ARIS SUMMARY SHEET

District Geologist, Prince George — Off Confidential: 94.12.16

ASSESSMENT REPORT 23214 — MINING DIVISION: Cariboo

PROPERTY: Hen
LOCATION: LAT 52 01 00 LONG 120 44 00
UTM 10 5765099 655545
NTS 093A02E
CLAIM(S): Hen 5-19
OPERATOR(S): Pioneer Metals
AUTHOR(S): Dunn, D.St.C.;Ridley, D.W.
REPORT YEAR: 1993, 79 Pages
COMMODITIES
SEARCHED FOR: Gold
KEYWORDS: Jurassic,Basalts,Andesites,Monzonites,Hornfels,Skarns
WORK
DONE: Geological,Prospecting,Geochemical,Physical
PROS 750.0 ha
Map(s) - 1; Scale(s) - 1:5000
SAMP 111 sample(s) ;ME
SILT 34 sample(s) ;ME
SOIL 266 sample(s) ;ME
TREN 150.0 m 1 trench(es)

PROSPECTING and TRENCHING REPORT

on the

HEN GROUP

(Hen 5-19 mineral claims)

Cariboo Mining Division

NTS 93A\2 E&W

LAT. 52' 01" N

LONG. 120' 44" W

BY

D. RIDLEY (owner)

and

D. DUNN

PIONEER METALS CORPORATION (operator)

DECEMBER, 1993

WORK APPROVAL NUMBER: 1000757-4-5638

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SUMMARY

The Hen property is situated approximately 75 kilometers northeast of 100 Mile House, B.C. The claims are underlain by Jurassic volcanics and derived sediments, laid down in an island arc environment.

A portion of the present property, west of Hendrix creek, was held by Time Resources Ltd. during the early 1980's. A limited geological mapping and soil sampling program was carried out in 1982. This work revealed a high gold value of 1280 ppb, in a stream sediment from Anomaly creek and several copper, zinc and subordinate gold in soil samples. No further work was conducted and the claim was allowed to lapse (Alan D. G. and Fleming D., 1983).

Prospecting by D. Ridley in 1992 discovered a float zone consisting of arsenopyrite, pyrrhotite and rare stibnite in an altered "cherty tuff" which contains up to 9 grams\ton gold.

In June 1993 an option was signed with Pioneer Metals Corp., who initiated a prospecting, reconnaissance soil and rock chip sampling and machine trenching program which is the subject of this report. Two anomalous gold-bearing zones were found during the course of this work program.

Further work is recommended for the Hen property consisting of detailed geological mapping, soil and geophysical surveys and machine trenching. Targets include skarn mineralization similar to that at Hedley in southern B.C. and possibly an epithermal vein target such as those in the Toodoggone region of northh-central British Columbia.

INTRODUCTION

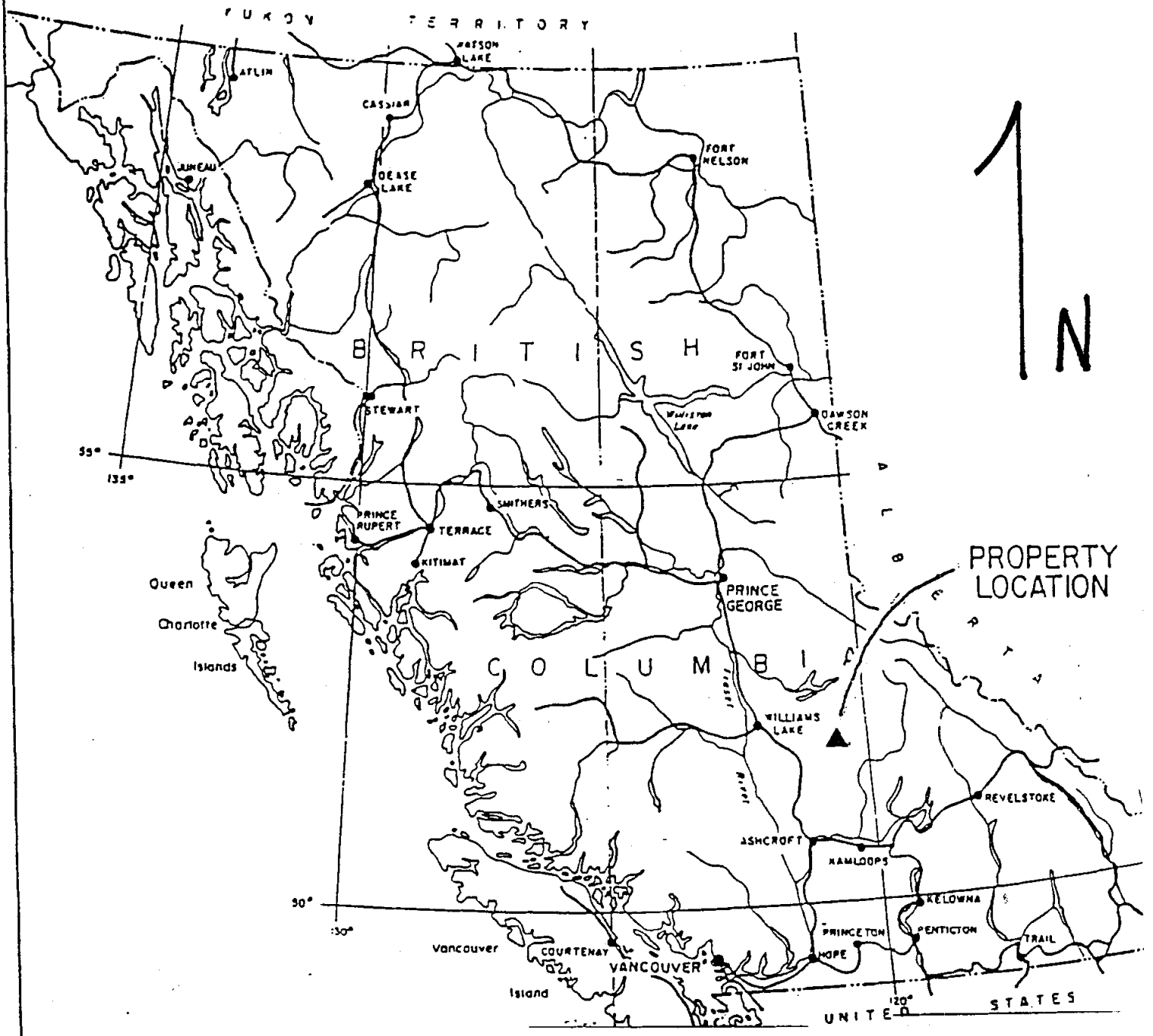
During 1993 the Hen property was subjected to prospecting and reconnaissance soil sampling surveys followed by machine trenching in the vicinity of the main mineralized zone. Although this work failed to locate the source of the mineralized float, it did uncover a large amount of mineralized boulders which appear to be close to their source. Additional machine trenching in the spring should uncover the main mineralized zone, believed to lie somewhere below or within the upper clear-cut approximately 300 meters eastward.

Prospecting traverses in the northeast corner of this clearcut found a float occurrance which assayed 1.32 grams\ton. Subsequent soil sampling of the area revealed anomalous gold and copper values. Therefore it is thought that two separate mineralizing events may be found on the Hen property, one related to skarning of volcanics by an underlying intrusive and the second to epithermal-type mineralization.

