## $=$ RTETVTM vañouvéa, C .

# 2002 Assessment Report <br> Dog Claim Group <br> Nelson M. D., B.C. 

M. A. Kaufman

Oct. 1, 2002

## Table of Contents

Introduction (Incl. Location,Access, Previous Work,and 2002 Programme): -----------------------------------------------pp. $1-2$Geological Summary:pp. 2-3
Report on 2002 Work: ..... pp. 3-4
Conclusions: ..... p. 5
Statement of Qualifications ..... p. 6
Statement of Costs: ..... in pocket
Assay Certificates: in pocket
Lists of GPS waypoints and coordinates: in pocket
Property Location and Claim Map, 1: 20,000 Scale, in pocket
2002 1:5000 and 1:2000 scale Progress Maps,
and Orvana 1997 1:5000 scale soils geochem, in pocketMajor invoices/receipts, in pocket

## Introduction

The described area is situated approximately 10 km NNW of Salmo, B. C. along the southern and central branches of Craigtown Creek. Access is via the Erie Creek Forestry Road to the Craigtown Creek bridge and then by the B. C. forestry - Erie Creek Forest Reserves Ltd. road which follows the southern branch of Craigtown Creek.

Extensive gold in soils anomalies are located on the Stewart Claim Group (Stewart multi unit claims \#1 and 6-8) jointly owned by Eric and Jack Denny, and on the Dog Claim Group owned by M. A. Kaufman, which is contiguous on the west with the Stewart claims.

The first known exploration of this area was during the late 1970 s and early ' 80 s, when B. P. - Selco surveyed the whole Stewart Claim Group with an aerial Input EM and Mag survey. Neither these results nor their ground follow up inspired them to carry out further work here. Portions of these gold anomalies were first recognized by Minnova during the late "80s simultaneous with discovery of western portions of it by myself working as a contractor for Lacana/Corona. Reassaying of previously gathered government survey samples released by the B.C.D.E.M. in the early ' 90 s also indicated significantly anomalous gold in the sediment of the south branch of Craigtown Creek. Minnova subsequently carried out soils geochemical surveys followed by an I.P./ mag. geophysical survey. This work delineated extensive areas of anomalous gold with coincident I.P. highs which were designated by Minnova as the "North" and "South" anomalies. Corona carried out a geological and sampling program west of the Stewart Property on the original Dog Claims. Corona found sporadically anomalous gold in widespread rock samples, and interpreted it to represent "porphyry" type mineralization. Before they were able to carry out systematic sampling, corporate problems forced them to drop their claims. Similarly, Minnova in the early " 90 s was forced to relinquish the Stewart Property before ever drilling any targets.

During the early " 90 s, the Stewart Claim Group was optioned by Cameco Corp. It drilled four core holes in the northern portion of Minnova's "North Anomaly", and carried out further sampling on the "South Anomaly". The holes cut significantly anomalous gold, but no meaningful ore intercepts, and Cameco pulled out. During this time I acquired the Dog Claims and expanded them. As some of the Minnova soils anomalies along with high I.P. responses appeared to be open to the west, I was prompted to carry out soils sampling south of where Corona had previously sampled. These results proved encouraging. Based upon the facts that there were still promising drill targets on the Stewart portion of the anomaly and that the target appeared to be open to the west, Orvana Minerals Corp. optioned both the Stewart and Dog Claim Groups, and carried out comprehensive geological mapping, geochemical sampling and a VLF Em and Mag survey during 1996 and 1997. Orvana's work delineated additional gold anomalies on the Stewart claims, and large areas of anomalous gold on the Dog claims. These recently discovered anomalies cover an area at least as large as the original Minnova anomalies. Overall, the area of gold anomalies now appears to extend more than three km. in a NNE direction, and up to one km . across. Some of the recently discovered gold anomalies contain coincidental copper, and/or lead. One contains coincidental arsenic. Based upon its work, Orvana selected a number of drill targets. Because of the terrible market conditions in 1997 Orvana was reluctantly forced to relinquish its options on the claim groups without being able to undertake any drilling.

During 1998 I carried out an evaluation of all previous work. This involved systematic geological traverses over all of the geochemically anomalous areas, and preparation of

1:5000 scale maps which integrate the past I.P. data with all of the geochemical data. As well, I contracted Lloyd Geophysics Inc. to reevaluate its VLF/Mag data in areas where there is old I.P. coverage, and in light of Orvana's geochem. information. The purpose of this work was to evaluate Orvana's drill hole selections, possibly to select other drill sites, and to determine what other further exploration might be appropriate. During 1999 and 2000 I contracted Walcott and Associates to carry out I.P. surveys which extended previously detected anomalies westward. 2001 work involved new geochemical soils surveys west of previous coverage on the NW part of the Dog Claims, and GPS surveys to better locate previously discovered anomalies in the South Boundary area. In the NW area, lead anomalies with sporadic coincident gold were found. the work in the SW Boundary area suggested that the extensive gold anomalies here might trend NNW, and be related to steep fracture zones which could extend for a kilometre or more to the NW. The detailed results of past work are described in Assessment Reports 26675, 26399, 26049, 25702, 25388, 24789, 24123, 23537, 23092, 23018, 22829.

After a brief geological summary mainly excerpted from past assessment reports, particularly \# 25702 and 26675, this report will describe the results of the 2002 work.

