1991

GEOCHEMICAL and DRILLING REPORT
On the DILL CLAIM GROUP

Similkameen Mining Division, B.C.
NTS: 92H/9W,16W; Lat 49°45'N; Long 120°26'W

MARCH 1992. (BC '91 ASSESSMENT)

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1991 GEOCHEMICAL and DRILLING REPORT

ON THE DILL CLAIM GROUP

Similkameen Mining Division, B.C.
Latitude 49°45'N; Longitude 120°25'W
NTS: 92H/9W,16W

For

FAIRFIELD MINERALS LTD.
Vancouver, British Columbia

By

John Cormier, B.Sc.
Geologist

CORDILLERAN ENGINEERING LTD.
1980-1055 W. Hastings St.
Vancouver, B.C. V6E 2E9

Date Submitted: March, 1992
Field Period: June 6 to September 5, 1991

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(in pocket)

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1.0 SUMMARY AND CONCLUSIONS

The Dill property comprises 32 claims (289 units) located 47 kilometres southeast of Merritt, B.C. within the Similkameen Mining Division. The claims, staked during 1988, 1989 and 1990 are owned 100 percent by Fairfield Minerals Ltd. and are subject to an option agreement with Placer Dome Inc.

Logging roads provide excellent access to all parts of the property. The terrain consists of rolling forested hills on an upland plateau.

The claims cover the contact between Upper Triassic Nicola Group volcanic/intrusive rocks on the west and a granite batholith of Jurassic age on the east. The volcanic rocks are strongly fractured with local zones of carbonate, silica or clay alteration. Sulphide minerals occuring as disseminations or within quartz or calcite veinlets, include pyrite, chalcopyrite and rarely pyrrhotite.

Previous exploration in the Dill area focussed on copper mineralization, with mapping, soil sampling, geophysical surveys, trenching and drilling conducted between 1963 and 1983. In 1987 and 1988, the area was re-examined by Fairfield to evaluate its gold potential utilizing soil sampling, prospecting and rock sampling within the area of the Dill 1 claim. In 1989 follow-up work included further geochemical sampling, linecutting, an I.P. survey and trenching, as well as soil sampling/prospecting outside of the Dill 1 area. Soil sampling over the remainder of the property in 1990 outlined a large area of anomalous copper/gold geochemistry on the Dill 2 claim. Follow-up work on this target included linecutting, magnetometer, VLF-EM and I.P. surveys.

The 1991 exploration program focussed on the area of coincident copper/gold geochemical and I.P. anomalies outlined in 1990. Eleven NQ diamond drill holes totalling 2030 metres were drilled along three north-south 200m-spaced fences. A 4.4 line-kilometre I.P. survey tested the westward extent of high chargeability responses. Reconnaissance rock and soil sampling were conducted elsewhere on the property.

Drilling in 1991 intersected significant chalcopyrite mineralization, largely structurally controlled and hosted by alkalic monzonites, monzodiorites and diorites in the south and andesitic volcanics in the north of the drill grid area. Some of the better intercepts include 187.1 metres of 0.24% Cu (D91-2), 48.2 metres of 0.28% Cu (D91-5) and 180.4 metres of 0.13% Cu (D93-8).

The source of numerous gold soil geochemical anomalies (>50 ppb Au) remains unclear considering the generally low gold values returned from core analyses (an isolated high of 710 ppb Au over 3.1 metres). Narrow gold-bearing veins or structures may exist between the wide spaced drill holes.

The style and distribution of mineralization and alteration, together with the geologic setting, characterize a volcanic-type porphyry copper model with a convective pattern of hydrothermal fluid flow. Convection cells, dominated by meteoric water and driven by the heat of intrusions, scavenge metals and sulphur from the country rock and concentrate them in permeable zones of strong to intense fracturing.

The drill program was designed to test for a porphyry system containing a minimum of 100 million tonnes grading >0.2% Cu and >0.5 gm/tonne Au, within 150 metres (500 feet) of surface. Although significant copper mineralization was intersected over considerable widths in 5 of 11 holes, this objective was not realized. However, further drilling to the west and south of the 1991 holes, within the known I.P. anomaly, has potential for outlining a smaller economic copper deposit.

The 1991 I.P. survey extended the existing chargeability anomaly by approximately 150 metres to the west.

Results from limited 1991 prospecting and reconnaissance sampling, and previous geochemical surveys (1989-90), indicate moderate to good potential for locating significant gold-quartz vein or porphyry copper-gold deposits elsewhere on the property.

****

2.0 RECOMMENDATIONS

The entire property should be geologically mapped.

Copper mineralization intersected by drilling on the west side of Dill 2 claim should be further tested by approximately 1100m (3600 ft) of diamond drilling in six holes to the west and south of the existing drill grid. Emphasis should be placed on areas of alteration or anomalous soil geochemistry.

A total of 352 soil samples collected in 1990 from lines 3000W-2000W (00N-2400S) inclusive and analyzed for gold at Acme Analytical Labs (Vancouver) should be analyzed for copper in order to evaluate this area's porphyry copper-gold potential.

A total of 283 line-kilometres if VLF-EM should be conducted at 100m by 12.5m spacings within the area bounded by grid lines 2000W to 2000E and 2400S to 4500N to help define structures which may be hosting gold-mineralized veins.

A portable drill should be used to obtain soil profile samples to bedrock in areas of anomalous gold geochemistry. Samples should be analyzed for gold. This procedure would determine depth of overburden and more closely define the mineralizated source area.

Areas with mineral showings or strongly anomalous surface/soil profile gold geochemistry, coincident geophysical signatures and an overburden depth less than four metres should be trenched to bedrock with an excavator. Trenches should be cleaned, mapped and chip sampled.

An area of anomalous copper/gold geochemistry and corresponding I.P. chargeability highs on Dill 1 claim was tested by trenching in 1989 and requires further evaluation by diamond drilling.

Respectfully submitted

CORDILLERAN ENGINEERING LTD.

John Cormier

John Cormier, B.Sc.,
Geologist

JC/z
March, 1992

3.0 INTRODUCTION

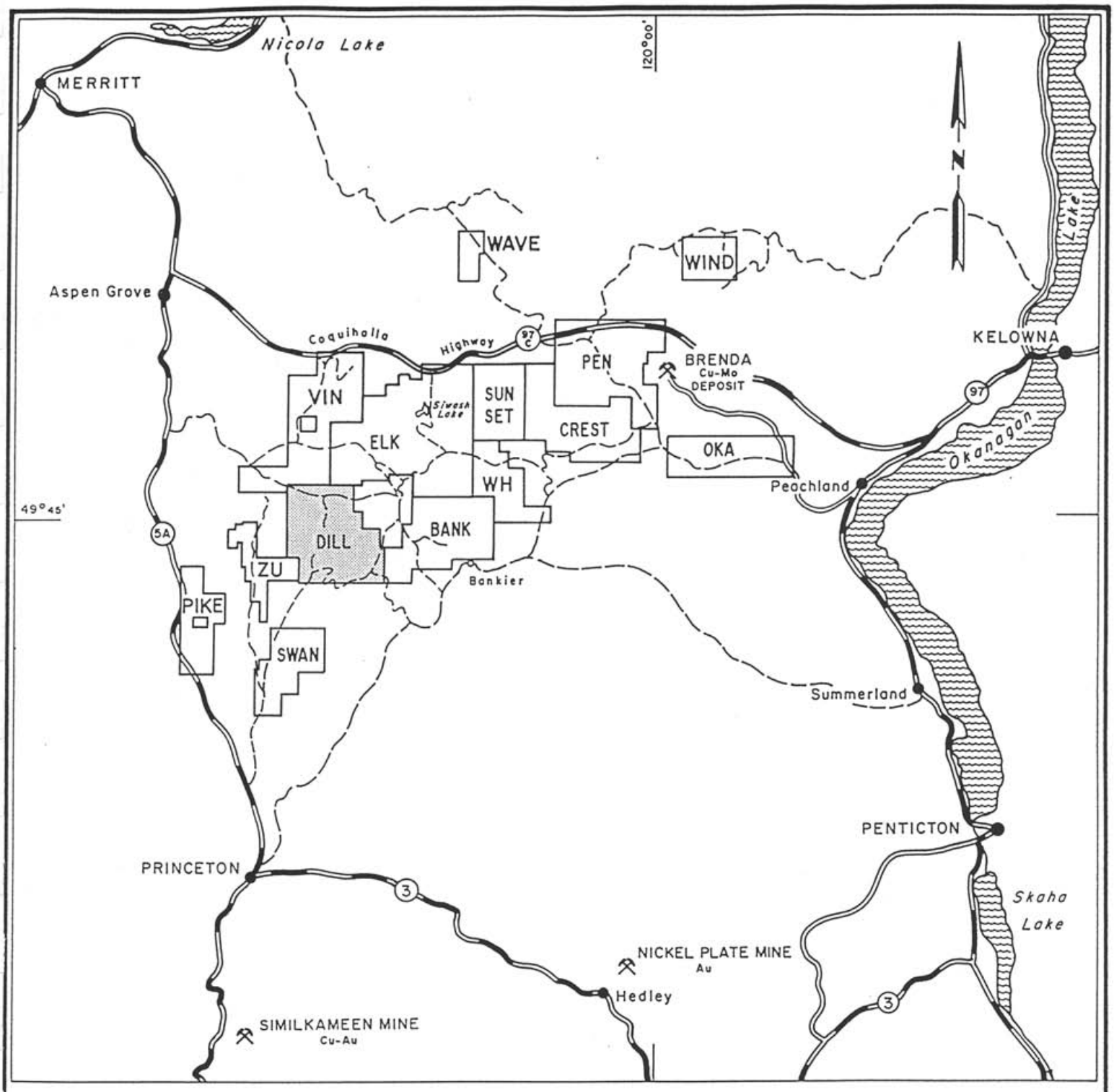
3.1 LOCATION AND PHYSIOGRAPHY (Figure 1)

The Dill property is located 50 kilometres west of Peachland and 47 kilometres southeast of Merritt in south-central British Columbia (Figure 1). The property is centred on latitude 49°45'N and longitude 120°26' W within NTS map areas 92H/9W and 16W. Good gravel roads provide access from Peachland and from the Princeton-Merritt highway (5A) via the Dillard Main Forest Service road, and from the Coquihalla highway (97C) via the Shrimpton Creek road south from the Loon Lake Road exit. Several logging roads traverse the property providing excellent access.

The claims cover an area of 70 square kilometres in rolling, hilly terrain on a broad uplands plateau. Elevations range from 1250m to 1700m above sea level. Small streams drain the property to the north, west and south. Dillard Creek has its source at two small lakes centrally located on the property. Outcrop exposures are moderately abundant and till cover overall is relatively shallow. Mature stands of spruce, balsam, fir and pine have been logged from several scattered plots. Annual temperatures range from -20° C to 30° C and precipitation is low to moderate. The area is basically snow-free from late June through October.

3.2 CLAIM DATA (Table 1, Figure 2)

The current status of the Dill claims is indicated in Table 1, and their locations are shown on Figure 2. The Dill claims were staked in May and October 1988, May and June 1989 and May 1990. The property is located in the Similkameen Mining Division and is 100 percent owned by Fairfield Minerals Ltd. It is subject to an option agreement whereby Placer Dome Inc. may earn an interest.



FAIRFIELD MINERALS LTD.

PROPERTY LOCATION MAP

SOUTHERN BRITISH COLUMBIA

OKANAGAN AREA, NTS 82E/92H

0 10 20 30 Kilometres

0 10 20 Miles

SCALE 1:500,000

CORDILLERAN ENGINEERING LTD.
1980-1055 W. HASTINGS STREET
VANCOUVER, B.C. V6E 2E9

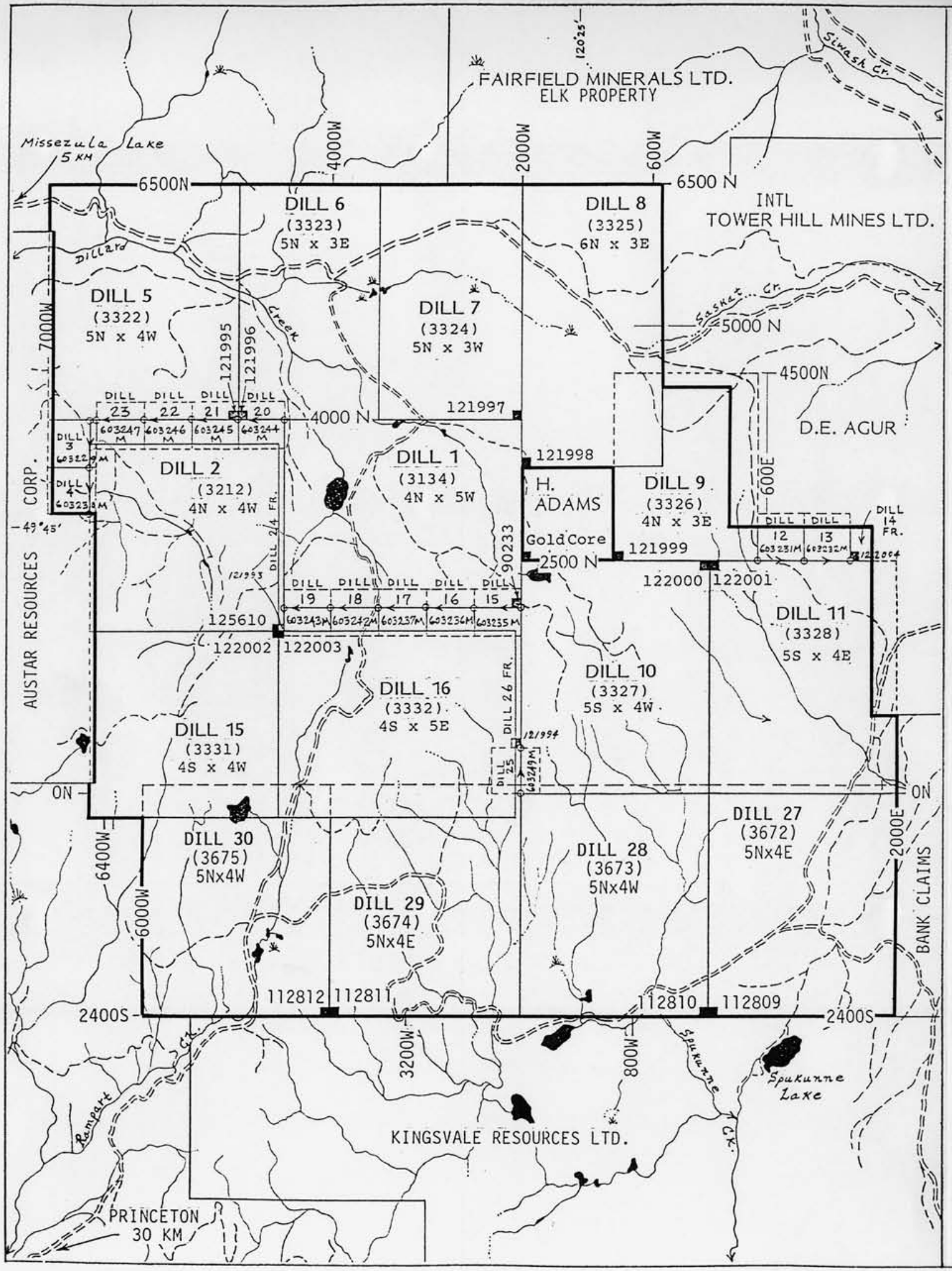
NOVEMBER 1991

FIGURE 1

Table 1 **CLAIM STATUS**

CLAIM	UNITS	RECORD NO.	EXPIRY DATE
DILL 1	20	3134	21 JUN. 2001
DILL 2	16	3212	13 OCT. 2001
DILL 3	2-post	3320	9 MAY 2001
DILL 4	2-post	3321	9 MAY 2001
DILL 5	20	3322	8 MAY 1998
DILL 6	15	3323	8 MAY 1997
DILL 7	15	3324	8 MAY 2001
DILL 8	18	3325	9 MAY 2001
DILL 9	12	3326	10 MAY 2001
DILL 10	20	3327	10 MAY 1998
DILL 11	20	3328	11 MAY 1998
DILL 12	2-post	3329	10 MAY 1997
DILL 13	2-post	3330	10 MAY 1997
DILL 14FR	1	3372	19 JUNE 1997
DILL 15	16	3331	11 MAY 2001
DILL 15	2-post	3387	21 JUNE 1997
DILL 16	20	3332	11 MAY 1998
DILL 16	2-post	3388	21 JUNE 1997
DILL 17	2-post	3389	21 JUNE 1997
DILL 18	2-post	3390	21 JUNE 2001
DILL 19	2-post	3391	21 JUNE 2001
DILL 20	2-post	3392	24 JUNE 2001
DILL 21	2-post	3393	24 JUNE 2001
DILL 22	2-post	3394	24 JUNE 2001
DILL 23	2-post	3395	24 JUNE 2001
DILL 24FR	1	3396	24 JUNE 2001
DILL 25	2-post	3409	27 JUNE 1997
DILL 26FR	1	3410	27 JUNE 1997
DILL 27	20	3672	22 MAY 1998
DILL 28	20	3673	23 MAY 1998
DILL 29	20	3674	24 MAY 1998
DILL 30	20	3675	24 MAY 1997
32 Claims	275 Units + 14 2-post claims		

JRC.



LEGEND

- 90233 — Legal Corner Post and Tag No. for 4-Post or Fractional Claim.
- (3212) — Record No. of 4-Post Claim.
- 603230M — Initial and/or Final Posts, Location Line Direction and Tag No. for 2-Post Claim.
- -800W — Grid Line Number
- Access Roads

FAIRFIELD MINERALS LTD.

DILL PROPERTY

CLAIM AND GRID LOCATION

Similkameen Mining Division, B.C.
NTS: 92H/9W and /16W

SCALE: 1:50,000

1.0 0.5 1.0 2.0 3.0 4.0 KM

By: CORDILLERAN ENGINEERING LTD.
Vancouver, B.C.

December 1991

Figure 2

3.3 HISTORY

The northwest Dill claims and area immediately to the west were explored for copper, gold and silver from 1963 through 1970 by several companies utilizing soil sampling, mapping, ground EM, airborne magnetometer, I.P., trenching and extensive percussion and diamond drilling. Analyses of drill core from the Primer South copper showing, an area presently within the Dill 2 claim, returned values of 0.13% Cu over 296 m and 0.26% Cu over 207 m including 59 m of 0.37% Cu. In 1988, diamond drilling conducted to the west of Dill 2 by Brican Resources Limited reported intercepts of 9.26 gm/tonne Au, 1.15% Cu over 1.8 m and 0.18% Cu over 68.6 m.

The central area of the Dill property was explored for copper in 1981 and 1983 by Cominco. Geological mapping, ground EM and magnetometer surveys and soil sampling were conducted. Chalcopyrite was found sporadically disseminated or in calcite veins cutting volcanic rocks intruded by dykes of variable compositions.

During 1987 Fairfield Minerals Ltd. conducted reconnaissance soil sampling in the area subsequently staked as Dill 1 claim. This sampling identified several areas of anomalous gold and copper and scattered anomalies of silver, lead, zinc and arsenic.

In 1988 Fairfield undertook grid soil sampling with follow-up detailed soil sampling, prospecting and rock sampling in areas of anomalous geochemistry. The work was conducted on, and surrounding, the Dill 1 claim. Following this program the Dill 2 claim was staked.

In April, 1989 Placer Dome Inc. entered into an option agreement whereby an interest could be earned in the Dill property. In May and June of 1989 Dill 3 through 26 claims were staked surrounding Dill 1 and 2. Soil sampling (200m x 50m) was carried out on a portion of the new claims with subsequent follow-up (50m x 50m) soil sampling, prospecting and rock sampling in geochemically anomalous areas. An I.P. survey and trenching were conducted on Dill 1 in an area of strong copper/gold geochemistry. Approximately 1900m of bedrock was exposed, mapped and sampled in 12 trenches. Continuous chip samples across quartz veins and altered wallrock yielded values up to 254.40 gm/tonne gold over 0.5 metres.

In May of 1990, the Dill 27-30 claims were staked. A total of 7696 soil samples were collected on claims not included in the 1988 and 1989 programs. A large coincident copper/gold anomaly and two linear gold trends were outlined. During October 1990, 22 line-kilometres of I.P., magnetometer and VLF-EM surveys were completed over the anomalous copper/gold zone on Dill 2 claim. Two parallel high chargeability trends were defined within an area about one kilometre square.

3.4 1991 EXPLORATION PROGRAM (Figure 3)

During 1991, eleven NQ diamond drill holes totalling 2030 m were drilled in three fences to test anomalous copper/gold geochemistry and chargeability responses outlined in 1990. A 4.4 line-kilometre I.P. survey was undertaken west of the existing Dill geophysical grid to test the projection of an I.P. chargeability high. Reconnaissance rock and soil sampling were also conducted within the property area.

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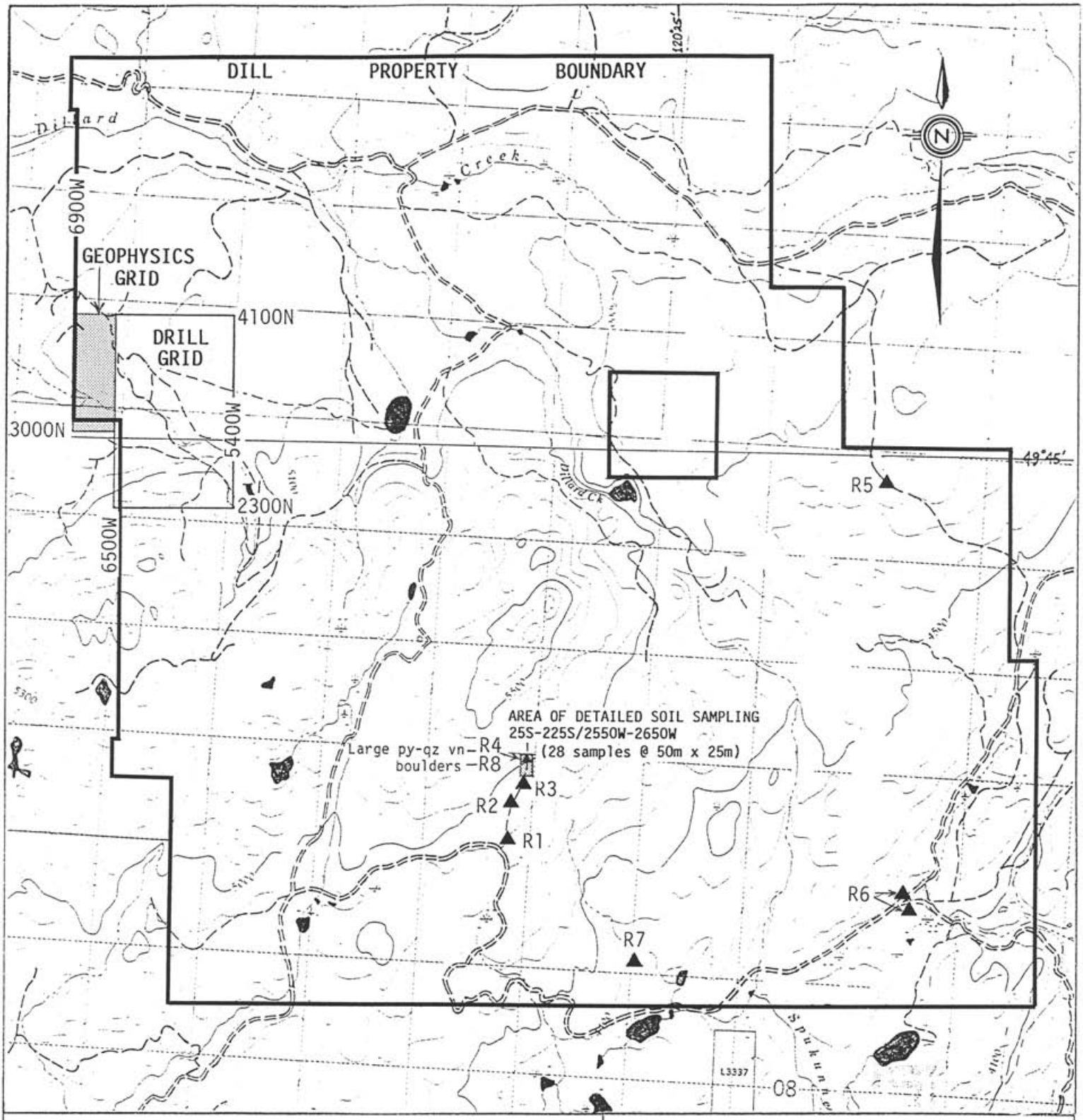


LEGEND

▲——— Rock Sample Site

'D91'——— Sample Number Prefix omitted on Map

Sample Descriptions/Analytical Results are summarized in Table 2 of text.

Geophysics Grid = Area of I.P. Survey

FAIRFIELD MINERALS LTD.
D I L L P R O P E R T Y

1991 EXPLORATION AREAS AND RECONNAISSANCE SAMPLE LOCATIONS

Similkameen Mining Division
NTS: 91H/9W, 16W, B.C.

Scale 1:50,000

1000 0 1000 2000M

By: Cordilleran Engineering Ltd.
Vancouver, B.C.

December 1991

Figure 3

4.0 GEOLOGY

4.1 REGIONAL GEOLOGY (Figure 4)

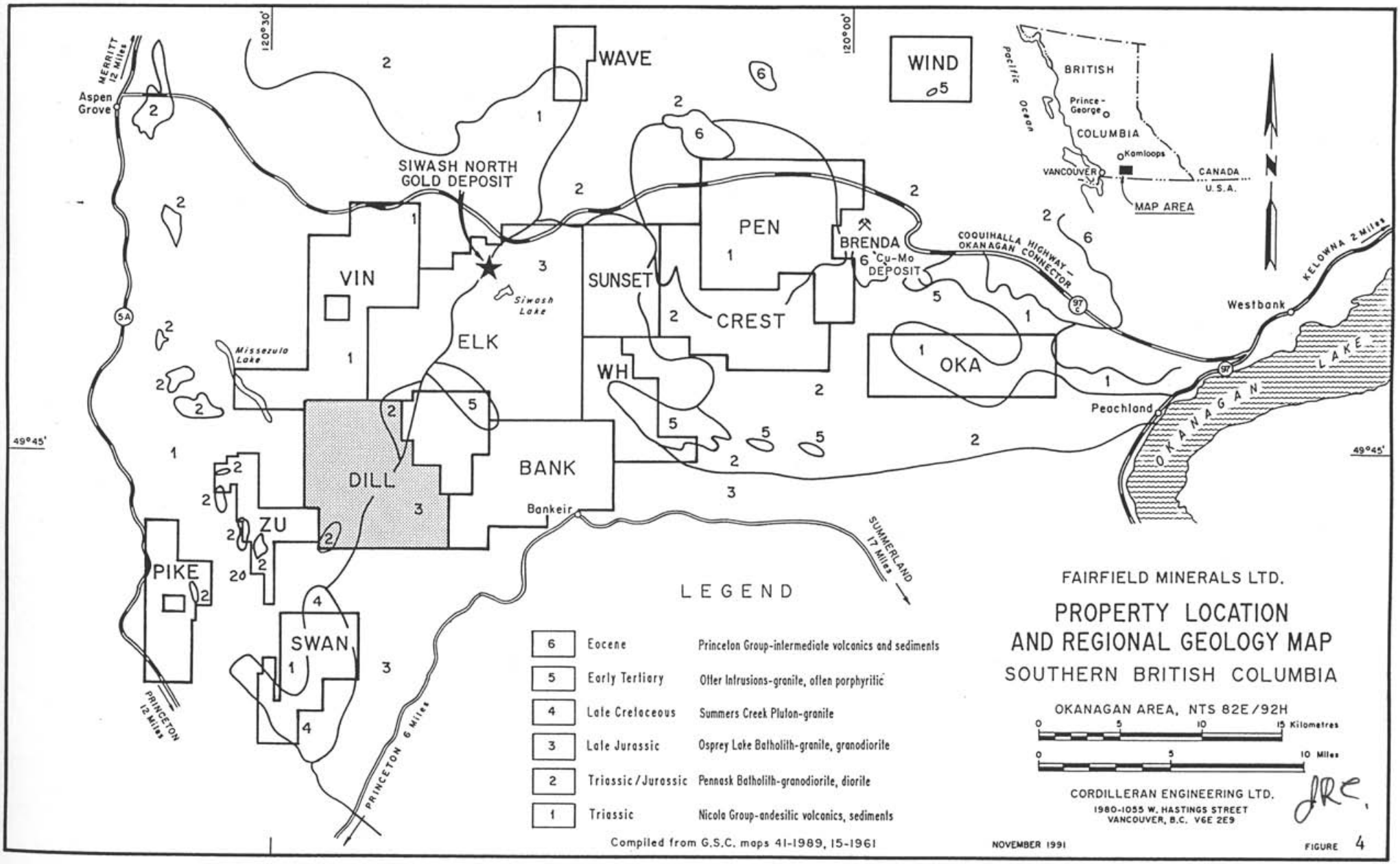
The Dill property is situated in the Intermontane tectonic belt in south-central British Columbia. The regional geology is shown on the northeastern part of GSC Map 41-1989, Hope (1:250,000), compiled by J.W.H.Monger (1984-89) which is condensed on Figure 4. The west side of the property is underlain by the Nicola Group, a package of intermediate to mafic volcanic rocks with minor limestone and sandstone intruded by consanguineous bodies of monzonite, diorite, granodiorite and dacite. These rocks have a genetic association with tectonic activity along the Summer's Creek and Allison fault systems which dominated the geology of the region in Late Triassic time (Preto, 1979). To the east, these rocks are in contact with granite and granodiorite of the Upper Jurassic Osprey Lake batholith.

4.2 PROPERTY GEOLOGY

Geological observations made during 1991 were confined to drill core from the Dill 2 claim area. This, along with observations made in the course of prospecting, sampling and detailed trench mapping on Dill 1 in 1989 have resulted in a geological overview. A petrographic report of 13 core samples from the 1991 drill program is appended.

Trenching revealed predominantly dark green, blocky Nicola Group volcanic rocks. These are fine-grained andesitic to basaltic flows and fragmental units which are contemporaneous with zones of diorite to granodiorite composition, considered to be sub-volcanic feeders. Drilling encountered similar intrusive and extrusive units of the Nicola Group.

Volcanics comprise predominantly light green to almost black, fine-grained andesite containing 0-70 percent augite/hornblende and plagioclase phenocrysts. Less common, volcanic breccia consists of sparse to concentrated clasts of granodiorite, monzonite, syenite and volcanics up to 15 cm, but typically 0.5 - 3 cm, with diffuse margins supported by a dark green to black fine-grained matrix with local augite/hornblende phenocrysts. Coarser grained andesites, trachyandesites and fine-grained tuffs are occasionally present.


MERRITT 12 Miles
Aspen Grove
120°30'
120°00'
WAVE
WIND
SIWASH NORTH GOLD DEPOSIT
PEN
BRENDA Cu-Mo DEPOSIT
COQUIHALLA HIGHWAY – OKANAGAN CONNECTOR
KELOWNA 2 Miles
Westbank
VIN
SUNSET
CREST
Siwash Lake
Missezula Lake
ELK
WH
OKA
Peachland
OKANAGAN LAKE
49°45'
DILL
BANK
Bankeir
SUMMERLAND 17 Miles
ZU
PIKE
SWAN
PRINCETON 12 Miles
PRINCETON 6 Miles
Pacific Ocean
BRITISH COLUMBIA
Prince George
Kamloops
VANCOUVER
CANADA
U.S.A.
MAP AREA
LEGEND
6 Eocene Princeton Group-intermediate volcanics and sediments
5 Early Tertiary Otter Intrusions-granite, often porphyritic
4 Late Cretaceous Summers Creek Pluton-granite
3 Late Jurassic Osprey Lake Batholith-granite, granodiorite
2 Triassic/Jurassic Pennask Batholith-granodiorite, diorite
1 Triassic Nicola Group-andesitic volcanics, sediments
Compiled from G.S.C. maps 41-1989, 15-1961
FAIRFIELD MINERALS LTD.
PROPERTY LOCATION AND REGIONAL GEOLOGY MAP
SOUTHERN BRITISH COLUMBIA
OKANAGAN AREA, NTS 82E/92H
0 5 10 15 Kilometres
0 5 10 Miles
CORDILLERAN ENGINEERING LTD.
1980-1055 W. HASTINGS STREET
VANCOUVER, B.C. V6E 2E9
NOVEMBER 1991
FIGURE 4

The majority of intrusive rocks are monzonites and monzodiorites with lesser diorites and dacites. Hornblende-plagioclase porphyry textures are common with phenocrysts typically measuring 1 - 3 mm. Groundmass textures range from aphanitic to moderately coarse (1 - 5 mm) interlocking crystals. Whole rock geochemical analysis of three intrusive core samples indicated an alkaline primary rock chemistry i.e., $Na_2O+K_2O>CaO$ (Appendix D). Post-mineralization porphyritic dykes indicate multiple intrusive phases.

4.2.1 Alteration

Most Nicola rocks on the property are massive, non-foliated and weakly metamorphosed, locally grading to greenschist facies. Zones of faulting and fracturing have served as conduits for multi-phase hydrothermal activity manifest in places by intense argillic, propylitic and carbonate alteration. Silicification, quartz and calcite veining and masses of epidote and garnet are locally developed.

In drill core from the Dill 2 claim, sericitic and propylitic alteration is pervasive in both intrusive and volcanic rocks. Plagioclase phenocrysts show sericite (and sometimes carbonate) cores with albitic(?) margins in thin section. Mafics (augite and/or hornblende) have been altered to combinations of chlorite $\pm$ epidote, carbonate, biotite, and secondary amphibole.

Extensive hematite probably resulted from near-surface oxidation of magnetite and as a by-product of hydrothermal alteration at depth.

Argillic alteration is concentrated in zones of faulting or strong fracturing. Original textures are destroyed resulting in an orange to green incompetent aggregate of sericite, K-feldspar and clay minerals. Secondary quartz and wispy narrow veinlets of MnO(?) are common.

Potassic alteration has been observed in three different modes; pervasive salmon-pink colored K-feldspar throughout the host rock (usually volcanic) typically less than a metre wide; thin orange to green selvages along carbonate $\pm$ epidote stringers, commonly with diffuse outer margins; or K-feldspar filling microfractures and crackle breccia, visible in thin section and stained slab.

Silicification is typically confined to quartz $\pm$ calcite, epidote veins and stringers, however, local increases in hardness of host rocks have been observed over narrow widths.

Local albite flooding occurs proximal to carbonate $\pm$ epidote stringers.

4.2.2 Mineralization

Core from the 1991 drill program contains abundant pyrite (up to 10% locally) and significant concentrations of chalcopyrite (up to 1% locally) hosted by both intrusive and volcanic rocks. Pyrite occurs in veinlets ($\pm$ carbonate, sericite, epidote, quartz) and as fine- to medium-grained disseminations.

Chalcopyrite is present as fracture coatings, disseminations, masses and fine veinlets. In thin section chalcopyrite is seen to occur as fine disseminations and irregular grains and clusters rimming, cutting and interstitial to pyrite. Mineralization is associated with early carbonate-sericite-(quartz) filled breccia. Potassic alteration coincides with high chalcopyrite concentrations.

Enriched gold values (up to 710 ppb over 3.1 m) correlate well with increased quartz $\pm$ calcite, epidote veinlets.

4.2.3 Genetic Considerations

A trend of low resistivity and truncated high chargeability values from the 1990 I.P. survey indicate the presence of an underlying structure coinciding with a west-northwest stream gully bisecting the 1991 drill grid. Sections of fault gouge material recovered from holes D91-6 and 10 support this conclusion. This structure, likely associated with the regional Summers Creek Fault system, may have been important in localizing volcanic activity during Late Triassic time. High concentrations of chalcopyrite (2.02% Cu/3.1 m in hole D91-6) suggest it was also a conduit for metal-rich fluids. Subsequent processes such as emplacement of intrusives, formation of breccias, hydrothermal fracturing and recurring fault movement created a permeable "plumbing system".

Although both volcanic and intrusive host rocks are of probable comagmatic origin, there is a clear division between them. The prominent WNW-trending structure marks this contact; oblique slip movement along the structure and subsequent erosion may have resulted in juxtaposition of the two units.

Significant copper mineralization intersected by drilling appears to be largely structurally controlled. The overall geological setting, along with the nature and distribution of alteration/mineralization, characterize a volcanic-type porphyry copper model. In this model, heat from an intrusion(s) sets up circulating convection cells dominated by meteoric water derived from permeable country rock. Metals and sulphur are subsequently scavenged from surrounding rock, concentrated in hydrothermal fluids, then deposited within zones of weakness as the heat dissipates. Calcium in abundant carbonate veinlets may have been derived from the alteration of calcic plagioclase or from minor limestone within the Nicola rocks (personal comm., K. Northcote, Nov. 1, 1991).

****

5.0 DIAMOND DRILLING

An eleven hole diamond drill program was undertaken on the west side of the Dill 2 claim between June 5 and August 22, 1991. A total of 2030 metres of NQ core was drilled along three fences to test coincident geochemical and I.P. anomalies and to verify earlier diamond drill results. Leclerc Diamond Drilling Ltd. of Beaverdell, B.C. conducted the drilling using a skid-mounted Longyear 38 drill. The overall average core recovery was 96% at an average drilling rate of 2.8 metres/hour.

Drill site locations were based on geochemical and geophysical targets defined in 1990 (see 1990 Geochemical and Geophysical Report). Holes were arranged in a grid pattern at 200, 300 or 600 metre centres on three 200 metre-spaced lines to most efficiently explore the full extent of the anomalous area. Percussion and diamond drilling in the late 1960's, partially within this target area, had intersected numerous zones of significant copper mineralization (see Appendix E). Two 1991 holes were positioned to confirm the results reported from 69-1, 2, 67-4 and 69-7. Mineralized fracture orientations measured from trenches within the drill grid showed a majority of attitudes striking roughly 120 degrees, dipping 40-60 degrees northeast. Subsequently, all holes were drilled at a 180 degree azimuth, dipping 50 degrees south.

5.1 DRILLING OPERATIONS

All heavy equipment for logging (skidder, loader) and drilling (excavator, skidder, drill) was mobilized to the property by lowbed truck. Drill sites in wooded areas were logged by K-Way Contracting and the timber transported to the Weyerhaeuser mill in Merritt. Drill pads were levelled by Wiltech Developments using a Caterpillar 215 excavator. Front and back sites were surveyed with a Brunton compass. A skidder was used to move the drill between sites. Water was pumped to the drill from a west-northwest flowing stream which transects the grid. All drill fluids were either contained in sumps dug beside the sites or absorbed in close proximity.

Following each 12-hour shift, all core was delivered to the core shack located on the property 2.5 km north of the drill grid, where footage blocks were converted to metres and recoveries were calculated. The geology and sample intervals were recorded on graphic drill logs and all core was photographed.

Core with visible copper mineralization or greater than 1% pyrite was split, sampled (typically at 3 metre intervals), and sent to Acme Analytical Laboratories in Vancouver. Holes D91-2,3,6,7,8 and 10 were continuously sampled over their entire lengths. All samples were geochemically analyzed for copper, gold, silver, zinc, molybdenum and arsenic. Selected samples were fire assayed for gold using one assay ton cuts (29 gm).

All holes were collared at 180 degree azimuth, -50 degree dip and acid tests were taken at the midpoint and bottom of each hole (except hole D91-10) to measure any variation in dip. On completion of a hole, casing was removed and replaced with 2 inch PVC pipe down the hole as far as ground conditions would allow. A labelled post was inserted to mark the hole number. All drill collar locations and elevations were surveyed relative to cut grid lines with compass, clinometer and steel chain. Drill hole data are summarized in Table 2.

5.2 DIAMOND DRILLING RESULTS

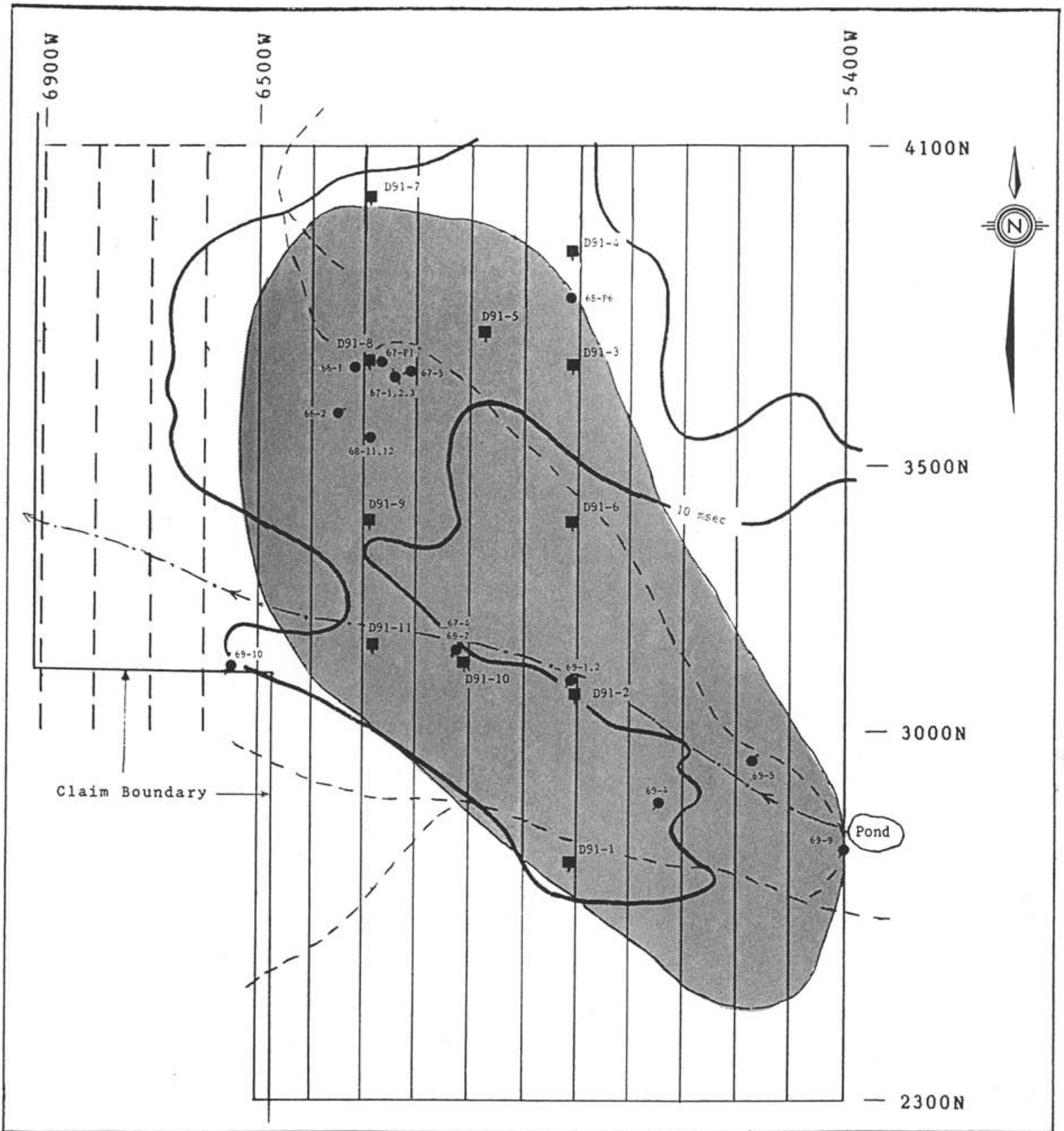
Detailed logs of the drill holes with a legend describing all rock types and alteration are attached in Appendix A, hole locations are shown on Figure 5, drill hole geology and histograms of gold and copper results are plotted on Plates 1 to 5, and the best mineralized intercepts from each hole are listed in Table 3. Analytical reports listing all copper, gold, silver, zinc, molybdenum and arsenic values are attached in Appendix "C".

DDH D91-1 tested the south flank of an I.P. chargeability high and anomalous Cu/Au geochemistry. Overburden was cased to a depth of 4.3 m. This hole encountered weakly to strongly propylitized fine and medium-grained andesitic volcanics with narrow zones of augite/hornblende, plagioclase porphyry, volcanic breccia and argillic dacite crystal tuff(?). Abundant carbonate $\pm$ quartz veinlets and stockworks host minor epidote, pyrite and trace chalcopyrite.

Highs of 630 and 710 ppb gold over 3.1m lengths were returned. No significant copper mineralization was intersected.

DDH D91-2 was drilled beside an old hole (69-1) to verify mineralization reported to grade 0.26% copper over 207m. Overburden was penetrated to 32.3m. The entire hole comprised fine, and lesser medium-grained, intrusive rocks with narrow hornblende/plagioclase porphyries and generally moderate propylitic alteration throughout. Orange-brown zones of strong sericite/ clay/K-feldspar alteration, 2-5m wide, accompany areas of intense fracturing and shearing. Narrow zones of moderate silicification occur rarely. Carbonate $\pm$ quartz veins and stringers with epidote, hematite, pyrite, chalcopyrite alteration selvages are common. Numerous chalcopyrite blebs and veinlets were encountered between 45 and 73m. Magnetite blebs occur very sparsely.

Mineralized intervals averaged 0.24% copper, 97 ppb gold over 187 m including 0.35% copper, 149 ppb gold over 66 m.



L E G E N D

- Area of copper/gold geochem. anomalies
- IP Chargeability contour (10 msec)
- 1991 DDH's (inclined)
- 1966-69 DDH's (inclined, vertical)
- 6500W —— — — Grid coordinates, lines (cut / blazed+flagged)
- Road (approx.)
- Stream (direction of flow)

Fairfield Minerals Ltd.
DILL PROPERTY
Similkameen Mining Division

1991 COMPILATION MAP
(Dill West Area)

Scale = 1: 10,000

0 100 200 300 400
(metres)

Cordilleran Engineering Ltd.
Vancouver, B.C.

January, 1992

Figure 5

Table 2:

DIAMOND DRILL SUMMARY RECORD

DILL PROPERTY: 1991

HOLE NO.	NORTHING	EASTING	ELEVATION	SECTION	INCLIN'N	AZIMUTH	O'BURDEN	CLAIM	% REC'Y	DATE START	DATE FINISH	REMARKS	HOLE DEPTH	TOTAL
D91-1	2782.00N	5905.64W		59W	-51°	180°	4.3 m	DILL 2	94.41	JUN 17/91	N JUN 17/91	PVC pipe to 20'	171.3m	171.3m
D91-2	3089.21N	5905.03w		59W	-51	180	32.3	"	92.88	JUN 20/91	N JUN 23/91	No PCV pipe	219.5	390.7
D91-3	3690.30N	5905.60W		59W	-52	180	6.7	"	94.08	JUN 23/91	N JUN 25/91	PVC pipe to 18'	197.5	588.3
D91-4	3896.52N	5904.57W		59W	-51	180	1.8	"	97.23	JUN 25/91	D JUN 28/91	PVC pipe to 25'	177.4	765.7
D91-5	3750.18N	6079.17W		61W	-50	179	1.8	"	96.93	JUN 28/91	N JUN 30/91	Hole marker to 1'	188.0	953.7
D91-6	3393.10N	5903.67W		59W	-53	184	57.9	"	96.06	JUN 30/91	D JUL 4/91	No core 222-272 fault zone	183.5	1137.2
D91-7	3997.28N	6292.57W		63W	-49.5	182	9.1	"	97.52	JUL 4/91	D JUL 6/91	PVC pipe to 2'	183.2	1320.4
D91-8	3692.70N	6291.74N		63W	-50	180.5	9.1	"	94.96	JUL 6/91	D JUL 8/91	PVC pipe to 2'	189.6	1510.0
D91-9	3391.81N	6290.24W		63W	-50	180	45.7	"	97.09	JUL 8/91	D JUL 11/91	PVC pipe to 30'	189.6	1699.6
D91-10	3145.80N	6114.57W		61W	-52.5	181	9.1	"	85.30	JUL 12/91	D JUL 20/91	PVC Pipe to 1'	147.2	1846.8
D91-11	3180.20N	6283.94W		63W	-50	180.5	21.3	"	98.27	JUL 20/91	D JUL 23/91	PVC pipe to 10'	183.5	2030.3
									95.98 average					

Table 3: **SUMMARY OF MINERALIZED DRILL INTERCEPTS**

DDH	Total Depth (m)	From (m)	To (m)	Interval (m)	% Cu	Au (ppb)
D91-1	171.3	4.3	149.7	145.4	0.02	52
D91-2	219.5	32.3	219.5	187.2	0.24	97
		32.3	98.0	65.7	0.35	149
D9-3	197.5	6.7	197.5	190.8	0.08	36
		125.3	192.6	67.3	0.15	61
		125.3	151.2	25.9	0.22	64
D91-4	177.4	1.8	142.6	140.8	0.04	32
		163.4	177.4	14.0	0.13	60
D91-5	188.0	1.8	43.6	41.8	0.08	41
		77.7	125.9	48.2	0.28	85
		158.2	188.1	29.9	0.30	105
D91-6	183.5	82.9	183.5	100.6	0.12	41
		82.9	86.0	3.1	2.02	330
D91-7	183.2	9.1	183.2	174.1	0.06	72
		114.3	161.2	46.9	0.11	122
D91-8	189.6	9.1	189.6	180.5	0.13	19
		53.9	123.1	69.2	0.19	71
D91-9	189.6	61.9	74.1	12.2	0.11	73
		96.9	151.5	54.6	0.09	56
		176.2	189.6	13.4	0.05	33
D91-10	147.2	9.1	147.2	138.1	0.19	71
		9.1	66.1	57.0	0.22	76
D91-11	183.5	21.3	41.5	20.2	0.06	137
		58.5	111.9	53.4	0.10	83
		132.9	171.0	38.1	0.06	80

Notes: - Holes D91-2,3,6,7,8 and 10 were continuously sampled over entire hole.
- All % Cu averages converted from geochemical analyses (ppm).

JRC.

DDH D91-3 was drilled to test the south flank of a chargeability high and is along the trend of a Cu/Au geochemical anomaly. Overburden was cased to a depth of 6.7 m. This hole intersected alternating units of fine to medium-grained andesite/trachyandesite and monzonite/monzodiorite. Local hornblende/plagioclase porphyry textures and sparse blotchy magnetite are common. Chalcopyrite blebs and disseminations are associated with carbonate ± quartz, epidote, hematite veins and stringers within the volcanics.

Significant mineralized intercepts included 67 m of 0.15% copper, 61 ppb gold and 26 m of 0.22% copper, 64 ppb gold.

DDH D91-4 was drilled within a large chargeability anomaly with spotty Cu/Au geochemical anomalies. Shallow overburden was cased to 1.8 m. This hole consists largely of moderately propylitized volcanic breccia, fine-grained andesite, augite/hornblende porphyritic andesite and a narrow hornblende monzonite unit. Argillically altered fine-grained andesite was intersected from 71 - 86.3 metres. Minor blotchy potassic alteration, sparse chalcopyrite and abundant veinlets of pyrite, carbonate ± epidote and hematite were encountered. "Crowded" prophyritic trachyandesite contrasts sharply with the surrounding rock. It contains large saussuritized plagioclase and mafic phenocrysts (2 - 10 mm), sparse fine pyrite, very few fractures and no chalcopyrite, indicating post-mineralization deposition.

Analyses of sampled core averaged 0.04% copper, 32 ppb gold over 141 m including 0.13% copper, 60 ppb gold over 14 m.

DDH D91-5 was drilled to test anomalous chargeability responses and high Cu/Au geochemical values. Bedrock was encountered at 1.8 m. Monzonite and monzodiorite units are evenly distributed between volcanic units. Fine-grained andesite and volcanic breccia host much of the chalcopyrite mineralization as blebs and disseminations along carbonate/pyrite veinlets which have potassic alteration selvages and possible local albite flooding. Chalcopyrite is also associated with blotchy magnetite.

Mineralized intercepts include 0.28% copper, 85 ppb gold over 48 m and 0.30% copper, 105 ppb gold over 30 m.

DDH D91-6 was drilled to locate the source of anomalous copper in soils and test the northward extent of chalcopyrite mineralization encountered in hole D91-2. Nine metres of argillically altered intrusive(?) was cored below 58 m of overburden, however, the following 15 m cut a major fault zone from which no core was recovered. Below the fault, light to dark grey monzonites, monzodiorites and minor andesites with diffuse contacts were encountered. Abundant plagioclase and lesser coarse augite/hornblende phenocrysts are sometimes crudely aligned. Local, strong pervasive to blotchy argillic alteration has destroyed primary textures and is accompanied by gouge zones and strong fracturing.

The hole averaged 0.12% copper, 41 ppb gold over 100 m including a 3.1 m section immediately below the fault zone averaging 2.02% copper, 330 ppb gold.

DDH D91-7 tested a chargeability high and anomalous Cu/Au geochemistry. Overburden was penetrated to 9.1 m. Except for an 18 metre section of weakly saussuritized feldspar porphyry monzodiorite near surface, this hole consists of moderately propylitized fine-grained andesite with areas of plagioclase and augite/hornblende phenocrysts and weak, patchy potassic alteration. Sparse chalcopyrite occurs as fine disseminations with minor magnetite blotches in calcite ± epidote stringers and masses.

A 47 m section returned 0.11% copper and 122 ppb gold.

DDH D91-8 was drilled under copper mineralization exposed in several old trenches within an area of anomalous Cu/Au geochemistry and high chargeability. Overburden measured 9.7 m in the inclined hole. A narrow unit of hornblende/plagioclase dacite porphyry precedes a wide section of dark green to almost black andesitic breccia with some interbedded fine-grained andesite. This unit hosts an abundance of calcite ± epidote, quartz, pyrite, hematite stringers with spotty chalcopyrite mineralization, up to 1%. Rocks are moderately to strongly propylitized. Significant argillic and carbonate alteration correspond with strong fracturing and shearing in the volcanics. Strong potassic alteration selvages occur along narrow calcite ± epidote, pyrite stringers. Near the end of the hole, a distinct porphyritic andesite is interbanded with volcanic breccia and characterized by a light to medium grey groundmass, well developed hornblende phenocrysts (up to 5 mm), and up to 3% fine to coarse disseminated pyrite. The hole ended in light to medium grey monzonite with 10 - 30% plagioclase and mafic phenocrysts.

Samples averaged 0.13% copper, 19 ppb gold over 180 m including 69 m of 0.19% copper, 71 ppb gold and 30 m of 0.25% copper, 26 ppb gold.

DDH D91-9 tested the source of anomalous Cu/Au geochemistry and the northern edge of a northwest-trending chargeability high. The hole was drilled southerly on a south-facing slope resulting in an exaggerated overburden depth of 45.7 m. This was underlain by moderately propylitized porphyritic diorite, monzonite and feldspar porphyry (intrusive?) units. Strong carbonate, silicic and argillic alteration occurs locally. Strong albitic and weaker potassic flooding surround some calcite ± pyrite stringers. A 25 m andesite unit intersected in mid-hole contains numerous plagioclase and local hornblende phenocrysts (up to 2 mm) in a hard, black aphanitic matrix. Gypsum stringers and stockworks cut some calcite/pyrite veinlets. Abundant disseminated pyrite (up to 7%) is present over the length of the hole. Sparse chalcopyrite is associated with calcite ± pyrite stringers.

The best interval in this hole is 0.11% copper, 73 ppb gold over 12 m.

DDH D91-10 was drilled to verify mineralization reported in holes 67-4 (0.23% Cu over 119 m) and 69-7 (0.19% Cu over 133 m) (see Appendix E). Overburden was cased to 9.1 m. This hole intersected a sequence of weakly to strongly propylitized diorites, monzodiorites, monzonites and feldspar porphyries. Numerous narrow gouge zones and two large fault(?) sections (63 - 78 m and 140 - 148 m) were encountered. Extensive argillic

alteration and weak K-feldspar flooding have destroyed primary textures but contain significant copper mineralization which was not obvious in the core. Chalcopyrite disseminations and blebs were noted in association with abundant carbonate ± pyrite, quartz, epidote veinlets.

The entire hole averaged 0.19% copper, 71 ppb gold over 138 m, including 57 m of 0.22% copper, 76 ppb gold.

DDH D91-11 was drilled to test an area of anomalous chargeability and high Cu/Au geochemical values. Below 21 m of overburden the hole intersected moderately propylitized medium grey/green, fine-grained equigranular diorites and monzodiorites with localized, pervasive albite flooding. Pyrite is common with up to 5% as disseminations. Carbonate, pyrite ± quartz, epidote veinlets with weak potassic alteration selvages host local chalcopyrite blebs and disseminations.

An intercept averaging 0.10% copper, 83 ppb gold over 53.3 m was indicated by sample analyses.

Considering the numerous gold anomalies returned from the 1990 soil survey, the core sample gold analyses were lower than anticipated. Many soil samples containing >50 ppb with several >100 ppb Au are distributed over the entire drill grid. Analyses of core samples by MIBK/AA returned a majority of values <100 ppb Au with isolated highs up to 710 ppb Au over 3.1m. Re-analyses of samples from holes D91-2 and D91-10 by fire assay from 1 A.T. returned similar results. The program was designed to outline the dimensions of a large porphyry system, however, potential exists for narrow, high grade gold veins lying between the wide-spaced drill holes.

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6.0 GEOPHYSICS

An induced polarization (I.P.) survey was conducted immediately west of the existing Dill geophysical grid (Figures 3 & 5). This work was performed on September 4 and 5 , 1991 by Pacific Geophysical of Vancouver with Martin St. Pierre, Geophysicist as operator. All maps and pseudosections are included in this report (Plates IP-A through F).

A pole-dipole electrode array was used on the I.P. survey with an electrode spacing of 50 metres and "n" separations of 1 to 5. All lines were surveyed with the current electrode to the south of the potential electrodes. A total of 4.4 line-kilometres were tested on four 1.1-kilometre north-south lines 100 metres apart (6600W to 6900W).

6.1 INSTRUMENTATION

An EDA IP6 time domain, microprocessor based receiver, and a Phoenix IPT-1 transmitter were used for the I.P survey. Readings were taken using a 2 second alternating square wave. The chargeability for three slices (690 to 1050 milliseconds after shutoff, midpoint at 870 milliseconds) is the value that has been plotted on the accompanying plans and pseudosections.

The survey data was archived, processed and plotted using a 286 MS DOS microcomputer running Geosoft software.

6.2 RESULTS

Anomalous chargeability responses up to 22.7 milliseconds (6600W, 3550N) were detected on line 6600W. The readings extend, and are consistent with, an anomalous trend outlined to the east in a 1990 I.P. survey (see 1990 Geochemical and Geophysical Report on the Dill Claims). However, readings taken on the three lines to the west are only slightly above background levels. Resistivity features include a high of 1124 ohm-metres at 6700W, 3850N and a weakly resistive trend extending northwest from 6600W, 3350N to 6900W, 3450N. The latter feature corresponds roughly with a northwest-flowing creek which may occupy a fault zone. An increase from 160 ohm-metres (6700W, 3250N) to 921 ohm-metres (6700W, 3150N) represents the sharpest contrast of the survey.

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7.0 PROSPECTING AND RECONNAISSANCE SAMPLING

(Figure 3, Table 4)

Three mandays during July and August were spent following up gold soil geochemical anomalies and quartz vein float occurrences in the southern and eastern parts of the property. New bedrock exposures resulting from recent logging road construction in these areas were also prospected. This reconnaissance work included collection of 8 rock samples, analyzed for gold, silver and 28 soil samples tested for copper, gold. The soil sample grid and rock sample locations are shown on Figure 3. All analyses are listed in the laboratory reports (Appendix C); grid locations, geological descriptions and analytical results for the rock samples are summarized in Table 4.

The areas examined are underlain by granitic terrane of the Osprey Lake Batholith east of its contact with Nicola Group volcanics, however, outcrop exposure is sparse. Gold soil geochemical anomalies outlined by previous grid sampling (1989-90) appear to be associated with northeast-trending topographic depressions. Some of these lineaments may reflect underlying structures or alteration zones containing significant gold-bearing quartz veins.

The rock samples consisted of altered granite or granodiorite with disseminated or quartz veinlet-hosted pyrite $\pm$ chalcopyrite, iron and manganese oxides. These samples returned low gold results (5-168 ppb) and only two significant silver values of 14.7 and 165.9 ppm. The overall small size and scattered distribution of quartz fragments suggest the presence of generally narrow veins.

A new discovery of much larger pyritic quartz boulders, indicating a vein at least 50 cm wide, is located in road fill along Line 2600W. A small, but detailed soil sample grid was established surrounding this site. Results from 28 soil samples collected at 50m x 25m spacings include four strongly anomalous copper values of 190 - 443 ppm, but very low gold values with only one greater than 15 ppb. Along the same road, approximately 100 metres south from the soil grid, appreciable disseminated chalcopyrite was noted in silicic and propylitic-altered granodiorite subcrop. A sample of this material (D91-R3) was not analyzed for copper, but returned a weakly anomalous gold value of 168 ppb.

Previous soil geochemical surveys (1989-90) did not include copper analyses in areas of intrusive terrane. Accordingly, further work is warranted to evaluate this sector of the Dill property for porphyry type copper-gold potential as well as for gold-quartz vein systems.

Table 4: **DILL PROPERTY**
1991 RECONNAISSANCE ROCK SAMPLES
(Ref. Fig. 3)

Sample Number	Approximate Grid Location	Description	Analyses Au (ppb)	Analyses Ag (ppm)
D91-R1	2820W-800S	Float; angular fragment of 3cm wide qz vn w/py, lesser cpy (clots).	14	0.3
-R2	2810W-520S	Float cobbles; strongly pyritized, silicic-alt'd granite/grdr w/glassy qz and qz-carb vnlts. Abundant limonite-geothite, minor visible gn(?).	60 (average of 2 analyses)	14.7
-R3	2680W-340S	Float + subcrop grabs from 3 loc'ns along 60m of road cut. Silicic + weakly propylitized grdr w/ 1-3% dissem py, cpy.	168	6.1
-R4	2600W-100S	Selected grabs from several large qz vn bldrs- up to 40x40x70 cm. Abundant py (masses), trace MoS_2, limonitic + sericitic boxworks.	26	3.2
-R5	735E-2425N	Float; 6 cm fragment of glassy qz vn w/ limonite + MnO.	4	0.5
-R6	860E-1450S	Float cobbles; limonitic qz vnlts to 2cm wide and silicic, pyritized granite w/ fine qz stringers.	164	165.9
-R7	1700W-1950S -2000S	Float; selected chips of qz vn material in till mounds near outcrops of rusty-fractured grdr.	28	2.3
-R8	2600W-100S	Same loc'n as R4. Selected chips (from several bldrs) of non-pyritic, light rosy-colored qz vn material.	5	0.4

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8.0 REFERENCES

1990 Cormier, J.R.:
1990 Geochemical and Geophysical (Assessment) Report on the Dill Claim Group.

1985: McMILLAN, W.J. and PANTELEYEV, A:
Geoscience Canada, Reprint Series 3, Ore Deposit Models (pages 45-58) "Porphyry Copper Deposits"

1989 MONGER, J.W.H.:
Geology, Hope, British Columbia; GSC Map 41-1989

1979 PRETO, V.A.:
British Columbia Ministry of Energy, Mines and Petroleum Resources, Bulletin 69, Geology of the Nicola Group between Merritt and Princeton.

1969 TULLY, D.W.:
Diamond Drill and Geochemical Report for Pageant Mines Ltd. and Primer Group Minerals (Dillard Creek Property). Assessment Report No. 2354.