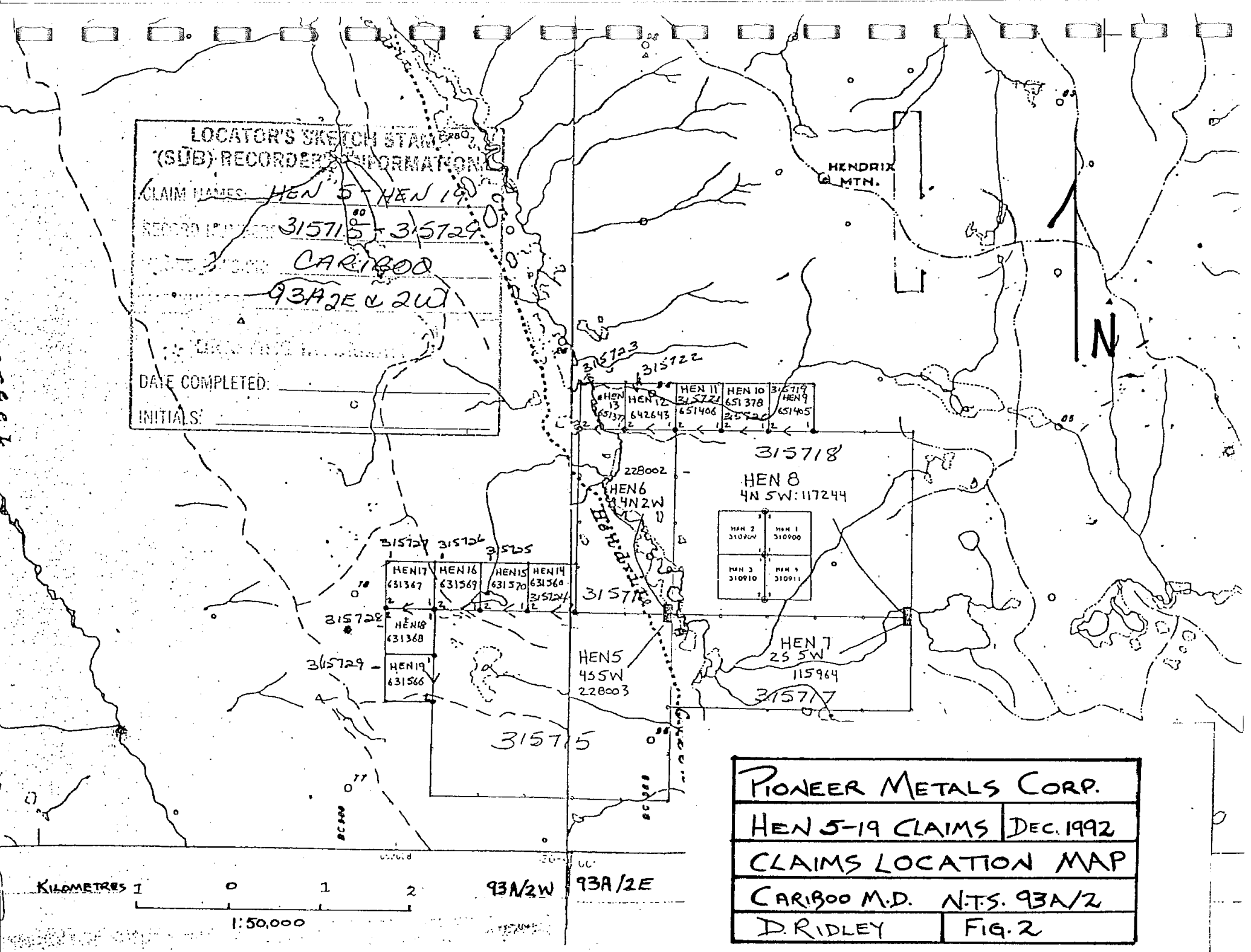
LOCATION AND ACCESS

The Hen property is located approximately 75 kilometers northeast of 100 Mile House, B.C. and is readily accessible by vehicle. Access from highway 97 is via the Canim Lake road to the Eagle Creek bridge thence the Hendrix Lake road for a distance of 28 kilometers to its junction with the 6300 forest access road. Trenching was carried out near the 6303 kilometer post and the other area of interest lies beside an arterial near the 6305 kilometer post. A hydro transmission line, which powered the Boss Mountain molybdenum mine at Hendrix lake, cuts through the central portion of the property. This line is currently in good repair and provides power to the former townsite at Hendrix Lake.

The claims are adjacent to the west side of the Interior Wet Belt bio-climatatic zone and lie within Quesnel Highlands physiographic region. Elevations range between 3400 feet in Hendrix Creek valley to 5300 feet in the northeast corner.



PIONEER METALS CORP.	
HEN CLAIMS	DEC. 1993
GENERAL LOCATION	
N.T.S. 93A/2	FIG. 1
CARIBOO M.D.	D. RIDLEY



PIONEER METALS CORP.	
HEN 5-19 CLAIMS	DEC. 1992
CLAIMS LOCATION MAP	
CARIBOO M.D. N.T.S. 93A/2	
D. RIDLEY	FIG. 2

Topography is generally steep, particularily the hills rising above Hendrix creek, changing to moderate and fairly gentle slopes above the valley.

The area is generally well-forested with mature spruce, cedar, douglas fir, lodgepole pine and poplar which is intergrown with alder, willow, devil's club and a wide variety of herbaceous plants. Numerous clearcuts attest to the quality of the timber resource here.

CLAIM STATUS

The Hen property consists of sixty-nine modified grid and two post mineral claims situated in Cariboo Mining Division. All are held by Dave Ridley of General Delivery, Eagle Creek, B.C., V0K 1L0. In June 1993, an option agreement was signed with Pioneer Metals Corp., who have corporate offices at 1770-401 West Georgia Street, Vancouver, B.C., V6B5A1. Pioneer has the right to earn a 100% interest in the property subject to a 2% NSR retained by Ridley. Pertinent claim data is listed below.

Claim Name	Record No.	Date Staked	* Expiry Date *
HEN 5	315715	Feb. 11, 1993	Feb. 11, 1997
HEN 6	315716	Feb. 11, 1993	Feb. 11, 1997
HEN 7	315717	Feb. 9, 1993	Feb. 9, 1997
HEN 8	315718	Feb. 9, 1993	Feb. 9, 1997
HEN 9	315719	Feb. 8, 1993	Feb. 8, 1997
HEN 10	315720	Feb. 8, 1993	Feb. 8, 1997
HEN 11	315721	Feb. 8, 1993	Feb. 8, 1997
HEN 12	315722	Feb. 8, 1993	Feb. 8, 1997
HEN 13	315723	Feb. 8, 1993	Feb. 8, 1997
HEN 14	315724	Feb. 8, 1993	Feb. 8, 1997
HEN 15	315725	Feb. 10, 1993	Feb. 10, 1997
HEN 16	315726	Feb. 10, 1993	Feb. 10, 1997
HEN 17	315727	Feb. 10, 1993	Feb. 10, 1997
HEN 18	315728	Feb. 10, 1993	Feb. 10, 1997
HEN 19	315729	Feb. 10, 1993	Feb. 10, 1997

* Pending assessment report approval *

PROPERTY HISTORY

A search through government literature failed to find evidence of any claims being staked in the area prior to that by Allen et al (1983). Twenty units, the Boss claim, roughly centred on Anomaly creek, were located by D.R. MacQuarrie and transferred to Time Resources Corporation in 1982. The claims were staked to cover anomalous stream sediment results shown on BCRGS-5, 1981. Results included 75 ppm arsenic and 1.2 ppm antimony.

