| LOG NO: 12-31 | RD. |
| --- | --- |
| ACTION: | |
| FILE NO: | |

COMINCO LTD.

EXPLORATION
NTS 82F /7, 10

WESTERN DISTRICT

# ASSESSMENT REPORT
# GEOLOGY AND GEOCHEMISTRY

## WALL 1-12, ASSURANCE, EXPERIMENT, BALD MTN., MONTANA, ECHO, CELEBRATION, DAVE 1-5, SANDY 1, ORMONDE, UMPIRE MINERAL CLAIMS AND MONTANA FRACTION CROWN GRANT

BOSWELL AREA, B.C.

NELSON MINING DIVISION

LATITUDE; 49 34'

LONGITUDE; 116 40'

OPERATOR; COMINCO LTD.

OWNER; E.DENNY, J. DENNY, D. WIKLUND, H. DAVIES



NOVEMBER 26, 1990

N. J. CALLAN

Part 1 of 2

TABLE OF CONTENTS

COMINCO LTD.

EXPLORATION — WESTERN DISTRICT

ASSESSMENT REPORT
GEOLOGY AND GEOCHEMISTRY

WALL-DAVE CLAIM GROUPS

## 1.0 SUMMARY

The Wall-Dave claim groups were optioned by Cominco in 1989. Spectacular vein and replacement Pb, Zn, Ag, Ba mineralization is locally associated with U. Proterozoic age dolomites and dolomite conglomerates of the Mt. Nelson and Toby formations, respectively. Argillaceous units within the Mt. Nelson formation also host minor disseminated and veinlet sphalerite and galena mineralization. Previously identified elevated Zn and Pb values in residual soils developed over these argillites were confirmed. Re-sampling and analysis of drill core obtained by Norcen in 1981 identified erratic, low Zn and Pb values in argillite intercepts.

## 2.0 LOCATION, PHYSIOGRAPHY AND ACCESS

The property is located on the E. side of Kootenay Lake, approximately 12 kms. NE of Boswell, B.C., and lies at the headwaters of La France Ck.(Fig. 1). The area is one of rugged relief with elevations ranging from 1500 m to 2400 m. Vegetation comprises locally dense stands of lodgepole pine, spruce, fir and hemlock, with alpine meadow above the 2150 m elevation. Valleys have been extensively logged with numerous clear-cuts.

Old logging roads along the N. side of La France Ck. provide four wheel-drive access from Highway 3A. Haulage and skidder roads access the S. part of the property. A steep four wheel-drive road facilitates access up to a cabin at 2200 m on the N. part of the property.

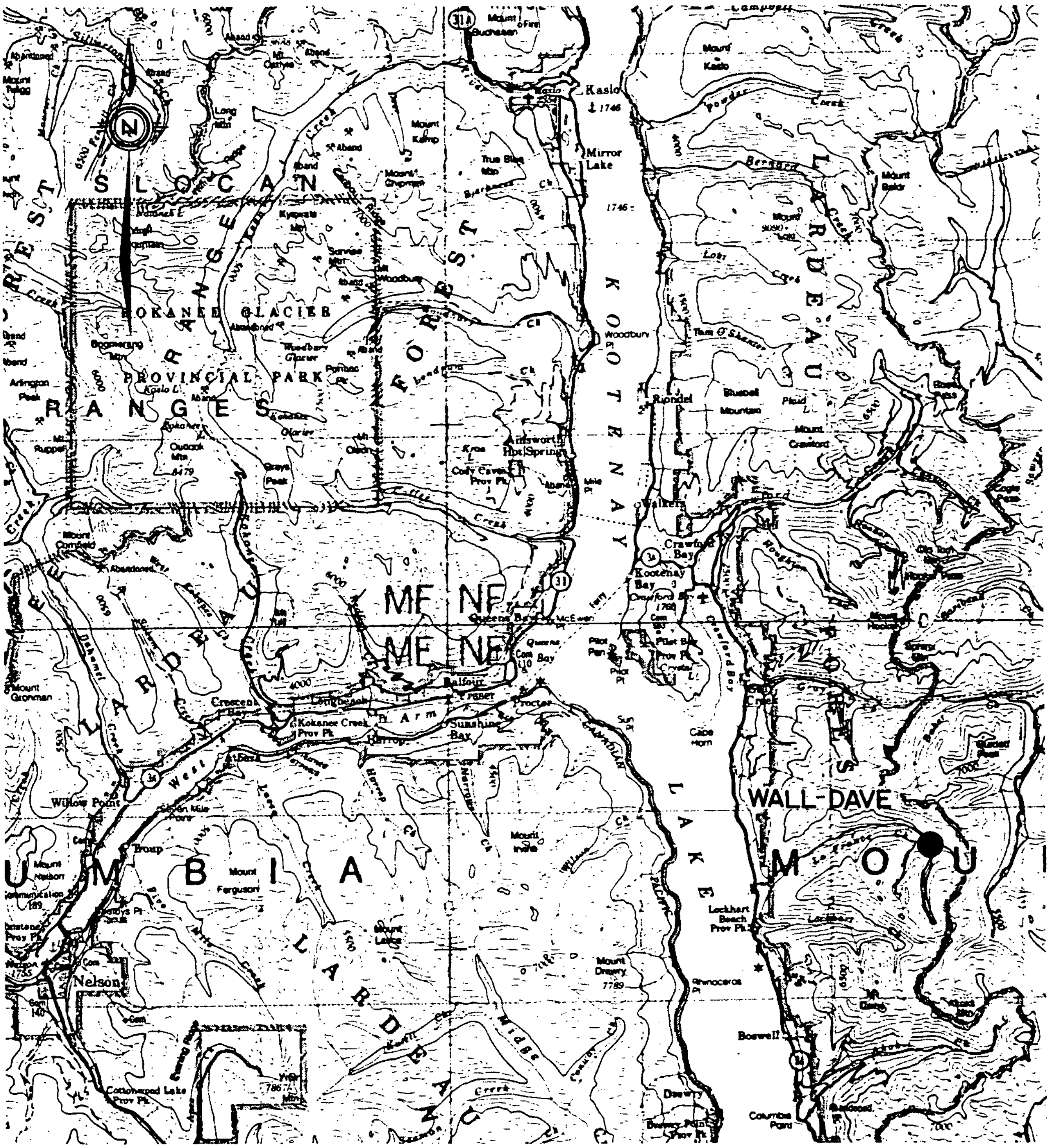
The extensive ridge systems provide excellent, continuous outcrop. Exposure in the valley floors is poor to non-existent.

## 3.0 PROPERTY

The Wall-Dave property comprises two contiguous claim groups totalling 26 claims (47 units) and one crown grant (Table 1). The location of these claims is shown in Figure 2. Cominco Ltd. optioned the property from E. Denny, J. Denny, D. Wiklund and H. Davies subject to a Letter of Intent dated November 27, 1989.

## 4.0 PREVIOUS WORK

The Wall group covers a number of Pb, Zn, Ag showings dating back to 1890. These showings were developed prior to 1926 by over 650




0 5 10 15 20 25 km

| Drawn by: NJC | | Traced by: | | WALL-DAVE PROPERTY LOCATION MAP | |
|---|---|---|---|---|---|
| Revised by | Date | Revised by | Date | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | Scale: 1: 312,500 | Date: | Plate: FIGURE 1 |

NCI - 112A - CL

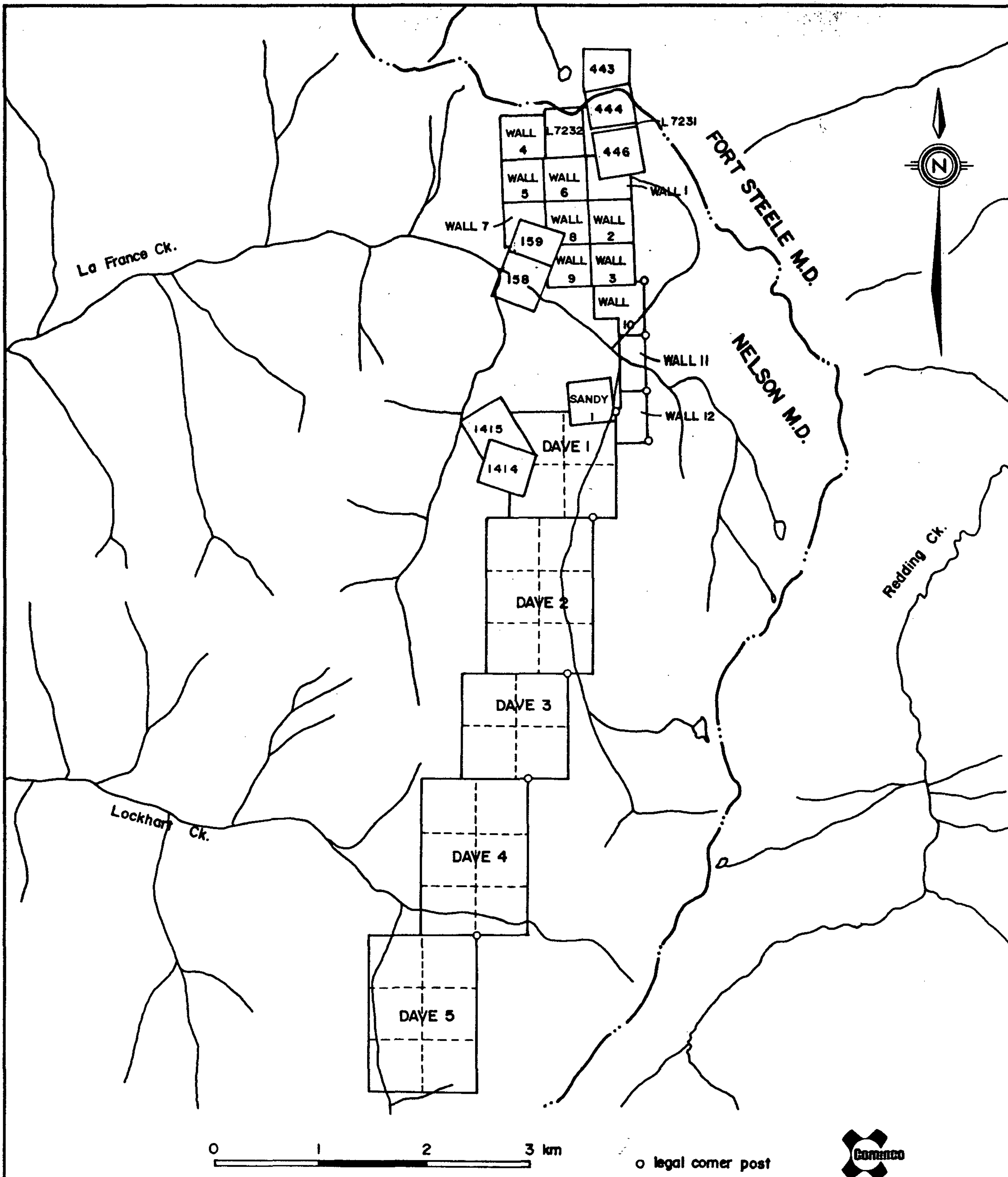
210-0610

## TABLE 1: CLAIM DATA

| CLAIM NAME | RECORD # | UNITS | ANNIVERSARY DATE |
|---|---|---|---|
| **Wall Group** | | | |
| Assurance | 158 | 1 | 6/1/92 |
| Experiment | 159 | 1 | 6/1/92 |
| Bald Mtn. | 443 | 1 | 19/3/92 |
| Montana | 444 | 1 | 19/3/92 |
| Echo | 445 | 1 | 29/5/92 |
| Celebration | 446 | 1 | 29/5/92 |
| Wall 1 | 15538 | 1 | 17/7/92 |
| 2 | 15539 | 1 | 17/7/92 |
| 3 | 15616 | 1 | 4/11/91 |
| 4 | 15617 | 1 | 4/11/91 |
| 5 | 15618 | 1 | 4/11/91 |
| 6 | 15619 | 1 | 4/11/91 |
| 7 | 15620 | 1 | 4/11/91 |
| 8 | 15621 | 1 | 4/11/91 |
| 9 | 15622 | 1 | 4/11/91 |
| 10 | 5966 | 1 | 20/9/90 |
| 11 | 5967 | 1 | 20/9/90 |
| 12 | 5968 | 1 | 20/9/90 |
| **Dave Group** | | | |
| Sandy 1 | 15611 | 1 | 25/10/91 |
| Ormonde | 1414 | 1 | 14/1/91 |
| Umpire | 1415 | 1 | 14/1/91 |
| Dave 1 | 216 | 4 | 7/6/91 |
| 2 | 220 | 6 | 21/6/91 |
| 3 | 221 | 4 | 21/6/91 |
| 4 | 222 | 6 | 21/6/91 |
| 5 | 481 | 6 | 12/7/91 |

CROWN GRANT

Montana Fraction L. 7231




| Drawn by: | | Traced by: NJC | | WALL DAVE PROPERTY CLAIM MAP |
|---|---|---|---|---|
| Revised by | Date | Revised by | Date | |
| | | | | |
| | | | | |
| | | | | |
| | | | | NTS 82 F 10, 7 |

| Scale: 1:10,000 | Date: | Plate: FIGURE 2 |
|---|---|---|

NCI · 112A · CL

210-0610

m of drifting in two adits at the Snow King mine (Echo claim) and three adits at the Chicago mine (Montana claim). Much of the adjacent ground was staked in 1971 by E. Denny as the Peg group and subsequently re-staked in 1974 as the Wall 1-9. In 1975 the six crown grants were acquired by E.Denny. Mapping, soil geochemistry, geophysics (magnetometer and HLEM survey) and underground mapping/chip sampling were carried out on the Wall group in 1976 by Serem Ltd. Extensive work was done on the property from 1978 to 1982 whilst under option to Dekalb Ltd. of Calgary including 1477 m of drilling, two mapping programmes, extensive soil geochemistry and an I.P. survey.