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9.0 STATEMENT OF COSTS

DILL PROPERTY
(Period: March 1, 1991 to January 31, 1992)

PARTICULARS	Amount
PROFESSIONAL, TECHNICAL & GEOLOGICAL SERV	$ 87,488
SALARIES	26,090
BENEFITS	3,345
GEOCHEMICAL ANALYSIS	6,417
ASSAYS	2,164
GEOPHYSICAL SURVEY	3,700
DIAMOND DRILLING	120,821
RECLAMATION	4,467
TRUCK RENTALS	5,777
CAMP EQUIPMENT RENTAL	13,744
RADIO RENT & LICENCES	1,075
OFFICE SUPPLIES, PRINTING, MAPS, DRAFTING	1,110
TELEPHONE, POSTAGE	1,667
FREIGHT,EXPRESS,DELIVERY	1,394
INSURANCE	584
TRAVEL (Mileage, meals)	2,079
CAMP & FIELD SUPPLIES	5,704
FOOD	7,518
PROPANE	317
CAMP CONSTRUCTION	2,335
VEHICLES (gasoline, repair)	1,704
TOTAL DILL EXPENDITURES AT JANUARY 31, 1992	**$299,500**

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10.0 PERSONNEL & CONTRACTORS

PERSONNEL:

J.R.Cormier, Geologist	Vancouver, BC	70 days 41 days report prep.
P.Fischl, Geologist	Vancouver, BC	67 days
J.Tindle, Cook/Sampler	Whistler, BC	61 days
B.Watts, Core Handler	Kelowna, BC	35.5 days
R.Baldwin, Core Handler	Langley, BC	44.5 days
W.Jakubowski, Geologist	Vancouver, BC	9 days
M.Steiner, Sampler	Coquitlam, BC	9 days
R.Harwood, Carpenter	Nelson, BC	13 days
E.A.Balon, Prospector	North Vancouver, BC	15.5 days
J.D.Rowe, Geologist	North Vancouver, BC	15.5 days

CONTRACTORS:

Leclerc Drilling Limited	Beaverdell, BC	125 mandays
Wiltech Developments Inc.	Kelowna, BC	62.5 hours
Pacific Geophysical Limited	Vancouver, BC	4 mandays

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11.0 STATEMENT OF QUALIFICATIONS

I, John Cormier, of Vancouver, British Columbia hereby certify that:

1. I am a geologist residing at 1873 Spyglass Place, and employed by Cordilleran Engineering Ltd, of 1980 - 1055 West Hastings Street, Vancouver, British Columbia V6E 2E9.

2. I have received a B.Sc. degree in Geology from St. Francis Xavier University in Antigonish, Nova Scotia in 1985.

3. I have practiced my profession for six years in Nova Scotia, New Brunswick, Ontario and British Columbia.

4. I am the author of this report and supervisor of the field work conducted on the Dill claims during the period June 6 to September 5, 1991.

CORDILLERAN ENGINEERING LTD.

John Cormier, B.Sc.,
Geologist

March, 1992
Vancouver, B.C.

APPENDIX "A"

DILL PROJECT 1991

KEY TO GRAPHIC LOG

HOLE DEPTH: In metres

MAIN ROCK TYPE: Lithology >20cm thick or >50% of the interval

MINOR ROCK TYPE: Lithology <20cm thick or <50% of the interval

Example: A3VF
A = alteration code
3 = strength of alteration [1 (weak) to 5 (intense)]
VF = rock type code

Rock-type Codes/Descriptions:

CS	CASING	
MI	MISSING CORE	
OB	OVERBURDEN	
DK	ANDESITIC DYKE	olive-green augite phenocrysts
FP	FELDSPAR PORPHYRY	augite/hornblende phenocrysts, medium grey aphanitic matrix
GG	GOUGE	typically narrow clay-rich zones, may contain quartz/calcite rubble, primary rock textures destroyed
DI	DIORITE	light to dark grey, very fine-grained to aphanitic plag-rich matrix, augite/hornblende and feldspar phenocrysts, some volc frags (up to 1cm)
MD	MONZODIORITE	light to dark grey, augite/hornblende and plag phenocrysts, some K-spar in matrix.
MN	MONZONITE	light to dark grey, augite/hornblende and plag phenocrysts, K-spar rich aphanitic matrix usually not apparent in hand specimen
DA	DACITE	dark grey to black aphanitic matrix, 50% plag phenocrysts (1-3mm), finely diss. pyrite
VF	ANDESITIC VOLCANIC	medium greyish-green to almost black fine-grained to aphanitic groundmass up to 10% augite phenocrysts locally up to 2% pyrite in carbonate (quartz) veinlets/ disseminations, strong local magnetism
(VP)	Porphyritic Volcanic	as above with up to 70% well-developed augite/hornblende phenocrysts (up to 5 cm)
(VB)	Volcanic Breccia	as above with sparse to concentrated monzonite to granodiorite fragments (up to 15 cm but typically 0.5-3 cm) with diffuse margins, volcanic fragments less common
(VM)	Medium Grained Volcanic	as above with medium-grained interlocking crystals
VT	TRACHYANDESITE	mottled orange, 20% augite/hornblende, 50% feldspar phenocrysts

Minor Rock Type Continued:

Alteration Codes/Criteria: #= 1 to 5 (weak to intense)

A#	argillic	weak = rock textures intact but easily scratched with nail; intense = primary textures destroyed, completely plastic material
C#	carbonate	pervasive carbonate material, i.e. not simply carbonate veining
F#	phyllic	diss. sericite, pyrite; secondary quartz
K#	potassic	visible salmon-pink or speckled light green coloration of host rock (secondary K-spar)
P#	propylitic	epidote, chloritization of matrix and mafic phenocrysts, calcite
S#	sericitic	abundance of visible sericite(masses/dissems)
X#	silicification	increased hardness, quartz veining and/or pervasive infilling

STRUCTURE:

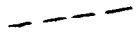
Bx	breccia	SH	shear
CT	contact	ST	stringer (<1cm wide)
DK	dyke	SW	stockwork veins/stringers
FR	fracture	VN	vein (>1cm wide)
FT	fault		

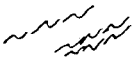
CORE ANGLES: long axis = 0 degrees
If structures are known to have opposite sense, e.g. conjugate fractures, then label one angle as negative.

GRAPHIC SYMBOLS:


alteration contact


breccia


lithologic contact


fault, shear


stringer, vein


stockwork veining

MINERALOGY: Format: %1 %2 %3

QZ CY CB mineral code
30 10 05 percentage of that mineral if possible

Alteration: (listed in decreasing amount)

AK	ankerite	CY	clay	OX	oxides (Fe Mn)
BI	biotite 2	EP	epidote	QZ	quartz 2
CB	carbonate	HE	hematite	SE	sericite
CL	chlorite	KF	K-spar 2	SS	saussurite

("2" after mineral name indicates secondary origin)

Sulphides/Oxides: Format: as previous

Percentage of Py is estimated for an interval and subdivided into veinlet and disseminated amounts.
(i.e., 05 (7/3) = 5% Py, 70% veinlets 30% disseminated).

BN	bornite	MG	magnetite	PY	pyrite
CP	chalcopyrite	MO	molybdenite	SL	sphalerite
HE	hematite	PO	pyrrhotite	TT	tetrahedrite
MA	malachite				

Ganque Minerals: (listed in decreasing amount)

AK	ankerite	FL	fluorite	SE	sericite
CA	calcite	KF	K-feldspar	WR	wall rock
CB	carbonate	GG	gouge		fragments
CL	chlorite	QZ	quartz	AB	albite
				GY	gypsum

Note: standard GEOLOG codes used.

RECOVERY:

Total amount of core between footage blocks divided by drilled length. (given as percentage rounded to the nearest whole number)

FRACTURES:

Broken and unbroken fracture count is given for intervals with consistent natures of fracturing. Intervals are categorized into three groups based on angle to core axis: 0 to 30 deg, 31 to 60 deg and 61 to 90 deg. the abundance of each group is graded on a scale from 0-4:

0	= none	per metre
1	= 1 to 3	per metre
2	= 4 to 6	per metre
3	= 7 to 10	per metre
4	= more than 10	per metre

A fourth number represents an overall estimate

Ca, Py VEINS/STRINGERS:

Ca (calcite) and Py (pyrite) veins are categorized using the fracture count format

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CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY: DILL D.D.H.: D91-1 PAGE: 1 OF 3

AREA: West Area
CLAIM: Dill 2
SECTION: 5900W
CORE SIZE: NQ
CORE RECOVERY: 94.41% RQD: 60.74%

DIP: -51.00 AZIMUTH (t): 180.0
NORTHING: 2782.00
EASTING: -5905.64
ELEVATION: 1464.7
CORE STORED AT: DILL CORESHACK

DEPTH: 171.30
DATE STARTED: JUNE 17D, 1991
DATE FINISHED: JUNE 19N, 1991
CONTRACTOR: LECLERC D.D.
LOGGED BY: CORMIER/FISCHL

COMMENTS: HOLE D91-1 WAS DRILLED TO TEST A COMBINED GEOCHEMICAL AND GEOPHYSICAL ANOMALY. TRACES OF COPPER MINERALIZATION WERE INTERSECTED. THIS HOLE AVERAGED 0.016% Cu AND 52 ppb Au OVER 145.4 m(4.3-149.7 m).

SURVEY DATA			GEOLOGY AND ASSAY RECORD													
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t			
0.0	-51.00	180.0	0.00	04.27	4.27		OB									
045.72	-48.00	180.00	4.27	25.80	21.53		VF									
131.37	-48.50	180.00	25.80	28.20	2.40		GG									
			28.20	73.70	45.50		VF									
			73.70	76.35	2.65		VB									
			76.35	98.10	21.75		VF									
			98.10	112.00	13.90		VM									
			112.00	137.60	25.60		VF									
			137.60	140.60	3.00		VB									
			140.60	171.30	30.70		VF									
			4.30	6.80	2.50			D1-1			47	3				
			6.80	9.75	2.95			D1-2			156	14				
			9.75	12.75	3.00			D1-3			271	22				
			12.75	15.20	2.45			D1-4			130	33				
			15.20	17.00	1.80			D1-5			205	27				
			17.00	18.90	1.90			D1-6			161	24				
			18.90	20.90	2.00			D1-7			170	14				
			20.90	23.20	2.30			D1-8			205	20				
			23.20	25.80	2.60			D1-9			120	17				
			25.80	28.20	2.40			D1-10			120	21				
			28.20	30.20	2.00			D1-11			119	16				
			30.20	31.00	0.80			D1-12			148	100				
			31.00	33.10	2.10			D1-13			106	12				
			33.10	35.70	2.60			D1-14			140	12				
			35.70	38.70	3.00			D1-15			106	10				
			38.70	41.70	3.00			D1-16			81	8				
			41.70	44.70	3.00			D1-17			144	13				
			44.70	47.70	3.00			D1-18			133	6				
			47.70	50.70	3.00			D1-19			60	9				
								CONTD								

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-1 PAGE 2 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:
CLAIM: NORTHING: DATE STARTED:
SECTION: EASTING: DATE FINISHED:
CORE SIZE: ELEVATION: CONTRACTOR:
CORE RECOVERY: CORE STORED AT: LOGGED BY:
COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD													
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t			
			50.70	53.70	3.00			D1-20			71	8				
			53.70	56.70	3.00			D1-21			212	34				
			56.70	59.70	3.00			D1-22			149	13				
			59.70	61.80	2.10			D1-23			86	17				
			61.80	64.80	3.00			D1-24			104	10				
			64.80	67.80	3.00			D1-25			125	27				
			67.80	70.80	3.00			D1-26			95	46				
			70.80	73.70	2.90			D1-27			192	31				
			73.70	76.35	2.65			D1-28			90	2				
			76.35	79.40	3.05			D1-29			147	10				
			79.40	82.40	3.00			D1-30			89	1				
			82.40	83.50	1.10			D1-31			73	1				
			83.50	86.70	3.20			D1-32			336	4				
			86.70	89.70	3.00			D1-33			129	8				
			89.70	91.70	2.00			D1-34			292	13				
			91.70	93.60	1.90			D1-35			296	42				
			93.60	95.10	1.50			D1-36			150	81				
			95.10	98.10	3.00			D1-37			109	26				
			98.10	101.00	2.90			D1-38			124	69				
			101.00	103.60	2.60			D1-39			192	36				
			103.60	106.60	3.00			D1-40			168	23				
			106.60	109.60	3.00			D1-41			173	21				
			109.60	112.00	2.40			D1-42			249	120				
			112.00	113.80	1.80			D1-43			529	120				
			113.80	116.80	3.00			D1-44			567	630				
			116.80	119.80	3.00			D1-45			231	49				
			119.80	122.80	3.00			D1-46			131	18				
			122.80	125.80	3.00			D1-47			44	19				
			125.80	128.60	2.80			D1-48			53	17				
			128.60	131.60	3.00			D1-49			102	17				
			131.60	134.60	3.00			D1-50			21	20				
								CONTD								

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-1 PAGE 3 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:

CLAIM: NORTHING: DATE STARTED:

SECTION: EASTING: DATE FINISHED:

CORE SIZE: ELEVATION: CONTRACTOR:

CORE RECOVERY: CORE STORED AT: LOGGED BY:

COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD														
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t				
			134.60	137.60	3.00			D1-51			127	24					
			137.60	140.60	3.00			D1-52			308	710					
			140.60	143.60	3.00			D1-53			275	47					
			143.60	146.60	3.00			D1-54			150	30					
			146.60	149.60	3.00			D1-55			272	62					

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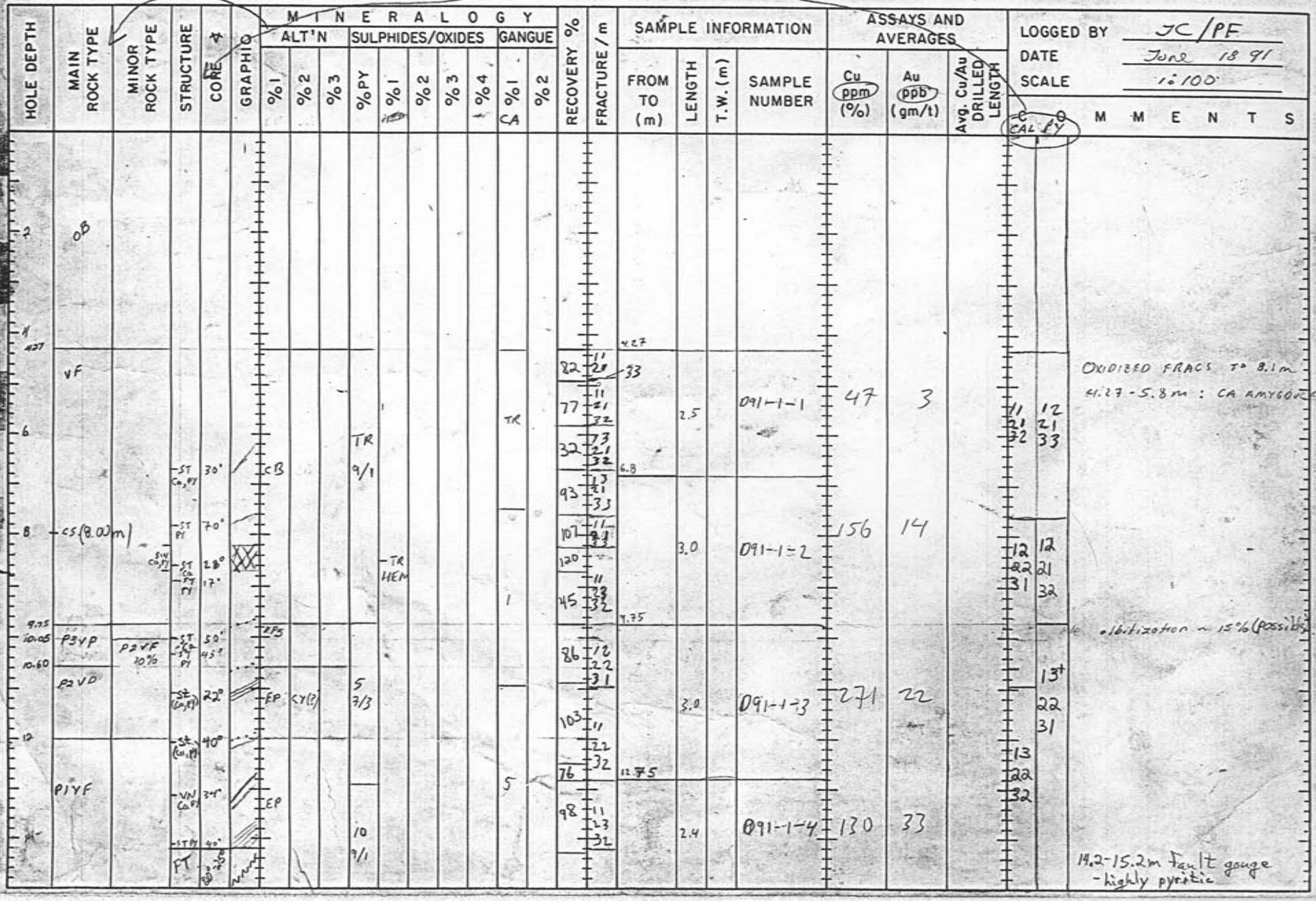
DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill Property DDH D91-1 Page 1 of 12

LOGGED BY JC/PF
DATE June 18 91
SCALE 1:100

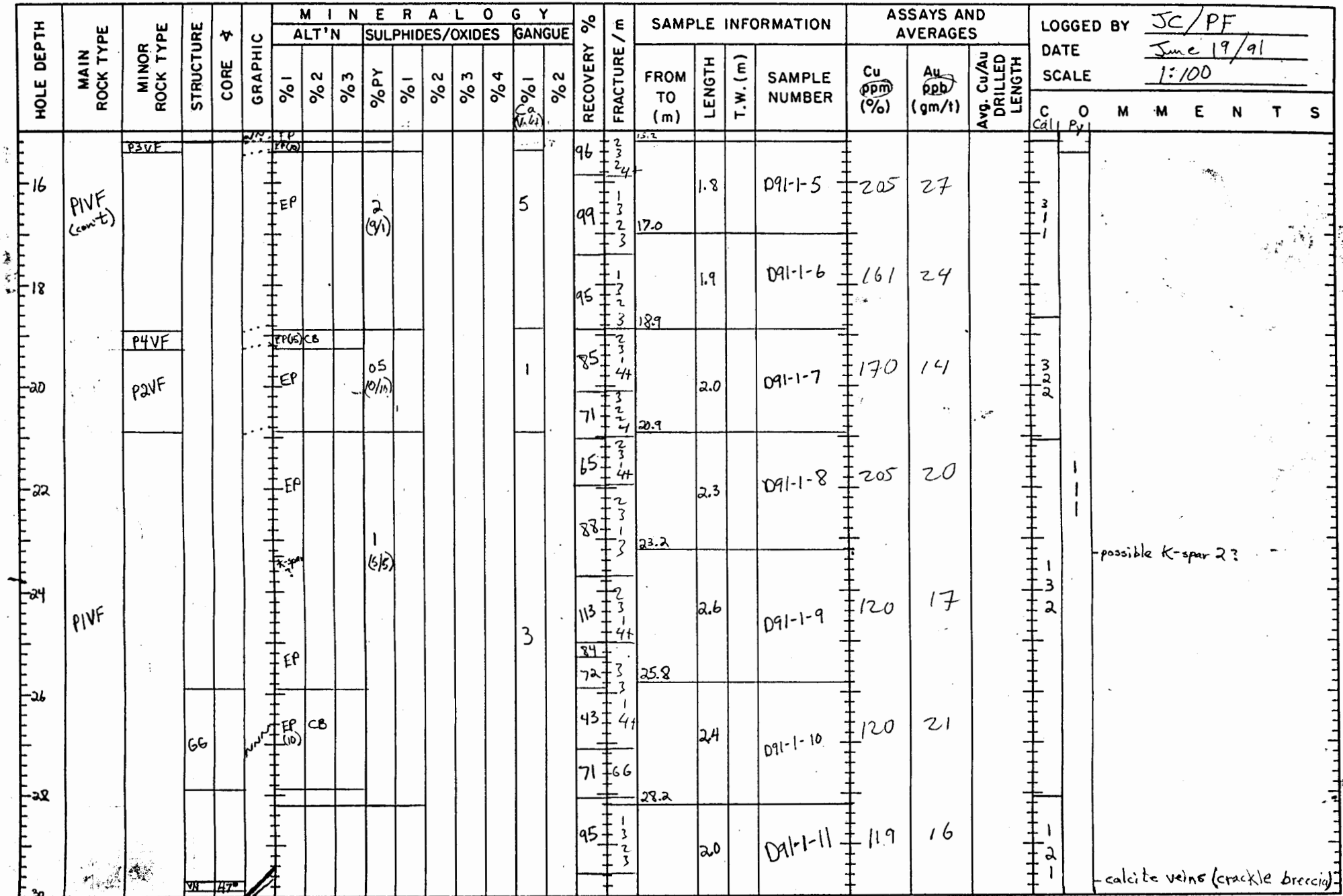


DDR 91-2

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH 091 - 1 — Page 2 of 12

LOGGED BY JC/PF
DATE June 19/91
SCALE 1:100



DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-1 Page 3 of 12

LOGGED BY JC/PF
DATE June 20/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1 (Ca Vn/ft)	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
30	P1VF	P2VF	VN	42		EP	CB							3 (cont)				30.80			091-1-11				
																104	3	31.00	0.8		091-1-12	148	~~100~~		-8tz/ca/py vein
32			GG			EP(10)	CB		1 (1/3)							101	2	33.1	2.1		091-1-13	106	~~12~~		
			GG			EP(5)	CB									96	3	35.7	2.6		091-1-14	140	~~12~~		-10cm calcite vein
34			VN																						
			GG			EP(10)	CB																		
36	P1VF		VN	05												90	2	38.5	3.0		091-1-15	106	~~10~~		-PY-CA-EP VEIN 40 40 20 -crackle breccia w calcite matrix -CA-PY-EP VEIN (TR HE, TR ~~EP~~)
			Bx																						
			VN	05												93	3	38.7							
38			ST	22					40							105	2		3.0		091-1-16	81	8		-CA (70) - EP (30) VEIN -F2 alt'n
			VN	38													3								
40		P3VF	ST	20		EP (15)	ca		05 (5/5)							105	2	41.7							-CA-PY 80 20 STRINGER
			BG														3								
		P2VF	VN	60		EP																			
42		P3(F)VF	QZ-CA-HE (TR)			EP			2 (16/4)							96	3		3.0		091-1-17	1441	13		-42.1 possible weak F alt'n
		P2VF																							
44		P3VF	VN	40		EP	ca									99	3	44.7							-CA-PY-HE VEIN 85 15 TR

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CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-1 Page 4 of 12

LOGGED BY JC/PF
DATE June 20/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE (Ca) %1	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	Ca	PY	COMMENTS
46	P1VF		VN Ca	48												91									1 3 2	0 0 1	
		P3VF			EP				3 (1/3)					3 (cont)												
																101		47.7	3.0		D91-1-18	133	6				
48		P2VF	VN	52	EP											97									2 2 2 2	0 2 1	Ca vein ☐ PY/EP salvage - red/purple mineral (He or Flourite) Ca - PY - HE 65 15 10
																			3.0		D91-1-19	60	9				
50																99		50.7									
																90			3.0		D91-1-20	71	8			0 1 0	
52									2 (7/3)							97		53.7									
54														1		100			3.0		D91-1-21	212	34			1 3 1	
56		P3VF	6PY St VN P1	60 60	EP				5 (9/1)							95		56.7									PY VN/st occuring in abundance
58									2 (8/1)							93					D91-1-22	149	13			0 1 0	
																124		59.7									

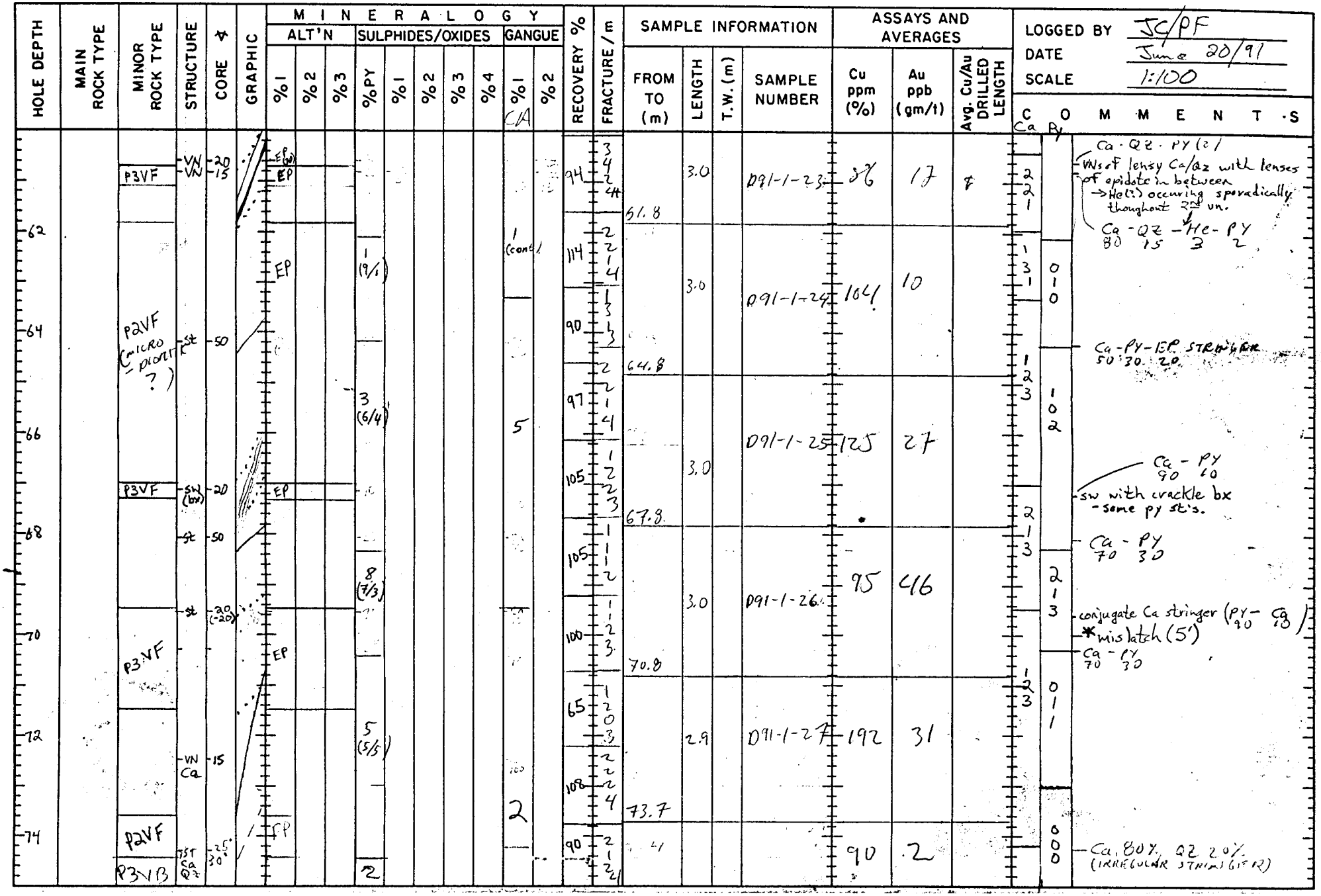
DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-1 Page 5 of 12

LOGGED BY JC/PF
DATE June 20/91
SCALE 1:100



DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: Dill   DDH: D91-1

LOGGED BY: JC/PF
DATE: June 20/91
SCALE: 1:100

Hole Depth	Main Rock Type	Minor Rock Type	Structure	Core ∡	Alt'n %1	Alt'n %2	Alt'n %3	% PY	Sulph. %1	Gangue %1 CA	Recovery %	Fracture / m	From To (m)	Length	Sample Number	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au Drilled Length	Comments (Ca / PY)	Comments
	P3VB			35				(2/8)				2 3 1							2 3 1	
76	P3VF		VN PY(2)	15 35				8 (4/6)			97	1 0 2 3	76.35	2.65	D91-1-28	90	2			- 2cm THICK QZ(75) - CA (25). PY (TR) VEIN
	P2VF		ST Ca	30	AB	EP		5 (5/5)	CPY TR (0/10)	3 (CONT'D)	106	0 2 2 3		3.05	D91-1-29	147	10			RUSTY FRACS AT 77-86.5 m. TRACE FINE DISSEM. CPY
78											91	1 2 1 3	79.4						1 2 3	
80			VN	28							100	1 2 1 3		3.0	D91-1-30	[illegible]	1		0 1 0	- 4cm THICK CA (90), QZ (10) HE (TR) VEIN. HOST ROCK PORPHYRITIC ALONG MARGINS
82	P1VF				AB	EP					88	0 1 1 2	82.4							
			ST Ca (2)	42							103	1 4 1 4+	83.5	1.1	D91-1-31	73	1			
84	P3VF		VN ST (Ca, QZ)	40 50	EP	AB	CY													- 8cm THICK Ca (60) - QZ (40) VEIN, VUGGY, BANDED, ARGILLIC MARGINS
	P1VF		ST Ca, 4	35	AB	EP		1 (2/8)		5	86	0 2 1 3	86.7	3.2	D91-1-32	336	4		0 3 1	
86	C2VF		VN	35	CA						97	1 3 1 3								- 5cm THICK BANDED QZ (60) Ca (40) VEIN
88	P2VF				EP	AB				2	91	1 2 3		3.0	D91-1-33	129	8		1 2 1	
			ST	27							99	1 1 2	89.7							- Ca, EP, PY STRINGER 80% 15% 5%

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-1 Page 7 of 12

LOGGED BY JC/PF
DATE June 21/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
90			VN	40																					
91	P2VF															93	91.7	3.0		D91-1-34	272	13			1cm Ca-QZ, EP, HE VEIN
92			GG	50					3 (5/5)							101	93.6	1.9		D91-1-35	296	412			CA-QZ VEIN, 2cm's.
			GG	45																					
			VN	80																					
94	K3(?)VF	→	GG	45		KF(?)										96	95.1	1.5		D91-1-36	150	81			3cm PY(50)-QZ(30)-Ca(20) VEIN
		K1(?)VF	GG	39		KF(?)			8 (6/4)																2.5cm VEIN AS FOR ABOVE VEIN.
	P2VF		VN	85		EP																			
		K2VF	VN	85-90																					
96			ST Ca	40												84									ALBITE FLOODING ALONG CALCITE & CALCITE-EPIDOTE STRINGERS
	P3VF					AB	EP		1 (6/10)					2 (CONTD)											
			ST	50												101	98.1	3.0		D91-1-37	109	26			EP-Ca-HE STRINGER
98		SW	ST	45																					Ca-QZ STRINGER
			VN	60°																					
	X3VF					QZ	EP																		QZ-PY-Ca VEIN, 2 cm's DIFFUSE MARGINS
						QZ			5 (6/4)							101									
		A3VF	VN	65		CY																			Ca-PY VEIN 3cm's
100	X2VM					QZ	EP									88	101.0	2.9		D91-1-38	124	69			
		X3VF	VN	35																					PY-Ca VEIN 2cm's 80 20
			ST Ca	20°		QZ?																			
			VN	85																					QZ-PY VEIN 1cm. 70 30
102	P1VM		ST Ca	0-30		EP										95									
			ST Ca	40					3 (2/8)																
				40°																					
			ST QZ	50°												91	103.6	2.6		D91-1-39	192	36			
104		K2VM(?)		60°		KF(?)																			DARK GREY QZ STRINGER w/ ~3% PY
	P2VM		VN	25																	168	23			
			VN	30					5																Ca VEIN 1cm THICK W/5-10% QZ
																									Ca VEIN 1cm THICK

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY Dill   DDH D91-1   Page 8 of 12

LOGGED BY JC/PF
DATE June 21/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	∡ CORE	GRAPHIC	ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	%1	%2	%3	%4	GANGUE %1 CA	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	Ca	Py	COMMENTS
			ST, ST	30°, 40°					(8/2)							101	1, 2									0, 1, 0	PY-Ca STRINGER; EPIDOTE STRINGER
106	P2VM		ST Ca	30°		EP			2 (3/7)					2 (CONT'D)		89	1, 2, 1, 3	106.6	3.0		D91-1-40	160	23			0, 0, 0	
			G6	23, 30°																							
108			ST, Ca(3), ST Ca(?)	25, 20	(?)											100	2, 1, 1, 2		3.0		D91-1-41	173	21				
	P1VM	CS (109.13 m)	ST	35		EP	AB(?)		4 (5/5)	CP TR (10/6)						92	1, 2, 2, 3	109.6							3	0, 0, 0	Ca-PY STRINGER 80 20
110			ST Ca(5)	60°										4											1		
		S2VF	ST Ca(8)	25°, 45		SE																			2		
	A4VM		VN, VN	65, 75		CY	QZ		10 (6/4)	TR CP						101	3, 4, 3, 44		2.4		D91-1-42	249	120			0, 3	QZ-PY-Ca VEIN 1 cm; PY-QZ-Ca VEIN 3 cm; ZONE OF SILICIFICATION & STRONG PYRITE w/ CPY AT 110.6-111.0 m
			ST (Ca H)	10°, 20					1 (0/10)									112.0									
112	P2VF		ST Ca(6)			EP			3 (5/5)							100	1, 2, 2, 2		1.8		D91-1-43	529	120			0, 0	
	A4VF	PSI, CS (113.37 m)	VN	55, 20		CY	EP		2 (9/1)	CP TR (5/5)				2				113.8								1	QZ-Ca VEIN 1 cm THICK
114			VN	65												101	2, 2, 1, 2								2, 1		PY (60) - Ca (30) VEIN 9 cm
	P3VF					EP			5 (8/2)	TR CP									3.0		D91-1-44	567	630		1		BLOTCHY EPIDOTE
			ST	50												96	1, 1, 1, 2									1, 1, 2	PY+STRINGER w/ TR CP
116			VN, VN	20, 50														116.8									Ca VEIN, VUGGY; PY-EP-Ca VEIN 2 cm's
	P1VF		ST (5)	30°		EP			TR (5/5)					4		99	1, 2, 1, 2				D91-1-45	231	419			0, 0, 0	QZ-CA STRINGERS; EP-PY-Ca-CP VEIN 1 cm 50 20 30 TR
118	P2VF		VN	65		EP	AB(?)		2 (7/3)	TR CP (10/0)						95	2, 2, 1, 3		3.0							0, 1, 2	EP (80) - PY (20) STRINGER; EP-PY-QZ STRINGER 60 10 30
			SW (Ca), ST, ST	0°, 20°, 80°, 80°					0									119.8									

DDR 91-2D

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-1 Page 9 of 12

LOGGED BY JC/PF DATE June 21/91 SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∠	ALT'N %1	ALT'N %2	%PY	SULPHIDES/OXIDES %1	GANGUE %1 (CA)	RECOVERY %	FRACTURE / m	FROM TO (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Ca	Py	COMMENTS
	P2VF		-ST	45			0		4 (CONT'D)	102	1 2 1 2		D91-1-46				0 0	- Ca-EP-HE STRINGERS TR
121			-ST CaHe	75			2 (8/2)	TR CP (10/4)						131	18		2	TR CP IN PY-EP STRINGERS
										93	1 1 2 3							
												122.4						
123										98	2 1 1 2		D91-1-47	414	19			126.3 - 126.5 → DARK TO MEDIUM GREENISH & DARK REDDISH ALTERED PORPH. ZONE (AUGITE PHENOS UP TO 5mm'S).
	P1VF		ST (3) Ca	70°	AB	EP	TR (1/10)		1							1 2 1	0 0 0	
125			-VN							102	0 1 2 3							- 3cm QZ-CALCITE-HEM. VEIN → HEM ALONG GOUGED MARGINS. → ~3% PY IN GOUGE
												125.8						
			-ST	70°						97	1 2 1 3							- Ca-QZ-STRINGER W/ EPIDOTE SELVAGES
127										101	1 2 1 3		D91-1-48	53	17			
		P3VB			EP		4 (7/3)	TR (6/4) P				128.6						EPIDOTE RICH CLASTS ∓ LIGHT GREY CHERTY CLASTS
129	P2VF		-VN	55	AB	EP				101	1 2 2 3		D91-1-49	102	17			- Ca - PY (5) - CP (TR) VEIN. BLOTCHY AB (?) ALT.
			-ST (10)	50														- Ca-QZ STRINGERS DIPPING 50-60°
131	P1VF		-ST (6)	40						98	0 2 2 3							- Ca-QZ STRINGERS DIPPING 40-60°
												131.6						
		GG	-ST (Ca)	60°			0		4	92	1 4 4 4		D91-1-50					GREENISH ALTERED HEMATITE GOUGE W/ CALCITE STRINGERS
			HSW															
133	P2VF		SW (Ca)		AB									21	20			BLOTCHY & PATCHY ~~EP~~ AB. ALT.
										103	0 2 1 2							

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: Dill DDH: D91-1

LOGGED BY: JC/PF DATE: June 21/91 SCALE: 1:100

Rock types (Hole depth 136–150 m)

Hole depth	Main rock type	Minor rock type
136	P2VF	A1VF
139	P3VB	
140	P2VF	

Structure / Core angle (top to bottom)

Structure	∢ Core
ST Ca(6)	45
VN	25
GG	25
GG	5
GG	35
VN	60
st	70
st	40
GG	20
st	45
st	70
st	50
VN	15
st	50
st	40
st	55
st	56
VN	10
GG	10
st	60
st	55
GG	40
st	34

Mineralogy

Interval	Alt'n %1	%2	%3	%PY	Sulphides %1	Gangue %1 CA
top (to 136)	CY			0		
136–139	AB	EP		2 (0/10)		4
139–140	EP	AB?		3 (8/2)		(cont'd)
140–142						
142–144	EP	AB?	QZ?	2 (4/6)		2
144–147.5				2 (9/1)		4
147.5–150				1 (9/1)	TR CP (10/0)	2

Recovery % / Fracture/m

Recovery %	Fracture/m
100	0, 2, 0, 1
92	3, 4, 3, 4+
94	0, 2, 1, 3
98	1, 3, 2, 4
99	1, 2, 1, 2
95	1, 1, 1, 3
97	0, 2, 1, 3
101	1, 3, 2, 4
105	1, 3, 2, 3
103	1, 2, 1, 3

Sample Information / Assays and Averages

To (m)	Sample number	Cu ppm (%)	Au ppb (gm/t)
137.6	D91-1-51	127	24
140.6	D91-1-52	308	710
143.6	D91-1-53	275	47
146.6	D91-1-54	150	30
149.6	D91-1-55	272	62

Comments (C: Ca / O: Py)

Ca	Py	Comments
1, 2, 1	0, 0, 0	QZ - CA VEIN 3 cm's THICK
		2cm Py/Ca vein (80) (20)
		Py/Ca st (80 20) — this unit has some clasts repl'd by Ep
		Ca st (tr He) AB? - silicification
		Ca/Ep/tr He in gouge (50 50)
		Ca st
		Py/Ca (90 10)
		Py/Ep (80 20)
0, 1, 0	0, 0, 0	Ca/Ep, tr Py, He (70 30) (irregular margin)
		Qz/Ca/Ep/tr He (40 40 20)
		Ca/Ep/Py (70 29 1)
2, 2, 2	0, 2, 1	Ep/Py/Ca (50 40 10)
		Py/Ca/Ep/tr Cp (50 30 18)
		Ca (vuggy, cry'ln)
		Py/Ep/Ca (70 20 10); Ep/Ca/Cp (50 50 TR) } CP IN EP ± Ca ± PZ STRINGERS
		Ep/Py
		Ca

DDR 91-20

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: Drill

DDH: D91-1

LOGGED BY: JC/PF
DATE: June 21/91
SCALE: 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	%PY	GANGUE %1
152	P2VF cont'd		St	25	EP	AB?	Qz?		
			St	20					2
154			st	30					
			VN (SW)	55				TR (0/10)	
			SW						
156			VN	40					5
158	P1VF		SW		EP				
160	P2VF		st's (5)	40	EP				2
			GG	10					
			VN	70					
162	P1VF		st (2)	30	EP				
164	P3VF		VN	40	EP	CB			
			GG	10					
			VN	65					

RECOVERY %	FRACTURE / m	Cr	Py	COMMENTS
94	0, 1, 2, 2	1, 2, 1		Ca 100; Ca/He 95 05
89	1, 2, 1, 3			
104	0, 1, 1, 2			Ep(100)
95	1, 3, 3, 4		0, 0, 0	Ca/He 90 10 (Ep throughout rock); Ca SW
102	2, 2, 1, 3	1, 3, 1		Ca/tr He up to 1.5 cm angular host frags in vein
98	1, 2, 1, 3			Ca/Ep/Qz
99	1, 1, 1, 2			Ep(100)
97	1, 2, 1, 3	0, 1, 1		Ca VN on margin; Qz/Ca/He 70 25 5 greenish GG at margins
102	1, 1, 0, 2			Ca/Ep/tr He 90 10
87	1, 2, 1, 4			Ca/Qz/Ep 65 30 05; 70 30 Ep/Ca 1cm

DDR 91-20

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-1 Page 12 of 12

LOGGED BY JC/PF
DATE June 21/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	GRAPHIC	ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	%1	%2	%3	%4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE/m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	C (Ca)	O (Py)	COMMENTS
166	P2VF	PS2 CS (166.10 m)	St; BG VN	45; 50 50		EP (EP)	CB		TR (0/10)					2 (cont'd)		97; 100	1 3 1 3; 1 1 1 2										Ca/Qz 80 20 Main Unit: typical alt'n textures; Qz/Ca/Py 33 33 34
168	P1VF		St; St? (S); St	55; 45; 70		EP	HE				HE 5 (0/10)			4		101	1 2 0 2								1 1 1	0 0 0	Main Unit: spotty He; Ca; Ep/Ca/Qz 80 10 10; Ca (100)
170	P3VF		SN (20); VN	5-40; 80		EP				TR CP (0/10)						92	1 2 1 2										Main Unit: speck of Cpy in last piece; Ep/Ca/Qz 45 45 10; Qz/Py-banded vein (4.5 cm) 90 10 gouged upper margin
172										(4 specks of CP in last 2 pieces of core)																	END OF HOLE (091-1; 562 ft/171.3 m)
174																											
176																											
178																											

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY: DILL D.D.H.: D91-2 PAGE: 1 OF: 3

AREA: West Area DIP: -51.00 AZIMUTH (t): 180.0 DEPTH: 219.46

CLAIM: Dill 2 NORTHING: 3089.21 DATE STARTED: JUNE 20N, 1991

SECTION: 5900W EASTING: -5905.03 DATE FINISHED: JUNE 23N, 1991

CORE SIZE: NQ ELEVATION: 1441.7 CONTRACTOR: LECLERC D.D.

CORE RECOVERY: 92.88% RQD: 23.88% CORE STORED AT: DILL CORESHACK LOGGED BY: JOHN CORMIER

COMMENTS: HOLE D91-2 WAS DRILLED TO ROUGHLY TWIN HOLE 69-1 (0.25% CU OVER 207.0 m). STRONG COPPER MINERALIZATION WAS (0.25% CU OVER 207.0 m). STRONG COPPER MINERALIZATION WAS INTERSECTED THROUGHOUT HOLE D91-2. THIS HOLE AVERAGED 0.24% Cu INTERSECTED THROUGHOUT HOLE D91-2. THIS HOLE AVERAGED 0.24% Cu OVER 187.1 m(32.3-219.5 m), INCLUDING 0.35% Cu OVER 65.8 m (106-322).

SURVEY DATA			GEOLOGY AND ASSAY RECORD														
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	mibk Cu ppm	Au ppb	FA Au oz/t				
0.0	-51.00	180.0	0.00	32.31	32.31		OB										
062.79	-49.50	180.00	32.31	110.60	78.29		MN										
172.52	-52.00	180.00	110.60	125.60	15.00		VL										
			125.60	219.46	93.86		MN										
			32.31	35.60	3.29			D2-1			2913	190	.005				
			35.60	38.70	3.10			D2-2			3254	120	.004				
			38.70	41.30	2.60			D2-3			2765	120	.004				
			41.30	42.50	1.20			D2-4			3680	140	.005				
			42.50	44.90	2.40			D2-5			2575	120	.005				
			44.90	47.60	2.70			D2-6			3681	170	.006				
			47.60	50.60	3.00			D2-7			5516	380	.011				
			50.60	53.60	3.00			D2-8			4778	290	.010				
			53.60	55.50	1.90			D2-9			4011	210	.007				
			55.50	57.50	2.00			D2-10			3905	120	.006				
			57.50	60.50	3.00			D2-11			3863	150	.006				
			60.50	63.60	3.10			D2-12			3983	140	.005				
			63.60	66.50	2.90			D2-13			4652	110	.004				
			66.50	69.40	2.90			D2-14			4155	110	.004				
			69.40	72.40	3.00			D2-15			2949	120	.004				
			72.40	75.40	3.00			D2-16			3852	150	.006				
			75.40	78.40	3.00			D2-17			3187	140	.005				
			78.40	81.40	3.00			D2-18			3096	160	.004				
			81.40	84.10	2.70			D2-19			3683	120	.004				
			84.10	86.50	2.40			D2-20			2498	110	.004				
			86.50	89.00	2.50			D2-21			2306	95	.003				
			89.00	92.00	3.00			D2-22			3392	93	.003				
			92.00	95.00	3.00			D2-23			2190	74	.003				
			95.00	96.50	1.50			D2-24			4634	130	.003				
								CONTD									

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-2 PAGE 2 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:
CLAIM: NORTHING: DATE STARTED:
SECTION: EASTING: DATE FINISHED:
CORE SIZE: ELEVATION: CONTRACTOR:
CORE RECOVERY: CORE STORED AT: LOGGED BY:
COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD													
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t			
			96.50	98.10	1.60			D2-25			2798	91	.003			
			98.10	101.10	3.00			D2-26			1388	42	.001			
			101.10	104.10	3.00			D2-27			2191	57	.002			
			104.10	107.10	3.00			D2-28			2098	97	.003			
			107.10	110.10	3.00			D2-29			1736	46	.002			
			110.10	113.10	3.00			D2-30			1923	92	.003			
			113.10	116.10	3.00			D2-31			1703	82	.002			
			116.10	119.10	3.00			D2-32			1523	82	.002			
			119.10	122.40	3.30			D2-33			1322	94	.003			
			122.40	125.70	3.30			D2-34			1544	88	.002			
			125.70	129.00	3.30			D2-35			1132	41	.001			
			129.00	130.80	1.80			D2-36			2058	61	.002			
			130.80	132.60	1.80			D2-37			1575	50	.002			
			132.60	135.60	3.00			D2-38			1977	127	.002			
			135.60	137.70	2.10			D2-39			2500	66	.003			
			137.70	139.50	1.80			D2-40			1785	51	.002			
			139.50	140.50	1.00			D2-41			1745	67	.003			
			140.50	143.10	2.60			D2-42			2579	92	.004			
			143.10	146.30	3.20			D2-43			2204	115	.005			
			146.30	149.50	3.20			D2-44			2792	62	.003			
			149.50	152.70	3.20			D2-45			1626	42	.002			
			152.70	155.90	3.20			D2-46			1756	58	.002			
			155.90	159.40	3.50			D2-47			1371	41	.001			
			159.40	162.70	3.30			D2-48			1474	49	.002			
			162.70	166.20	3.50			D2-49			1789	48	.003			
			166.20	168.70	2.50			D2-50			1848	71	.002			
			168.70	171.20	2.50			D2-51			2308	93	.004			
			171.20	173.70	2.50			D2-52			2000	53	.002			
			173.70	176.40	2.70			D2-53			1259	99	.003			
			176.40	179.00	2.60			D2-54			1825	54	.002			
			179.00	182.00	3.00			D2-55			2145	76	.003			
								CONTD								

DDR - 85 - IU

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-2 PAGE 3 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:

CLAIM: NORTHING: DATE STARTED:

SECTION: EASTING: DATE FINISHED:

CORE SIZE: ELEVATION: CONTRACTOR:

CORE RECOVERY: CORE STORED AT: LOGGED BY:

COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD													
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t			
			182.00	185.00	3.00			D2-56			2755	121	.003			
			185.00	188.00	3.00			D2-57			2247	69	.003			
			188.00	191.00	3.00			D2-58			1308	51	.002			
			191.00	194.00	3.00			D2-59			1031	45	.002			
			194.00	197.00	3.00			D2-60			1379	42	.002			
			197.00	199.90	2.90			D2-61			1204	40	.001			
			199.90	202.60	2.70			D2-62			1073	220	.010			
			202.60	205.90	3.30			D2-63			2393	74	.003			
			205.90	208.60	2.70			D2-64			2205	47	.002			
			208.60	211.30	2.70			D2-65			1547	28	.001			
			211.30	214.00	2.70			D2-66			1310	39	.001			
			214.00	216.70	2.70			D2-67			1747	54	.003			
			216.70	219.46	2.76			D2-68			992	33	.001			

DDR - 85 - IU

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-2 Page 1 of 15

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ϕ	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / ft	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
2	CS																							
4																								
6																								
8																								
10																								
12																								
14																								

LOGGED BY J. Cormier
DATE June 23/91
SCALE 1:100

COMMENTS

- 32.31 m (106 Ft) of casing was left in the ground to facilitate possible extension of the hole at a later date.

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill

DDH D91-2

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
16																								
18																								
20	CS																							
22																								
24																								
26																								
28																								
30																								

LOGGED BY J. Cormier

DATE June 23/91

SCALE 1:100

COMMENTS

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-2 Page 3 of 15

LOGGED BY J. Cormier
DATE June 23/91
SCALE 1:100

Hole Depth	Main Rock Type	Minor Rock Type	Structure	Core ∢	Alt'n %1	Alt'n %2	%PY	Sulph. %1	Sulph. %2	Recovery %	Fracture/m	From–To (m)	Length	Sample Number	Cu ppm (%)	Au ppb (gm/t)	Ca	Py	Comments
to 32.31	OB											32.31							
32.31–35.6	DI	OXDI			CL 30	CL		OX		47, 72	1, 2, 2, 2, BC	32.31–35.6	3.3	D91-2-1	2913	190	1, 1, 3, BC	1, 2, 2, BC	- surface weathering; highly fractured w FeO on all surfaces - abundant chlorite
35.6–38.7	DI	P3DI	GG; GG; GG	?; 45; 38	CL 30	EP 01	tr	OX 01	tr CP	98, 100	1, 2, 3, 2	35.6–38.7	3.1	D91-2-2	3254	120	3, 2, 2	0, 0, 0	- ca stis
38.7–41.3	DI	X2DI; P2DI			QZ; CL	EP tr	(9/1) tr	CP 02; OX 01	OX 02; CP tr	91, 92		38.7–41.3	2.6	D91-2-3	2765	120			- sugary - Ca VN'ing; moderately hard
41.3–42.5	DI	A3DI; P3DI	(Ca) VN; VN (Ca)	25; 35	CB; CB	CY; CY	CP tr; 02 (9/1)	OX(Hy) 05	He tr	92	1, 2, 2, 3	41.3–42.5	1.2	D91-2-4	3680	140	3, 2, 2	1, 1, 0	- GG along lower VN selvage - 3cm wide VN, vuggy
42.5–44.9	DI	A4DI	SW (MnO?)							86		42.5–44.9	2.4	D91-2-5	2575	120			- moderately soft - Ca + Py veining - SW of MnO is wispy dark grey/black stis, mod. soft, non-mag.

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH 091-2 — Page 4 of 15

LOGGED BY J. Cormier
DATE June 24/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
46	DI	P3DI	GG	53		CL 30			02 9/1	tr CP															
		X2DI				QZ 20				QX2 tr CP				02											
		P3DI				CL (20)	CB (05)							05	03										
		A4DI	SW (HW?) GG			CY 30	CL 20			MnO (05)				03											
48		P3? (49.7m) P1DI				CL 15	EP tr		tr	CP 03				01		100 91 86 97 93	1 2 3 3	47.6	2.7		D91-2-6	3681	170		- thin CP sts (30°-45°) - 1 thick fract
50																		50.6	3.0		D91-2-7	5516	380		- CP occuring along many sts and dissemination; some large blebs. - relatively fresh - large (3cm) VF clasts sparsely dist. ; sub-ang.
52		X2DI				QZ			tr	HE(01) tr CP	tr CP			02				53.6	3.0		D91-2-8	4778	290		- HE occuring in CA VN selvages
		P2DI				CL 15	EP 02	QZ 02		tr CP	tr HE			03											- some CP sts
		X3 VF?				QZ	EP 03	CL 03		CP 01	HE tr			01											- possible WR frag.? - CP blebs/sts
		P3DI				CL 30	EP 05			CP tr	HE tr			04		97	BC	55.5	1.9		D91-2-9	4011	210		
	X3DI →	P3DI				QZ	KF		05	HE tr				01		87									K-spar with QZ
56		P3DI				CL 30	CB 02	EP 01	02 (9/1)	CP 0.5				02		92	1 3 3 3	57.5	2.0		D91-2-10	3905	120		- CP sts w EP selvages
		X2DI				QZ	CL 15		tr	CP 0.5	HE tr			01		79	1 3 3 3 2								- textures collapsing
58		P2DI				CL 25	EP tr	KF tr		CP 0.5	HE tr			05		90	1 3 3 3 3		3.0		D91-2-11	3863	150		

COMMENTS: CA	COMMENTS: Py
1	0
2	0
3	0
BC	BC
1 3 3	0 1 0
2 2 3 (BC)	0 1 0 (BC)
1 2 2	0 1 0

DDR 91-20

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: Dill

DDH: 091-2

LOGGED BY: J. Cormier

DATE: June 24/91

SCALE: 1:100

Hole Depth	Main Rock Type	Minor Rock Type	Structure	Core ∠	Alt'n %1	Alt'n %2	Alt'n %3	%PY	Sulphides/Oxides %1	%2	Gangue %1	Gangue %2	Recovery %	Fracture/m	From To (m)	Length	Sample Number	Cu ppm (%)	Au ppb (gm/t)	C CA	O PY	Comments
		P2DI (cont'd)													60.5		091-2-11 (cont'd)					
62		A4DI	GG, GG, GG, GG, VN (Qz,Ca)	35, 15	CY 40	CL 20		(tr)	MnO 01	CP tr	QZ 05	CA 02	86, 40, 93	3, 3, 2, BC		3.1	091-2-12	3983	140	0, 2, 1, BC	0, 0, BC	-Ca+Qz occurs in VNs/st's -gouge has QZ rubble; Qz rubble
		PS4 (63.4m)													63.6							
64, 66		A3DI	VN (Qz,Ca), GG, VN (Ca,Qz)	60, 30, 65	CY 30	CL 05		(tr)	MnO? 03	CP 01	QZ 05	CA 04	83, 81	1, 2, 2, 2, BC, 1, 1, 2, BC		2.9	091-2-13	4652	110	2, 3, 2, BC, 0, 1, 0, BC	0, 0, 0, BC, 1, 0, 0, BC	-15 cm wide VN -many MnO(?) type st's throughout unit: some carry CP; -20 cm wide gouge, some QZ,KF; -gouge along VN margins
	DI	P2DI			CL 25	EP tr					CA 03		88		66.5							
68		X2DI			QZ	CL 15	EP 05	03 (9/1)	CP 01	HE tr	CA 05		91	1, 2, 3, 3		2.9	091-2-14	4155	110	1, 1, 3	1, 2, 1	-appears finer grained than fresh intrusive -chloritized ferromags. -CP as blebs on fracs.
		P2DI			CL 30	EP 02		04 (9/1)			CA 03			(BC)	69.4					(BC)	(BC)	
70		X3DI	GG	45	QZ	CL 15	KF?		CP 03				88	2						1	0	-dull grey clay blebs in Qz
		P2DI			CL 20	EP 02		tr	CP 01		CA 02			3, 3		30	091-2-15	2949	120	3, 2	1, 1	
		X3DI			QZ	EP 15	KF 03				CA 01		90	3								-blotchy EP
72		P3DI	GG	70	CL 30	EP 02	KF tr, CB tr	01 (9/1)	CP 0.5	HE tr	QZ 05	CA 05	88	1, 2, 2, 3	72.4	3.0	091-2-16	3852	150	1, 2, 3	1, 1, 0	-1 cm wide, Qz rubble
		PS5 (73.3m)																				
74		P2DI			CL 15	EP 10		02 (9/1)			CA 05	QZ 03	82	BC						BC	BC	-rounded frag. of f.g. volc.? 2cm wide

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

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LOGGED BY J. Cormier
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SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / ft	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
76	DI	P2DI (cont'd)				CL 15	EP 05		02 (PY)					CA 05	QZ 03	82 / 97	BC 1 1 3 2	75.4			D91-2-16				CA BC; PY BC
																		78.4	3.0		D91-2-17	3187	140		CA 0; PY 0
78						CL 25	EP 05	CB	0.5 (6/1)	CP 0.1	HE tr			CA 04	QZ 01										CA 3; PY 1 0
																95									- local zones of intense Prop. alt., destruction of intrusive textures; solid olive green colour, fine gr. - EP occurs mainly along CA st. selvages. - bleaching along CA st. selvages
80	DI	P3DI																	3.0		D91-2-18	3096	160		
																93		81.4							
82			SW (CA)	40												93	BC 1 1 3 2		2.7		D91-2-19	3683	120		CA BC; PY BC; CA 1 3 2; PY 0 0 0
			(CA) VN GG	45 470												97		84.1							↳ gouge zone (20cm wide) poss. arg. textures intact
84																									
86	DI	A3DI	GG SW (Qz, Ca)			CL	QZ? 05		tr	CP tr				QZ? 05	CA 02	82 / 95	1 3 2 3	86.5	2.4		D91-2-20	2498	110		CA 2 3 2; PY 0 0 0 - mod. hard - overall very light orange-brown color - Qz occurs as dark grey translucent irregular sts + VNS (gangue or alt.?) - local SW of MnO? sts. - some light orange material occurring in Qz/CA VNS. (KF?) - Ca VNS abundant
			VN (Qz, Ca, KF?)	40 (5cm)														89.0	2.5		D91-2-21	2306	95		2cm, some HE
88			VN (Qz, Ca)	40												98									- 2cm, some HE
			VN (Qz, Ca)	40																					
90		P3DI				EP 15	CL 10	CY	PY tr	CP tr				CA 05		97			3.0		D91-2-22				- very gradational upper contact - KF(?) at 89.25m in Qz and blebs of CP

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-2 Page 7 of 15

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HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS: CA	COMMENTS: PY	COMMENTS
92	DI	P3DI (contact)														87											
		A3DI	GG	35		CY			01 (8/8)	CP tr							92.0	3.0		D91-2-22	3392	93		(BC)	(BC)	- same as 84.1 - 89m - not as much QZ VN'ing - gradational lower contact
			VN	50												99								1	0	broken Ca rubble on up. margin VN 5cm wide
94		P3DI	VN (Qz/Ca/KF)	45		CL 30	EP 05	KF tr CB tr	0.5 (3/7)	CP tr	MG tr			CA 03	QZ 01										3	1	
				45												99								2	0	- sos - 94.25m KF occuring with QZ/CA VN - magnetite blebs (93.0m)
																	95.0									
96																98	BC							BC	BC	From 95.0m to lower contact more silica, brittle, increased EP, CP > 0.3
																	96.5	1.5		D91-2-24	4634	130				
		A3DI	VN (Qz/Ca)	85		CY	KF? tr		tr	CP 0.2				CA 03	Qz tr	88											- abund. py along black (MnO?) sts - also cp in sts. ↳ VN (3cm), banded and broken
98			VN (Ca/KF)	45													1 2	98.1	1.6		D91-2-25	2798	91	1	0	
		P3DI				CL 35	EP 02	KF? tr	01 (1/9)							87	3 3							3	2	- bleaching along Ca sts. - KF? in med. 2'ed sts's.
100		P2DI				CL 10	EP 10		03 (8/2)	HE 0.1	CP 0.1			CA 03		99	2 3 3 3										- EP mainly on Fracs. (als 0.1 HE) - intrusive textures intact.
																		101.1	3.0	D91-2-26	1388	42		(BC)	(BC)	
102																								1 3 3	1 3 3	
		P3DI				CL 20	EP 05	CB	04 (8/2)	HE 03	CP tr			CA 03		93	2 3 3 3 3										- solid HE on some Fracs. - few Frags. of fine gr. volcanics (0.5 - 3 cm). - MG blebs
104																		104.1	3.0	D91-2-27	2191	57		2 3 2	1 3 2	
																				D91-2-28						

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-2

LOGGED BY J. Cormier
DATE June 26/91
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Rock types and mineralogy

Hole depth (m, approx.)	Main rock type	Minor rock type	Structure	Core ∢	Alt'n %1	Alt'n %2	Alt'n %3	Sulphides/Oxides %PY	%1	%2	%3	%4	Gangue %1	Gangue %2
106–107.8	DI	P3DI (con't)	GG, GG, GG, GG	60, 60										
107.8–108.6	DI	P2DI	GG		EP 05	CL 02	KF? tr	05 (8/2)	CP 01				CA 02	
108.6–109.2	DI	A3DI	GG		CY			03 (9/1)					CA 03	QZ 01
109.2–110.6	DI	P2DI			CL 10	EP 05		03 (4/6)	MG tr	CP tr				
110.6–110.9		A3DI	VN, CT	50, 30	CY			tr	CP tr	MG tr			CA 05	QZ 01
110.9–112.3		P3DI			CL 30	EP 05	KF? tr	0.2 (8/2)	CP tr				CA 05	QZ tr
112.3–113.8	DI	P2DI			CL 10	EP 05		0.2 (5/5)	CP 0.1				CA 05	
113.8–120	DI	P3DI	GG (arg.?); GG; VN (Ca, EP, HE); VN	50	CL 35	EP	CB tr, KF 0.1	0.2 (8/2)	CP tr	HE tr			CA 05	Qz tr

Recovery %: 90, 93, 93, 32, 87, 90, 101, 93, 99, 96

Fracture/m: 1, 3, 3, 3; 0, 2, 2, 2 (BC)

Sample information and assays

From–To (m)	Length	T.W. (m)	Sample number	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au drilled length
–107.1	3.0		D91-2-28	2098	97	
107.1–110.1	3.0		D91-2-29	1736	46	
110.1–113.1	3.0		D91-2-30	1923	92	
113.1–116.1	3.0		D91-2-31	1703	82	
116.1–119.1	3.0		D91-2-32	1523	82	
119.1–			D91-2-33			

Comments

CA: 1, 2, 2 / PY: 1, 2, 1

- }arg.? (4cm wide, tex. intact)
- less chlorite
- EP/CP st's ; volc. Frags. (0.2-1)
- SOS
- ext. CB gouge (Ca rubble)
- not much Qz.
- 1 MG bleb with KF + Py
- banded VN

PY: 0, 1, 0

- local. zones of minute st. sw.
- local zones of minute st. sw.

CA: 2, 3, 3

- local weak CB alt.: also small (1-2mm) pockets of CA (like amygdules)
- some banded Qz/Ca VN's
- some blotchy zones of KF with Ca/Qz VN/SW near lower contact
- VF Frags. (1-10mm) weakly scattered in lower half of zone (P3 alt'ed)
- intermittent loss of intr. tex. due to prop. alt.

PY: 0, 3, 2

- 5 cm VN; massive EP with Ca and some CB-HE (Siderite?)