In 1982, a preliminary stream and soil sampling program carried out by A & M Exploration Ltd. revealed highly anomalous gold values in Anomaly creek (up to 1280 ppb). In addition, several spot anomalies with values up to 60 ppb gold, 1.2 ppm silver, 310 ppm copper and 278 ppm zinc were found during soil sampling (Allen G.A., Fleming D., 1983). No further work was done and the claims were allowed to lapse.

Regional prospecting in 1992 located a mineralized float train coming out of the right-of-way near three kilometer on the 6300 road. The float was found to contain arsenic to 3.2% and up to 5678 ppb gold. The Hen 1-4 two-post mineral claims were located by D. Ridley. In February 1993, D. Ridley and D. Blann staked the present property. The Hen 1-4 claims were included in the Hen 8 claim during June 1993.

In late June 1993, D. Ridley signed an option agreement with Pioneer Metals Corp. and a work program was initiated. Details of this work are the subject of the following report.

REGIONAL GEOLOGY

The Hen property lies in the Quesnel Trough, a subdivision of the Intermontane belt, which is composed of Triassic to Jurassic volcanic and sedimentary rocks and intruded by various plutons ranging in age from Triassic to Cretaceous. The following is a reprint from a private report by D. E. Blann to Sun Joint Venture in 1993.

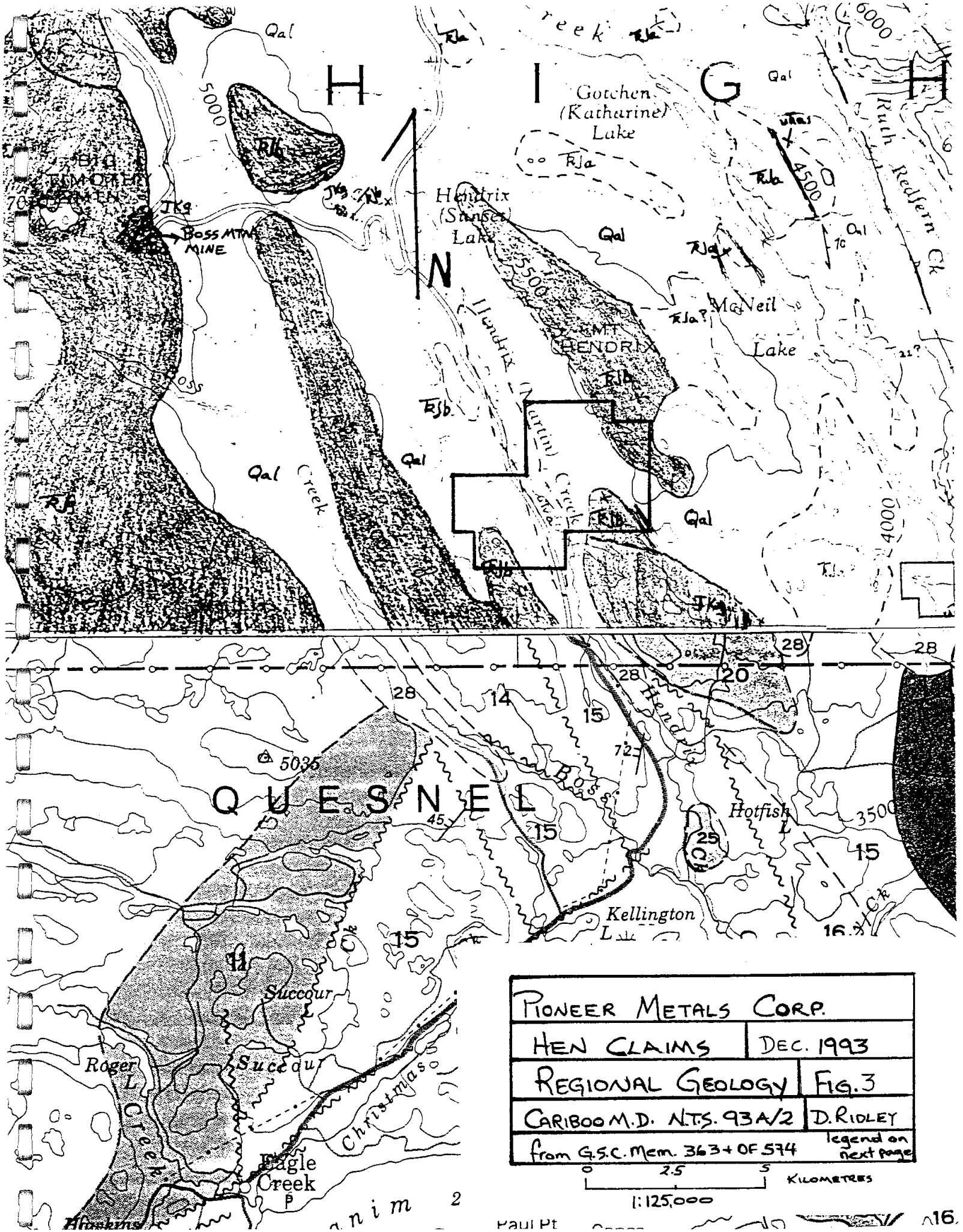
" The property straddles a northerly trending contact zone between the composite upper Triassic-Jurassic Takomkane Batholith, coeval Nicola Group volcanics and Jurassic andesite and related sediments. Cretaceous stocks cut the earlier sequence along the eastern contact of the batholith and as several satellite intrusions further east. The Molybdenite Creek fault, a major northerly trending contact-related fault zone, runs through the property west of Hendrix creek valley. The Boss Mountain Mine lies approximately ten kilometers north of the Hen property along the Molybdenite Creek fault; the past producing mine was a predominately molybdenite-bearing breccia of Cretaceous age, intruded into the eastern edge of the Takomkane batholith.

The Nicola Group is comprised of augite andesite-basaltic flows, breccias and agglomerate, tuff, argillite, phyllite, greywacke and black to grey limestone. The Takomkane Batholith is a composite granodiorite intrusion with hornblende-biotite quartz diorite and granodiorite, hornblende diorite, monzonite, gabbro and hornblendite. Phases may be syenodiorite-diorite or quartz monzonite in composition and locally K-feldspar porphyritic, and quartz-rich.

The Jurassic rocks appear similar to the Nicola Group rocks, and are comprised of porphyritic augite andesite breccia and conglomerate, arenite, tuff, argillite and flows. The Cretaceous stocks are composed of biotite-quartz monzonite and granodiorite. In the vicinity of the Hen property, the stock is composed of magnetite-biotite-hornblende quartz monzonite " (Blann D.E., 1993).