The Sandy 1 and Dave 1-5 claims were staked by D. Wiklund and H. Davies between 1974 and 1977. Prospecting and soil geochemistry were performed over this time. The Ormonde and Umpire reverted crown grants, the latter including the umpire adit driven in the early 1900's, were acquired in 1980. Eight short holes were drilled on the Sandy 1 in 1979. In 1980 Norcen Ltd. carried out gridding, geological mapping, soil geochemistry, VLF-EM and magnetometer surveys, and trenching/channel sampling on the Dave group. Follow up in 1981 included gridding, a VLF-EM survey and trenching on the Sandy 1 claim, together with detailed mapping, stripping and 478m of drilling on the Dave 3 and Dave 4 claims.

The two claim groups were combined into a contiguous series of claims with the staking of the Wall 10-12 claims in the fall of 1989.

## 5.0 SUMMARY OF WORK DONE, 1990

The 1990 programme (see Fig. 3) comprised 30.2 kms of linecutting, 4 $km^2$ of 1:2,500 scale geological mapping, 35 $km^2$ of 1:10,000 scale geological mapping, soil geochemistry (163 samples), rock sampling (50 samples) and re-sampling of the 1981 Norcen drill-core (100 samples). The work was performed over the period July to September, 1990, inclusive.

## 6.0 REGIONAL GEOLOGY

The regional geology of the Boswell-Crawford Bay area has been described by Rice (1941) and Reesor (1983). A succession of U. Proterozoic clastic and carbonate sedimentary rocks of the Purcell and Windermere Supergroups form the W. limb of the broad N-S trending, N. plunging Purcell Anticlinorium. A regional unconformity between the Purcell and Windermere Supergroups is overlain by texturally and compositionally variable conglomeratic strata of the Toby Formation. Metamorphism is of greenschist to locally amphibolite grade. Lying to the E are higher metamorphic grade late Proterozoic to Mesozoic rocks of the Kootenay Arc.

## 7.0 PROPERTY GEOLOGY

### Stratigraphy

Stratigraphic units in the immediate Wall-Dave vicinity include the Creston, Kitchener, Dutch Ck. and Mt. Nelson Formations of the Helikian age Purcell Supergroup. Unconformably overlying these units and showing progressive over-step to the south of the property are the Toby and Horsethief Ck. Formations of Hadrynian age (Fig. 4). Facing directions are westerly. Mafic sills commonly intrude the sequence. The locally conglomeratic nature of chloritic schists occurring within the Toby Formation suggests that these schists are of volcanic origin and represent the Irene Volcanic Formation in this area.

Previous studies have suggested that the Wall-Dave property is underlain by Dutch Ck. stratigraphy. The distinctive Mt. Nelson basal quartzite (Rice, 1941; Reesor, 1983) lies on the E margin of the property (Fig. 5, 6) indicating that the property is underlain by, and the associated mineralization hosted in, Mt. Nelson and younger stratigraphy.

### Structure

General strike of stratigraphy within the property area is NNW to NNE. Bedding on the N part of the property is typically steeply overturned to the E. In the S half, bedding shows moderate to steeply W dips. Local variations in strike and dip are associated with folds. A penetrative bedding-parallel cleavage is defined in more argillaceous lithologies by preferred orientation of phyllitic grains.

Two fold generations are recognized. Occasionally observed are early, close to tight, cm to m scale folds showing steep N and S plunging axes. Axial surfaces are concordant with general stratigraphy. Axial planar cleavage associated with these folds is also concordant with, and probably related to, the bedding-parallel cleavage. Ubiquitous second-phase (F2) folds (see Figs. 4, 5 and 7) comprise mm to 100 m scale, open to tight folds with consistent shallow to moderate NW to NNW plunges. Axial surfaces trend NW and dip moderately to the E. Fold asymmetry indicates E vergence throughout the mapped area. A moderate E dipping close-spaced to spaced cleavage (S2) is associated with the F2 folds, commonly appearing as a crenulation cleavage resulting from re-folding of the earlier bedding-parallel cleavage.

Extensive faulting patterns proposed in previous studies were not substantiated. Local mylonitic fabrics and stratigraphic ommission, however, attest to ductile shearing focussed particularly within the upper Mt. Nelson and lithologically complex Toby formations. Mylonitic zones are locally folded by F2 structures, and truncated by later E dipping ductile shears, suggesting a complex tectonic history. Asymmetric, rotated clasts in mylonitic Toby conglomerate suggest a reverse, E side-up component of displacement on some of these E dipping structures. These structures may account for the complex juxtaposition of lithologies within the Toby formation on the W side of the Wall group.

## 8.0 MINERALIZATION

Two styles of mineralization are observed on the property. Occurring locally within dolomitic units of the Mt. Nelson Formation (Figs. 5 and 6; Hmn 4, Hmn 7, Hmn 8) and dolomite conglomerate of the Toby Formation (Ht 3) is vein and replacement galena, sphalerite, pyrite and tetrahedrite mineralization. Associated gangue includes quartz, calcite, barite, Fe-carbonate, and locally fluorite. 1990 grab samples from the Lockhart Ck. area contained up to 1.65% Zn and 32.2% Pb. Mineralization comprises networks of veins, stringers and irregular pods. Both simple veins and more complex composite veins (i.e. several depositional episodes) are recognized. Galena, sphalerite, tetrahedrite and pyrite occur within the veins as fine- to coarse-grained, irregular to elongate selvages, bands and pods. Veins appear to be structurally controlled, with the two principal vein-sets showing orientations corresponding with bedding and S2 spaced fractures in the host dolomite. Extensive micro-veining is present in the wallrock adjacent to the veins. Wallrock alteration includes silicification, calcitic alteration and impregnation with disseminated euhedral pyrite and locally minor galena.

Possibly related to this mineralization (i.e., of hydrothermal origin) is the distinctive dolomite breccia mapped locally within unit Hmn 4 (Figs. 5 and 6). Detailed study of this material in drill core suggests that the breccia "matrix" is a network of diffuse calcite veinlets and associated calcitic alteration, with less altered dolomite forming "clasts".

Sphalerite and minor galena mineralization occurs within argillites (Figs. 5 and 6; unit Hmn 5) directly overlying the Hmn 4 dolomite unit. Mineralization occurs as deformed quartz, pyrite, sphalerite and galena bearing veinlets parallel to cleavage fabrics. In rare cases, sphalerite disseminations are associated with calcareous laminae in the argillite. Rock chip samples from the argillite returned best values of 0.24% Zn and 0.08% Pb. Similar values were obtained in drill-core samples.

## 9.0 GEOCHEMISTRY

A total of 163 "B" horizon soil samples were taken at 25 m intervals on two grids on the Dave 1 and Dave 2 claims (Fig. 8) Samples were placed in Kraft envelopes, air dried and submitted to Acme Laboratories Ltd. of Vancouver, B.C. for 30 element ICP analysis. Analyses are included in Appendix C. Results for zinc and lead are plotted in figures 9 and 10.

In addition, 50 rock samples and 100 drill-core samples were submitted to the Cominco Exploration Research Laboratory in Vancouver for Cu, Pb, Zn, Au, and Ag analysis by AA and quick quantitative ICP methods. Rock sample locations are shown in figures 4, 5, 6 and 11. Core sample locations are listed in Appendix B and analyses are plotted on the attached drill sections (Figs. 12, 13, 14 and 15). All analytical data are appended.

## 10.0 CONCLUSIONS

Pb-Zn mineralization, occurring predominantly in the U. Proterozoic Mt. Nelson Formation, comprises not only well documented dolomite-hosted vein/replacement type, but also minor argillite-hosted disseminated and metamorphic veinlet type mineralization. Soil geochemistry shows elevated Zn and Pb values locally associated with the argillite. Rock chip and drill-core sampling of the argillite suggests that associated mineralization is weak and erratic.

## 11.0 REFERENCES


Hoy, T., 1982: The Purcell Supergroup in southeastern British Columbia: sedimentation, tectonics and stratiform lead-zinc deposits, in Precambrian Sulphide Deposits, H.S. Robinson Memorial Volume; Hutchinson, R.W., Spence, C.D. and Franklin, J.M., eds., Geological Association of Canada Special Paper 25.

Rice, H. M., 1941: Nelson Map Area, East Half, British Columbia; Geological Survey of Canada, Memoir 228.

Reesor, J.E., 1983: Bedrock geology; Kaslo, Crawford Bay and Boswell, southeastern British Columbia, Geological Survey of Canada Open File 929, 12p.



Report by: N J Callan

N. J. Callan
Geologist II

Approved for release by: W. J. Wolfe

W. J. Wolfe
Manager, Exploration-
Western Canada


November 26, 1990

# APPENDIX A

## STATEMENT OF EXPENDITURES

| | | |
|---|---|---|
| **Staff costs:** | | |
| Permanent; | N.Callan 83 days @ $200/day | 16,600 |
| | D.Anderson 8 days @ $300/day | 2,400 |
| Temporary; | R.van Egmond 74 days @ $160/day | 11,840 |
| | R.Rubiano 11 days @ $160/day | 1760 |
| Domicile | | 9979 |
| Linecutting: | | |
| D.Calder; 23.6 km @ $525/km | | 12,013 |
| S.Wills; 7.38 km @ $525/km | | 3,875 |
| Soil sampling: | S.Wills; 1 day @ $200/day | 200 |
| Geochemistry: | analyses, thin sections | 2,817 |
| Transportation: | 4X4 truck rental | 3,632 |
| | vehicle repairs | 1,000 |
| Fuel | | 1,050 |
| Freight | | 381 |
| Office/drafting supplies | | 2,938 |
| | TOTAL | 70,485 |

## APPENDIX B

## CORE SAMPLE METERAGES

| SAMPLE # | FROM | TO |
|---|---|---|
| 81K1-1 | 4.57 | 5.5 |
| 81K1-2 | 5.5 | 6.5 |
| 81K1-3 | 6.5 | 7.5 |
| 81K1-4 | 7.5 | 8.5 |
| 81K1-5 | 8.5 | 9.5 |
| 81K1-6 | 9.5 | 10.5 |
| 81K1-7 | 10.5 | 11.5 |
| 81K1-8 | 11.5 | 12.5 |
| 81K1-9 | 12.5 | 13.5 |
| 81K1-10 | 13.5 | 14.5 |
| 81K1-11 | 14.5 | 15.5 |
| 81K1-12 | 15.5 | 19.5 |
| 81K1-13 | 19.5 | 20.5 |
| 81K1-14 | 20.5 | 21.5 |
| 81K1-15 | 21.5 | 22.5 |
| 81K1-16 | 22.5 | 23.5 |
| 81K1-17 | 23.5 | 24.5 |
| | | |
| 81K3-0 | 7.0 | 8.0 |
| 81K3-1 | 8.0 | 8.5 |
| 81K3-2 | 8.5 | 9.0 |
| 81K3-3 | 9.0 | 9.5 |
| 81K3-4 | 9.5 | 10.0 |
| 81K3-5 | 10.0 | 10.5 |
| 81K3-6 | 10.5 | 11.0 |
| 81K3-7 | 11.0 | 11.5 |
| 81K3-8 | 11.5 | 12.0 |
| 81K3-9 | 12.0 | 12.3 |

| SAMPLE # | FROM | TO |
|---|---|---|
| 81K5-1 | 0.0 | 9.0 |
| 81K5-2 | 9.0 | 10.0 |
| 81K5-3 | 10.0 | 11.0 |
| 81K5-4 | 11.0 | 12.0 |
| 81K5-5 | 12.0 | 13.0 |
| 81K5-6 | 13.0 | 14.0 |
| 81K5-7 | 14.0 | 15.0 |
| 81K5-8 | 15.0 | 16.0 |
| 81K5-9 | 16.0 | 17.0 |
| 81K5-10 | 17.0 | 18.0 |
| 81K5-11 | 18.0 | 19.0 |
| 81K5-11B | 19.0 | 20.0 |
| 81K5-12 | 20.0 | 21.0 |
| 81K5-13 | 21.0 | 23.0 |
| 81K5-14 | 23.0 | 24.0 |
| 81K5-15 | 24.0 | 25.0 |
| 81K5-16 | 25.0 | 26.0 |
| 81K5-17 | 26.0 | 27.0 |
| 81K5-18 | 27.0 | 28.0 |