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HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
122	PIVL	P3DII														97									
		P2DI				CL 10	EP 05	CB tr		CP tr	HE tr			CA 05		95		122.4	3.3		091-2-33	1322	94		- EP/HE on Frac. surfaces - med gr. intr. tex prominent
124																92	BC		3.3		091-2-34	1544	88		
																99		125.7							- solid HE frac. swir on PY st's. - some larger volc. frags. (3mm)
126	P2VF	P2DI	(Ca,Qz) VN	30		CL 10	EP 05	CB tr						CA 02	Qz tr	92									poss. chunk of WR within diorite - volc. frags up to 15mm (sparse)
128		P3DI	(Ca,Qz) VN	30		CL 30	CB	EP 01						CA		96		129.0	3.3		091-2-35	1132	41		- banded VN (1cm) - 5cm wide VN; lenses of host incl. (orange tint - KF?)
			CT	85																					
130		A3DI				CY	CB		0.1 (8/2)	MnO² 0.2	CP tr			CA 10	Qz	93		130.8	1.8		091-2-36	2058	61		- sharp upper contact - MnO? st's - From 129.7 - 130.0m a zone of ang. WR intensely CB'ied by Ca/Qz flooding; orange tint appears to indicate KF present; sharp zones of olive may be saussaritization.
132			GG VN (Qz,KF)					EP CL								99		132.6	1.8		091-2-37	1575	50		- 130.8 - 132.6m strong prop alt. assoc. w/ avg. alt.
134		P2DI	(Qz,Ca) VN GG	(Py) 40		CL 20	EP 03	CB tr KF tr	03 (9/1)	CP tr	HE tr			CA 02	Qz tr	90			3.0		091-2-38	1977	127		- sparse volc. frags (up to 3cm but typically 3mm) - EP on Fracs. - 137.7m → large st. blebs of MG in py. - 5cm, py (CP?) on upper margin

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY: Oill — DDH: 091-2 —

LOGGED BY: J. Cormier
DATE: June 27/91
SCALE: 1:100

From–To (m)	Minor Rock Type	Structure / Core ∡	Alt'n (%1 / %2 / %3)	Sulphides/Oxides (%PY / %1 / %2)	Gangue (%1 / %2)	Recovery %	Fracture/m	Length	Sample Number	Cu ppm	Au ppb	Comments (Ca / Py)	Comments
135.6	P2DI	VN (Ca,KF) 75				94	1 2 3 2 (con't)		D91-2-38			1 2 2 (con't) / 1 1 0	vuggy VN; KF on margins
135.6–137.7	P2DI	GG				89		2.1	D91-2-39	2500	66		
137.7–139.5	P3DI	GG; GG	CL 30 / CB	03 (5/5) / CP tr	Ca 02	91	(BC)	1.8	D91-2-40	1785	51	(BC) / (BC)	-SOS; -narrow (3cm) pinkish zones
139.5–140.5	A3DI		CY / KF?	tr / CP tr	Ca 02 / Qz 05	91	1 2 3 2	1.0	D9-2-41	1745	67	2 3 1 / 1 1 0	
140.5–143.1	A3DI	VN (Ca,Qz) 50; GG; VN (Qz,Ca) 45				76; 107		2.6	D91-2-42	2579	92		-4cm VN; -5cm VN
143.1–146.3	P3DI	VN (Ca)	CL 20 / EP 05 / KF 0.1			82		3.2	D91-2-43	2204	115		-zone of K alt. (up to 5cm); -pinkish Ca VN ∋ Ep, Py, Cp on margins
143.1–146.3	P2DI (K3)		CL 15? / EP 10 / KF 05 Qz	01 (6/4) / CP 0.2 / HE tr	Ca 03	100; 84	BC; 1 1 3 3					BC / BC; 1 1 0 / 1 0 0	- patchy KF zones occur out from Ca/Ep VN's + st's (1-2cm); -EP 90% along Fracs.; -HE along some fracs.; - some sections appear to have elevated silica
146.3–149.5	P2DI (K3)					98; 74	BC; (BC) 2 3 3 3 3	3.2	D91-2-44	2792	62	BC / BC; (BC) 2 2 1 / (BC) 0 1 0	
149.5									D91-2-45				

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DIAMOND DRILL RECORD

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HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
152	DI	P2O1 (K3) -con't	VN	45		CL 15	EP 10	KF 05	OI (6/4)	CP 0.2	HE tr					90	(con't)	152.7	3.2		D91-2-45	1626	42	
154																157								
156																97		155.9	3.2		D91-2-46	1756	58	
158																108		159.4	3.5		D91-2-47	1371	41	
160																110	BCl	162.7	3.3		D91-2-48	1474	49	
162			VN (cut?)	30												99								
164																97								
																103								
																105								
																87								
																80			3.5		D91-2-49	1789	48	

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COMMENTS

CA PY

(con't)

con't
- K alt. is secondary but prominant over this interval
- few full pieces of core
- cp occuring as blebs and along s's with/without py.

BCl BCl

3 cm

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HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	%PY	SULPH. %1	SULPH. %2	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE/m	FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	CA	PY	COMMENTS
166		A3DI	VN	85	CY!	Qz			MnO 0.1		CA	Qz	94	(BC) 0 2 3 3	166.2		D91-2-49			(BC) 0 2 1	(BC) 0 0 0	vuggy
168		P2DI			CL 10	EP 10	KF tr	0.2 (8/2)	HE 0.5	CP 0.1	CA 03	Qz tr	101		168.7	2.5	D91-2-50	1848	71			- local zones of intense EP along fracs. - local HE along fracs. (174-174.4 → dis. HE 05%) - 171.8 → 30 cm zone of P2VF?/poss. WR frag or loss of tex. due to alt. - very broken up core
170													109		171.2	2.5	D91-2-51	2308	93	BC!	BC!	
172													95 / 92	BC!	173.7	2.5	D91-2-52	2000	53			
174													95 / 91		176.4	2.7	D91-2-53	1259	99			
176		P3DI	CT	90	CL 20	EP 10	KF tr	0.1 (9/1)	HE tr	CP tr	CA 01											- appears fine gr. (due to alt.?)
		A3DI			CY	CB		PY 0.1 (9/1)	MnO 01		CA 05	Qz	92	1 3 2 2						2 2 2	2 1 1	- angular pieces (crackle) of host suspended in CA/Qz sw. - sharp upper contact
178		P4DI			CL 40	EP 05	CB KF	tr (9/1)	HE tr				87		179.05	2.65	D91-2-54	1825	54			- KF with vuggy CA vn matrix; also - VF frags (up to 1cm); P alt.
		A4DI	GG VN (CA/Qz)	70 45 (CT)	CY!				MnO?		CA	Qz										CB gouge material -30s
180		P3DI			CL 20	EP 15	KF tr	03 (9/1)	HE 01	CP 0.1			108	BC			D91-2-55			BC	BC	- abun. HE/EP on fracs. - KF on some frac. margins

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CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH D91-2 —

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HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∠	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m
182		P3DI (cont'd)	VN (Qz)	3		CL 20	EP 15	KF tr	03 (9/1)	HE 01	CP 0.1			Ca	Qz	105	
184		P2DI				CL 15	EP 15	CB Qz tr KF tr	03 (8/2)	HE 01	CP 0.1					102 95	
186																77 86	BC
188																105	
190																77	
192		A4DI	(EP,Ca) VN CT	90		CY	CB			MnO²				Ca 05	Qz tr	101	
194		P2DI	VN (EP,Ca)			CL 15	EP 10	CB KF tr	03 (8/2)	HE tr	CP tr			Ca 02	Qz tr	81 91 67	

FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
182.0	2.95		D91-2-55	2145	76	
185.0	3.0		D91-2-56	2755	121	
188.0	3.0		D91-2-57	2247	69	
191.0	3.0		D91-2-58	1308	51	
194.0	3.0		D91-2-59	1031	45	

COMMENTS

Ca Py

- 1cm VN W Py.
- same as previous unit (P3DI) except less chlorite
- very broken core
- some narrow, vuggy CA zones with KF
- some silicified zones (weak to mod.)
- narrow zones of strong (P4) alt. locally
- 4cm wide VN; CB ely upper margin
- some narrow, vuggy EP st's.
- 4 cm wide, 90% EP (KF on margins)

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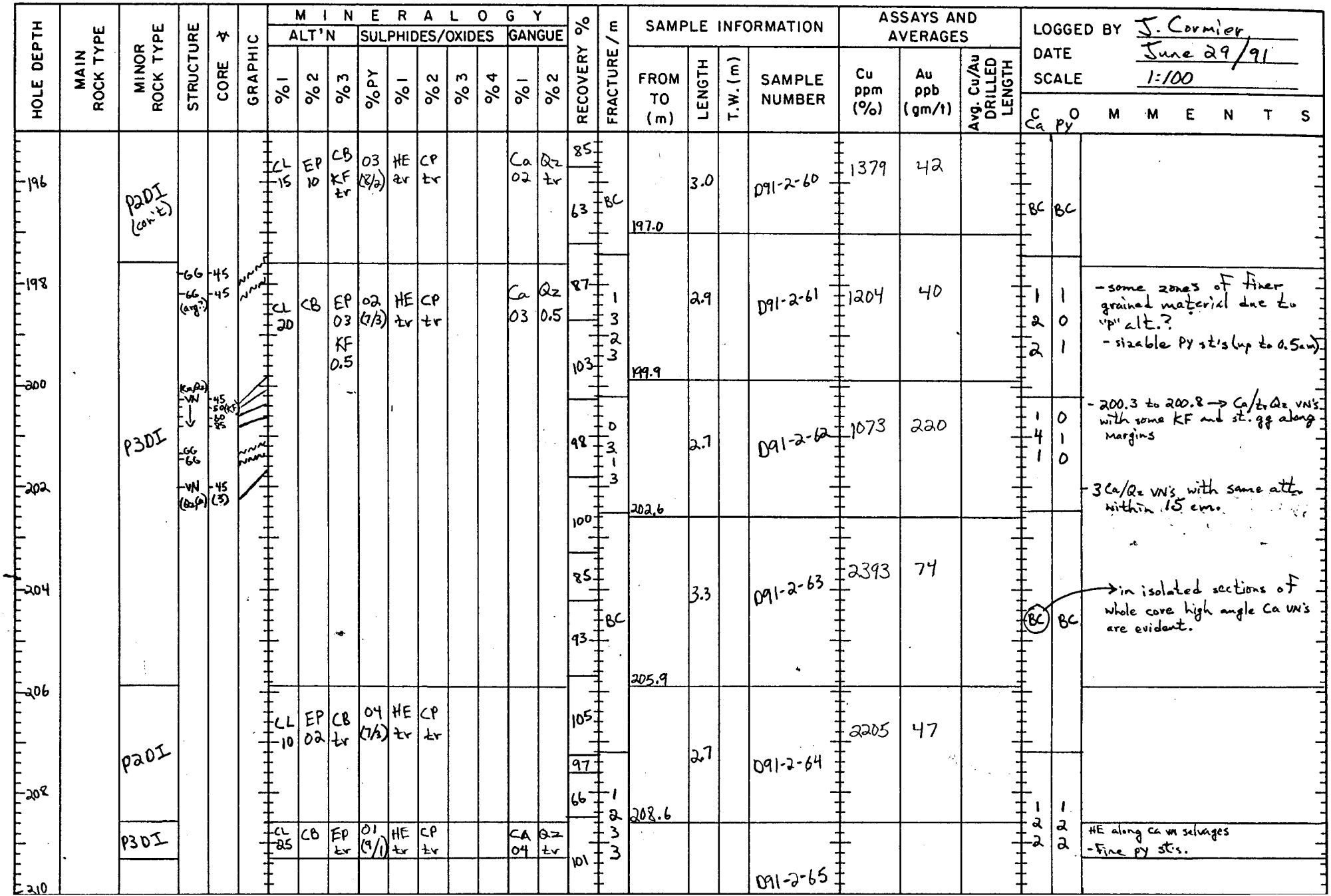

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HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS: Ca	COMMENTS: Py	COMMENTS
212		P2DI	GG	55		CL 15	CB	EP	03 (8/2)	HE 0.2	EP 0.2			Ca	Qz	98 92 91 95	1 2 3 3 (cont'd)	211.3	2.7		D91-2-65	1547	28		1 2 2 (cont'd)	1 2 2	- local zones of more intense CL.
214																111		214.0	2.7		D91-2-66	1310	39				
216			VN ((a,E))	35												94 100 98 64	BC	216.7	2.7		D91-2-67	1747	54		BC	BC	- 3 cm VN with CP blebs.
218																59 293'		219.5	2.8		D91-2-68	992	33				END OF HOLE
220																											
222																											
224																											

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY: DILL D.D.H.: D91-3 PAGE: 1 OF 3

AREA: West Area
CLAIM: Dill 2
SECTION: 5900W
CORE SIZE: NQ
CORE RECOVERY: 94.08% RQD: 52.01%

DIP: -52.00 AZIMUTH (t): 180.0
NORTHING: 3690.30
EASTING: -5905.60
ELEVATION: 1489.7
CORE STORED AT: DILL CORESHACK

DEPTH: 197.51
DATE STARTED: JUNE 23N, 1991
DATE FINISHED: JUNE 25N, 1991
CONTRACTOR: LECLERC D.D.
LOGGED BY: PETER FISCHL

COMMENTS: HOLE D91-3 WAS DRILLED TO TEST THE S FLANK OF AN IP HIGH AND IS ALONG TREND FROM A CU/AU GEOCHEM ANOMALY TO THE NW. MOD MINERALIZED VOLCS WITH CPY WAS INTERSECTED AT 125.3 -151.2 m. TRACES OF CPY THROUGHOUT HOLE. AVERAGED 0.081% Cu, 36 ppb Au/190.8 m(22-648),INCLUDING 0.15% Cu, 61 ppb Au/67.4 m (411-632), INCLUDING 0.22% Cu AND 64 ppb Au/25.9 m (411-496).

SURVEY DATA			GEOLOGY AND ASSAY RECORD													
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t			
0.0	-52.00	180.0	0.00	06.60	6.60		OB									
050.44	-49.00	180.00	6.60	40.30	33.70		VF									
142.19	-49.50	180.00	40.30	46.40	6.10		VM									
			46.40	76.70	30.30		VF									
			76.70	90.00	13.30		MN									
			90.00	98.80	8.80		MD									
			98.80	125.30	26.50		MN									
			125.30	151.20	25.90		VF									
			151.20	160.30	9.10		MD									
			160.30	192.50	32.20		VF									
			192.50	197.51	5.01		MN									
			6.60	10.36	3.76			D3-1			425	30				
			10.36	13.40	3.04			D3-2			491	36				
			13.40	16.40	3.00			D3-3			667	51				
			16.40	19.40	3.00			D3-4			305	26				
			19.40	22.40	3.00			D3-5			890	48				
			22.40	25.40	3.00			D3-6			686	24				
			25.40	28.30	2.90			D3-7			454	20				
			28.30	30.70	2.40			D3-8			400	22				
			30.70	33.70	3.00			D3-9			970	48				
			33.70	36.70	3.00			D3-10			902	34				
			36.70	39.70	3.00			D3-11			977	28				
			39.70	42.50	2.80			D3-12			1001	43				
			42.50	44.50	2.00			D3-13			484	28				
			44.50	46.50	2.00			D3-14			515	30				
			46.50	49.50	3.00			D3-15			441	16				
			49.50	52.50	3.00			D3-16			1440	56				
			52.50	55.00	2.50			D3-17			1455	55				
			55.00	58.00	3.00			D3-18			348	10				
								CONTD								

DDR - 85 - IU

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-3 PAGE 2 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:

CLAIM: NORTHING: DATE STARTED:

SECTION: EASTING: DATE FINISHED:

CORE SIZE: ELEVATION: CONTRACTOR:

CORE RECOVERY: CORE STORED AT: LOGGED BY:

COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD														
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t				
			58.00	61.00	3.00			D3-19			533	20					
			61.00	64.20	3.20			D3-20			342	10					
			64.20	67.40	3.20			D3-21			480	22					
			67.40	70.40	3.00			D3-22			1152	27					
			70.40	73.50	3.10			D3-23			549	19					
			73.50	76.50	3.00			D3-24			551	15					
			76.50	79.00	2.50			D3-25			52	17					
			79.00	82.00	3.00			D3-26			60	12					
			82.00	84.50	2.50			D3-27			13	34					
			84.50	86.20	1.70			D3-28			152	9					
			86.20	88.20	2.00			D3-29			122	7					
			88.20	91.20	3.00			D3-30			122	7					
			91.20	94.30	3.10			D3-31			80	11					
			94.30	96.80	2.50			D3-32			8	13					
			96.80	98.80	2.00			D3-33			4	22					
			98.80	101.40	2.60			D3-34			4	6					
			101.40	103.90	2.50			D3-35			15	5					
			103.90	106.90	3.00			D3-36			8	4					
			106.90	110.00	3.10			D3-37			12	6					
			110.00	113.10	3.10			D3-38			50	6					
			113.10	116.20	3.10			D3-39			68	12					
			116.20	119.30	3.10			D3-40			115	10					
			119.30	122.30	3.00			D3-41			288	10					
			122.30	125.30	3.00			D3-42			202	9					
			125.30	128.30	3.00			D3-43			2424	120					
			128.30	131.10	2.80			D3-44			2504	48					
			131.10	133.90	2.80			D3-45			1425	20					
			133.90	136.70	2.80			D3-46			2090	37					
			136.70	139.50	2.80			D3-47			1107	27					
			139.50	142.40	2.90			D3-48			2143	56					
			142.40	145.20	2.80			D3-49			3041	86					
								CONTD									

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-3 PAGE 3 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:

CLAIM: NORTHING: DATE STARTED:

SECTION: EASTING: DATE FINISHED:

CORE SIZE: ELEVATION: CONTRACTOR:

CORE RECOVERY: CORE STORED AT: LOGGED BY:

COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD															
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t					
			145.20	148.20	3.00			D3-50			2890	110						
			148.20	151.20	3.00			D3-51			2413	68						
			151.20	154.20	3.00			D3-52			72	49						
			154.20	157.20	3.00			D3-53			92	46						
			157.20	160.30	3.10			D3-54			179	84						
			160.30	163.40	3.10			D3-55			109	21						
			163.40	166.40	3.00			D3-56			1446	46						
			166.40	169.40	3.00			D3-57			1824	49						
			169.40	172.50	3.10			D3-58			1760	71						
			172.50	175.60	3.10			D3-59			1056	46						
			175.60	178.60	3.00			D3-60			1252	58						
			178.60	181.50	2.90			D3-61			1229	98						
			181.50	184.50	3.00			D3-62			1382	59						
			184.50	187.00	2.50			D3-63			1470	69						
			187.00	190.00	3.00			D3-64			1092	75						
			190.00	192.50	2.50			D3-65			1886	66						
			192.50	195.00	2.50			D3-66			283	17						
			195.00	197.51	2.51			D3-67			214	14						

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DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-3 Page 1 of 14

LOGGED BY PETER FISCHL
DATE
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	VEINING: CA	VEINING: PY	COMMENTS
1																											
3	CS																										
5																											
	22'																	6.6									
7																87											RUSTY FRACS TO 43.5m
9	XNVF					QZ	K	FP	1 (6/4)					TR		34	BC		3.74		091-3-1	425	30		0 1 0	1 0.5	WEAK BLOTCHY ICSPAR & EPIDOTE ALTERATION
																30		10.36									
11		X3VF	SW (Ca)			QZ	K									64			3.04		091-1-2	491	36				
13									3 (7/3)					2		76	2	13.41							1 3 1	2 2 1	
			YN - 45													103	2 1 3										Ca-PY VEIN (2 cm's) w/TRACE OF CP

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-3 Page 2 of 14

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1 CA	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
16	X2YF CONT'D		ST (Py-Ca)	30												100								
	X1VF		ST (Py-Ca)	35		Qz			3 (7/3)					1		97	1 2 1 3	15.4			091-3-3	667	51	
18			ST (Ca-Py)	60												102			3.0		091-3-4	305	26	
			ST Ca	20						TR CP (10/0)							0	19.4						
20		K3YF	SW				K							3		100	3 1 3		3.0		091-3-5	890	48	
																95		22.4						
22	P1VF		ST Py-Ca	35		EP			1 (9/1)							99	0 1 0 1							
			ST Ca	32																				
24			ST Py-Ca	55					3 (7/3)					1		95	1 2 1 3	25.4	3.0		091-3-6	686	24	
	P2VF		GG	30		EP	AB?										0 2 0 2							
26																	1 2 3							
	VF								1 (9/1)							95			2.9		091-3-7	454	20	
28		K1VF	GG ST Py-Ca	45 35		K	Ca	EP	5 (6/4)					4		101	1 2	28.3						
	X1VF		ST Ca ST Ca-Py	25 55					1 (9/1)					2		95	1 2		2.5		091-3-8	400	22	
			ST																					

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DATE
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CA	PO	MMENTS
1 2 1	2 2 1	PY-Ca STRINGER with KSPAR ENVELOPE
2 3 1		TR CP IN Ca & Py STRINGERS
		Ca STRINGER (30°TCA) w/ MINOR PY & TR CP
1 3 1	1 3	
1 2 1	1 3	PY-Ca STRINGER w/ TRACE CP
		TR MALACHITE ON RUSTY FRAC
1 3 0	1 3 0	
1 4 0	3 2	PY-Ca STRINGER w/ TR CP
1 3 1	1 2 1	Ca-PY STRINGER w/ TR CP

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: DILL

DDH: D91-3

LOGGED BY: PF

DATE:

SCALE: 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∡	ALT'N %1	ALT'N %2	SULPHIDES %PY	SULPHIDES %1	GANGUE %1 CA	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	COMMENTS
31	XIVF		VN PY CP; ST; PY CP; PY CP	40; 25; 38			4 (9/1)	TR CP (1%)	4		101; 97		30.7	3.0	D91-3-9	970	48	PY VEIN UP TO 1cm W/ ~2% CP; CP IN PY-CA STRINGERS; WEAK PATCHY & BLOTCHY AB(?) & KSPAR ALT.
33			VN CaCl	30	QZ; K (AB?)		2 (7/3)		2		92; 97	1, 2, 1, 3	33.7	3.0	D91-3-10	902	34	3cm THICK Ca-CL VN.
35–37			VN Ca PY CP	20-25					6; 2		81	4, 4, 4	36.7					
37–39		AZVF	VN Ca QZ PY	75	CY		1 (1/1)		5	QZ	103; 87	1, 3, 1, 3		3.0	D91-3-11	977	28	14cm THICK Ca-QZ-PY VEIN
39–41	XIVM?	PSO (40.5m)	ST PY-CP	24	QZ		2 (9/1)		1		93		39.7	2.8	D91-3-12	1001	43	VM W/ INTRUSIVE TEXTURE; SMALL DYKE OF THIS MATERIAL INTRUDES VF IN VICINITY
43		KIVM	ST EP PY QZ	35	KF	QZ					91	3, 3, 4	42.5					
43–44.5	PIVM		VN CaPY; 66	25; 45	CL		1 (9/1)		4		95	1, 3, 1, 3	44.5	2.0	D91-3-13	484	28	

Core (Cm/Py) / RQD columns: 3 3 0; 2 4 2; 2 3 0; 1 2 1; 1/2; 1 3 1; 2 2 1 / 9 1; 1 2 1 / 3 4 1; 2 3 1

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CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY DILL DDH D91-3 Page 4 of 14

LOGGED BY PF
DATE
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	%2	%3	%4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
46	XIVM	CS (40.5m)				Qz			2 (9/1)					2		88		46.5	2.0		D91-3-14	515	30	
																91								
48		SW (ca)	ST PY-CP 45											4		96		49.4	2.9		D91-3-15	4411	16	
50		KIVF	ST PY Ca 35			KF			6 (9/1)	0.5 CP (10/0)						97								
			VN 30											1					3.1		D91-3-16	1440	56	
52		SW Ca	ST PY-Ca 20						2 (9/1)							88		52.5						
			ST PY TR CP 35											6										
			GG 12																					
			VN Ca CP 25							TR CP (10/0)						88			2.5		D91-3-17	1455	55	
54			ST PY Ca TR CP 55						4 (9/1)					2				55.0						
		P3VF	ST Qz CP PY 40			CL CA				0.5 CP (10/0)						95								
56																87			3.0		D91-3-18	348	10	
	PIVF					EP	KF		TR (10/0)					1				58.0						
58			GG 5						2 (9/1)							94			3.0		D91-3-19	533	20	
																95								

C & P

- PY-Ca STRINGER w/ TR CP
- Qz-PY-Ca VEIN UP TO 1cm w/ TR CP
- PY-Ca STRINGER w/ TR CP
- Ca VEIN UP TO 1cm, w/ ~5% CP
- CP IN PY & CA STRINGERS - MODERATELY DIPPING

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: DILL

DDH: D91-3

LOGGED BY: PF

DATE:

SCALE: 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	GANGUE %1 CA	RECOVERY %	FRACTURE / m
61	PIVF		-ST CA	40	EP KF	2 (9/1)		3	87	
			-ST SF TR CP	30						1, 1, 3
			-ST CA PY	20		4 (10/0)			95	1
63						1 (8/2)				2, 1
			-ST CA PY TR CP	20				1	103	
			-ST CA-A TR CP	16						2
65			-ST(?) PY	20					101	1, 3, 1, 3
67			-ST PY-MTA	20		3 (8/2)		2	90	
			-ST PY CA	25°						
69							TR CP (10/0)		98	1, 2, 2
									92	2
71			-VN	5		(1/3)				
						3 (7/3)		1	97	
73			-ST PY, MA	15					87	2, 2, 1
								2	88	3

Sample Information / Assays

FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm	Au ppb
61.0 – 64.2	3.2	D91-3-20	342	10
64.2 – 67.4	3.2	D91-3-21	480	22
67.4 – 70.4	2.0	D91-3-22	1152	27
70.4 – 73.5	3.1	D91-3-23	549	19
73.5 –	3.0			

Comments

Depth (approx.)	CA	PY	Comment
61–62	2, 4, 1	1, 3, 1	
62–63		4, 0	
63–64	1, 1, 0	2, 2, 0	
67	2, 2, 1	3, 2, 1	PY-MAGNETITE STRINGER W/ KSPAR ENVELOPE
71		1/0	* MAG.-HEM.-PY-EPIDOTE VEIN UP TO 2 CM'S W/ TR CP
72	1, 2, 1	2, 2, 0	RUSTY FRACS AT 72–105.0 m
73.5–74	1, 3, 1		

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH 091-3 — Page 6 of 14

LOGGED BY RF
DATE
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
76	C202									2 (1/8)				1		97	2 3 3 4	76.5			091-3-24	551	15		
						CB	CL	SE		5 (0/10)				3		95	1 1 2								
78		CV	CT	31						1 (1/9)				5					3.1		091-3-25	52	17		
		C201	CT	45						70 TR	TR CP			20	Q2			79.6							CALCITE VEIN w/ 20 cm's OF SEMI MASSIVE PY ON UPPER MARGIN
						CB	CL	EP		TR				100		93	1 3 1								
80			VN Ca	25						1 (3/7)															
82	P1D1		ST Ca PY	45		CL	CY	KF						2		95	3	82.0	2.4		091-3-26	60	12		
														€		103									
			ST PY Ca	14						2 (5/5)	TR CP (0/1)					96	0 1 1 2	84.5	2.5		091-3-27	13	34		
84			ST PY Ca	25																					
											TR CP (0/10)					101		86.2	1.7		091-3-28	152	9		FINE DISSEM. CP
86				38						1 (1/9)	TR CP (0/10)					90	2 3 2 4								
			ST Ca	50												104		88.2	2.0		091-3-29	122	7		
88			ST Ca	30												100			3.0		091-3-30	122	7		

DDR 91-2D

13.1

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-3 Page 7 of 14

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1 CA	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
91	PIMD					CL			TR CP (0/10)					2		94	2	91.2						
									4 (0/10)							108	1							
93	AIOI		ST Ca	40		CY	CL		1 (1/9)							75	3		3.1		D91-3-31	80	11	
																99	1 2 2	94.3						
95	PIMD		VN Ca-Ilo Pl (TR)	30		SS	CB ?	CL	2 (2/8)							118	1 2		2.5		D91-3-32	8	13	
														1		91	1 3 2	96.8						
97	F3MD			33		SE	CB	SS								60	3 4		2.0		D913-33	41	22	
																90	2 2	98.8						
99	AIOI					CY	CB	CL	1 (1/9)							96	1 3		2.6		D91-3-34	4	6	
101		A2OI	ST Ca	32										2		101.4								
						CY	CB	CL								99	1 1 2		2.5		D91-3-35	15	5	
103		KIPI	ST PY	28		KF	CB	CY								91	1 2 2	103.9						
			ST	25					3								3							

LOGGED BY PF
DATE
SCALE 1:100

CA PY COMMENTS

FINE DISSEM CP

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: DILL   DDH: D91-3

LOGGED BY: PF
DATE:
SCALE: 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	GANGUE %1 (CA)	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS (CA)	COMMENTS (PY)	COMMENTS
106	PIOI		VN Ca -25; ST PY -50		CL	CY	KF	3 (3/7)		2	93, 97		106.9	3.0		D91-3-36	8	4		1, 2, 1		
108	PIMD	PS7 CS (109.70m)	ST Ca -85		CL	CY					97, 95	1, 2, 2, 3	110.0	3.1		D91-3-37	12	6			1, 1, 1	
110			ST PY -10								99									1, 1, 3		
112									TR CP (0/1)	4	90		113.1	3.1		D91-3-38	50	6				RUSTY FRACS AT 112 - 130.2 m
114	PIDI		SV Ca		CL	CY		1 (1/9)			97, 99	2, 3, 2, 4	116.2	3.1		D91-3-39	68	12		2, 3, 3		
116			VN Ca -15; GG -20								93										0, 0, 0	
118			GG -5							1	86	1, 2, 2, 3	119.3	3.1		D91-3-40	145	10		1, 1, 1		

DDR 91-2D

125.3 / 10.5

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

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HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1 CA	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
121	P1D2		ST CA	30		CL	CY		TR (0/10)					1		88	2								RUSTY FRAC MAY HAVE BEEN PYRITIC
																100	2	122.3	3.0		091-3-41	288	10		
123														4		94	1								
																	2		3.0		091-3-42	202	9		
125			CT VN 22 PY-CP	50 80												100	1	125.3							
			ST PY-QZ CP (TR)	35													3								
127	P2VF	SW PY-QZ	ST PY-QZ Ca- CP (TR)	5		CL	EP	KF	6 (9/1)	TR CP (10/0)						99	1		3.0		091-3-43	2424	120	3	CP IN PY-QZ STRINGERS & VEINS
																	2	128.3							
129			ST PY- QZ-CP (TR)	40										2	4% QZ	96	1								
																	2								
	P2VM ?		ST QZ-PY -CP GG	53 (TR) 65		CL	CY	EP	3 (4/6)	TR CP (5/5)						99	1		2.8		091-3-44	2504	48	2	
131			VN QZ-PY -CP (1%)	40													2	131.1							
																88	3							1	
																								2	
														4		97	1				091-3-45	1425	20	3	
133	P2VF	SW PY-QZ -CA	ST	20		CL	EP		6 (8/1)								2	133.9	2.8					4+	PY-QZ-CA-HE (TR) STRINGER
														1	2 QZ	90	1							2	
			ST PY-QZ -CP	5 (TR)						TR CP (9/1)							2		2.8		091-3-46			1	CP IN PY-QZ STRINGERS

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CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

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HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	%2	%3	%4	GANGUE %1 CA	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS Cu ppm (%)	ASSAYS Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	CA	PY	COMMENTS
136	P3VF	SW PY-QZ-CA	ST	5						0.5 CP (1%)				1	2% QZ	93	1	136.7	2.8		D91-3-46	2090	37		3	3	PY-CA-QZ STRINGER w/ 1% CP & TR HE
			ST PY-QZ-CP	35		EP	AB ?	CL	6 (8½)	TR CP (1%)						95	2	139.5	2.8		D913-47	1107	27		4	4	BLOTCHY EPIDOTE & ALBITE (?) ALTERATION -CHLORITE ALT ALONG MARGINS OF VN'S & ST'S CP IN PY-QZ ± CA STRINGERS & VEINS
138			ST PY-QZ-CP	32											4% QZ	103											
			ST	20																							
140										0.5% CP (1%)						92	1 2 3		2.9		D91-3-48	2143	56				SV-MA-QZ-HE STRINGER w/ ~1% CP
			VN PY-EA QZ-CP	55						TR CP (1%)						95	3	142.4									
142			ST	15					3 (8½)	0.5% CP (1%)						89	1 2 3		2.8		D91-3-49	3041	86		3	3	PY-CP (25%)-CA-HE (TR) STRINGER ~ 5mm THICK
			ST QZ-PY-CP	20											2% QZ	97	2 3 2	145.2							1	1	
144										TR CP (1%)				3													
146	P1VF	SW CA-QZ-PY	ST VN	15 65		EP	CL							1		92	1 3		3.0		D91-3-50	2890	110		1 4	1 1	5mm THICK QZ-CA-CP(15%)-PY 10cm THICK PY(65)-CA(35) -CP(TR) VEIN w/ WEAK KSPAR ALT ALONG MARGINS
			ST CA-QZ-CP-PY-MA	410						0.5% CP (1%)				5		99	1 3	148.2									
148			ST PY-CP(25%)-CA	20										2		95	2 4 2 4		3.0		D913-51	2413	68		1 2	1	CP IN NUMEROUS STEEP DIPPING QZ-CA-PY VEINS & STRINGERS
			VN	35																							QZ-PY-CP(25%)-CA VEIN

DDR 91-2D

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

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HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / E	FROM TO (m)	SAMPLE INFORMATION: LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
151			ST QZ-CA (80%) CP(15%) PY	45					2 (10%)					4	2% QZ	97	1 1 2	151.2			D91-3-51	2413	68		CA 2 3 1 P 2 2 0
153	RIFP	KIFP	BN	80		CL	SS		2 (2/8)							101	2 3 3		3.0		D91-3-52	72	49		0 1 0 MARGINAL FELDSPAR-PORPHYRITIC PHASE OF MINZD-DIORITE
155			ST CA	22		KF	CY							1		99	1 2 1	154.2							
157	RIMD					CL			2 (0/10)							98	2 3 4		3.0		D91-3-53	92	46		0 0 0
		AIMD	VN	50		CY										93	1 2 0	157.2							2-3 cm THICK BANDED CA-QZ VEIN
159										TR CP						93	2		3.1		D91-3-54	179	84		A FEW CP SPECKS IN INTRUSIVE & IN CA STRINGER
																88	0303 2 4 4	160.3							
161			ST CA-PY	45												99	1 1 2		3.1		D91-3-55	109	21		
163			VN QZ-CA-HE	30					2 (2/8)					2	2% QZ	102	1 3 1	163.4							0 0
			PY VN QZ-CA	20						TR CP (1/8)						94	3		3.0		D91-3-56	1446	416		CP IN MID TO STRONG CA-QZ STRINGERS & PY-CP STRINGERS

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168.5

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

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HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	%2	%3	%4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	CA	PO	COMMENTS
166	B2VF		ST QZ-CP VN QZ-CA	45 30		EP	CL		1 (7/3)	0.5% CP (8/2)						99	1	166.4							1	1	CP IN STEEP TO MOD. QZ-PY± CP STRINGERS
168			ST QZ	15					TR (5/5)	0.5% CP (8/2)				1	2% QZ	98	1		3.0		091-3-57	1824	49		1	1	
		P3VF	ST QZ-CP-PY	40		EP	CL		1 (8/2)	TR CP (7/3)						93	2	169.4							1	0	CP IN STEEP TO MODERATE DIPPING QZ-PY STRINGERS
170			ST QZ-PY-CP	25 (TR)					4 (5/5)	TR CP (7/3)						90	1								2	2	OCCASIONAL BLOTCHY MAGNETITE
									1 (8/2)								2		3.1		091-3-58	1760	71		3	3	
172			ST QZ	25												92		172.5							1	1	OCCASIONAL GREY TO WHITE QUARTZ STRINGERS -STEEP TO MODERATE DIPPING.
			VN MA	50												99										
174			ST CA-EP-PY	30						TR CP (10%)				3		94			3.1		091-3-59	1056	416		1	2	
																		175.6							2	2	
176	PNF					AB ?	CL	EP	TR (5/5)							76	3								1	1	
	GG			~5°															3.0		091-3-60	1252	58		1	1	
178																88		178.6									
	P3VF	BR	VN CG	35 HS		CL	EP		1 (6/4)					5			3				091-3-61	1229	98		1 3	2 2	2cm THICK EP-CA-PY VEIN WITH QZ

DDR 91-2D

1925
5.6

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

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HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	%2	%3	%4	GANGUE %1 CA	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
181	P2VF		VN ST QZ-CA-CP (5%)	65 30		EP	CL		TR (5/5)	TRCP (10%)				1		99 85		181.5	2.9		D91-3-61	1229	98	
183			ST QZ	12					1 (5/5)	TR CP (8/2)				3		17		184.5	3.0		D91-3-62	1352	59	
185			ST QZ	45										1	4% QZ	105 96		187.0	2.5		D91-3-63	1470	69	
187		P3VF	ST QZ VN CA-CL	30 20 10		EP	CL		TR (2/8)					4		87		190.0	3.0		D91-3-64	1092	75	
189			ST QZ	15										1		102		192.5	2.5		D91-3-65	1886	66	
191		P4VF	GG ST QZ-CL VN CA-QZ	33 80 30 35		CL	EP		3% (1/9)					4		92 BC								
193		P1DI	ST	75		CL	EP		TR PY (2/8)					1	1	93		195.0	2.5		D91-3-66	283	17	

COMMENTS

- CALCITE VEIN UP TO 1cm WIDE W/ TR PY & TR CP, MODERATE K-SPAR ALT. ALONG MARGINS.
- CP IN STEEP TO SHALLOW QZ & CA ± EP STRINGERS
- OCCASIONAL STEEP TO MOD. GREY QZ STRINGER
- DARK GREENISH MYLONITIC FAULT ZONE (?) — CLASTS OF INTRUSIVE WITHIN THIS ZONE.
- NUMEROUS EPIDOTE STRINGERS

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-3 Page 14 of 14

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HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ø	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
196	PFDI		ST KF-EP	-10	/	CL			TR (1%)					1 1 1	1% QZ	105	1 2 3		2.5		D91-3-67	214	14		1 1 0 INFREQUENT QZ STRINGERS - MOSTLY STEEP DIPPING
																83	4	197.5							
198																									
						END OF HOLE AT @ 197.5 m																			
200						DATE FINISHED LOGGING: JUNE ~~29~~ 30, 1991																			

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY: DILL D.D.H.: D91-4 PAGE: 1 OF 3

AREA: West Area DIP: -51.00 AZIMUTH (t): 180.0 DEPTH: 177.39

CLAIM: Dill 2 NORTHING: 3896.52 DATE STARTED: JUNE 25N, 1991

SECTION: 5900W EASTING: -5904.57 DATE FINISHED: JUNE 28D, 1991

CORE SIZE: NQ ELEVATION: 1501.7 CONTRACTOR: LECLERC D.D.

CORE RECOVERY: 97.23% RQD: 35.89% CORE STORED AT: DILL CORESHACK LOGGED BY: JOHN CORMIER

COMMENTS: HOLE D91-4 WAS DRILLED IN CENTRAL PART OF IP ANOMALY WITH NEARBY SPOTTY CU/AU GEOCHEMICAL HIGHS. TRACES OF COPPER MINERALIZATION WERE INTERSECTED. THIS HOLE AVERAGED 0.036% Cu AND 32 ppb Au OVER 140.8 m (1.8-142.6 m), AND 0.13% Cu AND 60 ppb Au OVER 14.0 m (163.4-177.4 m).

SURVEY DATA			GEOLOGY AND ASSAY RECORD													
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t			
0.0	-51.00	180.0	0.00	01.80	1.80		OB									
048.77	-49.00	180.00	1.80	35.70	33.90		VB									
134.11	-48.00	180.00	35.70	69.50	33.80		VP									
			69.50	100.10	30.60		VF									
			100.10	106.50	6.40		VT									
			106.50	126.00	19.50		VB									
			126.00	131.20	5.20		MN									
			131.20	139.60	8.40		VF									
			139.60	163.30	23.70		VT									
			163.30	177.39	14.09		VF									
			1.80	5.00	3.20			D4-1			47	3				
			5.00	8.30	3.30			D4-2			190	22				
			8.30	11.30	3.00			D4-3			158	26				
			11.30	14.30	3.00			D4-4			157	30				
			14.30	17.50	3.20			D4-5			179	23				
			17.50	20.70	3.20			D4-6			174	15				
			20.70	24.00	3.30			D4-7			349	27				
			24.00	27.00	3.00			D4-8			440	29				
			27.00	30.00	3.00			D4-9			103	6				
			30.00	33.10	3.10			D4-10			199	17				
			33.10	36.30	3.20			D4-11			104	6				
			36.30	39.20	2.90			D4-12			87	13				
			39.20	42.20	3.00			D4-13			139	30				
			42.20	43.70	1.50			D4-14			1424	352				
			43.70	45.70	2.00			D4-15			136	17				
			45.70	47.70	2.00			D4-16			62	4				
			47.70	50.00	2.30			D4-17			275	31				
			50.00	52.50	2.50			D4-18			280	26				
			52.50	55.50	3.00			D4-19			439	50				
								CONTD								

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-4 PAGE 2 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:
CLAIM: NORTHING: DATE STARTED:
SECTION: EASTING: DATE FINISHED:
CORE SIZE: ELEVATION: CONTRACTOR:
CORE RECOVERY: CORE STORED AT: LOGGED BY:
COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD														
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t				
			55.50	58.00	2.50			D4-20			288	19					
			58.00	60.50	2.50			D4-21			97	16					
			60.50	63.50	3.00			D4-22			185	13					
			63.50	66.50	3.00			D4-23			327	13					
			66.50	69.00	2.50			D4-24			171	8					
			69.00	71.00	2.00			D4-25			368	12					
			71.00	73.80	2.80			D4-26			394	15					
			73.80	76.60	2.80			D4-27			332	21					
			76.60	79.40	2.80			D4-28			171	8					
			79.40	82.20	2.80			D4-29			55	9					
			82.20	85.00	2.80			D4-30			307	67					
			85.00	88.00	3.00			D4-31			282	27					
			88.00	90.50	2.50			D4-32			159	27					
			90.50	93.60	3.10			D4-33			340	19					
			93.60	96.70	3.10			D4-34			478	32					
			96.70	99.70	3.00			D4-35			330	18					
			99.70	103.00	3.30			D4-36			64	3					
			103.00	106.50	3.50			D4-37			38	9					
			106.50	109.30	2.80			D4-38			698	36					
			109.30	112.10	2.80			D4-39			570	36					
			112.10	114.90	2.80			D4-40			520	240					
			114.90	117.70	2.80			D4-41			1459	42					
			117.70	120.50	2.80			D4-42			334	24					
			120.50	123.30	2.80			D4-43			251	21					
			123.30	126.00	2.70			D4-44			662	35					
			126.00	128.60	2.60			D4-45			1267	54					
			128.60	131.20	2.60			D4-46			1024	35					
			131.20	134.00	2.80			D4-47			664	35					
			134.00	136.80	2.80			D4-48			772	59					
			136.80	139.60	2.80			D4-49			1120	44					
			139.60	142.60	3.00			D4-50			33	9					
								CONTD									

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-4 PAGE 3 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:

CLAIM: NORTHING: DATE STARTED:

SECTION: EASTING: DATE FINISHED:

CORE SIZE: ELEVATION: CONTRACTOR:

CORE RECOVERY: CORE STORED AT: LOGGED BY:

COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD													
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t			
			160.30	163.30	3.00			D4-51			14	1				
			163.30	166.10	2.80			D4-52			1880	84				
			166.10	168.90	2.80			D4-53			1498	68				
			168.90	171.70	2.80			D4-54			797	30				
			171.70	174.50	2.80			D4-55			1016	46				
			174.50	177.39	2.89			D4-56			1268	71				

DDR - 85 - IU

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-4 Page 1 of 12

LOGGED BY J. Cormier
DATE July 1, 1991
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE/m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS: Ca	Py
0	CS																	1.8								
2	PIVB					Cl (up to 10)	Ep (up to 10)	Cb	05 (6/4)	He tr	Cp tr			Ca 02	Qz tr	56		5.0	3.2		091-4-1	143	23		BC	BC
4																81	BC									
6																105		8.3	3.3		091-4-2	190	22			
8																101										
10																100	(BC)	11.3	3.0		091-4-3	158	26		(BC)	(BC)
12																86	1 2 2 2								1 0 1	0 1 1
14																95		14.3	3.0		091-4-4	157	30			
																95					091-4-5					

COMMENTS

VB description for legend

- strongly ox. along fracs. from 0 - 16.7 m
- large sub-ang. to sub-round intrusive frags. within VF matrix (Frags. from DI → GD and up to 15 cm but typically 0.5 - 3 cm)
- sparse dist. of frags w/ gradational frag/matrix CT.
- rarely ang. volc. frags.
- abundant py. st's with local strong py. disseminations
- narrow strong K alt. with Ep along Ca st's are not common
- blotchy Ep(+st's)/weak Cl and abundant Ca st's make up "P" alt. (saussuritization?)
- volcs. mod. - strongly magnetic.
- local zones of angite(?) porphyry and/or Feldspar porphyry
- also local silicification
- pervasive weak/mod. carb. alt.
- some sections of VP make up matrix.

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-4 Page 2 of 12

LOGGED BY J. Cormier
DATE July 1/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
16																87									
																107	1-2-1-2	17.5	3.2		091-4-5	179	23		
18																97									
																100	0-2-1	20.7	3.2		091-4-6	174	15		
20																99									
	PIVB (con't)															104		24.0	3.3		091-4-7	349	27		
22																99									
24																100	0-1-3-2	27.0	3.0		091-4-8	440	29		8 cm VN (70% py)
			VN (Py, Ca)	50																					
26																									1 cm py VN, some intrusive tex, local strong K. alt.
			VN	30												95									
28																100		30.0	3.0		091-4-9	103	6		
30																									

C	O	M	M	E	N	T	S
Cp	Py						
0-1	1 3 2						
0-1	0 2 3						
1 2 2	1 2 1						

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH 091-4 —

LOGGED BY J. Cormier
DATE July 1/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∠	GRAPHIC	MINERALOGY: ALT'N % 1	ALT'N % 2	ALT'N % 3	SULPHIDES/OXIDES % PY	SULPHIDES/OXIDES % 1	SULPHIDES/OXIDES % 2	SULPHIDES/OXIDES % 3	SULPHIDES/OXIDES % 4	GANGUE % 1	GANGUE % 2	RECOVERY %	FRACTURE / m
32	PIVB (cont)		VN (Ca,Py)	45												101 98 97	0 2 2 1
34																97	
36						CL 10	EP 03	CB tr	03 (7/3)	HE 01	cp tr			Ca 03		101	
38	PIVP															91	0 3 2 2+
40																93	
42																107	
44																107 100	

FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
33.1	3.1		091-4-10	199	17	
	3.2		091-4-11	104	6	
36.3						
	2.9		091-4-12	87	13	
39.2						
	3.0		091-4-13	139	30	
42.2						
	1.5		091-4-14	1424	352	
43.7						
	2.0		091-4-15	136	17	

COMMENTS

Ca Py
1 0
2 1
- 2 cm VN

1 0
3 2
2 1
- 36.8-37.4 m ⇒ 90% HE st's in upper 1/3 of unit (occuring with Ca)
- partial CL of matic min.
- ox along fractures.
- Fresh host actually aphanitic, not fine gr.
- augite (?) phenos (30-60%)

- 41.7-43.3 m → sw of minute CA/HE st's with up to 2% blotchy CP.

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-4 Page 4 of 12

LOGGED BY J. Cormier
DATE July 1/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m
46	PIVP (con't)															93	2
																100	3
48																	
																98	1
		P3VF	GG			CL 15	CB	FP						Ca			3
50																92	3
																107	6C
52																	
																99	(BC)
54			VN (Ca)	30													1
	PIVP (con't)		VN (Ca, FP)	25												93	2
56			VN (Ca, PY)	30													2
			SW (PY)	30												108	2
58				60													
			VN (Ca)	20												98	0
60																	2
																100	3

SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
45.7	2.0		091-4-15			
47.7	2.0		091-4-16	62	4	
	2.3		091-4-17	275	31	
50.0	2.5		091-4-18	280	26	
52.5	3.0		091-4-19	439	50	
55.5	2.5		091-4-20	288	19	
58.0	2.5		091-4-21	97	16	

LOGGED BY J. Cormier	Ca	PY	COMMENTS
	1	0	
	3	1	
	1	0	
	1	0	angular VR with unconsolidated light olive gouge matrix.
	3	1	
	1	1	
	BC	BC	51.0 - 52.6 m → very broken core w abun. ox. on Frac. surfaces (Fault?)
	1	0	53.7 - 54.3 m → CB! zone due to 7 cm Ca VN; VN contains same py + He.
	3	0	
	1	0	
	0	1	
	3	2	
	2	1	10 cm Ca VN with 0.5 cm py upper margin selvage.

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY: Dill DDH: 091-4

LOGGED BY: J. Cormier DATE: July 2/91 SCALE: 1:100

Hole Depth	Main Rock Type	Minor Rock Type	Structure	Core ∢	Alt'n %1	Alt'n %2	Alt'n %3	Sulph. %PY	Sulph. %1	Sulph. %2	Gangue %1	Gangue %2	Recovery %	Fracture/m	From (m)	Length	Sample Number	Cu ppm	Au ppb	Ca	Py	Comments
60.5–62	P1VP (con't)												97		60.5	2.5	091-4-21					
62													95			3.0	091-4-22	185	13			
63.5–64													97	0 3 2 2	63.5	3.0	091-4-23	327	13	1 3 1	0 2 0	
65													95									
66.5													101		66.5	2.5	091-4-24	171	8			
68													105									
68.9–70		P2VF	(ca) SW	40 to 60	CL 15	CB	EP 05				Ca 05		97	1 3 1 2	69.0	2.0	091-4-25	368	12	1 4 2	0 1 0	- Ox. on frac. surfaces
71.0	A2VF				CY	EP tr	CB tr	tr (V4)	HE 05	H₂O? tr	Ca 05		106		71.0							Sgrad. CT -non-magnetic -Ox. on fracs
71.3–73.8		A3VF	66		CY	CL		tr (5/5)	HE 02		Ca 05	Qz 0.5	101	1 3 3 3		2.8	091-4-26	394	15	1 3 3	0 0 0	-Ox. on Fracs. -non-magnetic; - 50 cm gouge of light grey Carb. material.
73.8–74													101		73.8	2.8	091-4-27					

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-4 Page 6 of 12

LOGGED BY J. Cormier
DATE July 2/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	C Ca	O Py	COMMENTS
76	A2VF (cont)	A3VF (cont)	VN (Ca Qz Py)	50												92		76.6	2.8		091-4-27	332	21				- 7 cm zone with crackle breccia texture + Ca/Qz matrix; 1 cm band of Py.
78			GG (1cm)	60												106		79.4	2.8		091-4-28	171	8		0 2 4	0 0 0	
80																106		82.2	2.8		091-4-29	55	9				
82		P3VF	GG (6cm)	60		CL 20	EP 10							Ca 63		90											- strongly mag.
84	A2VF (cont)		GG GG GG	55 70												80	BC	85.0	2.8		091-4-30	307	67		BC	BC	- 10 cm wide gouge of VF, Ca rubble and dirt. - 90 cm gouge of tightly packed angular light grey VF in lighter grey carb. gouge matrix
86		P2VF	VN (Ca) CT	20 60		EP 10	CB	KF tr	02 (Py)	HE tr				Ca 05	Qz tr	104 97		88.0	3.0		091-4-31	282	27		1 2 2	1 0 0	- 2 cm Ca VN w 2 cm A2(?) alt halo on either side.
88		K2VF (?)	Kalt zone (7cm)			KF	CB	SS CY	0.5 (Py)	Py? tr	CP tr	OX				97			2.5		091-4-32	159	27		1 1 1	0 0 0	- Ox on fracs. - med.-light sea green colour with orange tint - 20% feldspar phenos - (80% phenos ss'd, remainder ave white/red - K-spar) - intense alt. is marked by sharp/grad. colour change to
90																97										

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH 091-4 — Page 7 of 12

LOGGED BY J. Cormier
DATE July 3/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS: Ca	COMMENTS: Py	COMMENTS
	K2VP (an-t)		VN CaPy	50	Hem																						light green/orange with darker orange along Ca VN selvages.
92	P2VF					CL 15	CB	EP KF tr	02 (8/2)	HE tr				Ca 05		104	0	90.5	2.5		091-4-32						
																97	3	93.6	3.1		091-4-33	340	19		1	1	- local section (30cm) of F intrusive (OI) texture w/ no detectable contact (Frag?) - mod. magnetics (locally strong)
94																101	2								3	1	
																									3	0	
96																93											
	P1DI					EP 03	CL		02 (9/1)	HE tr				Ca				96.7	3.1		091-4-34	478	32				- HE + Ox on Frac. surfaces - abundant py. st's.
98			CT	30												102											
	P1VF					CL	CB	EP tr	tr (1/3)	OX				Ca		87	1	99.7	3.0		091-4-35	330	18				- ox on Fracs.
100			CT	40													3								2	0	
	P2FP	PS8 (101.1m)				SS	CB	KF?		OX				Qz		94	3	103.0	3.3		091-4-36	64	3		2	1	- clear sacs. of Feldspars - phenos > 70% (from 2-6mm, and as large as 10mm) - peppered with mafic min., overall mottled orange colour. - ox. on Fracs. - quite siliceous
102	P2 trachy-andesite															89										0	
																95			3.5		091-4-37	38	9				
104																97											

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Drill DDH D91-4 Page 8 of 12

LOGGED BY J. Cormier
DATE July 3/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
106	trachy andesite P2FP (cont'd)															90		106.5	3.5		D91-4-37				
108			VN (Ep,Ca)			CL	EP	CB KF tr	OH (1%)	HE tr	CP tr			Ca 02	Qz tr	105		109.3	2.8		D91-4-38	698	36		- see comments of first unit in this hole for general description. - irreg. concid dist. of EP/Ca with some KF alt. - abun. py in this unit (mainly st's) - narrow K alt. not as common as top of hole.
110																92		112.1	2.8		D91-4-39	570	36		
112	P2VB		VN (Ca, Ep, Py)	20												93		114.9	2.8		D91-4-40	520	240		1cm Ca VN w/ EP/py selvage.
114																87									
116																63		117.7	2.8		D91-4-41	1459	42		
118																79									
																96			2.8		D91-4-42	334	24		
EOH																116									

DDR 91-2D

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY: Oill DDH: 091-4

LOGGED BY: J. Cormier
DATE: July 3/91
SCALE: 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∠	ALT'N %1	ALT'N %2	ALT'N %3	% PY	SULPHIDES/OXIDES %1	%2	%3	%4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	Ca	Py	COMMENTS
–120.5	P2VB (con't)														97		120.5	2.8		091-4-42						
120.5–123.3 (122)	P2VB (con't)														98		123.3	2.8		091-4-43	251	21				
123.3–126.0 (124)	P2VB (con't)		VN (ca)	50											109, 76		126.0	2.7		091-4-44	662	35				
126.0–128.6 (126, 128)	PINN	PS? (127.9?)	CT	35	CL	CB		02 (3/5)					Ca 02	Qz tr	90, 98	0, 3, 3, 3	128.6	2.6		091-4-45	1267	54		0 2 0	1 0 0	- Fine-grained intrusive with approx. equal proportion of mafics/plag/K-spar. - weak CL of some mafics - weak-mod. CB of rock along with calcite st's. - mod. local mag. - weak-mod. disseminated/st's of Py. - small (3-7mm) volc. frags not common. → SD – syeno-diorite
128.6–131.2 (130)	PINN														95, 111	BC	131.2	2.6		091-4-46	1024	35		BC	BC	
131.2–134.0 (132)	P2VF		CT		CL 15	EP	CB	01 (8/2)	HE tr	CP tr					111, 103		134.0	2.8		091-4-47	664	35				- EP st's - dark grey/black fresh surface
134.0– (134)	P2VF														98			2.8		091-4-48						133.7m – 134.9m: Two zones of intense K alt. with EP/Py

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill

DDH 091 - 4

LOGGED BY J. Cormier
DATE July 3/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	GRAPHIC	ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	%1	%2	%3	%4	GANGUE %1	%2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	Ca	Py	COMMENTS
136	P2VF (con't)															96			2.8		091-4-48	772	59				
																	0 4 2 3	136.8							0 3 1	0 2 0	
			VN (CaKF)	25	/											98											3 cm VN banded Ca w̄ K alt on margins, py/cp blebs in Ca.
138																			2.8		091-4-49	1120	44				
			VN		/											95											irreg. Ca/py/Ep VN'ing w̄ K alt on margins.
			CT	?														139.6									
140	P2FP trachy-andesite					35	CL		tr (0/10)					Qz	Ca	93											- large, crowded feldspar phenos
																			3.0		091-4-50	33	9				- bleaching along Ca vn's ; more intense saus.
																86											- some silicification? (Qz present)
142																		142.6									
																106	0								0	0	
144																	3 3 3								2 1	0 0	
																99											
146																95											
																107											
148																											
																89											
150																											

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY 0;11 DDH D91-4 Page 11 of 12

LOGGED BY J. Cormier
DATE July 3/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
152	P2FP (cont) trachy-andesite		GG	50				cy								90									151-151.3 m → arg. alt.
154																98									
156																107									
158																92									
160																105									large (3cm) VF Frag.
162			CT	60												96		160.3							
164	P2VF					EP CL	CB	KF	03 (9/1)	HE tr	CP tr					103		163.3	3.0		D91-4-51	14	1		
																101			2.8		D91-4-52	1880	84		- VF w sparse intrusive frags. - abundant py st's/vn's - K alt blebs common.
																103									
																98									

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH 091-4 — Page 12 of 12

LOGGED BY J. Cormier
DATE July 4/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS: Ca	Py
166	P2VF (con't)															107	122	166.1	2.8		091-4-52					
			VN	35												100			2.8		091-4-53	1498	68		122	120
168																		168.9								
																106			2.8		091-4-54	797	30			
170			VN (EP)	70														171.7								
																97			2.8		091-4-55	1016	46			
172																93		174.5								
																99	132									
174																									210	320
			SW (Cp,Py)	~30												100			2.9		091-4-56	1268	71			
176																		177.4								
																98										
178																										
180																										

5cm Ca VN ± brecciated volcs and K alt matrix on upper margin. Py/Cp laced throughout

2cm EP VN ± K-alt on both margins

END OF HOLE 091-4
(582 ft; 177.39m)

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY: DILL D.D.H.: D91-5 PAGE: 1 OF 3

AREA: West Area
CLAIM: Dill 2
SECTION: 6100W
CORE SIZE: -6079.17
CORE RECOVERY: NQ
COMMENTS: 96.93% RQD: 46.58%

DIP: -50.00 AZIMUTH (t): 179.0
NORTHING: 3750.18
EASTING: -6079.17
ELEVATION:
CORE STORED AT: 1470.3 DILL CORESHACK

DEPTH: 188.06
DATE STARTED: JUNE 28D, 1991
DATE FINISHED: JUNE 30N, 1991
CONTRACTOR:
LOGGED BY: LECLERC D.D. PETER FISCHL

HOLE D91-5 WAS DRILLED TO TEST AN AREA OF STRONG IP Cu/Au GEOCHEM. TWO SECTIONS OF MIN'D VOLCS WERE INTERSECTED AT 73.2-125.9 AND 160.1-188.06 m (END OF HOLE). AVERAGES INCLUDE: 41.8 m OF 0.078% Cu, 41 ppb Au (1.8-43.6 m), 48.2 m OF 0.28% Cu AND 85 ppb Au (77.7-125.9 m), AND 29.9 m OF 0.30% Cu AND 105 ppb Au (158.2-188.1 m).

SURVEY DATA			GEOLOGY AND ASSAY RECORD													
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	mibK Cu ppm	mibK Au ppb	FA Au oz/t			
0.0	-50.00	179.0	0.00	01.80	1.80		OB									
050.60	-47.00	179.00	1.80	34.70	32.90		VF									
137.01	-47.00	179.00	34.70	73.20	38.50		MN									
			73.20	125.90	52.70		VF									
			125.90	131.90	6.00		MN									
			131.90	160.10	28.20		MD									
			160.10	173.20	13.10		VB									
			173.20	188.06	14.86		VF									
			1.80	3.66	1.86			D5-1			1024	35				
			3.66	6.71	3.05			D5-2			631	27				
			6.71	9.75	3.04			D5-3			575	37				
			9.75	13.00	3.25			D5-4			692	27				
			13.00	16.00	3.00			D5-5			962	68				
			16.00	19.00	3.00			D5-6			679	30				
			19.00	22.00	3.00			D5-7			1344	34				
			22.00	25.00	3.00			D5-8			1672	70				
			25.00	28.00	3.00			D5-9			1336	110				
			28.00	30.30	2.30			D5-10			1206	46				
			30.30	32.50	2.20			D5-11			772	36				
			32.50	34.70	2.20			D5-12			313	16				
			34.70	37.70	3.00			D5-13			103	14				
			37.70	40.70	3.00			D5-14			253	33				
			40.70	43.70	3.00			D5-15			168	21				
			56.00	59.00	3.00			D5-16			14	10				
			59.00	61.20	2.20			D5-17			88	9				
			61.20	64.20	3.00			D5-18			39	11				
			64.20	67.20	3.00			D5-19			193	13				
			67.20	70.20	3.00			D5-20			86	17				
								CONTD								

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-5 PAGE 2 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:
CLAIM: NORTHING: DATE STARTED:
SECTION: EASTING: DATE FINISHED:
CORE SIZE: ELEVATION: CONTRACTOR:
CORE RECOVERY: CORE STORED AT: LOGGED BY:
COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD														
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t				
			70.20	73.20	3.00			D5-21			129	16					
			73.20	75.50	2.30			D5-22			1023	34					
			75.50	77.80	2.30			D5-23			919	34					
			77.80	80.30	2.50			D5-24			1359	93					
			80.30	83.00	2.70			D5-25			1926	64					
			83.00	86.00	3.00			D5-26			1663	50					
			86.00	89.00	3.00			D5-27			1583	51					
			89.00	92.00	3.00			D5-28			1975	83					
			92.00	95.00	3.00			D5-29			3616	65					
			95.00	98.00	3.00			D5-30			2735	61					
			98.00	101.00	3.00			D5-31			1283	64					
			101.00	104.00	3.00			D5-32			2283	67					
			104.00	107.00	3.00			D5-33			2403	71					
			107.00	110.00	3.00			D5-34			1403	75					
			110.00	113.20	3.20			D5-35			952	31					
			113.20	116.00	2.80			D5-36			2907	101					
			116.00	118.50	2.50			D5-37			7072	183					
			118.50	121.00	2.50			D5-38			3895	105					
			121.00	123.50	2.50			D5-39			5288	155					
			123.50	125.90	2.40			D5-40			7064	186					
			125.90	128.90	3.00			D5-41			724	25					
			128.90	131.90	3.00			D5-53			97	380					
			131.90	134.90	3.00			D5-54			148	104					
			149.10	152.10	3.00			D5-55			194	20					
			152.10	155.10	3.00			D5-56			406	7					
			155.10	158.10	3.00			D5-42			962	73					
			158.10	160.10	2.00			D5-43			1399	69					
			160.10	163.10	3.00			D5-44			2587	110					
			163.10	166.10	3.00			D5-45			3251	135					
			166.10	169.20	3.10			D5-46			3704	127					
			169.20	172.40	3.20			D5-47			2520	55					
								CONTD									

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-5 PAGE 3 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:

CLAIM: NORTHING: DATE STARTED:

SECTION: EASTING: DATE FINISHED:

CORE SIZE: ELEVATION: CONTRACTOR:

CORE RECOVERY: CORE STORED AT: LOGGED BY:

COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD													
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t			
			172.40	175.60	3.20			D5-48			1126	74				
			175.60	178.80	3.20			D5-49			3541	115				
			178.80	181.80	3.00			D5-50			4484	133				
			181.80	184.80	3.00			D5-51			4392	158				
			184.80	188.06	3.26			D5-52			2669	70				

DDR - 85 - IU

DDR 91-2

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY DILL DDH D91-5 Page 1 of 13

LOGGED BY PF
DATE July 1/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
1	< S																	1.8						
3	PRVF					AB (3)	EP	KF	4 (9/1)						1	63	1 3 1 3	3.66	1.86		D91-5-1	1024	35	
5																98	3 4 1 4 2 3	6.71	3.05		D91-5-2	631	27	
7																77	3 2 3	9.75	3.05		D91-5-3	575	37	
9			ST PY-EP	20												57	BC							
11			-66 VN	80 60												79	1 3 2 3	13.0	3.25		D91-5-4	692	27	
13			VN PY-CA	60											3	99 97	1 2 1 2 1 4 4				D91-5-5	962	68	

COMMENTS

RUSTY FRACT DOWN TO 40m

PERVASIVE, FINE GRAINED MEDIUM GREENISH GREY ALBITE FLOODING (?) W/ THE OCCASIONAL BLOTCH & PATCH OF DARK GREY UNALTERED VF

ALBITE SOMETIMES BLOTCHY & ALONG MARGINS OF PY ± CA STRINGERS

PY-CA-QZ-HE VEIN UP TO 1cm WIDE

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY ______________ DDH ______________

LOGGED BY P. Fischl
DATE
SCALE 1:100

Main rock type: P2VF (to ~28+ m). **Minor rock type:** AMF (~21.5–22 m); P2VP (~26.5–27 m).

Alteration: CL, CB (~21.5–22 m); CL (~26.5–27 m).

Hole depth	Structure	Core ∢	%PY	Sulphides/oxides %1	Gangue %1	Recovery %	Fracture/m	From–To (m)	Length	Sample number	Cu ppm (%)	Au ppb (gm/t)
15–16	VN; VN	10°; 55				99		–16.0			962	68
16–19	ST PY-CA	10°	4 (9/1)		1	103; 92	1, 2, 1, 2	16.0–19.0	3.0	D91-5-6	679	30
19–22	VN PY-CA; ST CA-PY CP; ST PY-CA; GG (60°); ST (3)	45°; 20°; CP; 15	6 (8/2)	TR CP (10/0)	3	99; 104	1, 3, 2	19.0–22.0	3.0	D91-5-7	1344	34
22–25	SW Ca		3 (9/1)	TR CP (10/0); 0.5% CP (10/0)	5	98; 103	3, 0, 2, 0	22.0–25.0	3.0	P91-5-8	1672	70
25–28	VN; VN CA-PY CP (5%); ST (3) PY-CA CL	22; 20°; 55	1%; 5 (8/2)		3	103; 96	2, 3, 4, 4, 1, 1, 1, 2	25.0–28.0	3.0	D91-5-9	1336	116
28–30.3	VN; ST CA-PY; ST CA-PY-CP	5°; 40; 10°	3 (9/1)	TR CP (10/0)		99	1, 2, 1, 3	28.0–	2.3	D91-5-10	1206	46

Comments (second and third columns of counts beside the comments, top to bottom: 1 1 1 / 3 4 2; 2 3 3; 3 4 2 / 2 3 1; 1 3 [illegible] 1 / 2 3 1; 1 3 1):

- CA-EP. VEIN (VUGGY) w/ WEAK KSPAR ALT. ALONG MARGINS
- VUGGY CA-QZ-EP-PY VEIN
- CA-PY STRINGER w/ ~10% CP, WEAK KSPAR ALT. ALONG MARGINS
- 3 PY-CA-MA ± HE STRINGERS W/ TR CP, GREENISH ALBITE (?) FLOODING ALONG MARGINS.
- CP IN STEEP TO MOD. CA & PY ± CA STRINGERS
- CP IN PY STRINGERS
- 2cm THICK CA VEIN w/ GOUGED MARGINS
- QZ-CA-PY + CP VEIN
- CP IN QZ-CA-PY VEINS & STRINGERS & PY ± CA STRINGERS (BOTH MOD TO STEEP DIPPING.

