	.011	.19	.1	.03	5.1	.1	<.05	5	<.5	7.5
L12 1075S	3.2	25.1	33.3	35	.2	10.4	4.5	1621	.70	4.7	.7	11.6	.3	704	.7	.3	.1	3	15.16	.093	2	3.9	1.43	131	.009	15	.37	.017	.05	<.1	.08	.6	<.1	.22	1	3.4	15.0
L12 1100S	3.0	40.3	102.7	82	.1	26.9	15.0	810	3.86	13.8	.5	25.5	7.2	24	.3	1.7	.6	15	.37	.017	19	11.0	.30	99	.026	3	1.52	.008	.16	.1	.04	4.1	<.1	<.05	3	.6	15.0
L12 1125S	3.6	38.9	105.2	83	.1	24.2	14.2	392	3.74	14.2	.5	14.6	7.4	19	.2	1.9	.6	14	.39	.019	19	10.0	.26	92	.008	<.1	1.20	<.001	.11	.1	.04	3.7	.1	<.05	3	<.5	7.5
L12 1150S	3.8	71.5	108.9	100	.1	32.9	16.0	351	3.92	16.2	.5	18.7	8.6	16	.3	2.4	.6	11	.37	.018	22	11.6	.33	67	.005	2	1.07	<.001	.12	.1	.04	4.2	<.1	<.05	2	<.5	15.0
L12 1175S	2.2	20.2	81.8	88	.1	21.4	9.8	662	2.80	9.9	.3	3.1	5.3	24	.2	1.1	.4	12	.41	.017	16	9.7	.28	117	.040	3	1.67	.004	.19	.1	.04	3.2	.1	<.05	4	<.5	15.0
L12 1200S	1.0	16.8	43.5	76	<.1	20.3	9.8	374	2.58	8.7	.2	2.4	5.2	18	.2	.7	.3	13	.29	.014	15	11.3	.29	101	.041	3	1.72	.008	.17	.1	.02	3.3	.1	<.05	5	<.5	15.0
L12 1225S	1.4	21.2	53.0	73	<.1	25.2	11.7	223	2.99	14.7	.4	1.7	5.2	19	.1	.7	.4	15	.23	.012	15	10.7	.29	154	.052	1	2.21	.004	.13	.1	.02	3.3	.1	<.05	5	<.5	7.5
L12 1250S	1.3	11.0	50.5	92	<.1	17.9	8.9	487	2.87	8.1	.3	1.6	4.8	22	.2	.5	.3	16	.35	.011	13	11.2	.31	133	.051	3	2.18	.013	.19	.1	.02	3.2	.1	<.05	5	<.5	15.0
L12 1275S	1.9	20.6	64.7	97	<.1	23.5	11.9	926	3.04	12.7	.4	2.4	5.4	23	.2	.8	.4	12	.40	.015	17	10.6	.27	138	.027	3	1.46	.010	.20	.1	.03	3.4	.1	<.05	3	<.5	1.0
L12 1300S	1.3	16.6	54.5	98	.1	19.1	10.5	500	2.60	6.5	.4	10.8	4.7	20	.1	.6	.3	14	.29	.013	13	10.1	.27	102	.046	3	1.94	.010	.16	.1	.03	2.9	.1	<.05	5	<.5	7.5
RE L12 1300S	1.2	14.3	50.1	85	<.1	16.4	9.0	461	2.30	5.5	.3	2.0	4.4	18	.2	.5	.3	12	.26	.012	13	9.0	.25	93	.044	2	1.77	.009	.15	.1	.02	2.8	.1	<.05	4	<.5	7.5
L12 1325S	1.9	18.2	69.4	53	.1	16.8	10.0	308	2.78	7.9	.3	5.2	4.8	14	.1	.9	.4	16	.23	.015	16	12.1	.34	89	.030	2	1.53	.004	.15	.1	.03	3.1	<.1	<.05	4	<.5	15.0
L12 1350S	1.8	15.6	76.2	63	<.1	18.5	10.2	753	2.73	5.2	.4	1.6	4.8	25	.1	.7	.4	16	.28	.013	14	10.3	.28	171	.060	4	2.30	.013	.17	.1	.03	3.2	.1	<.05	5	<.5	15.0
L12 1375S	1.8	40.5	69.6	60	.3	23.1	12.9	538	2.68	8.1	.3	23.7	5.9	28	.4	1.2	.3	12	1.98	.030	15	12.2	.59	77	.013	5	1.10	.001	.19	.1	.07	3.2	.1	<.05	3	<.5	15.0
L12 1400S	2.9	33.0	148.5	130	.2	22.1	14.9	724	3.38	9.0	.8	150.8	15.0	19	.4	1.2	.6	13	.33	.039	17	13.3	.44	114	.009	3	1.31	.001	.22	.1	.03	3.3	.1	<.05	3	<.5	7.5
L12 1425S	1.3	14.7	104.3	574	.1	29.4	13.5	746	2.77	7.9	.4	7.0	5.7	41	.9	.8	.6	22	.48	.066	14	16.7	.40	234	.044	6	1.98	.013	.18	.1	.06	2.2	.1	<.05	5	<.5	15.0
L12 1450S	.7	14.8	47.4	115	.1	14.1	10.1	274	2.05	3.9	.6	2.8	4.9	27	.4	.4	.3	17	.53	.022	11	11.2	.32	148	.051	4	2.33	.026	.14	.1	.06	2.0	.1	<.05	5	<.5	15.0
L13 0S	.7	5.0	22.9	47	<.1	12.2	6.1	321	1.83	3.1	.2	<.5	2.3	16	.1	.2	.3	15	.16	.011	9	9.3	.24	115	.051	3	1.93	.015	.09	.1	.02	1.2	.1	<.05	4	<.5	15.0
L13 25S	.9	7.4	20.7	55	<.1	14.7	5.7	305	1.86	5.4	.2	1.1	2.6	19	.1	.3	.3	15	.22	.020	9	8.7	.24	155	.057	4	2.08	.003	.12	.1	.02	1.3	.1	<.05	5	<.5	15.0
L13 50S	1.2	7.0	23.9	53	<.1	13.8	5.9	336	1.86	4.9	.2	1.3	2.1	16	.1	.3	.3	14	.21	.018	10	8.7	.23	116	.046	2	1.90	.013	.09	.1	.02	1.4	.1	<.05	5	<.5	15.0
L13 75S	1.4	21.3	33.8	76	.1	23.2	9.6	197	2.86	9.7	.4	2.3	5.6	19	.1	.8	.4	15	.22	.013	16	10.0	.31	136	.056	1	2.25	.014	.09	.1	.02	2.9	.1	<.05	5	<.5	15.0
L13 100S	.9	8.3	20.1	70	<.1	12.7	5.4	515	1.65	5.1	.2	1.0	2.3	21	.1	.3	.3	15	.22	.022	10	8.9	.22	175	.056	2	2.02	.019	.10	.2	.02	1.4	.1	<.05	5	<.5	15.0
L13 125S	1.1	14.5	25.9	87	<.1	17.6	8.8	309	2.25	8.4	.3	3.5	3.8	18	.1	.4	.3	16	.23	.021	13	10.6	.28	98	.045	2	1.91	.009	.13	.1	.02	1.5	.1	<.05	4	<.5	15.0
L13 150S	.9	5.7	15.8	72	<.1	11.3	4.3	800	1.33	3.5	.2	<.5	2.0	21	.1	.2	.2	13	.25	.018	6	7.6	.19	175	.060	1	1.96	.017	.13	.1	.02	1.3	.1	<.05	4	<.5	15.0
STANDARD DS5	13.2	145.2	25.8	133	.3	24.3	11.7	792	3.08	19.0	6.2	45.5	2.7	51	6.0	4.2	6.4	63	.77	.089	13	185.1	.66	143	.108	20	2.21	.034	.16	5.3	.19	3.6	1.1	<.05	7	5.4	15.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.





SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B %	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.4	2.5	2.0	37	<1	3.8	3.5	463	1.66	.6	1.7	<5	4.1	73	<1	<1	.1	36	.52	.073	6	11.8	45	179	.112	1	.80	.071	.43	1.2	<.01	1.8	.3	<.05	4	<.5	15.0
L13 175S	.9	7.7	24.4	61	<1	18.6	8.0	403	2.14	6.2	.4	3.1	3.3	19	.1	.3	.3	20	.21	.017	10	10.5	26	182	.069	2	2.62	.015	.09	.1	<.01	1.7	.1	<.05	6	<.5	15.0
L13 200S	3.8	45.8	78.6	141	.1	30.9	14.9	427	3.55	22.7	.4	6.6	7.9	16	.2	1.7	.8	9	.19	.018	22	9.2	22	73	.008	2	.79	.003	.11	.1	.02	2.6	.1	<.05	2	<.5	15.0
L13 225S	1.2	11.9	22.4	53	<.1	15.7	7.6	97	2.03	9.3	.3	1.4	4.0	9	.1	.6	.4	15	.09	.013	15	9.3	29	57	.019	1	1.13	.006	.06	.1	<.01	1.3	.1	<.05	3	<.5	15.0
L13 250S	1.0	7.6	23.8	72	<.1	17.4	6.6	447	1.96	5.1	.3	1.2	3.3	22	.1	.3	.3	18	.18	.015	9	10.1	25	202	.055	2	2.26	.018	.07	.1	<.01	1.8	.1	<.05	5	<.5	15.0
L13 275S	2.1	19.3	43.4	91	.1	18.3	9.4	204	2.34	12.4	.3	36.7	4.1	8	.1	.9	.3	11	.14	.015	16	7.9	24	69	.010	1	.80	<.001	.06	.1	.01	1.5	.1	<.05	2	<.5	15.0
L13 300S	1.6	9.2	38.0	118	.1	16.3	6.8	845	1.90	4.9	.4	1.2	3.4	19	.3	.3	.3	17	.17	.021	12	9.4	24	167	.055	2	1.87	.009	.11	.1	.01	1.8	.1	<.05	5	<.5	15.0
L13 325S	2.6	15.4	67.0	200	.1	15.4	6.8	227	2.23	8.4	.2	19.3	4.4	10	.2	.7	.3	11	.14	.014	18	6.7	17	91	.021	1	1.08	.003	.08	.1	<.01	1.5	.1	<.05	3	<.5	15.0
L13 350S	1.3	8.8	39.0	150	.1	13.9	5.6	373	1.79	5.3	.3	6.2	3.6	17	.2	.4	.3	13	.21	.012	13	8.8	23	127	.034	1	1.47	.006	.09	.1	.02	1.3	.1	<.05	4	<.5	15.0
L13 375S	1.6	17.7	39.7	116	.1	17.7	6.9	154	2.23	8.6	.3	1.9	4.6	12	.1	.5	.3	13	.14	.015	17	8.1	21	109	.037	2	1.44	.009	.11	.1	<.01	1.6	.1	<.05	3	<.5	15.0
L13 400S	1.5	8.3	42.8	154	.1	18.4	6.6	253	2.08	5.8	.3	2.4	4.0	20	.2	.3	.3	15	.23	.012	11	8.5	21	151	.058	1	2.24	.015	.13	.1	.01	2.0	.1	<.05	5	<.5	15.0
L13 425S	1.1	11.0	64.0	153	.1	17.3	7.1	274	2.11	5.8	.4	4.0	3.8	16	.2	.4	.3	16	.22	.011	11	9.0	23	128	.053	1	2.07	.012	.08	.1	.01	1.6	.1	<.05	5	<.5	15.0
L13 450S	1.1	6.9	39.5	175	.1	18.2	6.0	369	1.85	4.0	.2	2.8	3.0	24	.2	.3	.3	17	.21	.012	8	9.0	21	248	.073	2	2.71	.022	.11	.1	.01	1.5	.1	<.05	6	<.5	15.0
L13 475S	1.6	8.0	52.6	117	.1	16.6	6.2	293	1.92	5.0	.3	2.3	3.4	16	.2	.4	.3	17	.20	.013	11	9.5	21	174	.056	1	2.09	.012	.10	.1	.02	1.5	.1	<.05	5	<.5	15.0
L13 500S	1.5	8.4	75.6	136	.1	15.0	6.3	373	2.00	4.5	.3	2.6	3.2	18	.1	.5	.3	16	.21	.017	13	9.5	25	140	.049	2	1.95	.007	.10	.1	.01	1.4	.1	<.05	5	<.5	7.5
RE L13 500S	1.4	8.5	73.7	140	.1	14.2	6.9	336	1.90	4.7	.2	1.1	3.1	17	.2	.4	.3	16	.20	.015	12	9.2	21	133	.044	2	1.77	.008	.10	.1	.01	1.3	.1	<.05	5	<.5	7.5
L13 525S	1.2	9.7	40.4	83	.1	16.4	7.0	249	2.16	5.7	.4	3.6	4.2	17	.1	.5	.3	18	.23	.012	12	11.1	27	131	.049	1	1.85	.009	.12	.1	.02	2.0	.1	<.05	5	<.5	15.0
L13 550S	.9	8.2	30.2	87	.1	16.4	6.1	372	1.88	3.3	.4	3.4	3.1	37	.2	.2	.2	18	.22	.016	8	8.8	21	305	.095	2	3.17	.025	.10	.1	.02	1.7	.1	<.05	7	<.5	15.0
L13 575S	1.3	14.9	51.3	85	.1	16.7	7.8	184	2.46	5.5	.4	4.1	5.1	16	.1	.6	.3	15	.26	.019	17	10.7	29	136	.052	2	2.02	.008	.14	.1	.01	3.0	.1	<.05	4	<.5	15.0
L13 600S	1.5	30.6	55.8	102	.1	20.9	10.5	360	2.68	8.7	.3	6.7	6.7	17	.2	1.1	.4	11	.51	.019	20	9.1	41	77	.018	2	1.30	.004	.19	.1	.02	3.2	<.1	<.05	3	<.5	15.0
L13 625S	1.7	12.1	38.1	142	.1	16.1	7.2	497	2.41	6.6	.3	4.1	5.8	17	.2	1.4	.3	12	.32	.024	18	10.0	29	123	.037	2	1.54	.005	.32	.1	.02	3.0	.1	<.05	4	<.5	15.0
L13 650S	1.5	20.0	57.0	129	<.1	16.7	10.0	697	2.56	9.0	.2	4.0	5.4	23	.2	.9	.3	10	.44	.024	18	8.5	28	139	.016	2	1.25	.002	.20	.1	.02	2.6	<.1	<.05	3	<.5	15.0
L13 675S	1.3	11.2	32.4	64	<.1	14.6	6.9	559	2.08	4.9	.3	1.7	4.4	20	.1	.5	.3	14	.30	.010	14	9.7	29	143	.046	2	1.73	.004	.17	.1	<.01	2.5	.1	<.05	4	<.5	15.0
L13 700S	1.6	22.3	53.1	72	.1	17.0	12.0	612	2.48	9.8	.3	3.5	6.3	25	.2	1.0	.3	9	.45	.018	20	7.4	32	120	.007	2	.92	.002	.18	.1	.02	2.8	.1	<.05	2	<.5	15.0
L13 725S	1.5	48.4	17.7	31	.1	31.3	15.2	328	3.05	4.8	.2	6.6	9.4	57	.1	.9	.4	12	1.91	.019	21	21.0	32	78	.010	3	1.28	.003	.23	.1	.03	5.1	.1	<.05	3	<.5	15.0
L13 750S	1.3	30.1	27.1	47	.1	21.1	13.0	296	3.18	6.4	.5	3.7	9.0	36	.1	1.0	.4	11	.45	.015	25	12.7	37	88	.016	<.1	1.66	.004	.18	<.1	.02	4.3	<.1	<.05	4	<.5	15.0
L13 775S	1.6	19.2	40.1	45	.1	15.3	10.2	442	2.58	5.6	.5	2.3	5.8	35	.1	.8	.4	12	.38	.011	18	9.8	26	93	.026	<.1	1.44	.005	.18	.1	.02	3.5	<.1	<.05	3	<.5	15.0
L13 800S	2.5	49.2	97.8	127	.2	20.5	10.9	601	3.30	15.3	.3	9.2	5.8	22	.3	7.8	.5	12	.33	.017	20	7.9	21	81	.028	1	1.29	.007	.16	.1	.01	2.8	.1	<.05	3	<.5	15.0
L13 825S	3.2	54.4	67.8	118	.1	36.6	16.7	265	4.01	14.8	.4	6.0	9.7	38	.2	2.1	.7	9	.62	.016	29	10.6	38	71	.011	2	1.54	.002	.13	.1	.03	4.3	<.1	<.05	3	.5	15.0
L13 850S	.7	26.0	40.0	54	.1	16.0	10.9	573	2.26	5.1	.3	4.9	6.1	106	.2	.8	.4	9	4.66	.019	14	9.7	49	118	.017	3	1.18	.006	.26	.1	.03	2.8	.1	<.05	3	<.5	15.0
L13 875S	1.3	37.9	64.4	106	.1	22.3	14.2	650	3.41	6.1	.2	5.7	7.7	32	.3	1.6	.4	22	.73	.013	18	14.8	39	131	.029	3	1.93	.006	.32	.1	.02	5.4	.1	<.05	5	<.5	15.0
L13 900S	3.2	30.9	103.5	162	.1	23.6	10.0	624	3.04	11.3	.4	5.6	6.3	32	.4	2.5	.5	12	.35	.018	18	7.6	23	78	.032	4	1.41	.005	.35	.1	.02	4.1	.1	<.05	3	<.5	15.0
L13 925S	83.1	102.2	308.1	167	.6	50.3	19.0	842	4.58	22.2	.6	20.2	7.0	43	.9	5.4	1.0	15	.62	.057	20	9.3	31	64	.025	2	1.38	.009	.20	.2	.05	5.2	.1	<.05	3	.5	15.0
L13 950S	1.4	20.3	43.6	63	.1	21.8	9.9	390	2.49	7.6	.3	3.7	4.7	22	.1	.7	.4	15	.17	.017	13	10.6	27	153	.046	1	1.89	.013	.10	.1	.01	2.3	.1	<.05	5	<.5	15.0
L13 975S	1.7	17.8	50.4	69	.1	16.5	9.5	719	2.35	6.8	.2	3.2	4.6	17	.1	.7	.4	14	.17	.027	16	10.3	28	178	.034	1	1.62	.007	.16	.1	.01	2.4	.1	<.05	4	<.5	15.0
STANDARD DSS	13.2	139.8	25.3	133	.3	24.7	12.7	797	3.00																												