| SAMPLE # | FROM | TO |
|---|---|---|
| 81K6-1 | 4.9 | 6.0 |
| 81K6-2 | 6.0 | 7.0 |
| 81K6-3 | 7.0 | 8.0 |
| 81K6-4 | 8.0 | 9.0 |
| 81K6-5 | 9.0 | 10.0 |
| 81K6-7 | 10.0 | 11.0 |
| 81K6-8 | 11.0 | 12.0 |
| 81K6-9 | 12.0 | 13.0 |
| 81K6-10 | 13.0 | 14.0 |
| 81K6-11 | 14.0 | 15.0 |
| 81K6-12 | 15.0 | 16.0 |
| 81K6-13 | 16.0 | 17.0 |
| 81K6-14 | 17.0 | 18.0 |
| 81K6-15 | 18.0 | 19.0 |
| 81K6-16 | 19.0 | 20.0 |
| 81K6-17 | 20.0 | 21.0 |
| 81K6-18 | 21.0 | 22.0 |
| 81K6-19 | 22.0 | 23.0 |
| 81K6-20 | 23.0 | 24.0 |
| 81K6-21 | 24.0 | 25.0 |
| 81K6-22 | 25.0 | 26.0 |
| 81K6-23 | 26.0 | 27.0 |
| 81K6-24 | 27.0 | 28.0 |
| 81K6-25 | 28.0 | 29.0 |
| 81K6-26 | 29.0 | 30.0 |
| 81K6-27 | 30.0 | 31.0 |
| 81K6-28 | 31.0 | 32.0 |

| SAMPLE # | FROM | TO |
|---|---|---|
| 81K7-1 | 4.0 | 6.0 |
| 81K7-2 | 6.0 | 8.0 |
| 81K7-3 | 8.0 | 10.0 |
| 81K7-4 | 10.0 | 11.0 |
| 81K7-5 | 11.0 | 12.0 |
| 81K7-6 | 12.0 | 13.0 |
| 81K7-7 | 13.0 | 14.0 |
| 81K7-8 | 14.0 | 15.0 |
| 81K7-9 | 15.0 | 16.0 |
| 81K7-10 | 16.0 | 17.0 |
| 81K7-11 | 17.0 | 18.0 |
| 81K7-12 | 18.0 | 19.0 |
| 81K7-13 | 19.0 | 20.0 |
| 81K7-14 | 20.0 | 21.0 |
| 81K7-15 | 21.0 | 22.0 |
| 81K7-16 | 22.0 | 23.0 |
| 81K7-17 | 23.0 | 24.0 |
| 81K7-18 | 24.0 | 25.0 |
| 81K7-19 | 25.0 | 26.0 |
| 81K7-20 | 26.0 | 27.0 |
| 81K7-21 | 27.0 | 28.0 |
| 81K7-22 | 28.0 | 29.0 |
| 81K7-23 | 29.0 | 30.0 |
| 81K7-24 | 30.0 | 31.0 |
| 81K7-25 | 31.0 | 32.0 |
| 81K7-26 | 32.0 | 33.0 |

# APPENDIX C

# GEOCHEMISTRY ANALYSES

WALL-DAVE/WD

JOB V 90-0276R
REPORT DATE 13 AUG 1990

| LAB NO | FIELD NUMBER | Au PPB | Wt Au GRAM | Ag PPM | Cu PPM | Zn PPM | Pb PPM | As PPM |
|---|---|---|---|---|---|---|---|---|
| R9006797 | RV9017 | <10 | 5 | 1.9 | 40 | 1080 | 160 | 45 |
| R9006798 | RV9018 | 30 | 5 | E116 | 6430 | 3660 | 2760 | 432 |
| R9006799 | RV9019 | <10 | 5 | .5 | 17 | 27 | 32 | 4 |
| R9006800 | RV9020 | <10 | 5 | 72.2 | 8 | 5430 | E19000 | 7 |
| R9006801 | RV9021 | <10 | 5 | 35.9 | 14 | 2830 | E11100 | <2 |
| R9006802 | RV9022 | <10 | 5 | 4.2 | 164 | 147 | 464 | 193 |
| R9006803 | RV9023 | <10 | 5 | .9 | 1 | 20 | 240 | 23 |
| R9006804 | RV9024 | <10 | 5 | 32.6 | 4 | E16500 | E31200 | 66 |
| R9006805 | RV9026 | <10 | 5 | 43.5 | 757 | E10200 | E18400 | 118 |
| R9006806 | RV9027 | <10 | 5 | E219 | 29 | E14100 | E322000 | 13 |
| R9006807 | RV9028 | <10 | 5 | 24 | 6 | 105 | E21500 | 14 |
| R9006808 | RV9029 | <10 | 5 | 10.9 | 8 | 91 | 6600 | 42 |
| R9006809 | NC9022B | <10 | 5 | 1.8 | 20 | 6340 | 328 | 10 |
| R9006810 | NC9023 | <10 | 5 | 10.8 | 37 | 5260 | 6590 | 9 |
| R9006811 | NC9024 | <10 | 5 | 25.2 | 136 | 4970 | 7900 | 8 |
| R9006812 | NC9028 | <10 | 5 | 29.1 | 28 | 115 | E11800 | <2 |
| R9006813 | NC9029 | <10 | 5 | 79.4 | 27 | 328 | E30000 | 7 |
| R9006814 | NC9030 | <10 | 5 | 20.3 | 4 | 89 | E12100 | 3 |
| R9006815 | NC9031 | <10 | 5 | 40 | 2 | 141 | E32700 | 2 |
| R9006816 | NC9032 | <10 | 5 | .9 | 2 | 194 | 266 | 9 |
| R9006817 | NC9033 | <10 | 5 | 1 | 4 | 114 | 882 | <2 |
| R9006818 | NC9034 | <10 | 5 | 9.6 | 23 | 1260 | 2820 | 2 |

I=INSUFFICIENT SAMPLE X=SMALL SAMPLE E=EXCEEDS CALIBRATION C=BEING CHECKED R=REVISED
IF REQUESTED ANALYSES ARE NOT SHOWN ,RESULTS ARE TO FOLLOW

ANALYTICAL METHODS

- Au AQUA REGIA DECOMPOSITION / SOLVENT EXTRACTION / AAS
- Wt Au THE WEIGHT OF SAMPLE TAKEN TO ANALYSE FOR GOLD (GEOCHEM)
- Ag AQUA REGIA DECOMPOSITION / AAS
- Cu AQUA REGIA DECOMPOSITION / AAS
- Zn AQUA REGIA DECOMPOSITION / AAS
- Pb AQUA REGIA DECOMPOSITION / AAS
- As PYROSULPHATE FUSION / COLORIMETRIC

## WALL-DAVE

Job M90-420R
Report Date : 09-14-1990

| | Lab. No. | Field No. | Au ppb | Wt Au gram | Sb ppm | Bi ppm | Ag ppm | Cd ppm | Cu ppm | Pb ppm | Zn ppm | As ppm | Co ppm | Ni ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | R90-9984 | RV9033 | <10 | 5 | <4 | <5 | .4 | 1 | 14 | 225 | 193 | 83 | 2 | 7 |
| 2 | R90-9985 | RV9034 | <10 | 5 | <4 | <5 | 1.6 | 1 | 23 | 518 | 282 | 25 | 5 | 9 |
| 3 | R90-9986 | RV9035 | <10 | 5 | <4 | <5 | <.4 | <1 | 5 | 434 | 117 | 10 | 1 | 2 |
| 4 | R90-9987 | RV9036 | <10 | 5 | <4 | <5 | 1.5 | <1 | 13 | 206 | 80 | 65 | <1 | 4 |
| 5 | R90-9988 | RV9037 | <10 | 5 | <4 | <5 | <.4 | <1 | 9 | 50 | 449 | 7 | 7 | 16 |
| 6 | R90-9989 | RV9038 | <10 | 5 | <4 | <5 | <.4 | <1 | 30 | 122 | 553 | 21 | 7 | 15 |
| 7 | R90-9990 | RV9039 | <10 | 5 | <4 | <5 | <.4 | <1 | 22 | 93 | 345 | 30 | 2 | 8 |
| 8 | R90-9991 | RV9040 | <10 | 5 | <4 | <5 | 1.0 | <1 | 9 | 110 | 81 | 19 | 2 | 6 |
| 9 | R90-9992 | RV9041 | <10 | 5 | <4 | <5 | <.4 | <1 | 13 | 63 | 165 | 6 | <1 | 2 |
| 10 | R90-9993 | RV9042 | <10 | 5 | <4 | <5 | <.4 | <1 | 22 | 46 | 36 | 27 | 17 | 15 |
| 11 | R90-9994 | RV9043 | <10 | 5 | <4 | <5 | <.4 | <1 | 1 | 80 | 318 | 20 | 8 | 9 |
| 12 | R90-9995 | RV9044 | <10 | 5 | <4 | <5 | .6 | <1 | 4 | 140 | 728 | 6 | 5 | 12 |
| 13 | R90-9996 | RV9045 | <10 | 5 | <4 | <5 | <.4 | <1 | 29 | 84 | 105 | 26 | 5 | 8 |
| 14 | R90-9997 | RV9046 | <10 | 5 | <4 | <5 | .9 | <1 | 102 | 12 | 14 | 71 | 20 | 19 |
| 15 | R90-9998 | RV9047 | <10 | 5 | <4 | <5 | .9 | 3 | 4 | 22 | 6 | 82 | 8 | 10 |
| 16 | R90-9999 | RV9048 | <10 | 5 | <4 | <5 | <.4 | <1 | 11 | 37 | 69 | 34 | 8 | 14 |
| 17 | R90-10000 | RV9049 | <10 | 5 | <4 | <5 | <.4 | <1 | 19 | 5 | 52 | 18 | 7 | 17 |
| 18 | R90-10001 | RV9050 | <10 | 5 | <4 | <5 | .5 | <1 | 17 | 876 | 222 | 9 | 3 | 5 |
| 19 | R90-10002 | RV9051 | <10 | 5 | <4 | <5 | <.4 | <1 | 7 | 42 | 109 | 9 | 2 | 7 |
| 20 | R90-10003 | RV9052 | <10 | 5 | <4 | <5 | .5 | <1 | 29 | 220 | 510 | 19 | 3 | 8 |
| 21 | R90-10004 | RV9053 | <10 | 5 | <4 | <5 | <.4 | 6 | 23 | 149 | 2420 | 19 | 8 | 16 |

WALL-DAVE/WD

JOB V 90-0303R
REPORT DATE 13 AUG 1990

| LAB NO | FIELD NUMBER | Cu PPM | Pb PPM | Zn PPM | Au PPB | Wt Au GRAM | Ag PPM |
|---|---|---|---|---|---|---|---|
| R9007374 | 81K1-1 | 18 | 266 | 259 | <10 | 5 | 2 |
| R9007375 | 81K1-2 | 19 | 149 | 827 | <10 | 5 | 1 |
| R9007376 | 81K1-3 | 12 | 120 | 400 | <10 | 5 | .8 |
| R9007377 | 81K1-4 | 7 | 129 | 302 | <10 | 5 | .8 |
| R9007378 | 81K1-5 | 6 | 167 | 260 | <10 | 5 | .9 |
| R9007379 | 81K1-6 | 9 | 494 | 705 | <10 | 5 | 1.9 |
| R9007380 | 81K1-7 | 15 | 560 | 1170 | <10 | 5 | 2.6 |
| R9007381 | 81K1-8 | 26 | 696 | 1560 | <10 | 5 | 3.3 |
| R9007382 | 81K1-9 | 25 | 586 | 4170 | <10 | 5 | 3.5 |
| R9007383 | 81K1-10 | 22 | 331 | 1620 | <10 | 5 | 2.3 |
| R9007384 | 81K1-11 | 12 | 564 | 422 | <10 | 5 | 3.1 |
| R9007385 | 81K1-12 | 20 | 453 | 2290 | <10 | 5 | 2.4 |
| R9007386 | 81K1-13 | 18 | 959 | 1920 | <10 | 5 | 5.2 |
| R9007387 | 81K1-14 | 15 | 736 | 1670 | <10 | 5 | 3.6 |
| R9007388 | 81K1-15 | 21 | 1650 | 1030 | <10 | 5 | 7.7 |
| R9007389 | 81K1-16 | 21 | 2220 | 812 | <10 | 5 | 10 |
| R9007390 | 81K1-17 | 18 | 1080 | 1150 | <10 | 5 | 4.9 |
| R9007391 | 81K3-0 | 14 | 1090 | 1920 | <10 | 5 | 2.6 |
| R9007392 | 81K3-1 | 10 | 189 | 2630 | <10 | 5 | 1.1 |
| R9007393 | 81K3-2 | 17 | 462 | 299 | <10 | 5 | 2.5 |
| R9007394 | 81K3-3 | 6 | 327 | 526 | <10 | 5 | 1.6 |
| R9007395 | 81K3-4 | 7 | 2270 | 1470 | <10 | 5 | 9.1 |
| R9007396 | 81K3-5 | 10 | 1560 | 743 | <10 | 5 | 5.5 |
| R9007397 | 81K3-6 | 12 | 1220 | 3700 | <10 | 5 | 5.6 |
| R9007398 | 81K3-7 | 13 | 1009 | 865 | <10 | 5 | 4.4 |
| R9007399 | 81K3-8 | 21 | 996 | 1210 | <10 | 5 | 5.1 |
| R9007400 | 81K3-9 | 22 | 950 | 940 | <10 | 5 | 4.7 |
| R9007401 | NC9025 | 7 | 27 | 1490 | <10 | 5 | .5 |
| R9007402 | 81K5-1 | 12 | 396 | 1290 | <10 | 5 | 1.8 |
| R9007403 | 81K5-2 | 23 | 300 | 1310 | <10 | 5 | 1.3 |
| R9007404 | 81K5-3 | 14 | 1020 | 3180 | <10 | 5 | 3.5 |
| R9007405 | 81K5-4 | 4 | 757 | 263 | <10 | 5 | 2.2 |
| R9007406 | 81K5-5 | 8 | 235 | 271 | <10 | 5 | 1.1 |
| R9007407 | 81K5-6 | 15 | 904 | 2900 | <10 | 5 | 2.5 |
| R9007408 | 81K5-7 | 19 | 1610 | 3510 | <10 | 5 | 4.8 |
| R9007409 | 81K5-8 | 23 | 835 | 2060 | <10 | 5 | 2.5 |
| R9007410 | 81K5-9 | 24 | 1200 | 2470 | <10 | 5 | 3.8 |
| R9007411 | 81K5-10 | 21 | 900 | 2740 | <10 | 5 | 3.4 |
| R9007412 | 81K5-11 | 14 | 364 | 3440 | <10 | 5 | 1.5 |
| R9007413 | 81K511B | 16 | 739 | 2080 | <10 | 5 | 2.5 |
| R9007414 | 81K5-12 | 21 | 736 | 828 | <10 | 5 | 1.5 |
| R9007415 | 81K5-13 | 17 | 980 | 1280 | <10 | 5 | 2.8 |
| R9007416 | 81K5-14 | 15 | 1230 | 1330 | <10 | 5 | 2.9 |
| R9007417 | 81K5-15 | 15 | 556 | 115 | <10 | 5 | 1.4 |
| R9007418 | 81K5-16 | 22 | 6200 | 170 | <10 | 5 | 9.2 |
| R9007419 | 81K5-17 | 21 | 1040 | 1520 | <10 | 5 | 2.3 |
| R9007420 | 81K5-18 | 14 | 4310 | 326 | <10 | 5 | 5.6 |
| R9007421 | 81K6-1 | 15 | 326 | 865 | <10 | 5 | 1.6 |
| R9007422 | 81K6-2 | 17 | 156 | 883 | <10 | 5 | .8 |
| R9007423 | 81K6-3 | 16 | 372 | 2150 | <10 | 5 | 1.6 |
| R9007424 | 81K6-4 | 16 | 547 | 2200 | <10 | 5 | 2 |