## Geology Summary

Most of the Craigtown Creek gold anomalous area is situated on the south slopes of the ridge dividing the southern and central branches of the creek. But significant anomalous zones are also found on the north slope of this ridge, and on the north facing slope south of the south branch. The overall zone of gold anomalies is known to extend over a distance of three km. in a NNE direction, and is generally at least several hundred metres across. It is not one continuous anomaly, but some of the zones within it are more than one km. long. Perhaps the area's most distinguishing feature from the point of geological interpretation is its general lack of outcrop. Most geological interpretations made by past workers have been based upon float or upon widely scattered, very small outcrops.

In most general terms I would describe the area's geology as follows. The area is underlain by Elise volcanics, mostly intermediate to basic composition. Fragmental units are common within this volcanic section. A widespread rock type recognized by past workers is andesitic tuff. Bodies of augite porphyry and fine grained "diorite" found in the area might be coeval with the Elise. Possibly, other intrusions might also be related in time to the Elise. Large intrusions of acidic to intermediate composition located mostly in the western part of the claims and further west are thought to be Nelson Intrusions. Small, elongate felsic bodies and "plugs" recognized by Orvana could possibly be anything from Elise age to Coryell. Minnova cores show that there are probably some felsic tuff interbeds within the Elise section.

In my mapping I have found no discernible bedding features in the small outcrops that I have seen, nor have I seen any clear formational contacts, except for a few in the Minnova drill cores. Accordingly, I must say that structural interpretation is at best conjectural. Aerial photos show a WNW linear trend which likely represents a fracture system. This same pattern is seen at the Arlington Relief Mine located a few kilometres NW of this area. The general NNE trend of the geochemical anomalies might indicate some kind of structural or stratigraphic control. Patterns evident on all geophysical maps (VLF, Mag and I.P.) indicate general N - S trends which likely reflect overall formational strikes. A narrow NNE trending relative low saddle seen on the B. C. government areal magnetic map (\# 8480G) roughly coincidental with our anomalous zones might be caused by structure or stratigraphy.

Orvana has noted several types of mineralization; widespread disseminated pyrite/pyrrhotite with minor chalcopyrite in all rock types except late dykes, magnetite stockwork associated mainly with felsic rocks, and vein-type (quartz-pyrite, and massive pyrite-pyrrhotite-chalcopyrite).

All of the past geological interpretations have emphasized the presence of an alkalic porphyry system. The widespread disseminated sulfides seen can be interpreted as being porphyry in style, but I believe that the mineral occurrence here is better explained by possible strata-bound mineralization in the volcanics affected by contact metamorphism and/or metasomatism, as well as enhanced sulfides in the intrusives in proximity to contact zones. Further to the showings of breccia described on p. 6 of the 1999 assessment report 26409; the 2000 work found one outcrop of monzonite which is distinctively cut by this type of breccia, indicating that the breccia and related mineralization are later than the monzonite. This, of course, indicates a possible later stage of mineralization than the intrusive-volcanic contact zones.

During 2001, Three reconnaissance geochemical lines, $A, A A$ and $B$ were put in and sampled in the NW portion of the Dog Claims, the purpose of which was to prospect an area west of past coverage above where Orvana previously had picked up some anomalous gold in float and moss mat samples. As well, geological mapping was conducted on these new lines and along new logging trails in this area. And a more detailed look was undertaken of the "Walcott Zone C" portion of the South Boundary Anomaly area, including GPS surveying to better locate important features. Detailed descriptions of this work are given in 2001 Assessment Report \# 26675. In summary; some areas of anomalous lead and gold were found in the NW area: To the north of this area, some Rossland-style fissure occurrences were mapped: And mapping on the South Boundary Anomaly suggested a NNW trend probably controlled by extensive, steeply dipping fracture zones which might join with gold anomalies to the NW.

## Discussion of 2002 Work

Again, because of limited available budget, exploration continued at a slow-motion pace. Soils sampling was carried out on two new lines, C and D, south of 2001 line AA in the NW area to test for possible extension of gold and lead anomalies found in 2001. Also, old Orvana lines 8000 N and 8200 N were extended and sampled from their former west ends at approximately stations 5500 E , west to approximately 4900 E , the purpose being to determine whether an anomalous sample detected on Orvana's old line $8100 \mathrm{~N}, 5010 \mathrm{E}$ had any extent to the N or S . In addition, detailed and fill in sampling was conducted around very high Orvana gold samples at line $8600 \mathrm{~N}, 5850 \mathrm{E}$ and line $8300 \mathrm{~N}, 5680 \mathrm{E}$. Both during 2001 and during our 2002 programme, we conducted GPS surveys of many of the old Orvana lines, and reinstated them where they were obliterated. Found in the appendix of this report are data sheets giving GPS locations of these points. The results of all the 2002 work can be seen on the accompanying 1:5000 and 1:2000 progress maps. On these maps all lines shown are plotted based upon the 2001 and 2002 GPS surveying. These 2002 maps show only Au and or Pb assay results pertinent to the 2002 work, and have not been contoured, as this is a work in progress. For reference, a copy of Orvana's 1997 1:5000 scale Au soils geochem map showing their whole Dog and Stewart survey is enclosed in the pocket. A small amount of geological investigation was undertaken in recently logged areas.

Now just some brief comments on the results of the 2002 work.
In regard to lines C and D in the NW area; the trend of anomalous Pb appears to continue
southward along with sporadic anomalous Au. I have not done geological follow-up here yet, so I don't know what, if any, significance these low anomalies might indicate.