DDR 91-2D

30.3

30.3 / 4.4

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY ______ DDH ______

LOGGED BY	
DATE	
SCALE	
COMMENTS	CA PY

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	GRAPHIC	ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	%1	%2	%3	%4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	C (CA)	O (PY)	MMENTS
31	P2VF		ST CA-PY CP	26					1					3		102; 105	2	30.3–32.5	2.2		D91-5-11	772	36		1, 3, 1	1, 3, 1	
33			ST PY-CA CP; ST PY-CA (2)	35; 25					3 (9/1)					2		98	1; 1; 2	32.5–34.7	2.2		D91-5-12	?	?		2, 3, 1		
35		34.7	CT	20°										2		104; 103	1; 3; 2	34.7–37.7	3.0		D91-5-13	103	14		1, 3, 2		
37		K1OI	ST CA-PY; ST (3); ST PY-CP (TR)	5; 50°; 28°		KF	CL							1		102	3								1, 2, 1	1, 1, 0	3 PY-CP STRINGERS OVER 15 cm DIPPING APPROX. 50°
39	PIMN					CL	KF	EP	3 (2/8)							93	1; 1; 1; 2	37.7–40.7	3.0		D91-5-14	253	33				
41			ST PY	30°						TR CP (0/10)						100; 97	1; 2; 3; 0; 1; 1	40.7–43.7	3.0		D91-5-15	168	21				1 cm BLEB OF CP W/ FINER DISS'EM CP
43									2							95	1	43.7									

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY ____________ DDH ____________

LOGGED BY ____________
DATE ____________
SCALE ____________

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∡	GRAPHIC	ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	%1	%2	%3	%4	GANGUE %1 CA	%2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS CA	PY	COMMENTS
			ST PY	22												100	1 2 1										
46																100	2									1	
																									1	1	
48									2 (2/8)					1			2 2								2	0	
																95	1								1		
			ST PY	45													3										
																	10 2										
50	PIMN					CL	KF	EP								100											
																94	2										
52									1 (3/7)								3										
																100	1										
54			ST PY	15																							
																93	3										
56																100		56.0									
																				3.0	D11-5-16	14	10				
58			66	20												95											
														2		81	3 3 4	59.0				88	9		2 3 1		A few specks of CP
										TR (0/)	CP (0)																

DDR 91-20

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY _____ DDH _____ Page 5 of 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	LOGGED BY / DATE / SCALE / COMMENTS
61			ST PY	5										CA 2		97	2 3	61.2	2.2		D91-5-17	85	9		2 3 1
63	PIMN		ST PY	40		CL	KFEP			TR CP (0/10)				1		96	0 2	64.2	3.0		D91-5-18	39	11		1 1 0 — 2M FEW SPECKS OF CP
65									1 (1/9)	TR CP (0/10)						90	4 1 3								
67			VN CA ST CA-CP	40 PY 40 (CP)												94	3 2 0 3	67.2	3.0		D91-5-19	193	13		3 0 — 2 — 5 CM THICK CA VEIN W/ PY SELVAGES
69										TR CP (0/10)						97	1 3	70.2	3.0		D91-5-20	86	17		
71			VN CA	45												164	1 1 2	73.2	3.0		D91-5-21	129	16		
73	PINF		CT	N90		AB			3% (B/2)	TR CP (7/3)				2		98	2 2 2		2.3		D91-5-22	1023	34		2 3 1 4 3 3 — ALBITE FLOODING ALONG PY STRINGERS CP IN MOD TO SHALLOWS PY & CA-PY STRINGERS
																100	3								

DDR 91-2D

77.8
73.2
4.6

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY ______ DDH ______

LOGGED BY ______
DATE ______
SCALE ______

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	% PY	SULPHIDES/OXIDES %1	GANGUE %1 (CA)	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	CA	PY	COMMENTS
76	P2VF		ST; PY-CP; CA-MA	50°	AB			3% (8/2)			96	1, 1, 2	75.5	2.3	D91-5-23	919	34		1, 3, 4	P2VF, P3VP: PERVASIVE FINE GRAINED MEDIUM GREENISH GREY ALBITE FLOODING, SOMETIMES JUST ALONG PYRITE STRINGERS, OCCASIONAL PATCH OF DARK GREY UNALTERED VF
78	P3VP		ST (11); PY-CA-MA-VN; CA-KF-PY; ST-CA-PY-CP; ST (4); PY-CA-MA; VN	60; 65; 55; 60; CP	AB	CL	KF		TRCP (0/10); TRCP (10/0)	3; 1	95; 118	1, 2, 3, 3, 1, 2, 2	77.8	2.5	D91-5-24	1359	93	2, 4, 4, 1, 2, 2		CP IN SHALLOW TO MOD. PY & CA-PY STRINGERS; CA-EP-CL VEIN w/ TR CP & KSPAR ALTERED PHENOS ALONG MARGINS
80–82	P2VF	CS (81.2m)	ST (11); PY-CA; GG	60-70; ?	AB	KF			TRCP (9/1); 0.5% CP (10/0)	3	103; 88	2, 2, BC	80.3	2.7	D91-5-25	1036 ?	64 ?	2, 3, 3		
84		P1VF	ST (36); PY-CA	50-60°	AB						101; 101	1, 2, 1, 2	83.0	3.0	D91-5-26	1663	50	1, 2, 2		AB ALONG PY STRINGERS; CP IN PY & CA-PY STRINGERS →; MOSTLY SHALLOW DIPPING TCA, SOME MODERATE DIPPING
86			ST; PY-CP; ST; CA-PY-CP	64; CA; 70°				3% (5/5)	TRCP (10/1)	2	101	1, 1, 1	86.0	3.0	D91-5-27	1582	51	1, 7, 2	0, 2, 3	
88	P1VF		ST; ST; CA-CP; PY-MA; VN; VN	60°; 40°; 30°; 35°	AB (?)	EP	KF	3% (9/1); 2 (9/1)	1% CP (10%)		96; 100	1, 1, 2, 1, 2	89.0		D91-5-28			3, 4, 1, 3, 3		CA-CP-PY-MA STRINGER; 1 cm THICK EP-KSPAR-CA VEIN w/ MINOR PY & TRCP, STRONG KSPAR ALONG MARGINS; 6 cm THICK EP-CA VEIN w/ TR PY & TRCP, WEAK KSPAR ALONG MARGINS

DDR 91-20

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY _____ DDH _____ Page 7 of 13

LOGGED BY _____
DATE _____
SCALE _____

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	VEINING & PY
91									2% (8/2)	1% cp (11/0)				5		94	1 2 3	92.0	3.0		D91-S-28	1975	83		1 3 3
93	R2VF	SMV CA-PY-CP	ST CP-PY	60°		AB	Q									101	2								2 4 3
95			ST CA-CP	70°						1% cp (7/3)							95.0	3.0		D91-S-29	3616	65		
			ST (11)	60-70°												105	1 2								AB FLOODING, PERVASIVE & ALONG STRINGERS
97			GG VN	60-60						0.5% cp (8/2)				3		80°		98.0	3.0		D91-S-30	2735	61		11 CA±PY, CP & PY-CP STRINGERS DIPPING 60-70°
														5		91	1 3 1								0 3 3
99	R1VF		ST CA-CP-PY	40°		AB	CP		TR (7/3)							101	2	101.0	3.0		D91-S-31	1283	64		1 4 2
			ST CA-CP-PY	45°						TR cp (1/0)														QZ-CA-CP-PY STRINGER
			ST VN	25°					1 (7/3)					3		115	1 2								WEAK PERVASIVE AB FLOODING. OCCASIONAL EPIDOTE STRINGER
101										1% cp (11/1)															4cm THICK CA-HE-CL VEIN W/ PY SELVAGES & TR CP
																95	1 2 3	104.0	3.0		D91-S-32	2233	67		0 2 1
103			ST (115)	55-65°																					1 2 3
																BC	3 4 1/2								15 STRINGERS DIPPING 55-65° TR PY-CP ± CA & CA-CP-PY
																									CP IN SHALLOW CA-PY± MA STRINGERS & SHALLOW TO STEEP QZ-CA ± PY STR

DDR 91-2D

(25.)
116.0
9.9

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY ______ DDH ______

LOGGED BY ______
DATE ______
SCALE ______

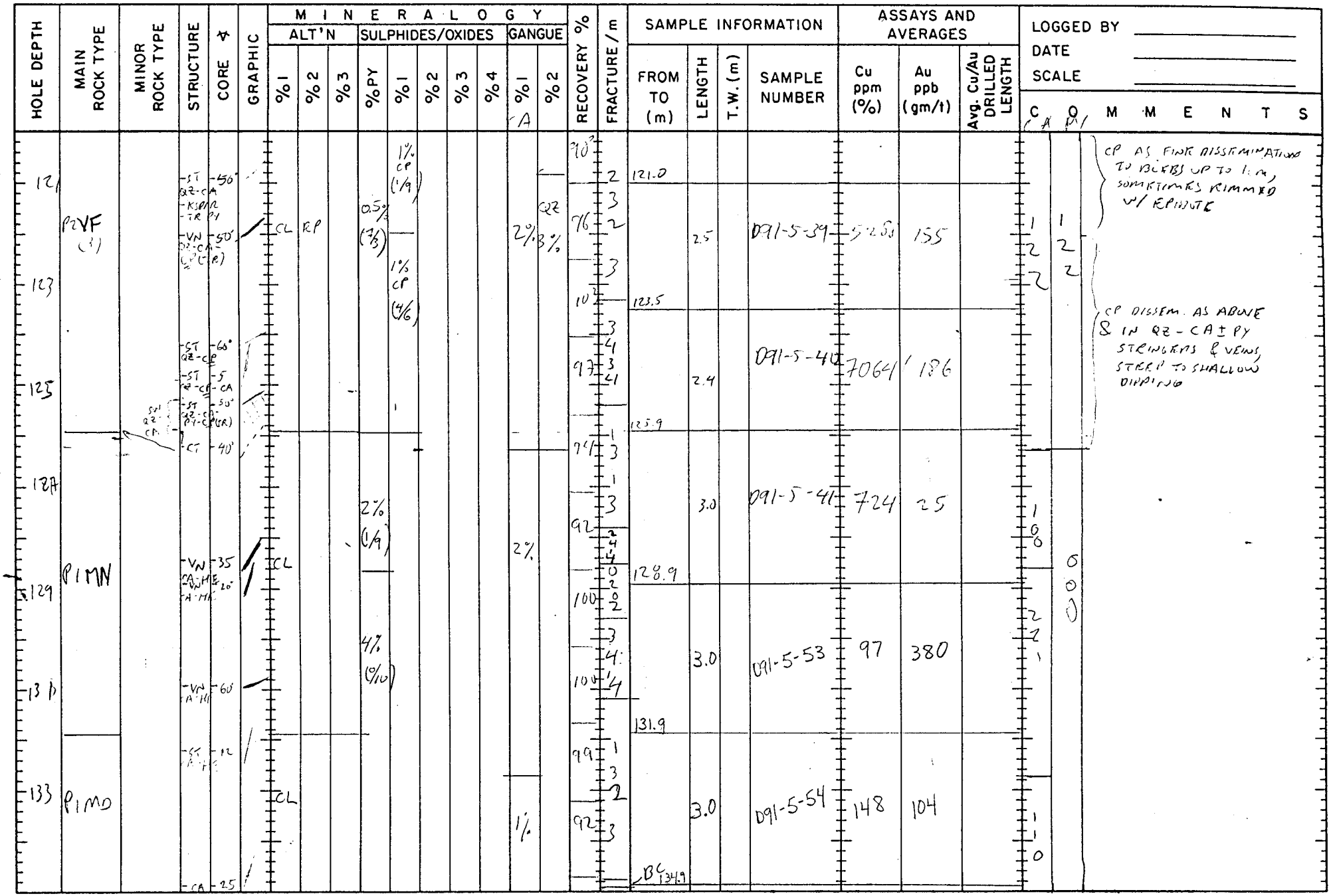
HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∠	ALT'N %1	ALT'N %2	ALT'N %3	% PY	SULPHIDES/OXIDES %1	GANGUE %1	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	CA	PY	COMMENTS
106			ST (9) CA-CP-PY	45 TO 60°				1 (7/3)	1% CP	5	92, 110	1, 2	107.0	3.0	D91-5-33	2403	71	2, 3, 4	1, 2, 3	ST CA-CP-PY STRINGERS DIPPING 45-60° (SUBPARALLEL)
108			VN; ST CA-CP-PY; GG	40°; 60°; 45°					0.5% CP (9/1)	3	88, 78	1, 2	110.0	3.0	D91-5-34	1403	15	1, 2, 2		6cm THICK CA-PY VEIN W/ PY SELVAGES
112		AIVF (?); GG	CT	30°	CY			TR (9/10)		1	93, 86	2, 3, 1, 3, BC	113.2	3.2	D91-5-35	952	31	1, 1, 1		
114	P2VF	SI CA			CL	EP	KF	0.5% (7/3)	0.5% CP (3/7)	3	98, 111	1, 3, 1, 3, BC	116.0	2.8	D91-5-36	2907	101	1, 4, 3	1, 2, 2	CP DISSEM. & IN SHALLOW TO MOD. DIPPING PURPLISH QZ-CA STRINGERS
118	P2VF (?)				CL	EP			1% (1/9)	2	99	2, 2, 3, 3, BC	118.5	2.5	D91-5-37	7076	183	1, 2, 2		POSSIBLE INTRUSIVE
		PS 10 CS (119.80m)												2.5	D91-5-38	3895	105			

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY _____ DDH _____ Page 9 of 13

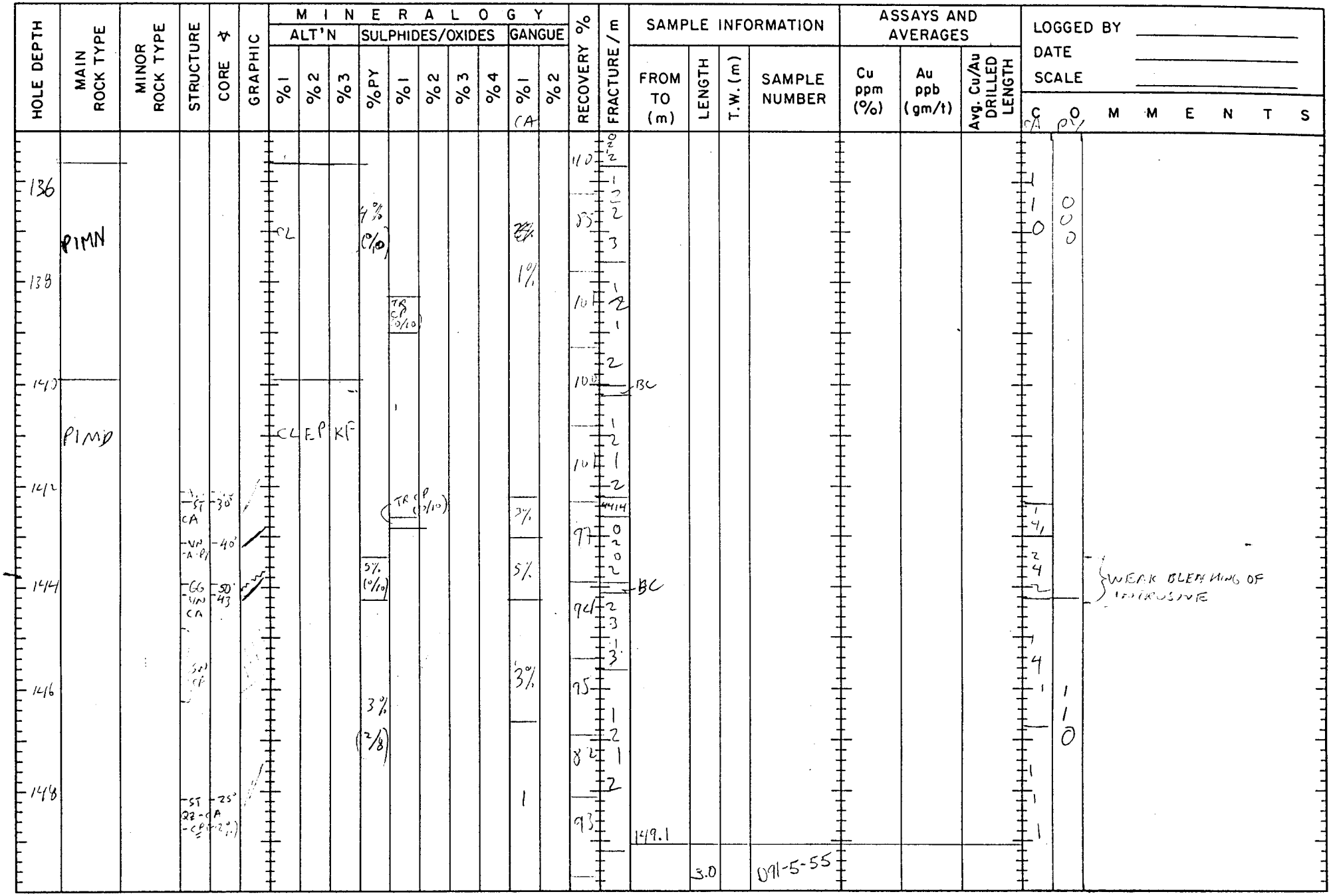


DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY _____ DDH _____ Page 10 of 13

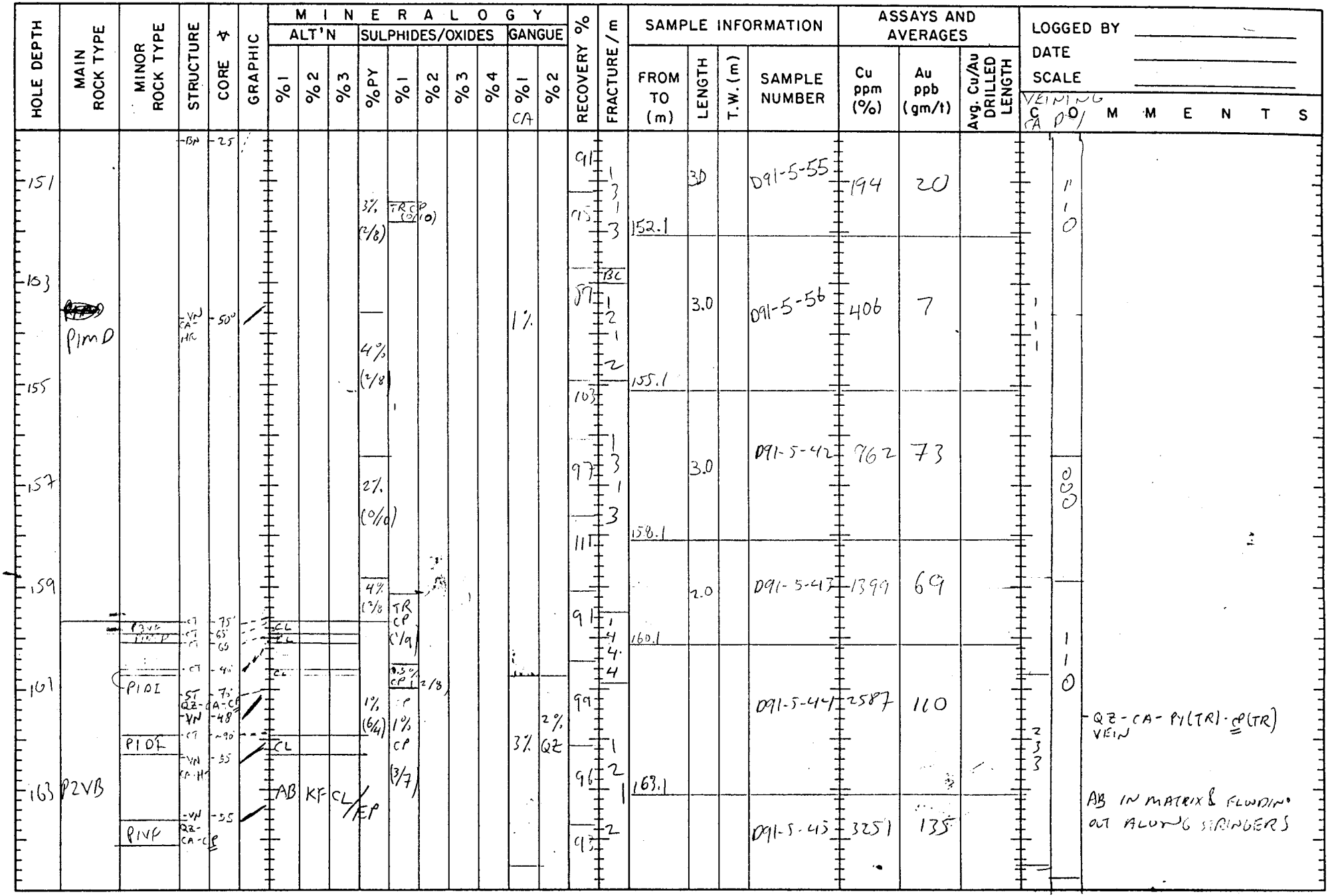


DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY _____ DDH _____ Page 11 of 13



DDR 91-2D

174.6
172.1
2.5

174.0
7.2

T.D.
169.1
6.5

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY _____ DDH _____ Page 12 of 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m
166			ST CP-PY	40°						1% CP (3/7)				2% CA	2% QZ	98	1 2 1
			ST QZ-CA-PY(TR)-CP(TR)	35°					1% PY (8/2)							96	2 1 2
168			ST QZ-CA-CP ST-CP-CA	45° 65°						2% CP (3/7)				1%		98	2 2 3
170			ST CA-QZ	60°												95	0 2 2 1 3 3
172	P2 VB		ST CA-QZ-CP	45°		AB	KF	CL	TR	TR CP				3		97	1 2
			ST CA-QZ-CP	45°						1% CP (6/4)						92	1 2 1
174	P2 VF		VN CA-QZ-PY-CP ST CA-QZ-CP	45° 65°						0.5% CP (3/7)						99	2
										0.5% CP (6/4)					3% QZ		
176	P3 VF/VB		ST QZ-CA	50°												100	0 1 1
			ST QZ-PY	50°		AB	RP	KF		1% CP (3/7)				1%		99	1
178			VN CA-CP	40°					TR							95	
			ST QZ-CP VN CA	15° 45°													

SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
166.1						
	3.1		091-5-46	3704	127	
169.2						
	3.2		091-5-47	2520	55	
172.4						
	3.2		091-5-48	1126	74	
175.6						
	3.2		091-5-49	3541	115	
178.8						

LOGGED BY _____
DATE _____
SCALE _____

CA PY

COMMENTS

CP AS FINE DISSEMINATIONS TO BLEBS UP TO 2CM'S, SOMETIMES CORED BY MAGNETITE. ALSO AS CP±PY STRINGERS & IN QZ± CA STRINGERS. STRINGERS SHALLOW TO MOD. DIPPING TO A

P2VB: MEDIUM GREY AUGITE PORPH CLASTS IN LIGHTER MATRIX

CP IN MODERATELY DIPPING CA & QZ-CA STRINGERS

DISSEM CP COMMONLY ASSOC. W/ BLOTCHES OF MAGNETITE (BLOTCHY AB.) ALSO ALONG STRINGERS

CP COMMONLY AS DISSEMINATIONS UP TO 5 MM'S, SOMETIMES IN MOD. DIPPING CA ± MA STRINGERS & STEEP QZ STRINGERS

~~BLOTCHY & PERVASIVE MA AT~~ 172

VUGGY 1CM THICK CA VEIN W/ ~2% CP

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY ____ DDH ____

LOGGED BY ____
DATE ____
SCALE ____

Hole Depth	Main Rock Type	Minor Rock Type	Structure	Core ∢	Alt'n %1	Alt'n %2	Alt'n %3	Sulphides %PY	Sulphides %1	Gangue %1	Gangue %2	Recovery %	Fracture/m	From To (m)	Length	T.W. (m)	Sample Number	Cu ppm (%)	Au ppb (gm/t)	Veining CA	Veining PY	Comments
181, 183	P3VF/VB		VN; VN QZ-KSPAR-CA-EP-CP	35°; 30°	AB	EP	KF	1% (5/5)	1% CP (3/7); TR CP	3%	3% QZ	95; 95; 97	1, 0, 2, 1, 2, 2, 3, 1, 3	181.8; 184.8	3.0; 3.0		091-5-50; 091-5-51	4484; 4392	133; 158	2, 3, 2	0, 1, 1	BLOTCHY & WISPY MAGNETITE COMMONLY ASSOC W/ DISSEM CP AT 179.7 TO 183.7 – 1.5cm THICK VUGGY CA-EP VEIN, W/ ~2% CP, WEAK KSPAR ALT. ALONG MARGINS. LIGHT COLOURED AUGITE PORPH. "BRECCIA CLASTS" MAY JUST BE ALTERATION
185	P2VF/VB				AB	KF			* (4/3)			93	1, 2, 2		3.26		091-5-52	2669	70			
187	P1VF		VN	65°	AB			3% (6/4)	0.5% CP (3/2)			104	2	188.06							1, 2, 3	ALBITE FLOODING ALONG STRINGERS – 2cm THICK CA-MA-EP-PY-CP(5%) VEIN
189																						

END OF HOLE AT 188.06

DATE FINISHED LOGGING JULY 5, 1991

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY: DILL | D.D.H.: D91-6 | PAGE: 1 OF 2

AREA: West Area | DIP: -53.00 | AZIMUTH (t): 184.0 | DEPTH: 183.49

CLAIM: Dill 2 | NORTHING: 3393.10 | DATE STARTED: JUNE 30N, 1991

SECTION: 5900W | EASTING: -5903.67 | DATE FINISHED: JULY 4D, 1991

CORE SIZE: NQ | ELEVATION: 1456.7 | CONTRACTOR: LECLERC D.D.

CORE RECOVERY: 96.06% RQD: 39.26% | CORE STORED AT: DILL CORESHACK | LOGGED BY: JOHN CORMIER

COMMENTS: HOLE D91-6 WAS DRILLED TO LOCATE THE SOURCE OF Cu GEOCHEM AND TEST EXTENT OF D91-2 MINERALIZATION. NO CORE FROM 67.7-82.9 m (FAULT ZONE). CASING TO 82.9 m. MIN'D DIORITE, BLEBS OF MASSIVE PY AND CPY AT 82.9 TO 83.6 m (2.02% Cu AND 330 ppb Au OVER 10 FEET), TRACES OF CPY IN REST OF HOLE, AVERAGED 0.12% Cu AND 41 ppb Au OVER 100.6 m (82.9-183.9 m).

SURVEY DATA			GEOLOGY AND ASSAY RECORD														
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t				
0.0	-53.00	184.0	0.00	58.00	58.00		OB										
066.60	-49.00	184.00	58.00	68.00	10.00		MN										
158.34	-50.50	184.00	68.00	82.90	14.90		MI										
			82.90	94.90	12.00		MN										
			94.90	98.90	4.00		MD										
			98.90	106.90	8.00		VF										
			106.90	112.60	5.70		MD										
			112.60	114.50	1.90		MN										
			114.50	132.30	17.80		MD										
			132.30	143.60	11.30		MN										
			143.60	154.20	10.60		MD										
			154.20	166.90	12.70		MN										
			166.90	178.70	11.80		MD										
			178.70	183.49	4.79		MN										
			58.00	61.00	3.00			D6-1			120	9					
			61.00	64.00	3.00			D6-2			309	15					
			64.00	67.00	3.00			D6-3			186	9					
			82.90	85.90	3.00			D6-4			20212	330					
			85.90	88.90	3.00			D6-5			395	38					
			88.90	91.90	3.00			D6-6			1012	49					
			91.90	94.90	3.00			D6-7			1118	39					
			94.90	97.90	3.00			D6-8			943	151					
			97.90	100.90	3.00			D6-9			893	31					
			100.90	103.90	3.00			D6-10			1207	38					
			103.90	106.90	3.00			D6-11			597	30					
			106.90	109.90	3.00			D6-12			472	24					
			109.90	112.90	3.00			D6-13			416	19					
			112.90	115.90	3.00			D6-14			508	16					
			115.90	118.90	3.00			D6-15			707	19					
								CONTD									

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-6 PAGE 2 OF 2

AREA: DIP: AZIMUTH (t): DEPTH:

CLAIM: NORTHING: DATE STARTED:

SECTION: EASTING: DATE FINISHED:

CORE SIZE: ELEVATION: CONTRACTOR:

CORE RECOVERY: CORE STORED AT: LOGGED BY:

COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD														
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t				
			118.90	121.90	3.00			D6-16			611	20					
			121.90	124.90	3.00			D6-17			103	5					
			124.90	127.90	3.00			D6-18			350	6					
			127.90	130.90	3.00			D6-19			457	10					
			130.90	133.90	3.00			D6-20			476	23					
			133.90	136.90	3.00			D6-21			571	27					
			136.90	139.90	3.00			D6-22			387	16					
			139.90	142.90	3.00			D6-23			549	20					
			142.90	145.90	3.00			D6-24			352	16					
			145.90	148.90	3.00			D6-25			247	29					
			148.90	151.90	3.00			D6-26			390	27					
			151.90	154.20	2.30			D6-27			784	29					
			154.20	157.40	3.20			D6-28			332	23					
			157.40	160.60	3.20			D6-29			521	44					
			160.60	163.80	3.20			D6-30			564	32					
			163.80	166.90	3.10			D6-31			825	35					
			166.90	169.90	3.00			D6-32			699	43					
			169.90	172.90	3.00			D6-33			738	37					
			172.90	175.90	3.00			D6-34			480	28					
			175.90	178.70	2.80			D6-35			1647	66					
			178.70	181.10	2.40			D6-36			513	39					
			181.10	183.49	2.39			D6-37			653	45					

DDR - 85 - IU

DDR 91-2D

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-6 Page 1 of 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ϕ	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
2	CS																							Casing to 57.91 m (190 FT)
4																								
6																								
8																								
10																								
12																								
14																								

LOGGED BY J. Cormier
DATE July 8/91
SCALE 1:100

DDR 91-2D

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY Dill DDH 91-6 Page 2 of 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	LOGGED BY J. Carmichael DATE July 8/91 SCALE 1:100 COMMENTS
16																									
18																									
20																									
22	CS																								
24																									
26																									
28																									

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill

DDH D91-6

LOGGED BY J. Caunter

DATE July 5/91

SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ϕ	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
32																									
34																									
36	CS																								
38																									
40																									
42																									
44																									

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: Dill DDH: D91-6

LOGGED BY: J. Cormier
DATE: July 8/91
SCALE: 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	GRAPHIC	ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
46																									
48																									
50																									
	CS																								
52																									
54																									
56																									Ca / Py
58	A4MN					CY	OX 15	CB								71	0 3	50.0	3.0		D91-6-1	120	9		Ca 0 2 1, Py 0 0 0; - intrusive textures intact - easily broken with hands - extensive ox.
	A3MN					CY	CL 15	9X 90 CB									3 3								

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: Dill　　DDH: D91-6　　

LOGGED BY: J. Cormier
DATE: July 8/91
SCALE: 1:100

HOLE DEPTH	MAIN ROCK TYPE	RECOVERY %	FRACTURE / m	C Ca	O Py
61–62	A3MN (con't)	71			
62–63		86			
63–64		86	BC	BC	BC
64–65		105	1	0	0
65–66			3	1	0
66–67		74	4, 3	1	0
67.7	dirt gouge				
68–74	CS	07			

FROM – TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)
– 61.0	3.0	D91-6-1		
61.0 – 64.0	3.0	D91-6-2	309	15
64.0 – 67.0	3.0	D91-6-3	186	9

COMMENTS

62.0-63.8 → highly fractured rubble poss. related to fault zone encountered at 67.7m.
- extensive oxid'n
- some MnO extending along and out from fracs.
- some material appears felsic (destr. of textures due to alt'n)
- extensive CL

66.7m → start of fault gg material with small rounded rubble in clay matrix.

- orange carb. dirt (pieces of intr.)

- Entered fault zone(?); triconed to 82.9m (272 ft) then into corable material again.

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH D91-6 —

LOGGED BY J. Cormier
DATE July 8/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1 Ca	GANGUE %2 Qz	RECOVERY %	FRACTURE / m	SAMPLE INFO FROM TO (m)	SAMPLE INFO LENGTH	SAMPLE INFO T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
76	C5															07		84.9							
78																									
80																									
82																									
84	A2MN					CY	CB	0% (tr)	0% (tr)	CP 01				02		91						20,212	330		Ca Py -ox on fracs. -massive blebs of Py/cp
	GG																								- carb. rubble
86	A3MN					CY	CB	CL 10 0X (tr)	tr (1/5)	CP 01				01		103	1.22	85.9		3.0	D91-6-4				1 2 1 0 0 0 → ox. on fracs.
	A4MN		GG			CY	CL EP	CB	tr (5/5)	tr CP				02		100	3			3.0	D91-6-5	395	38		86.3 - 87.1 → GG with some A5 pieces. - generally bleached, breakable with hands, extensive Cl - ox. on fracs.
88																101		88.9							
	A3MN					CY	CL EP	CB	tr (2/5)					03	tr					3.0	D91-6-6				- easily separates - some pockets of fresher rock (not frags) - ox on fracs.
90																									

DDR 91-2D

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-6 Page 7 of 13

LOGGED BY J. Carmier
DATE July 10/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1 Ca	GANGUE %2 Qz	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS: Ca	COMMENTS: Py	COMMENTS
92	A3MN (cont'd)															99	2	91.9	3.0		091-6-6	1012	19		2	0	
																101	3								2	0	
																88	2								1	0	
94																	3	94.9	3.0		091-6-7	1118	39				
																110											
	P3VF		CT			CL	FP	CB						01													- some augite (?) phenos (CL'd) Py on fracs.
96	A4MD					CY	CL 25	CB EP OX						02		99	BC								BC	BC	- crubbly rock - total CL'tion of matics - ox. on fracs. *VL vs. VM → VL tends to be more coarse, vague alignment or swirl pattern to matics, rounded feldspars, and vole/intr. frags.
																74		97.9	3.0		091-6-8	943	151				
98	A3MD		GG			CY	CL 25	CB EP	(tr) (0/10)					02		115	(BC)										- GG poss. zone of intense arg. alt. - sparse "fresh" pockets of rock - more intense arg. near lower CT
			CT	40													1										
			GG?						01 (2/2)	tr CP				02	tr		4							1	0	GG may be intense arg. alt. - sparse conc's of ang? phenos.
100	P3VF															107	1	100.9	3.0		091-6-9	893	31		3	0	
																	4								0	0	
		(ca)	CT VN VN KF?	25 25																							
102	P2VF					CL 15	CB	SS	01 (5/5)	CP tr	HF tr			02		91	0								0	0	- some pockets of VM less alt'd. - HE on some fracs. - 101.5m CP assoc. with 1cm partial KF VN having sharp margins.
																	3	103.9	3.0		091-6-10	1207	38		3	0	
104																106	2								1	0	
																	3		3.0		091-6-11						

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH D91-6 — Page 8 of 13

LOGGED BY J. Cormier
DATE July 10/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1 Ca	GANGUE %2 Qz	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
106	P2VF (cont'd)															90	1								
																95	3	106.9	3.0		091-6-11	597	30		Ca 2 1 1 / Py 0 1 0
	A1MP					CY	CB	CL						01			BC								BC / BC - breakable with hands. (poss. gg) intr. tex. visible
108	P1MD	P511				CL 05								0.5		102	Qz 1								Ca 6 1 / Py 000 - very fresh, coarse - 3mm mafic laths somewhat aligned
	A1MD		VN GG			CY	CL	CB	0.5 (0/10)	HE tr				01		96	BC	107.9	3.0		091-6-12	472	24		BC / BC - irreg. VN with volc. crackle bx - 109.5 - 110.1 → gg within int. arg.
110	P3MD					EP (cl)	Qz 2	KF	0.5 (3/7)	CP tr	Qz 0.5			02	tr	104	(BC)								- sparse volc. Frags (1cm) - EP conc'd in st. selvages
112	P1MN					CL 05	EP 01							01		105	1 3 1	112.9	3.0		091-6-13	416	19		(BC) / (BC) Ca 1 4 1 / Py 0 0 0
	A4MD					CY	CB							03		98	2								- lighter ground mass and cryl intergrowth signal intr, as opposed to VL; also lauge hornblende?) laths up to 5mm - EP along Fracs.
114	P2MD					CL 10	EP 05	CB	01 (3/7)	CP tr					tr	105	BC								BC / BC - very carb. bleached material - blotches of Ca (VN breccia?)
	P3MD		CT VN	70 10 55		CL 05	EP CB	KF								99	1 1 4 3	115.9	3.0		091-6-14	508	16		Ca 1 1 3 / Py 0 0 1 - one VF frag. (2cm)
116	P2MD		GG	20		CL 10	EP 05	CB	tr (3/7)							99	BC								BC / BC - totally Cl'd - Qz breccia VN with KF matrix.
118																94		118.9	3.0		091-6-15	707	19		- 7cm gg zone with Ca st. at lower margin.
120																					091-6-16				

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill   DDH D91-6

LOGGED BY J. Cormier
DATE July 11/91
SCALE 1:100

Hole Depth	Main Rock Type	Minor Rock Type	Structure	Core ∠	Alt'n %1	Alt'n %2	Alt'n %3	%PY	Sulph./Oxides %1	%2	%3	%4	Gangue %1 Ca	Gangue %2 Qz	Recovery %	Fracture / m
–122	A3MD				CY	CB	Qz2		MnO? 02				03		99, 92	1, 3, 2, 3, BC
122–125.8	A4MD				CY	CL 15	CB	tr; tr (10/10)	HE 10; HE 10	MnO? 01			01; 03		104, 98	9, 4, 2, 4, 0, 1, 0, 2, BC
125.8–126	A3MD				CY	CB		tr	MnO							
126–127.2	P2VF	VN Qz; Qz VN	45; 70		CL	CB	KF	tr	tr CP						101	0, 2, 2, 2
127.2–131.2	A4MO	GG; GG; GG; GG; VN (QzCa); CT	20; 20		CY	CB		tr	MnO				03	tr	93, 93, 100	BC
131.2–132.4	P2MO				CL 10	CB		01 (9/1)	HE 05; tr				03			
132.4–134.9	P3MN				CL 20	CB		tr (5/5)	HE tr; [illegible] 01				02		101, 87	1, 2, 2, 2
134.9–	A3MN															

From / To (m)	Length	T.W. (m)	Sample Number	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au Drilled Length
121.9	3.0		D91-6-16	611	20	
124.9	3.0		D91-6-17	103	5	
127.9	3.0		D91-6-18	350	6	
130.9	3.0		D91-6-19	457	10	
133.9	3.0		D91-6-20	476	23	
	3.0		D91-6-21			

COMMENTS

Ca	Py	Comments
0, 2, 0; BC	0, 0, 0; BC	-chalky bleached appearance -vague prim. textures -sparse green min. (Mariposite?)
0, 2, 1, 0, 1, 0; BC	0, 0, 0, 0, 0, 0; BC	122.2 → 122.7 — He pervasive and also along Fracs. 122.7 → 123.5 — olive green with dark green specks (CL) (He on Fracs.) 124.2 → 125.7 → bleached, chalky, Ca vn'ing.
		-chalky white
0, 1, 0	0, 0, 0	-Qz vn -1cm Qz vn, incl. py, mottled
		-very bleached, broken up, lots of rubble.
BC	BC	} gg (Ca rubble throughout) -some vague, coarse remnant textures. } gg (70/30 - rock/gg matrix ratio
		- lots of feldspars - dark green groundmass
0, 1, 1	0, 1, 0	- overall greenish colour - equigranular

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH D91-6 — Page 10 of 13

LOGGED BY J. Cormier
DATE July 13/91
SCALE 1:100

FROM (m)	TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
136.9	139.9	3.0		D91-6-21	571	27	
139.9	142.9	3.0		D91-6-22	387	16	
142.9	145.9	3.0		D91-6-23	549	20	
145.9	148.9	3.0		D91-6-24	352	16	
148.9	150.0	1.1		D91-6-25	247	29	
		1.1		D91-6-26			

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∠	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	%2	%3	%4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m
136	A3MN (cont)		VN (Qz,Ca)	35		CL 25	CY	CB						01			
			VN	45		CY	CB	EP		MnO	HE			03	tr	103	
			BR								tr						
138			(CB) VN	30			CL 20	CB								94	1
																	4
140	A4MN					CY	CB	CL 20	tr	MnO				03	tr	101	3
										1							3
142																97	
			CT														
144	P3MD					CL 20		Qz	tr	HE tr				05	tr	103	BC
146	A3MD		VN Ca VN	55 45		CY	CB		tr (2/2)	MnO				10	01	101	1
																	2
148														03	05	92	3
150																105	0
																	3
																90	2
																	3

Cu	Py	COMMENTS
		9 cm zoned Qz/Ca VN interwoven with alt. host rock.
		- arg. zone may be related to this VN structure
		- sparse mariposite (green mica)
0	0	-
2	0	
1	0	3 cm Ca VN
		→ 139.2 - 141.0 → pocky appearance from total CL of matrix (CL is a fine powder)
		- some mariposite
		- fine str's of MnO.
		- remainder of interval is bleached, crumbly, very carbonatious
BC	BC	
		- powder CL blebs
0	0	
2	0	
1	0	
		4 cm Ca VN
		3 cm Ca VN with 5 cm crackle breccia texture on either margin
1	0	
2	0	
0	0	

DDR 91-2D

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY Dill   DDH 091-6

LOGGED BY J. Cormier
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Hole Depth	Main Rock Type	Structure	Core ∢	Alt'n %1	Alt'n %2	Alt'n %3	%PY	Sulph. %1	Gangue %1 (Ca)	Gangue %2 (Qz)	Recovery %	Fracture/m	From To (m)	Length	Sample Number	Cu ppm (%)	Au ppb (gm/t)	Ca	Py	Comments
	A3MD (con't)	VN (Ca)									96	BC		2.7	091-6-26	390	27	BC	BC	
152	A2MD	VN (Qz,Ca)	30	CY	CB (tr)		tr (3/7) 02 (9/1)		03		87	0 3 1 2	151.6	2.6	091-6-27	784	29	1 2 1	0 0 0	3cm Qz/Ca vn. with thin py on selvages - some maviposite
	F3MD			CL 15	CB (tr)	KF	0.1 (1/9)	CP tr	03	01	102									- local KF alt on Ca st. selvages.
154 / 156	P2MN	CT / VN (Ca)	45 / 55	CL 10	EP 03	CB Qz2 KF (tr)	0.5 (2/8)	CP (01)	03		120 / 97		154.2	3.2	091-6-28	332	23			- 35% mafics (typical intr. texture) - some weak KF alt along Ca st's. - sparse dark VF frags (0.5-3cm) - pockets of powdered CL - local silicification - vuggy 3cm Ca vn.
158 / 160							01 (9/1)	tr CP			96 / 92	0 2 2 2 2	157.4	3.2	091-6-29	521	44	1 2 1	0 0 0	
162											99 / 97		160.6	3.2	091-6-30	564	32			161.95→band of light olive green with textures destroyed.
164	P3MN	CT	60	CL 25	EP 05	CB KF 01	0.5 (4/6)		04	01	93		163.8	3.1	091-6-31					- more complete CL'tion - pocky appearance - volc. frags.

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH D91-6 —

LOGGED BY J. Cormier
DATE July 14/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1 Ca	GANGUE %2 Qz	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	Ca	Py	COMMENTS
166	P3MN (cont)		(S) VN	15																							
	P4MN					CL 35	CB	EP 02	tr (3/8)					02	01	102	2 2 2	166.9	3.1		D91-6-31	825	35		1 3 1	0 0 0	- very pocky appearance - crumbly, broken up, but feldspars still resistant.
168	X2MD					Qz2	CB	CL or EP KF	01 (3/8)	CP tr				03	02	92											- granitic frag. (167.2m) - med. gr. volc. - VL because it precedes a series of various volc. textures
	X3MD					Qz2		EP 01			HE tr			03		101		169.9	3.0		D91-6-32	699	43				168.1 → large VF Frag. - generally silid - small, sub-angular plag. in fine gr. matrix
170									02 (9/1)	CP01						92	1 2 2 2										
172										CP02						93		172.9	3.0		D91-6-33	738	37				
174	P3MD		VN (Ca, Py)	30		CL 20	EP 05	Qz2 CB KF (0.5)	02 (9/1)	CP tr CP 0.5				04	02	151 69	1 3 1 3	175.9	3.0		D91-6-34	480	28		2 3 1	0 0 0	- coarse gr. majority with local fine gr. bands (10-20cm) (poss. due to a H.) - large (3 cm) magnetite bleb - volc. Frags. sparse - 175.4; Py/Ca vn, some HE (90% Py)
176			Qz VN	50												97											
178			Qz VN GG	15												101		178.7	2.8		D91-6-35	1647	66				- Fractured, mottled qtz vn (1cm) (some KF) ↳ Qz mass with tr Py/CP
180	P2MN					CL 20	EP 05	CB KF (1%)	tr	CP tr					05	97			2.4		D91-6-36						- 1cm mg bleb

Ca Py

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-6 Page 13 of 13

LOGGED BY J. Cormier
DATE July 14/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
182	P3MN (cont'd)		VN Qz; Qz VN; VN Qz; VN Qz	40; 40; 55; 70; 80												97; 93	0 2 3 3	181.61; 183.49	2.4; 2.4		D91-6-36; D91-6-37	513; 653	39; 115	

LOGGED BY J. Cormier
DATE July 14/91
SCALE 1:100

COMMENTS

Ca Py
2 0 - partial CL'tion
3 0 - abundant Ca st's with EP
2 0 - also lots of Qz VN's.
- hornblende rich (hornblende diorite porphyry)

END OF HOLE
183.49 m (602 ft)

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY: DILL D.D.H.: D91-7 PAGE: 1 OF: 3

AREA: West Area DIP: -49.50 AZIMUTH (t): 182.0 DEPTH: 183.18

CLAIM: Dill 2 NORTHING: 3997.28 DATE STARTED: JULY 4D, 1991

SECTION: 6300W EASTING: -6292.57 DATE FINISHED: JULY 6D, 1991

CORE SIZE: NQ ELEVATION: 1432.7 CONTRACTOR: LECLERC D.D.

CORE RECOVERY: 94.41% RQD: 44.75% CORE STORED AT: DILL CORESHACK LOGGED BY: PETER FISCHL

COMMENTS: HOLE D91-7 WAS DRILLED TO TEST AN I.P. CHARGEABILITY HIGH AND ANOMALOUS CU/AU GEOCHEM. SPARSE CPY MINERALIZATION THROUGHOUT MOST OF HOLE. HOLE AVERAGES 0.055% Cu AND 72 ppb Au / 174.0 m (9.1-183.2 m), INCLUDING 0.11% Cu AND 122 ppb Au / 46.9 m(114.3-161.2 m).

SURVEY DATA			GEOLOGY AND ASSAY RECORD														
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t				
0.0	-49.50	182.0	0.00	09.14	9.14		OB										
046.79	-47.00	182.00	9.14	42.00	32.86		VF										
124.05	-47.00	182.00	42.00	60.30	18.30		MD										
168.86	-47.00	182.00	60.30	145.60	85.30		VF										
			145.60	151.40	5.80		VP										
			151.40	177.30	25.90		VF										
			177.30	177.90	0.60		GG										
			177.90	179.50	1.60		VF										
			179.50	180.40	0.90		GG										
			180.40	183.18	2.78		VF										
			9.14	12.20	3.06			D7-1			20	10					
			12.20	15.20	3.00			D7-2			235	15					
			15.20	18.20	3.00			D7-3			249	6					
			18.20	21.20	3.00			D7-4			139	14					
			21.20	23.90	2.70			D7-5			247	9					
			23.90	26.60	2.70			D7-6			179	11					
			26.60	29.60	3.00			D7-7			283	35					
			29.60	32.80	3.20			D7-8			265	19					
			32.80	36.00	3.20			D7-9			332	26					
			36.00	39.00	3.00			D7-10			395	39					
			39.00	42.00	3.00			D7-11			15	11					
			42.00	45.00	3.00			D7-12			110	40					
			45.00	48.00	3.00			D7-13			26	126					
			48.00	51.00	3.00			D7-14			456	115					
			51.00	54.00	3.00			D7-15			483	109					
			54.00	57.20	3.20			D7-16			158	89					
			57.20	60.30	3.10			D7-17			85	65					
			60.30	63.30	3.00			D7-18			590	42					
			63.30	66.30	3.00			D7-19			88	39					
								CONTD									

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-7 PAGE 2 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:
CLAIM: NORTHING: DATE STARTED:
SECTION: EASTING: DATE FINISHED:
CORE SIZE: ELEVATION: CONTRACTOR:
CORE RECOVERY: CORE STORED AT: LOGGED BY:
COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD															
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t					
			66.30	69.00	2.70			D7-20			407	27						
			69.00	71.60	2.60			D7-21			114	8						
			71.60	74.60	3.00			D7-22			348	13						
			74.60	77.60	3.00			D7-23			318	18						
			77.60	80.60	3.00			D7-24			164	11						
			80.60	83.60	3.00			D7-25			180	49						
			83.60	86.60	3.00			D7-26			344	63						
			86.60	89.60	3.00			D7-27			200	27						
			89.60	92.00	2.40			D7-28			254	78						
			92.00	94.60	2.60			D7-29			249	69						
			94.60	97.60	3.00			D7-30			391	128						
			97.60	100.60	3.00			D7-31			181	34						
			100.60	103.30	2.70			D7-32			429	52						
			103.30	106.00	2.70			D7-33			736	106						
			106.00	108.80	2.80			D7-34			973	141						
			108.80	111.80	3.00			D7-35			353	119						
			111.80	114.30	2.50			D7-36			533	63						
			114.30	117.00	2.70			D7-37			1098	58						
			117.00	120.00	3.00			D7-38			765	161						
			120.00	122.00	2.00			D7-39			2056	220						
			122.00	125.00	3.00			D7-40			508	88						
			125.00	128.00	3.00			D7-41			880	78						
			128.00	131.20	3.20			D7-42			1734	176						
			131.20	134.20	3.00			D7-43			981	93						
			134.20	137.40	3.20			D7-44			715	116						
			137.40	140.70	3.30			D7-45			811	136						
			140.70	143.70	3.00			D7-46			1208	96						
			143.70	146.60	2.90			D7-47			715	133						
			146.60	149.10	2.50			D7-48			1290	107						
			149.10	152.10	3.00			D7-49			1271	78						
			152.10	155.10	3.00			D7-50			1344	220						
								CONTD										

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-7 PAGE 3 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:

CLAIM: NORTHING: DATE STARTED:

SECTION: EASTING: DATE FINISHED:

CORE SIZE: ELEVATION: CONTRACTOR:

CORE RECOVERY: CORE STORED AT: LOGGED BY:

COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD								AA	FA					
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t				
			155.10	158.10	3.00			D7-51			674	85					
			158.10	161.10	3.00			D7-52			1599	127					
			161.10	163.20	2.10			D7-53			432	89					
			163.20	166.00	2.80			D7-54			604	65					
			166.00	168.90	2.90			D7-55			796	70					
			168.90	171.80	2.90			D7-56			726	48					
			171.80	174.80	3.00			D7-57			743	46					
			174.80	177.20	2.40			D7-58			811	77					
			177.20	180.20	3.00			D7-59			546	67					
			180.20	183.18	2.98			D7-60			497	99					

DDR · 85 · IU

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: DILL　　DDH: D91-7　　

LOGGED BY: PETER FISCHL
DATE:
SCALE: 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	GRAPHIC	ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	%2	%3	%4	GANGUE %1 CA	GANGUE %2	RECOVERY %	FRACTURE/m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	VEINING CA	VEINING PY	COMMENTS
0–9.14 (1, 3, 5, 7, 9)	CS																										
9.14 (11)	R2?F					EP				1% (7/3)				2%		68 / 102	BC; 1. 3/2; 3; 3	9.14 – 12.2	3.06		D91-7-1	201	10		1 3 3	1 3 3	STRONG BLOTCHY & STRINGER EPIDOTE
12.2 (13)	PMF	SW Ca	ST 66	10 35		EP	AB(?)			TR; 2% (9/1)						91	0202; 1434; 1 2 1 2	12.2 –	3.0		091-7-2	235	15		CA-HE-PY STRINGERS	0 1 6; 1 2	WEAK BLOTCHY AND STRINGER EPIDOTE, WEAK AB(?) FLOODING ALONG STRINGERS

DDR 91-20

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY: Dill   DDH: D91-7

LOGGED BY: RF
DATE:
SCALE:

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	%PY	GANGUE %1 CA	RECOVERY %	FRACTURE / m	FROM / TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	VEINING CA	VEINING PY	COMMENTS
16			ST CA (VUGGY)	20°				TR (4/6)	2% / 2%	104 / 100	4414 / 1 / 3	15.2 – 18.2	3.0	D91-7-3	249	6	1 2 1 3 2 2	0 0 0	
18	PIVF				EP	AB(!)			1%	99	1 / 3	18.2 – 21.2	3.0	D91-7-4	139	14	1 2 2	0 2 2	
20		SW CA	GG / ST CA-HF-PY	80° / 10°				0.3% (7/3) / 2% (10/6)		98	2 / 1 3 2 / 3								
22			GG / GG	65° / 35°				TR (5/5)	4% / 1%	77 / 105	1 / 2 / 1	21.2 – 23.9	2.7	D91-7-5	247	9	2 3 4 / 1 0 2	4 / 1 1 1	
24			GG / GG / ST (?) EP-CA	54° / 70° / 45-55°				1% (7/3)	2%	105 / 92	2 / 2 2 2 / 3	23.9 – 26.6	2.7	D91-7-6	179	11	2 4 2	1 3 1	
26											BC								
28		P2VF	VN CA-EP	40°	EP	KF	CL	5% (6/4) / 2% (7/3)		71 / 80	3 / 3 / 2 4 3 4	26.6 – 29.6	3.0	D91-7-7	283	35		1 4 1 / 0 3 1	STRONG BLOTCHY & STRINGER EPIDOTE; FELDSPAR FLOODING ALONG STRINGERS

DDR 91-20

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: DILL   DDH: D91-7   Page 3 of 13

LOGGED BY: PF   DATE: SCALE:

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	%PY	GANGUE %1 CA	RECOVERY %	FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	COMMENTS
31	PIVF	ARVIF (?)	VN CA; ST CA-PY	40°; 20°	5% (7/3); 3%	5%; 3%	97; 96	– 32.8	3.2	D91-7-8	265	19	
33	PIVF	SW CA	VN CA	48	4/6; 1% (1/9)	5%	98; 101	32.8 – 36.0	3.2	D91-7-9	332	26	ALT'N: CY SS(?); CL
35–37	PIVF		GG; GG; VN CA-H-PY	5; 90; 30°	5% (5/5); 1% (9/1); 3% (1/9); TR (0/10)	2%; 5%; 2%	95; 104	36.0 – 39.0	3.0	D91-7-10	395 (?)	39	TR CP (1 SPECK)
39–41	PIVF		VN CA; VN CA	10°; 15	3% (4/4); 3% (1/9); 3% (1/9); 2% (1/9)	5%; 1%	99; 100	39.0 – 42.0	3.0	D91-7-11	15	11	
43	PIMD	DK	ST CA-CL HR-CL (5%); DK	40°; 20	2% (1/9); 4% (1/9)		96; 97	42.0 – 45.0	3.0	D91-7-12	110	40	TR CP (2 SPECKS); ALT'N: CL SS. FINE GRAINED FSPAR PORPH MONZO-DIORITE, LOCALLY GRADING TO DIORITE

Fracture/m (31–45 m): 233, 0, 2, 2, 2, 1, 3, 3, 1, 2, 1, 2, BC, 1, 2, 2, 3, 1, 2, 0, 2, BC, 0, 2, 2, 1, 4, 3, 4, 1, 2, 0, 2, 1, 3, 0, 3

MEDIUM GREEN ANDESITIC DYKE

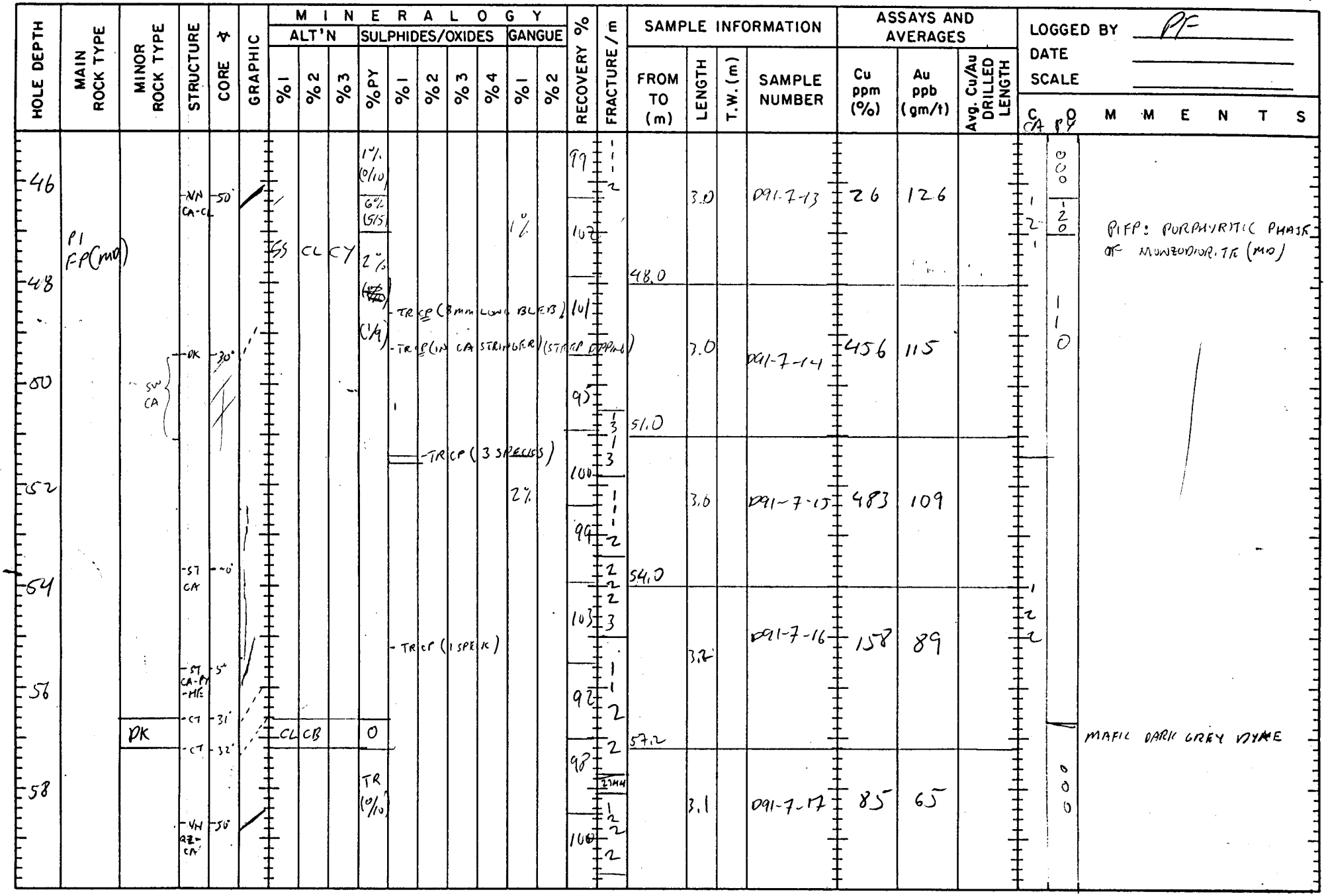
DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY DILL DDH D91-7 Page 4 of 13

LOGGED BY PF
DATE
SCALE



DDR 91-2

66.3 / 5.3

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY: DILL — DDH: D91-7 —

LOGGED BY: PF
DATE:
SCALE:

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	%PY	SULPH. %1	GANGUE %1 (CA)	RECOVERY %	FRACTURE/m	FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	COMMENTS
								0	2% CP (FINE DISSEM. AT CONTACT)		98	14/m, 1, 3	60.3					
61		P3VF	SW CA		AB	CL	EP	1% (1/9)	0.5% P (0/10); .3% P (0/10) } FINE DISSEM.		100	3, 1, 2, 0, 2		3.0	D91-7-18	590	42	
63	P2VF (WEAK TO MODERATELY MAGNETIC)		VN CA-HM-GG	56° 25	EP	AB		TR (5/3); 1% (5/5)	TR CP (5/5)	2%	95	1, 3, 2, 3	63.3	3.0	D91-7-19	88	39	CP FINE DISSEM. & IN CA STRINGERS
65		P3VF			AB	EP		3% (3/8)		4%	97							CA±EP
67			VN QZ-PY-CA ST CA-CP (5%)	55° 24°				TR (1/9)	1% CP (10/0)		84	2, BC	66.3	2.7	D91-7-20	407	27	CP IN STEEP TO MOD. DIPPING CA ± EP STRINGERS
											93							
69	P2VF		ST CA	60°	EP	AB	KF				96	1, 2, 2, 2	69.0	2.6	D91-7-21	114	8	WEAK BLOTCHY & STRINGER EPIDOTE, LOCAL ALBITE FLOODING, WEAK KSPAR ALT.
71										1	100							
73			ST CP-CA; ST; ST EP-CA PY-CP; VN EP-CA PY-CP (5%)	63°, 65°, 70°, 76°				TR PY (7/3)	TR CP (7/3)	6	99	0, 1, 1, 1	71.6	3.0	D91-7-22	348	13	QZ-CA-EP-PY-CP (2%) STRINGER. CP & PY IN MOSTLY SHALLOW DIPPING EP ± CA & CA ± EP STRINGERS & BLEBS
			ST EP-CP-PY	52°							96		74.6					

DDR 91-20

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: DILL DDH: D91-7

LOGGED BY: PF
DATE:
SCALE:

Hole depth (m): 76, 78, 80, 82, 84, 86, 88

Main rock type: P2VF

Minor rock type: SN CA (approx. 79–83.5 m)

Structure	Core ∢
ST FP-CA	35° CP
ST CA	43°
GG	40°
ST CA	40°
[illegible]	[illegible]
GG	60°
VN CA-PY	20°
VN	22°
ST PY-EP-QZ-CA	78°
VN CA-HE-PY	80°
VN CA-CP-HE	30°
VN CA	40°

Mineralogy — Alt'n: %1 EP, %2 KF

Sulphides/Oxides (%PY): 0; TR (5/5); .5% (3/7); 3% (8/2); TR (9/1); 3% (3/7); 3% (6/4); 1% (6/4); %1: TR CP (9/1)

Gangue %1 CA: 1%; 6%; 2; 5%; 2%; 5

Recovery %: 102; 93; 97; 112; 100; 126; 79; 99; 98; 102

Fracture/m: 1 2 1 2; 1 2 2 3; 1 2; 2 1 0 3 0 3; 1 2 0; 2 BC 2 2 1 3; 1 2 1; 2

From–To (m)	Length	T.W. (m)	Sample Number	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au Drilled Length
–77.6	3.0		D91-7-23	318	18	
77.6–80.6	3.0		D91-7-24	164	11	
80.6–83.6	3.0		D91-7-25	180	49	
83.6–86.6	3.0		D91-7-26	344	63	
86.6–89.6	3.0		D91-7-27	200	27	

Comments (veins per interval): 1 0; 240 3 1 1; 1 3 3; 1 0 0; 3 4 3; 2 3 2; 2 2 1; 1 1 0; 2 1 1