| LAB NO | FIELD NUMBER | Cu PPM | Pb PPM | Zn PPM | Au PPB | Wt Au GRAM | Ag PPM |
|---|---|---|---|---|---|---|---|
| R9007425 | 81K6-5 | 23 | 565 | 2240 | <10 | 5 | 2.3 |
| R9007426 | 81K6-7 | 26 | 418 | 3300 | <10 | 5 | 1.7 |
| R9007427 | 81K6-8 | 17 | 270 | 2150 | <10 | 5 | 1.3 |
| R9007428 | 81K6-9 | 21 | 624 | 2060 | <10 | 5 | 2.5 |
| R9007429 | 81K6-10 | 19 | 953 | 1960 | <10 | 5 | 3 |
| R9007430 | 81K6-11 | 17 | 459 | 2740 | <10 | 5 | 1.7 |
| R9007431 | 81K6-12 | 47 | 153 | 457 | <10 | 5 | .9 |
| R9007432 | 81K6-13 | 18 | 1310 | 3240 | <10 | 5 | 3.4 |
| R9007433 | 81K6-14 | 21 | 970 | 1660 | <10 | 5 | 2.9 |
| R9007434 | 81K6-15 | 18 | 473 | 1420 | <10 | 5 | 1.7 |
| R9007435 | 81K6-16 | 19 | 576 | 2070 | <10 | 5 | 2.1 |
| R9007436 | 81K6-17 | 28 | 1050 | 3250 | <10 | 5 | 3.6 |
| R9007437 | 81K6-18 | 22 | 824 | 2070 | <10 | 5 | 2.4 |
| R9007438 | 81K6-19 | 12 | 144 | 495 | <10 | 5 | .9 |
| R9007439 | 81K6-20 | 19 | 608 | 3770 | <10 | 5 | 2.1 |
| R9007440 | 81K6-21 | 17 | 783 | 458 | <10 | 5 | 1.9 |
| R9007441 | 81K6-22 | 29 | 1008 | 1180 | <10 | 5 | 2.1 |
| R9007442 | 81K6-23 | 28 | 2630 | 1550 | <10 | 5 | 6.1 |
| R9007443 | 81K6-24 | 33 | 2700 | 1790 | <10 | 5 | 6.1 |
| R9007444 | 81K6-25 | 21 | 1390 | 780 | <10 | 5 | 3.4 |
| R9007445 | 81K6-26 | 21 | 3420 | 1400 | <10 | 5 | 6.7 |
| R9007446 | 81K6-27 | 12 | 751 | 51 | <10 | 5 | 2 |
| R9007447 | 81K6-28 | 22 | 249 | 54 | <10 | 5 | 1.1 |
| R9007448 | 81K7-1 | 20 | 357 | 893 | <10 | 5 | 1.4 |
| R9007449 | 81K7-2 | 40 | 328 | 1990 | <10 | 5 | 1.6 |
| R9007450 | 81K7-3 | 31 | 458 | 2000 | <10 | 5 | 1.8 |
| R9007451 | 81K7-4 | 16 | 134 | 217 | <10 | 5 | <.4 |
| R9007452 | 81K7-5 | 23 | 815 | 409 | <10 | 5 | 1.9 |
| R9007453 | 81K7-6 | 16 | 327 | 407 | <10 | 5 | 1.2 |
| R9007454 | 81K7-7 | 6 | 995 | 42 | <10 | 5 | 2.5 |
| R9007455 | 81K7-8 | 12 | 81 | 1010 | <10 | 5 | .4 |
| R9007456 | 81K7-9 | 15 | 864 | 1800 | <10 | 5 | 2.1 |
| R9007457 | 81K7-10 | 15 | 925 | 1060 | <10 | 5 | 2.2 |
| R9007458 | 81K7-11 | 13 | 1320 | 1230 | <10 | 5 | 3.9 |
| R9007459 | 81K7-12 | 18 | 732 | 1190 | <10 | 5 | 1.9 |
| R9007460 | 81K7-13 | 18 | 596 | 1600 | <10 | 5 | 1.2 |
| R9007461 | 81K7-14 | 16 | 1470 | 1790 | <10 | 5 | 3.7 |
| R9007462 | 81K7-15 | 22 | 1240 | 3900 | <10 | 5 | 3.6 |
| R9007463 | 81K7-16 | 13 | 436 | 1120 | <10 | 5 | 1.2 |
| R9007464 | 81K7-17 | 13 | 163 | 1170 | <10 | 5 | <.4 |
| R9007465 | 81K7-18 | 16 | 1090 | 8080 | <10 | 5 | 3.5 |
| R9007466 | 81K7-19 | 13 | 845 | 757 | <10 | 5 | 1.6 |
| R9007467 | 81K7-20 | 10 | 690 | 443 | <10 | 5 | 1.4 |
| R9007468 | 81K7-21 | 15 | 2430 | 905 | <10 | 5 | 4.5 |
| R9007469 | 81K7-22 | 32 | 4940 | 980 | <10 | 5 | 10.2 |
| R9007470 | 81K7-23 | 18 | 653 | 223 | <10 | 5 | 1.1 |
| R9007471 | 81K7-24 | 19 | 1740 | 511 | <10 | 5 | 3.6 |
| R9007472 | 81K7-25 | 11 | 993 | 84 | <10 | 5 | 1.9 |
| R9007473 | 81K7-26 | 15 | 627 | 96 | <10 | 5 | 1.1 |

I=INSUFFICIENT SAMPLE X=SMALL SAMPLE E=EXCEEDS CALIBRATION C=BEING CHECKED R=REVISED
IF REQUESTED ANALYSES ARE NOT SHOWN ,RESULTS ARE TO FOLLOW

ANALYTICAL METHODS
- Cu AQUA REGIA DECOMPOSITION / AAS
- Pb AQUA REGIA DECOMPOSITION / AAS
- Zn AQUA REGIA DECOMPOSITION / AAS

AU AQUA REGIA DECOMPOSITION / SOLVENT EXTRACTION / AAS
WT AU THE WEIGHT OF SAMPLE TAKEN TO ANALYSE FOR GOLD (GEOCHEM)
AG AQUA REGIA DECOMPOSITION / AAS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