1993 WORK PROGRAM

The 1993 work program consisted of prospecting, reconnaissance stream and soil sampling followed by backhoe trenching and geological mapping. The bulk of the work was carried out on the Hen 8 claim as well as to the east of the property. Work was conducted by D. and C. Ridley under the supervision of D. Dunn, geologist for Pioneer Metals Corporation, and was carried out intermittently between July and November, 1993. The program resulted in the collection of 226 soil, 111 rocks, 32 silts, and 2 moss-mat samples. In



PIONEER METALS CORP.	
HEN CLAIMS	DEC. 1993
REGIONAL GEOLOGY	FIG. 3
CARIBOO M.D. N.T.S. 93A/2	D. RIDLEY
from G.S.C. Mem. 363 + OF 574	legend on next page

0 2.5 5 KILOMETRES

1:125,000

LEGEND

QUESNEL LAKE (93-A) MAP-AREA

CENOZOIC

RECENT

(29) **Rv** — Olivine basalt blocky flows; R_{ev} related cinder cones; ultrabasic nodules common

PLEISTOCENE AND RECENT

(28) **Qal** — Glacial deposits, till, gravel, sand, silt; alluvium; few scattered unmapped outcrops

Qv — Olivine basalt flows and breccia; Q_{vv}, related volcanic cones including basalt flows, breccia and cinder; ultrabasic nodules common

TERTIARY AND QUATERNARY

PLIOCENE AND/OR PLEISTOCENE

TQvc — Olivine basalt volcanic cones; flows and cinder; TQ_{vb}, basaltic breccia, minor flows; ultrabasic nodules common

TERTIARY

MIOCENE AND PLIOCENE

(25) **uTva** — Plateau basalt; olivine basalt, feldspar porphyry basalt, minor breccia, conglomerate and sandstone; uT_{vb}, areas underlain by plateau basalt, few scattered unmapped outcrops; uT_{vp}, coarse feldspar porphyry, may be older intrusions

uTs — Shale, sandstone (mainly Miocene)

EOCENE AND (?) OLIGOCENE

KAMLOOPS GROUP (lmT_v and lmT_s)

lmTv — Basaltic, andesitic, and dacitic breccia and flows, minor shale, sandstone and conglomerate; may include small areas of younger volcanics. lmT_{vb}, areas of few scattered unmapped outcrops of lmT_{vb} and lmT_s, undivided

lmTs — Shale, sandstone, tuff, conglomerate

QUESNEL and OMINECA BELTS

QUESNEL BELT

CRETACEOUS AND (?) TERTIARY

KTs — Conglomerate, sandstone, shale

JURASSIC AND CRETACEOUS

JKg — Granodiorite, quartz monzonite, quartz diorite

JKns — Hornblende syenite, syenite

QUESNEL RIVER GROUP (uJ_{bs} to lmJ_s)

JURASSIC

LIAS? AND (?) MIDDLE JURASSIC

PLIENSBACHIAN TO (?) BAJOCIAN

lmJs — Conglomerate (local granitic clasts), greywacke, shale

TRIASSIC AND JURASSIC

UPPER TRIASSIC AND LOWER JURASSIC

TJi — Syenite, monzonite, diorite; sub-volcanic intrusive phases, probably mainly Lower Jurassic

NORIAN TO SINEMURIAN

TJd — Purple or maroon, minor grey and green basaltic and felsitic breccia, minor flows, tuff, sandstone and limestone. TJ_{db}: purple and maroon basalt with analcite phenocrysts

NORIAN AND (?) HETTANGIAN

TJc — Green and purple conglomerate and sandstone

NORIAN AND (?) YOUNGER

(16) **TJb** — Augite porphyry basalt breccia, minor flows, tuff and tuffaceous argillite; local andesitic basalt

(15) **TJa** — Basaltic tuff and breccia, generally fine-grained; argillite, flows, chert

TRIASSIC

UPPER TRIASSIC

NORIAN AND (?) NORIAN

uTb — Basaltic and andesitic flows and breccia, minor argillite and limestone

(10) **uTa1** — Phyllite, argillite, slaty argillite, quartzite, schist, minor greenstone (sub-greenschist to amphibolite (kyanite) facies of metamorphism)

uTa2 — Greenstone, augite-porphyry breccia, tuff breccia, tuff; possible dykes and sills (greenschist facies of metamorphism)

uTa3 — Undivided uJ_{bs} and uJ_{bs2} not separable at scale of mapping; may include dykes and sills and passes gradationally upward to TJ_{db} (sub-greenschist and greenschist facies of metamorphism)

TJg — TAKOMKANE BATHOLITH: granodiorite, quartz monzonite, quartz diorite

OMINECA BELT

JURASSIC (?), CRETACEOUS AND/OR TERTIARY

KTg — Muscovite - biotite granite and quartz monzonite

JURASSIC AND (?) CRETACEOUS

(20) **JKg** — Granodiorite, quartz monzonite, quartz diorite, minor diorite

PALEOZOIC OR MESOZOIC

PMub — Serpentinite, peridotite; may be pre PPAb

REDFERN COMPLEX (PM_{Rub}, PM_{Rgo} and PM_{Rv}) (may be equivalent to PM_{ub} and PPAb)

PMRa — Amphibolite

PMRgo — Gabbro, norite

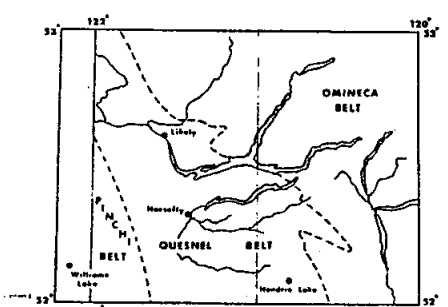
PMRub — Serpentinite, pyroxenite, peridotite

PENNSYLVANIAN, (?) PERMIAN AND (?) YOUNGER

SLIDE MOUNTAIN GROUP (PPAa and DMG)

(2) **PPAa** — ANTLER FORMATION: pillow basalt, breccia, chert greywacke, minor limestone. PPA_{ab}, amphibolite, probably equivalent to PPAa

(1) **HPSM** — SNOWSHOE FORMATION: may include HPm undivided: phyllite, schist and gneiss in amphibolite facies of metamorphism. HPS_{mv}: marble (shown in solid black where thin); HPS_{mg}: gneissose granitoid layers of uncertain origin



Glacier

Geological contact (defined, approximate or assumed, covered)

Contact of Shotsway Metamorphic Complex (coincides with sillimanite isograd)

Fault (defined, approximate or assumed, covered by water)

Bedding (horizontal, inclined, vertical, overturned; tops not indicated)

Foliation: cleavage, schistosity, gneissose layering (inclined, vertical)

Anticlinal axis (fold upright, overturned)