- GG PYRITIC
- CA-HE-PY-CP (TR) VEIN UP TO 1cm THICK
- RARE SPECK OF CP IN EP & CA & CA STRINGERS

DDR 91-2D

105.4

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: DILL   DDH: D91-7

LOGGED BY: PF
DATE:
SCALE:

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	%PY	SULPHIDES/OXIDES %1	GANGUE %1 CA	RECOVERY %	FROM / TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm	Au ppb	COMMENTS
91			VN	50°				4% (5/5)		5%	97	92.0	2.4	D91-7-28	254	78	2 cm THICK PY-CA-CL VEIN
93		SW CA						2% (1/1)		2, 6	101	94.6	2.6	D91-7-29	249	69	BC
95	P3VF	SW CA-PY	VN; VN; CA-CL HE-PY; VN; GG	67°; 55°; 70°; 80°	CL	EP	KF	8% (5/5); 3% (6/4)	TR CP (1%) (IN EP+CA STRINGERS)	4	92, 100, 103	97.6	3.0	D91-7-30	391	128	2 cm THICK PY(90%)-CA(10%) VEIN; CA-PY(TR)-BORNITE(TR)-CP(TR) VEIN UP TO 2 CM'S THICK
99		P1VF			EP			0; 4% (5/5)		2%	106	100.6	3.0	D91-7-31	181	34	
101	VF	P2VF	ST; ST; QE-EP-PY	55°; 60°; CA	AB	EP	KF	2% (1/9); 4% (4/1); 2% (1/0)		6	98, 105	103.3	2.7	D91-7-32	429	52	QE-CA-EP STRINGER W/ WEAK KSPAR ALONG MARGINS
103		P3VF, SW CA	ST; QE-EP PY-CA; GG	40°; 30°	EP			8% (7/3)		2	93			D91-7-33	736	106	STRONG EPIDOTE VEINING; BC

DDR 91-20

108.0
113.3

120.0
117.0
3.0

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY: Dill DDH: D91-7

LOGGED BY: PF DATE: SCALE:

Hole Depth	Main Rock Type	Minor Rock Type	Structure	Core ∠	Alt'n %1	Alt'n %2	Alt'n %3	Sulphides %PY	Sulphides %1	Gangue %1	Recovery %	Fracture/m
106	VF	P2VF SW ca	VN CA-PY; VN PY-CA-CL	57; 55	EP	CL		TR; 8% (2/8)	1% CP (5/5)	4%	97; 90	0112; 1, 2, 1, 2
108								TR (9/1)		1	100	334
		P3VF	ST CA-PY-EP	60°	EP					4%		1, 1
110		P2VF			AB	EP				2	99	1, 2
		CY	CT; CT	50°; 50°				20%	8% (2/8)	80		
		P3VF			AB	EP		0		4%	103	
112		A4VF			CY	EP		3% (3/7)			95	BC
114		P1VF	ST CA-CP; GG	75°; 20°	EP	KF	CL	1% (0/10); 4% (2/8)	TR CP (4/6)	1, 2	101; 98	313; 2
		K3VF			KF	CL	EP	8% (3/7)			103	
118		P1VF	ST EP; VN	85°; 82°	EP			4%; 1% (0/10); 6% (6/4)	0.5% CP (1/9); 0.5% CP (1/9)		99	

From	To (m)	Length	Sample Number	Cu ppm	Au ppb
	106.0	2.7	D91-7-33		
106.0	108.8	2.8	D91-7-34	973	141
108.8	111.8	3.0	D91-7-35	353	119
111.8	114.3	2.5	D91-7-36	533	63
114.3	117.0	2.7	D91-7-37	1098	58
117.0	120.0	3.0	D91-7-38	765	161

CA	PY	Comments
3, 4, 2	0, 2, 4	WEAK BLOTCHY & STRINGER EPIDOTE
3		CP DISSEM & IN IRREG STRINGERS & BLEBS OF CALCITE ± EARTH
2, 3	1, 0	
3, 3, 1		20 CM THICK CA-QZ-PY-CL VEIN
2, 4, 1	0	AB FLOODING ALONG STRINGERS, & IN MATRIX.
	1, 1, 0	
2, 3, 1	0, 0, 0, 1, 2, 1	CP DISSEM. & IN BLOTCHES AND SHALLOW TO MOD. DIPPING STRINGERS OF CA ± EP
1	2, 3	STRONG BLOTCHY KSPAR-CHLORITE-EPIDOTE
	0, 1, 0	3 cm THICK PY(80)-CL(10)-CA(10) VN - OCCASIONAL GREEN Cr MICA
		FINE GRAINED DISSEM CP, ALSO IN SHALLOW STRINGER/
	2, 4, 2	CP FINE GRAINED DISSEMINATED & IN BLOTCHES & STRINGERS OF EP ± CA

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: Dill DDH: D91-7

LOGGED BY: PF DATE: SCALE:

Main rock type: VF

HOLE DEPTH	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	%PY	SULPHIDES %1	SULPHIDES %2	GANGUE %1 CA	RECOVERY %	FRACTURE / m
		ST (7)	40-45°				6%	0.5% CP			104	1, 1, 1
121	A2VF	ST (4), ST, ST	45-62, 50, 35				4% (6/4)	TRCP (1%)		2	97	2
	CV							1% CP	(10%)			
	A2VF	VN PY-CA	53°	CY			40%	(7/3)				1, 3
123	SW PY-CA	GG 66, ST PY-CA, QE	43°, 40, 35°, 70				2% (9/1)				102	1, 3
							4% (5/5)	TRCP (9/1)				1, 1
125	P3VF	VN CA-PY-HE	40°	CL	EP	1	TR (1-4/0)			4%	98	0
	A3VF	ST CA-PY	60°	CY			4% (7/3)					2
		GG	15°								92	2, 3, 3, 4
127							1% (3/7)					
	P3VF	VN PY-CA	85°	CL	CY	QE?	4% (7/3)	TRCP			93	1, 2, 1
129								TRCP (3/7)		4%	101	2
		GG	~0°									BG
131	P3VF			EP	CL						93	3, 2, 3
		GG	20°									
		GG	5°				1% (0/10)			2%	89	BG
133		VN	85°				4% (5/5)	TRCP (0/10)				1, 2, 2
	P1VF SW CA	GG	27°	EP	KF		2% (0/10), 4% (18/2), 2% (14-...)	TRCP, 2/8		4%	97	3, 3434

Interval marks: 124.6, 128.9, 131.2, 133.4

FROM / TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm	Au ppb
122.0	2.0	D91-7-39	2056	220
125.0	3.0	D91-7-40	508	88
128.0	3.0	D91-7-41	880	78
131.2	3.2	D91-7-42	1734	176
134.2	3.0	D91-7-43	981	93

VEINING (CA, PY, Q) / COMMENTS

- 2, 4, 2 — 7 SUBⅡ CPPY STRINGERS DIPPING 40-45° TCA
- 2, 3, 1 / 1, 3, 1 — 4 PY-CA STRINGERS @ 45-62° TCA; CP ■ BLEBS IN CA-PY-HE BLOTCHES & STRINGERS (STEEP TO MOD.)
- 2, 3, 1 — OCCASIONAL GREEN CR MIN
- 2, 4, 4 — CP IN BLOTCHES & STRINGERS OF CL & CA (SHALLOW TO MOD. TCA)
- 1, 3, 4 — STRONG BLOTCHY CL
- 1, 3, 3
- 1, 2, 3 — BLOTCHY CL & CY
- 4, 3, 1 — CP DISSEM. & IN EP±CA BLOTCHES & STRINGERS
- STRONG BLOTCHY & STRINGER EPIDOTE
- 0, 0, 0
- 1, 2, 2 / 1, 2 — 2 cm THICK BANDED PY-QZ-EP-CA-CL-KSPAR(TR) VEIN
- 1, 4, 4 / 0, 0, 6, 441 — WEAK EP STRINGERS

DDR 91-20

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY DILL DDH D91-7 Page 10 of 13

LOGGED BY PF
DATE
SCALE

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	%PY	SULPHIDES/OXIDES %1	GANGUE %1 CA	RECOVERY %	FRACTURE/m	FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	COMMENTS
136		SW CA P1VF	ST CA-PL	30°	EP	KF		2% (1/9) 7% 2% (2/8)	TR CP (2/8)	4% 7%	98 93	2 2 3 0 2 1 2	137.4	3.2	D91-7-44	715	116	CP FINE GRAINED DISSEMINATED & IN CA & EP STRINGERS & BLEBS
138	VTC	K1VF SW Ca	ST CA-PY-CP; ST CA-PY-CP	57°; 55°	KF	CL		6% (2/8)	TR CP (10/0); TR P (10/0)	5%	98 96	1 2 3	140.7	3.3	D91-7-45	811	136	
142	VP	P2VP	GG VN	41; 41	CL	CY		0.5%	P (2/8)		104	3		3.0	D91-7-46	1208	96	10 CM THICK BANDED CA-CL VEIN; CP, FINE GRAINED DISSEM. & IN CA STRINGERS
		P1VF			EP	CL			TR CP (7/3)	3%	99	1 1	143.7					
144	VIC	K1VF	VN CA-PY-CL; VN PY-CA-CL	30°; 62°	KF	CL	SE	6% (4/6)	TR CP (0/6) 145.8		105	2 2	146.6	2.9	D91-7-47	715	133	CP IN STEEP TO SHALLOW CA & CL-CA STRINGERS, ALSO FINE GRAINED DISSEMINATED
146 / 148	VP	P2VP	GG; GG	70°; 62°	EP	CL	KF	4% (3/7)		2%	93 110			2.5	D91-7-48	1290	107	
		P3VP	GG	42°	CL	EP	CY ?	2% (4/6)	3% CP (1/?)		96	0 2 2	149.1					CP BLEBS UP TO 1cm IN CA

DDR 91-2D

163.2 / 8.6

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY: DILL DDH: D91-7 Page 11 of 13

LOGGED BY: PF DATE: SCALE:

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	%PY	SULPHIDES %1	GANGUE %1 (CA)	RECOVERY %	FRACTURE / m
151	VF	A2VP			CY			1% (5/5)		6%	93	BC
		P3VP			EP	CL						0 2 3 3
153		PNF	VN CA; VN	30°; 66°	EP	CL		0; TR; 5% (4/6)	152.6 0.5% CP (2/8)	2%	98; 98	0 1 2 2; 1444
		K2VP			KF	CL						
155		PIVF	VN CA	38°	KF	CL	EP	TR (3/7)	TR CP (8/2)	1%	100; 102	1 1 1 2
157		SW CA	ST CA-CP-EP	40°				1%; 4%				
159		P2VP	VN CA PY	55°	CL	EP		(5/5)		4%	98	13 3
161		K1VF/VP	ST EP-CA-CP-PY	40°	KF	CL	EP	TR (9/10); 3% (4/4)	0.5% CP (6/4); TR CP (3/7)	2%	99; 104; 101	1 2 1 2; 2303
163		PIVF			EP							
		CY	CT; CT	26; 26						90		
		PIVF	VN EP-PY-CP	30°	EP			TR (8/2)		2%	100	

SAMPLE INFORMATION / ASSAYS AND AVERAGES

FROM – TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)
– 152.1	3.0		D91-7-49	1271	78
152.1 – 155.1	3.0		D91-7-50	1344	220
155.1 – 158.1	3.0		D91-7-51	674	85
158.1 – 161.1	3.0		D91-7-52	1599	127
161.1 – 163.2	2.1		D91-7-53	432	89

COMMENTS

- 2cm THICK PY(80)-QZ(10)-CA(10) ∓ CP(TR) VEIN
- CP, FINE GRAINED DISSEMINATED (COMMONLY IN CL) & IN CA-PY & CL STRINGERS
- WEAK BLOTCHY KSPAR
- CP IN STEEP TO SHALLOW CA ± EP STRINGERS & BLEBS
- CP AS ABOVE, ALSO FINE GRAIN DISSEMINATED COMMONLY ASSOC. W/ WISPY MAGNETITE
- WEAK BLOTCHY KF & EP
- CP FINE GRAINED DISSEMINATED AND IN CA ± EP & EP BLOTCHES AND RARE STRINGER. DISSEM. CP COMMONLY ASSOC. W/ WISPY MAGNETITE OR CHLORITE
- 7cm THICK CA-PY(10%) VEIN

DDR 91-20

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY: Dill

DDH: D91-7

LOGGED BY: PF
DATE:
SCALE:

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	∢ CORE	GRAPHIC	ALT'N %1	ALT'N %2	ALT'N %3	%PY	%1	%2	%3	%4	GANGUE %1 CA	%2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	VEINING CA PY	COMMENTS
166	VF	P2VF	ST CA-EP PY -20°; ST -42°; VN EP -40°; ST CA-CP -45°			EP	KF		TR (1%)	TR CP (3/7)				1%		104; 95	1, 1, 1, 2	166.0	2.8		D91-7-54	604	65		0, 1, 0	5mm wide EP-PY-CA-CP(TR) stringer; 6 cm thick EP-PY(TR) vein
168		P1VF	VN -40°			EP	KF												2.9		D91-7-55	796	70			3cm thick PY(75)-QZ-CA-CP(TR) vein
170			ST QZ-EP-PY-CA -30; ST EP-PY-CP 60°						1%		-171.6					95; 99	2, 4, 0, 4, 0, 1	168.9	2.9		D91-7-56	726	48			
172		K1VF	VN -60°			KF	CL	EP	(9/1)					2%		103; 110	2, 2	171.8	3.0		D91-7-57	743	46		2, 4, 4; 0, 1, 1	1cm thick PY-CA vein w/ weak KSPAR flooding along margins
174		SW CA+CL	ST CA-EP-PY-CP -40°; ST PY-CA-EP -40°							0.5% CP (5/5)	-175.2					104		174.8								
176		P2VF	ST CA-CP -28			CL	EP		TR; 1%	TR CP (1/7)	177.0					89			2.4		D91-7-58	811	77		4, 4; 0, 1, 0	CP in CA±CL stringers & fine grained dissem.; CP fine grained dissem & in CA-CL stringers
178		GG; P2VF; PIMD?; GG	CT -5°; CT -22°; GG -45; ST(?) -75; GG -25; VN PY-QZ-CA -66°			CL; CL	EP		(1/9); 3% (5/5)					4%		98; 103	BX; 4, 4, 42	177.2	3.0		D91-7-59	546	67		2; 0, 2, 2	3 PY(90)-CA(10) stringers up to 1cm wide. Dipping 75° TCA

DDR 91-20

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill

DDH D91-7

LOGGED BY PF
DATE
SCALE

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∠	GRAPHIC	ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1 CA	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS Cu ppm (%)	ASSAYS Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	C CA	O PY	COMMENTS
									3% (5/5)									180.2									
181		P1VF	CT 66	12° 75°		CL			2% (9%)					4%		98	BC 1 4 4 4		3.11		D91-7-60	477	99		4 4 2	2 1 2	
		P3VF SW CA-CL				CL	KF ?		3% (4%)	TR CP (1%)						90	1 3 1 3									0 1 0	SEVERAL CP SPECKS IN CA STRINGERS
183																		183.31									

END OF HOLE AT 183.31 m

DATE FINISHED LOGGING: JULY 12, 1991

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY: DILL D.D.H.: D91-8 PAGE: 1 OF 3

AREA: West Area DIP: -50.00 AZIMUTH (t): 180.5 DEPTH: 189.59

CLAIM: Dill 2 NORTHING: 3692.70 DATE STARTED: JULY 6D, 1991

SECTION: 6300W EASTING: -6291.74 DATE FINISHED: JULY 8N, 1991

CORE SIZE: NQ ELEVATION: 1444.0 CONTRACTOR: LECLERC D.D.

CORE RECOVERY: 94.96% RQD: 63.64% CORE STORED AT: DILL CORESHACK LOGGED BY: JOHN CORMIER

COMMENTS: HOLE D91-8 WAS DRILLED NORTH OF MINERALIZED TRENCHES AND WITHIN AREA OF STRONG Cu/Au GEOCHEM AND HIGH CHARGEABILITY. LOCAL MOD CPY TO 100 m, TRACES OF CPY IN REMAINDER OF HOLE. HOLE AVERAGES 0.13% Cu AND 19 ppb Au / 180.4 m (9.1-189.6 m), INCLUDING 0.19% Cu AND 26 ppb Au / 69.2 m (53.9-123.1 m).

SURVEY DATA			GEOLOGY AND ASSAY RECORD													
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t			
0.0	-50.00	180.5	0.00	09.10	9.10		OB									
045.72	-48.00	180.50	09.10	14.50	5.40		DA									
132.13	-47.00	180.50	14.50	18.80	4.30		VF									
			18.80	57.00	38.20		VB									
			57.00	59.50	2.50		VF									
			59.50	78.70	19.20		VB									
			78.70	84.30	5.60		VF									
			84.30	94.70	10.40		VB									
			94.70	112.20	17.50		VF									
			112.20	123.20	11.00		VB									
			123.20	127.10	3.90		VP									
			127.10	135.20	8.10		VB									
			135.20	144.30	9.10		VP									
			144.30	155.70	11.40		VB									
			155.70	158.20	2.50		VP									
			158.20	189.59	31.39		MN									
			9.10	12.10	3.00			D8-1			1680	13				
			12.10	15.10	3.00			D8-2			1745	22				
			15.10	18.10	3.00			D8-3			1217	14				
			18.10	21.10	3.00			D8-4			1335	17				
			21.10	24.10	3.00			D8-5			878	8				
			24.10	27.10	3.00			D8-6			842	3				
			27.10	30.10	3.00			D8-7			982	22				
			30.10	33.10	3.00			D8-8			864	12				
			33.10	36.10	3.00			D8-9			1097	5				
			36.10	39.10	3.00			D8-10			1400	7				
			39.10	42.10	3.00			D8-11			1377	17				
			42.10	45.10	3.00			D8-12			685	4				
			45.10	48.10	3.00			D8-13			912	19				
								CONTD								

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-8 PAGE 2 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:

CLAIM: NORTHING: DATE STARTED:

SECTION: EASTING: DATE FINISHED:

CORE SIZE: ELEVATION: CONTRACTOR:

CORE RECOVERY: CORE STORED AT: LOGGED BY:

COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD															
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t					
			48.10	51.10	3.00			D8-14			1163	15						
			51.10	54.10	3.00			D8-15			1267	19						
			54.10	57.10	3.00			D8-16			1771	10						
			57.10	60.10	3.00			D8-17			1312	6						
			60.10	63.10	3.00			D8-18			1366	12						
			63.10	66.10	3.00			D8-19			1778	7						
			66.10	69.10	3.00			D8-20			1550	21						
			69.10	72.10	3.00			D8-21			1449	13						
			72.10	75.10	3.00			D8-22			1320	11						
			75.10	78.10	3.00			D8-23			1233	18						
			78.10	81.10	3.00			D8-24			3409	24						
			81.10	84.10	3.00			D8-25			3149	22						
			84.10	87.10	3.00			D8-26			3010	16						
			87.10	90.10	3.00			D8-27			2425	19						
			90.10	93.10	3.00			D8-28			1948	13						
			93.10	96.10	3.00			D8-29			3297	28						
			96.10	99.10	3.00			D8-30			1968	28						
			99.10	102.10	3.00			D8-31			2203	28						
			102.10	105.10	3.00			D8-32			1853	34						
			105.10	108.10	3.00			D8-33			2097	45						
			108.10	111.10	3.00			D8-34			1156	42						
			111.10	114.10	3.00			D8-35			728	25						
			114.10	117.10	3.00			D8-36			1049	33						
			117.10	120.10	3.00			D8-37			1502	35						
			120.10	123.10	3.00			D8-38			1467	35						
			123.10	126.10	3.00			D8-39			968	27						
			126.10	129.10	3.00			D8-40			707	28						
			129.10	132.10	3.00			D8-41			567	16						
			132.10	135.20	3.10			D8-42			642	16						
			135.20	138.20	3.00			D8-43			813	3						
			138.20	141.20	3.00			D8-44			710	16						
								CONTD										

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-8 PAGE 3 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:

CLAIM: NORTHING: DATE STARTED:

SECTION: EASTING: DATE FINISHED:

CORE SIZE: ELEVATION: CONTRACTOR:

CORE RECOVERY: CORE STORED AT: LOGGED BY:

COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD														
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t				
			141.20	144.20	3.00			D8-45			1340	28					
			144.20	147.20	3.00			D8-46			870	14					
			147.20	150.20	3.00			D8-47			1116	29					
			150.20	153.20	3.00			D8-48			873	18					
			153.20	155.70	2.50			D8-49			827	14					
			155.70	158.20	2.50			D8-50			462	11					
			158.20	161.20	3.00			D8-51			1138	10					
			161.20	164.50	3.30			D8-52			753	17					
			164.50	167.90	3.40			D8-53			853	49					
			167.90	171.00	3.10			D8-54			793	43					
			171.00	174.00	3.00			D8-55			1049	26					
			174.00	177.00	3.00			D8-56			772	14					
			177.00	180.00	3.00			D8-57			627	9					
			180.00	183.30	3.30			D8-58			442	9					
			183.30	186.60	3.30			D8-59			632	8					
			186.60	189.59	2.99			D8-60			975	24					

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-8 Page 1 of 13

LOGGED BY J. Cormier
DATE July 15/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1 Ca	GANGUE %2 Q_2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
2																								
4	CS																							
6																								
8																								
10						CL	EP	CB tr	04 (1/q)	HE tr	CP tr			03	tr	90	BC 1 3 2 3 BC	9.1	3.0		091-8-1	1680	13	
12	P2DA (?)	PS12	St (Ca, Qz) (Ca) VN (Qz) VN	55 30 50							CP 01			05		118	0 2 3 2	12.1	3.0		091-8-2	1745	22	
14											CP tr					95								

Casing through 9.1m (30') of overburden.

Ca	Py
BC	BC
1 3 2	0 1 1
BC	BC
1 3 1	0 0 0

- 50% feldspar phenos (1-3mm)
- dark grey to black aphan. matrix
- some local zones of intrusive texture
- diss. py. (Fine)
- a few VF frags.
- HE on Fracs.
- 1cm Ca VN, banded, vuggy
- 1 cm banded Qz VN
- 14.8 → 15.2 olive green arg. zone.

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-8 Page 2 of 13

LOGGED BY J. Caverly
DATE July 15/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1 Ca	GANGUE %2 Qz	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
16	P3VF					CL 10	EP 05		01 / 03 (8/2)	HE 0.5	CP 0.5			03		92 / 90 / 97	2 2 2 0	15.1						
18			(Qz) St	50					01		tr CP	BN BN / BN / BN				98 / 97		18.1	3.0		D91-8-3	1217	14	
20	P2OI		CT	50		CL To			01 (5/5)		CP (0.5)			01				21.1	3.0		D91-8-4	1335	17	
22	P3VB		CT	50		CL	EP 05	CB	01 (9/1)	1 HE tr				04		96 / 97	1 2 2 2	24.1	3.0		D91-8-5	878	8	
24			VN St	50 50					03		Tr CP				tr	94		27.1	3.0		D91-8-6	842	3	
26			VN	75												102	1 2 3 3							
28			SW VN	35					02 (9/1)		01 CP					97			3.0		D91-8-7	982	22	
30			St	60																				

COMMENTS	Ca	Py
- dark green to black aphan matrix - EP and bleaching along Ca st's. - local plag phenos (1-3 mm) - highly Frac'd (fine Ca st's) - HE along Fracs.	1 3 2	0 1 0
*Qz/Ca st with 02% bornite		
- pockets of alt or small frags ? near contact with dyke)		
- weakly porp. aHd dyke		
← CP with Ca st on lower margin VB - dark green/black fine grained volcs. with local augite? porphyry - sparse to concid. zones of diorite, grano-diorite and syenitic clasts; frag. margins are often not sharp - dense Ca st's with EP - lots of HE on Fracs.	2 3 2	0 1 0
Ca/EP VN with some K alt. Qz st (extremely vuggy *pyritic-rich		
- intense epidote w/ with Cat strong K alt. on selvages (strong HE) - blotches of epidote on either side (alt. of intrusive frags?)	1 3 2	0 0 0
- 3 cm Ca VN with 20 cm Ca SW on upper margin and 20 cm arg. zone on lower margin		
- Ca/EP st with HE		1 1 0

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Drill — DDH 091-8 —

LOGGED BY J. Cormier
DATE July 16/91
SCALE 1:100

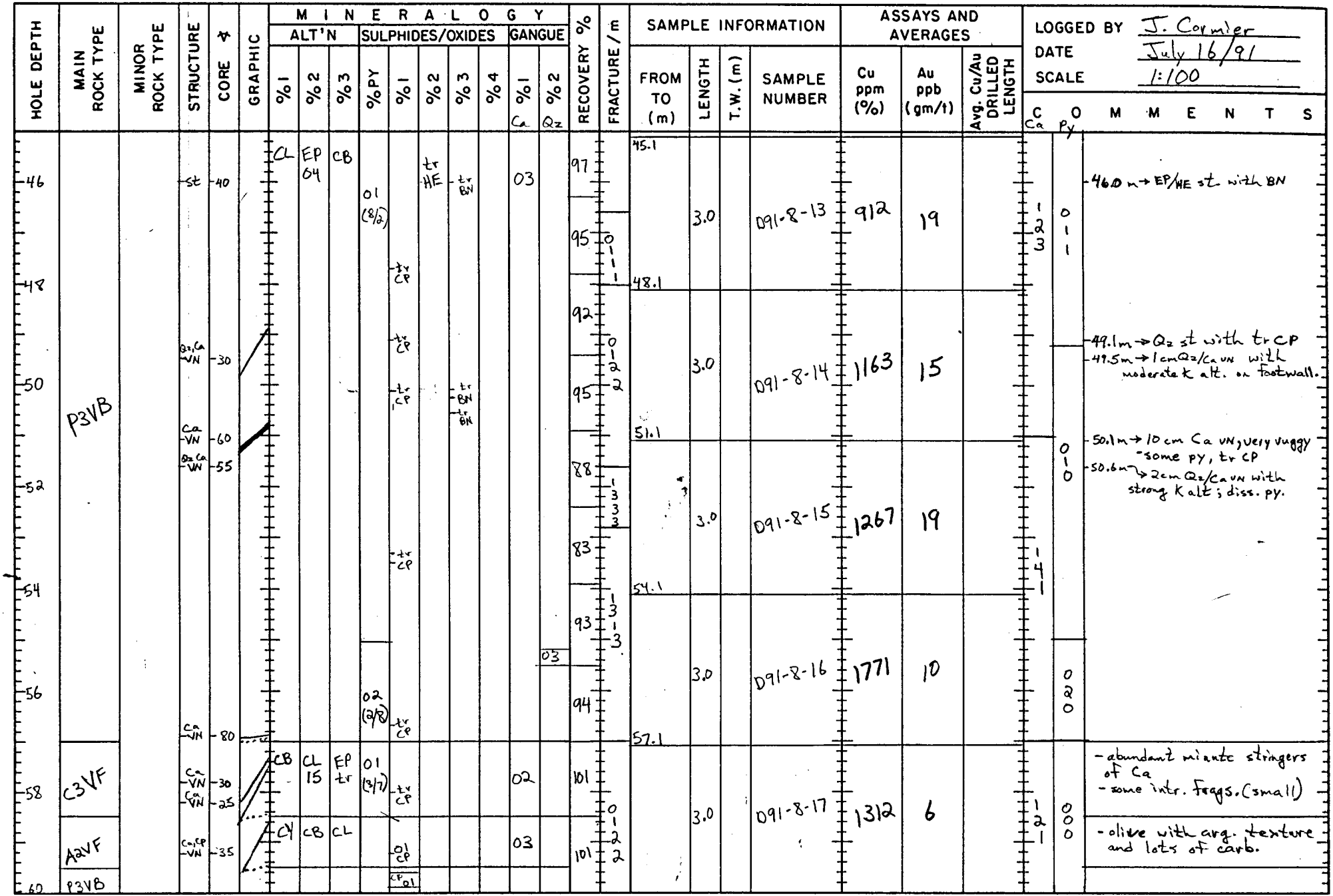
HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1 Ca	GANGUE %2 Qz	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	Ca	Py	COMMENTS
32	P3VB (cont)					CL	EP 05	CB	01 (9/1)	HE tr	cP BN tr			03		95	122	30.1									
																98			3.0		D91-8-8	864	12		1	0	
											CP tr							33.1							3	1	1	33.1m → large (15cm) intrusive frag.
34									03 (5/5)							90											
																100			3.0		D91-8-9	1097	5				
36									01 (9/1)									36.1									powdered blebs of chlorite
	A2VB		Ca VN	25		CL	CY	CB	10 (10/0)					05		92	1										olive aphanitic unit
			VN Py, Ca	55					10 (7/3)							101	122		3.0		D91-8-10	1400	7				1.5cm vuggy Ca VN with crackle breccia tex.; 03% py
38			VN	15													3										more strongly carbled than surrounding rock
										CP				02													2cm vuggy banded Ca VN
	P3VB		Ca VN	30		CL	EP 04	CB	01 (7/3)	01 CP						95		39.1									38.7m → bleb of CP
40			Qz st	45															3.0		D91-8-11	1377	17		1	0	1cm vuggy Ca VN with 1% CP
			st Ca	45							BN			05	tr	98		42.1							3	1	0.5cm Qz st with py and HE
42																											0.5cm Ca st with py and BN
														03		93	122		3.0		D91-8-12	685	4		1	0	41.9m → strong local K alt. bounded by Ca st's.
44									03 (9/1)	tr CP						98									2	0	

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Drill — DDH 091-8 — Page 4 of 13

LOGGED BY J. Cormier
DATE July 16/91
SCALE 1:100



FROM (m)	TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
45.1	48.1	3.0		D91-8-13	912	19	
48.1	51.1	3.0		D91-8-14	1163	15	
51.1	54.1	3.0		D91-8-15	1267	19	
54.1	57.1	3.0		D91-8-16	1771	10	
57.1		3.0		D91-8-17	1312	6	

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH 091-8 — Page 5 of 13

LOGGED BY J. Cormier
DATE July 20/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	SAMPLE INFO: LENGTH	SAMPLE INFO: T.W. (m)	SAMPLE INFO: SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	ASSAYS AND AVERAGES: Au ppb (gm/t)	ASSAYS AND AVERAGES: Avg. Cu/Au DRILLED LENGTH	Ca	Py	COMMENTS
62	P3VB		Ca/Py VN	45		CL	CB	EP tr KF tr	02 (3/7)		H_2O_2			02	tr	86		60.1									
																			3.0		D91-8-18	1366	12		3	0	- olive green to black
																103		63.1							2	1	- 1cm Ca VN with 30% py and 1cm K alt. selvages
64			Ca/Py VN	50					01 (3/7)	cp 01							2								2	0	- 62.4-62.9m → light powdery blue on fracs; oxide of some kind?
										cp 01						95											- 1cm Ca/Py vn with tr CP
			Ca/CP VN	50															3.0		D91-8-19	1778	7		1	0	- 1cm Ca VN with 15% CP
	A2VB		Cy	50		Cy	CB	CL	02 (3/7)	1				01		101	0	66.1							2	1	- olive green
66	P3VB					CL	CB	EP KF tr	03 (8/8)							97	2										- olive green to black - very carb. in blebs as well as Ca st.
										cp 01				01	tr		1		3.0		D91-8-20	1550	21		1	2	
68			Ca ST	55					01 (4/6)	cp 01						102		69.1							2	2	- small crackle breccia zone with Ca matrix and 1% CP - Ca st with blebs of CP
70	K2VB					KF	CL	CB	02 (5/6)	01 CP				03	03	91	0										- network of Qz/Ca VN's + st's with blebs of CP throughout.
	P3VB					CL	CB	EP KF tr	02 (8/8)		HG tr			03		101	2		3.0		D91-8-21	1449	13		1	2	- very carb.
72			Ca SW	80														72.1							2	1	- Ca st with EP and strong K alt.
	A2VB					CY	CB	CL	01 (4/6)	01 MnO_2	tr CP			02		95	0								1	3	- light olive colour - very carb. - abundant MnO_2 in st's
74																	1		3.0		D91-8-22	1320	11		0	2	
	A3VB					CY	CB	CL	0.5 (1/2)		tr CP			04	tr	97	1								2	0	- bleached, some CP
			88	30												BC	BC								BC	BC	

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH D91-8 — Page 6 of 13

LOGGED BY J. Cormier
DATE July 21/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	%2	%3	%4	GANGUE %1 Ca	GANGUE %2 Qz	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
76	A4VB			30 45 45		CY	CB	CL 05	0.5 (1/9)					05		85 102	BC 3 1 4 BC 2 3 1 4	75.1						
78	A2VB					CY	CB	CL 10	0.5 (1/9)					03	tr			78.1	3.0		D91-8-23	1233	18	
80	C3VF					CB	KF	CL	0.5 (2/8)	tr 0.5 CP tr CP tr 0.5 CP	tr HE			04		92 97	0 1 2 2 3 2 2	81.1	3.0		D91-8-24	3409	24	
82																87	1 3 2 3 3	84.1	3.0		D91-8-25	3149	22	
84							CL	KF								99								
86	P3VB		CVN	35		CL	CB	KF 03	0.5 (2/8)	tr CP tr CP 01 CP tr CP tr CP 01 CP				03	tr	91 97	1 2 1 2	87.1	3.0		D91-8-26	3010	16	
88			CVN CVN	70 90												99 97	BC 1 2 0		3.0		D91-8-27	2425	19	

COMMENTS

- very bleached, broken up; - some mov. posite.
- 75.6 - 76.8m → mod. cohesive gouge zone with breccia tex. - some Ca sv
- 1cm "VN" of dark grey clay (montmorillonite?) - not as carb. as previous arg. units.
- more carb. than A4VB
- Few volc. frags.
- minute st's + pods give CB dominant alt. status.
- irreg. K alt on Ca st selvage - tr CP
- 81.1 - 83.7m → persistent K alt. assoc. with irreg. Ca st's and sv (From tr → 0.5% CP) - CB dominant
- 83.9m → Ca st. with intense arg. alt. on lower selvage
- light green to dark grey in colour
- 1cm Ca VN with breccia and K alt on lower margin.
- narrow K alt. zone
- 2 Ca st with salmon pink selvages

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY: Oill DDH: 091-8

LOGGED BY: J. Cormier DATE: July 21/91 SCALE: 1:100

Hole depth marks: 92, 94, 96, 98, 100, 102, 104

Main Rock Type	Structure / Core ∡	Alt'n %1	Alt'n %2	Alt'n %3	% PY	Sulphides %1	Gangue %1 Ca	Gangue %2 Qz	Recovery %	Fracture/m	Comments
P3VB (con't)	Ca-St -45; Ca-St -55	CL	CB	KF 03, EP 01	0.5 (2/8); 01 (2/8)	tr CP; 01 CP; 01 CP	03	tr	94, 104, 92	1, 1, 1, 2; 0, 1, 1, 1	Ca st with K alt. selvage; Ca st. with speckled K alt. and EP st's over 9 cm; 93.3m → 6cm K alt. zone
A2VF		CY	CB	CL	tr (3/7)					2/0 2	some black/grey material on fracs. (graphite?)
C2VF	Py,Ep-VN -60	CB	CL	KF 01, EP tr	01 (8/2)	01 CP; tr CP; 01 CP	05	01	98, 97, 99, 93, 88	0, 2, 1, 2; 13 13; 0, 1, 2, 1; 1/3, 3, 1, 3	dark olive green to black; 1cm Py/Ep vn with K alt selvage
A2VF		CY	CB	CL	01 (5/5)		02	tr		BC	light olive green; remaining very carb.
A3VF	CT -30; VN Ca -60	CY	CB	CL	0.5 (1/9)		03		97	1, 2, 2, BC	2cm Ca vn (fractured); lighter tacky green colour
A4VF	VN -30	CY	CB	CL			03			2/3	7 cm bx zone with vuggy Ca and weak K alt.

Sample Information / Assays

From–To (m)	Length	Sample Number	Cu ppm	Au ppb
90.1–93.1	3.0	091-8-28	1948	13
93.1–96.1	3.0	091-8-29	3297	28
96.1–99.1	3.0	091-8-30	1968	28
99.1–102.1	3.0	091-8-31	2203	28
102.1–	3.0	091-8-32	1853	34

C (Ca / Py) column notes: 0 3 2 / 0 0 0; 0 2 1 / 1 1 0; 2/0 / 0 0; 1 3 3 / 1 1 1; 0/1 0; 0/1 2 / 0 2 1; 1 1 1 / 0 0 0; 0/1 0; BC / BC; 1 2 1 / 0 0; BC / BC; 0/2 0 / 0 0

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH D91-8 — Page 8 of 13

LOGGED BY J. Cormier
DATE July 23/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	%2	%3	%4	GANGUE %1 Ca	GANGUE %2 Qz	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
106	A4VF (cont)															105	BC	105.1							- broken up (possible gg at 105.4m.
	A3VF					CY	CL	CB	01 (4/6)					02	tr		00 1								- light powder blue oxide on some fracs. - carb. confined to fracs.
	A1VF		Ca/CP VN	25		CY	CL	CB EP	01 (2/8)	tr CP				02		103	0 1/2 1 2 2		3.0		D91-8-33	2097	45		1cm Ca vn with 10% CP
	A4VF		Ca VN gg	70		CY	CL	CB KF						02			0 1/2 1								- carb. clay gouge (montmorillonite) narrow K alt on Ca st.
108	A1VF					CY	CL	CB	0.5 (5/5)					02		101	1 2	108.1							- some augite? phenos.
	A2VF		gg			CY	CL EP	CB	01 (4/9)					03		86	BC		3.0		D91-8-34	1156	42		- high frac zone; some thoroughly gouged material; some with highly frac'd rock and textures intact.
110	P3VF		Qz/Ca VN	90		CL	CB	EP	0.5 0.5 (9/1) 01 0.5 (4/4) 0.5	tr CP				04	tr	97	1 3 1 3	111.1							1cm Qz/Ca vn with irreg. dark black material (not HB)
112	P2VB					CL	EP	CB KF (tr)		HE tr				03		99	2 2 1 2		3.0		D91-8-35	728	25		- back into sparse, large (up to 4 cm) intrusive frags. with lesser volc. frags. - local zones of augite(?) porphyry text.
114			Qz/Ca VN	35					03 (9/1)						tr	99		114.1							1cm Qz/Ca with EP selvage and assoc. K alt. - HE on fracs.
	A2VB		Ca VN	50		CY	CL	CB	01 (9/1)	HE tr				05		97	BC								3cm Ca VN, Bx'd
116	P3VB		Cp/Py VN	70		CL	EP	CB	02 (8/2)	HE				03		101	0 1 2 2	117.1	3.0		D91-8-36	1049	33		- small to large intrusive clasts (up to 5 cm) and less volc. frags. - local augite? porphyry. - HE on fracs.
			Py SW	30, 60					03 (8/2) 05 (8/2)	tr															dense sw of fine pyrite st's.
118			Cp/Py VN	25					04 (6/4)							97	1 3 2 2 3		3.0		D91-8-37	1502	35		1cm vuggy Ca vn with py selvage.
120			Ca VN	20					02 (7/3)																large vuggy Ca vn (HB) truncated by vuggy Ca st.

DDR 91-2D

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY: Dill   DDH: D91-8

LOGGED BY: J. Cormier   DATE: July 24/91   SCALE: 1:100

Hole Depth	Main Rock Type	Structure / Core ∡	Alt'n (%1 / %2 / %3)	Sulphides/Oxides (%PY / %1 / %2)	Gangue (%1 Ca / %2 Qz)	Recovery %	From–To (m)	Length	Sample Number	Cu ppm (%)	Au ppb (gm/t)	Comments (Ca / Py)
120.1–123.1 (122)	P3VB (con't)	Ca st's -35	CL / EP / CB	02 (7/3) tr CP; 01 (9/1); 02 (8/2)	03; 05	92; 105	120.1–123.1	3.0	D91-8-38	1467	35	2 parallel Ca st's with py + EP selvages.
123.1–126.1 (124)	P2VP	Qz-VN -70; Ca-VN -60; EP,Py-st -70	CL 10 / CB / EP tr, KF tr	02 (6/4) tr CP; 02 (1/9); 01 (8/2) tr HE	02 / tr	95; 97	123.1–126.1	3.0	D91-8-39	968	27	2cm vuggy Ca vn then 1cm Qz vn with K? alt b/w; 03% py. 1cm Ca vn with EP and local K alt. EP/py st with bleached selvage.
126.1–129.1 (126, 128)	P2VP / P3VB	Ca-VN -30; (Ca)-st -75, 85; Py-St -45	CL 20 / EP 04 / CB	02 (8/2); 03; 04 (9/1)	03	97; 105	126.1–129.1	3.0	D91-8-40	707	28	2cm banded Ca VN. Ca st's with EP + speckled K alt. - local augite? phenos (>10%)
129.1–132.1 (130)	P3VB	(Ca)-VN -50		02 (8/2); 01 HE	04	104; 100	129.1–132.1	3.0	D91-8-41	567	16	1cm banded Ca VN with HE - adjacent to irreg. bleached zone with large (3-5m) aug? phenos.
132.1– (132, 134)	P2VB	(Py)-St -30, 38, 70; Ca-VN -20; (Py)-St -70; VN (Ca,EP) -45	CL 10 / EP 03 / CB	03 (9/1); 02 (9/1); 03	03	100; 99	132.1–	3.1	D91-8-42	642	16	- dark green to black host. 3cm banded Ca VN. Py st. with EP selvages. 1cm Ca vn with 30% EP

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH D91-8 — Page 10 of 13

LOGGED BY J. Cormier
DATE July 25/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1 Ca	GANGUE %2 Qz	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS: Ca	Py
136	P3VP	PS13	CT	60		CL	EP	CB	01 (4/6)	tr CP				04	tr	92	2 1 3	135.2	3.0		D91-8-43	813	3		2 2	0 0 2 cont
138			Ca EP VN	80					02 (8/2)					02		99	0 1 2 2	138.2								0 2 1
			Ca, Py VN	35																						
			CT																							
140	P3VL		Ca, Py st	70		CL	EP	CB	02 (3/7)					02		92			3.0		D91-8-44	710	16		0 1 1	
			CT															141.2								
142	P3VP					CL	EP	CB	01 (7/3)					02		97	0 2 1 2		3.0		D91-8-45	1340	28		0 0 2	0 0 0
			Py SW	70										03												
144									02 (8/2)									144.2							0 1 2	
	P3VB					CL	EP	CB KF (tr)	02 (6/4)							99	1 1 2 2								0 2 2	1 1 1
146																102	3 3 1 3 0 1 0 1	147.2							1 1 0	
148			Ca, Qz VN	70					03 (7/3)							111	BC								BC	BC
			Ca/Py VN	70					02 (7/3)							98	0 3 1 2		3.0		D91-8-47	1116	29		1 1 1	0 1 1
150			EP, Ca VN	55																						

COMMENTS

- hornblende diorite with (feldspar porphyry (?)) → well-developed hornblende phenos (from 3-8 mm) with static distribution in light green (sauss'd plag.) matrix with accompanying plag phenos.
- 1 cm vuggy Ca VN with EP
- 1 cm Ca VN with py + EP selvages
- dark groundmass "packed" tex. → plag phenos (5/10%) → Ca/Py st with EP selvage
- same as 135.2 - 139.3 m → more EP along Ca VN's/st's
- 4 py st's with EP selvages
- fairly sparse intr. frags with local dense clusters
- dark green to black host rock
- 1 cm vuggy Ca/Qz with py + HE
- 1 cm Ca/Py VN
- 2 cm EP/Ca VN with Kalt. + HE

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY D.11 DDH D91-8 Page 11 of 13

LOGGED BY J. Cormier
DATE July 26/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1 Ca	GANGUE %2 Qz	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
152	P3VB (cont)		Ca st	60	CL	EP	CB KF (tr)	01 (8/1)	tr HE	tr CP					88	0-2-2	150.2						
154			Ca,Mg -st	35											93		153.2	3.0		D91-8-48	873	18	
156			Ca st	40											98		155.7	2.5		D91-8-49	827	14	
158	P3VP		Ca,GY VN	40	CL	EP 03	CB tr	01 (8/2)	tr HE				04	GY	97	2-3-3	158.2	2.5		D91-8-50	462	11	
			Ca,EP VN	70											92	0-4-1-3							
			Py,EP VN	75											93								
160	P3VN		Q,EP VN	55	CL (SS?)	EP 03	CB tr	01 (9/1) 02 (6/4)	tr CP tr CP	HE tr	Cu?		04	01	95	2-2-1	161.2	3.0		D91-8-51	1138	10	
			Qz,MG VN	35											98								
162			Qz,Ep VN	50				01 (9/1) 02 (6/4)							89		164.5	3.3		D91-8-52	753	17	
164			Ca,GY -st	45	CY										94								

COMMENTS	Ca	Py
Ca st with K alt. selvages	0-1-3	0-1-1
vuggy Ca st with MG blebs and trace CP (cont)		
Ca st with EP stringers through large K alt'd intr. Frags.	0-1-2	0-2-1
- 50% augite/hornblende phenos (very crowded) in light/dark green plag. matrix.	0-1-0	0-1-0
→ 1cm Ca/GY (gypsum) vein with HE - HE/silicification on some fracs.	1-3-0	
→ 1cm Ca/EP VN with speckled K alt'n selvages.		
→ 1cm Py/EP VN		
1cm Qz/EP VN marks CT → rock unit same as from 135.2 - 139.3 m - bleached along Ca st's.	0-1-1	0-1-0
→ Qz/MG VN with 50% MG and tr CP (and possibly native Cu?)	1-2-2	
1.5 cm uniform Qz/Ca VN with 10% Py and thin EP selvages.	0-2-0	
15 cm A2 zone		

DDR 91-2D

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Onil — DDH 091-8 —

LOGGED BY J. Corvinder
DATE July 28/91
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1 Ca	GANGUE %2	RECOVERY %	FRACTURE / E	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
166	P3MN (cont)		Ca,Qz VN	20		CL (55?)	EP 03	CB tr	02 (6/4)	01 CP				04		101	1 2 1 2 cont								1cm Ca/Qz VN with 1% CP
			VN	45																					1cm Ca VN with lenses of host rock and EP selvages. → zone of Ca VN'ing with secondary GY and up to 20% MG on selvages.
			Ca,Gy st	60							01 MG			05	01 GY										
			st	45												97									
			st py	45					01 (8/2)					02				167.9							
168			CT Ca,Py st	40		CL (55?)	EP 01	CB tr	03 (5/5)	01 CP				01		93	0 1 1 1		3.1		D91-8-54	793	43		Poss. chill margin ← apple green - Fine gr. aphanitic colour - lots of py and some CP
	P3MN		Ca,Py VN Ca,HE	30, 45																					
170			Ca,Gy VN	30						t. CP 01 CP				GY		105	BC	171.0							1cm Ca/Gy VN with 2% CP and small blebs of salmon pink K altn.
									02 (8/2)					03											
172																96	1 2 2								
			Ca,Gy VN	45		CL	EP 02	CB KF (tr)	01 (1/3)					03		91		174.0	3.0		D91-8-55	1049	26		large Volc. Frag. This unit (along with P3 01 equivalent) is the common type of intrusive → light-med. grey with 10-30% mafics and plag ± phenos.
			Ca,HE st	20																					
174			Ca,EP VN	80																					→ 1cm Ca/Gy VN with speckled K altn and EP.
															GY	102	0 1 1 2								Irreg. blotches of EP and K altn with diss. py.
	P2MN		Ca,EP VN	35					05 (3/7)					02				177.0	3.0		D91-8-56	772	14		
176															01 GY	97	BC								
			GG VN GG	55												98		180.0	3.0		D91-8-57	627	9		1cm Ca VN bounded by ±K. - poss. K altn.
178																									
			Ca,HE st Ca st	25 20					03 (3/2)	t. CP? tr						101									Ca/HE st with poss. CP as diss. around st.
180																									

DDR 91-20

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: Dill — DDH: D91-8 — Page 13 of 13

LOGGED BY: J. Cormier
DATE: July 28/91
SCALE: 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∡	ALT'N %1	ALT'N %2	ALT'N %3	%PY	SULPHIDES/OXIDES %1	GANGUE %1 Ca	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	COMMENTS Ca	COMMENTS Py	COMMENTS
	p2MN (con't)		Ca,Py VN	55	CL	EP 02	CB														Ca,Py st with bleached selvage (K alt'n?)
			Ca,Gy st	45			KF (tr)	0.5 (6/4)	tr HE	03	01 Gy	101	0 2 1 2		3.3	D91-8-58	442	9	0 2 1	0 1 0	ang. VF frags with Ep blebs
182			Ca VN	50								99									1cm Ca vn with Ep and K alt'n on lower selvage.
			MG st	45										183.3							0.5 cm MG st with K altd selvages
184								01 (8/2)				107	1 2 0 2		3.3	D91-8-59	632	8	1 2 0		HE on fracs.
								03 (9/1)				83									about 10 py st's @ 45°
186								02 (9/1)		02				186.6						0 3 0	
			Ca VN	60								95			3.0	D91-8-60	975	24			1cm Ca vn bleached 3cm on either margin (weak K alt'n)
188												93	1 3 0 2	189.6							
190																					END OF HOLE (189.59m/622')
192																					Finished logging July 28/91
194																					

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY: DILL D.D.H.: D91-9 PAGE: 1 OF: 2

AREA: West Area
CLAIM: Dill 2
SECTION: 6300W
CORE SIZE: NQ
CORE RECOVERY: 97.09% RQD: 44.81%

DIP: -50.00 AZIMUTH (t): 180.0
NORTHING: 3391.81
EASTING: -6290.24
ELEVATION: 1420.0
CORE STORED AT: DILL CORESHACK

DEPTH: 189.59
DATE STARTED: JULY 8N, 1991
DATE FINISHED: JULY 11D, 1991
CONTRACTOR: LECLERC D.D.
LOGGED BY: PETER FISCHL

COMMENTS: HOLE D91-9 WAS DRILLED TO TEST THE SOURCE OF Cu/Au GEOCHEM AND THE NORTHERN EDGE OF A NW TRENDING IP HIGH. SPARSE CPY MINERAL'N INTERSECTED. AVERAGES INCLUDE: 0.11% Cu AND 73 ppb Au/12.2 m (61.9-74.1 m), 0.087% Cu AND 56 ppb Au/54.6 m (96.9-151.5 m). AND 0.051% Cu AND 33 ppb Au/13.4 m (176.2-189.6 m).

SURVEY DATA			GEOLOGY AND ASSAY RECORD								WIDK	FA					
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t				
0.0	-50.00	180.0	0.00	46.33	46.33		OB										
045.72	-49.00	180.00	46.33	68.00	21.67		DI										
140.51	-48.00	180.00	68.00	93.30	25.30		MD										
			93.30	110.40	17.10		FP										
			110.40	116.10	5.70		MD										
			116.10	121.00	4.90		FP										
			121.00	145.65	24.65		VF										
			145.65	168.40	22.75		MD										
			168.40	179.50	11.10		FP										
			179.50	180.80	1.30		DK										
			180.80	184.85	4.05		FP										
			184.85	189.59	4.74		MD										
			62.00	65.00	3.00			D9-1			1097	86					
			65.00	68.00	3.00			D9-2			1171	88					
			68.00	71.00	3.00			D9-3			1465	80					
			71.00	74.00	3.00			D9-4			854	36					
			97.40	100.40	3.00			D9-5			681	54					
			100.40	103.10	2.70			D9-6			1282	62					
			103.10	105.50	2.40			D9-7			1051	56					
			105.50	107.90	2.40			D9-8			1196	74					
			107.90	110.40	2.50			D9-9			789	197					
			110.40	113.40	3.00			D9-10			1120	57					
			113.40	116.10	2.70			D9-11			817	45					
			116.10	118.50	2.40			D9-12			855	41					
			118.50	121.00	2.50			D9-13			655	55					
			121.00	124.00	3.00			D9-14			1160	39					
			124.00	127.00	3.00			D9-15			955	32					
			127.00	130.00	3.00			D9-16			1085	76					
			130.00	133.00	3.00			D9-17			978	71					
								CONTD									

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-9 PAGE 2 OF 2

AREA: DIP: AZIMUTH (t): DEPTH:
CLAIM: NORTHING: DATE STARTED:
SECTION: EASTING: DATE FINISHED:
CORE SIZE: ELEVATION: CONTRACTOR:
CORE RECOVERY: CORE STORED AT: LOGGED BY:
COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD													
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t			
			133.00	136.00	3.00			D9-18			780	51				
			136.00	139.20	3.20			D9-19			761	34				
			139.20	142.50	3.30			D9-20			819	49				
			142.50	145.65	3.15			D9-21			615	31				
			145.65	148.40	2.75			D9-22			556	38				
			148.40	151.40	3.00			D9-23			500	28				
			176.30	179.30	3.00			D9-24			484	38				
			179.30	182.00	2.70			D9-25			420	24				
			182.00	185.00	3.00			D9-26			499	30				
			185.00	187.00	2.00			D9-27			638	46				
			187.00	189.59	2.59			D9-28			561	30				

DDR - 85 - IU

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 91-9 Page 1 of 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
0																									
1																									
3																									
5	cs																								
7																									
9																									
11																									
13																									

LOGGED BY PETER FISCHL
DATE JULY 14, 1991 (START)
SCALE 1:100

DDR 91-20

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-9 Page 2 of 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	LOGGED BY PF / DATE / SCALE / COMMENTS
11																									
18																									
20	C1																								
22																									
24																									
26																									
29																									

DDR 91-2D

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 91-9 Page 3 of 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	LOGGED BY / DATE / SCALE / COMMENTS
31																									
33																									
35	CS																								
37																									
39																									
41																									
43																									

DDR 91-2

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-9 Page 4 of 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
46	CS 46.33 (152')																							
48		KIDI				KF	CL	EP	TR (<1%)							84	1							
50			66	15					1% (1%)					0		85	1							
52	DI															95	3							
54		RIDF	66	70'		CL	CL	EP	3% (3%)							78	1							
			66	75'												100	4							
56			66	90'												105	2							
																	4							
58									TR (1%)							101	3							
																	3							
																101	1							
																	3							
																101	BC							
																101								

LOGGED BY PF
DATE
SCALE

COMMENTS

RUSTY FRACS TO 74 METRES

WEAK PERVASIVE KSPAR

DDR 91-20

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY: DILL DDH: D91-9

LOGGED BY: PF DATE: SCALE:

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	% PY	SULPHIDES %1	GANGUE %1 CA	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	VEINING CA	VEINING PY	COMMENTS
61		C2DI	VN PY-CA	45° 8°	CB	SE	CL	3% (7/3)	TR CP (2 SPECKS)	3%	99	1 2 2 3						3 3	2 4 2	
63	DI	P2DI	ST PY-CA-CP		CL	KF		2% (0/0); 3% (5/5)	TR CP (3/7)	1%	86; 88	BC; 1 2 3	62.0 – 65.0	3.0	D91-9-1	1097	86	2 2 2	0 0 0; 2 2 1	CP DISSEMINATED & IN STEEP CA STRINGERS
65			GG; ST PY	85°; 20°							105; 97	3	65.0 – 68.0	3.0	D91-9-2	1171	88			
67		C3DI			CB			4% (1/9)		5%								1 4 2	1 1 0	BROWNISH CARBONATE ALTERATION
69	MD	KIMD (SW CA)	ST CA-PY; ST CA-PY KF FLOODING	0° CP(TR); 42°	KF	CB			TR CP (1%) 68.8 – 70.6	3%	100; 91	1 2 1 2	68.0 – 71.0	3.0	D91-9-3	1465	80	1 2 1		CP IN SINGLE CA-PY STRINGER DIPPING 0° TCA; FINE GRAINED MONZO-DIORITE W/ KSPAR FLOODING ALONG CA ± PY STRINGERS
71		AIMD	ST PY; GG	0°; 40°	CY					2%	100; 101	BC	71.0 – 74.0	3.0	D91-9-4	854	36	2 1 1		
73		KIMD	GG; ST	45°; 75°	KF						99	1 3 2 3	74.0							MD W/ KSPAR FLOODING ALONG CA-PY STRINGER & VEINS; CA-PY STRINGER W/ TR CP

DDR 91-20

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-9 Page 6 of 13

LOGGED BY PF
DATE
SCALE

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ϕ	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	VEINING: C	VEINING: PY	COMMENTS
76			ST PY-CA (KF FLOODING)	18°					4% (3/7)					3%		99	1								2	2	CA-PY VEIN UP TO 1cm WIDE W/ KSPAR FLOODING ALONG MARGINS
			VN PY-CA	12°												103	2								2	2	
78		KIMD	ST PY-CA -CPC (TR)	60°		KF	EP										1								1		
			VN PY-CA -CP (TR)	50°												93	2								2		
80																											
														2%		92	BC								1		
82	MD															95	1								1		
																	2										
		XIMD	SH CA			QZZ										100	3										HARD BROWNISH SILICIFICATION (?)
84																	DIKE										
										TR CP (SPECK)				3%		89	2								2		
																	3								3		
86		PIMD	VN PY-KF	70°		EP	AB	CL						2%		92	1								1		PY-KSPAR VEIN UP TO 2cm'S WEAK EPIDOTE STRINGERS BLOTCHY ALBITE, ALBITE FLOODING ALONG CA-EP-PY STRINGERS
																	2								2		
																	3								1		
88																101	0										
																	1										
																	2										
																	3										
			ST CA-PY	10°												98	3										

DDR 91-2b

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-9

LOGGED BY PF
DATE
SCALE

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	%PY	SULPHIDES %1	GANGUE %1 (-A)	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	VEINING CA	VEINING PY	COMMENTS
91		PIMD	-ST PY-CA	25°				3% (4/6)		3%	96	1 1 1 2						2 2 2	1 2 2	
		A2MD	-VN	30	CY			3% (7/3)											3 2 3	PY-CA-QZ VEIN UP TO 1cm THICK (VUGGY)
93			-VN CA-PY GR	35°							99	2 2 3								
								3% (3/5)		2%	82	4 0 2						1 2 1	2 3 1	
95		PIFP			CL	AB	EP	2% (8/2)			103	2 2 3 4 BC								
97	FP (INTRUSIVE?)		-ST PY-CA	12°				4% (7/3)	-TR CP 97.9 (1 SPECK)	3%	95	2 2 4	97.4							
			-ST PY	55°				2% (5/3)		0								0	1 1 0	
99		P2FP	-ST CA-PY; SW CA	2°	AB	CL		4% (7/3)		3%	90 84	4 2 3		3.0	D91-9-5	681	54	2 4 3	2 4 2	
101		A2FP	-ST PY(4)	30°	CY				1% CP (0/10) 1.74		89	1 3 3 3 4	100.4	3.0	D91-9-6	1282	62	2 2		
			-VN PY-CA	40°																
			-GG	7°						2%										
103		A1FP	-VN QZ-PY-CA	40°	CY			3% (4/6) 3% (6/4)			101	113 3	103.1	2.4	D91-9-7	1051	56	2	2 2 4 3 3 3 1	

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CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: Dill

DDH: D91-9

LOGGED BY: PF
DATE:
SCALE:

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	%PY	SULPHIDES/OXIDES	GANGUE	RECOVERY %	FRACTURE /m	FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	COMMENTS
106		P1FP	VN 50°; VN CA-PY-CP 5°		CL	KF	EP	3% (2/1)	TR CP (...)		100, 97	1, 1, 2, 1, 1	105.5–107.9	2.4	D91-9-8	1196	74	MILKY WHITE BANDED QZ-CA VEIN UP TO 2 CM'S THICK; KSPAR FLOODING ALONG PY-CA STRINGERS & VEINS
108			VN PY-CA 30°; QZ; VN PY-CA 5°					4% (4/6)		2%	99, 91	3, 3	107.9–110.4	2.5	D91-9-9	789	197	
110–112	MD	P2MD	ST PY 35°		AB	EP	KF	4% (2/8)	0.5% CP (5/5) 111.8		95, 99	1, 3, 2	110.4–113.4	3.0	D91-9-10	1120	57	3% CP IN CA-PY STRINGERS AND DISSEMINATED
114			ST PY-EP 60°; VN PY-CA-KF 20°; GG 45°					4% (5/5)	TR CP (113.9) AFCW SPECKS	3%	95, 103	3, 1, 4, 1	113.4–116.1	2.7	D91-9-11	817	45	
116–118		P2FP (SW GY)	ST PY-MA-EP 28°; ST (12) PY-EP 40-60°; ST (18) PY-EP 45-55°		AB	EP	KF			1%; 2% GY (012); 4% GY (112); 8% GY (114); 4% GY (224)	101, 89	0, 1, 1	116.1–118.5	2.4	D91-9-12	855	41	AB FLOODING ALONG VARIOUS STRINGERS
			VN PY-QZ-KF-CA 45°									2	118.5–	2.5	D91-9-13	655	55	
		A2+P			GY	KF		2% (1/4)		6%								

VEINING CA (column values): 1, 1, 1, 1 / 2, 1, 1 / 1, 1, 1 / 2, 4, 1 / 0, 0

Additional margin notes: 116.1 / 83.9; 2, 2, 2, 2; 3, 3; 1, 1, 1

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CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH D91-9 — Page 9 of 13

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SCALE

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	VEINING CA	VEINING AO	COMMENTS
121		P2FP	VN PY-GY-KF; ST PY-QZ	5 KF 25 QZ		AB	EP	KF	3% 15/5					1% CA	4% GY (224)	103	0	121.0	2.5						1	2 1	PYRITE-GYPSUM-KSPAR VEIN
		P2VF				EP	AB	KF	7% (2/8)							102	1 2								0	1 2 1	VF; NUMEROUS MOSTLY FRESH FSPAR PHENOS UP TO 2 mm's IN A HARD BLACK APHANITIC MATRIX WEAKLY MAGNETIC
123		P3VF SW GY	ST GY; VN GY	10° 45°		EP	AB								2% GY (212)	99	1 1	124.0	3.0		D91-9-14	1160	39				STOCKWORK OF GYPSUM STRINGERS (WHITE TO GREY) CUTTING PY ± EP STRINGERS
		P2VF	ST PY-EP-MA	65°		EP	AB	KF								100	2										
125			ST PY-EP	45												103		127.0	3.0		D91-9-15	955	32				
127	VF		VN PY-AB	20° EP											TR GY (110)	98	3 4									
			VN PY-KF (?)	60°														130.0	3.0		D91-9-16	1085	76				
129																98	2									
131			VN PY-KF	45° QZ												100	4 1									3cm THICK BANDED PY-KF-QZ VEIN
			ST PY-EP	45° CA												92	2 2	133.0	3.0		D91-9-17	978	71				
133									7% (4/6)						TR GY	97	3 1 2								3 1		
			VN PY-KF	36° CA														136.0	3.0		D91-9-18	780	51				

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CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-9 Page 10 of 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	LOGGED BY PF / DATE / SCALE: VEINING CM	CO	PY	COMMENTS
136		K1VF(?)	ST CA-FY	25	/	XF ?	AB	CY	7%					3% CA	2% QZ	102	3 2	136.0								1 3	2	2 1	
									8/8							97	3 2 4									3			
138		P2VF	VN PY-QZ	21°	/	AB	EP							1%		100	3 3	139.2	3.2		D91-9-19	761	34			2 2 1			
			VN PY-QZ	38	/																								
140	VF	P2VF				EP	AB	CL	4% (4/6)					2%		103	1 2 1									1 1 0			HBL-FSPAR PORPH VF
		A1YF				CY			4% (6/4)						2% QZ	90		142.5	3.3		D91-9-20	819	49				1 3 3		
142																													
144		P2VF SVN GY	ST PY-QZ	35	/	EP	AB	KF	7% (3/7)					1%	4% GY (141) 2% GY (321)	103 103	2	145.65	3.15		D91-9-21	615	31				1 3 2		
			CG	90																									
146			ST PY-QZ	50°	/				3% (7/3)					TR	TR GY (210)	89	3 1 3										1 4 4		FREQUENT ALBITE FLOODING ALONG VARIOUS STRINGERS - PY-QZ-CY(TR) STRINGER - GY-PY-CP(TR) " - QZ-PY-CP(TR) STRINGER W/ KSPAR FLOODING
148	MD	P2MP	ST PY-QZ	45°	/	AB	KP			TRCP (10%)						108	1 1 2	148.4	3.0		D91-9-23	500	28						
			ST PY	17°	/				4% (5/5)							96	2												

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CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-9 Page 11 of 13

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DATE
SCALE

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ϕ	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
151			ST(3) QZ-PY	45 CA					4% 5/5						2% GY (121)	97	1 1 2	151.4	3.0		D91-9-23				
			ST GY-PY	17												99	2								
153		P3MD	ST(3) GY	65		AB	EP	KF	4% (2/8)							99	0 1 0 1								PERVASIVE ALBITE FLOODING KF FLOODING ALONG PY+ QZ STRINGERS
			ST (2) PY	8°										1%											
155			ST PY-EP	36°					4% (4/6)							91	1 3 1 3								
		P2MD				AB	EP																		AB FLOODING ALONG STRINGERS
157		P3MD	ST QZ-PY	35°		AB	EP	CL							TR GY (011)	91	0 1 2								PERVASIVE AB FLOODING
			VN PY-CA	30°																					
		DK	CT	30°					0																DARK GREEN FSPAR PORPH. ANDESITIC DYKE
			CT	35°					2% (5/5)							110	3								
159		P4MD	VN CA-HA-PY-CL	20°		AB	EP							2%											PERV. AB & EP
			ST (2) PY-QZ	25°																					
		P2MD		CA		AB	EP		3% (3/7)						2% GY (110)	96	1 1								AB FLOODING ALONG STRINGS
161																95	1								
		KIMD	VN QZ-CA	45		KF	AB	CL						TR											KF & AB FLOODING ALONG STRINGERS
		SW GY-PY							3% (6/4)						4% GY (131)	90	2								
163		P2MD				AB	KP	KF																	PY COMONLY AS SELVAGES ALONG WHITE TO CLEAR GY STRINGERS ALBITE FLOODING ALONG STRINGERS
			ST PY-QZ	30°					3% (5/5)						2.6% (121)	11	D133								

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CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH D91-9 — Page 12 of 13

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HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE °	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
166	MD	PLMD	ST PY	22	/				3% (5)					TR	4% GY (2.2)	96	1 2 1 2 3								FP: ANDESITE/HBL? - FSPAR PORPHYRY - INTRUSIVE? FINE GRAINED TO ADIANITIC MATRIX.
168															2% (1.1)	95	1 1 1								
170		PLFP	VN PY-QZ	16	/	FP	AB									93	1133 0 1								
172			ST PY-GY	35					3% (3/7)						1% GY (1.1)	99	1 2								GY STRINGERS CUT PY±CA STRINGERS
174	FP		ST GY-PY	75											2% GY (1.2)	97	122 3 011 2								
			ST CA-PY	40	HF											80	1 2 2 3	176.3							
176									3% (5)						1% GY (1.1)	97	0 1 2 3								
178		P3FP	ST PY-QZ	70	FA									3%		102	1 2	179.3	3.0		P91-9-24	484	38		PERV. AB, FLOODING ? 1.5cm THICK QA-CL-PY-CA(TR) VEIN
			VN CA-QZ	25	/	AB ?										102									
		DK	VN CA	60	/																				

COMMENTS
FP: ANDESITE/HBL? - FSPAR PORPHYRY - INTRUSIVE? FINE GRAINED TO ADIANITIC MATRIX.
GY STRINGERS CUT PY±CA STRINGERS
PY-QZ-CA STRINGER W/ KISAR FLOODING
PERV. AB, FLOODING ?
1.5cm THICK QA-CL-PY-CA(TR) VEIN

DDR 91-2

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY: DILL DDH: 091-9

LOGGED BY: PF
DATE:
SCALE:

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∠	ALT'N %1	ALT'N %2	ALT'N %3	%PY	SULPHIDES %1	GANGUE %1 (CA)	GANGUE %2	RECOVERY %	FRACTURE / m
	FP	OK	UN CA	25°	CL			1% (1/10)	TR CP (4 SPECKS) 180.4				1 2 2
181		P1FP	CT; ST; CA-PY-CP; ST CA-CP	25°; 75°; 55°	EP	KF	AB	4% (6/4); 3% (5/4)	TR CP (1%) 181.6	2%	1% GY (011)	103; 97	3; 0 2 1
183		P3FP	ST PY; PY-MA; ST; CT	42°; 30°; 70°	EP	AB	KF	4% (6/4)				101	2; 0 1 3
185		184.85 – 185.1 OK	CT	55°				1% (3/10)					
	MD	P3MD			AB			3% (5/5)		1%		92	3; 1 3 2; 4
187		K1MD	VN; ST; CA-PY-CP	25°; 24°	KF	AB					1% GY (011)	105	1; 3; 2
		P3MD	ST; ST (44) GY	8°; 40-60°	AB	KF		2% (3/7)		0	5% GY (041)	97	3
189	189.59	P2MD			AB					2%			

FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
– 182.0	2.7		091-9-25	420	24	
182.0 – 185.0	3.0		091-9-26	499	30	
185.0 – 187.0	2.0		091-9-27	638	46	
187.0 – 189.59	2.59		091-9-28	561	30	

COMMENTS (CA / PY):

- GREENISH AUGITE PORPH. ANDESITIC DYKE
- [illegible] FLOODING
- KF & AB FLOODING ALONG STRINGERS
- DARK GREY MAFIC DYKE
- PERVASIVE AB FLOODING
- KF FLOODING ALONG STRINGERS & VEINS
- CA-PY-CP (TR) STRINGER
- PERVASIVE ALBITE FLOODING
- AB FLOODING ALONG STRINGERS

END OF HOLE AT 189.59 m

DATE FINISHED LOGGING: JULY 18, 1991

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CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY: DILL | D.D.H.: D91-10 | PAGE: 1 OF: 3

AREA: West Area | DIP: -52.50 | AZIMUTH (t): 181.0 | DEPTH: 147.83

CLAIM: Dill 2 | NORTHING: 3145.80 | DATE STARTED: JULY 12, 1991

SECTION: 6100W | EASTING: -6114.57 | DATE FINISHED: JULY 20D, 1991

CORE SIZE: NQ | ELEVATION: 1410.8 | CONTRACTOR: LECLERC D.D.