SAMPLE#	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	W	Hg	Sc	Tl	S	Ga	Se	Sample
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gn
G-1	1.4	3.1	2.0	39	<.1	4.2	3.8	494	1.80	<.5	1.8	<.5	4.1	79	<.1	<.1	.1	40	.58	.079	8	12.5	.48	185	.117	1	.91	.077	.40	1.4	<.01	2.2	.3	<.05	4	<.5	15.0
L13 1000S	.8	25.0	15.3	39	.1	17.0	9.2	552	1.82	9.2	.3	4.2	1.6	100	.3	.6	.2	10	9.82	.079	8	10.7	2.43	112	.005	8	.78	.006	.08	.1	.04	1.5	.1	<.05	2	.5	15.0
L13 1025S	.8	8.1	19.1	45	<.1	11.9	5.7	503	1.80	3.7	.2	3.0	3.3	17	.1	.3	.3	14	.32	.014	14	10.5	.32	129	.033	2	1.53	.010	.10	.1	.02	2.1	.1	<.05	4	<.5	15.0
L13 1050S	1.2	10.5	37.8	55	<.1	15.7	7.6	712	2.30	5.0	.3	1.8	3.9	22	.1	.5	.3	19	.43	.019	14	12.0	.37	211	.060	4	2.43	.014	.10	.1	.02	3.0	.1	<.05	6	<.5	15.0
L13 1075S	.9	7.0	25.6	48	<.1	14.3	6.2	324	2.11	3.2	.3	1.2	3.0	22	.1	.2	.3	22	.29	.019	11	12.1	.31	209	.074	2	2.90	.025	.08	.1	.02	2.2	.1	<.05	6	<.5	15.0
L13 1100S	1.0	9.6	33.1	43	<.1	17.3	8.3	260	2.52	3.9	.5	2.9	5.8	21	.1	.5	.3	18	.34	.011	18	13.8	.42	192	.062	2	2.44	.001	.14	.1	.02	3.9	.1	<.05	6	<.5	15.0
L13 1125S	1.7	101.4	38.1	69	.1	27.3	23.4	625	4.24	8.0	.4	17.8	8.3	29	.1	.9	.7	20	.38	.020	23	18.7	.63	137	.030	4	2.42	.003	.25	.1	.03	4.0	.1	<.05	6	<.5	15.0
L13 1150S	4.8	59.6	30.6	57	.1	20.6	14.6	888	3.32	8.2	.4	3.9	6.3	28	.1	.7	.5	13	.33	.017	22	11.0	.39	71	.035	5	1.70	.007	.26	.1	.02	4.3	.1	<.05	4	<.5	15.0
L13 1175S	19.7	41.6	146.1	80	.1	23.6	11.4	697	3.33	4.5	.2	7.4	5.7	34	.2	1.2	.5	13	.37	.022	20	9.9	.29	74	.038	4	1.52	.009	.24	.1	.02	4.3	.1	<.05	4	<.5	15.0
L13 1200S	1.8	18.6	26.3	49	.1	25.0	26.3	238	3.25	5.5	.4	14.7	5.1	30	.2	.8	.9	24	.13	.024	17	15.4	.42	142	.051	2	2.44	.015	.11	.1	.02	1.9	.1	<.05	6	<.5	15.0
L13 1225S	1.7	19.3	18.9	44	.1	19.0	19.2	311	2.71	4.3	.5	6.1	4.1	16	.1	.5	.6	20	.18	.027	18	13.3	.33	113	.041	3	1.91	.010	.11	.1	.03	1.7	.1	<.05	5	<.5	15.0
L13 1250S	1.2	27.3	20.4	34	<.1	16.5	14.3	286	2.15	4.8	.4	4.6	5.3	14	.1	.5	.6	17	.13	.014	18	11.3	.32	131	.033	2	1.46	.008	.09	.1	.02	1.7	.1	<.05	4	<.5	15.0
L13 1275S	.9	9.8	19.7	27	<.1	14.5	9.7	216	1.81	3.2	.2	2.6	2.7	15	<.1	.3	.4	19	.17	.012	10	10.4	.28	166	.058	3	2.18	.015	.09	.1	.02	1.4	.1	<.05	5	<.5	15.0
L13 1300S	.7	5.9	18.5	36	<.1	13.1	5.9	214	1.86	4.3	.2	.7	2.9	14	<.1	.2	.2	15	.22	.015	10	10.3	.25	185	.041	2	2.09	.009	.09	.1	.02	1.7	.1	<.05	5	<.5	15.0
L13 1325S	.6	6.3	18.9	24	<.1	12.7	5.5	173	1.90	3.4	.2	.5	3.2	13	<.1	.2	.3	16	.16	.009	10	10.6	.32	177	.046	1	2.12	.004	.07	.1	.02	2.0	.1	<.05	4	<.5	1.0
L13 1350S	.5	7.1	13.7	29	<.1	13.0	10.3	457	1.50	3.1	.3	2.8	3.7	26	.1	.2	.3	14	.33	.016	10	8.1	.24	186	.063	2	1.99	.025	.15	.1	.01	1.8	.1	<.05	5	<.5	15.0
L13 1375S	2.4	28.0	36.6	32	.1	17.6	12.1	104	2.34	5.4	.6	58.0	9.0	6	<.1	1.1	.5	9	.05	.014	25	10.2	.29	41	.015	<.1	.94	.002	.07	.1	.01	1.2	<.1	<.05	2	<.5	15.0
L13 1400S	1.7	18.8	42.7	36	.1	16.2	10.5	192	2.01	6.8	.3	16.7	5.4	11	.1	1.3	.5	13	.11	.016	23	9.1	.23	86	.021	2	1.12	.002	.09	.1	.01	1.3	.1	<.05	3	<.5	7.5
RE L13 1400S	1.7	20.4	42.7	37	.1	17.4	11.1	206	2.19	6.4	.3	8.0	5.3	10	.1	1.3	.5	14	.11	.018	21	9.7	.24	87	.020	1	1.22	.004	.09	.1	.01	1.2	.1	<.05	3	<.5	7.5
L13 1425S	1.6	16.6	66.4	37	.1	18.1	9.3	164	1.93	5.6	.3	14.8	5.3	13	.1	1.3	.5	14	.15	.014	18	9.8	.24	64	.033	2	1.27	.009	.14	.1	.01	1.7	<.1	<.05	3	<.5	15.0
L13 1450S	1.0	27.8	21.5	29	<.1	59.2	15.7	241	2.33	4.9	.3	15.7	4.2	23	.1	.4	.3	17	.30	.028	17	27.0	.28	77	.042	5	1.60	.005	.27	.1	.02	3.3	.1	<.05	4	<.5	15.0
L13 1475S	1.0	21.9	22.5	44	<.1	86.8	19.7	329	3.06	4.0	.3	2.6	3.7	15	.1	.4	.3	49	.20	.017	17	89.6	.71	70	.076	3	1.80	.007	.30	.1	.01	4.1	.1	<.05	6	<.5	15.0
L13 1500S	.7	10.0	23.3	44	<.1	14.8	6.3	208	1.52	4.6	.2	1.2	2.3	19	.1	.3	.3	15	.22	.025	9	9.4	.21	174	.062	3	2.06	.019	.12	.1	<.01	1.2	.1	<.05	5	<.5	15.0
L13 1525S	1.1	9.8	34.7	35	<.1	13.9	6.9	120	1.82	4.5	.3	14.9	3.7	10	<.1	.5	.3	15	.16	.010	14	10.3	.29	95	.035	2	1.57	.006	.10	.1	.02	1.5	.1	<.05	4	<.5	15.0
L13 1550S	.8	10.0	31.1	73	<.1	15.7	7.5	164	1.94	3.5	.2	1.6	3.0	17	.1	.3	.3	17	.17	.014	11	11.6	.24	197	.065	3	2.57	.018	.09	.1	.01	1.6	.1	<.05	6	<.5	15.0
L13 1575S	.8	6.3	50.2	212	.1	11.1	8.2	250	1.75	2.9	.3	7.4	2.5	15	.1	.2	.4	17	.19	.012	12	10.1	.23	134	.050	3	1.99	.011	.11	.1	.01	1.4	.1	<.05	5	<.5	15.0
L13 1600S	.6	8.5	41.2	59	.1	10.4	8.9	379	1.47	4.0	.2	2.3	2.7	17	.2	.2	.3	12	.19	.020	11	8.6	.22	148	.044	2	1.60	.009	.12	.1	.01	1.3	.1	<.05	4	<.5	15.0
L13 1625S	.8	14.2	36.9	45	<.1	14.2	7.4	233	1.48	3.9	.2	3.1	2.3	14	.1	.3	.3	12	.14	.016	11	8.5	.21	119	.042	2	1.54	.003	.09	.1	.01	1.1	.1	<.05	4	<.5	15.0
L14 0S	3.2	56.1	165.0	52	.2	29.3	11.0	238	2.50	13.4	.4	15.9	5.5	17	.7	1.2	.5	14	.17	.024	21	11.9	.33	74	.021	3	1.09	.002	.12	.1	.01	2.5	.1	<.05	3	<.5	15.0
L14 25S	2.9	40.3	31.6	72	<.1	23.6	13.6	204	2.86	18.0	.6	4.8	8.3	7	.1	1.3	.6	11	.05	.032	32	9.5	.40	37	.010	1	.94	<.001	.06	.1	.04	1.9	<.1	<.05	2	.5	15.0
L14 50S	1.6	15.9	30.6	59	<.1	16.9	7.5	633	1.76	8.4	.4	.8	3.9	18	.2	.7	.4	13	.21	.031	16	9.7	.29	138	.029	3	1.40	.008	.08	.1	.03	1.3	.1	<.05	4	<.5	7.5
L14 75S	1.3	9.1	18.6	60	<.1	21.5	7.6	672	1.59	6.4	.2	<.5	2.4	18	.2	.3	.3	16	.19	.071	8	9.1	.23	119	.059	3	2.18	.019	.11	.1	.02	1.1	.1	<.05	5	<.5	15.0
L14 100S	.9	5.2	17.6	50	<.1	14.9	6.1	300	1.34	4.0	.2	<.5	2.1	14	.1	.2	.3	15	.14	.027	9	9.3	.24	121	.049	2	1.86	.013	.10	.1	.01	1.1	.1	<.05	5	<.5	15.0
L14 125S	2.5	35.9	30.1	65	<.1	23.2	11.7	229	2.77	17.3	.5	4.6	6.6	7	.1	1.1	.5	12	.07	.020	24	9.3	.37	42	.016	1	.99	.003	.06	.1	.01	2.2	<.1	<.05	2	<.5	15.0
L14 150S	1.3	12.1	23.4	58	.1	24.7	10.1	403	1.74	6.3	.3	2.6	3.5	18	.1	.4	.3	15	.08																		