# GEOCHEMICAL ANALYSIS CERTIFICATE

## Kootenay Exploration PROJECT VEX-112-640-W428 File # 90-4254 Page 1

1051 Industrial Road #2, Cranbrook BC V1C 4K7

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 141751 | 1 | 25 | 986 | 1627 | .5 | 22 | 15 | 1105 | 4.22 | 17 | 9 | ND | 11 | 9 | 6.1 | 11 | 2 | 11 | 1.85 | .060 | 25 | 8 | 1.13 | 903 | .03 | 2 | 1.45 | .01 | .22 | 2 |
| 141752 | 1 | 49 | 674 | 4599 | .5 | 23 | 15 | 2511 | 4.12 | 5 | 5 | ND | 10 | 13 | 9.3 | 4 | 2 | 15 | .78 | .099 | 20 | 9 | 1.38 | 813 | .04 | 4 | 1.91 | .01 | .14 | 1 |
| 141753 | 2 | 9 | 93 | 438 | .8 | 13 | 11 | 663 | 2.80 | 14 | 5 | ND | 3 | 10 | 1.3 | 2 | 5 | 29 | .13 | .131 | 6 | 9 | .16 | 182 | .13 | 2 | 4.02 | .02 | .05 | 2 |
| 141754 | 2 | 51 | 62 | 407 | 1.8 | 187 | 22 | 671 | 5.75 | 154 | 5 | ND | 7 | 6 | .2 | 2 | 5 | 46 | .05 | .037 | 15 | 125 | .60 | 137 | .11 | 5 | 1.93 | .01 | .43 | 1 |
| 141755 | 2 | 23 | 100 | 447 | .9 | 23 | 11 | 1091 | 3.52 | 52 | 5 | ND | 7 | 4 | .5 | 5 | 9 | 10 | .04 | .040 | 23 | 7 | .21 | 110 | .01 | 4 | 1.27 | .01 | .10 | 2 |
| 141756 | 1 | 26 | 72 | 562 | .4 | 28 | 15 | 374 | 3.21 | 17 | 5 | ND | 8 | 7 | .6 | 2 | 3 | 16 | .07 | .057 | 17 | 10 | .30 | 147 | .05 | 2 | 1.81 | .01 | .16 | 1 |
| 141757 | 1 | 34 | 108 | 585 | .1 | 25 | 13 | 530 | 3.47 | 26 | 5 | ND | 9 | 3 | .3 | 2 | 2 | 16 | .04 | .032 | 24 | 9 | .39 | 99 | .02 | 3 | 1.28 | .01 | .12 | 1 |
| 141758 | 2 | 23 | 323 | 951 | .7 | 20 | 16 | 490 | 4.03 | 26 | 5 | ND | 9 | 5 | .8 | 2 | 3 | 28 | .05 | .072 | 10 | 14 | .31 | 120 | .07 | 3 | 3.79 | .01 | .07 | 1 |
| 141759 | 1 | 26 | 175 | 817 | .4 | 21 | 13 | 313 | 3.20 | 25 | 5 | ND | 12 | 4 | .4 | 2 | 3 | 14 | .03 | .037 | 26 | 11 | .41 | 96 | .01 | 2 | 1.72 | .01 | .10 | 1 |
| 141760 | 2 | 21 | 234 | 566 | .4 | 15 | 8 | 164 | 3.00 | 18 | 5 | ND | 9 | 5 | .7 | 2 | 4 | 22 | .03 | .072 | 12 | 14 | .29 | 70 | .05 | 2 | 3.34 | .01 | .06 | 1 |
| 141761 | 2 | 21 | 178 | 608 | .3 | 14 | 10 | 350 | 3.97 | 12 | 5 | ND | 7 | 6 | .2 | 2 | 2 | 25 | .04 | .076 | 15 | 14 | .31 | 65 | .04 | 2 | 2.21 | .01 | .06 | 1 |
| 141762 | 2 | 41 | 288 | 963 | .2 | 21 | 17 | 685 | 3.72 | 18 | 5 | ND | 11 | 4 | .3 | 2 | 4 | 13 | .02 | .050 | 21 | 11 | .35 | 78 | .01 | 8 | 2.03 | .01 | .06 | 1 |
| 141763 | 2 | 61 | 270 | 1264 | .5 | 40 | 33 | 899 | 4.18 | 37 | 5 | ND | 9 | 4 | 1.7 | 2 | 5 | 21 | .03 | .038 | 20 | 12 | .35 | 118 | .01 | 2 | 2.27 | .01 | .05 | 1 |
| 141764 | 1 | 30 | 230 | 819 | .2 | 19 | 10 | 239 | 3.69 | 20 | 5 | ND | 9 | 4 | .5 | 2 | 2 | 31 | .03 | .058 | 24 | 11 | .42 | 52 | .01 | 2 | 1.61 | .01 | .05 | 1 |
| 141765 | 1 | 32 | 224 | 400 | .4 | 15 | 12 | 522 | 3.72 | 15 | 5 | ND | 7 | 6 | .2 | 2 | 5 | 37 | .04 | .077 | 10 | 14 | .23 | 49 | .10 | 3 | 3.03 | .01 | .05 | 1 |
| 141766 | 3 | 16 | 481 | 319 | .1 | 12 | 5 | 143 | 3.34 | 6 | 5 | ND | 6 | 5 | .4 | 2 | 4 | 28 | .02 | .038 | 21 | 10 | .19 | 38 | .02 | 2 | 1.48 | .01 | .05 | 1 |
| 141767 | 2 | 20 | 615 | 255 | .4 | 10 | 5 | 109 | 3.65 | 11 | 5 | ND | 8 | 5 | .3 | 2 | 3 | 30 | .03 | .061 | 8 | 13 | .19 | 46 | .08 | 2 | 3.45 | .01 | .04 | 1 |
| 141768 | 2 | 15 | 443 | 311 | .4 | 7 | 4 | 91 | 2.73 | 2 | 5 | ND | 9 | 4 | .2 | 2 | 2 | 17 | .02 | .030 | 14 | 7 | .21 | 44 | .02 | 2 | 1.53 | .01 | .03 | 3 |
| 141769 | 2 | 18 | 446 | 271 | .9 | 9 | 4 | 96 | 2.78 | 12 | 5 | ND | 7 | 5 | .2 | 2 | 5 | 23 | .03 | .052 | 8 | 8 | .14 | 36 | .06 | 2 | 3.32 | .02 | .03 | 1 |
| 141770 | 1 | 8 | 115 | 95 | .6 | 6 | 4 | 58 | 2.97 | 3 | 5 | ND | 4 | 5 | .4 | 2 | 2 | 40 | .02 | .032 | 13 | 10 | .15 | 38 | .08 | 2 | 1.68 | .01 | .02 | 1 |
| 141771 | 1 | 43 | 212 | 501 | .5 | 27 | 15 | 6861 | 7.01 | 6 | 6 | ND | 1 | 25 | 3.1 | 6 | 5 | 21 | .43 | .091 | 45 | 12 | .21 | 2203 | .01 | 3 | 1.82 | .01 | .02 | 2 |
| 141772 | 1 | 97 | 95 | 570 | 1.0 | 36 | 14 | 758 | 3.43 | 31 | 5 | ND | 11 | 4 | .2 | 3 | 7 | 15 | .06 | .032 | 21 | 8 | .32 | 144 | .01 | 2 | .92 | .01 | .10 | 1 |
| 141773 | 1 | 19 | 90 | 536 | 1.3 | 22 | 13 | 254 | 3.37 | 10 | 5 | ND | 8 | 6 | .3 | 2 | 2 | 24 | .04 | .047 | 11 | 12 | .33 | 171 | .08 | 2 | 2.75 | .01 | .13 | 1 |
| 141774 | 1 | 10 | 114 | 743 | .3 | 19 | 11 | 424 | 2.74 | 9 | 5 | ND | 5 | 10 | 1.0 | 2 | 2 | 21 | .12 | .041 | 12 | 10 | .33 | 142 | .06 | 2 | 2.39 | .01 | .09 | 1 |
| 141775 | 1 | 9 | 50 | 310 | 1.2 | 8 | 7 | 190 | 2.52 | 6 | 5 | ND | 5 | 6 | .9 | 2 | 2 | 28 | .05 | .124 | 5 | 10 | .11 | 93 | .10 | 3 | 3.84 | .02 | .05 | 1 |
| 141776 | 1 | 9 | 76 | 683 | .2 | 15 | 16 | 640 | 3.03 | 9 | 5 | ND | 7 | 5 | .7 | 2 | 2 | 21 | .04 | .035 | 14 | 11 | .29 | 137 | .04 | 3 | 2.27 | .01 | .06 | 1 |
| 141777 | 1 | 15 | 132 | 520 | .8 | 16 | 10 | 401 | 3.08 | 12 | 5 | ND | 7 | 6 | .6 | 2 | 2 | 32 | .06 | .053 | 10 | 12 | .22 | 107 | .08 | 2 | 3.07 | .01 | .06 | 2 |
| 141778 | 1 | 19 | 114 | 550 | 1.1 | 17 | 8 | 324 | 2.78 | 9 | 5 | ND | 5 | 6 | 1.1 | 2 | 2 | 29 | .06 | .055 | 9 | 11 | .23 | 108 | .08 | 3 | 3.24 | .01 | .07 | 1 |
| 141779 | 1 | 20 | 159 | 642 | .4 | 16 | 12 | 447 | 3.53 | 15 | 5 | ND | 5 | 5 | .3 | 2 | 2 | 31 | .05 | .048 | 18 | 13 | .26 | 61 | .03 | 3 | 1.77 | .01 | .05 | 1 |
| 141780 | 2 | 32 | 169 | 848 | .5 | 21 | 11 | 182 | 3.69 | 14 | 5 | ND | 9 | 4 | .7 | 2 | 2 | 33 | .02 | .049 | 16 | 13 | .37 | 83 | .02 | 4 | 2.71 | .01 | .05 | 3 |
| 141781 | 1 | 34 | 197 | 920 | .3 | 19 | 11 | 376 | 3.48 | 14 | 5 | ND | 10 | 3 | .5 | 2 | 2 | 21 | .03 | .050 | 20 | 11 | .31 | 76 | .02 | 2 | 1.98 | .01 | .05 | 1 |
| 141782 | 1 | 22 | 136 | 597 | .2 | 17 | 9 | 198 | 3.35 | 10 | 5 | ND | 8 | 4 | .5 | 2 | 2 | 26 | .03 | .049 | 17 | 14 | .30 | 74 | .03 | 2 | 2.80 | .01 | .06 | 1 |
| 141783 | 1 | 33 | 119 | 744 | .6 | 21 | 16 | 924 | 3.21 | 10 | 5 | ND | 8 | 5 | .6 | 2 | 2 | 27 | .03 | .053 | 16 | 12 | .29 | 123 | .06 | 2 | 2.56 | .01 | .06 | 1 |
| 141784 | 1 | 40 | 89 | 885 | .1 | 22 | 9 | 394 | 3.96 | 9 | 5 | ND | 9 | 4 | .2 | 2 | 2 | 25 | .03 | .043 | 22 | 13 | .33 | 110 | .01 | 2 | 1.81 | .01 | .05 | 1 |
| 141785 | 2 | 24 | 329 | 610 | 1.2 | 23 | 16 | 2267 | 5.51 | 11 | 5 | ND | 5 | 7 | 1.4 | 5 | 6 | 46 | .15 | .055 | 10 | 14 | .19 | 196 | .10 | 2 | 3.37 | .02 | .04 | 1 |
| 141786 | 1 | 26 | 38 | 367 | .2 | 14 | 7 | 1693 | 4.12 | 4 | 5 | ND | 3 | 1 | .5 | 2 | 2 | 9 | .06 | .026 | 26 | 11 | .12 | 110 | .01 | 4 | .74 | .01 | .01 | 1 |
| STANDARD C | 19 | 60 | 41 | 132 | 6.9 | 72 | 32 | 1052 | 3.96 | 40 | 18 | 7 | 38 | 53 | 19.8 | 15 | 21 | 55 | .51 | .095 | 38 | 56 | .90 | 180 | .07 | 38 | 1.89 | .06 | .14 | 12 |

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1 TO P3 SOIL P4 ROCK

DATE RECEIVED: SEP 10 1990 DATE REPORT MAILED: Sept 13/90. SIGNED BY. C. Leong ..D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