In regard to follow-up of Orvana's 1550 ppb Au found on line $8600 \mathrm{~N}, 5850 \mathrm{E}$; samples taken 3 m to the $E$ and $W$ showed anomalous $A u$, but nothing of the magnitude of the original sample. New lines at 8650 N and 8550 N showed consistently anomalous Au. It is probable that the high sample represents a nugget effect as might be expected in soils. However, the consistently anomalous gold found in the area along with the I.P. response makes this an interesting drill target area. The favourability of this area is enhanced by Orvana's anomalous rock samples seen on line 8500 N . The rock is a very coarse andesitic fragmental, some fragments being up to $1 / 2$ metre width. (Results of this work are shown on the enclosed 1:2000 map.)

In regard to follow-up of Orvana's 1055 ppb Au found on line 8300N, 5580E; samples 3 m to the $E$ and $W$ were weak, and samples on new lines 8350 N and 8250 N failed to turn up anything of interest. The high sample probably represents only an isolated gold grain.

In regard to extensions of lines 8000 N and 8200 N , and follow-up on Orvana line 8100 N , 5010 E ; at $8000 \mathrm{~N}, 5500 \mathrm{E}$ a soil sample assayed 602 ppb Au , and a rerun assayed 88 ppb Au. This might be of interest, as a sample on trend to the north on line $8100 \mathrm{~N}, 5460 \mathrm{E}$ assays 280 ppb Au (see enclosed 1:2000 South Boundary Anomaly map). Orvana sample $8100 \mathrm{~N}, 5010 \mathrm{E}$ contained 590 ppb Au. A 2002 sample taken 3 M to the east was weak, but a sample located 3 M to the west (5007E) assayed 350 ppb Au. So this probably represents more than erratic grains. Moreover, anomalous assays on 2002 extension lines $8000 \mathrm{~N}, 5080 \mathrm{E}$, and $8200 \mathrm{~N}, 5020 \mathrm{E}$ ( 119 ppb Au and 84 ppb Au respectively) might indicate a possible northerly linear trend to this anomaly (refer to enclosed 1:5000 2002 Progress Map).

In regard to miscellaneous rock sample assays; two samples which were actually taken in late 2001 were assayed. For detail, refer to enclosed Acme assay report \# A201913. They are labeled WP 54 and WP 58. Locations can be seen on the enclosed 1:5000 2002 Progress Map. WP 54 is at 0475142E,5459298N, and WP 58 is at 0475570E, 5458071 N (NAD 83). WP 54 is gossan float probably from a nearby but unexposed Rossland-style fissure. It assayed 41 ppb Au , and had high values in Mo (791 ppm, Cu and As ( 764 ppm ). WP 58 is a grab sample from a very small outcrop of sheared, silicified rock in an extensive area of anomalous gold in soils. It assayed 25 ppb Au.

In regard to geological investigations, no outcrop was found in recently logged areas. However, GPS surveying of a portion of old Orvana line 8900N gave an accurate location for a roughly coincidental EM conductor and Pb/As geochem anomaly at approx. 5130E to 5150 E on this line. When properly located this anomaly appears to be located approx. 150 M SE of an old prospect pit which exposes narrow massive sulfide fissures. It could be on strike with the strongest of these showings seen in the pit.

## Conclusions

As the 2002 work is part of an incomplete programme to be continued, it is not definitively conclusive. In general, it supports past conclusions that integrated geochemical and geophysical data has delineated drill targets in the Boundary Anomaly area centered at line 8500 N . Much of the 2002 work was designed to search for for possible apexing high grade fissure lodes. Possibly, the trends(?) indicated by high soils anomalies in the extensions of lines 8000 and 8200 N , and follow-up on line 8100 N might indicate this type of potential, as could the EM/geochem. anomaly mentioned above on line 8900N.

In summary then, we have through past geophysical and geochemical work developed two drill target areas respectively in the Boundary and South Boundary areas, as described in 1999 through 2001 Assessment Reports 26675, 26399 and 26049. A lot more detailed soils geochem and GPS surveying, similar to that done in 2002, is required to delineate possible Rossland-type fissure lodes.

## M. A. Kaufman



Oct. 1, 2002


## Statement of Qualifications

I, M. A. Kaufman hereby state that I have worked as a mining geologist and mining
engineer for 45 years.
I received an A, B, degree in geology from Dartmouth College in 1955, and an M. S. degree in geology and mining engineering from the University of Minnesota in 1957.

I am currently registered as a Professional Engineer/Geologist in the province of British Columbia.

From the period 1955-1965 I worked for the major companies Kennecott Copper Corp., Giant Yellowknife Gold Mines (Falconbridge), Kerr-McGee, and Hunting Survey Corp., Ltd. I then worked independently as a consultant and contractor, mainly for major companies. From 1969 through 1988, I was a principal of the consulting and contracting firm of Knox, Kaufman, Inc. From 1989 to present I have worked as an independent consultant and prospector.
M. A. Kaufman


## Horst 2002 Dog Invoice

Hi Mo
Have received your message about the pay. Joel and myself we take the first option where you use the discount rate and use US funds.