SAMPLE#	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	W	Hg	Sc	Tl	S	Ga	Se	Sample
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	gm
G-1	1.3	2.9	2.0	36	<.1	3.9	3.4	451	1.83	<.5	1.7	.5	3.8	76	<.1	<.1	.1	34	.52	.085	7	11.0	.46	175	.101	1	.84	.070	.39	1.3	<.01	1.9	.3	<.05	4	<.5	15.0
L14 175S	2.5	22.5	44.1	90	.1	23.0	10.9	1424	2.28	9.5	.3	3.1	4.0	34	.3	.7	.5	17	.37	.038	14	9.7	.31	165	.027	2	1.66	.010	.09	.1	.05	1.3	.1	<.05	4	<.5	15.0
L14 200S	1.2	9.2	22.4	67	.1	23.4	7.9	466	1.95	5.0	.2	1.4	3.4	19	.1	.3	.3	17	.17	.037	9	10.6	.28	118	.049	2	2.16	.017	.08	.1	.02	1.3	.1	<.05	6	<.5	15.0
L14 225S	1.9	19.9	25.2	57	.3	29.2	10.3	401	2.58	6.9	.3	1.4	5.1	29	.2	.4	.4	21	.18	.052	13	11.6	.35	176	.055	1	2.58	.019	.09	.1	.02	1.1	.1	<.05	6	<.5	15.0
L14 250S	1.8	21.5	25.5	62	.2	23.0	10.8	196	2.34	10.7	.6	3.6	5.1	16	.1	.6	.4	17	.17	.034	18	11.1	.30	89	.031	1	1.83	.010	.10	.1	.01	1.8	.1	<.05	4	<.5	15.0
L14 275S	2.5	24.8	34.9	91	.1	21.8	12.1	252	2.64	14.5	.3	4.3	5.4	12	.1	.9	.5	15	.07	.038	21	10.6	.34	66	.013	1	1.16	<.001	.07	.1	.01	1.2	.1	<.05	3	<.5	15.0
L14 300S	2.5	38.8	40.8	78	.1	25.4	13.9	309	2.97	17.8	.5	5.1	7.7	15	.1	1.0	.6	11	.14	.031	20	10.1	.37	60	.013	1	1.13	.003	.07	.1	.03	2.4	.1	<.05	3	.5	15.0
L14 325S	2.4	47.7	91.2	111	.3	30.0	15.6	284	3.61	21.4	.6	5.4	10.1	6	.2	1.4	.6	11	.07	.024	28	10.6	.38	36	.005	<1	1.02	<.001	.08	.1	.04	3.7	<.1	<.05	2	.5	15.0
L14 350S	2.1	21.8	34.0	63	<.1	18.5	9.9	204	2.52	12.1	.3	5.9	5.1	14	.1	.7	.4	14	.13	.026	18	11.0	.32	54	.013	<1	1.00	<.001	.08	.1	.02	1.4	.1	<.05	3	<.5	15.0
L14 375S	1.2	11.9	30.2	100	.1	32.3	9.3	300	2.45	8.7	.3	4.1	3.4	26	.2	.3	.3	23	.13	.025	11	13.6	.30	254	.063	2	2.86	.016	.09	.1	.02	1.3	.1	<.05	7	<.5	15.0
L14 400S	1.1	11.7	38.3	81	.1	22.0	8.3	268	2.34	6.6	.4	10.2	4.0	34	.2	.4	.3	19	.27	.022	13	10.0	.27	210	.064	2	2.82	.022	.08	.1	.03	1.8	.1	<.05	6	<.5	15.0
L14 425S	1.3	12.1	26.0	55	<.1	17.4	7.7	229	2.25	6.4	.3	1.9	3.7	20	.1	.4	.3	15	.16	.016	13	9.6	.27	116	.038	1	1.88	.012	.08	.1	.01	1.4	.1	<.05	4	<.5	15.0
L14 450S	.9	6.5	23.7	50	<.1	19.1	6.0	254	1.69	4.3	.2	1.1	2.7	31	.1	.2	.2	15	.22	.016	8	8.6	.22	172	.060	2	2.19	.021	.11	.1	<.01	1.4	.1	<.05	5	<.5	15.0
L14 475S	2.4	30.9	28.3	65	<.1	23.4	12.3	277	3.42	12.0	.3	2.6	4.7	15	.1	.7	.5	14	.12	.028	17	6.7	.18	88	.029	1	1.37	.006	.09	.1	.01	1.3	.1	<.05	3	<.5	15.0
L14 500S	3.1	46.1	46.1	96	<.1	25.2	13.6	256	3.50	23.7	.4	9.6	7.3	8	.1	1.1	.7	7	.09	.028	23	6.1	.24	58	.006	1	.66	.002	.07	<.1	.01	2.0	<.1	<.05	2	.6	15.0
L14 525S	1.2	8.1	25.5	61	<.1	16.8	7.6	585	2.07	5.7	.2	2.0	2.9	30	.1	.3	.3	18	.38	.034	11	10.0	.25	136	.044	3	2.17	.012	.10	.1	.02	1.3	.1	<.05	5	<.5	15.0
L14 550S	1.0	6.5	22.0	49	.1	15.6	6.3	245	1.77	3.8	.3	1.1	2.8	18	.1	.2	.3	19	.16	.015	12	9.4	.25	136	.056	2	2.31	.015	.08	.1	.02	1.4	.1	<.05	5	<.5	15.0
L14 575S	2.0	25.3	46.8	93	<.1	22.9	11.0	176	2.94	12.8	.3	3.3	5.0	10	.1	.6	.4	14	.11	.021	20	9.9	.28	86	.024	2	1.35	.005	.09	.1	.01	1.3	.1	<.05	4	<.5	15.0
L14 600S	1.6	9.5	37.0	124	<.1	19.3	7.8	456	2.11	7.1	.2	<.5	3.2	19	.2	.3	.3	17	.18	.029	13	9.5	.28	152	.054	2	1.96	.014	.11	.1	.01	1.4	.1	<.05	4	<.5	7.5
RE L14 600S	1.5	9.4	38.6	128	<.1	17.4	7.3	409	1.94	7.5	.2	5.4	3.3	18	.1	.3	.3	15	.18	.028	13	9.3	.27	140	.052	3	2.11	.014	.12	.1	.01	1.4	.1	<.05	5	<.5	7.5
L14 625S	2.4	30.9	109.9	188	.1	20.6	11.0	1141	2.87	12.6	.2	1.9	4.4	24	.3	1.1	.5	12	.24	.025	19	6.6	.17	161	.030	2	1.24	.007	.08	.1	.02	1.5	.1	<.05	3	<.5	15.0
L14 650S	1.3	10.2	29.8	80	.1	16.8	7.8	649	2.02	8.4	.3	4.9	3.2	21	.1	.4	.3	16	.26	.021	13	8.8	.28	152	.045	3	1.89	.010	.14	.1	.02	1.5	.1	<.05	5	<.5	15.0
L14 675S	3.2	26.5	44.3	95	<.1	19.1	12.4	635	3.11	16.6	.3	13.2	5.7	10	.1	1.1	.5	10	.12	.021	26	9.0	.29	83	.011	<1	.84	.002	.08	.1	.01	1.7	<.1	<.05	2	<.5	15.0
L14 700S	2.7	21.2	45.8	126	.1	20.9	11.6	528	2.85	13.7	.4	5.5	6.8	20	.2	.8	.5	13	.27	.017	22	9.1	.30	120	.024	2	1.47	.003	.11	.1	.03	2.2	.1	<.05	4	<.5	15.0