# Kootenay Exploration PROJECT VEX-112-640-W428 FILE # 90-4254



| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 141787 | 1 | 50 | 98 | 600 | .1 | 34 | 15 | 205 | 5.17 | 5 | 5 | ND | 6 | 2 | .2 | 2 | 3 | 22 | .03 | .032 | 13 | 22 | .66 | 90 | .04 | 2 | 2.11 | .01 | .05 | 1 |
| 141788 | 1 | 28 | 23 | 128 | .2 | 16 | 6 | 95 | 3.43 | 2 | 5 | ND | 4 | 1 | .4 | 2 | 2 | 22 | .01 | .018 | 13 | 14 | .44 | 41 | .02 | 2 | 1.43 | .01 | .06 | 1 |
| 141800 | 1 | 27 | 255 | 1422 | .2 | 22 | 15 | 2387 | 6.52 | 3 | 7 | ND | 7 | 5 | 7.4 | 2 | 2 | 10 | .33 | .063 | 19 | 7 | .92 | 266 | .03 | 2 | 1.54 | .01 | .07 | 1 |
| 141801 | 1 | 21 | 372 | 816 | 1.1 | 19 | 11 | 3461 | 4.95 | 6 | 5 | ND | 5 | 7 | 3.8 | 5 | 4 | 24 | .08 | .061 | 11 | 9 | .21 | 969 | .10 | 4 | 3.03 | .01 | .04 | 1 |
| 141802 | 1 | 32 | 277 | 1546 | 1.8 | 31 | 14 | 1966 | 5.25 | 57 | 5 | ND | 4 | 4 | 1.5 | 6 | 5 | 21 | .06 | .066 | 11 | 10 | .34 | 241 | .05 | 2 | 2.24 | .01 | .08 | 1 |
| 141803 | 1 | 36 | 290 | 870 | 3.8 | 24 | 15 | 777 | 3.82 | 29 | 5 | ND | 3 | 3 | .3 | 4 | 3 | 18 | .05 | .064 | 10 | 11 | .27 | 115 | .03 | 2 | 1.83 | .01 | .09 | 1 |
| 141804 | 1 | 14 | 161 | 610 | 3.0 | 14 | 13 | 1103 | 2.81 | 14 | 5 | ND | 4 | 5 | .6 | 2 | 2 | 23 | .05 | .069 | 12 | 11 | .21 | 121 | .05 | 2 | 1.94 | .01 | .07 | 1 |
| 141805 | 1 | 17 | 188 | 846 | 1.1 | 18 | 9 | 248 | 3.20 | 24 | 5 | ND | 8 | 2 | .2 | 2 | 3 | 16 | .03 | .037 | 23 | 9 | .30 | 74 | .01 | 2 | 1.83 | .01 | .07 | 1 |
| 141806 | 2 | 30 | 129 | 1091 | .5 | 29 | 15 | 680 | 4.01 | 25 | 5 | ND | 9 | 3 | .6 | 2 | 2 | 16 | .03 | .047 | 23 | 9 | .42 | 77 | .02 | 2 | 1.50 | .01 | .08 | 1 |
| 141807 | 1 | 11 | 101 | 603 | .9 | 11 | 8 | 285 | 2.71 | 11 | 5 | ND | 6 | 3 | .4 | 2 | 5 | 26 | .04 | .045 | 12 | 10 | .23 | 92 | .04 | 2 | 2.02 | .01 | .07 | 1 |
| 141808 | 2 | 15 | 168 | 662 | .9 | 16 | 16 | 663 | 3.92 | 14 | 5 | ND | 6 | 4 | .2 | 2 | 2 | 26 | .04 | .052 | 12 | 15 | .28 | 101 | .05 | 2 | 3.06 | .01 | .08 | 1 |
| 141809 | 1 | 14 | 310 | 295 | 1.6 | 8 | 9 | 360 | 3.51 | 14 | 5 | ND | 6 | 5 | .3 | 2 | 2 | 27 | .05 | .079 | 7 | 12 | .13 | 69 | .08 | 2 | 3.48 | .01 | .04 | 1 |
| 141810 | 1 | 25 | 359 | 746 | 2.5 | 18 | 12 | 365 | 3.22 | 15 | 5 | ND | 9 | 3 | .3 | 2 | 2 | 18 | .03 | .046 | 19 | 11 | .28 | 83 | .02 | 2 | 2.35 | .01 | .07 | 2 |
| 141811 | 1 | 21 | 205 | 544 | .7 | 13 | 11 | 278 | 3.28 | 10 | 5 | ND | 9 | 3 | .4 | 2 | 3 | 18 | .03 | .044 | 14 | 12 | .24 | 84 | .02 | 2 | 2.92 | .01 | .06 | 1 |
| 141812 | 1 | 55 | 104 | 887 | .9 | 19 | 24 | 676 | 3.59 | 13 | 5 | ND | 4 | 6 | .9 | 2 | 2 | 35 | .06 | .041 | 14 | 12 | .29 | 174 | .04 | 2 | 2.57 | .01 | .06 | 1 |
| 141813 | 1 | 27 | 244 | 685 | .3 | 16 | 11 | 208 | 4.09 | 11 | 5 | ND | 6 | 5 | 1.0 | 5 | 5 | 29 | .04 | .046 | 7 | 13 | .17 | 101 | .08 | 2 | 3.86 | .01 | .04 | 1 |
| 141814 | 4 | 31 | 359 | 451 | .5 | 9 | 7 | 155 | 6.52 | 15 | 5 | ND | 9 | 6 | .4 | 2 | 2 | 29 | .02 | .072 | 11 | 15 | .22 | 56 | .05 | 2 | 2.58 | .01 | .04 | 1 |
| 141815 | 2 | 24 | 287 | 317 | 1.1 | 9 | 7 | 214 | 2.97 | 12 | 5 | ND | 6 | 7 | .6 | 3 | 4 | 23 | .06 | .058 | 9 | 10 | .17 | 87 | .07 | 2 | 3.36 | .01 | .04 | 1 |
| 141816 | 2 | 20 | 283 | 533 | .6 | 11 | 13 | 349 | 3.61 | 9 | 5 | ND | 6 | 4 | .2 | 2 | 2 | 21 | .04 | .053 | 15 | 13 | .26 | 60 | .02 | 2 | 1.93 | .01 | .06 | 1 |
| 141817 | 3 | 18 | 192 | 174 | 1.2 | 5 | 4 | 116 | 3.23 | 5 | 5 | ND | 6 | 6 | .2 | 2 | 2 | 23 | .04 | .085 | 10 | 11 | .12 | 61 | .02 | 2 | 1.89 | .02 | .16 | 1 |
| 141818 | 3 | 27 | 164 | 259 | .5 | 6 | 5 | 89 | 4.55 | 13 | 5 | ND | 10 | 5 | .2 | 2 | 2 | 24 | .02 | .066 | 14 | 11 | .15 | 36 | .03 | 2 | 2.06 | .01 | .05 | 1 |
| 141819 | 3 | 21 | 185 | 223 | .9 | 7 | 4 | 59 | 5.08 | 6 | 5 | ND | 8 | 5 | .8 | 2 | 6 | 28 | .03 | .088 | 5 | 12 | .14 | 43 | .05 | 2 | 4.09 | .01 | .03 | 1 |
| 141820 | 5 | 24 | 126 | 257 | .2 | 13 | 7 | 110 | 5.39 | 7 | 5 | ND | 8 | 6 | .2 | 2 | 2 | 20 | .02 | .050 | 9 | 12 | .20 | 34 | .02 | 2 | 1.56 | .01 | .04 | 1 |
| 141821 | 6 | 39 | 459 | 526 | .5 | 17 | 9 | 103 | 6.24 | 29 | 5 | ND | 10 | 7 | .2 | 2 | 2 | 17 | .02 | .082 | 9 | 9 | .12 | 31 | .02 | 2 | 2.20 | .01 | .03 | 1 |
| 141822 | 6 | 17 | 54 | 136 | .4 | 12 | 7 | 188 | 5.40 | 10 | 5 | ND | 5 | 4 | .2 | 2 | 2 | 19 | .03 | .049 | 10 | 8 | .08 | 38 | .02 | 2 | 1.03 | .01 | .04 | 1 |
| 141823 | 1 | 19 | 62 | 397 | .8 | 15 | 9 | 2177 | 4.29 | 9 | 6 | ND | 4 | 8 | .9 | 8 | 2 | 25 | .35 | .057 | 23 | 14 | .14 | 324 | .08 | 4 | 2.92 | .02 | .02 | 1 |
| 141951 | 3 | 11 | 96 | 347 | .3 | 11 | 8 | 455 | 4.39 | 13 | 5 | ND | 3 | 2 | .2 | 2 | 2 | 28 | .03 | .024 | 13 | 9 | .17 | 254 | .02 | 2 | 1.85 | .01 | .03 | 1 |
| 141952 | 1 | 16 | 44 | 228 | .4 | 13 | 7 | 203 | 2.66 | 13 | 5 | ND | 4 | 3 | .2 | 3 | 2 | 15 | .08 | .040 | 16 | 7 | .18 | 85 | .02 | 2 | 1.59 | .01 | .06 | 1 |
| 141953 | 1 | 11 | 118 | 311 | .1 | 10 | 7 | 114 | 2.65 | 10 | 5 | ND | 4 | 2 | .2 | 2 | 2 | 11 | .04 | .031 | 18 | 8 | .15 | 58 | .01 | 2 | 1.32 | .01 | .05 | 1 |
| 141954 | 1 | 27 | 193 | 539 | .5 | 19 | 11 | 236 | 3.41 | 13 | 7 | ND | 9 | 3 | .4 | 3 | 2 | 10 | .14 | .075 | 18 | 8 | .23 | 34 | .01 | 3 | 1.14 | .01 | .05 | 1 |
| 141955 | 1 | 24 | 86 | 409 | .2 | 13 | 5 | 73 | 3.32 | 14 | 5 | ND | 5 | 2 | .2 | 4 | 2 | 12 | .02 | .042 | 25 | 7 | .14 | 24 | .01 | 2 | 1.13 | .01 | .05 | 1 |
| 141956 | 2 | 14 | 34 | 128 | .9 | 11 | 9 | 240 | 3.87 | 9 | 5 | ND | 5 | 4 | .7 | 3 | 6 | 35 | .04 | .039 | 10 | 11 | .12 | 112 | .08 | 2 | 4.04 | .01 | .03 | 2 |
| 141957 | 1 | 18 | 25 | 135 | .2 | 13 | 8 | 231 | 3.25 | 9 | 5 | ND | 6 | 3 | .2 | 2 | 2 | 15 | .03 | .036 | 16 | 10 | .18 | 50 | .02 | 2 | 1.29 | .01 | .04 | 1 |
| 141958 | 1 | 16 | 23 | 96 | .2 | 10 | 7 | 113 | 3.44 | 11 | 5 | ND | 7 | 2 | .2 | 2 | 2 | 13 | .02 | .032 | 17 | 8 | .15 | 45 | .01 | 2 | 1.42 | .01 | .03 | 1 |
| 141959 | 1 | 26 | 23 | 101 | .1 | 11 | 8 | 169 | 3.45 | 10 | 5 | ND | 6 | 1 | .2 | 4 | 2 | 11 | .02 | .032 | 19 | 6 | .17 | 44 | .01 | 2 | .94 | .01 | .03 | 1 |
| 141960 | 1 | 39 | 23 | 112 | .1 | 17 | 10 | 217 | 3.41 | 13 | 5 | ND | 8 | 1 | .2 | 4 | 2 | 10 | .03 | .045 | 17 | 7 | .24 | 50 | .01 | 2 | 1.18 | .01 | .04 | 1 |
| STANDARD C | 19 | 57 | 38 | 131 | 6.7 | 70 | 32 | 1053 | 3.97 | 41 | 19 | 7 | 37 | 52 | 19.4 | 15 | 21 | 55 | .52 | .094 | 37 | 55 | .90 | 183 | .07 | 37 | 1.89 | .06 | .14 | 11 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 141961 | 1 | 38 | 11 | 63 | .1 | 14 | 10 | 276 | 3.51 | 7 | 5 | ND | 6 | 1 | .2 | 3 | 2 | 7 | .01 | .024 | 17 | 5 | .21 | 56 | .01 | 2 | .63 | .01 | .04 | 1 |
| 141962 | 1 | 27 | 17 | 90 | .2 | 13 | 8 | 172 | 3.10 | 5 | 5 | ND | 5 | 3 | .2 | 4 | 2 | 17 | .04 | .028 | 13 | 10 | .22 | 121 | .03 | 4 | 1.95 | .01 | .04 | 1 |
| 141963 | 1 | 18 | 14 | 49 | .1 | 6 | 7 | 216 | 3.12 | 2 | 5 | ND | 2 | 2 | .2 | 2 | 2 | 27 | .02 | .043 | 10 | 8 | .11 | 83 | .06 | 3 | 1.84 | .01 | .03 | 1 |
| 141964 | 1 | 34 | 15 | 79 | .1 | 24 | 10 | 410 | 3.52 | 4 | 5 | ND | 4 | 4 | .2 | 3 | 2 | 18 | .06 | .035 | 13 | 11 | .43 | 212 | .05 | 5 | 1.59 | .01 | .05 | 1 |
| 141965 | 1 | 14 | 18 | 113 | .1 | 12 | 8 | 315 | 2.83 | 3 | 5 | ND | 3 | 5 | .6 | 2 | 2 | 23 | .08 | .042 | 8 | 12 | .38 | 160 | .07 | 3 | 2.53 | .01 | .05 | 1 |
| 141966 | 1 | 36 | 17 | 68 | .1 | 15 | 8 | 186 | 3.22 | 2 | 5 | ND | 5 | 2 | .2 | 3 | 2 | 15 | .02 | .035 | 19 | 8 | .41 | 62 | .04 | 2 | 1.02 | .01 | .06 | 1 |
| 141967 | 1 | 13 | 13 | 110 | .1 | 21 | 13 | 470 | 4.63 | 2 | 5 | ND | 2 | 6 | .4 | 4 | 2 | 33 | .19 | .053 | 8 | 18 | 1.01 | 217 | .08 | 5 | 1.92 | .01 | .09 | 1 |
| 141968 | 1 | 16 | 18 | 87 | .1 | 19 | 14 | 397 | 4.42 | 2 | 5 | ND | 2 | 6 | .2 | 2 | 3 | 33 | .11 | .047 | 7 | 16 | .74 | 164 | .09 | 4 | 2.45 | .01 | .06 | 1 |
| 141970 | 1 | 19 | 103 | 253 | 1.2 | 12 | 7 | 1454 | 2.21 | 6 | 5 | ND | 7 | 66 | 1.0 | 3 | 2 | 5 | 9.56 | .057 | 7 | 4 | 5.49 | 847 | .01 | 4 | .48 | .01 | .11 | 1 |
| 141971 | 1 | 47 | 517 | 2237 | 1.4 | 27 | 13 | 3319 | 5.63 | 9 | 6 | ND | 7 | 9 | 4.6 | 11 | 2 | 21 | .90 | .054 | 13 | 12 | 1.05 | 441 | .03 | 2 | 1.83 | .01 | .12 | 1 |
| 141972 | 1 | 13 | 110 | 497 | 1.2 | 15 | 14 | 639 | 3.18 | 7 | 5 | ND | 6 | 4 | .4 | 2 | 2 | 20 | .07 | .055 | 13 | 12 | .27 | 146 | .03 | 5 | 2.02 | .01 | .09 | 1 |
| 141973 | 1 | 17 | 103 | 679 | .5 | 18 | 10 | 157 | 3.08 | 9 | 5 | ND | 8 | 3 | .2 | 2 | 2 | 15 | .03 | .029 | 17 | 11 | .32 | 112 | .03 | 3 | 1.73 | .01 | .09 | 1 |
| 141974 | 1 | 15 | 55 | 389 | .5 | 12 | 13 | 315 | 2.75 | 5 | 5 | ND | 6 | 3 | .3 | 3 | 4 | 18 | .03 | .034 | 16 | 10 | .25 | 122 | .03 | 2 | 1.83 | .01 | .05 | 1 |
| 141975 | 1 | 12 | 47 | 382 | .4 | 11 | 10 | 424 | 2.45 | 2 | 5 | ND | 5 | 6 | .2 | 2 | 2 | 19 | .04 | .058 | 8 | 10 | .20 | 104 | .07 | 2 | 3.17 | .01 | .05 | 1 |
| 141976 | 1 | 17 | 52 | 487 | 1.1 | 15 | 11 | 371 | 2.79 | 7 | 5 | ND | 6 | 6 | .8 | 2 | 2 | 22 | .05 | .050 | 13 | 10 | .26 | 167 | .08 | 2 | 2.60 | .01 | .06 | 2 |
| 141977 | 1 | 25 | 58 | 473 | .2 | 13 | 9 | 201 | 2.87 | 10 | 5 | ND | 9 | 3 | .2 | 2 | 2 | 15 | .03 | .041 | 23 | 8 | .30 | 88 | .02 | 2 | 1.49 | .01 | .05 | 1 |
| 141978 | 1 | 22 | 61 | 540 | .2 | 14 | 11 | 293 | 3.01 | 10 | 5 | ND | 8 | 3 | .6 | 2 | 4 | 17 | .02 | .029 | 21 | 9 | .38 | 119 | .03 | 3 | 1.92 | .01 | .05 | 1 |
| 141979 | 1 | 23 | 78 | 649 | .2 | 17 | 11 | 213 | 2.72 | 11 | 5 | ND | 7 | 4 | .5 | 2 | 2 | 15 | .05 | .057 | 16 | 9 | .29 | 144 | .03 | 3 | 1.95 | .01 | .04 | 1 |
| 141980 | 1 | 39 | 160 | 836 | .9 | 23 | 16 | 250 | 3.44 | 16 | 5 | ND | 8 | 4 | .6 | 2 | 2 | 21 | .03 | .044 | 14 | 11 | .34 | 124 | .03 | 2 | 1.99 | .01 | .04 | 1 |
| 141981 | 1 | 59 | 245 | 1544 | .1 | 40 | 19 | 514 | 4.53 | 6 | 5 | ND | 7 | 5 | 1.1 | 2 | 2 | 30 | .10 | .056 | 12 | 37 | .71 | 215 | .09 | 2 | 1.45 | .01 | .04 | 1 |
| 141982 | 1 | 26 | 183 | 957 | .6 | 19 | 16 | 322 | 3.24 | 9 | 5 | ND | 8 | 3 | .4 | 2 | 2 | 19 | .03 | .039 | 19 | 12 | .30 | 151 | .02 | 2 | 2.01 | .01 | .04 | 1 |
| 141983 | 1 | 17 | 44 | 317 | .1 | 15 | 9 | 362 | 2.92 | 4 | 5 | ND | 4 | 3 | .2 | 2 | 2 | 14 | .04 | .020 | 12 | 7 | .12 | 503 | .02 | 2 | 1.30 | .01 | .03 | 1 |
| 141984 | 1 | 33 | 55 | 373 | .1 | 29 | 13 | 722 | 3.61 | 5 | 5 | ND | 4 | 7 | .4 | 4 | 2 | 27 | .07 | .029 | 11 | 26 | .42 | 1230 | .07 | 2 | 1.85 | .01 | .04 | 1 |
| 141985 | 1 | 14 | 51 | 439 | .1 | 15 | 8 | 217 | 2.76 | 6 | 5 | ND | 5 | 4 | .3 | 2 | 2 | 21 | .04 | .042 | 14 | 11 | .26 | 217 | .03 | 2 | 2.18 | .01 | .04 | 1 |
| STANDARD C | 19 | 59 | 39 | 131 | 6.9 | 72 | 32 | 1056 | 3.98 | 37 | 18 | 7 | 37 | 53 | 20.0 | 16 | 22 | 56 | .53 | .092 | 38 | 56 | .91 | 183 | .07 | 33 | 1.89 | .06 | .14 | 11 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NC90-101 | 2 | 18 | 135 | 1027 | .9 | 14 | 7 | 27 | 2.29 | 29 | 5 | ND | 9 | 1 | 1.8 | 2 | 2 | 2 | .02 | .024 | 7 | 3 | .01 | 25 | .01 | 5 | .23 | .01 | .17 | 1 |
| NC90-104 | 3 | 50 | 47 | 43 | .4 | 16 | 7 | 145 | .72 | 53 | 5 | ND | 2 | 16 | .2 | 2 | 3 | 5 | .15 | .056 | 4 | 8 | .01 | 127 | .01 | 4 | .15 | .02 | .05 | 3 |
| NC90-105 | 1 | 441 | 26 | 39 | .4 | 240 | 51 | 2428 | 5.47 | 22 | 5 | ND | 1 | 32 | .2 | 2 | 2 | 8 | 1.56 | .026 | 2 | 8 | .06 | 87 | .01 | 2 | .18 | .01 | .08 | 2 |
| NC90-106 | 1 | 558 | 13679 | 8318 | 45.6 | 15 | 5 | 5903 | 3.45 | 20 | 5 | ND | 1 | 596 | 32.4 | 172 | 6 | 5 | 2.05 | .015 | 2 | 15 | 1.00 | 109 | .01 | 2 | .39 | .02 | .19 | 1 |
| NC90-107 | 1 | 45 | 9377 | 2462 | 25.3 | 3 | 1 | 539 | .71 | 21 | 5 | ND | 1 | 169 | 20.3 | 22 | 8 | 2 | 18.53 | .021 | 3 | 1 | 8.89 | 19 | .01 | 5 | .03 | .01 | .02 | 1 |
| STANDARD C | 19 | 59 | 38 | 132 | 6.9 | 72 | 31 | 1055 | 3.98 | 40 | 21 | 7 | 40 | 53 | 18.5 | 15 | 21 | 56 | .51 | .100 | 39 | 60 | .89 | 181 | .07 | 37 | 1.89 | .06 | .14 | 12 |