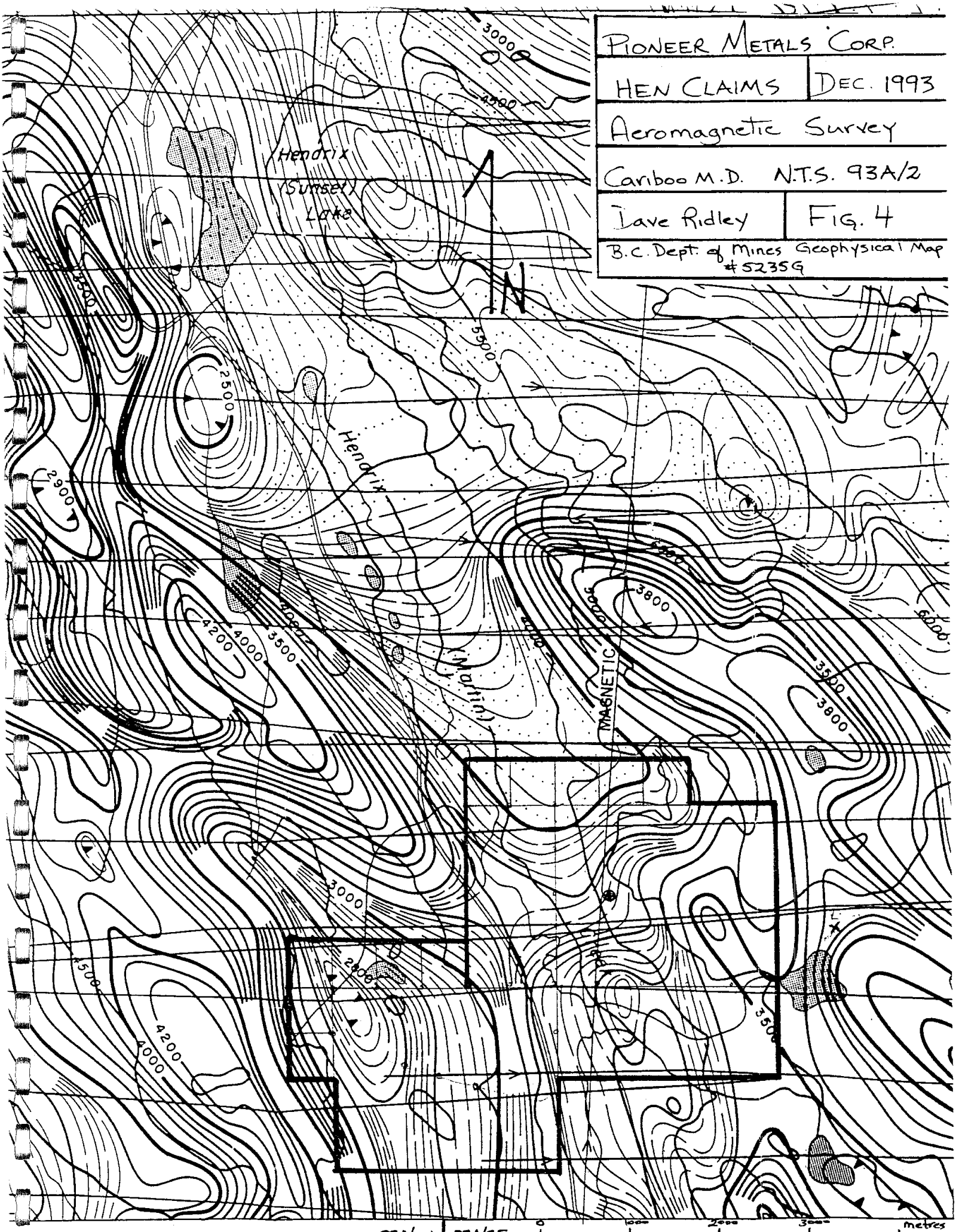
Synclinal axis (fold upright, overturned)

Antiformal axis

Fossil locality

Mine

Geology by R.B. Campbell, 1959-1963, 1964


PIONEER METALS CORP.
HEN CLAIMS
DEC. 1993
Aeromagnetic Survey
Cariboo M.D. N.T.S. 93A/2
Dave Ridley
FIG. 4
B.C. Dept. of Mines Geophysical Map #5235G
(Hendrix (Sunset) Lake
Hendrix
(Martin)
MAGNETIC
3000
4500
2500
2900
4200
4000
3500
3800
6000
metres

addition, approximately 100 square meters were trenched along the 6300 road right-of-way utilizing a John Deere 790-D excavator.

PROPERTY GEOLOGY

The Hen claims are underlain by a sequence of medium to coarse grained augite-feldspar porphyritic basaltic to andesitic agglomerate/conglomerate, tuffaceous and carbonate-rich volcanic sediments. These rocks are overlain to the east by a thick succession of tufaceous to calcareous argillaceous sediments which are locally pyritic. All of the volcanic-sedimemtary rocks are intruded by a medium to coarse grained magnetite-hornblende quartz monzonite or granite with a broad zone of contact hornfelsing and local exo-skarn development (Blann D.E., 1993).

Exposure on the property is generally limited to the steeper hillsides, creek cuts, logging roads and clearcuts. The most extensive exposures found during this program were located along the 6300 road right-of-way.

The area of the main showings is situated near the 6303 kilometer post. Two rocks were submitted by D. Blann to Vancouver Petrographics Ltd. for sectioning and petrographic examination. A report by J.F. Harris is included in the appendix. The samples were representative of the mineralized float zone (HEN DB1) and a large area of hornfelsed wallrock which underlies the mineralized zone (HEN DB2).

Harris reports the wallrock to be " a pyroxene hornfels which could represent the recrystallization of a rock of similar general type to #1, under more intense thermal metamorphism." This rock type underlies a large area near the mineralization and is predominate along the road for several hundred meters. The only sulphides encountered in these rocks were minor pyrrhotite and trace chalcopyrite. The rocks trend northwesterly, dipping moderately to the east and are commonly cut by later carbonate veins and small shears which generally strike easterly and dip moderately northward. Extensive rock-chip sampling failed to locate anomalous gold values.

A mineralized "till" layer locally overlies the pyroxene hornfels and represents the main showings on the Hen claims. The "till" is actually believed to be related to a talus fan originating upslope. It is easily distinguished from the over-lying glacial till by its rusty-orange colour, local recrystallized limestone cobbles and an abundance of altered trachyandesite fragmentals with disseminated sulphides, (see Harris, appendix). Locally these reach up to 1.8 meters in diameter. The zone measures roughly 1-3 meters thick and has been traced for about 70 meters along the main road. Prospecting upslope did not locate any further mineralization probably because the zone is covered by 1-2 meters of glacial till, up to one meter of non-mineralized pyroxene hornfels talus and a further 50-100 cms. thick layer of soil.

Gold values to 4.23 grams\ton were obtained from a one meter section of the mineralized till with all samples containing at least 1 gram/ton. These samples were taken of the rusty-weathering soil and mineralized rock fragments contained within it (HEN93 DR52, 54, 65, and 67). The rock fragments typically consist of a trachyandesite fragmental and contain 1-4% arsenopyrite, 1-2% pyrrhotite and rare stibnite. Recrystallized limestone cobbles are smaller in size, less abundant and generally carry less sulphides although they do contain gold values up to 5678 ppb (HEN92 DR6; private report). While arsenopyrite is important to gold mineralization there is no correlation between arsenopyrite content and gold values (ie; high arsenopyrite proportions do not neccessarily contain the highest gold values). Gold values reach a high of 8922 ppb. in individual pieces of the altered trachyandestic rock (HEN93 DB1; private report).

Rusty-weathering, black basaltic tuff is intruded by several dykes and narrow vein-like structures of biotite-hornblende granodiorite approximately 200 meters up the road from the mineralized till. Exposures are poor but the intrusive rock can be seen to cut the basaltic tuff in several places on the Hen 8 claim. The granodiorite trends northerly dipping to the east and may be responsible for the mineralization at the 6303 kilometer post. The basaltic tuff typically contains 1-3% disseminated pyrrhotite and trace pyrite, magnetite and chalcopyrite. No gold values were detected in these rocks.

A large magnetite-hornblende-biotite granodiorite dyke cuts hornfelsed rusty-weathering volcanic sediments about 1.3

kilometers up the road from the 6303 post. The dyke is at least 7 meters wide and several smaller ones can be observed for 50 meters along the road. The intrusive is typically a sulphide-free biotite granite whereas the tuffaceous wallrocks contain abundant disseminated pyrrhotite and trace chalcopyrite. Carbonate stockwork-style veinlets are common in the wallrocks. The dyke is believed to be related to the Hendrix stock, a large intrusion of granodiorite-diorite outcropping south of the claims. Air magnetometer surveys conducted by the provincial and federal governments show a large elliptical magnetometer high, roughly outlined by the +3500 gammas contour, lies east of the property (FIG. 4). This may represent the presence of an underlying intrusive and the dykes may be apophyses of it.

Monolithic agglomerate was observed in scattered outcrops throughout the Hen 8 claim and beyond the property boundaries to the east. The rocks comprise an augite porphyry matrix with subrounded fragments of similar composition which are best exposed on weathered faces. Fresh, relatively un-weathered material typically shows an agglomerate texture on closer examination. These rocks contain minor pyrrhotite and are cut by granodiorite and later carbonate veinlets near the main road. A single piece of float from the northeast corner of the property was found to contain galena-pyrrhotite and trace sphalerite (HEN93 DR37). Abundant rusty-weathering agglomerate float was seen in the southern portion of this clearcut (FIG. 6).