L14 725S	3.4	33.6	70.4	320	.1	33.3	14.8	1208	3.59	15.1	.6	2.8	8.7	22	.8	.8	.5	12	.33	.031	25	9.9	.30	126	.022	2	1.75	.003	.16	.1	.02	2.9	.1	<.05	4	<.5	15.0
L14 750S	3.4	49.9	76.9	151	.1	38.7	20.4	630	4.16	27.0	.5	7.6	8.7	13	.5	1.3	.6	11	.25	.035	26	8.7	.24	62	.017	1	1.30	.004	.10	.1	.02	2.4	.1	<.05	3	.6	15.0
L14 775S	1.4	13.5	26.3	65	<.1	14.5	8.0	537	2.30	8.5	.3	4.4	4.5	14	.1	.5	.3	12	.22	.024	20	7.0	.25	119	.023	2	1.36	.004	.11	.1	.02	1.7	.1	<.05	3	<.5	15.0
L14 800S	.9	7.0	22.4	72	<.1	18.6	5.7	239	1.56	6.9	.2	3.0	2.4	19	.1	.2	.2	14	.15	.025	9	7.3	.17	196	.061	2	2.30	.017	.11	.1	.02	1.1	.1	<.05	6	<.5	15.0
L14 825S	3.0	40.3	39.0	112	<.1	21.3	12.7	395	3.08	19.3	.4	10.1	7.3	10	.2	1.4	.5	9	.11	.037	25	8.1	.30	62	.012	<1	.88	.003	.10	.1	.01	1.6	.1	<.05	3	<.5	15.0
L14 850S	1.6	15.8	34.4	70	<.1	22.3	8.6	261	2.64	9.2	.4	7.8	4.7	21	.1	.9	.4	15	.25	.022	17	9.2	.25	110	.048	2	2.02	.014	.14	.1	.01	1.9	.1	<.05	5	<.5	15.0
L14 875S	1.3	16.9	36.0	73	.1	16.5	6.5	1246	1.63	9.2	.3	1.8	2.6	36	.3	2.9	.3	15	.40	.042	9	7.5	.18	178	.066	3	2.18	.024	.13	.1	.02	1.6	.1	<.05	5	<.5	15.0
L14 900S	1.4	11.6	30.9	64	.1	22.3	8.7	541	2.18	7.9	.3	2.4	3.2	28	.2	.4	.3	19	.26	.028	11	9.2	.23	181	.079	2	2.91	.021	.11	.1	.02	1.6	.1	<.05	6	<.5	15.0
L14 925S	1.5	11.4	38.2	64	.1	20.7	7.8	962	1.77	7.9	.4	6.7	3.5	27	.2	.5	.3	16	.33	.029	11	8.3	.20	186	.075	2	2.48	.026	.10	.1	.02	2.1	.1	<.05	6	<.5	15.0
L14 950S	9.5	43.2	133.5	188	.2	9.3	3.6	213	7.53	43.1	.5	8.5	3.7	11	.3	3.0	.7	8	.18	.032	19	5.0	.12	56	.017	1	1.01	.001	.06	.1	.01	1.5	.1	<.05	3	.9	15.0
L14 975S	1.4	7.9	24.3	62	<.1	13.7	6.2	875	1.76	5.4	.3	.6	2.3	19	.1	.3	.3	16	.23	.025	11	9.2	.27	167	.054	2	2.03	.016	.08	.1	.02	1.4	.1	<.05	5	<.5	15.0
STANDARD DS5	12.6	137.5	25.7	130	.3	24.0	11.7	747	3.00	18.3	6.4	46.7	2.8	49	5.8	3.8	6.4	57	.77	.096	12	179.8	.67	136	.093	18	1.98	.033	.14	4.8	.18	3.4	1.2	<.05	7	4.9	15.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.2	2.5	2.1	35	<.1	3.1	3.4	432	1.52	<.5	2.1	<.5	4.2	71	<.1	<.1	.1	32	.56	.078	9	10.4	40	179	.107	<.1	.76	.064	.36	1.4	<.01	1.8	.3	<.05	4	<.5	15.0
L14 1000S	.8	11.8	19.8	82	.1	17.7	7.0	384	1.82	7.3	.5	1.9	3.5	26	.2	.2	.2	22	.25	.047	9	8.2	21	173	.104	2	3.08	.033	.06	.1	.03	1.6	.1	<.05	8	<.5	15.0
L14 1025S	1.7	12.7	26.2	62	<.1	12.9	7.4	152	2.20	7.7	.4	1.9	4.6	11	.1	.6	.3	19	.16	.025	22	11.2	.33	101	.032	2	1.56	.007	.09	.1	.03	1.4	.1	<.05	5	<.5	15.0
L14 1050S	1.3	18.4	36.1	60	<.1	15.1	10.6	188	2.80	8.5	.3	1.7	7.0	9	.1	.8	.4	16	.33	.018	28	11.7	.40	86	.024	3	1.52	.004	.23	.1	.02	3.5	.1	<.05	4	<.5	15.0
L14 1075S	1.2	18.8	29.6	60	<.1	15.6	10.6	384	2.79	7.0	.3	8.2	6.5	9	.1	.7	.4	17	.33	.018	28	12.5	.42	95	.025	3	1.48	.005	.21	.1	.03	3.1	.1	<.05	4	<.5	15.0
L14 1100S	1.2	12.3	59.5	74	<.1	15.0	8.1	474	2.37	4.6	.4	2.0	6.2	16	.2	.8	.4	17	.28	.012	26	12.1	.35	161	.045	3	1.69	.001	.22	.1	.02	3.1	.1	<.05	5	<.5	15.0
L14 1125S	1.1	18.2	26.3	116	<.1	11.7	7.5	2365	1.51	5.6	.3	.7	2.7	50	.4	.4	.2	13	.77	.032	11	7.6	.21	389	.046	2	1.57	.009	.18	.1	.03	1.8	.1	<.05	5	<.5	7.5
L14 1150S	.9	8.8	25.9	67	<.1	14.1	7.9	344	2.18	5.0	.3	5.0	5.7	12	.1	.4	.3	15	.28	.020	25	11.0	.32	120	.026	2	1.49	.005	.15	.1	.02	2.2	.1	<.05	4	<.5	7.5
L14 1175S	1.1	13.2	27.9	50	<.1	15.8	9.3	465	2.37	6.0	.4	4.0	6.1	13	.1	.5	.4	16	.34	.017	26	12.8	.43	154	.023	1	1.63	.006	.14	.1	.02	2.9	.1	<.05	4	<.5	15.0
L14 1200S	.9	6.7	25.1	111	<.1	12.9	4.9	189	1.20	3.9	.3	.8	2.6	26	.1	.1	.2	17	.25	.018	8	7.3	.17	158	.075	3	2.07	.035	.09	<.1	.02	1.3	.1	<.05	5	<.5	15.0
L14 1225S	1.3	5.7	18.7	102	<.1	13.8	6.8	570	1.62	4.3	.2	<.5	1.8	21	.1	.2	.2	19	.20	.018	11	9.6	.24	213	.065	1	2.36	.022	.11	.1	.02	1.1	.1	<.05	6	<.5	15.0
L14 1250S	1.0	5.3	17.0	68	<.1	11.3	5.0	624	1.30	4.5	.3	.6	2.4	28	.1	.2	.2	15	.39	.019	11	8.0	.21	192	.061	3	1.89	.022	.13	.1	.02	1.4	.1	<.05	5	<.5	15.0