✓ ASSAY RECOMMENDED

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

# GEOCHEMICAL ANALYSIS CERTIFICATE

## Kootenay Exploration PROJECT VEX-112-640-W428 File # 90-4342 Page 1

1051 Industrial Road #2, Cranbrook BC V1C 4K7

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 141824 | 1 | 11 | 50 | 60 | 2.2 | 6 | 3 | 176 | 1.98 | 10 | 5 | ND | 3 | 2 | .2 | 2 | 2 | 18 | .03 | .022 | 19 | 7 | .12 | 30 | .02 | 3 | .89 | .01 | .05 | 1 |
| 141825 | 1 | 14 | 41 | 90 | .9 | 6 | 5 | 137 | 2.62 | 12 | 14 | ND | 5 | 4 | 1.0 | 7 | 2 | 27 | .03 | .080 | 7 | 9 | .08 | 46 | .07 | 3 | 4.42 | .02 | .04 | 1 |
| 141826 | 1 | 15 | 89 | 384 | .3 | 13 | 5 | 152 | 2.95 | 13 | 5 | ND | 6 | 3 | .4 | 3 | 2 | 18 | .03 | .050 | 19 | 9 | .25 | 55 | .01 | 4 | 1.48 | .01 | .07 | 1 |
| 141827 | 1 | 9 | 68 | 45 | .8 | 4 | 2 | 138 | 3.34 | 15 | 26 | ND | 4 | 4 | .5 | 5 | 2 | 24 | .03 | .073 | 4 | 12 | .04 | 29 | .15 | 3 | 5.48 | .02 | .03 | 2 |
| 141828 | 1 | 14 | 31 | 93 | .4 | 7 | 3 | 127 | 2.41 | 14 | 9 | ND | 3 | 3 | .5 | 6 | 2 | 18 | .02 | .078 | 10 | 8 | .20 | 48 | .04 | 4 | 3.08 | .01 | .05 | 1 |
| 141829 | 1 | 21 | 35 | 76 | .4 | 8 | 5 | 307 | 3.42 | 8 | 5 | ND | 2 | 4 | .4 | 3 | 2 | 30 | .03 | .037 | 12 | 11 | .20 | 106 | .06 | 3 | 1.90 | .01 | .06 | 1 |
| 141830 | 1 | 19 | 29 | 97 | .1 | 10 | 8 | 396 | 3.79 | 11 | 8 | ND | 4 | 4 | .4 | 4 | 3 | 26 | .04 | .066 | 7 | 12 | .18 | 83 | .09 | 4 | 3.83 | .01 | .04 | 2 |
| 141831 | 1 | 18 | 24 | 87 | .3 | 9 | 6 | 181 | 2.81 | 18 | 5 | ND | 3 | 4 | .6 | 3 | 2 | 19 | .03 | .060 | 9 | 7 | .12 | 88 | .06 | 4 | 2.40 | .01 | .05 | 1 |
| 141832 | 2 | 27 | 44 | 74 | .4 | 13 | 8 | 195 | 3.12 | 14 | 5 | ND | 9 | 4 | .9 | 2 | 3 | 15 | .04 | .034 | 13 | 7 | .13 | 75 | .02 | 5 | 1.30 | .01 | .04 | 3 |
| 141833 | 1 | 31 | 40 | 113 | .2 | 21 | 8 | 119 | 3.65 | 15 | 5 | ND | 4 | 3 | .2 | 3 | 2 | 21 | .03 | .037 | 12 | 10 | .22 | 124 | .04 | 5 | 1.56 | .01 | .05 | 2 |
| 141834 | 1 | 35 | 29 | 117 | .2 | 19 | 6 | 257 | 3.36 | 12 | 5 | ND | 3 | 3 | .4 | 2 | 2 | 21 | .03 | .031 | 12 | 9 | .27 | 99 | .05 | 3 | 1.16 | .01 | .06 | 1 |
| 141835 | 1 | 14 | 14 | 75 | .1 | 12 | 5 | 152 | 2.86 | 3 | 5 | ND | 4 | 3 | .3 | 2 | 2 | 21 | .02 | .029 | 14 | 10 | .28 | 95 | .05 | 2 | 1.47 | .01 | .06 | 1 |
| 141836 | 1 | 36 | 19 | 83 | .1 | 26 | 13 | 483 | 4.01 | 6 | 5 | ND | 4 | 4 | .4 | 2 | 2 | 20 | .06 | .046 | 14 | 14 | .66 | 111 | .03 | 4 | 1.68 | .01 | .07 | 1 |
| 141837 | 1 | 6 | 25 | 73 | .1 | 12 | 9 | 1405 | 4.28 | 6 | 5 | ND | 1 | 4 | .4 | 5 | 2 | 16 | .15 | .081 | 4 | 10 | .22 | 75 | .04 | 4 | 1.52 | .01 | .03 | 1 |
| 141838 | 1 | 14 | 13 | 91 | .1 | 23 | 12 | 676 | 4.05 | 5 | 5 | ND | 1 | 7 | .2 | 2 | 2 | 31 | .15 | .051 | 12 | 16 | .78 | 333 | .06 | 4 | 1.93 | .01 | .09 | 1 |
| 141839 | 1 | 22 | 25 | 88 | .1 | 22 | 11 | 379 | 4.26 | 7 | 5 | ND | 3 | 7 | .6 | 3 | 2 | 35 | .09 | .047 | 8 | 15 | .66 | 205 | .14 | 5 | 2.99 | .02 | .06 | 1 |
| 141901 | 1 | 72 | 130 | 438 | .6 | 39 | 18 | 2198 | 6.37 | 22 | 5 | ND | 6 | 14 | 1.5 | 7 | 2 | 77 | .15 | .121 | 14 | 56 | 1.15 | 1038 | .12 | 4 | 2.55 | .01 | .07 | 1 |
| 141902 | 1 | 5 | 27 | 50 | .3 | 4 | 2 | 106 | 1.18 | 9 | 5 | ND | 4 | 2 | .3 | 2 | 4 | 14 | .01 | .017 | 22 | 5 | .08 | 34 | .03 | 2 | .83 | .01 | .04 | 3 |
| 141903 | 1 | 14 | 33 | 50 | 1.2 | 5 | 7 | 219 | 2.20 | 14 | 21 | ND | 4 | 5 | .6 | 8 | 2 | 23 | .03 | .138 | 5 | 10 | .04 | 27 | .14 | 3 | 5.26 | .02 | .02 | 3 |
| 141904 | 1 | 18 | 70 | 187 | .3 | 13 | 6 | 189 | 3.28 | 14 | 5 | ND | 7 | 3 | .3 | 3 | 2 | 16 | .02 | .045 | 16 | 9 | .32 | 61 | .03 | 4 | 1.79 | .01 | .07 | 1 |
| 141905 | 1 | 15 | 190 | 521 | .5 | 11 | 6 | 299 | 4.11 | 13 | 5 | ND | 6 | 2 | .4 | 2 | 2 | 21 | .02 | .050 | 16 | 9 | .32 | 59 | .03 | 4 | 1.86 | .01 | .06 | 1 |
| 141906 | 1 | 18 | 70 | 244 | .2 | 10 | 6 | 226 | 3.31 | 12 | 5 | ND | 4 | 2 | .4 | 2 | 2 | 17 | .01 | .039 | 20 | 8 | .31 | 41 | .02 | 4 | 1.17 | .01 | .06 | 1 |
| 141907 | 1 | 13 | 47 | 93 | .2 | 8 | 4 | 111 | 2.60 | 8 | 5 | ND | 4 | 3 | .3 | 2 | 2 | 17 | .03 | .035 | 13 | 8 | .19 | 35 | .04 | 2 | 1.87 | .01 | .04 | 2 |
| 141908 | 1 | 13 | 48 | 64 | .6 | 6 | 3 | 102 | 3.77 | 15 | 14 | ND | 5 | 4 | .7 | 4 | 2 | 30 | .02 | .072 | 5 | 11 | .12 | 50 | .11 | 3 | 3.90 | .01 | .03 | 1 |
| 141909 | 1 | 36 | 27 | 127 | .1 | 16 | 8 | 168 | 3.60 | 12 | 5 | ND | 8 | 2 | .2 | 2 | 2 | 16 | .04 | .040 | 19 | 10 | .40 | 47 | .02 | 4 | 1.18 | .01 | .06 | 1 |
| 141910 | 1 | 21 | 7 | 73 | .1 | 11 | 5 | 198 | 3.20 | 6 | 5 | ND | 3 | 2 | .4 | 2 | 2 | 21 | .03 | .045 | 17 | 9 | .33 | 42 | .03 | 4 | .87 | .01 | .05 | 2 |
| 141911 | 1 | 31 | 23 | 70 | .5 | 19 | 7 | 192 | 3.47 | 8 | 5 | ND | 3 | 3 | .4 | 2 | 2 | 19 | .06 | .051 | 13 | 10 | .54 | 75 | .04 | 3 | 1.31 | .01 | .08 | 2 |
| 141912 | 1 | 14 | 19 | 90 | .4 | 15 | 7 | 433 | 3.80 | 6 | 5 | ND | 2 | 4 | .2 | 2 | 2 | 29 | .04 | .053 | 13 | 14 | .50 | 117 | .05 | 4 | 1.47 | .01 | .07 | 2 |
| 141913 | 1 | 15 | 18 | 89 | .3 | 15 | 9 | 606 | 4.79 | 5 | 5 | ND | 2 | 6 | .7 | 2 | 2 | 36 | .13 | .091 | 7 | 16 | .40 | 150 | .12 | 4 | 2.66 | .01 | .07 | 1 |
| 141914 | 1 | 13 | 15 | 70 | .1 | 13 | 6 | 126 | 3.14 | 2 | 5 | ND | 5 | 3 | .2 | 2 | 2 | 27 | .03 | .038 | 14 | 12 | .43 | 212 | .04 | 2 | 1.46 | .01 | .06 | 2 |
| 141915 | 1 | 21 | 12 | 65 | .1 | 20 | 8 | 214 | 3.55 | 4 | 5 | ND | 4 | 2 | .3 | 2 | 2 | 17 | .03 | .036 | 16 | 11 | .51 | 91 | .02 | 2 | 1.09 | .01 | .06 | 2 |
| 141916 | 1 | 56 | 120 | 1214 | .4 | 29 | 9 | 490 | 4.60 | 15 | 5 | ND | 7 | 4 | .9 | 6 | 2 | 20 | .13 | .048 | 11 | 14 | .88 | 173 | .02 | 3 | 1.96 | .01 | .07 | 1 |
| 141917 | 1 | 20 | 197 | 748 | .5 | 18 | 7 | 1040 | 3.22 | 19 | 5 | ND | 5 | 8 | 1.6 | 5 | 2 | 21 | .15 | .041 | 14 | 10 | .48 | 467 | .06 | 5 | 2.19 | .01 | .08 | 1 |
| 141918 | 1 | 24 | 414 | 1655 | 1.0 | 24 | 12 | 6650 | 6.50 | 22 | 10 | ND | 8 | 11 | 6.1 | 9 | 2 | 33 | .29 | .073 | 17 | 16 | .78 | 1290 | .08 | 4 | 3.16 | .01 | .08 | 1 |
| 141919 | 1 | 14 | 91 | 376 | 1.1 | 12 | 6 | 1111 | 2.81 | 18 | 5 | ND | 3 | 4 | 1.1 | 3 | 2 | 24 | .03 | .051 | 13 | 10 | .27 | 235 | .06 | 4 | 1.63 | .01 | .09 | 1 |
| 141920 | 1 | 18 | 151 | 581 | 2.4 | 19 | 13 | 1712 | 4.07 | 23 | 11 | ND | 7 | 7 | 1.6 | 7 | 2 | 26 | .07 | .074 | 5 | 12 | .22 | 232 | .12 | 2 | 4.61 | .02 | .05 | 1 |
| STANDARD C | 19 | 58 | 39 | 130 | 7.1 | 73 | 31 | 1047 | 3.98 | 37 | 19 | 7 | 38 | 52 | 18.5 | 15 | 21 | 55 | .51 | .093 | 39 | 58 | .89 | 183 | .09 | 36 | 1.89 | .06 | .14 | 12 |