A single piece of float approximately 40 cms. in diameter, was found in the northeast corner of the upper clearcut and about 450 meters southwest of DR37. This sample consists of a highly weathered carbonate-rich, soft, friable rock tentatively classed as a travertine (HEN93 DR9 and DR36). Initial results returned 1.31 gram\ton gold and a re-sample returned 885 ppb gold. The material is very soft and fairly angular suggesting it is near its source. Augite porphyry agglomerate outcrops near this site were found to contain small highly-weathered carbonate veinlets that were anomalous in gold (up to 35 ppb), arsenic (up to 165 ppm) and copper (up to 732 ppm). The rocks strike 120' and dip steeply northward.

Augite porphyry flows were found in scattered outcrops throughout the area of examination. These rocks are typically fresh and unaltered in appearance except for along the main road immediately east of the property. Here the rocks are intruded by easterly trending dykes of biotite granodiorite

and are altered by K-feldspar-epidote veinlets. Minor pyrite, pyrrhotite and trace chalcopyrite are disseminated throughout the volcanic rocks but mainly absent in the intrusive.

Well-bedded tuffs outcrop along the western boundary of the upper clearcut immediately above the area of mineralized float boulders. The tuffs consist of alternating black and light grey layers 1-3 cms thick which are brecciated and contain carbonate fillings. The beds are well exposed and strike 090' dippping moderately north. They contain up to 1% disseminated pyrrhotite and are geochemically enriched in copper, zinc and cadmium (HEN93 DR7).

Prospecting and stream sampling traverses, along the western clearcut boundaries west of Hendrix creek, revealed tuffs, breccia, feldspar porphyry and gabbro in outcrop and angular float or subcrop. The tuff was hornfelsed and carried trace pyrite-pyrrhotite-magnetite with patches of red garnet. The gabbro was epidote-altered and contained minor pyrite. Breccia consisted of fine grained blue-grey rock fragments in a carbonate breccia filling.

STREAM GEOCHEMISTRY

A total of 32 silt and 2 moss-mat samples were collected during the 1993 work program. Samples were air-dried for one week prior to shipment to Eco-Tech Labs., Kamloops, BC, where they were seived to -80 mesh and one gram was analyzed for 30 elements by I.C.P., with ten grams being fire assayed and analyzed by atomic absorption for gold. Samples were taken from along the western clearcut boundaries, west of Hendrix creek, from the northeast quadrant of the property and immediately east of the claims.

No significant gold anomalies were encountered during this phase of the program, however, several copper and arsenic anomalies were found.

Two samples just beyond the northwest boundary returned values of 100-180 ppm arsenic and 26-101 ppm copper (HEN93 CS10 & 11). These samples also contained 1.5 - 2.5% calcium which may restrict the mobility of base metals such as copper and arsenic. Additional prospecting is warranted in this area.

One sample near the boundary between the Hen 6 and Hen 14 claims contained 270 ppm arsenic and 173 ppm copper (HEN93 CS14). This is near an occurrance of garnet-bearing hornfelsed tuff float and epidote-altered gabbro outcrop (HEN93 CR5 and 6) and lies along the flank of a magnetometer high (FIG. 4 & 5).

A sample from Anomaly creek in 1982 returned 1280 ppb gold. Three samples were taken up Anomaly creek in 1992 by D. Ridley. These samples, including a resample of the previous high value, returned 114 ppb gold, 36 ppm arsenic and 76 ppm copper; the next sample, taken about 350 meters upstream returned 31 ppb gold, 76 ppm arsenic and 225 ppm copper, while the final sample returned 22 ppb gold, 61 ppm arsenic and 297 ppm copper (Ridley, 1992). Anomaly creek drains an area underlain by volcanic rocks in fault contact with Takomkane Batholith by means of the Molybdenite Creek fault and cuts through a prominent magnetometer low (FIG. 3 - 5). This area was not examined during the 1993 program and is included here for compilation purposes only.

A sample from a seepage zone at the 6303 kilometer post and about 65 meters north of the mineralized till zone returned 35 ppb gold, 130 ppm arsenic, 255 ppm barium, 256 ppm copper and 30 ppm antimony (HEN93 CS18).

SOIL GEOCHEMISTRY

A total of 226 soil samples were collected from the Hen 8 claim during the 1993 work program. Samples were dug by mattock, placed in Kraft soil envelopes and air-dried one week prior to shipment to Eco-Tech Labs., Kamloops. Samples were

seived to -80 mesh, one gram was analyzed for 30 elements by I.C.P. and ten grams were fire assayed and analyzed by atomic absorption for gold.

The bulk of the sampling was carried out along the 6300 road. Samples were taken from 20-35 cms. deep above the road along the right-of-way and a shorter line was run above the area of mineralized float at 4300' elevation. The road line was started at the junction of the 6300 road with the first northerly trending arterial (0+00). Sampling was carried out at 25 meter intervals for 200 meters east and 1.5 kilometers northwest. Near the main showings samples were taken at 10 meter intervals. A contour soil line, L4300, was begun 100 meters east of 5+00W, run northerly 400 meters (L4300;4+00W) and the entire line was sampled at 10 meter intervals. (Fig. 6).

Values from the road and contour sampling range between <5-30 ppb gold, <5-80 ppm arsenic, 11-439 ppm copper, and 45-375 ppm barium. No significant gold anomalies were found in the soil overlying the mineralized till suggesting deeper sampling of the clay-rich, "C" horizon may be required. No significant anomalies were found on the contour line. A spot anomaly containing 439 ppm copper and 397 ppm nickel (HENR 7+10W), may be related to narrow gabbro dykes uncovered during trenching 50-75 meters south.

Twenty-two soil samples were taken from the upper walls in three trenches excavated during late August and early November, 1993. Samples were taken from mineralized till distinguished by its rusty-orange color, recrystallized limestone cobbles and a high proportion of arsenopyrite-pyrrhotite-rich altered trachyandesite fragmental boulders, as well as unmineralized light-grey clayey till and talus fines. Sample locations are plotted on FIG. 7 (HEN RT1- 10, HEN T2D-9, and HEN T3D A, B).

The mineralized till layer, measuring in excess of 60 meters wide, 25 meters long and 1.3 - 2.0 meters thick, is covered by up to 1 - 2 meters of unmineralized till, talus blocks and fines, and a poorly developed soil. Therefore, conventional soil sampling utilizing a shovel or mattock may not be appropriate, however, soil augers may prove successful enabling deeper samples to be taken. The mineralized till layer locally rests directly on bedrock, otherwise bedrock exposures are covered by a mantle of cemented glacial till and

talus fines which don't contain any mineralized fragments (see photographs and FIG. 7.

Values for trench soil samples range from 5-3970 ppb gold, <5-3120 ppm arsenic, 145-594 ppm copper, 5-85 antimony, and 120-1410 ppm barium. The un-mineralized till returned the lowest values while the mineralized till produced the highest values. The mineralized till in the north end of Trench 1 (HEN RT -2), returned several fine flakes of visible gold on panning in the creek. Sample HEN T2D -8 was taken from the highest topographical point in Trench 2 and returned values of 215 ppb gold, 880 ppm arsenic, 189 ppm copper, 40 ppm antimony, and 360 ppm barium. Therefore it appears the mineralized till layer may have an outcrop source further upslope to the east.