L14 1275S	2.2	22.3	33.7	76	.1	20.9	11.4	1143	2.86	11.5	.4	4.5	5.6	22	.1	1.2	.5	17	.35	.024	22	11.8	.32	116	.039	2	1.77	.008	.15	.1	.03	2.8	.1	<.05	5	<.5	15.0
L14 1300S	.8	7.9	14.8	78	<.1	14.6	6.0	429	1.47	3.8	.3	.9	2.8	38	.1	.2	.2	18	.40	.020	9	8.4	.21	172	.086	5	2.57	.031	.17	.1	.01	1.7	.1	<.05	6	<.5	15.0
L14 1325S	2.0	21.4	36.9	80	<.1	17.9	10.3	236	2.67	10.0	.5	2.1	5.9	14	.1	1.0	.4	19	.25	.014	24	11.7	.33	88	.042	4	1.80	.004	.15	.1	.02	3.1	.1	<.05	5	<.5	15.0
L14 1350S	3.0	59.5	102.9	120	.1	28.0	16.4	901	3.82	22.6	.5	26.4	7.0	19	.2	3.6	.7	16	.26	.017	31	9.5	.31	81	.041	3	2.05	.010	.16	.1	.02	3.4	.1	<.05	4	<.5	15.0
L14 1375S	1.8	35.9	45.1	82	.2	22.1	14.0	509	2.84	11.6	.3	22.6	7.2	19	.3	1.6	.5	14	1.65	.018	27	10.3	.40	69	.021	4	1.17	<.001	.22	.1	.04	3.0	.1	<.05	3	<.5	15.0
L14 1400S	2.8	30.2	54.7	151	.1	24.3	14.2	1377	3.48	12.4	.4	10.9	6.9	34	.4	1.7	.6	17	.42	.019	27	9.8	.33	176	.040	4	1.85	.006	.22	.1	.02	3.1	.1	<.05	4	<.5	15.0
L14 1425S	1.6	9.2	58.0	104	<.1	14.4	7.0	639	2.23	6.0	.3	1.9	4.1	29	.2	.8	.3	16	.38	.026	16	10.0	.26	193	.055	6	2.20	.016	.22	<.1	.02	2.6	.1	<.05	5	<.5	15.0
L14 1450S	4.2	41.5	61.3	85	.1	31.6	13.7	648	3.32	19.1	.5	4.6	6.6	20	.3	2.3	.5	17	.36	.028	29	10.1	.31	121	.017	<.1	1.20	<.001	.17	.1	.04	3.3	.1	<.05	3	.6	15.0
L14 1475S	2.5	26.9	56.4	134	<.1	23.9	11.4	1021	2.93	13.2	.4	7.1	6.6	28	.4	1.6	.5	16	.39	.036	27	10.3	.31	161	.033	6	1.44	.004	.31	.1	.02	3.2	.1	<.05	4	<.5	15.0
L14 1500S	.8	15.2	31.1	95	.1	18.9	11.2	180	2.42	12.4	.4	1.9	4.5	26	.2	.5	.4	22	.35	.040	19	13.0	.39	127	.061	3	2.40	.022	.14	.1	.03	2.4	.1	<.05	6	<.5	7.5
RE L14 1500S	1.0	15.5	32.0	96	.1	16.8	10.7	349	2.24	12.6	.4	2.0	5.0	26	.1	.5	.4	23	.35	.036	21	11.0	.42	132	.063	<.1	2.17	.022	.13	.1	.02	2.4	.1	<.05	5	<.5	7.5
L14 1525S	6.9	31.7	519.8	100	.2	18.5	11.3	670	2.49	13.3	.3	37.2	3.6	59	.9	7.2	.8	21	4.91	.045	17	11.5	.27	88	.029	4	1.19	.009	.10	.1	.03	2.4	.1	<.05	3	.8	15.0
L14 1550S	.6	18.9	50.3	38	.1	13.5	9.5	1135	1.73	5.2	.4	6.5	2.5	50	.2	.3	.5	17	.55	.022	9	9.8	.39	83	.050	2	1.86	.026	.10	<.1	.03	2.2	.1	<.05	4	<.5	7.5
L14 1575S	.5	11.1	34.5	41	<.1	18.6	12.9	815	1.93	4.2	.3	1.9	2.3	32	.2	.2	.6	25	.33	.019	9	12.3	.35	67	.079	2	2.71	.030	.13	.1	.03	1.4	.1	<.05	6	<.5	15.0
L14 1600S	.3	9.9	18.0	39	<.1	28.5	8.5	243	1.60	2.2	.2	1.1	1.6	31	.1	.2	.2	27	.36	.014	7	31.3	.40	75	.091	4	1.94	.041	.15	<.1	.02	2.2	.1	<.05	5	<.5	15.0
L14 1625S	1.6	45.6	58.2	146	.3	18.5	21.6	4361	2.05	9.9	.7	2.5	1.1	103	1.3	.8	.8	11	2.12	.094	5	10.5	.43	173	.020	11	.79	.006	.10	.1	.13	2.1	.1	<.05	2	.7	1.0
L14 1650S	1.6	45.6	259.3	40	.1	27.3	23.7	782	2.70	6.9	.7	50.7	4.7	27	.2	.6	1.0	24	.31	.025	16	15.2	.42	113	.046	2	1.99	.009	.11	.1	.04	2.4	.1	<.05	5	<.5	15.0
L14 1675S	1.7	25.6	21.3	34	<.1	18.8	11.8	973	2.33	5.0	.4	2.9	4.5	26	.1	.6	.5	15	.24	.015	20	11.4	.33	158	.025	<.1	1.53	.002	.08	.1	.03	2.2	.1	<.05	4	<.5	15.0
L14 1700S	.6	5.4	22.0	26	<.1	14.6	7.1	470	1.59	2.1	.3	2.1	2.0	27	.1	.2	.4	21	.30	.015	8	9.5	.27	104	.068	3	2.16	.022	.09	.1	.02	1.3	.1	<.05	5	<.5	15.0
L14 1725S	1.9	14.6	31.6	31	<.1	15.6	14.9	374	2.17	7.6	.4	5.9	4.9	15	.1	.7	.5	16	.25	.012	22	11.1	.38	75	.022	1	1.34	.001	.12	.1	.01	1.8	.1	<.05	3	<.5	15.0
R1	2.4	29.6	14.3	35	.1	23.7	15.8	212	3.12	16.1	.6	10.7	7.8	12	.1	.7	.6	16	.10	.036	36	10.8	.28	55	.018	1	.97	.010	.07	.1	.01	2.3	<.1	<.05	2	<.5	15.0
R2	1.3	16.8	16.0	43	.1	21.7	11.2	212	2.39	7.8	.5	3.5	5.1	19	.1	.3	.5	20	.19	.027	22	11.2	.28	135	.051	2	2.07	.014	.11	.1	.01	2.2	.1	<.05	5	<.5	15.0
R3	1.3	15.2	17.4	56	.1	22.3	13.3	885	2.55	6.8	.5	10.6	4.3	23	.2	.4	.4	21	.34	.051	21	12.0	.32	220	.036	2	1.72	.003	.18	.1	.02	2.4	.1	<.05	5	<.5	15.0
STANDARD D55	12.3	148.6	25.7	144	.3	25.3	13.1	804	3.08	18.9	6.4	44.1	3.1	53	5.8	3.9	6.3	63	.79	.098	15	188.0	.68	144	.108	21	2.10	.034	.16	4.6	.18	3.8	1.2	<.05	8	4.7	15.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