Here is the Bill:
Joel Ackert
Box 187
Salmo.B.C
Canada
VOG 1 ZO
Contract Labour on Dog Property:
7 days @ Can \$ 120.00
Total 840.00
Horst Klassen
Box 172
Salmo,B.C.
Canada
VOG 120
Contract Labour and Supplies on Dog Property

| 8 days @ Can \$250.00 | 2000.00 |  |
| :--- | ---: | :--- |
| Mileage $341 \mathrm{~km} @ .30$ | 102.30 |  |
| 2102.30 | Subtotal |  |
| $7 \%$ GST \# 897051264RT on 2102.30 |  |  |
|  | Total | \$ Can |

2249.46

Mo, I hope that this to your satisfaction, everything is taken care of .
The samples are on there way via Greyhound to ACME Labs in Vancouver.They should arrive Sunday morning at the Terminal in Vancouver and they will pick them up.I have sendt them collect as I did last year. I laid a copy of the instructions inside each of the two boxes, but you have given them your specific instructions already by phone. Hope that you get very encouraging results and are on your way of developing a Mine.

Best Regards

Horst

## STATEMENT

## CONTRACT WORK ON DOG CLAIMS

Horst Klassen 2 days @ \$250.00/day ..... \$ 500.00
Mileage 92 km @ . 30 ..... \$ 27.00
Sub Total ..... \$ 527.00
7\% GST \# R897051264 ..... \$ 36.89
Reimbursement for bank fees from previous invoice ..... $\$ 50.00$
Total ..... \$ 614.49
Joel Ackert 2days @ \$ 120.00/day ..... \$ 240.00
Grand Total ..... \$ 854.49


FILE \# A201912 \& A201913

COPIES 1 E-DATA 1

$$
\begin{aligned}
&{ }^{4} 9611.351 .5 . \times 1.5504 t D N \\
& 1.55 c 4
\end{aligned}={ }^{57} 1495.12 \mathrm{CDN}
$$

ACME ANALYTICAL LABORATORIES LTD.
852 East Hastings,, Vancouver, B.C., CANADA V6A 1R6
Phone: (604) 253-3158 Fax: (604) 253-1716

KAUFMAN, M.A.
P.O. Box 14336

Spokane, WA
U.S.A. 99214

Inv.\#: A202991
Date: Aug 262002

| QTY | ASSAY | PRICE | AMOUNT |
| :---: | :---: | :---: | :---: |
| 17 | GROUP 1DA (10 gm) @ | 8.65 | 147.05 |
| 17 | SS80-SOIL @ | 1.15 | 19.55 |
|  | GREYHOUND W/B \# 13295006583 (CDN\$ 17.30) |  | $\begin{gathered} 166.60 \\ 11.30 \end{gathered}$ |
|  | U.S. \$ $\rightarrow$ |  | 177.90 |