CORE RECOVERY: 85.30% RQD: 20.39% CORE STORED AT: DILL CORESHACK | LOGGED BY: PETER FISCHL

COMMENTS: HOLE D91-10 TWINNED HOLE 69-7 (0.19% Cu/132.6 m) DRILLED FROM APPROX. 67-4 SET-UP (0.23% Cu/118.9 m). WEAK CPY TO 60 m. TRACE CPY IN REMAINDER OF HOLE. HOLE AVERAGES 0.19% Cu AND 71 ppb Au/138.1 m (9.1-147.2 m), INCLUDING 0.22% Cu AND 76 ppb Au/187 (9.1-66.1 m).

SURVEY DATA			GEOLOGY AND ASSAY RECORD													
											WIDR		FA			
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t			
0.0	-52.50	181.0	0.00	09.14	9.14		OB									
053.34	-49.00	181.00	09.14	26.60	17.46		MD									
			26.60	28.10	1.50		GG									
			28.10	38.70	10.60		FP									
			38.70	41.60	2.90		GG									
			41.60	63.14	21.54		DI									
			63.14	69.20	6.06		GG									
			69.20	70.80	1.60		DI									
			70.80	71.30	0.50		GG									
			71.30	71.93	0.63		DI									
			71.93	73.15	1.22		MI									
			73.15	73.76	0.61		DI									
			73.76	77.72	3.96		MI									
			77.72	93.90	16.18		DI									
			93.90	97.70	3.80		MD									
			97.70	129.40	31.70		FP									
			129.40	136.90	7.50		MD									
			136.90	139.00	2.10		GG									
			139.00	143.70	4.70		MD									
			143.70	145.50	1.80		GG									
			145.50	147.40	1.90		MD									
			147.40	147.83	0.43		MI									
			9.14	11.20	2.06			D10-1			2549	68	.002			
			11.20	13.40	2.20			D10-2			2001	61	.002			
			13.40	15.60	2.20			D10-3			2149	69	.002			
			15.60	18.20	2.60			D10-4			1025	69	.002			
			18.20	20.90	2.70			D10-5			2632	77	.002			
			20.90	23.60	2.70			D10-6			2153	64	.002			
			23.60	26.60	3.00			D10-7			2601	114	.004			
								CONTD								

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-10 PAGE 2 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:
CLAIM: NORTHING: DATE STARTED:
SECTION: EASTING: DATE FINISHED:
CORE SIZE: ELEVATION: CONTRACTOR:
CORE RECOVERY: CORE STORED AT: LOGGED BY:
COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD														
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t				
			26.60	29.90	3.30			D10-8			98	24	.001				
			29.90	32.65	2.75			D10-9			827	34	.001				
			32.65	35.60	2.95			D10-10			2013	65	.002				
			35.60	38.70	3.10			D10-11			4204	100	.004				
			38.70	41.60	2.90			D10-12			2133	71	.003				
			41.60	44.60	3.00			D10-13			2128	116	.004				
			44.60	47.00	2.40			D10-14			4378	162	.005				
			47.00	50.00	3.00			D10-15			2439	85	.003				
			50.00	53.00	3.00			D10-16			1810	76	.003				
			53.00	56.00	3.00			D10-17			1642	69	.002				
			56.00	58.90	2.90			D10-18			2051	34	.001				
			58.90	61.00	2.10			D10-19			3396	70	.003				
			61.00	63.14	2.14			D10-20			2210	74	.002				
			63.14	66.00	2.86			D10-21			3160	98	.003				
			66.00	69.20	3.20			D10-22			665	26	.001				
			69.20	71.93	2.73			D10-23			679	16	.001				
			73.15	73.76	0.61			D10-24			884	11	.001				
			73.76	74.68	0.92			D10-51			922	62					
			74.68	76.20	1.52			D10-52			1077	92					
			76.20	76.50	0.30			D10-53			1036	37					
			77.72	80.80	3.08			D10-25			997	26	.001				
			80.80	83.80	3.00			D10-26			841	33	.001				
			83.80	86.80	3.00			D10-27			706	32	.001				
			86.80	89.00	2.20			D10-28			810	41	.001				
			89.00	91.60	2.60			D10-29			549	72	.002				
			91.60	93.90	2.30			D10-30			1049	50	.001				
			93.90	96.60	2.70			D10-31			1088	63	.001				
			96.60	99.90	3.30			D10-32			2142	88	.022				
			99.90	102.30	2.40			D10-33			1889	76	.002				
			102.30	104.90	2.60			D10-34			1976	81	.002				
			104.90	107.50	2.60			D10-35			1978	56	.002				
								CONTD									

DDR - 85 - 10

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-10 PAGE 3 OF 3

AREA: DIP: AZIMUTH (t): DEPTH:

CLAIM: NORTHING: DATE STARTED:

SECTION: EASTING: DATE FINISHED:

CORE SIZE: ELEVATION: CONTRACTOR:

CORE RECOVERY: CORE STORED AT: LOGGED BY:

COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD														
											AA		FA				
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t				
			107.50	110.00	2.50			D10-36			1905	61	.002				
			110.00	112.90	2.90			D10-37			3025	90	.003				
			112.90	115.90	3.00			D10-38			2692	220	.005				
			115.90	118.90	3.00			D10-39			2261	13	.002				
			118.90	121.00	2.10			D10-40			1366	44	.002				
			121.00	123.00	2.00			D10-41			1511	57	.003				
			123.00	126.00	3.00			D10-42			2020	68	.002				
			126.00	129.40	3.40			D10-43			1994	101	.003				
			129.40	132.00	2.60			D10-44			2256	98	.003				
			132.00	134.50	2.50			D10-45			2679	115	.003				
			134.50	137.00	2.50			D10-46			3707	116	.002				
			137.00	140.00	3.00			D10-47			1748	94	.002				
			140.00	143.00	3.00			D10-48			2362	69	.002				
			143.00	146.00	3.00			D10-49			1720	77	.001				
			146.00	147.40	1.40			D10-50			3707	81	.002				

DDR 91-2

DAILY STRATIGRAPHIC LOGGING: JULY 19, 1991

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Orion DDH ~~90~~ 091-10 Page 1 of 10

LOGGED BY PETER FISCHL
DATE JULY 19, 1991 (START)
SCALE 1:100

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE %	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu (ppm) (%)	Au (ppb) (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
1																									CPY
3																									
5	CS																								
7																									
9	9.14																								
11	MD	A3MD	-ST PY-CP -ST(ST) PY-CP -66	0° 40° ?	///	CY			2% (9/1)	TR CP (1%)				TR	2% QZ (121)	60	1 3 2 4	BC	11.2	2.06		091-10-1	2549	68	0 1 1	3 4 1 RUSTY FRACT TO 18 m CP ALONG MOD. TO STEEP DIPPING QZ & PY STRINGERS
13	DI	P2OI	-ST QZ	76°		CA CY			1% (9/1)							108			12.4	2.2		091-10-2	2001	61		3 3 1
	MD	A1MD	-ST PY-CP -ST(QZ) -CP	0° 37 (72)	//	CY				TR CP (8/2)						92 66				2.2		091-10-3	2149	69		CP AS FOR ABOVE

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CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-10 Page 2 of 10

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
16			GG -20°						1% (9/1)							51	BC	15.6						
		BX							2% (9/10)					TR	40% QZ				2.6		091-10-4	1025	69	
18			GG -?						TR CP					6				18.2						
		AIMD				CY			2% (8/2)	TR CP (5/5)	11.6				4% QZ (122)	97	4 1 2 2 3		2.7		091-16-5	2632	77	
20			ST 37° QZ-CA						TR	1							BC	20.7						
	MD	AIMD	ST ~60° QZ-CP (TR)			CY			2% (9/1)	TRCP (7/3)						98			2.7		091-10-6	2153	64	
22			VN 50° QZ														1 3							
		AIMD	ST (L) 22° QZ			CY			TR (7/3)							93	2	23.6						
24			ST 45° QZ-CP							TRCP (0/10)	25.7					89	3		3.0		091-10-7	2601	114	
		AIMD	VN 75° QZ			CY			1% (7/3)							98		26.6						
26		26.47 EP												1%		70	BC (POWDERY)							
		GG 28.1							TR							97	3 1		3.0		091-10-8	98	24	
28	FP	A2FP				CY									27 QZ (1011)		3	29.6						

LOGGED BY PF
DATE
SCALE

COMMENTS

- 3 7 1 / 0 0 0 } QUARTZ HEALED BRECCIA
- 0 1 1
- 3 3 2 } CP DISSEM AND IN SHALLOW PY & QZ STRINGERS
- 0
- 3 1 } CP IN MUD TO SHALLOW DIPPING QZ CPY STRINGERS
- 1 1 0
- 2 2 1
- GREENISH HEMATITIC FAULT GOUGE W/ STEEP DIPPING (TCA) SLICKENSIDED SURFACES
- MINOR HEMATITIC FRACS "GOUGE EGG"

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY: Dill — DDH: D91-10 — Page 3 of 10

LOGGED BY: PF
DATE:
SCALE:

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	GRAPHIC	ALT'N %1	%2	%3	%PY	SULPHIDES/OXIDES %1	%2	%3	%4	GANGUE %1 CA	%2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS (CA / PY)
31	FP	A2FP (32.63)	ST PY	50°		CY			2% (9/1); 0					1%	2% QZ (011); 8.1	87; 99	BC 1 3 2 3 BC	32.65	3.05		091-10-9	827	34		CA 0 1 1 / PY 1 2 2; 0 "CHICKEN EGG"
33, 35		A3FP	VN QZ-PY	15°		CY				TR CP (1 SPECK) 33.7; TR CP (1 SPECK)				0	2% QZ (111)	99; 100	2 2 1 3 1 1 1	35.6	2.95		091-10-10	2013	65		PRIMARY ROCK TEXTURE DESTROYED; CA 0 / PY 2 3 2
37		A1FP	ST QZ-PY; VN QZ-PY; ST QZ-G; PY-CP; ST CP-CA	45°; 75°; 37°?; 60°		CY			2% (9/1)	TR CP (5/5) 36.3; 1% CP (7/3); 0.5% CP (7/3); TR CP (5/5) 38.4				1%		93; 99	2 1 3 1 3	38.7	3.1		091-10-11	4204	100		CP IN QZ ± CA STRINGERS PY STRINGERS & DISSEMINATED; 2 1 0
39, 41		G6 (NO KIDDING)	ST QZ PY-CP	30°; 60°					TR	SPECK CP				0	4% QZ (121)	104; 112	BC (POWDER)	41.6	2.9		091-10-12	2133	71		0 0 "DINOSAUR EGG"
43	OI	P2PI	VN QZ-PY; VN QZ-CY-MA; CL	25°; 60°; ?		CL			2% (8/1); 2% (5/5)	TR CP (10/1); TR CP (7/3); TR CP (1/9)			4% MA (1%)		2% QZ (111)	83; 92	1 2 3 4 2 3 2 3	44.6	3.0		091-10-13	2128	116		1 2 1; MINOR MODERATE DIP MM MAGNETITE STRINGERS; 1CM THICK YELLOWISH QZ-CY VEIN W/ MAGNETITE ALONG MARGINS

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY: Dill DDH: D91-10

LOGGED BY: PF DATE: SCALE:

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	SULPHIDES/OXIDES %PY	%1	%2	GANGUE %1 CA	%2	RECOVERY %	FRACTURE / m
46	PI	A2OI	ST CP-PY-QZ	30°	CY		2% (9/1)	0.5% CP (9/1)	45.7	1%		108	BC 2 3
		P1OI	ST CP-CA	40°	CL						1% QZ (011)	104	1 3
48		A2OI	ST CP	30°	CY			TR CP (0/1)				100	2 4 3
		K1OI			KF		2% (4/6)	0.5% CP (9/1)		2%	3% QZ (110)	82	4
50		P1OI	GG	?	CL								1202
			ST CA-CP-PY	55°			2% (8/2)	TR CP (6/1)	51.3		TR QZ	108	BC
52			ST (3) CA-CP	26°			3% (3/7)	0.5% CP (9/1) TR CP (5/5)			(010) (110) 3%	89	2 2 3
			VN QZ	40°			2% (8/2)						4 BC
54		A2OI	GG	40°	CY					1%	1%	89	2 4 1 4
56		A3OI			CY		TR (0/10)	TR CP (1 speck)		TR		84	BC
		A4OI			CY		2% (5/5)					116 82	
58		P1OI			CL	EP				1%			0 3 0 3
		A2OI	ST CA-CP	30°	CY		TR (0/1)	0.5% CP (9/1)				75	
		P1OI			CL								

FROM	TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm	Au ppb
	47.0	3.0	D91-10-14	4378	162
47.0	50.0	3.0	D91-10-15	2439	85
50.0	53.0	3.0	D91-10-16	1810	76
53.0	56.0	3.0	D91-10-17	1642	69
56.0	58.9	2.9	D91-10-18	2051	34

COMMENTS (CA, PY):

- CP-QZ STRINGER (20°TCA)
- 5mm THICK DISCONTINUOUS STRINGER OF MASSIVE CP
- CP IN AS CP ± PY STRINGERS & IN QZ ± PY STRINGERS (STEEP TO MOD. DIPPING)
- CP IN CALCITE & CHLORITE STRINGERS, COMMONLY MODERATELY DIPPING
- CP IN MOD. TO STEEP CALCITE ± QUARTZ STRINGERS
- (CAMSELL?)

DDR 91-2

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-10 Page 5 of 10

LOGGED BY PF
DATE
SCALE

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	%2	%3	%4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
61		A2DI							2% (TR)							105		61.9	2.1		D91-10-19	33%	70		CA PY
62		A3DI			CY					TR CP (1 SPECK)						101			2.14		D91-10-20	2210	74		?
63		63.41							TR (1%)							88	BC	63.14							
64																	(BILLIN CRUMBS)								
65		G6 (GIANT GOUGE)								TR CP (1 SPECK) 64.6						97			2.86		D91-10-21	3160	98		
66																		66.0							
67	DI								1% (1%)							96			3.2		D91-10-22	665	26		Z
68		68.3 P2DI	ST QZ	65°	CL	EP								2%		132		69.2							Z
69		G6																							
70		P1DI			CL	EP	KF									138			2.73		D91-10-23	679	16		
				66 55°																					
71		G6														125		71.93							
		P1DI 71.93			CL	EP																			
		MI														0		73.15			—	—	—		
73		73.15 P1DI 73.76			CL				1% (1%)	TR P (4mm BLEB)				2%		108	BC	73.76			D91-10-24	884	11		Z
		MI														0		74.68	0.92		D91-10-51 (D91-10 242-245)	922	62		NOTE: SAMPLES D91-10-51 TO 53 ARE SLUDGE SAMPLES

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CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: DILL   DDH: D91-10

LOGGED BY: PF
DATE:
SCALE:

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	%PY	SULPHIDES/OXIDES %1	GANGUE %1 CA	RECOVERY %	FRACTURE / m
76 – 77.72	MT									0	
77.72 – 78.8	DI	GG					2% (0/10)			93	BC
78.8 – 80.9		P1DI; SW CA	PY-CP; ST; GG	50°; 50°	CL	EP	TR (10/0)	TR CP (1/0%) –79.8	2%	98	0, 3, 0, 3, 424, 1
80.9 – 82.7		P2DI	GG	?	CL	EP	1% (10/0)			92; 98	2, 2, 3, 3, 3, 2
82.7 – 87.4		P1DI	ST; PY-CA; GG; GG	60°; CP; ?; ?	CL		2% (9/1)	TR CP (FEW SPECKS IN PY & CA STRINGERS)	2%	100; 84; 82	4, BC, 2, 3, 1, 4
87.4 – 89.2		P2DI			CL	EP		TR CP (0/10) – SPECK OF BORNITE IN CA		107	BC
89.2 – 89.7		P2DI	ST CA; ST; CA-CP; ST	25°; 40°; 64°	AB	EP		TR CP (1/1) (CP IN CA STRINGERS)		137; 76	1424

FROM	TO	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)
76.2		1.52	D91-10-52 (D91-10 245-250)	1077	92
76.50			D91-10-53	1036	37
77.72	80.8	3.08	D91-10-25	997	26
80.8	83.8	3.0	D91-10-26	841	33
83.8	86.8	3.0	D91-10-27	706	32
86.8	89.0	2.2	D91-10-28	810	41

CA	PY	COMMENTS
		NOTE: SAMPLES D91-10-51 TO 10-53 ARE SLUDGE SAMPLES
0	0, 0, 0	
2, 2, 2	0, 1, 0	CP IN PY ± CA STRINGERS
	1, 1, 1	
1, 2, 1	1, 2, 1	WEAK CHLORITE FLOODING, ALONG STRINGERS
		OCCASIONAL EPIDOTE STRINGER
		PERVASIVE AB FLOODING

DDR 91-2

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH DDH 91-10 — Page 7 of 10

LOGGED BY PF
DATE
SCALE

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∠	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	%2	%3	%4	GANGUE %1 CA	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS Cu ppm (%)	ASSAYS Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
91		P1DL	ST CA-EP	30°		CL			2% (9/1)					2%		76									
			ST CA-CP	10° (TR)												116		91.6	2.6		D91-10-29	549	7/2		
93									3% (8/1)	TR CP (9/1)				3%		76			2.3		D91-10-30	1049	50		CP IN CALCITE STRINGERS & BLOTCHES
			VN CA-CP	10° (TR)														93.9							
			ST (2) PY-CA	70°												112									
		K2MD	ST PY-CA	20°		KF	AB								2% QZ				2.7		D91-10-31	1088	63		MODERATE KSPAR FLOODING ALONG PY-CA±QZ STRINGERS & VEIN (CP IN CA, QZ & PY±QZ±CA STRINGERS)
			ST PY-CA	25°						TR CP (9/1)						88		96.6							
97		P2MD	ST CP-PY	25°		CL	EP		2% (5/5)							92									
														1%					3.0		D91-10-32	2142	88		FP: FSPAR-AUGITE PORPHYRY, NUMEROUS FSPAR & LESSER AUGITE PHENOS UP TO 1mm IN AN APHANITIC, MEDIUM GREY MATRIX. OCCASIONAL SUBROUNDED TO SUBANGULAR DARK GREY XENOLITH UP TO 5cm's IN DIAM.
99		P2FP				CL	EP	AB (ALGN. STRINGERS)						3%		95		99.6							
	FP															92			2.7		D91-10-33	1889	76		
101		P3FP	CA-CP-PY ST (3) CA-EP	70° 60°		AB (ALGN. STRINGERS)	EP	CL						2%		105		102.3							
									3% (5/2)																
103		P2FP	66	?		EP	CL	AB	2% (5/5)					4%		93		104.9	2.6		D91-10-34	1976	81		* 4 CA-QZ-EP±MA±CP STRINGERS DIPPING 50-55° TO CA
			66	20° 55°					2% (7/3)																
105																									

DDR 91-2

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY Dill — DDH D91-10 — Page 8 of 16

LOGGED BY PF
DATE
SCALE

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	%2	%3	%4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	CA	PY	COMMENTS
106			ST CA-PY-CP 80°						2% (2/1)	TR CP (1%)						97	1 2										
			ST PY-CA-CP 15°						2% (8/1)					2%		78	2 3		2.6		D91-10-35	1978	56				CP IN STEEP TO SHALLOW CA-PY ± MA ± QZ ± EP STRINGERS
			ST PY-EP-MA 5°															107.5									
108		P2 FP	ST CA-PY-CP 20°			AB	EP		2% (5/5)	TR CP (9/1)						107	3 4										FREQUENT AB FLOODING ALONG PY STRINGERS
			ST CA-PY-CP 58°													117	BC		2.5		D91-10-36	1905	61				CP IN STEEP TO SHALLOW CA-PY STRINGERS
			ST CA-PY-CP 0°															110.0									
110		CA-PY-CP	ST WN PY-CP 37° 10°						3%					4%		93	1 2										
		P4 FP	ST PY-EP 33°			CL	AB	EP	(5/5)								3		2.9		D91-10-37	3025	90				
112																106	BC	112.9									
		A3 FP ?	ST QZ-EP 45°			CY	CL	EP	2% (5)	TR CP (1SPAC) 112.7				2%		98	0 1		3.0		D91-10-38	2692	220				QUARTZ-EP STRINGER W/ ICSPAR FLOODING
114			VN QZ-CA-CP 20° (TR)														2	115.9									
		P3 FP	ST EP-QZ-CA-CP 5° (TR)						2% (8/2)							93	BC 1 2										
		A3 FP	ST PY-CP-HE 20° MA			CY	EP																				
116		P3 FP	VN QQ 45° 50°			EP	CL		2% (5/5)							95	BC 1 2		3.0		D91-10-39	2291	13				1cm THICK MA-EP-PY VEIN
																		118.9									
118		P2 FP				AB	EP	CL						TR		100	3 2 4		2.1								AB FLOODING ALONG STRINGERS
			ST CA																								

DDR 91-2

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY *Dill* DDH *D91-10*

LOGGED BY *PF*
DATE
SCALE

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	COMMENTS
121			SV CA						CA 4%		89, 95	BC, 9, 2, BC	121		D91-10-40	1366	44	CA 3 2 3, PY 1 1 2
123		P3FP	VN QZ-CA-PY	38°	CC	EP	2% (5/5)	122.8 TR CP (1 SP CK)	1%	2% QZ (121)	107, 95	0, 1, 2	123	2	D91-10-41	1511	57	1 1 1
125			ST CA-QZ; VN QZ-CA-PY-CP	25°; 45°				TR CP (2 mm BLEB IN IRREG. CA STRINGER)			69, 94	BC, 1122	126	3	D91-10-42	2020	68	1 1 1; 3 cm THICK QZ-CA VEIN w/ ~8% PY & 4% CP
127, 129		A2FP; A1FP; A4FP	ST CA-QZ-CP (TR)	25°	CY; CY		2% (8/2); 2% (6/4)	TR CP (3/5)			109, 108, 107	BC	129.4	3.4	D91-10-43	1994	101	2 2 2 2 1 1; MINOR GREEN MARIPOSITE
131	MD?	P3MD?	SV CA; ST PY-QZ-CP (TR)	5°	EP	CL			2%	2% (111)	98	1, 3, 1, 3, BC, 222	132	2.6	D91-10-44	2256	98	1 1 1 1
133		GG; A1FP; CY; A2MD?	VN; CT; CT; CG	45°; 45°; 20°; 0°	CY; CY		1% (8/2); 4% (1/1)	TR CP (10/0); TR CP (1 SP CK)		6% (222)	105, 92	3, BC, 1313, 1112	134.5	2.5	D91-10-45	2679	115	0 1 1 ½; 1 cm QUARTZ VEIN w/ 5% PY & 3% CP; CP IN STEEP QZ ± CA STRINGERS

DDR 91-2

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: Dill   DDH: D91-10

LOGGED BY: PF   DATE: SCALE:

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	GRAPHIC	ALT'N %1	ALT'N %2	ALT'N %3	%PY	SULPHIDES/OXIDES	GANGUE %1 (CA)	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	CA	PY	COMMENTS
136			ST PY-QZ CP (TR)	5° CA					3% (6/4)	TR CP (1 SPECK); TR CP (2 SPECKS)	2%	4% QZ (131)	98	2, 4, 3, 4	137	2.5		D91-10-46	3707	116		1, 1, 1	3, 2, 2	
138		GG							2% (2/8)		TR		96, 98	BC				D91-10-47	1748	94		0, 0, 0	0, 1, 1	
		A1MD?				CY			1% (0/10)	TR CP (10/0)		10% QZ		2, 4, 4										
		A4MD?				CY	CL																	
140		A2MD?				CY	CL		1% (10/0) TR	TR CP (1 SPECK)	2%	2% (211) QZ	83		140							2, 2, 2	2222	
		A1MD?	ST QZ	25°		CY							92, 104	BC		3.0		D91-10-48	2362	69			0	
142			VN QZ-CP-PY	20°					1% (8/2)	TR CP (10/0)		4% QZ (323)	99		143								1, 2, 1	3cm THICK QUARTZ VEIN w/ 5% PY & 5% CP; CP IN QUARTZ STRINGERS AND VEINS
		A2MD				CY	CB		1% (1/9)															
144		GG							TR		1%	TR QZ	98	1, 2, 4		3.0		D91-10-49	1720	77		1, 1, 1	0, 0, 0, 0, 1, 1	
		A1MD				CY	CB		2% (0/0)															
		GG							1% (5/5)															
		A2MD				CY	CB			TR CP (1mm BLEB IN QUARTZ)			42	4	146									
146		A3MD				CY	CB		TR														0	
		A1MD				CY	CB		1% (9/1)	TR CP (10/0)		10% QZ (124)	45	BC	147.4	1.4		D91-10-50	3707	81			2, 2, 2	CP IN NUMEROUS STEEPLY DIPPING QUARTZ STRINGERS
148	147.83 (485')	MI?																						

END OF HOLE AT 147.83'

DATE FINISHED LOGGING: JULY 23 1991

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY: DILL D.D.H.: D91-11 PAGE: 1 OF 2

AREA: West Area DIP: -50.00 AZIMUTH (t): 180.5 DEPTH: 183.49

CLAIM: Dill 2 NORTHING: 3180.20 DATE STARTED: JULY 20, 1991

SECTION: 6300W EASTING: -6283.94 DATE FINISHED: JULY 23D, 1991

CORE SIZE: NQ ELEVATION: 1404.7 CONTRACTOR: LECLERC D.D.

CORE RECOVERY: 85.30% RQD: 34.42% CORE STORED AT: DILL CORESHACK LOGGED BY: PETER FISCHL

COMMENTS: HOLE D91-11 WAS DRILLED IN AREA OF ANOMALOUS CU/AU GEOCHEM AND HIGH IP. TRACES OF CPY WERE INTERSECTED, OCCURRING LARGELY IN CALCITE AND PYRITE VEINS AND STRINGERS. AVERAGES INCLUDE: 0.064% Cu AND 137 ppb Au OVER 20.1 m (21.3-41.5 m), 0.096% Cu AND 83 ppb Au OVER 53.3 m (58.5-111.9 m), AND 0.059% Cu AND 80 ppb Au OVER 38.1 m.

SURVEY DATA			GEOLOGY AND ASSAY RECORD														
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t				
0.0	-50.00	180.5	0.00	21.34	21.34		OB										
045.72	-49.00	180.50	21.34	86.50	65.16		MD										
137.46	-50.00	180.50	86.50	87.20	0.70		GG										
			87.20	112.60	25.40		MD										
			112.60	113.00	0.40		GG										
			113.00	124.20	11.20		MD										
			124.20	132.50	8.30		DI										
			132.50	181.60	49.10		MD										
			181.60	183.49	1.89		DK										
			21.34	24.20	2.86			DII-1			693	64					
			24.20	27.00	2.80			DII-2			1030	200					
			27.00	29.80	2.80			DII-3			641	31					
			29.80	32.40	2.60			DII-4			561	270					
			32.40	35.40	3.00			DII-5			371	75					
			35.40	38.40	3.00			DII-6			843	280					
			38.40	41.40	3.00			DII-7			353	53					
			58.40	61.40	3.00			DII-8			582	116					
			61.40	64.40	3.00			DII-9			930	42					
			64.40	67.00	2.60			DII-10			444	51					
			67.00	70.00	3.00			DII-11			1543	127					
			70.00	71.90	1.90			DII-12			992	104					
			71.90	73.80	1.90			DII-13			258	37					
			73.80	76.80	3.00			DII-14			621	40					
			76.80	79.80	3.00			DII-15			860	99					
			79.80	82.80	3.00			DII-16			1135	90					
			82.80	85.80	3.00			DII-17			1098	89					
			85.80	88.80	3.00			DII-18			2046	174					
			88.80	91.50	2.70			DII-19			546	39					
			91.50	94.50	3.00			DII-20			520	51					
								CONTD									

CORDILLERAN ENGINEERING

DIAMOND DRILL RECORD

PROPERTY DILL D.D.H. D91-11 PAGE 2 OF 2

AREA: DIP: AZIMUTH (t): DEPTH:
CLAIM: NORTHING: DATE STARTED:
SECTION: EASTING: DATE FINISHED:
CORE SIZE: ELEVATION: CONTRACTOR:
CORE RECOVERY: CORE STORED AT: LOGGED BY:
COMMENTS:

SURVEY DATA			GEOLOGY AND ASSAY RECORD															
Depth	Dip	Az (t)	From	To	Int.	T.W.	Geology	Sample No.	Rec. %	S.G.	Cu ppm	Au ppb	Au oz/t					
			94.50	97.00	2.50			D11-21			2028	153						
			97.00	100.00	3.00			D11-22			1020	116						
			100.00	103.00	3.00			D11-23			833	60						
			103.00	106.00	3.00			D11-24			816	57						
			106.00	109.00	3.00			D11-25			1135	86						
			109.00	112.00	3.00			D11-26			700	40						
			133.00	136.00	3.00			D11-27			457	58						
			136.00	139.00	3.00			D11-28			721	102						
			139.00	142.00	3.00			D11-29			307	37						
			142.00	145.00	3.00			D11-30			275	73						
			145.00	148.00	3.00			D11-31			546	89						
			148.00	151.00	3.00			D11-32			1067	145						
			151.00	154.00	3.00			D11-33			1066	78						
			154.00	156.50	2.50			D11-34			652	42						
			156.50	159.00	2.50			D11-35			611	44						
			159.00	161.00	2.00			D11-36			238	64						
			161.00	163.80	2.80			D11-37			302	34						
			163.80	165.90	2.10			D11-38			1020	250						
			165.90	168.00	2.10			D11-39			627	76						
			168.00	171.00	3.00			D11-40			335	55						
			178.60	181.60	3.00			D11-41			552	42						

DDR · 85 · IU

DDR 91-20

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-11 (LAST HOLE !!) Page 1 of 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
1																								
3																								
5																								
7																								
9																								
11																								
13																								

LOGGED BY
DATE
SCALE

CA PY M M E N T S

DDR 91-20

CORDILLERAN ENGINEERING LTD. DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-11

LOGGED BY
DATE
SCALE

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	GRAPHIC	ALT'N %1	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	GANGUE %1 (CA)	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	COMMENTS
16																	
18																	
20										FRACTURE/m	RECOVERY %						
21.34		P2MD SW CA PY				AB	3% (14)		4%	2 2 2	72 88	24.2	2.86	D91-11-1	693	64	P1-P3 MD/DI: MEDIUM TO LIGHT GREY TO GREENISH GREY, FINE GRAINED EQUIGRANULAR MONZODIORITE TO LOC ALLY DIORITE, WITH PERVASIVE ALBITE FLOODING
24		P1DI				AB		24.4 TR CP (10/5) (CP IN STEEP, IRREG. CA-CL STRINGERS)		3	107 126		2.8	D91-11-2	1030	200	RUSTY FRACTURES TO 27m
26		P2MD	60	20°		AB			1%	2 2 2	101	27					
28			ST CA-CL (TR) -PY / 60	40° / 30			2% (8/2)			1 3 1 3	101 97	29.8	2.8	D91-11-3	641	31	

CA PY %: 2 3 3 / 1 1 1 ; 2 3 2 / 2 2 1

DDR 91-2

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-11 Page 3 of TR 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∠	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m
31	MD	P3MD				AB			TR	TR cp (0/10)						93	0 1 2
									3% (1/9)		32.2			CA		99	
		P2MD				AB	CL										1 2
33			VN CA-QZ-CL cp	-55°												99	2 3
									3% (3/7)					2%			
35			ST CA-QZ	-45°												99	1 1 1
			VN CA-cp	-45°												35.4	
37																85	2 1 2 2 3
																106	0 1 2
39			VN ST (6) PY-CA	-65° -65°					3% (8/2)					2%		94	013 3
41									1% (0/10)					1%		93	2 4 2
																80	4
43			GG	-35°					3% (1/9)							111	BC
									2% (1/9)								

SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
32.4	2.6		091-11-4	561	270	
35.4	3.0		091-11-5	371	75	
38.4	3.0		091-11-6	843	280	
41.4	3.0		091-11-7	353	53	

LOGGED BY
DATE
SCALE

CA PY COMMENTS

1 1 0 — 3cm THICK CA-QZ-CL VEIN W/ ~5% cp

1 1 1 1 — CA-cp (20%) VEIN UP TO 1.5 cm THICK

1 0 1 3 — PY (90%) - CA-CL VEIN UP TO 1.5 cm THICK

1 1 2

6 6 6

1 0 1

1 0

...

DDR 91-2

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-11 Page 4 of 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∠	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m
46			ST PY-CL CA-CL	45° (TR)		AB	CL		2% (1/9)					1% CA		100	BC
		PLMD														101	2 4 2
48									3% (1/9)					2%		108	4 BC
			ST CA-PY-CL	65°					3% (4/6)							94	1 1 1 2
50		VF	CT	30°													
			CT	35°												95	1 2 3
			GG	30°													1344
52			ST PY	70°													022 3
		PLMD	ST CA	45°		AB	CL	ICF						3%		99	1244
									3% (1/9)								1 3 2 3
54																100	0 2
			ST (?) PY	60°					4% (5/5)							101	122 3
56														2%			2 1 2
			VN PY-CA	35°												101	2
58																	58.4
			VN PY-CA	60°					2% (2/8)					4%		95	2 2 1 3

SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
	3.0					

LOGGED BY
DATE
SCALE

CA PY COMMENTS

1 1 1
2 1 1 0 - 2
2 2 1 1 1
0 1 2
2 4 2 0 - 1

FLOODING AB$_A$ PERVASIVE Q - ALONG STRINGERS
WEAK KSPAR FLOODING ALONG PY STRINGERS

DDR 91-20

75.41

CORDILLERAN ENGINEERING LTD. — DIAMOND DRILL RECORD

PROPERTY: DILL   DDH: D91-11

LOGGED BY ______ DATE ______ SCALE ______

Sample information and assays

FROM / TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au Drilled Length
– 61.4	3.0		D91-11-8	582	116	
61.4 – 64.4	3.0		D91-11-9	930	42	
64.4 – 67.0	2.6		D91-11-10	444	51	
67.0 – 70.0	3.0		D91-11-11	1543	127	
70.0 – 71.9	1.9		D91-11-12	992	104	
71.9 – 73.8	1.9		D91-11-13	258	37	

Log

HOLE DEPTH	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	%PY	SULPHIDES %1	GANGUE %1 (CA)	RECOVERY %	FRACTURE / m
61	P3MD	ST CA-CP-HE; ST (B) CA-PY	53°	AB	EP	3% (5/5)	61.6: 0.5% CP (10/0)	4%	99	3, 3, 4
	SW CA									1, 1, 2
63	P2MD			AB	EP				95	BC, 1, 3
		VN PY-CA; ST PY-CA-CP (5%)	40°, 27°				1% CP (10/0)	2%	100	1, 3
65						3% (8/2)			101	1, 2, 1
						1% (3/7)				2
67		VN; ST CA-CP; VN CA; ST	30°, 60°, 25°, 27°				TR CP (9/1)		100	132, 4, 0, 1, 2
		VN CA	30°			3% (2/8)			101	2
69	AIMD	ST CA-PY-CP (10%)	20°	CY		3% (7/3)				2, 2, 1
									99	3, 133, 4
71		ST CA; ST; ST PY-CA-CP	25°, 40°, 30°					4%	95	1, 2, 2
73	BX	GG	40°			2% (0/10)		30%		3
	P2MD	GG; ST CA-CP; VN CA-CP (1%)	25°, 30°, 26°	CL	EP		TR CP (10/0)	6%	100	BC, 1, 1, 0, 2

Comments

Depth (approx.)	CA	QZ	Comments
61	2, 4, 2	1, 2, 2	} CP in shallow dipping CA stringer)
64	1, 2, 1		} CP in shallow to steep PY-CA ± CL stringers
65		1, 4, 1	
66–67		0, 1, 0	1cm thick CA-HE vein
67.5			8mm thick CA stringer w/ ~20% CP
69		2, 2, 1	CP in CA ± PY & PY-CA veins, stringers & blotches
70.5			2cm x 1cm CA-PY bleb w/ ~10% CP
71	2, 2, 1		PY-CA stringer w/ 10% CP
72–73			Calcite healed breccia
73.5–74	2, 2, 1		O^2

DDR 91-2

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 091-11 Page 6 of DC13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∠	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	%2	%3	%4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	LOGGED BY / DATE / SCALE: CA	PY	COMMENTS
76		PIMD	VN CA-P(TR)	21°		AB	EP	CL	2% (5/5)	TR CP (10%)						95		76.8	3.0		D91-11-14	621	40		0	1	
		PIDF	ST PY-MA-CP(TR)	63°		AB	CL		2% (9/1)	76.8				2%		101										1	
78									2% (4/6)																	3	
																94	BC	79.8	3.0		D91-11-15	860	99		1	1	
80		P2MD	ST PY-CA-CL	23°																						2	
						CL	EP									105											
82	MD		ST CA-PY-HE-CP	70°																	D91-11-16	1135	90				
		P3MD CVI CA				CL	SE ?		TR					10%		94		82.8	3.0						0	1	
84			CC	40°					3% (B/2)							105									1	0	
		P2MD				CL	EP		7% (2/3)					1%											2	1	
86			ST PY-CA	20°					7% (9/1)	0.3% P(10%)						101		85.8	3.0		D91-11-17	1098	89		1	1	- PY-CA STRINGER CUT & DISPLACED 3D9 BY CA-CL STRINGER DIPPING
		66	VN CA	16° 14					3% (0/60)																1	1	
			CT	34°																					2 2 1		
88		P2MD				AB	CL	EP	2% (5/5)							98	244	88.8	3.0		D91-11-18	2046	174		0		30° TCA PY(85)-CP(10)-CA(5) VEIN UP TO 1cm THICK
									3% (5/6)																2 1 2		PERVASIVE AB FLOODING
																99											

DDR 91-2

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH 91-11 Page 7 of 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1 CA	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH
91	MD	P2MD (SW CA)	ST CA-CL-PY -70°						1% (5/5)					10%		101	BC	91.5	2.7		D91-11-19	546 RE: 598	39 / 45	
			G6 -10°																					
93			ST PY-CA -75°						2% (3/7)					2%		93			3.0		D91-11-20	520	51	
		P3MD				CL	AB										BC	94.5						
95		P2MD				CL				TR CP (8/2)						101			2.5		D91-11-21	2028	153	
			VN CA-PY-CP						3% (7/6)	0.5% CP (9/1)						100		97.0						
97			CG -0°						3% (8/2)	TR CP (10/0) 97.9				1%		88	BC		3.0		D91-11-22	1020	116	
			ST CA-PY-HF -5°			CL	AB	CY	4% (5/5)									100.0						
99		P1MD														102			3.0		D91-11-23	833	60	
101						AB	CL	EP	2% (8/2)					2%		103	BC	103.0						
			ST CA-CP (TR) -40°													96			3.0		D91-11-24	816	57	
103									2% (1/9)							103								

LOGGED BY
DATE
SCALE

COMMENTS

CA PY

PY-CA STRINGER DISPLACED 1 cm BY CA-CL-HE STRINGER DIPPING 42° TCA

CP IN IRREGULAR & DISCONTINUOUS CA ± PY STRINGERS

CP IN CA-PY STRINGERS & VEINS (MOSTLY STEEP DIPPING)

DDR 91-2

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: Dill   DDH: D91-11

LOGGED BY ______ DATE ______ SCALE ______

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	%PY	SULPHIDES/OXIDES %1	%2	GANGUE %1	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	CA	PY	COMMENTS
			ST CA-CL	15°				3% (1/9)			2%		2, 3	106.0					2, 1, 1		
106								4% (5/5)	0.5% CP (10/0)			86	2							222	} CP IN IRREGULAR PY STRINGERS
								3% (2/8)					4		3.0	D91-11-25	1135	86		0, 1, 1	
108											1%	95	1, 1, 2, 4, 2, 4	109.0					1, 1, 0		
												93	1, 2, 2								
110	MD	GG	VN CT CT	21°, 24°, 25							3%		3		3.0	D91-11-26	700	40	3, 1, 1		3cm THICK PY-CA-WL VEIN
		PIMD										95	242, 4								
112								1% (3/7)					BC	112.0							
		GG						TR (0/10)			?	101							?		
								2% (2/8)					124							0, 1	
114								3% (2/8)			2%	98	4, 1, 2						2, 3, 2	0, 1, 1, 033	
		PIMD	ST (2) PY	32°	EP	CL	KF	4% (5/5), 3% (1/9)				98	2, 3							0, 1, 1	WEAK KF± EP± CL FLOODING ALONG STRINGERS
116								1% (9/1)				98	7, 4, 3, 4								
118								2% (8/2)			1%	97							2, 1, 1		
											TR								1, 1, 0		

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill

DDH D91-11

LOGGED BY ______ DATE ______ SCALE ______

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	GRAPHIC	ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	%1	%2	%3	%4	GANGUE %1 CA	%2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	C CA	Q PY	COMMENTS
121	MD	PIMD	ST(1) PY-CA	42°					4% (1/9)					TR		99	1 1								1 0	0 1 1	
			ST EP-CL	30°												100	0 2										
123										TR CP (SPECK IN X/I NOUTIL) 123.8				0		100	1 3 1 3								0		
125	DI	PIDI				CL	EP	KF		TR CP (1 SPECK)				1%		101	172 4 0 1/2 232 4								1 1 1		
127			ST PY-CA	10°					4% (7/8)	TR CP 126.9						100 / 93	1 1 2 1313 1 2 3									1 1 1	WEAK EP-KF FLOODING ALONG STRINGERS
			GG GG	60° 30°																							
129									3% (2/8)					TR		101	4									7 2 @	
131			ST (2) PY-CA	40°												102	1 4 1 4										
			VN PY QZ-CA	5°										1%		97	1 3 3										
133	MD	PIMD	ST PY	35°		CL	EP	KF	3%							101		133.0	3.0		D91-11-27	457	22		4	1 1 1	

DDR 91-2

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-11 Page 10 of 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPH/OX %1	SULPH/OX %2	SULPH/OX %3	SULPH/OX %4	GANGUE %1 CA	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFO: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	LOGGED BY / DATE / SCALE / COMMENTS
136	MD	PIMD	ST CA-PY =CP(TR)	38°	/				3%					2%		99		136.0							
138			VN PY-CA-CP(TR)	20°	/					TR CP (1 SPECK)						103			3.0		D91-11-28	721	102		
140			ST PY-CA	25°					2% (0/10)							100		139.0							
142			ST PY-CA	40°	/				3% (2/6)	TR CP (1 SPECK)				TR		94			3.0		D91-11-29	307	37		WEAK BANDS & STRINGER FLOODING OF EP-KF
									5% (4/6)					1%		99		142.0							
144			VN PY-QZ-CA	40°					3% (0/10)							102			3.0		D91-11-30	275	73		1cm THICK VEIN OF PY(80)-QZ(15)-CA(5)
		AIDI				CY	CL		2% (5/5)					2%		95		145.0							
146			ST PY-CP	0°					3% (5/5)	TR CP (1/10)				1%		97			3.0		D91-11-31	546	89		
		PIMD				AB	KF		1% (5/5)					1%		75		148.0							PATCHY AB FLOODING
148			ST QZ-PY-CA =CP(TR) =ST	22° 60°	/				3% (1%)					2%		103			3.0		D91-11-32	1067	145		AB & KF FLOODING ALONG STRINGERS

DDR 91-2

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY Dill DDH D91-11 Page 11 of 13

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE #	GRAPHIC	MINERALOGY: ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	SULPHIDES/OXIDES %1	SULPHIDES/OXIDES %2	SULPHIDES/OXIDES %3	SULPHIDES/OXIDES %4	GANGUE %1	GANGUE %2	RECOVERY %	FRACTURE / m	SAMPLE INFORMATION: FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	ASSAYS AND AVERAGES: Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	COMMENTS
151			VN QZ-CA-PY(TR) \ VN QZ-CL -CA- PY	-55°					3% (3/7)	TR CP (1%)	150 6 CP IN STEEP TO SHALLOW CA & CL±QZ (TR PY)			TR		105		151.0							10cm THICK QZ(95)-CA(5)-PY(TR) VEIN W/ KSPAR FLOODING ALONG MARGINS.
153		PIMD	SST CA-CL \ SST CL-PY	5° 50°		TAB	KF		1% (1/5)	TR CP (10%)	154.0			1%		93 96	2	154.0	3.0		D91-11-33	1066	78		QZ-CL-CA-CP(5%)-PY VEIN UP TO 2CM THICK, W/ KSPAR FLOODING
155			VN PY-CA	70°					3% (5/5)					2%		98		156.5	2.5		D91-11-34	652	42		CP IN STEEP TO SHALLOW, IRREGULAR CL & CA STRINGERS
		A1DI	GG	25°		CY	CL		1% (8/2)																
157		MD				KF	FP		3% (5/5)					3%		101		159.0	2.5		D91-11-35	611	44		
159			SST PY-CA	37°					2% (5/5)					2%		100									
		PIMD				CL	CY	KF	3% (7/3)	TR CP (1%)	159.6 CP (1 SPK) (CK)					163		161.0	2.0		D91-11-36	238	64		WEAK KF FLOODING ALONG STRINGERS
161		A2MD	SST (2) CP	60°		CY				TR CP (10/0)					QZ 1%	102	BC							
		P2MD				CL	CY		1% (0/0)					TR		12	33 4								
163		A3MD				CY											BC								
		P2DL	SST CA-CL (TR)	26°		CL	CY		3% (3/7)	TR CP (10%)				2%		101	0 2	163.8	2.1		D91-11-38	1020 RE: 1039/280	250		CP IN STEEP TO MODERATE DIPPING CA & PY-CA-QZ STRINGERS & VEINS
			VN PY-CP	10° CA					6% (7/3)					3%											

LOGGED BY
DATE
SCALE

DDR 91-2

170.2

168.2
163.8
4.2

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: DILL

DDH: D91-11

LOGGED BY: ____ DATE: ____ SCALE: ____

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∢	ALT'N %1	ALT'N %2	ALT'N %3	%PY	SULPH %1	GANGUE %1 (CA)	GANGUE %2	RECOVERY %	FRACTURE / m	FROM / TO (m)	LENGTH	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	C.A. PY	COMMENTS
166		AIMD	VN	15	CY			6% (7/3)	TR CP (10/0)		QZ 10%	93	221, 3	165.9		D91-11-38			2, 2, 1	1cm THICK PY (60)
			VN; PY-CA-CP	5°						3%			1, 1, 0		2.1	D91-11-39	627	76	2, 1, 1	QZ (70) - CA (9) - CP (1) VEIN; PY (80) - CA (20) - CP (TR) VEIN UP TO 1cm THICK
168			VN QZ	35°					167.6		5% QZ (1/0)	97	2	168.0						QZ AS STRINGERS, VEINS AND FLOODING ALONG PY STRINGERS & VEINS
			ST; QZ-PY-CP (TR); VN; GG	30°; 5°; 35°								103	3, 1, 3, 243, 4		3.0	D91-11-40	335	55		PY-QZ-CA-CP (TR) VEIN
170	MD		ST; PY-QZ-CA	35°				4% (2/8)		2%	1% (1/0)	102	0, 1, 1	171.0					1, 1, 1	
172		XIMD	ST; PY-QZ-CA	37°	QZ	CL	KF	3% (2/8)		3%		100	2, 041 4, 0, 1, 2						2, 2, 1	WEAK KSPAR FLOODING ALONG STRINGERS
174			GG	33°				2% (6/4); 3% (2/8)		2%		95; 103	3, 1, 3, 2, 3, 3, 4						1, 2, 1	
176		PIMD		4°	CL	EP		3% (6/4); 2% (5/5)		1%		101; 99	121 2, 1, 3, 2, 4						2, 2, 1, 1, 1, 1, 1, 1	OCCASIONAL BLOTCH & STRINGER OF EPIDOTE AND CHLORITE
178			VN	55°				3% (5/5); 2% (5/5)				97	1, 3, 2, 3	178.6		D91-11-41	552	42	2, 2, 0, 1	DISCONTINUOUS QZ (50) - PY (30) - CP (20) - CA (TR) VEIN

DDR 91-20

CORDILLERAN ENGINEERING LTD.

DIAMOND DRILL RECORD

PROPERTY: DILL

DDH: D91-11

LOGGED BY:
DATE:
SCALE:

HOLE DEPTH	MAIN ROCK TYPE	MINOR ROCK TYPE	STRUCTURE	CORE ∡	GRAPHIC	ALT'N %1	ALT'N %2	ALT'N %3	SULPHIDES/OXIDES %PY	%1	%2	%3	%4	GANGUE %1 CA	GANGUE %2	RECOVERY %	FRACTURE / m	FROM TO (m)	LENGTH	T.W. (m)	SAMPLE NUMBER	Cu ppm (%)	Au ppb (gm/t)	Avg. Cu/Au DRILLED LENGTH	CA	PY	COMMENTS
181	[illegible]		ST QZ-CL-PY-CA; PY-CL-CA-EP-CP; CT	40°; 20°; 40°		CB EP			2% (5/5)	TR CP (10/0)				2%		97	1 3 2 3	181.6							1/2 1	0 1 1	MEDIUM GREY FINE GRAINED ANDESITIC DYKE WITH BANDED MARGIN (BAMDS // TO CONTACT W/ MONZO-DIORITE)
183, 183.49	DK (ANDESITIC)		VN EP-CA-CL-ME-PY(TR)	15°		CB	EP		TR (5/5)					TR		95	1 2 1 2								220, 1 10	7 0 0	EP-CA-CL-ME-PY (TR) VEIN UP TO 2CM'S THICK

ANDESITIC

END OF HOLE AT 183.49 m (602')

DATE FINISHED LOGGING: JULY 30, 1991

185

187

APPENDIX "B"

Vancouver Petrographics Ltd.

JAMES VINNELL, Manager
JOHN G. PAYNE, Ph.D. Geologist
CRAIG LEITCH, Ph.D. Geologist
JEFF HARRIS, Ph.D. Geologist
KEN E. NORTHCOTE, Ph.D. Geologist

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8080 GLOVER ROAD,
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John Cormier
Dill Project
P.O. Box 5000
Merritt, B.C.
V0K 2B0

Aug. 27, 1991
JOB # 222

Dear Mr. Cormier,

Re: Samples 1 to 13

The petrographic descriptions of the above samples have been completed and the report is attached.

As requested the samples are being returned to your Vancouver office. They will be sent collect using the bus service.

Yours truly,

Ken N.

K.E. Northcote Ph.D., P.Eng. (604) 796-2068

Sample 1 (D 91-1, 113.4 m)
Altered mineralized porphyritic dacite/crystal tuff(?)

General description
Composed of sericitic altered euhedral crystals of plagioclase, altered mafic (amphibole) crystals and angular/subangular quartz fragments with diffuse partially resorbed margins.

In a microgranular feldspathic (plagioclase-rich) groundmass with fabric masked by red-brown semiopaque alteration dusting.

Scattered accessory apatite crystals.

Alteration includes moderate/strong sericitic and carbonate alteration and semiopaque dusting of plagioclase phenocrysts and groundmass. Complete replacement of amphibole by foliated irregular bladed chlorite and aggregates of microgranular light brown carbonate (dolomite/ankerite?) and lesser "calcite".

Breccia infilling forms a coarse network of red-brown microgranular carbonate and clusters of colourless calcite, quartz and sericite. Superimposed "crackle breccia" hairline infillings of similar light brown microgranular carbonate with scattered coarser colourless calcite intergrowths. Late calcite veins.

Appears to be at least two varieties of carbonate and three episodes of fracturing/brecciation.

Mineralization is disseminated but most abundant in association with the first carbonate-sericite-(quartz)-filled brecciation, possibly to lesser extent with second carbonate-filled crackle brecciation.

Microscopic description
Phenocrysts/coarse fragments

Plagioclase; 25%, euhedral/subhedral, (.05 to >1.0 mm).
Generally euhedral outlines of complete crystals, lesser fragments. Ghost-like twin remnants. Sericite-carbonate alteration. Semiopaque dusting.

Altered mafic; 15%, subhedral/anhedral, (.05 to <1.0 mm).
Laminated pseudomorphous replacement by chlorite and microgranular aggregates of pale red-brown "carbonate" with colourless calcite.

Quartz; 10%, anhedral (<.05 to <0.5 mm) fragmental outline possibly original grains. Most quartz however is as clusters of irregular grains associated with carbonates and sericite in the early breccia infilling. Introduced

Sample 1 Continued

Groundmass

Plagioclase; 20%, anhedral (microgranular to <.05 mm). Obscured by sericite-carbonate alteration and red-brown alteration dusting.

K-feldspar; (?), stained slab shows slight diffuse stain which indicates small amount of K-feldspar in groundmass. Not confirmed in thin section.

Breccia infilling 20%

(a) Coarse network of pale brownish "carbonate" associated calcite intermixed with sericite clots.

(b) crackle breccia infilling of darker brown microgranular carbonate.

(c) late carbonate (calcite) veinlets.

Reflected light
Opaques <10%

Pyrite; 5%, euhedral/subhedral (<.01 to >1.0 mm). Disseminated and fracture controlled.

Chalcopyrite; <<1%, anhedral, (<.01 to >1.0 mm). Irregular grains/clusters. Interstitial to pyrite, rimming and veining pyrite.

A ? (Enargite?) <<1%, anhedral, (<.01 to 0.2 mm). Inclusions in chalcopyrite associated with ?B. Pale/medium pinkish brown. Anisotropic. Pleochroic pinkish grey/bluish grey. Should be confirmed by SEM.

B ? (Tetrahedrite/Tennantite?) <<<1%, anhedral, (<.01 to .05 mm). Irregular grains in chalcopyrite associated with ?A. Medium grey distinct bluish tint. Isotropic. Lacks internal reflection of sphalerite. Should be confirmed by SEM.

C ? traces, anhedral, (<.05 mm) Very pale cream. Poor polish. Isotropic. Associated with chalcopyrite, ?B, in veinlets in pyrite. Requires SEM identification.

#2 (D 91-1, 166.1 m)
"Crowded" augite/plagioclase porphyritic andesite

General description
Composed of abundant, >50%, phenocrysts of plagioclase (<.05 to 1.0 mm) and augite (<0.1 to >2.0 mm). Most phenocrysts euhedral some broken grains. Opaques, <5%, euhedral/subhedral (<.05 to 0.5 mm), magnetite and associated hematite.

In a microgranular feldspathic groundmass.

Plagioclase phenocrysts have microgranular sericite and semiopaque alteration dusting. Augite shows varied intensity of chlorite, carbonate, epidote alteration. Groundmass obscured by microgranular opaques (magnetite in part), and loosely felted very fine secondary amphibole(?) laths.

Stained slab shows <10% diffuse impregnation of fracture controlled K-feldspar (stain) which was not confirmed in thin section.

Hairline carbonate veinlets.

Microscopic description
Phenocrysts.

Plagioclase; >30%, euhedral/subhedral (<.05 to 1.0 mm). Close packed but matrix supported. Microgranular sericitic alteration and semiopaque dusting obscures twinning.

Augite; <20%, euhedral/subhedral, (<0.1 to >2.0 mm). Interspersed among plagioclase phenocrysts. Twinned and zoned crystals chloritic alteration affects specific grains accompanied by blebs of carbonate and clusters of epidote grains. Intensity of alteration ranges from unaltered through fracture controlled to complete alteration.

Opaques; magnetite/hematite, see Reflected light below.

Groundmass
Feldspar(plagioclase) 25%, anhedral, (microgranular). Obscured by microgranular opaque microgranules and by felted secondary amphibole.

Amphibole(?), >10%, subhedral, (<.01 to .05 mm) diffuse felted. Secondary. Low birefringence, inclined extinction.

K-feldspar; <10%, anhedral, (microgranular) diffuse impregnations, fracture controlled. Evident in stained slab, not detected in thin section.

Veinlets; carbonate

#2 Continued

Alteration

Sericite
Chlorite
Epidote
Carbonate
Secondary amphibole
Semiopaque dusting
K-feldspar

Reflected light
Opaques; 5%

Magnetite; euhedral/subhedral, (<.05 to <0.5 mm).
Crystallographic intergrowths with hematite and unidentified microgranular translucent material along crystallographic directions.
Magnetite also as microgranular disseminations in groundmass.

Hematite; anhedral, (<.05 to 0.2 mm). Intergrowths with magnetite. Crystallographic control.

#3 (D 91-2, 49.7 m)
"Crowded" hornblende-plagioclase micromonzonite porphyry

General description
Fine grained hornblende and plagioclase phenocrysts close packed but groundmass supported. Widely scattered irregular quartz grains.

In a very fine granular K-feldspar-rich, featureless groundmass.

Plagioclase phenocrysts show strong sericitic altered cores, semiopaque dusting and albitic(?) margins. Hornblende has some actinolite overgrowths. Minor epidote alteration. Widely scattered clusters of coarser hornblende (to >0.5 cm) show weak sieve texture of augite remnants and associated clusters of fine secondary amphibole.

Opaques, in approximate order of abundance, include magnetite, pyrite,hematite, chalcopyrite and a trace of pyrrhotite.

Microscopic description
Phenocrysts/coarser fraction.

Hornblende; 25%, euhedral/subhedral, (<.05 to >2.0 mm), commonly well separated grains, one cluster (to >0.5 cm) with sieve texture augite remnants in core. Secondary felted amphibole and epidote. Composite grain intergrowths of hornblende cores and paler amphibole margins. Minor associated epidote.

Plagioclase; 35%, euhedral/subhedral, (<0.1 to >1.0 mm). Cores obscured by intense microgranular felted sericite and semiopaque alteration dusting. Albitic(?) margins.

Quartz; <5%, anhedral, (<0.1 to 0.3 mm). Very irregular featureless grains. Confirmed uniaxial (+).

Groundmass

K-feldspar; 20%, anhedral (microgranular to <.05 mm). Confirmed in stained slab. Featureless. Interstitial to phenocrysts.

Plagioclase; presence suspected, not confirmed.

Alteration assemblage

Sericite
Epidote
Semiopaque dusting
Secondary amphibole.

#3 Continued

Reflected light
Opaques; <10%

Magnetite; <5%, euhedral/subhedral (<.01 to >0.3 mm). Disseminated grains, clusters of grains. Some association with pyrite. Minor hematite intergrowths.

Pyrite; <<5%, euhedral/subhedral, (<.01 to 1.0 mm). Disseminated grains clusters of grains. Few contain blebs of chalcopyrite and trace of pyrrhotite.

Chalcopyrite; <<<1%, anhedral, (<.01 to 0.3 mm). Irregular grains. Fine disseminations. Incipient fracture control. Generally as minute grains but scattered coarser. Traces as blebs in pyrite.

Hematite; >1%, anhedral (<.01 to) Irregular intergrowths in magnetite.

Pyrrhotite; trace, minute bleb in pyrite.

#4 (D 91-2, 63.4)
Intense sericite/clay altered micromonzonite(?)

General and microscopic description
Composed of close packed but groundmass-supported intensely altered plagioclase and lesser mafic phenocrysts.

Complete pseudomorphous alteration of plagioclase by sericite and microgranular "clay". Albitic (?) margins. Mafic has undergone complete alteration leaving semiopaque clouded fibrous/shredded remnants forming pseudomorphous outlines of original crystals/fragments. Similar semiopaque microgranular material fills veinlets and crackle breccia microfractures.