ACME ANALYTICAL LABORATORIES LTD.  
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852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

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GEOCHEMICAL ANALYSIS CERTIFICATE

Ruby Red Resources Inc. PROJECT EDDY/LOOSE LEG File # A303291

207 - 239 - 12th Ave S.W., Calgary AB T2R 1H6 Submitted by: Peter Klewchuk

SAMPLE#	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	W	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb
L-03-1	70	72	3559	1033	11.8	41	168	221	7.16	346	8	<2	4	3	5.8	8	5	10	.01	.010	22	4	.03	14	<.01	<3	.24	<.01	.15	3	595.5
L-03-2	106	752	>9999	4834	17.6	30	10	653	9.80	133	<8	<2	8	376	77.7	101	6	10	2.62	.096	6	17	1.32	26	<.01	<3	.29	.07	.06	<2	713.2
L-03-3	55	809	2413	1130	8.7	9	3	81	3.30	88	<8	<2	2	41	7.7	57	<3	3	.13	.026	3	3	.04	14	<.01	<3	.08	.02	.03	<2	43.0
L-03-4	4	50	264	366	1.3	9	3	1691	3.33	4	<8	<2	4	612	4.1	12	<3	7	6.97	.017	1	4	3.27	14	<.01	<3	.04	.01	.02	<2	38.0
L-03-5	2	10	37	28	<.3	69	13	976	2.62	13	<8	<2	7	163	.5	4	<3	5	3.39	.030	6	8	1.10	48	<.01	<3	.20	.01	.03	<2	42.0
RE L-03-5	2	10	36	27	<.3	67	13	951	2.56	10	<8	<2	4	159	.5	3	<3	5	3.31	.029	6	8	1.07	48	<.01	<3	.20	.01	.03	<2	34.0
L-03-6	1	117	41	35	2.5	11	3	1250	2.77	2	<8	<2	3	1176	1.1	4	3	13	6.55	.033	3	13	2.71	31	<.01	<3	.04	.02	.01	<2	56.4
L-03-7	18	61	48	28	1.2	73	27	342	3.03	55	<8	<2	12	62	<.5	8	<3	27	1.35	.049	37	16	.37	253	<.01	<3	1.15	.02	.22	<2	194.5
L-03-8	65	2403	>9999	872	134.5	9	1	25	4.67	183	<8	<2	7	91	40.1	207	10	1	.05	.027	1	1	.02	59	<.01	<3	.03	.02	.03	<2	415.3
L-03-9	9	83	2586	44	1.7	40	36	926	4.77	4	<8	<2	10	197	.9	8	4	27	4.02	.153	15	14	1.98	337	<.01	<3	1.21	.01	.14	<2	705.5
L-03-10	9	175	1455	294	2.4	210	128	784	19.01	154	<8	<2	9	17	1.3	8	7	3	.33	.031	4	2	.13	30	<.01	<3	.25	.01	.09	<2	42.0
L-03-11	15	510	457	1640	.8	149	34	427	14.83	446	10	<2	9	27	.5	<3	14	11	.06	.098	10	13	.09	30	<.01	4	.63	.03	.11	<2	20.6
L-03-12	2	26	271	94	1.0	8	5	2390	3.61	3	<8	<2	5	349	.7	7	<3	2	5.22	.019	1	4	1.70	22	<.01	<3	.05	<.01	.01	<2	74.0
STANDARD DS5/AU-R	13	143	24	139	<.3	25	12	771	3.02	19	<8	<2	3	49	5.7	4	7	61	.77	.089	11	191	.68	140	.10	17	2.09	.04	.13	4	470.5