COPIES 1

$$
\text { Sil77.90 U.5. } \times 1.5385=\$ 273.69 \text { CDN }
$$

| SAMPLE\# | Mo Cu <br> ppm ppm | $\begin{array}{rr} \mathrm{Pb} & 2 n \\ \mathrm{ppnn} & \mathrm{ppm} \end{array}$ | $\begin{array}{r} \mathrm{Ag} \\ \mathrm{ppm} \end{array}$ | $\begin{array}{lr} \mathrm{g} & \mathrm{Ni} \\ \mathrm{n} & \text { ppom } \end{array}$ | Co <br> ppm | $\begin{array}{r} \mathrm{Mn} \\ \mathrm{ppm} \end{array}$ | $\begin{gathered} \mathrm{Fe} \\ \mathrm{n} \\ \hline \end{gathered}$ | As <br> Ppin | u |  | $\begin{aligned} & \text { in } \\ & b \text { ppm } \end{aligned}$ | $\begin{array}{r} \mathrm{Sr} \\ \mathrm{ppm} \end{array}$ | $\begin{gathered} \mathrm{cd} \\ \mathrm{ppm} \end{gathered}$ | $\begin{array}{r} \mathrm{sb} \\ \mathrm{ppm} \end{array}$ | $\begin{gathered} \text { Bi } \\ \text { ppm } \end{gathered}$ | $\begin{array}{r} v \\ \text { pprm } \end{array}$ | $\begin{gathered} \mathrm{Ca} \\ \% \end{gathered}$ |  | $\begin{array}{r} \text { La } \\ \text { pp } \end{array}$ | $\begin{gathered} \mathrm{Cr} \\ \mathrm{ppm} \end{gathered}$ | $\begin{gathered} \mathrm{Mg} \\ \% \end{gathered}$ | $\begin{gathered} \mathrm{Ba} \\ \mathrm{ppfn} \end{gathered}$ | $\begin{array}{r} \mathrm{Ti} \\ \% \end{array}$ |  | $\begin{gathered} \mathrm{Al} \\ \mathbf{x} \end{gathered}$ | $\mathrm{Na}$ | $\begin{aligned} & K \\ & \% \end{aligned}$ | $\begin{array}{r} \mathrm{W} \\ 6 \mathrm{ppm} \end{array}$ | $\begin{array}{r} \mathrm{Hg} \\ \mathrm{ppm} \end{array}$ | $\begin{array}{r} \mathrm{Sc} \\ \mathrm{ppm} \end{array}$ | $\begin{array}{rr} 11 & S \\ \text { ppm } & X \end{array}$ | $\begin{array}{r} \mathrm{Ga} \\ \mathrm{ppm} \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G-1 | 1.12 .4 | 2.140 | <. 1 | 4.4 | 3.6 | 477 | 1.47 | < 5 | 2.5 | $<.5$ | 4.3 | 60 | < 1 | <. 1 | . 2 | 37 | . 51 | . 090 | 7 | 16.9 | . 45 | 206 | . 110 | 1 | . 79 | . 062 | 42 | 1. | < 01 | 1.9 | . $3<.05$ | 4 |
| L8650N 5790E | . 9221.4 | 21.5111 | . 4 | 19.7 | 22.7 | 1363 | 5.20 | 7.0 | . 5 | 23.3 | 1.4 | 45 | . 8 | . 7 | . 3 | 135 | . 49 | . 301 | 10 | 30.7 | 1.05 | 248 | . 116 | $<1$ | 2.66 | . 015 | . 25 | . 3 | . 03 | 6.1 | 2<.05 | 9 |
| L8650n 5820E | 1.1260 .4 | 23.9101 | . 7 | 23.2 | 24.7 | 1750 | 5.24 | 9.3 | . 6 | 116.3 | 1.0 | 69 | 1.0 | 1.2 | . 4 | 139 | . 95 | . 141 | 11 | 39.0 | 1.13 | 215 | . 127 | 2 | 2.68 | . 009 | 26 | . 3 | . 05 | 5.7 | 2<.05 | 8 |
| L8650N 5850E | . 7217.1 | 9.896 | . 3 | 319.8 | 23.0 | 1190 | 5.84 | 5.0 | . 6 | 66.3 | 31.5 | 51 | . 3 | 7 | . 3 | 150 | . 54 | . 280 | 10 | 31.1 | 1.08 | 249 | . 147 |  | 3.10 | . 010 | 23 | . 2 | 02 | 5.1 | 2<.05 | 10 |
| L8650N 5880E | 1.0219 .3 | 10.793 | . 6 | 621.5 | 20.4 | 687 | 4.71 | 5.4 | . 6 | 48.3 | 2.1 | 34 | . 3 | . 7 | .3 | 115 | . 45 | . 259 | 9 | 31.5 | . 92 | 216 | . 130 | 1 | 3.00 | . 010 | . 19 | . 3 | . 05 | 4.9 | . $1<.05$ | 9 |
| L8650N 5910E | 1.0239 .8 | 10.4106 | . 3 | 30.7 | 22.1 | 1026 | 4.96 | 6.1 | . 3 | 63.4 | 1.5 | 35 | . 4 | . 7 | . 3 | 128 | . 38 | . 254 | 7 | 32.2 | 1.00 | 267 | . 117 | 2 | 2.40 | . 009 | 17 | . 2 | . 03 | 4 | 1<.05 | 8 |
| L8650N 5940E | 1.3207 .9 | 16.1119 | . 3 | 27.4 | 23.7 | 879 | 5.31 | 8.3 | . 4 | 62.2 | 1.5 | 38 | . 6 | . 9 | . 3 | 123 | . 39 | . 217 | 6 | 40.2 | 1.07 | 197 | . 148 | 2 | 2.94 | . 009 | . 21 | . 4 | . 04 | 4.8 | . $2<.05$ | 10 |