Groundmass composed of similar microgranular sericite-clay mixture but contains >5% disseminated fine (<.05 to 0.2 mm) irregular K-feldspar, and quartz which is fracture controlled, introduced.

Note: K-feldspar conspicuous in stained slab. Quartz confirmed, uniaxial (+).

Microprobe or X-ray diffraction analyses are required to determine the microgranular "clay" assemblage.

Late carbonate and diffuse K-feldspar veinlets (stained slab).

Opaques include <5% hematite, minor chalcopyrite.

Reflected light
Opaques <5%

Hematite;<5%, subhedral/anhedral, (<.05 to 0.2 mm).
Pseudomorphous after magnetite?. Disseminated throughout.

Chalcopyrite; <<<1%, anhedral, (<.01 to 0.1 mm). Fine disseminations. Fracture controlled.

#5 (D 91-2, 73.3)
Sericite-clay-(K-feldspar) altered micromonzonite(?) porphyry

General and microscopic description [Section thick]
Similar to 4 D 91-2 63.4 but slightly weaker alteration, more abundant introduced quartz and minor K-feldspar.

Composed of close-packed, but groundmass- supported, completely altered plagioclase and mafic biotite remnants in an altered microgranular feldspathic groundmass.

Plagioclase phenocrysts altered to microgranular mixture of sericite, carbonate and semiopaque red-brown "clay" dusting. Margins of many grains featureless albitic (?). Mafic remnants shredded/fibrous biotite (chlorite) partially obscured by semiopaque dark brown semiopaque material (Iron stain?). Scattered carbonate clusters.

Groundmass feldspathic, similar alteration to plagioclase phenocrysts.

Early stage crackle breccia/fractures filled with quartz granules which weakly permeates the wall rock.

Stained slab shows fracture controlled K-feldspar in diffuse veinlets and lesser diffuse impregnation. Not confirmed in thin section but may be masked by alteration.

Opaques; <2%, in approximate order of abundance include chalcopyrite, pyrite, hematite.

Reflected light
Opaques; <2%

Chalcopyrite; 1%, anhedral, (<.01 to 0.3 mm). Irregular grains clusters of grains. Disseminated and fracture controlled. Coarser grains fracture controlled.

Pyrite; <1%, anhedral/subhedral (<.01 to 0.4 mm). Disseminated grains, associated with chalcopyrite.

Hematite; <<<1%, scattered ghost-like grain remnants.

#6 D (91-3, 40.5)
Porphyritic hornblende plagioclase andesite

General description
Fine to medium grained hornblende and weakly altered plagioclase phenocrysts in a microcrystalline to very fine felted plagioclase groundmass.

Hornblende phenocrysts single crystals and clusters of crystals. Weak associated epidote granules and chlorite clusters. Plagioclase phenocrysts with moderate sericitic alteration and brown alteration dusting. Groundmass moderate brown alteration dusting.

Stained slab shows K-feldspar in diffuse fracture controlled veinlets and as irregular diffusions into groundmass.

Veinlets are composed of intermixed epidote, K-feldspar, carbonate and pyrite.

Opaques; 1%, disseminated pyrite and in fractures. Locally weakly magnetic.

Microscopic description
Phenocrysts
Hornblende; 20%, euhedral/subhedral, (.05 to >1.5 mm). Single crystals and clusters of crystals. Weak epidote and chlorite alteration.

Plagioclase; 15%, euhedral/subhedral, (.05 to 1.5 mm, generally about 0.5 mm). Sericitic and microgranular alteration dusting obliterates twinning and margins of grains tend to blend into groundmass.

Groundmass

Plagioclase; 60%, anhedral (microcrystalline to <.05 mm). Minute felted laths with moderate microgranular brown alteration dusting.

K-feldspar; <5%, anhedral, (microgranular). Diffuse fracture controlled impregnations evident in stained slab. Associated diffuse coarser K-feldspar veinlets noted in thin section.

Accessories
Apatite; trace
Rutile/sphene; trace

Opaques; 1%, euhedral/anhedral (<.01 to >0.2 mm). Disseminated and fracture controlled. Pyrite. Weakly magnetic locally.

Veinlets
K-feldspar, epidote, carbonate, pyrite.

#7 (D 91-3, 109.7)
Bleached altered (feldspathized(?)) pyritized porphyritic andesite/trachyandesite

General description
Thin section shows textures not anticipated from macroscopic examination of core.

Marked porphyritic texture of matrix supported phenocrysts of weakly altered plagioclase and strong altered mafics (hornblende and augite(?)) in a very fine interlocking granular featureless, unaltered, feldspathic plagioclase and K-feldspar(?) groundmass.

Plagioclase phenocrysts less intensely altered than mafics. Plagioclase weakly sericitic and with pale brown alteration dusting. Remnant twinning indicates composition in low andesine range. Mafics pseudomorphous replacement by clusters of carbonate, chlorite, epidote.

Groundmass unaltered featureless interlocking irregular microcrystalline to very fine crystalline feldspars. Stained slab has weak stain network in groundmass indicating much of this material is potassium-rich. (K-feldspar).

Microscopic description
Phenocrysts

Plagioclase; 30%, euhedral/subhedral, (<0.1 to >1.0 mm). Fairly regular outline. Moderate sericitic and brown alteration dusting. Remnant twinning. Indicated composition in lower andesine range.

Altered mafics (hornblende-augite), <20%, euhedral/subhedral, (<.05 to >1.0 mm). Pseudomorphs replaced by intermixed clusters of carbonate, chlorite, epidote.

Groundmass

Plagioclase/K-feldspar; 50%, anhedral (microgranular to >.05 mm). Irregular interlocking grains. Featureless. Unaltered. Result of feldspathization of groundmass??

Note: potassium content indicated stained slab. [Weak stain as compared to # 9 D 91-4-127.9 m]

Accessories
Sphene; traces

Opaques (pyrite); 2%, subhedral/anhedral

7 Continued

Reflected light

Opaques; 2%

Pyrite; 2%, subhedral/anhedral (<.05 to >1.0 mm). Disseminated grains. Coarser grains are associated with epidote.

One small bleb of chalcopyrite noted in pyrite.

#8 D (91-4, 101.1 m)
Altered porphyritic trachyandesite

General description
Slightly altered plagioclase and pseudomorphous replacement of mafic phenocrysts in a microgranular to very fine granular K-feldspar bearing groundmass.

Plagioclase phenocrysts are partially altered by sericite and carbonate and have a red-brown alteration dusting. Mafics show pseudomorphous replacement by clusters of carbonate and foliated plumose chlorite. The groundmass has evenly disseminated minute clots of microgranular sericite and carbonate with weakly disseminated semiopaque flecks.

Opaques; <1%, disseminated magnetite.

Microscopic description
Phenocrysts

Plagioclase; >25%, euhedral/subhedral, (<0.1 to >3.0 mm).
Partial alteration by sericite and carbonate. Red-brown alteration dusting. Weak remnant twinning.

Altered mafics; <10%, euhedral/subhedral (<0.1 to >2.0 mm).
Complete pseudomorphous replacement by clusters of carbonate and plumose felted chlorite.

Groundmass

K-feldspar; >50%, anhedral (microgranular). Composed of minute interlocking grains. Partial alteration by abundantly disseminated minute clusters of aggregates of microgranular sericite and microgranular carbonate.

Plagioclase; suspected but not confirmed in groundmass.

Alteration assemblage

Sericite-carbonate alteration of plagioclase phenocrysts and groundmass.

Red-brown alteration dusting of plagioclase phenocrysts.

Chlorite-carbonate replacement of mafics.

Opaques (magnetite); <1%, subhedral/anhedral (<.05 to >0.5 mm).
Disseminated. Black, magnetic.

#9 (D 91-4, 127.9)
Hornblende monzonite/micromonzonite

General description
Composed of fine/medium grained interlocking altered plagioclase and lesser hornblende in a finer K-feldspar-rich groundmass forming a near continuous network supporting the coarser plagioclase and mafic grains.

Few interstitial quartz grains in close proximity to regular walled quartz-epidote-carbonate-opaque vein. Minor accessory sphene.

Plagioclase has abundantly very fine felted sericite altered and red-brown alteration dusted cores with albitic(?) margins. Hornblende is partially altered to secondary amphibole, lesser chlorite, with minor associated epidote.

K-feldspar-rich groundmass has faint alteration dusting.

Opaques include disseminated magnetite, pyrite, lesser chalcopyrite, traces of ilmenite associated with sphene.

Quartz-epidote-carbonate vein contains coarser pyrite and lesser associated finer grained clusters of chalcopyrite.

Microscopic description
Coarser components

Plagioclase; 40%, subhedral/euhedral (0.1 to >1.0 mm). Interlocking grains with hornblende. Strong sericitic altered cores albitic(?) margins (indistinguishable from interstitial K-feldspar groundmass).

Altered hornblende; >15%, anhedral/subhedral (0.1 to >1.0 mm). Ragged crystal remnants. Partial alteration to secondary amphibole, chlorite. Associated minor carbonate, epidote.

Quartz; <<<5%, anhedral (<0.1 to 0.2 mm). Few interstitial quartz grains in close proximity to vein.

Groundmass

K-feldspar; >25%, anhedral, (<.05 to 0.1 mm). Aggregates of fine interstitial grains forming a continuous network supporting the coarser plagioclase and mafic grains.

Alteration
Albite(?)
Sericite
Secondary amphibole
Chlorite
Epidote
Semiopaque dusting

#9 Continued

Carbonate
Red-brown alteration dusting

Veins
Quartz-epidote-carbonate-opaques

Reflected light
Opaques; <10%

(a) Disseminated
Magnetite; 5%

Pyrite; <1%, subhedral/anhedral (<.05 to >1.0 mm)

Chalcopyrite; <1%, anhedral (<.01 to 0.2 mm) single and clusters of irregular grains. Some fracture control.

Ilmenite; traces, associated with sphene.

(b) Vein-related
Pyrite; <<5%, subhedral/anhedral (<.05 to >2.0 mm) beaded clusters along vein.

Chalcopyrite; <1%, anhedral (<.01 to 0.1 mm) clusters of irregular grains among pyrite with minor disseminations into adjacent wall rock.

#10 (D 91-5, 119.8 m)
Altered, mineralized, veined porphyritic andesite/microdiorite (K-feldspar introduced)

General description
Composed of altered plagioclase and mafic phenocrysts supported in a very fine feldspathic (plagioclase >> K-feldspar) groundmass.

Plagioclase phenocrysts have strong sericitic and semiopaque dusted cores, albitic margins. Mafic crystals pseudomorphous replacement by olive green biotite and chlorite.

Groundmass is composed predominantly of very fine plagioclase. K-feldspar is concentrated in wall rock at the margins of carbonate-quartz veins but has diffuse distribution throughout.

Groundmass appears relatively unaltered but is largely obscured by superimposed continuous network of very fine biotite/chlorite.

Veining; carbonate-quartz-epidote-opaque. (chalcopyrite)

Opaques include (a) disseminated magnetite with minor hematite intergrowths. Coarse chalcopyrite and minor pyrite occurs in vein with fine disseminations outwards into wall rock.

Microscopic description
Phenocrysts/coarse fraction

Plagioclase; 30%, subhedral, (<0.1 to 1.0 mm). Crowded but groundmass supported crystals, clusters of crystals. Intense sericitic altered cores, semiopaque dusting, albitic(?) margins.

Altered mafics; 10%, euhedral/subhedral, (<0.1 to <1.5 mm). Pseudomorphous replacement by olive brown biotite/chlorite as felted bladed pseudomorphous replacement of original mafic crystals.

Groundmass

Plagioclase; 30%, anhedral (<.01 to 0.1 mm). Interlocking grains.

K-feldspar; <10%(?), anhedral (<.01 to 0.1 mm). Conspicuous in stained slab concentrated in wall rock at margins of carbonate-quartz-epidote-opaque veins. Very weak diffuse distribution throughout groundmass. Introduced.

Overprints

Biotite/chlorite; 15%, anhedral, (<.01 to 0.1 mm) irregular grains clusters of grains. Biotite with varied intensity of chloritic alteration.

#10 Continued

Reflected light
Opaques; <10%

Magnetite; <5%, subhedral/anhedral, (<.01 to >0.2 mm), disseminated and in association with altered mafics. Minor hematite intergrowths.

Chalcopyrite; <<5%, anhedral (<.01 to several mm). Weak disseminations, cluster of fine grains in wall rock adjacent to vein. Coarser near continuous masses (to several mm) in veins.

Hematite; <<<1%, anhedral (<.01 to .05 mm). Intergrowths with magnetite.

Pyrite; <1%, anhedral/subhedral (<.05 to 0.5 mm). Clusters of grains associated with chalcopyrite in vein.

#11 (D 91-6, 108.3 m)
Hornblende monzodiorite/micromonzodiorite

Note: Similar to [#9 D 91-4, 127.9 m] but less interstitial K-feldspar content. (Nothing in thin section or core sample to indicate a "lahar").

General description
Composed of near interlocking coarse component of altered plagioclase and hornblende with grain size ranging downwards to form the groundmass between coarser grains. Interstitial K-feldspar is conspicuous in the groundmass of the stained slab.

Plagioclase has varied intensity from moderate to strong sericite-semiopaque dusting alteration in cores with albitic margins. Hornblende occurs as ragged coarser to finer grains with varied intensity of chloritic alteration. Scattered clusters of carbonate.

Featureless K-feldspar in the groundmass is interstitial to other components and is indistinguishable in section from featureless albitic(?) rims on plagioclase.

Microscopic description

Coarser fraction

Plagioclase; 45%, subhedral/anhedral (<0.1 to >1.0 mm). Interlocking grains coarser grains in a finer groundmass. Strong felted sericitic and semiopaque dusted cores, albitic(?) rims.

Hornblende; 20%, subhedral/anhedral, (<0.1 to >1.5 mm). Irregular interlocking clusters of grains and with plagioclase. Scattered coarse crystals (to >3.0 mm), broken fragments.

Finer fraction; 35%

K-feldspar; 20%, anhedral, (<.05 to 0.1 mm). Fine granular interstitial groundmass.

Plagioclase; <5%, anhedral (<0.1 mm)

Hornblende; <5%, anhedral (<0.1 mm)

Carbonate; 1%, anhedral, (<.05 to 0.1 mm). Irregular clusters of grains.

11 Continued

Alteration
Sericite
Semiopaque dusting
Chlorite
Carbonate
Albite

Opaques; 5%, euhedral/anhedral (<.05 to 0.2 mm) Single grains, clusters of grains. Magnetite very minor pyrite.

Veinlets
Carbonate.

#12 (D 91-8, 11.1 m)
Porphyritic dacite

General description
Altered plagioclase and hornblende phenocrysts. Abundant clusters of irregular fine grained quartz. Accessory apatite.

In a feldspathic (plagioclase)-rich microgranular groundmass.

Plagioclase phenocrysts have intensely altered sericitic, semiopaque microgranular dusted altered cores with albitic rims. Pseudomorphous replacement of hornblende by felted biotite and lesser secondary amphibole associated abundantly scattered very irregular clusters of secondary amphibole and biotite. Feldspathic groundmass clouded by light brown alteration dusting. Superimposed very fine diffuse felted biotite/secondary amphibole.

Cut by hairline, diffuse K-feldspar-rich veinlets. Some associated secondary amphibole, minor quartz, carbonate, dark red brown dusted undetermined material and opaques.

Opaques <5% disseminated pyrite.

Microscopic description
Phenocrysts

Altered plagioclase; 15%, euhedral/subhedral, (<.05 to >1.0 mm). Single grains, clusters of grains. Sericitic and semiopaque dusted cores, albitic (?) rims.

Altered hornblende; 20%, subhedral/anhedral, (<.05 to >1.5 mm). Replaced by fine felted biotite, lesser secondary amphibole. Some hornblende remnants.

Quartz; >10%, anhedral (<.05 to 0.5 mm). Very irregular grains, clusters of grains. Strained extinction. Not conspicuously fracture controlled.

Groundmass

Plagioclase; 35%, anhedral, (microgranular to <.05 mm). Felted interlocking. Semiopaque dusting. Very fine felted biotite /secondary amphibole overprint grading upwards to coarser felted clots.

Alteration

K-feldspar; <10%, anhedral (microgranular/<0.1 mm). Fracture controlled diffuse veinlets and weak impregnations out into wall rock.

12 Continued

Secondary amphibole/biotite; 10%, anhedral (microgranular to 0.1 mm). Very fine felted overprint in groundmass grading upwards to scattered coarser felted clots.

Accessory minerals

Apatite; traces.

Alteration assemblage

Sericite
Semiopaque dusting
Albite(?)
Biotite
Secondary amphibole
K-feldspar
Carbonate

Opaques (pyrite); 5%, subhedral, (<.05 to 0.3 mm), disseminated grains, clusters of grains.

Veinlets
K-feldspar, carbonate, secondary amphibole, red brown dusted material (?), opaques (pyrite).

 # 13 (D 91-8, 142.4)
Porphyritic hornblende plagioclase andesite

General description
Abundant altered fine/medium grained plagioclase and coarser hornblende phenocrysts in a microgranular to very fine grained felted/weakly foliated feldspathic (plagioclase/lesser K-feldspar) groundmass.

Plagioclase phenocryst cores are altered to very fine felted sericite and semiopaque dusting with albitic(?) margins. Hornblende is partially altered to chlorite, epidote, secondary amphibole. Groundmass is weakly sericitic, has weak semiopaque dusting and uniformly distributed felted secondary amphibole. Scattered irregular clusters of fine epidote,secondary amphibole, opaques.

Disseminated accessory apatite

Veinlets; epidote with diffuse bleached margins.
Opaques; >5%, disseminated pyrite.

Note: Lacks quartz of (# 12 D 91-8 11.1) and K-feldspar is more diffuse and less obviously fracture controlled. Coarser grained than #12.

Microscopic description
Phenocrysts

Plagioclase; 30%, subhedral/euhedral (<0.1 to >1.0 mm). Single crystals/clusters of crystals. Sericitic, semiopaque dusted cores. Albitic(?) margins.

Hornblende; 20%, subhedral/anhedral (0.1 to 5.0 mm). Partial replacement by secondary amphibole, chlorite, epidote, carbonate. Associated opaques.

Groundmass

K-feldspar; 15%, anhedral (microgranular to >.05 mm). Interlocking grains. Irregular/patchy distribution indicated by stained slab.

Plagioclase; 10(?)%, anhedral, (microgranular to >.05 mm). Interlocking grains.

Alteration overprint

Secondary amphibole; >15%, anhedral (microgranular to >.05 mm). Very fine diffuse felted overprint over groundmass. Gradational to coarser denser clusters with associated epidote, opaques.

13 Continued

Accessories

Apatite; traces

Alteration assemblage

Sericite
Semiopaque dusting
Albite
Epidote
Chlorite
Secondary amphibole

Opaques

Pyrite; >5%, euhedral/subhedral (<.05 to >0.2 mm)

Veinlets

Epidote with diffuse bleached margins.

APPENDIX "C"

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL FILE # 91-2148 Page 1
1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb
D91-1-1	2	47	46	.2	4	3
D91-1-2	1	156	46	.3	4	14
D91-1-3	2	271	46	.4	5	22
D91-1-4	6	130	45	.3	22	33
D91-1-5	1	205	33	.2	3	27
D91-1-6	1	161	24	.4	2	24
D91-1-7	1	170	54	.2	2	14
D91-1-8	1	205	39	.4	5	20
D91-1-9	1	120	32	.3	2	17
D91-1-10	1	120	97	.6	11	21
D91-1-11	1	119	61	.6	2	16
D91-1-12	1	148	47	.7	17	100
D91-1-13	1	106	26	.4	2	12
D91-1-14	1	140	25	.4	3	12
D91-1-15	2	106	31	.3	4	10
D91-1-16	1	81	11	.4	2	8
D91-1-17	2	144	41	.4	2	13
D91-1-18	1	133	19	.2	3	6
D91-1-19	1	60	19	.2	4	9
D91-1-20	2	71	26	.6	3	8
D91-1-21	2	212	40	.1	2	34
D91-1-22	2	149	26	.4	3	13
D91-1-23	1	86	103	.4	2	17
D91-1-24	1	104	41	.5	2	10
D91-1-25	2	125	14	.4	8	27
D91-1-26	3	95	34	.4	7	46
D91-1-27	1	192	32	.5	2	31
D91-1-28	1	90	20	.2	3	2
D91-1-29	2	147	34	.2	3	10
D91-1-30	1	89	54	.3	5	1
D91-1-31	1	73	28	.3	5	1
D91-1-32	1	336	19	.6	4	4
D91-1-33	2	129	36	.3	2	8
D91-1-34	2	292	28	.5	6	13
D91-1-35	2	296	21	.3	6	42
D91-1-36	3	150	28	.6	7	81
STANDARD C/AU-R	20	64	139	7.4	37	540

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: CORE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUN 28 1991 DATE REPORT MAILED: July 8/91

SIGNED BY. C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb
D91-1-37	1	109	47	.3	2	26
D91-1-38	1	124	54	.7	9	69
D91-1-39	1	192	42	.4	2	36
D91-1-40	1	168	45	.4	2	23
D91-1-41	1	173	41	.3	6	21
D91-1-42	3	249	71	1.0	15	120
D91-1-43	1	529	64	1.1	55	120
D91-1-44	1	567	52	1.0	14	630
D91-1-45	1	231	52	.8	8	49
D91-1-46	1	131	45	.8	4	18
D91-1-47	1	44	38	.6	2	19
D91-1-48	1	53	44	.5	3	17
D91-1-49	1	102	45	.5	3	17
D91-1-50	1	21	50	.5	3	20
D91-1-51	1	127	36	.8	6	24
D91-1-52	1	308	62	1.1	14	710
D91-1-53	1	275	61	.7	8	47
D91-1-54	2	150	72	.8	6	30
D91-1-55	2	272	66	1.0	10	62
STANDARD C/AU-R	20	62	132	7.4	36	510

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb
D91-2- 37	15	1575	30	.3	7	50
D91-2- 38	13	1977	18	.3	4	127
D91-2- 39	29	2500	15	.4	4	66
D91-2- 40	10	1785	20	.5	2	51
D91-2- 41	4	1745	26	.4	9	67
D91-2- 42	23	2579	21	.7	14	92
D91-2- 43	14	2204	30	.6	7	115
D91-2- 44	7	2792	21	.4	3	62
D91-2- 45	18	1626	14	.3	3	42
D91-2- 46	19	1756	14	.3	3	58
D91-2- 47	16	1371	13	.2	3	41
D91-2- 48	7	1474	15	.3	5	49
D91-2- 49	4	1789	20	.5	17	48
D91-2- 50	16	1848	15	.3	4	71
D91-2- 51	19	2308	15	.3	2	93
D91-2- 52	11	2000	19	.4	2	53
D91-2- 53	3	1259	15	.3	4	99
D91-2- 54	10	1825	12	.5	15	54
D91-2- 55	11	2145	11	.3	5	76
D91-2- 56	19	2755	14	.4	4	121
D91-2- 57	11	2247	16	.3	8	69
D91-2- 58	2	1308	13	.1	6	51
D91-2- 59	7	1031	11	.2	3	45
D91-2- 60	5	1379	12	.3	3	42
D91-2- 61	4	1204	26	.4	4	40
D91-2- 62	24	1073	37	.8	56	220
D91-2- 63	9	2393	19	.6	2	74
D91-2- 64	7	2205	20	.3	3	47
D91-2- 65	10	1547	38	.4	3	28
D91-2- 66	35	1310	157	1.8	6	39
D91-2- 67	6	1747	40	.5	3	54
D91-2- 68	2	992	42	.3	2	33
STANDARD C/AU-R	17	57	132	6.9	37	520

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL #2 FILE # 91-2300 Page 1
1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb
D91-2-1	10	2913	45	.6	4	190
D91-2-2	1	3254	41	.4	5	120
D91-2-3	1	2765	28	.3	3	120
D91-2-4	1	3680	26	.4	5	140
D91-2-5	17	2575	20	.3	8	120
D91-2-6	3	3681	22	.4	150	170
D91-2-7	1	5516	18	.7	7	380
D91-2-8	1	4778	31	.7	4	290
D91-2-9	2	4011	18	.5	2	210
D91-2-10	2	3905	17	.6	2	120
D91-2-11	5	3863	19	.6	19	150
D91-2-12	1	3983	24	.5	128	140
D91-2-13	4	4652	50	.9	227	110
D91-2-14	2	4155	24	.5	4	110
D91-2-15	4	2949	14	.2	2	120
D91-2-16	5	3852	14	.3	7	150
D91-2-17	7	3187	20	.4	3	140
D91-2-18	4	3096	29	.3	5	160
D91-2-19	2	3683	25	.5	3	120
D91-2-20	2	2498	54	2.3	100	110
D91-2-21	7	2306	25	.9	5	95
D91-2-22	4	3392	27	.8	40	93
D91-2-23	7	2190	38	.5	39	74
D91-2-24	11	4634	66	.6	3	130
D91-2-25	8	2798	89	.7	179	91
D91-2-26	4	1388	23	.2	4	42
D91-2-27	13	2191	15	.3	5	57
D91-2-28	5	2098	20	.1	2	97
D91-2-29	7	1736	23	.2	32	46
D91-2-30	5	1923	27	.2	37	92
D91-2-31	5	1703	17	.2	2	82
D91-2-32	6	1523	30	.2	4	82
D91-2-33	6	1322	16	.2	2	94
D91-2-34	13	1544	12	.1	2	88
D91-2-35	8	1132	14	.1	4	41
D91-2-36	16	2058	18	.3	81	61
STANDARD C/AU-R	18	60	131	7.1	38	510

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: CORE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 4 1991 DATE REPORT MAILED: July 10/91.

SIGNED BY. C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

RECEIVED
JUL 11 1991

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

ASSAY CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL #2 FILE # 91-2300R Page 1
1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9

SAMPLE#	Au** oz/t
D91-2-1	.005
D91-2-2	.004
D91-2-3	.004
D91-2-4	.005
D91-2-5	.005
D91-2-6	.006
D91-2-7	.011
D91-2-8	.010
D91-2-9	.007
D91-2-10	.006
D91-2-11	.006
D91-2-12	.005
D91-2-13	.004
D91-2-14	.004
D91-2-15	.004
D91-2-16	.006
D91-2-17	.005
D91-2-18	.004
D91-2-19	.004
D91-2-20	.004
D91-2-21	.003
D91-2-22	.003
D91-2-23	.003
D91-2-24	.003
D91-2-25	.003
D91-2-26	.001
D91-2-27	.002
D91-2-28	.003
D91-2-29	.002
D91-2-30	.003
D91-2-31	.002
D91-2-32	.002
D91-2-33	.003
D91-2-34	.002
RE D91-2-30	.002
D91-2-35	.001
D91-2-36	.002
STANDARD AU-1	.099

AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
- SAMPLE TYPE: CORE PULP
Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 26 1991 DATE REPORT MAILED: Aug 30/91

SIGNED BY. C. Leong ..D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Au** oz/t
D91-2- 37	.002
D91-2- 38	.002
D91-2- 39	.003
D91-2- 40	.002
D91-2- 41	.003
D91-2- 42	.004
D91-2- 43	.005
D91-2- 44	.003
D91-2- 45	.002
RE D91-2- 50	.003
D91-2- 46	.002
D91-2- 47	.001
D91-2- 48	.002
D91-2- 49	.003
D91-2- 50	.002
D91-2- 51	.004
D91-2- 52	.002
D91-2- 53	.003
D91-2- 54	.002
D91-2- 55	.003
D91-2- 56	.003
D91-2- 57	.003
D91-2- 58	.002
D91-2- 59	.002
D91-2- 60	.002
D91-2- 61	.001
D91-2- 62	.010
D91-2- 63	.003
D91-2- 64	.002
D91-2- 65	.001
D91-2- 66	.001
D91-2- 67	.003
D91-2- 68	.001
STANDARD AU-1	.100

Samples beginning 'RE' are duplicate samples.

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL #3 FILE # 91-2346 Page 1
1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9 Attn: JOHN CORMIER

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb	SAMPLE wt. lb
D91-3-1	4	425	20	.4	3	30	9
D91-3-2	2	491	21	.2	5	36	15
D91-3-3	8	667	26	.4	4	51	19
D91-3-4	4	305	23	.3	2	26	19
D91-3-5	11	890	23	.4	2	48	18
D91-3-6	11	686	24	.3	5	24	18
D91-3-7	7	454	26	.2	2	20	18
D91-3-8	2	400	23	.3	5	22	16
D91-3-9	5	970	35	.6	5	48	19
D91-3-10	2	902	21	.3	3	34	20
D91-3-11	10	977	31	.6	18	28	18
D91-3-12	16	1001	18	.3	2	43	17
D91-3-13	9	484	24	.1	3	28	17
D91-3-14	7	515	24	.3	4	30	11
D91-3-15	3	441	20	.3	4	16	19
D91-3-16	22	1440	26	.3	7	56	20
D91-3-17	33	1455	23	.6	6	55	17
D91-3-18	3	348	19	.2	2	10	20
D91-3-19	9	533	25	.1	4	20	16
D91-3-20	6	342	20	.2	6	10	20
D91-3-21	4	480	19	.1	4	22	19
D91-3-22	8	1152	18	.2	7	27	18
D91-3-23	7	549	20	.1	5	19	17
D91-3-24	2	551	20	.4	3	15	17
D91-3-25	3	52	51	.4	8	17	16
D91-3-26	1	60	54	.3	7	12	16
D91-3-27	1	13	31	.2	3	34	13
D91-3-28	1	152	31	.1	5	9	11
D91-3-29	1	122	35	.3	5	7	11
D91-3-30	1	122	33	.3	3	7	17
D91-3-31	1	80	32	.1	2	11	17
D91-3-32	1	8	40	.4	5	13	14
D91-3-33	1	4	22	.3	5	22	11
D91-3-34	2	4	22	.2	4	6	15
D91-3-35	14	15	16	.3	3	5	14
D91-3-36	3	8	18	.3	5	4	16
STANDARD C/AU-R	19	59	132	7.4	38	470	-

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: CORE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 8 1991 DATE REPORT MAILED: July 10/91.

SIGNED BY. ..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

RECEIVED
JUL 11 1991

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb	SAMPLE Wt. lb
D91-3-37	1	12	15	.2	3	6	20
D91-3-38	1	50	17	.1	4	6	16
D91-3-39	1	68	21	.2	3	12	17
D91-3-40	1	115	25	.3	2	10	17
D91-3-41	1	288	23	.2	2	10	16
D91-3-42	1	202	20	.2	2	9	17
D91-3-43	15	2424	14	.7	2	120	18
D91-3-44	22	2504	10	.5	3	48	16
D91-3-45	27	1425	10	.3	4	20	18
D91-3-46	13	2090	14	.5	2	37	16
D91-3-47	3	1107	12	.3	4	27	18
D91-3-48	15	2143	12	.6	2	56	18
STANDARD C/AU-R	19	63	132	7.1	39	510	-

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
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GEOCHEMICAL ANALYSIS CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL #4 FILE # 91-2469 Page 1
1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9 Attn: J.CORMIER

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb	SAMPLE lb
D91-3-49	25	3041	17	.7	8	86	12
D91-3-50	173	2890	17	.9	65	110	12
D91-3-51	11	2413	13	.5	6	68	13
D91-3-52	1	72	33	.1	16	49	15
D91-3-53	2	92	20	.1	4	46	16
D91-3-54	2	179	20	.2	3	84	15
D91-3-55	1	109	22	.2	8	21	17
D91-3-56	5	1446	21	.5	3	46	17
D91-3-57	1	1824	17	.5	3	49	17
D91-3-58	1	1760	12	.4	4	71	10
D91-3-59	1	1056	18	.2	2	46	17
D91-3-60	1	1252	23	.3	4	58	11
D91-3-61	1	1229	27	.4	5	98	8
D91-3-62	2	1382	20	.4	2	59	14
D91-3-63	2	1470	17	.4	2	69	14
D91-3-64	2	1092	29	.6	3	75	13
D91-3-65	3	1886	24	.6	2	66	10
D91-3-66	1	283	17	.3	4	17	15
D91-3-67	1	214	14	.4	2	14	10
D91-5-1	5	1024	16	.3	6	35	8
D91-5-2	3	631	17	.2	2	27	13
D91-5-3	6	575	17	.2	5	37	10
D91-5-4	2	692	16	.3	4	27	16
D91-5-5	3	962	15	.3	7	68	15
D91-5-6	1	679	15	.3	8	30	17
D91-5-7	5	1344	23	.5	6	34	15
D91-5-8	4	1672	22	.6	7	70	15
D91-5-9	2	1336	68	.8	23	118	14
D91-5-10	3	1206	19	.4	3	46	12
D91-5-11	3	772	16	.4	3	36	13
D91-5-12	1	313	20	.3	3	16	10
D91-5-13	1	103	28	.1	4	14	14
D91-5-14	1	253	29	.3	2	33	15
D91-5-15	1	168	40	.1	2	21	15
D91-5-16	1	14	41	.1	2	10	14
D91-5-17	1	88	39	.1	2	9	10
STANDARD C/AU-R	17	57	132	7.3	43	510	-

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: CORE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 11 1991 DATE REPORT MAILED: July 16/91 RECEIVED

SIGNED BY. C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS JUL 16 1991

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb	SAMPLE lb
D91-5-18	1	39	26	.1	3	11	12
D91-5-19	2	193	22	.1	2	13	15
D91-5-20	4	86	22	.2	156	17	15
D91-5-21	1	129	25	.2	2	16	16
D91-5-22	7	1023	23	.4	5	34	10
D91-5-23	4	919	28	.6	10	34	12
D91-5-24	18	1359	26	.7	2	93	13
D91-5-25	20	1926	16	.5	6	64	12
D91-5-26	4	1663	12	.5	2	50	14
D91-5-27	2	1583	16	.4	2	51	15
D91-5-28	10	1975	21	.6	4	83	13
D91-5-29	27	3616	21	.8	5	65	16
D91-5-30	7	2735	25	.6	11	61	17
D91-5-31	9	1283	23	.4	3	64	16
D91-5-32	12	2283	18	.5	10	67	14
D91-5-33	10	2403	18	.6	5	71	12
D91-5-34	11	1403	29	.7	3	75	17
D91-5-35	2	952	53	.8	3	31	14
D91-5-36	3	2907	28	.8	2	101	13
D91-5-37	3	7072	24	1.2	3	183	9
D91-5-38	1	3895	29	.5	7	105	9
D91-5-39	8	5288	30	.9	5	155	10
D91-5-40	1	7064	27	1.2	2	186	11
D91-5-41	1	724	32	.4	3	25	16
D91-5-42	1	962	38	.5	2	73	13
D91-5-43	1	1399	24	.6	2	69	8
D91-5-44	1	2587	20	.5	2	110	13
D91-5-45	4	3251	22	.6	7	135	14
D91-5-46	1	3704	23	.6	8	127	13
D91-5-47	1	2520	27	.9	5	55	13
D91-5-48	1	1126	19	.4	4	74	16
D91-5-49	1	3541	27	.6	6	115	15
D91-5-50	1	4484	28	1.0	2	133	18
D91-5-51	2	4392	26	.5	2	158	16
D91-5-52	2	2669	18	.4	4	70	15
STANDARD C/AU-R	20	60	132	7.2	42	500	-

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
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GEOCHEMICAL ANALYSIS CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL #5 FILE # 91-2576 Page 1
1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9 Attn: JOHN CORMIER

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb	SAMPLE lb
D91-4-1	1	143	41	.1	5	23	11
D91-4-2	1	190	42	.3	4	22	12
D91-4-3	1	158	32	.1	4	26	14
D91-4-4	1	157	36	.1	6	30	15
D91-4-5	1	179	35	.1	5	23	16
D91-4-6	1	174	41	.1	2	15	18
D91-4-7	1	349	39	.1	5	27	18
D91-4-8	1	440	43	.2	4	29	16
D91-4-9	1	103	32	.1	2	6	16
D91-4-10	1	199	31	.2	2	17	18
D91-4-11	1	104	97	.2	2	6	16
D91-4-12	1	87	45	.1	3	13	15
D91-4-13	1	139	31	.1	4	30	15
D91-4-14	5	1424	57	.7	31	352	9
D91-4-15	1	136	25	.1	2	17	11
D91-4-16	1	62	23	.1	4	4	10
D91-4-17	1	275	30	.1	23	31	12
D91-4-18	1	280	25	.1	2	26	11
D91-4-19	1	439	90	.5	29	50	15
D91-4-20	1	288	31	.2	7	19	14
D91-4-21	1	97	28	.2	5	16	14
D91-4-22	1	185	28	.1	4	13	16
D91-4-23	1	327	32	.1	2	13	15
D91-4-24	2	171	32	.1	2	8	16
D91-4-25	1	368	64	.4	7	12	12
D91-4-26	1	394	48	.2	57	15	14
D91-4-27	11	332	51	.3	89	21	13
D91-4-28	1	171	37	.2	5	8	15
D91-4-29	1	55	34	.1	3	9	17
D91-4-30	5	307	121	.8	125	67	14
D91-4-31	6	282	59	.4	50	27	16
D91-4-32	6	159	55	.2	49	27	14
D91-4-33	1	340	31	.3	3	19	15
D91-4-34	10	478	28	.4	2	32	16
D91-4-35	9	330	28	.3	2	18	15
D91-4-36	2	64	31	.1	2	3	14
STANDARD C/AU-R	19	60	137	7.3	42	462	-

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: CORE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 16 1991 DATE REPORT MAILED: July 19/91.

SIGNED BY..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

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JUL 19 1991

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb	SAMPLE lb
D91-4-37	3	38	26	.1	2	9	14
D91-4-38	1	698	33	.3	2	36	15
D91-4-39	6	570	25	1.3	2	36	15
D91-4-40	3	520	35	.3	5	240	14
D91-4-41	4	1459	34	.6	2	42	13
D91-4-42	2	334	19	.2	2	24	14
D91-4-43	1	251	23	.1	2	21	13
D91-4-44	2	662	31	.1	2	35	13
D91-4-45	3	1267	30	.6	2	54	12
D91-4-46	2	1024	28	.5	3	35	10
D91-4-47	1	664	39	.5	2	35	13
D91-4-48	1	772	40	.4	2	59	15
D91-4-49	1	1120	32	.9	2	44	14
D91-4-50	3	33	43	.1	3	9	13
D91-4-51	1	14	42	.1	2	1	14
D91-4-52	9	1880	33	.6	2	84	15
D91-4-53	9	1498	26	.4	2	68	14
D91-4-54	4	797	23	.3	2	30	15
D91-4-55	8	1016	24	.3	2	46	14
D91-4-56	15	1268	26	.3	2	71	16
STANDARD C/AU-R	18	58	133	7.6	41	490	-

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL #7 FILE # 91-2798
1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9 Attn: JOHN CORMIER

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb
D91-6-1	1	120	62	.4	2	9
D91-6-2	1	309	51	.5	3	15
D91-6-3	1	186	66	.4	4	9
D91-6-4	266	20212	85	8.7	2	330
D91-6-5	1	395	25	.1	2	38
D91-6-6	1	1012	39	.5	2	49
D91-6-7	1	1118	39	.4	2	39
D91-6-8	3	943	57	.3	2	151
D91-6-9	1	893	55	.3	2	31
D91-6-10	1	1207	72	.6	6	38
D91-6-11	1	597	56	.3	4	30
D91-6-12	1	472	41	.4	2	24
D91-6-13	1	416	39	.3	3	19
D91-6-14	2	508	50	.3	3	16
D91-6-15	1	707	31	.2	2	19
D91-6-16	5	611	35	.4	23	20
D91-6-17	1	103	69	.1	12	5
D91-6-18	2	350	56	.2	8	6
D91-6-19	2	457	108	.9	40	10
D91-6-20	1	476	52	.3	2	23
D91-6-21	1	571	67	1.0	25	27
D91-6-22	1	387	55	.4	11	16
D91-6-23	1	549	44	.6	51	20
D91-6-24	1	352	37	.3	19	16
D91-6-25	1	247	51	.7	43	29
D91-6-26	1	390	40	.4	26	27
D91-6-27	2	784	38	.6	4	29
D91-6-28	1	332	35	.4	2	23
D91-6-29	2	521	24	.4	2	44
D91-6-30	1	564	17	.2	2	32
D91-6-31	1	825	16	.3	2	35
D91-6-32	14	699	21	.2	3	43
D91-6-33	60	738	24	.3	2	37
D91-6-34	1	480	23	.3	2	28
D91-6-35	7	1647	22	.4	2	66
D91-6-36	1	513	19	.1	2	39
D91-6-37	2	653	21	.3	2	45
STANDARD C/AU-R	18	56	131	6.9	44	470

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. IS 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: CORE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 23 1991 DATE REPORT MAILED: July 26/91

SIGNED BY..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

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JUL 29 1991

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL 6 FILE # 91-2692 Page 1
1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb	SAMPLE lb
D91-7-1	1	201	50	.4	3	10	14
D91-7-2	1	235	49	.4	5	15	12
D91-7-3	1	249	47	.4	2	6	15
D91-7-4	1	139	47	.4	2	14	13
D91-7-5	1	247	67	.3	4	9	12
D91-7-6	1	179	44	.3	2	11	12
D91-7-7	1	283	38	.2	3	35	10
D91-7-8	1	265	85	2.1	33	19	15
D91-7-9	1	332	67	1.2	4	26	16
D91-7-10	1	395	70	1.2	5	39	14
D91-7-11	1	15	54	.3	4	11	14
D91-7-12	1	110	52	.4	2	40	13
D91-7-13	1	26	53	.6	2	126	15
D91-7-14	1	456	54	.8	2	115	14
D91-7-15	1	483	60	2.7	3	109	12
D91-7-16	1	158	140	1.5	2	89	13
D91-7-17	1	85	85	.9	2	65	13
D91-7-18	1	590	358	2.7	8	42	15
D91-7-19	1	88	98	.7	5	39	15
D91-7-20	1	407	55	.7	6	27	12
D91-7-21	1	114	42	.1	2	8	13
D91-7-22	1	348	31	.3	2	13	15
D91-7-23	1	318	32	.4	3	18	14
D91-7-24	1	164	48	.4	4	11	15
D91-7-25	1	180	72	.5	7	49	13
D91-7-26	1	344	48	1.0	5	63	11
D91-7-27	1	200	44	.7	7	27	14
D91-7-28	1	254	81	1.6	7	78	12
D91-7-29	1	249	45	.3	7	69	12
D91-7-30	2	391	119	1.7	8	128	14
D91-7-31	1	181	36	.1	6	34	14
D91-7-32	1	429	31	.2	7	52	13
D91-7-33	2	736	48	.4	4	106	14
D91-7-34	15	973	49	1.1	7	141	14
D91-7-35	1	353	39	.5	15	119	13
D91-7-36	1	533	38	.3	32	63	12
STANDARD C/AU-R	20	65	134	7.5	42	450	-

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: CORE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 19 1991 DATE REPORT MAILED: July 24/91

SIGNED BY. C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb	SAMPLE lb
D91-7-37	2	1098	40	.6	2	58	12
D91-7-38	1	765	52	.6	2	161	15
D91-7-39	2	2056	101	2.6	8	220	10
D91-7-40	9	508	289	1.4	63	88	14
D91-7-41	5	880	81	1.1	7	78	12
D91-7-42	1	1734	57	1.0	8	176	13
D91-7-43	1	981	59	.7	2	93	14
D91-7-44	1	715	64	.8	2	116	11
D91-7-45	6	811	47	.7	3	136	17
D91-7-46	2	1208	56	.3	5	96	15
D91-7-47	4	715	57	.4	8	133	14
D91-7-48	2	1290	61	.5	6	107	13
D91-7-49	4	1271	94	.7	191	78	15
D91-7-50	2	1344	55	1.5	3	220	15
D91-7-51	1	674	46	.4	2	85	15
D91-7-52	1	1599	46	.5	3	127	16
D91-7-53	2	432	39	.5	3	89	12
D91-7-54	1	604	34	.4	2	65	14
D91-7-55	1	796	30	.5	3	70	15
D91-7-56	1	726	40	.6	2	48	13
D91-7-57	1	743	38	.5	2	46	15
D91-7-58	1	811	43	.6	24	77	13
D91-7-59	6	546	45	.4	61	67	10
D91-7-60	1	497	57	.6	39	99	12
STANDARD C/AU-R	19	61	130	7.4	42	460	-

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GEOCHEMICAL ANALYSIS CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL #10 FILE # 91-3073 Page 1
1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9 Attn: JOHN CORMIER

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb	SAMPLE lb
D91-5-53	1	97	54	.1	29	380	13
D91-5-54	1	148	90	.2	10	104	12
D91-5-55	2	194	57	.1	11	20	11
D91-5-56	1	406	32	.3	4	7	12
D91-8-1	3	1680	23	.3	7	13	12
D91-8-2	6	1745	24	.4	7	22	13
D91-8-3	4	1217	23	.3	5	14	13
D91-8-4	5	1335	19	.2	5	17	13
D91-8-5	4	878	19	.3	8	8	14
D91-8-6	2	842	11	.2	4	3	15
D91-8-7	2	982	17	.3	4	22	14
D91-8-8	3	864	14	.2	6	12	16
D91-8-9	2	1097	11	.2	7	5	15
D91-8-10	4	1400	19	.2	29	7	15
D91-8-11	7	1377	21	.2	7	17	17
D91-8-12	2	685	11	.1	5	4	17
D91-8-13	4	912	13	.1	6	19	15
D91-8-14	2	1163	23	.2	7	15	17
D91-8-15	3	1267	16	.2	6	19	14
D91-8-16	16	1771	20	.3	6	10	16
D91-8-17	8	1312	22	.1	31	6	15
D91-8-18	4	1366	16	.2	12	12	16
D91-8-19	11	1778	21	.2	7	7	15
D91-8-20	25	1550	22	.2	5	21	16
D91-8-21	8	1449	17	.2	10	13	17
D91-8-22	6	1320	27	.1	26	11	14
D91-8-23	6	1233	31	.1	6	18	13
D91-8-24	7	3409	28	.3	5	24	16
D91-8-25	28	3149	23	.2	3	22	12
D91-8-26	23	3010	21	.4	8	16	14
D91-8-27	16	2425	22	.2	3	19	15
D91-8-28	11	1948	14	.2	3	13	15
D91-8-29	22	3297	29	.4	11	28	16
D91-8-30	5	1968	18	.3	2	28	16
D91-8-31	16	2203	20	.3	5	28	14
D91-8-32	39	1853	105	.8	147	34	13
STANDARD C/AU-R	17	57	130	6.9	37	470	-

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.
:AY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
SAMPLE TYPE: P1-P3 CORE P4 SLUDGE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 31 1991 DATE REPORT MAILED: Aug 8/91

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AUG - 9 1991

SIGNED BY..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb	SAMPLE lb
D91-8-33	16	2097	61	.3	16	45	14
D91-8-34	5	1156	22	.2	23	42	13
D91-8-35	3	728	17	.2	16	25	13
D91-8-36	2	1049	11	.2	12	33	14
D91-8-37	7	1502	13	.2	5	35	13
D91-8-38	2	1467	13	.3	6	35	14
D91-8-39	2	968	15	.3	7	27	15
D91-8-40	1	707	13	.2	4	28	16
D91-8-41	3	567	8	.2	6	16	15
D91-8-42	1	642	11	.1	4	16	15
D91-8-43	2	813	11	.2	3	3	17
D91-8-44	9	710	9	.2	3	16	15
D91-8-45	4	1340	11	.2	7	28	14
D91-8-46	5	870	11	.2	6	14	15
D91-8-47	8	1116	34	.3	6	29	16
D91-8-48	8	873	9	.2	6	18	13
D91-8-49	5	827	11	.2	5	14	12
D91-8-50	3	462	15	.1	5	11	12
D91-8-51	11	1138	10	.3	6	10	15
D91-8-52	11	753	3	.1	3	17	16
D91-8-53	15	853	15	.2	5	49	17
D91-8-54	7	793	196	.9	8	43	17
D91-8-55	20	1049	18	.2	9	26	16
D91-8-56	15	772	6	.1	3	14	17
D91-8-57	15	627	6	.2	5	9	16
D91-8-58	14	442	8	.1	4	9	17
D91-8-59	23	632	7	.1	5	8	17
D91-8-60	17	975	14	.3	5	24	16
D91-10-35	4	1978	24	.5	4	56	13
D91-10-36	2	1905	19	.4	6	61	14
D91-10-37	1	3025	20	.5	5	90	14
D91-10-38	6	2692	18	.4	69	220	15
D91-10-39	8	2261	18	.2	2	13	14
D91-10-40	4	1366	22	.2	2	44	12
D91-10-41	4	1511	18	.3	3	57	11
D91-10-42	13	2020	28	.4	5	68	12
STANDARD C/AU-R	18	57	131	6.7	39	510	-

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GEOCHEMICAL ANALYSIS CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL #8 FILE # 91-2891

1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb
D91-9-1	1	1097	21	.2	4	86
D91-9-2	1	1171	17	.4	5	88
D91-9-3	4	1465	12	.3	10	80
D91-9-4	5	854	10	.1	15	36
D91-9-5	3	681	14	.2	10	54
D91-9-6	45	1282	20	.5	11	62
D91-9-7	7	1051	12	.3	3	56
D91-9-8	6	1196	19	.2	3	74
D91-9-9	13	789	11	.2	13	197
D91-9-10	10	1120	9	.3	2	57
D91-9-11	9	817	9	.1	2	45
D91-9-12	12	855	8	.3	2	41
D91-9-13	9	655	8	.4	5	55
D91-9-14	11	1160	11	.2	2	39
D91-9-15	6	955	15	.3	2	32
D91-9-16	9	1085	18	.4	8	76
D91-9-17	9	978	15	.5	11	71
D91-9-18	6	780	20	.2	6	51
D91-9-19	16	761	11	.3	3	34
D91-9-20	17	819	50	.5	10	49
D91-9-21	10	615	17	.3	4	31
D91-9-22	15	556	17	.2	8	38
D91-9-23	20	500	15	.2	4	28
D91-9-24	10	484	36	.4	13	38
D91-9-25	11	420	38	.2	12	24
D91-9-26	3	499	18	.4	5	30
D91-9-27	6	638	25	.1	9	46
D91-9-28	5	561	10	.2	3	30
STANDARD C/AU-R	18	63	140	7.3	42	480

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. ASSAY RECOMMENDED FOR CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB.
- SAMPLE TYPE: CORE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 26 1991 **DATE REPORT MAILED:** July 31/91

SIGNED BY. C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb	SAMPLE lb
D91-10-43	11	1994	62	1.0	225	101	15
D91-10-44	3	2256	27	.6	2	98	13
D91-10-45	4	2679	61	.7	190	115	13
D91-10-46	12	3707	35	.6	31	116	14
D91-10-47	4	1748	17	.4	9	94	15
D91-10-48	9	2362	22	.4	22	69	13
D91-10-49	16	1720	20	.3	4	77	14
D91-10-50	33	3707	18	.5	27	81	8

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GEOCHEMICAL ANALYSIS CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL #9 FILE # 91-2890

1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb	SAMPLE lb
D91-10-1	10	2549	28	.4	71	68	5
D91-10-2	8	2001	27	.3	75	61	8
D91-10-3	7	2149	27	.4	175	69	7
D91-10-4	4	1025	24	.3	248	69	3
D91-10-5	23	2632	55	.4	710	77	12
D91-10-6	7	2153	24	.4	685	64	11
D91-10-7	8	2601	50	.6	838	114	10
D91-10-8	1	98	52	.1	12	24	10
D91-10-9	3	827	60	.3	290	34	11
D91-10-10	20	2013	56	.3	674	65	11
D91-10-11	22	4204	78	1.1	516	100	12
D91-10-12	8	2133	24	.4	113	71	12
D91-10-13	8	2128	31	.6	13	116	15
D91-10-14	8	4378	26	.7	75	162	12
D91-10-15	22	2439	31	.5	54	85	14
D91-10-16	18	1810	29	.4	10	76	13
D91-10-17	9	1642	38	.7	29	69	12
D91-10-18	4	2051	25	.3	7	34	11
D91-10-19	4	3396	26	.6	10	70	11
D91-10-20	3	2210	22	.6	12	74	12
D91-10-21	7	3160	54	.6	63	98	10
D91-10-22	5	665	19	.1	17	26	11
D91-10-23	10	679	13	.2	5	16	10
D91-10-24	8	884	29	.2	5	11	3
D91-10-25	6	997	23	.2	4	26	11
D91-10-26	5	841	16	.3	6	33	12
D91-10-27	11	706	25	.3	4	32	10
D91-10-28	8	810	20	.3	6	41	10
D91-10-29	3	549	25	.3	8	72	11
D91-10-30	81	1049	30	.4	6	50	7
D91-10-31	14	1088	28	.4	7	63	11
D91-10-32	7	2142	22	.5	4	88	11
D91-10-33	3	1889	17	.4	3	76	11
D91-10-34	5	1976	18	.6	5	81	11
STANDARD C/AU-R	19	58	132	7.1	43	460	-

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: CORE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 26 1991 DATE REPORT MAILED: July 30/91

SIGNED BY. C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb
D91-10 242-245	15	922	28	.2	9	62
D91-10 245-250	8	1077	22	.2	9	92
D91-10 250-251	7	1036	15	.1	4	37

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ASSAY CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL #9 FILE # 91-2890R
1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9

SAMPLE#	Au** oz/t
D91-10-1	.002
D91-10-2	.002
D91-10-3	.002
D91-10-4	.002
RE D91-10-8	.001
D91-10-5	.002
D91-10-6	.002
D91-10-7	.004
D91-10-8	.001
D91-10-9	.001
D91-10-10	.002
D91-10-11	.004
D91-10-12	.003
D91-10-13	.004
D91-10-14	.005
D91-10-15	.003
D91-10-16	.003
D91-10-17	.002
D91-10-18	.001
D91-10-19	.003
D91-10-20	.002
D91-10-21	.003
D91-10-22	.001
D91-10-23	.001
D91-10-24	.001
D91-10-25	.001
D91-10-26	.001
D91-10-27	.001
D91-10-28	.001
D91-10-29	.002
D91-10-30	.001
D91-10-31	.001
D91-10-32	.022
D91-10-33	.002
D91-10-34	.002
STANDARD AU-1	.099

RECEIVED
SEP 3 - 1991

AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
- SAMPLE TYPE: CORE PULP
Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 26 1991 DATE REPORT MAILED: Sept 3/91.

SIGNED BY. . . . . D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

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

ASSAY CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL #10 FILE # 91-3073R

SAMPLE#	Au** oz/t
D91-10-35	.002
D91-10-36	.002
D91-10-37	.003
D91-10-38	.005
D91-10-39	.002
D91-10-40	.002
D91-10-41	.003
D91-10-42	.002
D91-10-43	.003
D91-10-44	.003
D91-10-45	.003
D91-10-46	.002
D91-10-47	.002
D91-10-48	.002
D91-10-49	.001
D91-10-50	.002
STANDARD AU-1	.098

AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
- SAMPLE TYPE: CORE PULP

DATE RECEIVED: AUG 26 1991 DATE REPORT MAILED: Aug 30/91

SIGNED BY..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

RECEIVED
SEP 3 - 1991

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
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GEOCHEMICAL ANALYSIS CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL #11 FILE # 91-3484 Page 1
1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9 Attn: JOHN CORMIER

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb
D91-11-1	5	693	44	.2	4	64
D91-11-2	6	1030	32	.3	3	200
D91-11-3	6	641	24	.1	4	31
D91-11-4	3	561	35	.2	3	270
D91-11-5	8	371	29	.3	8	75
D91-11-6	11	843	28	.2	13	280
D91-11-7	6	353	25	.1	9	53
D91-11-8	7	582	28	.2	2	116
D91-11-9	17	930	36	.2	12	42
D91-11-10	5	444	26	.1	3	51
D91-11-11	9	1543	25	.3	7	127
D91-11-12	5	992	43	.7	10	104
D91-11-13	5	258	29	.2	6	37
D91-11-14	4	621	48	.1	4	40
D91-11-15	5	860	31	.2	2	99
D91-11-16	9	1135	23	.3	4	90
D91-11-17	6	1098	34	.2	5	89
D91-11-18	5	2046	30	.3	7	174
D91-11-19	4	546	26	.2	5	39
D91-11-20	4	520	25	.2	4	51
D91-11-21	6	2028	31	.4	17	153
D91-11-22	6	1020	28	.1	4	116
RE D91-11-19	4	598	29	.2	3	45
D91-11-23	7	833	32	.2	27	60
D91-11-24	5	816	24	.3	4	57
D91-11-25	7	1135	22	.2	7	86
D91-11-26	6	700	27	.2	8	40
D91-11-27	6	457	22	.2	5	58
D91-11-28	15	721	28	.2	5	102
D91-11-29	11	307	20	.2	4	37
D91-11-30	10	275	46	.2	9	73
D91-11-31	8	546	46	.2	6	89
D91-11-32	13	1067	33	.5	7	145
D91-11-33	17	1066	26	.3	6	78
D91-11-34	3	652	33	.2	6	42
D91-11-35	9	611	155	.2	7	44
D91-11-36	3	238	23	.2	5	64
STANDARD C/AU-R	19	57	131	6.9	41	450

) - .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.
.S 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.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: CORE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 14 1991 DATE REPORT MAILED: Aug 16/91 RECEIVED

SIGNED BY..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS AUG 19 1991

SAMPLE#	Mo ppm	Cu ppm	Zn ppm	Ag ppm	As ppm	Au* ppb
D91-11-37	2	302	33	.2	10	34
D91-11-38	22	1020	66	.8	38	250
D91-11-39	11	627	30	.3	13	76
D91-11-40	5	335	16	.3	7	55
D91-11-41	5	552	18	.3	2	42
RE D91-11-38	22	1039	64	.8	40	280
STANDARD C/AU-R	19	57	133	6.9	39	500

Samples beginning 'RE' are duplicate samples.

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Cordilleran Engineering Ltd. PROJECT DILL #12 FILE # 91-3861 Page 1
1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9 Attn: E.A. BALON

SAMPLE#	Cu ppm	Au* ppb
2650W 25S	52	5.2
2650W 50S	40	8.5
2650W 75S	41	4.2
2650W 100S	38	1.9
2650W 125S	190	2.7
2650W 150S	289	7.0
2650W 175S	64	4.8
2650W 200S	443	2.8
2650W 225S	356	2.9
2600W 00S	42	4.5
2600W 25S	32	1.8
2600W 175S	43	15.4
2595W 75S	38	8.2
2595W 125S	39	2.9
2595W 150S	31	4.3
2595W 200S	44	2.0
2595W 225S	47	1.7
2590W 50S	33	2.5
2590W 100S	35	6.5
2550W 25S	33	1.7
RE 2595W 200S	42	2.8
2550W 50S	31	1.6
2550W 75S	33	1.6
2550W 100S	34	.8
2550W 125S	35	2.4
2550W 150S	53	1.5
2550W 175S	30	1.1
2550W 200S	58	2.9
2550W 225S	24	1.8
STANDARD C/AU-S	59	46.6

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. ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: P1 SOIL P2 ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.
Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 26 1991 DATE REPORT MAILED: Sept 4/91.

SIGNED BY..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Ag ppm	Au* ppb (20gm)
D91-R8	.4	5

SAMPLE#	Ag ppm	Au* ppb (20gm)
D91-R1	.3	14
RE D91-R2	14.2	57
D91-R2	15.2	63
D91-R3	6.1	168
D91-R4	3.2	26
D91-R5	.5	4
D91-R6	165.9	164
D91-R7	2.3	28
STANDARD C/AU-R	6.9	470

Samples beginning 'RE' are duplicate samples.