A small grid, established in the northeast corner of the upper clearcut, was soil sampled by mattock and resulted in the collection of seventy-nine samples. The bulk of the grid was within the clearcut and a residual soil with a thin blanket of glacial till covered the area. The grid was roughly centered on an occurrance of travertine float which assayed 1.31 gram\ton gold (HEN93 DR9). Grid location is shown on Figure 5 and soil results are presented on Figures 8 & 9.

Soil results returned values between, 5-80 ppb gold, 32-291 ppm copper, 5-95 ppm arsenic, and ,5-40 ppm antimony. Anomalous zones extend beyond the mini-grid and additional soil sampling is warranted.

TRENCHING

Three trenches and two strippings were excavated along the 6300 road right-of-way during late August and early November, 1993. After verbal permission to do the alterations was obtained from the appropriate office in Prince George, BC; Heffley Creek Contracting Ltd. was hired to do the excavating. A John Deere 790D excavator was utilized and the disturbed area totals approximately 100 square meters. The present permits restricted the trenching to the existing road right-of-way only. A more comprehensive permit will be required for future trenching.

During late August, 1993, stripping and excavating of Trench 1 was carried out. Bedrock exposed during this time was chip-sampled, resulting in the analysis of 40 rocks, (HEN93 DR46-68 and CR7-22). Bedrock samples failed to return anomalous gold values although samples from the mineralized till layer returned values between 1.1 - 4.2 grams\ton gold and 1130 - 5000 ppm arsenic. The mineralized till was found to rest directly upon the hornfelsed tuffaceous sediment bedrock for much of the length of Trench 1 (FIG. 7).

During early November of 1993, a second trenching program was carried out. This was conducted above the previous trench. A third trench was cut into the road-bank 30 meters further up the road (FIG. 7). Bedrock was scarce but abundant mineralized boulders, some nearly 2 meters in diameter, were uncovered. Analysis of these boulders returned values as high as 4.21 gram\ton gold I.C.P. analysis have not been received at the time of writing and will be appended.

CONCLUSIONS

Based on results from the 1993 work program it can be concluded that:

1) A distinctive mineralized till horizon which carries significant gold values is found on the Hen 8 claim adjacent to the 6300 road. Rock fragments in the till suggest gold-bearing, arsenopyrite-rich skarn mineralization may subcrop further upslope. The till layer is covered by 1-2 meters of un-mineralized till and talus which renders shallow soil sampling in-effective.

2) Gold-bearing float, tentatively classed as a travertine, found in the northeast corner of the Hen 8 claim, may be indicative of epithermal vein-type mineralization. This hypothesis is re-inforced by limited soil sampling conducted

to date. The float is very soft and would not survive long in transport, therefore it is probably close to source.

3) Based on a compilation of past data it is possible that a molybdenum and\or copper-gold porphyry-type target may exist in the upper reaches of Anomaly creek, on the Hen 5 claim. This, due to similarities to the Boss Mountain mine in the form of a magnetometer signature and its location along the Molybdenite Creek fault zone. In addition, several streams flowing from the magnetometer low are anomalous in gold, copper and arsenic.

RECOMMENDATIONS

Further work on the Hen Group is recommended and should be directed at locating the source of the mineralized till layer and travertine float. Three closely-spaced lines, oriented along the "fall-line" of the slope, should be run from the road to the upper clearcut. Soil samples would be obtained using a hand auger and should be taken from about one meter deep. This would further define targets for backhoe trenching of this zone.

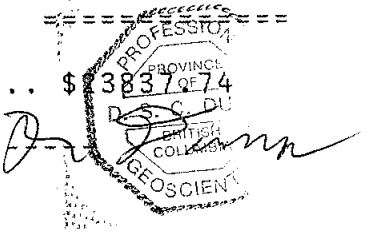
A large grid should be established covering the upper clearcut and extending downslope beyond the 6300 road. The grid would be subjected to geological mapping, soil, ground magnetometer, and VLF-EM surveys. If results were encouraging an aggressive machine trenching program would be conducted followed eventually by diamond drilling.

Prospecting and geological mapping traverses should be conducted over the entire property as well as off the claims, where there is presently open ground. Additional staking may be required in the northwest and southeast portions of the property.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. S. G. DUNN
GEOSCIENTIST

FINANCIAL STATEMENT

PERSONEL		
D. Ridley, prospector;	24D @ $200\day	$ 4800.00
C. Ridley, Prospector;	15D @ $125\day	$ 1875.00
D. Dunn, geologist;	5D @ $250\day	$ 1250.00
D. Blann, geologist;	2D @ $250\day	$ 500.00
TRAVEL		
Truck Rental;	29D @ $40\day	$ 1160.00
Gas;		$ 450.00
GST PAYABLE		
7% on contracting and vehicle rentals		$ 670.95
FOOD AND ACCOMODATION		
Minac Lodge, Canim Lake; 5D @ $50\day		$ 250.00
SAMPLE ANALYSIS		
i) Soils; 226 @ $15 each		$ 3390.00
ii) Rocks; 111 @ $16 each		$ 1776.00
iii) Silts; 34 @ $15 each		$ 510.00
TRENCHING		
Heffley Creek Contracting (total from 2 invoices)		$ 5995.79
PETROGRAPHIC EXAMINATION		
Vancouver Petrographics; 2 Samples		$ 244.50
SHIPPING		$ 82.50
FIELD SUPPLIES		$ 65.00
PHOTOCOPYING		$ 37.00
FAX		$ 31.00
REPORT PREPARATION		$ 750.00
TOTAL EXPENDITURES FOR 1993 WORK PROGRAM		$ 23837.74



STATEMENT OF QUALIFICATIONS

I, David Wayne Ridley, of General Delivery, Eagle Creek, B.C., V0K1L0, do hereby certify:

1) That I completed the "Mineral Exploration for Prospectors" course, hosted by the BC Ministry of Mines at Mesachie Lake, B.C. in 1984.

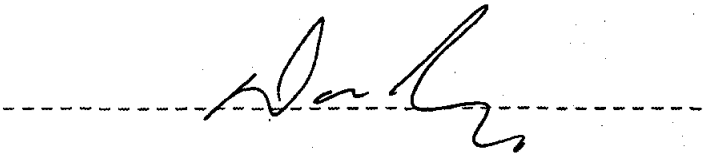
2) That I completed the short course entitled "Petrology for Prospectors" held in Smithers, B.C., and hosted by the Smithers Exploration Group, in 1990.

3) That I have prospected independently since 1982 and have been employed as a prospector by various exploration companies in B.C., Alaska, and Yukon Territory since 1984.

4) That I conducted the work set out in this report while under the supervision of D. Dunn.

5) That I currently own an interest in the subject property.

Dated at Eagle Creek, B.C., December 8, 1993.



David Wayne Ridley

I, David St. Clair Dunn, with a business address of 2348 Palmerston Avenue, West Vancouver, B.C. V7V 2W1, declare that;

1. I am a professional Geoscientist registered under the Professional Engineers and Geoscientists Act of the Province of British Columbia.

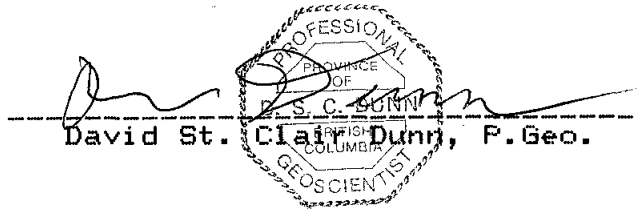
2. I am a Fellow of the Geological Association of Canada.