| L8650N 5970E | . 8151.3 | 13.795 | . 3 | 328.6 | 19.4 | 787 | 4.08 | 10.1 | . 5 | 61.4 | 41.6 | 40 | . 5 | . 7 | . 3 | 100 | . 43 | . 207 | 6 | 39.0 | . 85 | 189 | 116 | 2 | 2.57 | . 010 | . 15 | . 3 | 04 | 3.9 | . $2<.05$ | 8 |
| L8650N 6000E | 1.3191 .2 | 10.989 | . 2 | 244.4 | 23.6 | 524 | 4.53 | 17.3 | . 4 | 114.1 | 11.9 | 35 | . 6 | . 9 | . 3 | 109 | . 42 | . 151 | 8 | 60.6 | 1.06 | 155 | . 124 | 2 | 2.54 | . 010 | . 19 | . 4 | . 03 | 4.2 | . $2<.05$ | 7 |
| L8600N 5847E | 1.5341 .9 | 20.8110 | 1.2 | 24.9 | 25.0 | 1582 | 5.46 | 10.0 | . 7 | 61.9 | 9.9 | 80 | . 9 | 1.2 | . 4 | 148 | . 96 | . 162 | 20 | 45.4 | 1.11 | 226 | . 123 | 3 | 2.94 | . 011 | . 30 | . 3 | . 07 | 7.7 | . $2<.05$ | 9 |
| L8600N 5853E | 1.2303 .1 | 13.5112 | . 9 | 26.7 | 26.5 | 1688 | 5.72 | 7.8 | . 9 | 61.2 | 21.2 | 64 | . 9 | 1.0 | . 3 | 151 | . 84 | . 176 | 15 | 47.0 | 1.22 | 234 | . 141 | 3 | 3.25 | . 010 | . 31 | 1.2 | . 05 | 7.1 | . $2<.05$ | 11 |
| L8550N 5790E | . 8130.6 | 17.7113 | . 4 | 418.3 | 21.7 | 1353 | 5.60 | 6.3 | . 3 | 27.8 | 81.2 | 54 | . 5 | . 6 | . 3 | 147 | . 56 | . 197 | 6 | 35.8 | . 75 | 282 | . 158 | 2 | 2.17 | . 012 | . 12 | . 3 | . 02 | 3.9 | . $1<.05$ | 9 |
| L8550n 5820e | . 8145.2 | 16.499 | . 5 | 521.5 | 22.2 | 1078 | 5.15 | 6.4 | . 4 | 42.6 | . 1.6 | 33 | . 4 | . 6 | . 2 | 136 | . 34 | . 245 | 7 | 40.8 | . 80 | 192 | . 148 | 1 | 2.79 | . 010 | . 12 | . 3 | . 04 | 4.0 | . $1<.05$ | 8 |
| L8550N 5850E | . 8277.3 | 9.3104 | . 3 | 323.2 | 23.7 | 626 | 6.47 | 6.2 | . 4 | 104.1 | 11.5 | 43 | . 4 | . 8 | . 3 | 174 | . 55 | . 316 | 8 | 35.6 | 1.27 | 243 | . 158 | 2 | 2.74 | . 010 | . 25 | . 3 | . 02 | 6.0 | . $1 \times .05$ | 9 |
| L8550N 5880E | 1.1161 .0 | 10.7101 | . 4 | 429.5 | 24.9 | 997 | 5.03 | 11.5 | . 5 | 75.4 | 41.9 | 42 | . 5 | . 7 | . 3 | 126 | . 44 | . 366 | 7 | 53.5 | 1.00 | 164 | . 147 | 3 | 2.94 | . 011 | . 23 | 3.3 | . 04 | 5.1 | . $2<.05$ | 9 |
| L8550N 5910E | . 7129.3 | 10.7130 | . 4 | 453.9 | 27.6 | 1220 | 3.99 | 14.3 | . 5 | 32.1 | 11.8 | 32 | . 7 | . 6 | . 3 | 82 | . 31 | . 304 | 7 | 88.5 | . 96 | 202 | . 140 | 2 | 3.12 | . 012 | . 17 | . 3 | . 04 | 4.3 | . $2<.05$ | 9 |
| L8550N 5940E | 1.2167 .1 | 22.3142 | . 4 | 436.4 | 22.9 | 1471 | 4.63 | 17.4 | . 4 | 40.6 | 61.6 | 44 | 1.1 | 1.1 | . 4 | 107 | . 36 | . 187 | 9 | 57.9 | 1.03 | 229 | . 123 |  | 2.78 | . 009 | . 19 | . 2 | . 03 | 4.3 | . $2<.05$ | 8 |
| L8550N 5970E | 1.093 .3 | 9.879 | . 3 | 24.8 | 19.7 | 1105 | 4.40 | 8.0 | . 4 | 53.9 | 91.4 | 37 | . 3 | . 7 | . 3 | 107 | . 35 | . 097 | 8 | 43.1 | . 69 | 174 | . 135 | 2 | 2.15 | . 010 | . 10 | . 4 | . 04 | 3.2 | . $2<.05$ | 8 |
| L8550n 6000E | 1.2138 .8 | 14.5147 | . 3 | 34.4 | 20.8 | 1089 | 4.29 | 14.9 | . 5 | 40.3 | 2.1 | 34 | . 6 | . 7 | . 3 | 99 | . 33 | . 231 | 7 | 49.3 | . 92 | 207 | . 151 |  | 3.07 | . 011 | . 15 | . 3 | . 05 | 4.3 | . $2<.05$ | 10 |
| RE L8550N 6000E | 1.0142 .2 | 14.8151 | . 3 | 36.8 | 22.7 | 1140 | 4.22 | 15.3 | . 6 | 31 | 12.3 | 35 | . 6 | . 8 | . 3 | 100 | . 33 | . 236 | 7 | 54.9 | . 93 | 219 | . 153 | 3 | 3.13 | . 011 | . 15 | . 4 | . 03 | 4.5 | . $2<.05$ | 10 |
| L8350n 5490e | . 9141.2 | 21.5134 | 4 | 421.8 | 21.4 | 1593 | 4.71 | 9.7 | . 6 | 19.0 | 1.8 | 37 | . 5 | . 8 | . 4 | 122 | . 31 | . 239 | 7 | 31.5 | . 99 | 209 | . 152 |  | 2.87 | . 012 | . 16 | . 4 | . 05 | 5.7 | . $2<.05$ | 13 |