SAMPLE#	Ag ppm	Au* ppb (20gm)
D91-R8	.4	5

APPENDIX "D"

ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 19, 1991

CERTIFICATE OF ANALYSIS ETK 91-503

PLACER DOME INC.
401, 1540 PEARSON PLACE
KAMLOOPS, B.C.
V1S 1J9

SAMPLE IDENTIFICATION: 8 ROCK samples received JULY 23, 1991
---------- PROJECT: 1 K

ET#	Description	BaO	P2O5	SiO2	MnO	Fe2O3	MgO	Al2O3	CaO	TiO2	NaO2	K2O	L.O.I.
6	D91-2 (49.7 m)	.12	.32	50.23	.12	8.20	4.72	15.30	9.59	.60	2.81	3.11	5.31
7	D91-4 (126.9 m)	.12	.30	53.82	.09	7.53	4.46	16.29	6.46	.69	3.77	4.59	2.75
8	D91-8 (184.8 m)	.05	.38	54.51	.08	6.30	4.16	18.42	6.96	.68	4.83	1.60	3.09

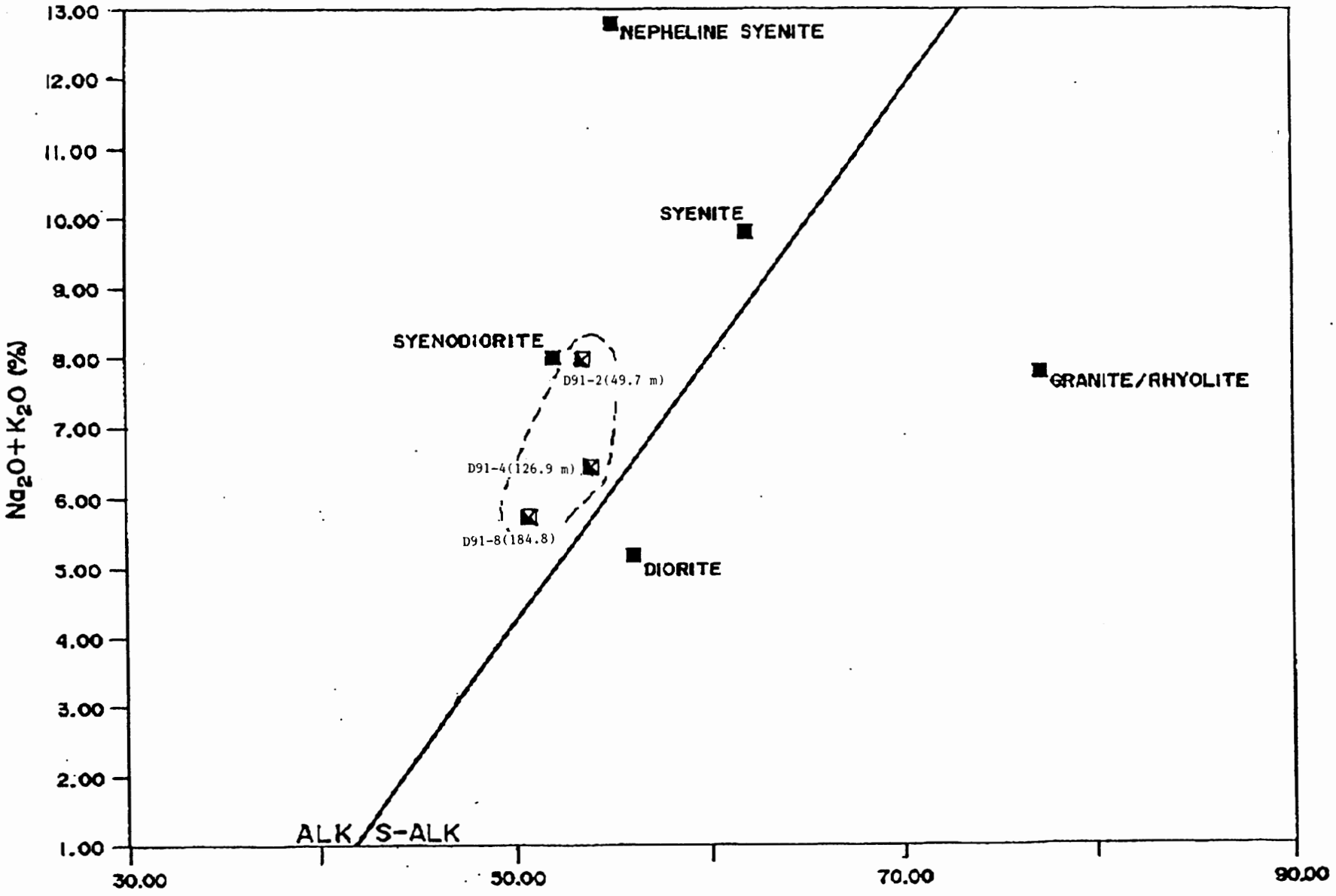
NOTE: VALUES EXPRESSED IN PERCENT

SC91/PLACERKAM

ECO-TECH LABORATORIES LTD.
FRANK J. PEZZOTTI
B.C. CERTIFIED ASSAYER

ALKALI-SILICA DIAGRAM

BASE PLOT



■ AVERAGE ROCK TYPE (DALY)

☒ DILL SAMPLE (sample no., depth)

IRVINE AND BARAGAR (1971) FIELDS FOR ALKALINE, SUB-ALKALINE

APPENDIX "E"

SUMMARY OF PREVIOUS DRILL RESULTS FOR THE DILL PROPERTY, 1966 - 1969

(PRIMER SOUTH PROSPECT)

	DDH	Total Depth (m)	From (m)	To (m)	Interval (m)	Cu(%)	Au (ppb)
1966:	66-1	127.4	10.7	127.4	116.7	0.22	303
		including	32.0	65.5	33.5	0.31	
	66-2	126.2	47.2	126.2	78.9	0.15	
		including	83.8	126.2	42.4	0.22	
1967:	67-1	61.0	1.8	61.0	59.1	0.19	
	67-2	54.9	1.2	54.9	53.3	0.20	
	67-3	38.4	1.8	35.4	33.5	0.23	
	67-4	189.0	6.1	125.0	118.9	0.23	78
			140.2	155.5	15.2	0.19	309
	67-5	94.2	2.4	94.2	91.7	0.23	303
	67-P1	91.4	0	91.4	91.4	0.12	
1968:	68-11	15.8	0.3	15.8	15.5	0.25	
	68-12	39.0	1.2	39.0	37.8	0.33	
	68-P6	51.8	0	51.8	51.8	0.05	
	68-P7A	57.9	36.6	57.9	21.3	0.30	
1969:	69-1	247.5	40.2	247.2	207.0	0.25	
		including	40.2	99.7	59.4	0.37	
	69-2	122.8	25.6	121.9	96.3	0.13	
		including	59.1	84.7	25.6	0.20	
	69-3	75.0	50.3	75.0	24.7	0.05	
	69-4	104.5	13.1	103.9	90.8	0.02	
	69-5	247.5	25.3	247.5	222.2	0.07	
		including	36.6	127.4	90.8	0.11	
		including	108.5	127.4	18.9	0.24	
	69-6	182.3	16.8	182.3	165.5	0.05	
	69-7	305.1	9.1	305.1	296.0	0.13	
		including	9.1	141.7	132.6	0.19	
		including	187.5	214.9	27.4	0.26	
	69-9	114.3	Up to 0.04% Cu over 10 feet				
	69-10	174.7	12.5	174.7	162.2	0.03	

SUMMARY OF SURVEY DATA FOR DRILL HOLES ON DILL - PRIMER SOUTH PROSPECT

DDH	NORTHING (m)	EASTING (m)	ELEVATION (m)	AZIMUTH	INCLINATION	DEPTH (m)
66-1	3669.01	-6283.56	1443.53	094.0	-45.00	127.4
66-2	3597.00	-6349.50	1427.68	074.5	-38.00	126.2
67-1	3666.40	-6241.8	1442.92	115.0	-60.00	61.0
67-2	3670.83	-6245.05	1442.92	301.0	-60.00	54.9
67-3	3670.31	-6243.62	1442.92		-90.00	38.4
67-4	3151.80	-6121.26	1410.8		-90.00	189.0
67-5	3673.70	-6107.4	1457.86	267.0	-45.00	94.2
67-P1	3693.10	-6269.2	1445.06		-90.00	91.4
68-11	3550.90	-6283.20	1434.52		-90.00	15.8
68-12	3550.90	-6283.20	1434.52		-90.00	39.0
68-P6	3813.40	-5904.4	1492.61		-90.00	51.8
68-P7A	3684.70	-6190.50	1457.25		-90.00	57.9
69-1	3097.90	-5903.00	1441.7	190.0	-45.00	247.5
69-2	3097.90	-5903.00	1441.7		-90.00	122.8
69-3	3168.00	-5760.58	1472.18	202.0	-54.00	75.0
69-4	2861.90	-5745.40	1472.18	198.0	-54.00	104.5
69-5	2943.10	-5577.3	1463.04	020.0	-70.00	247.5
69-6	3293.67	-5455.30	1508.76		-90.00	182.3
69-7	3151.80	-6121.26	1410.8	200.0	-54.00	305.1
69-9	2775.00	-5400.00	1484.38	200.0	-45.00	114.3
69-10	3104.60	-6542.30	1402.08	200.0	-45.00	174.7
D91-1	2782.00	-5905.64	1464.7	180.0	-51.00	171.3
D91-2	3089.21	-5905.03	1441.7	180.0	-51.00	219.5
D91-3	3690.30	-5905.60	1489.7	180.0	-52.00	197.5
D91-4	3896.52	-5904.57	1501.7	180.0	-51.00	177.4
D91-5	3750.18	-6079.17	1470.3	179.0	-50.00	188.0
D91-6	3393.10	-5903.67	1456.7	184.0	-53.00	183.5
D91-7	3997.28	-6292.57	1432.7	182.0	-49.50	183.2
D91-8	3692.70	-6291.74	1444.0	180.5	-50.00	189.6
D91-9	3391.81	-6290.24	1420.0	180.0	-50.00	189.6
D91-10	3145.80	-6114.57	1410.8	181.0	-52.50	147.2
D91-11	3180.20	-6283.94	1404.7	180.5	-50.00	183.5

LEGEND

LITHOLOGY

MI MISSING CORE

OB OVERBURDEN

JURASSIC OR LATER

DK ANDESITIC DYKE olive-green, augite phenocrysts

FP FELDSPAR PORPHYRY augite/hornblende phenocrysts, medium grey aphanitic matrix

GG GOUGE typically narrow clay-rich zones, may contain quartz/calcite rubble, primary rock textures destroyed

TRIASSIC

NICOLA GROUP VOLCANICS/RELATED INTRUSIVES

DI DIORITE light to dark grey, very fine-grained to aphanitic plag.-rich matrix augite/hornblende and feldspar phenocrysts,some volc'frags (up to 1 cm)

MD MONZODIORITE as above with some k-spar in matrix

MN MONZONITE as above with k-spar rich matrix usually not apparent in hand specimen

VF ANDESITIC VOLCANIC medium greyish-green to almost black fine-grained to aphanitic groundmass, up to 10% augite phenocrysts locally, up to 2% pyrite in carbonate (quartz) veinlets/dissemination, strong local magnetism

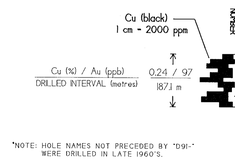
(VP) PORPHYRITIC VOLCANIC as above with up to 70% well-developed augite/hornblende phenocrysts tup to 5 cm

(VB) VOLCANIC BRECCIA as above with sparse to concentrated monzonite to granodiorite fragments tup to 15 cm but typically 0.5-3 cm) with diffuse margins, volcanic fragments less common

(VM) ANDESITIC VOLCANIC as above with medium-grained interlocking crystals

VT TRACHYANDESITE mottled orange, 20% augite/hornblende, 50% feldspar phenocrysts

PLOT OF DIAMOND DRILL HOLE



*NOTE: HOLE NAMES NOT PRECEDED BY "D91-" WERE DRILLED IN LATE 1960'S.

REFER TO PLATE 6 FOR HOLE LOCATION PLAN.

FAIRFIELD MINERALS LTD.

DILL PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H/9W,16W

DILL WEST AREA
DDH SECTION 5900W

(LOOKING WEST)

SCALE 1:2000

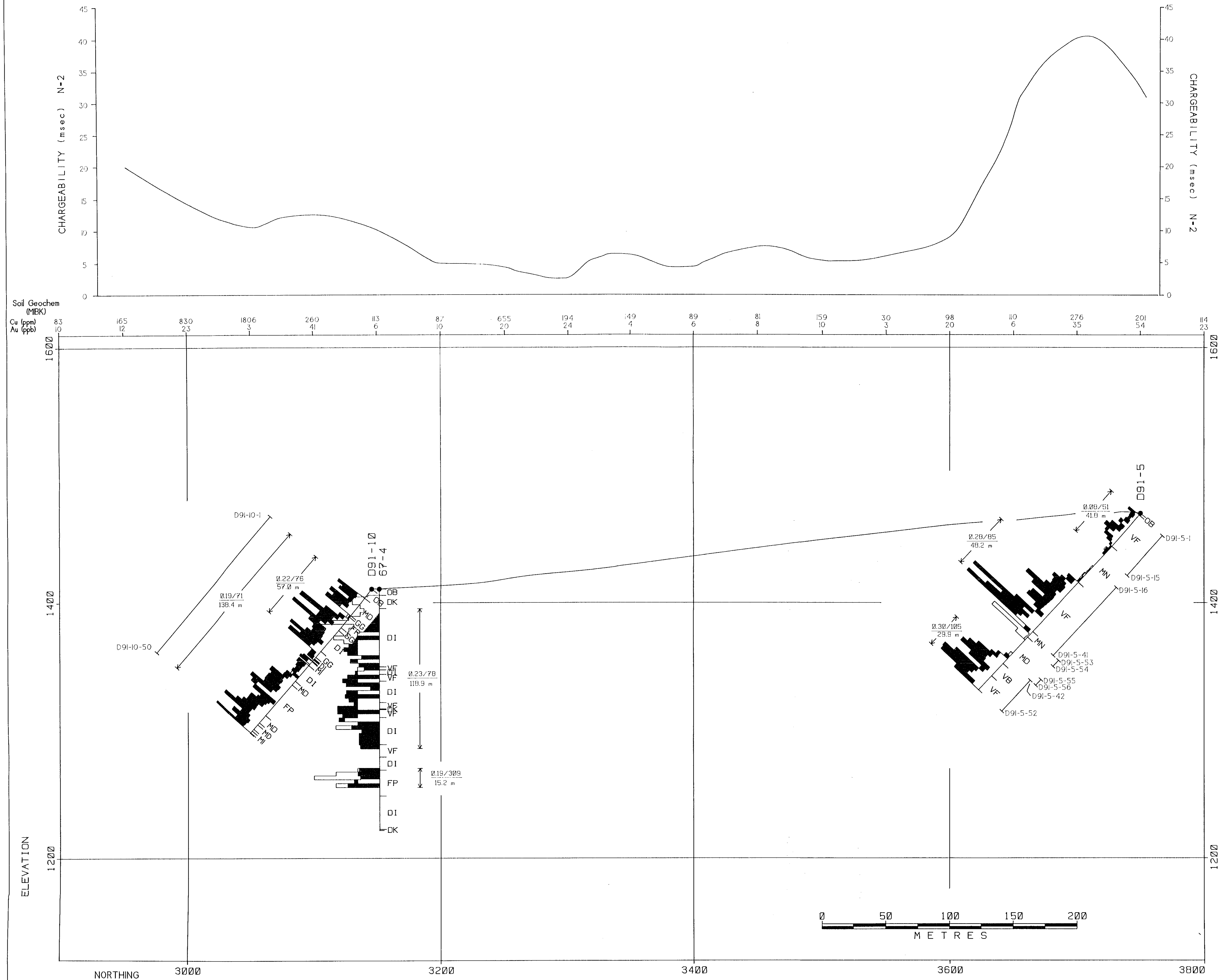
COREX-LERAN ENGINEERING LTD.
1080 - 1055 W. HASTINGS STREET
VANCOUVER, B.C. V6E 2E9

DRAWN BY: JRC
DATE: FEBRUARY 1992

PLATE 1

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,220



LEGEND

LITHOLOGY

MI MISSING CORE

OB OVERBURDEN

JURASSIC OR LATER

DK ANDESITIC DYKE — olive-green, augite phenocrysts

FP FELDSPAR PORPHYRY — augite/hornblende phenocrysts, medium grey aphanitic matrix

GG GOUGE — typically narrow clay-rich zones, may contain quartz/calcite rubble, primary rock textures destroyed

TRIASSIC

NICOLA GROUP VOLCANICS/RELATED INTRUSIVES

DI DIORITE — light to dark grey, very fine-grained to aphanitic plag-rich matrix augite/hornblende and feldspar phenocrysts, some volc frags (up to 1 cm)

MD MONZODIORITE — as above with some k-spar in matrix

MN MONZONITE — as above with k-spar rich matrix usually not apparent in hand specimen

VF ANDESITIC VOLCANIC — medium greyish-green to almost black fine-grained to aphanitic groundmass, up to 10% augite phenocrysts locally, up to 2% pyrite in carbonate (quartz) veinlets/dissemination, strong local magnetism

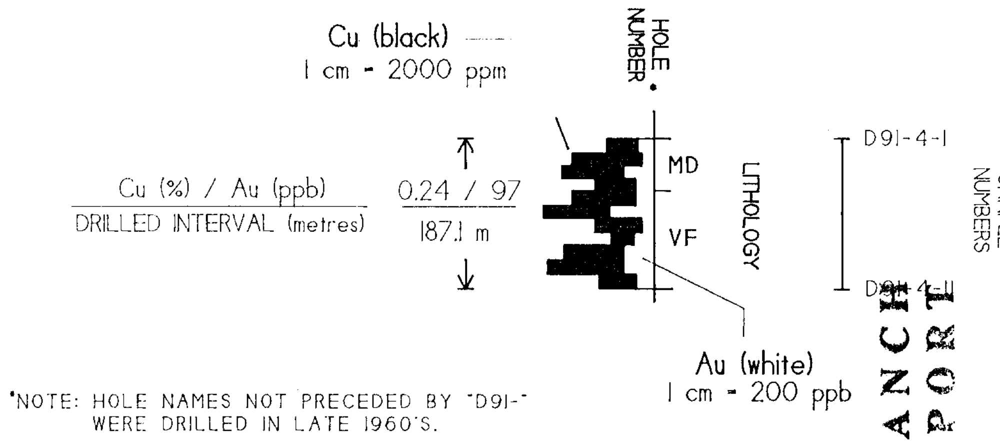
(VP) PORPHYRITIC VOLCANIC — as above with up to 70% well-developed augite/hornblende phenocrysts (up to 5 cm)

(VB) VOLCANIC BRECCIA — as above with sparse to concentrated monzonite to granodiorite fragments (up to 15 cm but typically 0.5-3 cm) with diffuse margins, volcanic fragments less common

(VM) ANDESITIC VOLCANIC — as above with medium-grained interlocking crystals

VT TRACHYANDESITE — mottled orange, 20% augite/hornblende, 50% feldspar phenocrysts

PLOT OF DIAMOND DRILL HOLE



*NOTE: HOLE NAMES NOT PRECEDED BY "D91-" WERE DRILLED IN LATE 1960'S.

REFER TO PLATE 6 FOR HOLE LOCATION PLAN.

GEOLOGICAL BRANCH ASSESSMENT REPORT

22,220

FAIRFIELD MINERALS LTD.

DILL PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H/9W,16W

DILL WEST AREA
DDH SECTION 6100W

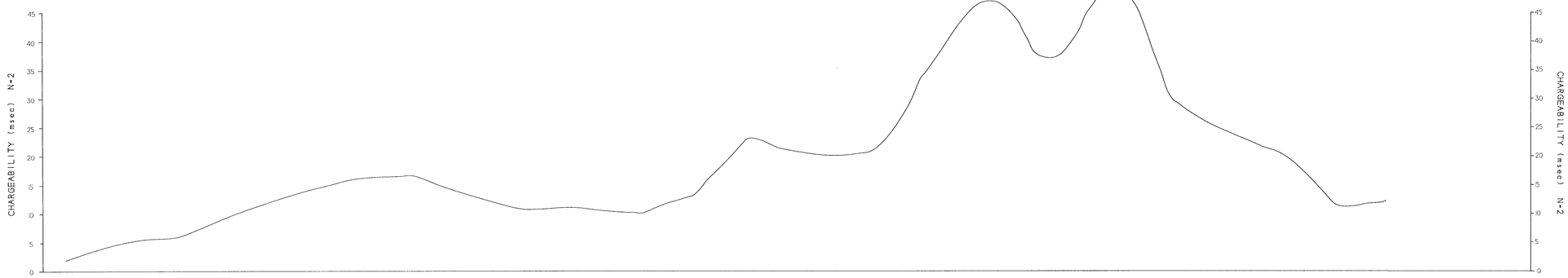
(LOOKING WEST)

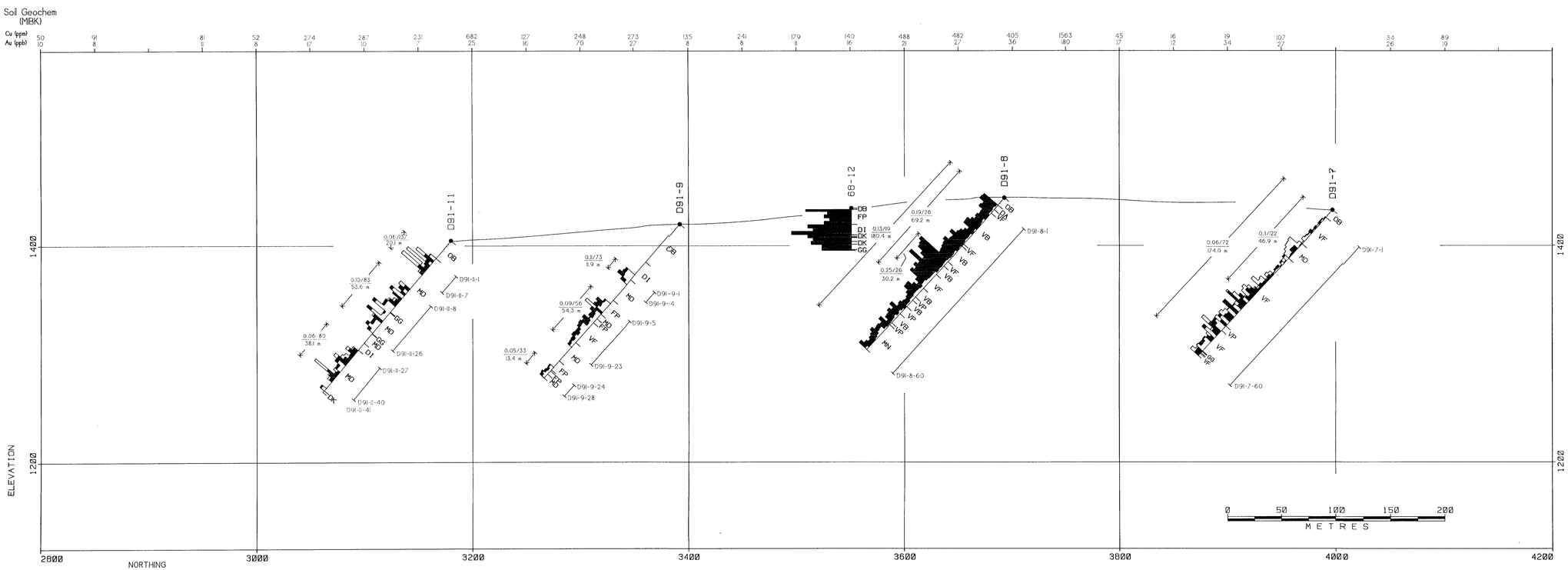
SCALE 1 : 2000

CORDILLERAN ENGINEERING LTD.
1980 - 1055 W. HASTINGS STREET
VANCOUVER, B.C. V6E 2E9

DRAWN BY: JRC
DATE: FEBRUARY 1992

PLATE 2





LEGEND

LITHOLOGY

MI MISSING CORE

OB OVERBURDEN

JURASSIC OR LATER

DK ANDESITIC DYKE — olive-green, augite phenocrysts

FP FELDSPAR PORPHYRY — augite/hornblende phenocrysts, medium grey aphanitic matrix

GG GOUGE — typically narrow clay-rich zones, may contain quartz/calcite rubble, primary rock textures destroyed

TRIASSIC

NICOLA GROUP VOLCANICS/RELATED INTRUSIVES

DA DACITE — dark grey/black aphanitic matrix, 50% plag. phenocrysts (1-3 mm), finely disseminated pyrite

DI DIORITE — light to dark grey, very fine-grained to aphanitic plag-rich matrix augite/hornblende and feldspar phenocrysts,some volc frags (up to 1 cm)

MD MONZODIORITE — as above with some k-spar in matrix

MN MONZONITE — as above with k-spar rich matrix usually not apparent in hand specimen

VF ANDESITIC VOLCANIC — medium greyish-green to almost black fine-grained to aphanitic groundmass, up to 10% augite phenocrysts locally, up to 2% pyrite in carbonate (quartz) veinlets/dissemination, strong local magnetism

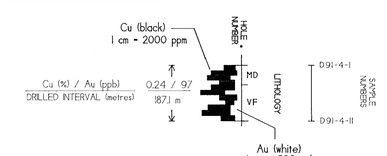
(VP) PORPHYRITIC VOLCANIC — as above with up to 70% well-developed augite/hornblende phenocrysts (up to 5 cm)

(VB) VOLCANIC BRECCIA — as above with sparse to concentrated monzonite to granodiorite fragments (up to 15 cm but typically 0.5-3 cm) with diffuse margins, volcanic fragments less common

(VM) ANDESITIC VOLCANIC — as above with medium-grained interlocking crystals

VT TRACHYANDESITE — mottled orange, 20% augite/hornblende, 50% feldspar phenocrysts

PLOT OF DIAMOND DRILL HOLE



*NOTE: HOLE NAMES NOT PRECEDED BY "D91-" WERE DRILLED IN LATE 1960'S.

REFER TO PLATE 6 FOR HOLE LOCATION PLAN.

FAIRFIELD MINERALS LTD.

DILL PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H/9W,16W

DILL WEST AREA
DDH SECTION 6300W

(LOOKING WEST)

SCALE 1:2000

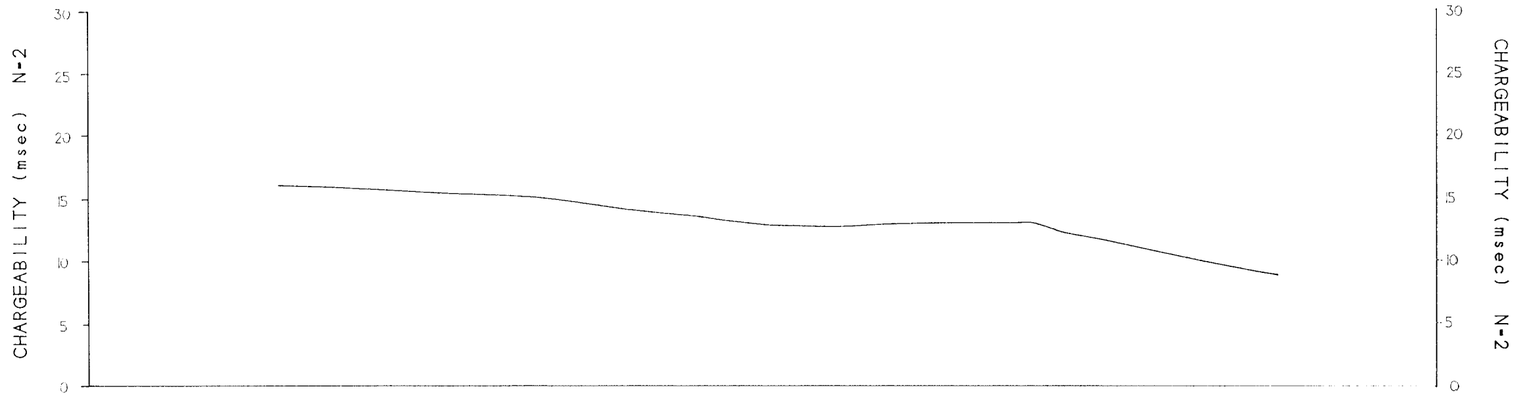
COROLLERAN ENGINEERING LTD.
1980 - 1055 W. HASTINGS STREET
VANCOUVER, B.C. V6E 2E9

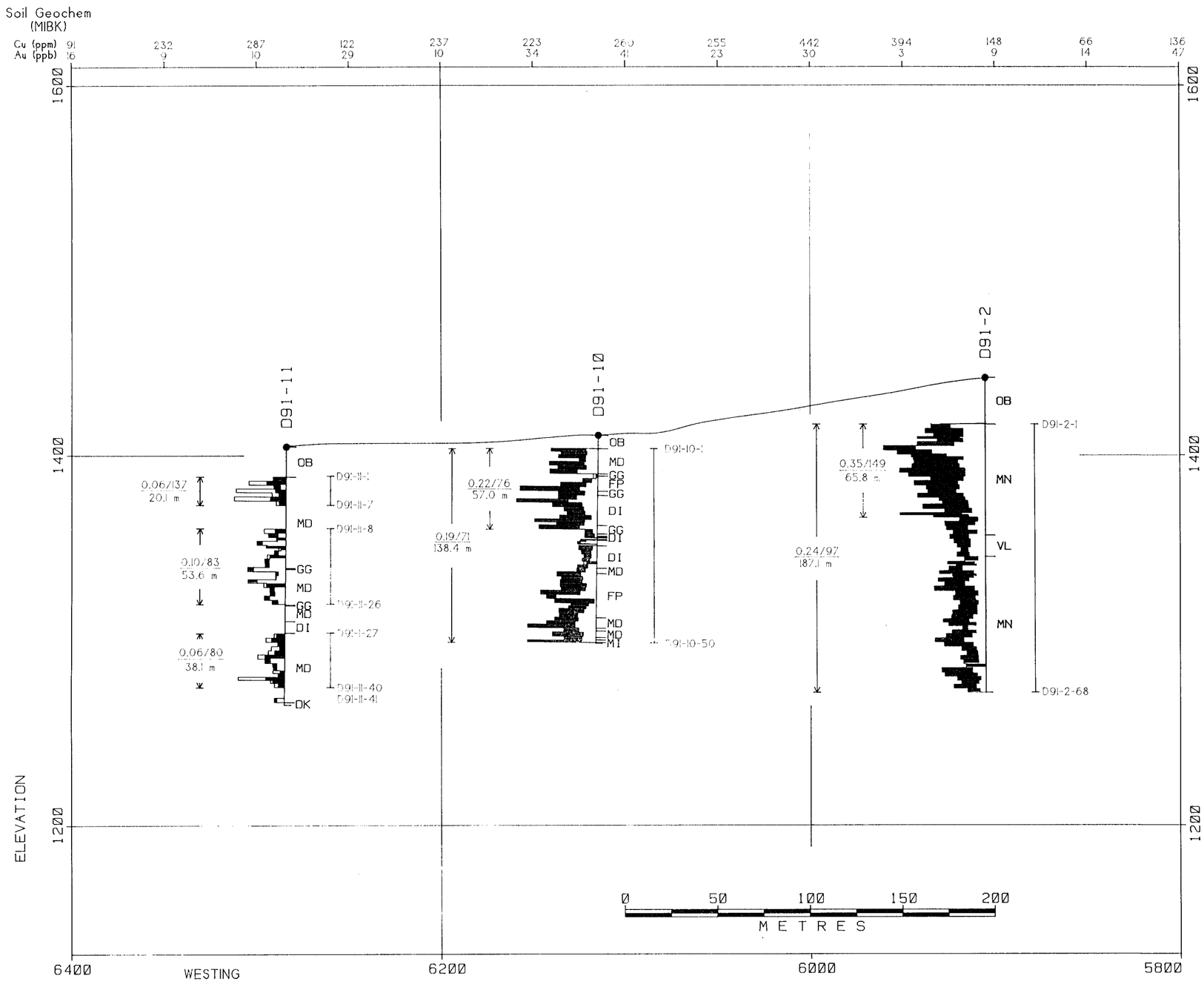
DRAWN BY: JRC
DATE: FEBRUARY 1992

PLATE 3

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,220





LEGEND

LITHOLOGY

MI MISSING CORE

OB OVERBURDEN

JURASSIC OR LATER

DK ANDESITIC DYKE olive-green, augite phenocrysts

FP FELDSPAR PORPHYRY augite/hornblende phenocrysts, medium grey aphanitic matrix

GG GOUGE typically narrow clay-rich zones, may contain quartz/calcite rubble, primary rock textures destroyed

TRIASSIC

NICOLA GROUP VOLCANICS/RELATED INTRUSIVES

DI DIORITE light to dark grey, very fine-grained to aphanitic plag.-rich matrix augite/hornblende and feldspar phenocrysts,some volc frags (up to 1 cm)

MD MONZODIORITE as above with some k-spar in matrix

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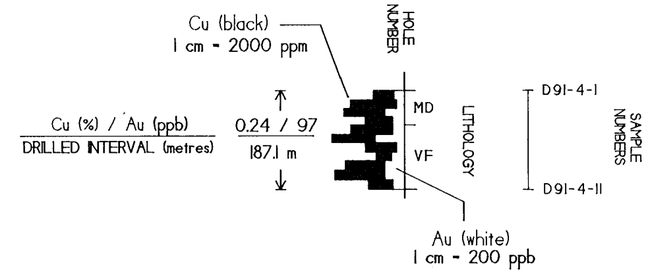
(VP) PORPHYRITIC VOLCANIC as above with up to 70% well-developed augite/hornblende phenocrysts (up to 5 cm)

(VB) VOLCANIC BRECCIA as above with sparse to concentrated monzonite to granodiorite fragments (up to 15 cm but typically 0.5-3 cm) with diffuse margins, volcanic fragments less common

(VM) ANDESITIC VOLCANIC as above with medium-grained interlocking crystals

VT TRACHYANDESITE mottled orange, 20% augite/hornblende, 50% feldspar phenocrysts

PLOT OF DIAMOND DRILL HOLE



REFER TO PLATE 6 FOR HOLE LOCATION PLAN.

FAIRFIELD MINERALS LTD.

DILL PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H/9W,16W

DILL WEST AREA
DDH SECTION 3100N

(LOOKING NORTH)

SCALE 1:2000

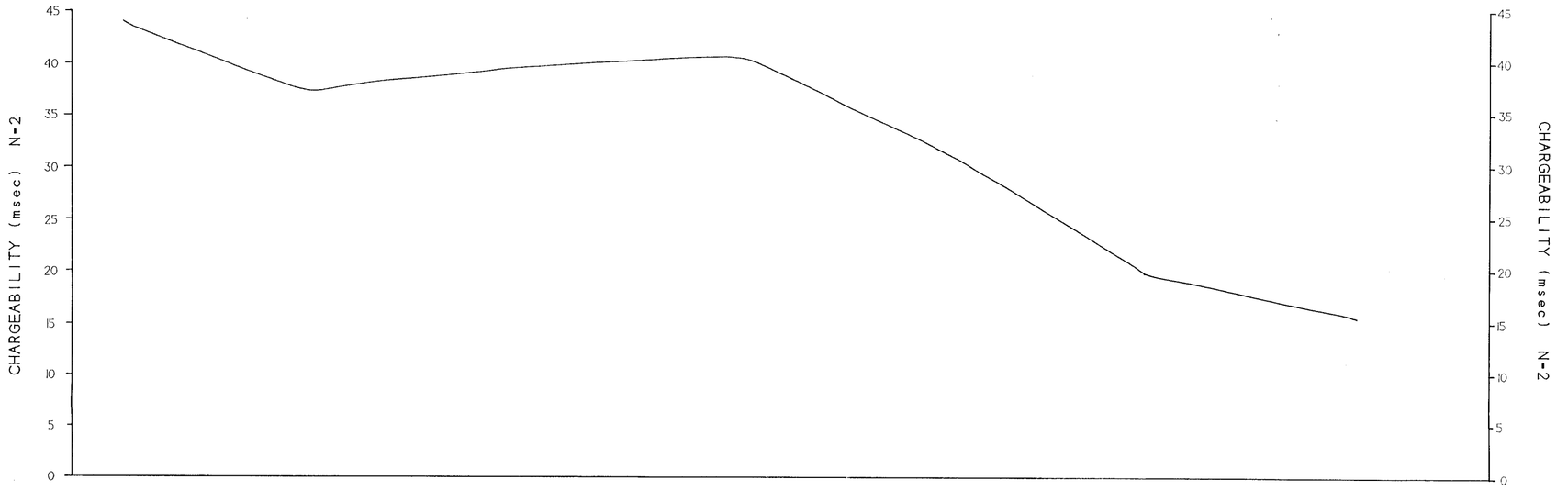
CORDILLERAN ENGINEERING LTD.
1980 - 1055 W. HASTINGS STREET
VANCOUVER, B.C. V6E 2E9

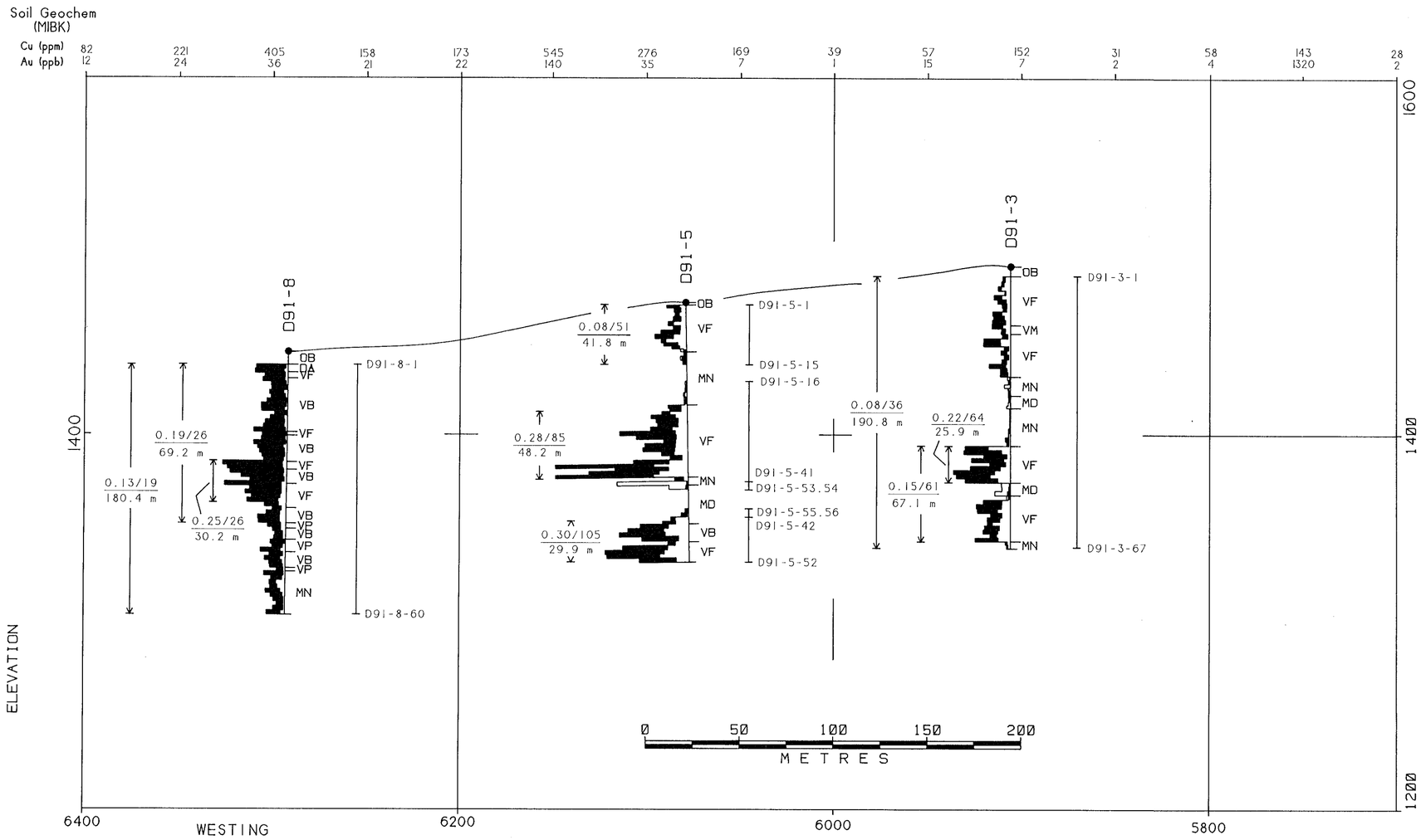
DRAWN BY: JRC
DATE: FEBRUARY 1992

PLATE 4

GEOLOGICAL BRANCH ASSESSMENT REPORT

22,220





LEGEND

LITHOLOGY

MI MISSING CORE

OB OVERBURDEN

JURASSIC OR LATER

DK ANDESITIC DYKE — olive-green, augite phenocrysts

FP FELDSPAR PORPHYRY — augite/hornblende phenocrysts, medium grey aphanitic matrix

GG GOUGE — typically narrow clay-rich zones, may contain quartz/calcite rubble, primary rock textures destroyed

TRIASSIC

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MD MONZODIORITE — as above with some k-spar in matrix

MN MONZONITE — as above with k-spar rich matrix usually not apparent in hand specimen

VF ANDESITIC VOLCANIC — medium greyish-green to almost black fine-grained to aphanitic groundmass, up to 10% augite phenocrysts focally, up to 2% pyrite in carbonate (quartz) veinlets/dissemination, strong local magnetism

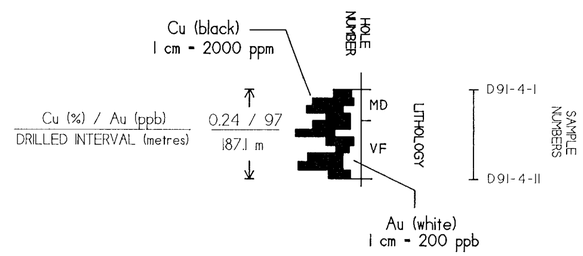
(VP) PORPHYRITIC VOLCANIC — as above with up to 70% well-developed augite/hornblende phenocrysts (up to 5 cm)

(VB) VOLCANIC BRECCIA — as above with sparse to concentrated monzonite to granodiorite fragments (up to 15 cm but typically 0.5-3 cm) with diffuse margins, volcanic fragments less common

(VM) ANDESITIC VOLCANIC — as above with medium-grained interlocking crystals

VT TRACHYANDESITE — mottled orange, 20% augite/hornblende, 50% feldspar phenocrysts

PLOT OF DIAMOND DRILL HOLE



REFER TO PLATE 6 FOR HOLE LOCATION PLAN.

FAIRFIELD MINERALS LTD.

DILL PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H/9W,16W

DILL WEST AREA
DDH SECTION 3700N

(LOOKING NORTH)
SCALE 1:2000

CORDILLERAN ENGINEERING LTD.
1980 - 1055 W. HASTINGS STREET
VANCOUVER, B.C. V6E 2E9

DRAWN BY: JRC
DATE: FEBRUARY 1992

PLATE 5

-6600 -6400 -6200 -6000 -5800 -5600 -5400

4000 3800 3600 3400 3200 3000 2800 2600

D91-7
D91-4
68-P6
D91-5
D91-3
D91-8
67-P1
68-P7A
67-2
67-5
67-3
67-1
66-1
66-2
68-11
68-12
D91-9
D91-6
69-6
D91-11
67-4
69-7
D91-10
69-3
69-10
69-1
69-2
D91-2
69-5
69-4
D91-1
69-9

0 50 100 150 200
METRES

NORTHING

WESTING

N

Hole Number*
D91-5
Bottom of Hole

*NOTE: HOLE NAMES NOT PRECEDED BY "D91-" WERE DRILLED IN LATE 1960'S.

GEOLOGICAL BRANCH
ASSESSMENT REPORT
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FAIRFIELD MINERALS LTD.

DILL PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H/9W,10W

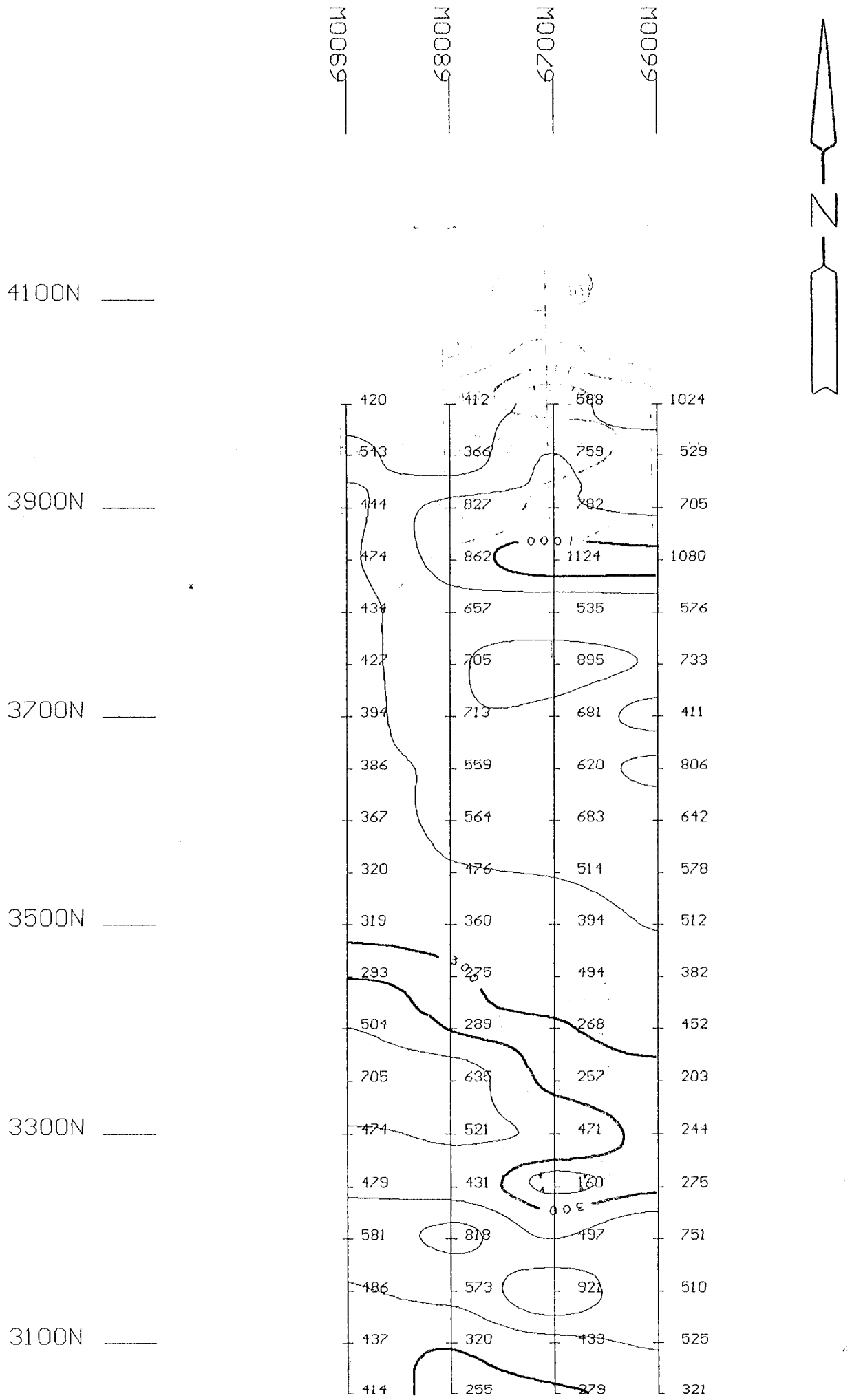
DILL WEST AREA
DDH LOCATION PLAN

SCALE 1:2000

CORDILLERAN ENGINEERING LTD.
1980 - 1055 W. HASTINGS STREET
VANCOUVER, B.C. V6E 2E9

DRAWN BY: JRC
DATE: FEBRUARY 1992

PLATE 6



GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,220

100m 50m 0m 100m 200m

Instrument : EDA IP6
Pole-Dipole Array, n=2, a=50 m.
Current Electrode to the South.

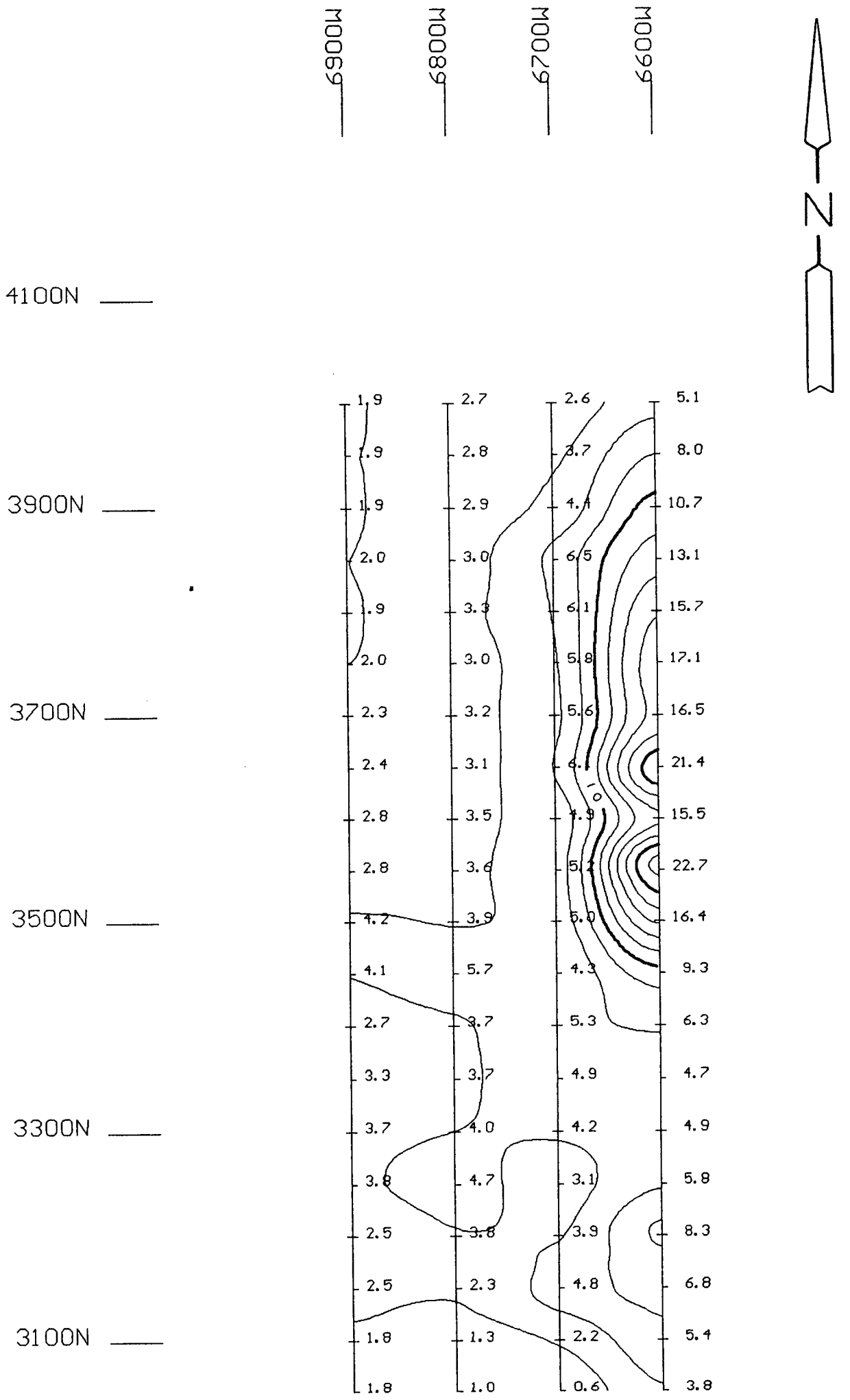
Logarithmic Contours :1,1.5,2,3,5,
7.5,10...Ohm-m

FAIRFIELD MINERALS LTD

RESISTIVITY SURVEY

DILL PROJECT, SIMILKAMEEN M.D., B.C
BASELINE AZIMUTH : 90 Deg.

SCALE = 1 : 5000 DATE : Sept., 1991
SURVEY BY : MSTP NTS : 92H/9W,16W
PLAN: DILLRES5
Pacific Geophysical Ltd. IP-A



GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,220

100m 50m 0m 100m 200m

Instrument : EDA IP6
Pole-Dipole Array, n=2, a=50 m.
Current Electrode to the South.

Contour Interval : 2 msec

FAIRFIELD MINERALS LTD

INDUCED POLARIZATION SURVEY

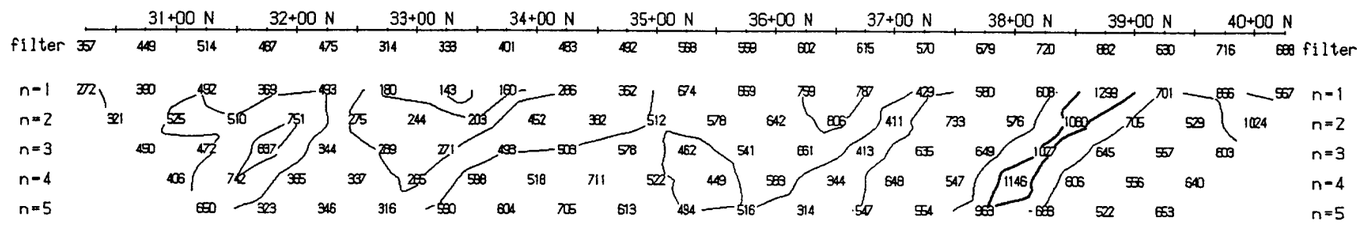
DILL PROJECT, SIMILKAMEEN M.D., B.C
BASELINE AZIMUTH : 90 Deg.

SCALE = 1 : 5000 DATE : Sept., 1991
SURVEY BY : MSTP NTS : 92H/9W,16W
PLAN: DILLIP5
Pacific Geophysical Ltd.

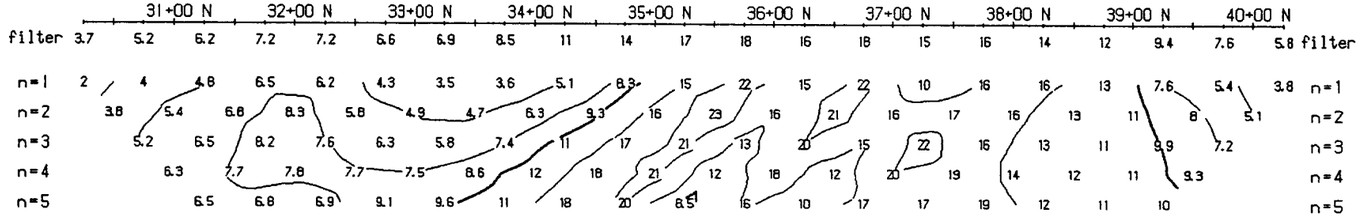
IP-B

GEOLOGICAL BRANCH
ASSESSMENT REPORT

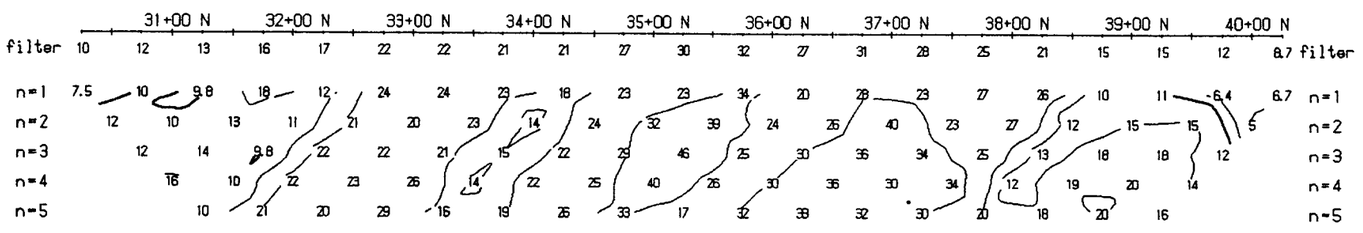
22,220



RESISTIVITY
(ohm_m)



OBS. CHARGEABILTY
(msec)

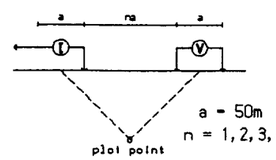


METAL FACTOR
(ip/res * 1000)

GEOSOFT (tm) Software for the Earth Sciences, Toronto, Canada

Line 6600 W

Pole-Dipole Array



a = 50m
n = 1, 2, 3, 4, 5

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

Instrument : EDA IP 6
Frequency : 2s ON / 2s OFF
Operators : MStP

INTERPRETATION

- Strong increase in polarization
- Moderate increase in polarization
- Weak increase in polarization

FAIRFIELD MINERALS LTD

INDUCED POLARIZATION SURVEY

DILL Project
SIMILKAMEEN, M.D., B.C.

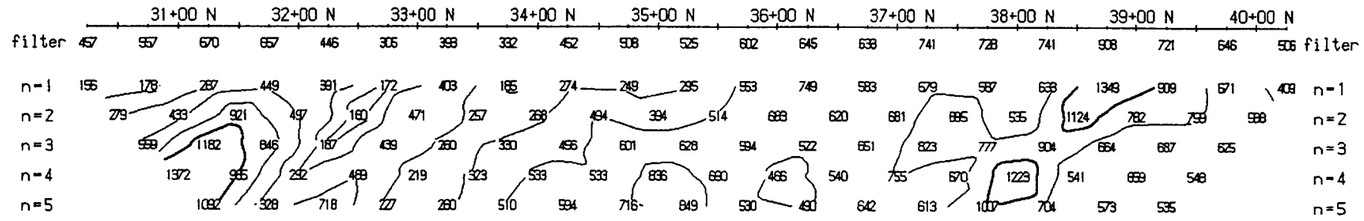
Date: September, 1991. Scale 1:5000

Interpretation by: NTS: 92H/9W, 16W

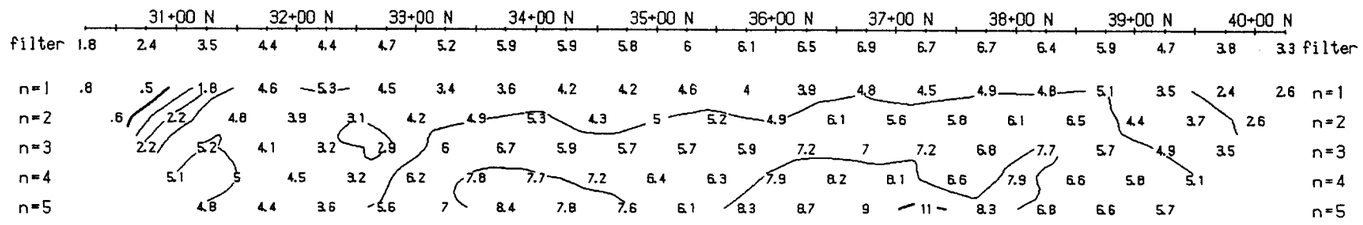
Pacific Geophysical IP-C

GEOLOGICAL BRANCH
ASSESSMENT REPORT

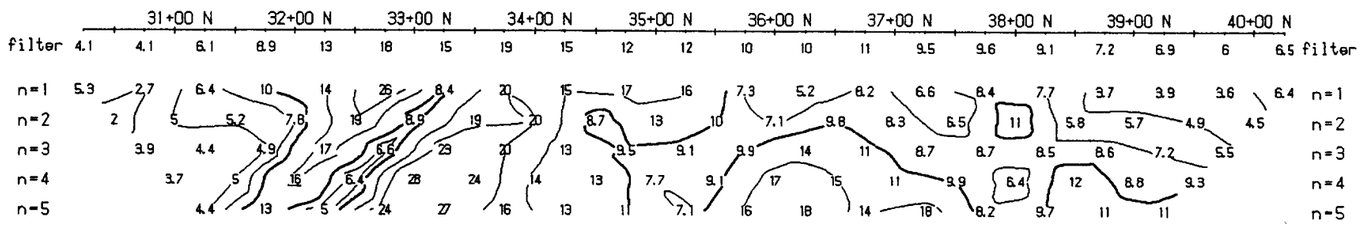
22,220



RESISTIVITY
(ohm_m)



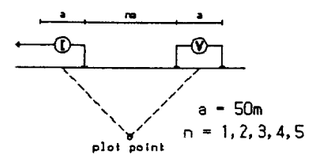
OBS. CHARGEABILTY
(msec)



METAL FACTOR
(ip/res * 1000)

Line 6700 W

Pole-Dipole Array



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

Instrument : EDA IP 6
Frequency : 2s ON / 2s OFF
Operators : MStP

INTERPRETATION

- Strong increase in polarization
- Moderate increase in polarization
- Weak increase in polarization

FAIRFIELD MINERALS LTD

INDUCED POLARIZATION SURVEY

DILL Project
SIMILKAMEEN, M.D., B.C.

Date: September, 1991. Scale 1:5000

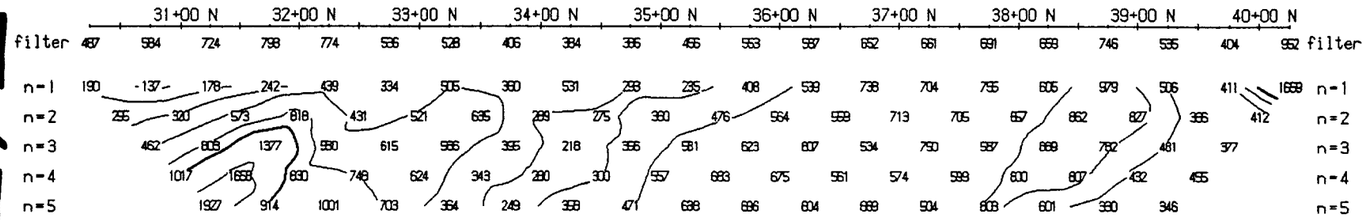
Interpretation by: NTS: 92H/9W, 16W

Pacific Geophysical IP-D

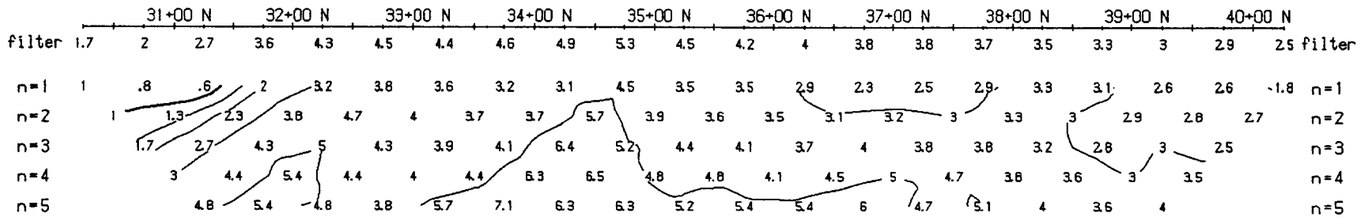
GEOSOFT (tm) Software for the Earth Sciences, Toronto, Canada

GEOLOGICAL BRANCH
ASSESSMENT REPORT

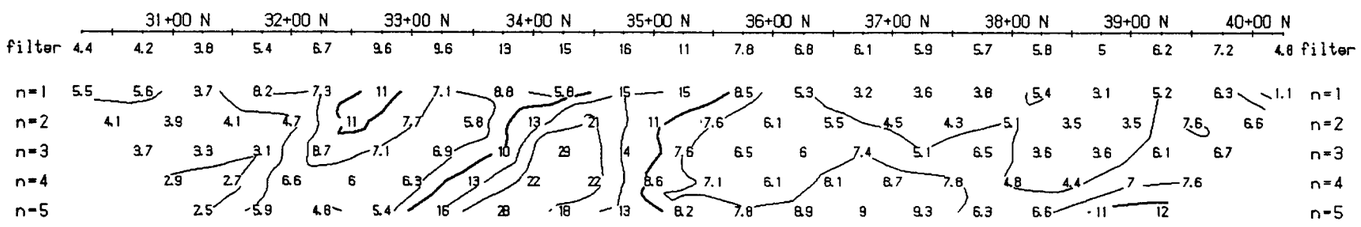
22,220



RESISTIVITY
(ohm_m)



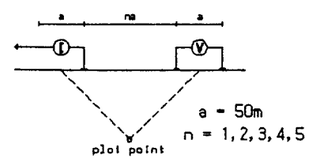
OBS. CHARGEABILTY
(msec)



METAL FACTOR
(ip/res * 1000)

Line 6800 W

Pole-Dipole Array



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

Instrument : EDA IP 6
Frequency : 2s ON / 2s OFF
Operators : MStP

INTERPRETATION

- Strong increase in polarization
- Moderate increase in polarization
- Weak increase in polarization

FAIRFIELD MINERALS LTD

INDUCED POLARIZATION SURVEY

DILL Project
SIMILKAMEEN, M.D., B.C.

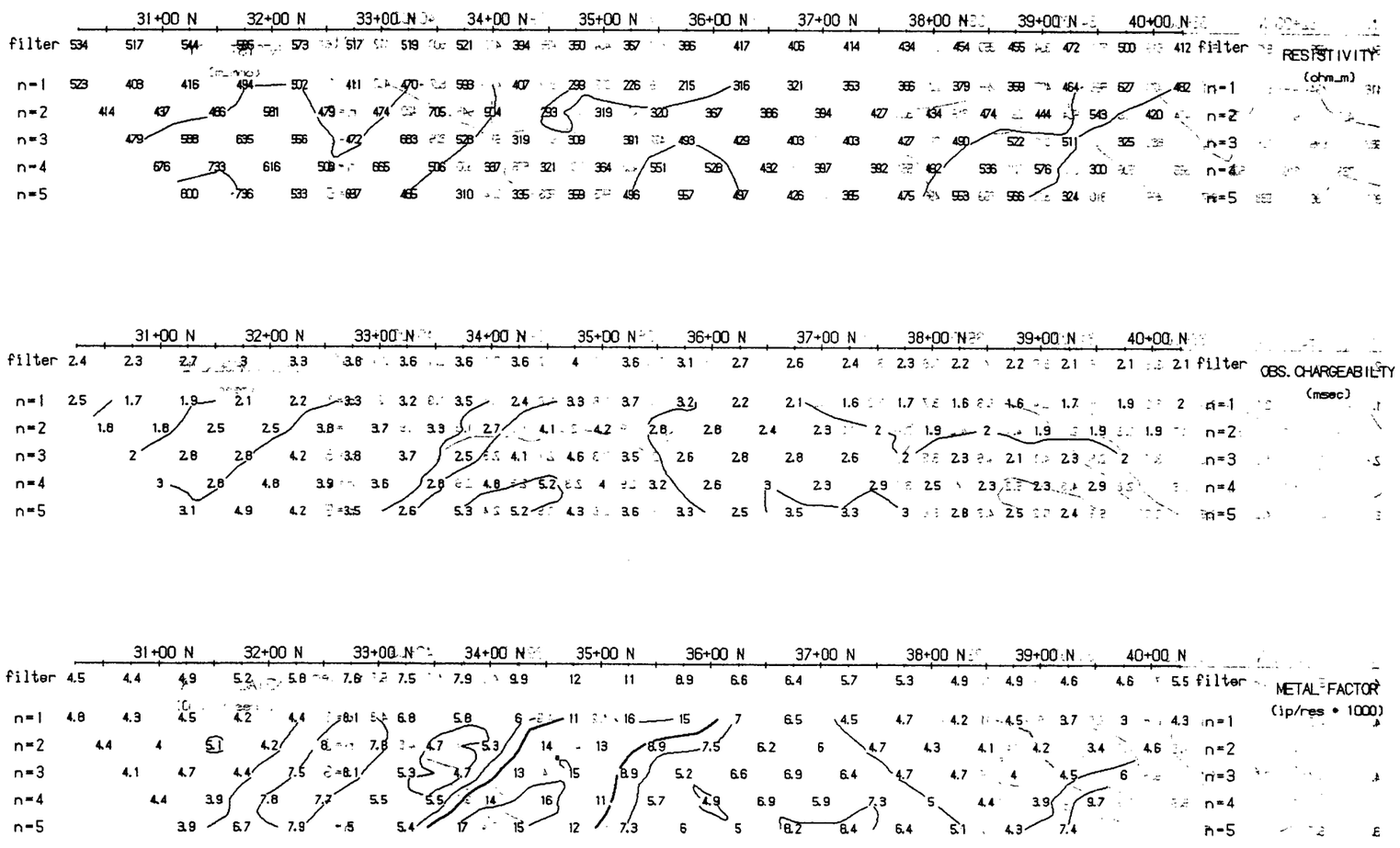
Date: September, 1991. Scale 1:5000

Interpretation by: NTS: 92H/9W, 16W

Pacific Geophysical IP-E

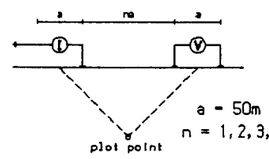
GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,220



Line 6900 W

Pole-Dipole Array



a = 50m
n = 1, 2, 3, 4, 5

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

Instrument : EDA IP 6
Frequency : 2s ON / 2s OFF
Operators : MStP

INTERPRETATION

- Strong increase in polarization
- Moderate increase in polarization
- Weak increase in polarization

FAIRFIELD MINERALS LTD

INDUCED POLARIZATION SURVEY

DILL Project
SIMILKAMEEN, M.D., B.C.

Date: September, 1991. Scale 1:5000

Interpretation by: NTS: 92H/9W, 16W

Pacific Geophysical IP-F