GROUP JD - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.  
 UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.  
 ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB  
 - SAMPLE TYPE: ROCK R150 60C AU\* IGNITED, ACID LEACHED, ANALYZED BY ICP-MS. (15 gm)  
 Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 8, 2003 DATE REPORT MAILED: Aug 27/03 SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD.  
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GEOCHEMICAL ANALYSIS CERTIFICATE

Ruby Red Resources Inc. PROJECT LOOSE LEG File # A303665

207 - 239 - 12th Ave S.W., Calgary AB T2R 1H6 Submitted by: Peter Klewchuk

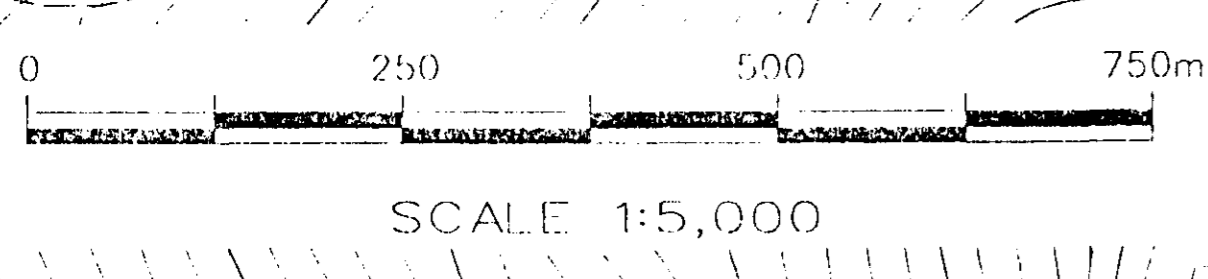
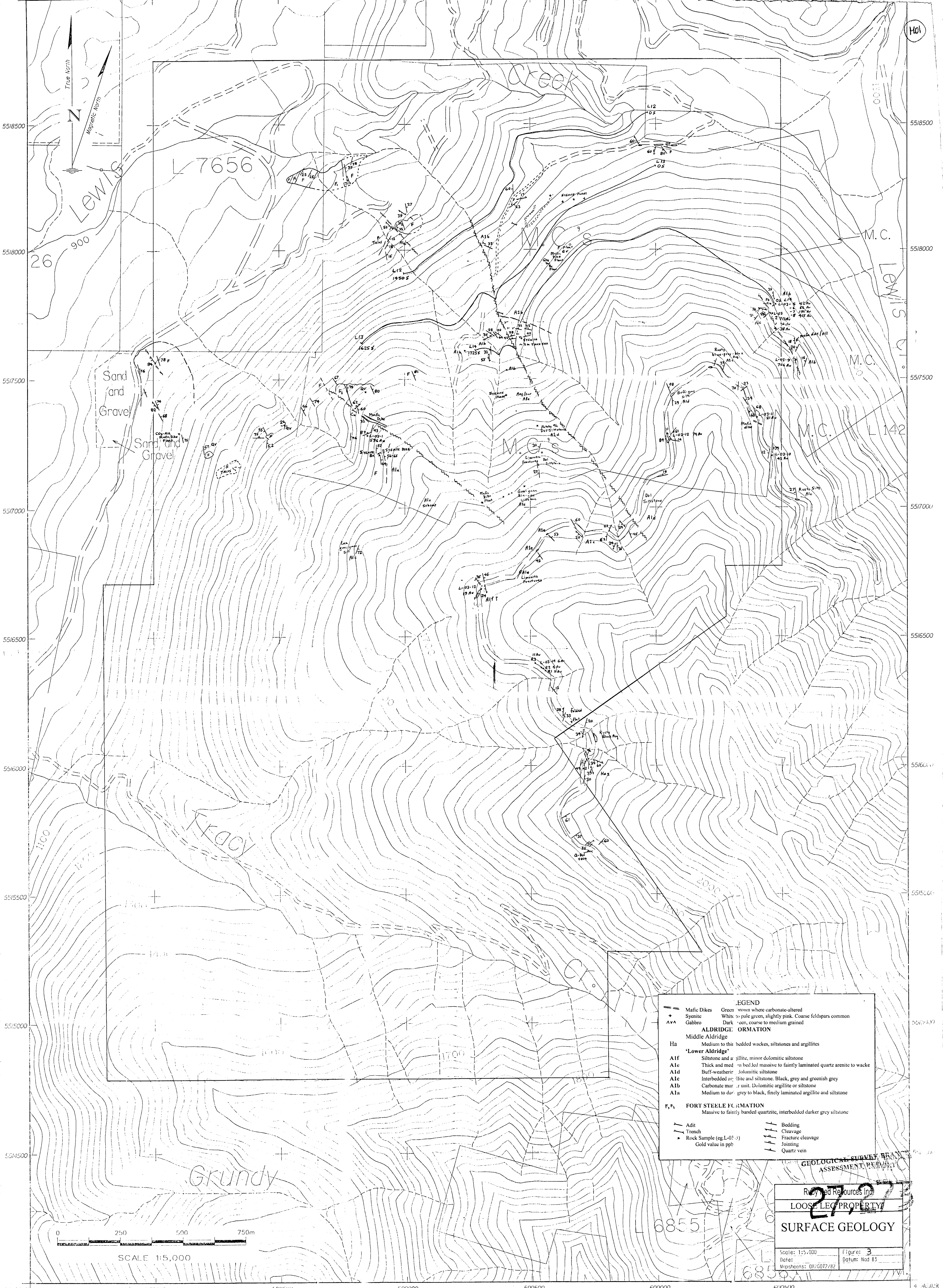
SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb
SI	<1	1	<3	3	<.3	<1	<1	2	.07	<2	<8	<2	<2	2	<.5	<3	<3	<1	.06	<.001	<1	<1	.01	3	<.01	<3	.01	.36	.01	<2	.6
L-03-13	8	254	33	32	<.3	45	36	92	19.51	330	<8	<2	17	74	<.5	<3	13	18	.10	.207	30	19	.39	25	<.01	<3	1.23	.04	.07	<2	19.2
L-03-14	1	321	5	8	1.1	37	21	59	3.07	88	<8	<2	4	11	<.5	<3	<3	2	.02	.035	16	6	.01	15	<.01	<3	.15	.12	.02	<2	5.7
L-03-15	10	13	5	90	.4	18	8	2332	6.96	3	<8	<2	<2	1320	1.5	4	<3	21	7.73	.053	4	3	3.18	25	<.01	<3	.05	.01	.04	<2	28.0

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Date: N/A

Appendix 2. Geochemical Analyses of Rock Samples

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LEGEND	
—	Mafic Dikes
+	Syenite
▲	Gabbro
—	Green brown where carbonate-altered
—	White to pale green, slightly pink. Coarse feldspars common
—	Dark green, coarse to medium grained
ALDRIDGE FORMATION	
Middle Aldridge	
Ha	Medium to thin bedded wackes, siltstones and argillites
'Lower Aldridge'	
A1f	Siltstone and argillite, minor dolomitic siltstone
A1c	Thick and medium bedded massive to faintly laminated quartz arenite to wacke
A1d	Buff-weathering dolomitic siltstone
A1e	Interbedded argillite and siltstone. Black, grey and greenish grey
A1b	Carbonate marl unit. Dolomitic argillite or siltstone
A1a	Medium to dark grey to black, finely laminated argillite and siltstone
FORT STEELE FORMATION	
F <sub>1</sub>	Massive to faintly banded quartzite, interbedded darker grey siltstone
—	Adit
—	Trench
●	Rock Sample (eg. L-07-3)
—	Gold value in ppb
—	Bedding
—	Cleavage
—	Fracture cleavage
—	Jointing
—	Quartz vein

GEOLOGICAL SURVEY OF CANADA  
ASSESSMENT REPORT

Royed Resources Inc.  
**LOOSE LEG PROPERTY**  
**27,073**

**SURFACE GEOLOGY**

Scale: 1:5,000	Figure: 3
Date:	Datum: Nad 83
Map sheets: 08/0072/82	