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

**DATE RECEIVED:** SEP 12 1990 **DATE REPORT MAILED:** Sept 18/90 **SIGNED BY** ..D. Toye.. D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 141921 | 2 | 10 | 413 | 456 | 2.1 | 11 | 14 | 567 | 2.69 | 16 | 16 | ND | 4 | 7 | 1.0 | 2 | 2 | 27 | .09 | .121 | 6 | 9 | .18 | 73 | .17 | 4 | 3.94 | .02 | .05 | 1 |
| 141922 | 1 | 18 | 224 | 554 | 1.7 | 13 | 12 | 763 | 3.41 | 20 | 12 | ND | 4 | 6 | 1.2 | 5 | 2 | 36 | .06 | .067 | 7 | 13 | .22 | 144 | .10 | 4 | 4.01 | .02 | .05 | 1 |
| 141923 | 1 | 22 | 155 | 632 | .8 | 15 | 11 | 1385 | 3.53 | 23 | 5 | ND | 4 | 6 | .7 | 5 | 2 | 27 | .12 | .105 | 12 | 12 | .40 | 129 | .03 | 5 | 2.17 | .01 | .10 | 1 |
| 141924 | 1 | 20 | 217 | 331 | .7 | 7 | 8 | 264 | 2.43 | 11 | 5 | ND | 5 | 4 | .4 | 3 | 2 | 21 | .04 | .026 | 16 | 9 | .16 | 158 | .02 | 4 | 1.87 | .01 | .05 | 1 |
| 141925 | 1 | 30 | 341 | 895 | .4 | 18 | 14 | 1060 | 4.37 | 24 | 5 | ND | 9 | 4 | .4 | 5 | 2 | 24 | .05 | .160 | 18 | 13 | .40 | 83 | .03 | 5 | 2.02 | .01 | .07 | 1 |
| 141926 | 1 | 21 | 165 | 249 | .9 | 8 | 10 | 595 | 2.87 | 20 | 9 | ND | 4 | 5 | .6 | 6 | 2 | 29 | .05 | .088 | 7 | 14 | .17 | 60 | .10 | 4 | 3.89 | .02 | .04 | 1 |
| 141927 | 1 | 16 | 231 | 491 | 2.4 | 12 | 8 | 226 | 3.67 | 10 | 9 | ND | 6 | 4 | .2 | 4 | 2 | 31 | .04 | .056 | 9 | 12 | .26 | 87 | .06 | 4 | 3.91 | .01 | .04 | 1 |
| 141928 | 1 | 50 | 110 | 958 | .1 | 20 | 9 | 313 | 5.26 | 22 | 5 | ND | 6 | 5 | .5 | 2 | 2 | 89 | .07 | .047 | 20 | 15 | .45 | 98 | .02 | 4 | 2.02 | .01 | .04 | 1 |
| 141929 | 1 | 13 | 127 | 235 | .7 | 7 | 4 | 167 | 4.58 | 16 | 5 | ND | 3 | 8 | .2 | 4 | 2 | 45 | .10 | .032 | 11 | 13 | .20 | 66 | .07 | 5 | 2.65 | .01 | .04 | 1 |
| 141930 | 1 | 16 | 92 | 217 | .8 | 6 | 6 | 198 | 3.14 | 12 | 19 | ND | 3 | 17 | 1.1 | 4 | 2 | 31 | .25 | .083 | 5 | 11 | .11 | 77 | .12 | 4 | 6.00 | .02 | .03 | 1 |
| 141931 | 5 | 58 | 401 | 585 | .3 | 14 | 6 | 238 | 7.00 | 16 | 5 | ND | 10 | 5 | .5 | 3 | 2 | 30 | .02 | .096 | 16 | 16 | .35 | 40 | .02 | 4 | 1.81 | .01 | .05 | 1 |
| 141932 | 3 | 30 | 284 | 441 | .4 | 10 | 5 | 181 | 4.17 | 14 | 9 | ND | 8 | 5 | .2 | 3 | 2 | 28 | .03 | .100 | 11 | 13 | .30 | 86 | .04 | 4 | 3.09 | .01 | .05 | 1 |
| 141933 | 6 | 21 | 271 | 196 | .1 | 3 | 2 | 58 | 4.06 | 9 | 5 | ND | 6 | 5 | .2 | 2 | 2 | 23 | .03 | .056 | 16 | 8 | .09 | 35 | .01 | 4 | 1.02 | .01 | .05 | 1 |
| 141934 | 2 | 25 | 242 | 441 | .6 | 10 | 6 | 142 | 3.47 | 18 | 9 | ND | 8 | 4 | .2 | 4 | 2 | 25 | .03 | .048 | 12 | 14 | .30 | 89 | .05 | 5 | 3.58 | .01 | .05 | 1 |
| 141935 | 3 | 27 | 622 | 439 | .5 | 9 | 4 | 109 | 4.79 | 17 | 5 | ND | 8 | 8 | .4 | 2 | 2 | 29 | .04 | .054 | 18 | 13 | .28 | 69 | .03 | 5 | 2.17 | .01 | .06 | 1 |
| 141936 | 2 | 21 | 361 | 385 | .8 | 7 | 4 | 110 | 4.48 | 16 | 7 | ND | 9 | 4 | .2 | 2 | 2 | 33 | .03 | .041 | 13 | 14 | .18 | 57 | .05 | 5 | 3.14 | .01 | .04 | 1 |
| 141937 | 2 | 34 | 229 | 1055 | .5 | 25 | 12 | 264 | 4.38 | 22 | 8 | ND | 9 | 5 | 1.0 | 2 | 5 | 31 | .04 | .062 | 14 | 23 | .41 | 102 | .06 | 6 | 3.28 | .01 | .04 | 1 |
| 141938 | 3 | 25 | 202 | 334 | .6 | 11 | 6 | 278 | 4.51 | 18 | 5 | ND | 8 | 4 | .2 | 3 | 4 | 31 | .03 | .066 | 14 | 13 | .23 | 78 | .05 | 5 | 1.98 | .01 | .05 | 1 |
| 141986 | 1 | 22 | 91 | 213 | .2 | 18 | 12 | 343 | 4.35 | 26 | 5 | ND | 6 | 7 | .3 | 2 | 2 | 43 | .12 | .107 | 10 | 19 | .33 | 187 | .08 | 7 | 2.49 | .01 | .10 | 1 |
| 141987 | 1 | 35 | 56 | 187 | .7 | 17 | 12 | 808 | 3.94 | 30 | 5 | ND | 6 | 3 | .2 | 3 | 2 | 54 | .04 | .059 | 14 | 16 | .45 | 90 | .05 | 5 | 1.88 | .01 | .12 | 1 |
| 141988 | 1 | 16 | 81 | 244 | 1.0 | 12 | 14 | 509 | 3.30 | 20 | 5 | ND | 4 | 5 | .4 | 2 | 2 | 26 | .04 | .108 | 12 | 13 | .22 | 89 | .06 | 7 | 2.53 | .01 | .10 | 1 |
| 141989 | 1 | 10 | 100 | 143 | .8 | 5 | 4 | 92 | 1.79 | 9 | 5 | ND | 2 | 4 | .2 | 2 | 2 | 23 | .03 | .034 | 8 | 9 | .10 | 81 | .05 | 3 | 2.96 | .01 | .03 | 1 |
| 141990 | 1 | 19 | 45 | 282 | .4 | 17 | 11 | 368 | 3.34 | 18 | 5 | ND | 5 | 5 | .2 | 2 | 3 | 18 | .07 | .053 | 15 | 10 | .45 | 145 | .02 | 4 | 1.42 | .01 | .06 | 1 |
| 141991 | 1 | 14 | 26 | 74 | .8 | 7 | 4 | 100 | 2.86 | 6 | 13 | ND | 4 | 3 | .2 | 3 | 2 | 26 | .03 | .047 | 9 | 10 | .14 | 81 | .08 | 4 | 2.69 | .01 | .03 | 1 |
| 141992 | 1 | 58 | 21 | 121 | .1 | 17 | 10 | 297 | 3.63 | 7 | 5 | ND | 6 | 3 | .2 | 2 | 2 | 17 | .07 | .046 | 15 | 11 | .47 | 74 | .03 | 5 | 1.36 | .01 | .06 | 1 |
| 141993 | 1 | 36 | 23 | 84 | .1 | 15 | 9 | 250 | 3.15 | 12 | 5 | ND | 6 | 2 | .2 | 2 | 2 | 10 | .04 | .034 | 17 | 6 | .29 | 50 | .01 | 5 | .91 | .01 | .04 | 1 |
| 141994 | 1 | 26 | 23 | 86 | .2 | 13 | 6 | 101 | 3.24 | 13 | 5 | ND | 6 | 2 | .2 | 2 | 2 | 15 | .03 | .029 | 15 | 9 | .29 | 93 | .01 | 3 | 1.18 | .01 | .06 | 1 |
| 141995 | 1 | 32 | 13 | 78 | .1 | 14 | 7 | 170 | 4.03 | 6 | 5 | ND | 4 | 2 | .2 | 2 | 2 | 18 | .01 | .038 | 18 | 12 | .36 | 50 | .02 | 5 | .93 | .01 | .06 | 1 |
| 141996 | 1 | 7 | 25 | 36 | .1 | 6 | 3 | 165 | 2.72 | 2 | 5 | ND | 3 | 2 | .2 | 2 | 5 | 35 | .02 | .028 | 17 | 8 | .18 | 44 | .06 | 4 | .92 | .01 | .05 | 2 |
| 141997 | 1 | 18 | 11 | 75 | .3 | 12 | 6 | 373 | 3.44 | 10 | 27 | ND | 4 | 6 | .2 | 7 | 2 | 31 | .07 | .053 | 6 | 16 | .30 | 153 | .13 | 5 | 5.56 | .02 | .04 | 1 |
| 141999 | 1 | 13 | 18 | 118 | .1 | 15 | 7 | 398 | 3.48 | 5 | 5 | ND | 2 | 5 | .2 | 3 | 2 | 36 | .06 | .053 | 14 | 15 | .46 | 195 | .08 | 5 | 1.90 | .01 | .08 | 2 |
| 142000 | 1 | 95 | 16 | 96 | .1 | 32 | 11 | 302 | 3.47 | 2 | 5 | ND | 4 | 5 | .2 | 2 | 2 | 23 | .11 | .037 | 13 | 15 | .99 | 148 | .06 | 5 | 1.74 | .01 | .10 | 1 |
| STANDARD C | 19 | 60 | 39 | 133 | 7.2 | 73 | 31 | 1048 | 3.97 | 39 | 23 | 7 | 39 | 52 | 18.6 | 15 | 22 | 57 | .52 | .097 | 38 | 59 | .90 | 187 | .09 | 39 | 1.89 | .06 | .14 | 11 |

APPENDIX D

IN THE MATTER OF THE B.C. MINERAL ACT

AND THE MATTER OF A GEOLOGICAL PROGRAMME

CARRIED OUT ON THE

WALL 1-12, ASSURANCE, EXPERIMENT, BALD MTN., MONTANA, ECHO, CELEBRATION, DAVE 1-5, SANDY 1, ORMONDE, AND UMPIRE MINERAL CLAIMS AND THE MONTANA FRACTION CROWN GRANT

LOCATED NEAR BOSWELL, B.C.

IN THE NELSON MINING DIVISION OF THE

PROVINCE OF BRITISH COLUMBIA, MORE PARTICULARLY

N.T.S. 82F /7, 10

AFFIDAVIT

I, Nick Callan, of the City of North Vancouver in the Province of British Columbia, make oath and say:

1. THAT I am employed as a geologist by Cominco Ltd. and as such have a personal knowledge of the facts to which I hereinafter depose;

2. THAT annexed hereto is a true copy of expenditures incurred on a geological survey on the above noted claims;

3. THAT the said expenditures were incurred between May and September, 1990, inclusive, for the purposes of mineral exploration on the above noted claims.

N J Callan

N.J. CALLAN
Geologist, Cominco Ltd.

APPENDIX E

STATEMENT OF QUALIFICATIONS

I, Nicholas J. Callan, of 204-105, W. Kings Rd., North Vancouver, B.C., hereby declare that I:

1. Graduated from Oxford University, United Kingdom with a B.A. in Geology in July, 1985 and an M.Sc. in Geology from the University of Toronto in September, 1988.

2. Have been actively engaged in mineral exploration in Western Canada as a full time geologist with Cominco Ltd. since March, 1990.

November 26, 1990

N.J. Callan

N. J. Callan
Geologist II