| L8350N 5520E | . 8164.4 | 18.1. 122 | . 4 | 435.8 | 23.7 | 1273 | 4.39 | 8.8 | . 6 | 29.5 | 51.9 | 33 | . 5 | . 6 | . 3 | 115 | . 32 | . 207 | 9 | 54.0 | . 95 | 158 | . 135 | 2 | 2.82 | . 009 | . 18 | . 4 | . 04 | 5.2 | . $1<.05$ | 9 |
| L8350N 5550E | . 9114.3 | 17.188 | . 3 | 325.5 | 20.2 | 922 | 3.94 | 10.6 | . 5 | 34.6 | 62.0 | 35 | . 5 | . 7 | . 3 | 101 | . 31 | . 221 | 6 | 41.5 | . 72 | 144 | . 140 | 2 | 2.65 | . 013 | . 12 | . 4 | . 05 | 3.9 | . $1<.05$ | 9 |
| L8350n 5580E | 1.287 .0 | 31.688 | . 4 | 426.1 | 22.4 | 2112 | 3.73 | 8.5 | . 5 | 20.4 | 41.3 | 40 | . 5 | 1.0 | . 4 | 98 | . 37 | . 121 | 6 | 43.6 | . 67 | 233 | . 142 | 3 | 2.44 | . 012 | . 11 | . 3 | . 06 | 3.6 | . $1<.05$ | 10 |
| L8350N 5610E | . 9100.4 | 17.7105 | . 5 | 30.2 | 22.0 | 1071 | 4.64 | 9.8 | .4 | 32.8 | 82.0 | 36 | . 2 | . 8 | . 3 | 119 | . 34 | . 271 | 7 | 50.8 | . 84 | 213 | . 140 | 3 | 2.63 | . 011 | . 12 | . 5 | . 03 | 4.3 | . $1<.05$ | 10 |
| L8350n 5640E | . 777.6 | 16.0108 | . 3 | 31.2 | 18.1 | 1769 | 4.55 | 8.7 | . 4 | 18.3 | 31.3 | 47 | . 3 | . 4 | . 2 | 115 | . 43 | . 303 | 7 | 34.0 | . 66 | 188 | . 097 |  | 2.12 | . 009 | . 11 | . 3 | . 02 | 2.9 | . $1<.05$ | 7 |
| L8350n 5670E | . 779.1 | 26.6112 | . 7 | 726.4 | 17.5 | 1719 | 4.43 | 10.2 | . 5 | 321.9 | 1.4 | 47 | . 4 | . 6 | . 2 | 114 | . 44 | . 204 | 10 | 39.7 | . 72 | 249 | . 109 |  | 2.45 | . 010 | . 10 | . 2 | . 05 | 3.5 | . $1<.05$ | 9 |
| L8350n 5700E | . $5 \quad 99.0$ | 19.9127 | . 3 | 32.1 | 21.8 | 901 | 6.20 | 8.7 | . 4 | 21.1 | 11.6 | 62 | . 5 | .4 | . 3 | 165 | . 59 | . 384 | 7 | 31.9 | . 84 | 189 | . 136 | 3 | 2.52 | . 010 | . 12 | . 3 | . 05 | 3.9 | . $1<.05$ | 9 |
| L8350N 5730E | . 6128.3 | 25.9127 | . 3 | 340.0 | 23.7 | 902 | 5.32 | 10.8 | . 4 | 33.9 | 2.0 | 41 | . 3 | . 7 | . 2 | 134 | . 50 | . 251 | 10 | 59.5 | 1.04 | 238 | . 129 | 3 | 2.46 | . 008 | . 13 | . 3 | . 01 | 4.7 | . $1<.05$ | 9 |
| L8350N 5760E | 1.1149 .6 | 22.7122 | . 3 | 328.1 | 123.2 | 970 | 6.20 | 9.9 | . 4 | 24.6 | 61.7 | 40 | .4 | . 8 | . 4 | 166 | . 42 | . 214 | 8 | 41.2 | 1.03 | 204 | . 161 | 3 | 2.84 | . 009 | . 16 | . 4 | . 03 | 5.5 | . $1<.05$ | 11 |
| L8350N 5790E | . 9151.4 | 11.7135 | . 3 | 319.3 | 20.8 | 668 | 5.85 | 6.3 | . 5 | 44.5 | 51.8 | 42 | . 4 | . 6 | . 4 | 155 | . 51 | . 311 | 8 | 28.8 | 1.00 | 209 | . 158 |  | 2.86 | . 010 | . 19 | . 3 | . 03 | 6.2 | . $1<.05$ | 10 |
| L8350n 5820E | . 8170.0 | 22.8105 | . 4 | 429.2 | 22.4 | 826 | 5.16 | 9.4 | . 5 | 56.6 | 62.3 | 36 | . 4 | . 8 | . 6 | 134 | . 42 | . 264 | 11 | 46.8 | 1.00 | 236 | . 144 | 3 | 2.92 | . 009 | . 16 | . 4 | . 02 | 5.5 | . $1<.05$ | 9 |
| L8300N 5577E | . $6 \quad 90.1$ | 26.1116 | . 3 | 317.0 | 16.9 | 1340 | 3.53 | 11.9 | . 5 | 17.3 | 32.1 | 54 | 1.0 | . 7 | . 3 | 83 | . 39 | . 569 | 6 | 25.2 | . 47 | 293 | . 116 | 3 | 2.75 | . 012 | . 12 | . 3 | . 04 | 4.2 | . $1<.05$ | 9 |
| L8300N 5583E | . 7111.8 | 15.6107 | . 4 | 419.8 | 18.9 | 1181 | 4.02 | 13.0 | . 6 | 18.8 | 81.7 | 59 | . 3 | . 6 | . 3 | 103 | . 61 | . 325 | 8 | 27.5 | . 68 | 264 | . 130 | 2 | 2.86 | . 016 | . 11 | . 4 | . 04 | 4.8 | . $1<.05$ | 10 |
| STANDARD DS3 | 9.0119 .1 | 32.9157 | . 3 | 335.9 | 11.2 | 791 | 3.16 | 29.0 | 6.1 | 18.9 | 93.6 | 25 | 6.0 | 5.2 | 5.1 | 70 | . 52 | . 091 | 16 | 172.4 | . 53 | 146 | . 082 | 3 | 1.70 | . 028 | . 15 | 3.7 | . 22 | 3.4 | 1.2<. 05 | 6 |

GROUP 1DA - 10.0 GM SAMPLE LEACHED WITH $60 \mathrm{ML} 2-2-2 \mathrm{HCL}-\mathrm{HNO}-\mathrm{H} 20$ AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML , ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, $W=100 \mathrm{PPM}$; MO, CO, CD, $S B, B I, T H, U \& B=2,000 \mathrm{PPM} ; \mathrm{CU}, \mathrm{PB}, \mathrm{ZN}, \mathrm{N}, \mathrm{MN}, \mathrm{AS}, \mathrm{V}, \mathrm{LA}, \mathrm{CR}=10,000 \mathrm{PPM}$.

- SAMPLE TYPE: SOIL SS80 60C Samples beginning' RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUN 242002 DATE REPORT MAILED: 0 wl $8 / 02$


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


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


GROUP 1DA - 10.0 GM SAMPLE LEACHED WITH $60 \mathrm{ML} 2-2-2 \mathrm{HCL}-\mathrm{HNO} 3-\mathrm{H} 2 \mathrm{O}$ AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS. UPPER LIMITS - AG, AU, $H G, W=100 \mathrm{PPM}$; MO, $\mathrm{CO}, \mathrm{CD}, \mathrm{SB}, \mathrm{BI}, \mathrm{Th}, \mathrm{U} \& \mathrm{~B}=2,000 \mathrm{PPM} ; \mathrm{CU}, \mathrm{PB}, \mathrm{ZN}, \mathrm{NI}, \mathrm{MN}, \mathrm{AS}, \mathrm{V}, \mathrm{LA}, \mathrm{CR}=10,000 \mathrm{PPM}$. - SAMPLE TYPE: ROCK R150
dAte received: Jun 242002 date report mailed: 0 uly $10 / 02$ signed by. $:$.....p. roye, c.leong, j. wang; certified b.c. assayers


GROUP IDA - 10.0 GM SAMPLE LEACHED WITH $60 \mathrm{ML} 2-2-2$ HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML , ANALYSED BY ICP-MS.
UPPER LIMITS - $A G, A U, H G, W=100 \mathrm{PPM} ; \mathrm{MO}, \mathrm{CO}, \mathrm{CD}, \mathrm{SB}, \mathrm{BI}, \mathrm{TH}, \mathrm{U} \& \mathrm{~B}=2,000 \mathrm{PPM} ; \mathrm{CU}, \mathrm{PB}, \mathrm{ZN}, \mathrm{NI}, \mathrm{MN}, \mathrm{AS}, \mathrm{V}, \mathrm{LA}, \mathrm{CR}=10,000 \mathrm{PPM}$.

- SAMPLE TYPE: SOIL SS80 60C Samples beginning' 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 132002 DATE REPORT MAILED:
$A y, 6 / 02$ same och
D. TOME, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

|  | A | B |
| :---: | :---: | :---: |
| 1 | Dog 02 Assess. Rept. GPS Waypoint Locations list |  |
| 2 | For Waypoints refer to hand printed pages |  |
| 3 | Waypoint No.* | Grid Location** |
| 4 | 100 | post at road and baseline,8000N. 6000 E |
| 5 | 101 | $7900 \mathrm{~N}, 5880 \mathrm{E}$ where line crosses road |
| 6 | 102 | $7800 \mathrm{~N}, 5760 \mathrm{E}$ where line crosses road |
| 7 | 103 | $7800 N, 5610 E$ |
| 8 | 104 | $7850 \mathrm{~N}, 5610 \mathrm{E}$, in draw |
| 9 | 105 | $7900 \mathrm{~N}, 5640 \mathrm{E}$ |
| 10 | 106 | $7950 \mathrm{~N}, 5640 \mathrm{E}$ |
| 11 | 107 | $8000 \mathrm{~N}, 5640 \mathrm{E}$ |
| 12 | 108 | $8100 \mathrm{~N}, 5610 \mathrm{E}$ |
| 13 | 109 | not on line or station |
| 14 | 110 | $8300 \mathrm{~N}, 5790 \mathrm{E}$ |
| 15 | 111 | $8300 \mathrm{~N}, 5640 \mathrm{E}$ ? |
| 16 | 112 | $8300 \mathrm{~N}, 5580 \mathrm{E}$ station established |
| 17 | 113 | 8350 N, 5580 E establish new line |
| 18 | 114 | E end of new 8350 N line |
| 19 | 115 | $8250 \mathrm{~N}, 5580 \mathrm{E}$ establish new line |
| 20 | 116 | 8250 N,5490E new line |
| 21 | 117 | 8250N,5670E new line |
| 22 | 118 | 8250 N, 5700 E new line |
| 23. | 119 | west end of new line 8350 N |
| 24 | 120 | 8050N,6000E |
| 25 | 121 | $8100 \mathrm{~N}, 6000 \mathrm{E}$ |
| 26 | 122 | $8200 \mathrm{~N}, 6000 \mathrm{E}$ |
| 27. | 123 | $8300 \mathrm{~N}, 6000 \mathrm{E}$ |
| 28 | 124 | 8400N,6000E |
| 29 | 125 | $8500 \mathrm{~N}, 6000 \mathrm{E}$ |
| 301 | 126 | $8500 \mathrm{~N}, 5850 \mathrm{E}$ |
| 31 | 127 | $8600 \mathrm{~N}, 5850 \mathrm{E}$ |
| 32 | 128 | $8650 \mathrm{~N}, 5850 \mathrm{E}$ establish new line |
| 33 | 129 | W end of new line 8650 N |
| 34 | 130 | E end of new line 8650 N |
| 35 | 131 | 8550N.5850E establish new line |
| 36 | 132 | W end of new line 8550 N |
| 37 | 133 | E end of new line 8550 N |
| 38 | 134 | 8200N,5880E |
| 39 | 135 | $8200 \mathrm{~N}, 5700 \mathrm{E}$ |
| 40 | 136 | $8200 \mathrm{~N}, 5500 \mathrm{E}$ |
| 41 |  |  |
| 42 | *Surveyed by Horst Klassen |  |
| 43 | ** Orvana 1996-1997 grid based on Nad 27 |  |
| 44 | *** Lettered designated lines done 2001-2002 |  |