3. I am a Fellow of the Association of Exploration Geochemists.

4. I have practiced my profession as a prospector and geologist for more than 20 years in Canada, U.S.A. and Australia.

5. I supervised the work program on the Hen Property described in this report.

6. I am Exploration Manager for Pioneer Metals Corporation.



David St. Clair Dunn, P.Geo.

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Soregaroli, A.E., Nelson, W.I., 1976; Boss Mountain mine in Porphyry Deposits of the Canadian Cordillera, published by Canadian Institute of Mining and Metallurgy; Special Volume 15, 1976, pgs. 432-443.

Other useful publications include;

BCRGS-4-1979; NTS 92P; Regional Stream Geochemical Survey.

BCRGS-5-1981; NTS 93A; Regional Stream Geochemical Survey. Open File #776.

GSC Geophysics Paper 5231; Canim Lake; NTS 92P\15; Aeromagnetic Survey, 1968; Map #5231G.

GSC Geophysics Paper 5235; McKinley Creek; NTS 93A\2; Aeromagnetic Survey, 1968; Map #5235G.

APPENDIX A

ROCK SAMPLE DESCRIPTION SHEETS

ROCK SAMPLE SHEET

Sampler D. Ridley
Date June 1993 Property HEN NTS 93A/2

SAMPLE NO.	Sample Width	DESCRIPTION: Rock Type	Alteration	Mineralization	ADDITIONAL OBSERVATIONS	ASSAYS: Au	Ag	As	Cu	Sb	M
HEN 93 DR 1	G	hornfels tuff?	hornfels limonite	minor po,	≈ 250 m up road from main showings: outcrop 10 m E trends 340/70E:						
HEN 93 DR2	1·5m	basaltic tuff	qtz-carb veinlets limonite	trace py. po	veinlets trend 020/70W cut by later fractures @ 060/80N: along Hendrix L. road ≈ 100 m S of Hen 6 line.						
HEN 93 DR 3	F (subcrop?)	altered tuff	hornfels carbonate	very f-gr py: po.	above Trench 2:	10	·4	10	90	5	1
HEN 93 DR 4	F subcrop?	"	"	trace po	1cm wide carb vein trends 060/80S: rock more or less laced with narrow carb veins:	10	·2	20	97	5	2
HEN 93 DR 5	"	"	carb veinlets limonite	minor py	carb veins to 1cm wide: ~~trends ≈ (090/50N)~~ trend of nearby outcrop	5	<·2	80	102	5	5
HEN 93 DR6	2m	breccia zone	bleaching limonite	trace py, po	zone appears to be at least 5-10 m wide ≈ 10 W of DR5: along West edge of clearcut. above main showings	5	<·2	50	113	5	5
HEN 93 DR 7	1m	light gray tuff	—	up to 1% f-gr. po	≈ 100 m N of DR6 along edge of clearcut: well-bedded with alternate light-dark grey laminations.	10	·2	5	172	5	25
HEN 93 DR 8	F subcrop?	volcanic conglomerate	limonite	up to 2% f-gr. pyrrhotite	≈ 5 m N of DR7: clasts appear compressed to enlongated ovals with E-W elongation.	5	·2	35	110	10	8
HEN 93 DR 9	F	highly altered volc. conglom	limonite carbonate hematite?	no visible sulphides	along road near N edge of clearcut: very angular + soft ∴ probably near source: may have washed down in creek DS-3	1·31 g/t	·4	35	50	15	2
HEN 93 DR 10	F	siliceous tuff	silica limonite	up to 15% f-gr po, trace py	@ 0400 soil line: much similar float lying around here:	45	·2	30	129	5	38
HEN 93 DR 11	F subcrop?	altered basaltic tuff	bleaching carbonate	up to 3% f-gr pyrrhotite	very angular: probable subcrop: ≈ 10 m upslope from 5450W:	15	<·2	10	70	<5	3
HEN 93 DR 12	F subcrop?	fault breccia	bleaching hornfels carb veining	upto 3% sulphides (non-magnetic pyrrh.)	very angular: just below L 4300: 2400W: clasts of dk-gray-black hornfelsed volc. sediment matrix bleached (carbonate?)	5	·2	30	128	5	2
HEN 93 DR 13	1·2m	"	"	minor pyrrhotite trace chalcopyrite	≈ 25 m South of DR6:	10	<·2	55	38	5	2
HEN 93 DR 14	1·5m	"	"	"	≈ 70 m South of DR6: along North side of ≈ gully that goes through to road @ a point ≈ 70 m S of main showings:	35	<·2	270	83	15	2
HEN 93 DR 15	2·5m	augite porphyry	limonite	no visible sulphides	wallrx cut by biotite-hornblende granitic dykes, sills + stockwork-style veinlets: contacts sh. ≈ dykes trend NNW to NNE	20	<·2	5	103	10	

C-CHIP G-GRAB F-FLOAT

ROCK SAMPLE SHEET

Sampler D. Ridley
Date July 1993
Property HEN
NTS 93A/2

SAMPLE NO.	Sample Width	DESCRIPTION: Rock Type	Alteration	Mineralization	ADDITIONAL OBSERVATIONS	ASSAYS: Au	Ag	As	Cu	Sb
HEN 93 DR 16	1 m	augite porphyry conglomerate	carbonate	trace pyrrhotite	intrusive veinlets to 5mm wide: carbonate fracture fillings + blobs:	5	<.2	10	98	5
HEN 93 DR 17	1m	volcanic conglomerate	silica	2-5% f-grain pyrrhotite	poorly exposed: needs trenching: ≈ 4880':	10	<.2	10	140	5
HEN 93 DR 18	1.5m	augite porphyry basalt	hornfels carb veinlets	minor pyrrhotite	shear zone (foliation @ 086/80N): @ edge of clearcut along main road.	10	<.2	5	168	10
HEN 93 DR 19	F	andesitic tuff?	silica	3-5% pyrrhotite trace chalcopyrite	≈ 30 m down road from DR18: angular float mixed with local rubble from road building.	10	<.2	35	256	<5
HEN 93 DR 20	2.5m	hornfelsed volcanic conglomerate	hornfels	minor pyrrhotite heavy limonite	@ DR19: rock too altered + cooked to be sure of original type: rock has almost gneissic texture.	5	<.2	25	145	5
HEN 93 DR 21	2.5m	"	"	"	≈ 30 m down road from DR20: intense hornfels (biotite): cut by narrow (25cm wide) granitic dykes trending @10°/90°?	5	<.2	5	63	<5
HEN 93 DR 22	1.5m	augite porphyry	biotite (hornfels)	"	≈ 15 m W of DR21: strong N-S fractures dip 40W overall trend of rocks 100/65N: grades from volc. conglomerate to med-gr. augite porphyry	5	<.2	10	99	5
HEN 93 DR 23	2m	"	" feldspar carbonate	up to 7% pyrrhotite	10 m W of DR22: heavy limonite-stain:	5	<.2	35	153	<5
HEN 93 DR 24	F	"	carbonate hornfels	up to 15% f-gr pyrrhotite	@ DR23: boulder 70cm diameter: very angular: outcrop probably buried under road building rubble?	5	<.2	45	113	<5
HEN 93 DR 25	3m	altered volcanic	hornfels limonite	1-3% pyrrhotite	≈ 50 m downroad from DR24:	5	<.2	10	137	5
HEN 93 DR 26	1.5m	breccia	"	local 1cm sq massive pyrite pods: <1% pyrrhotite	sulphides are of limited extent: 10 m downroad from DR25.	5	<.2	30	272	<5
HEN 93 DR 27	1.5m	biotite granite	minor limonite on fractures	no visible sulphides	10 m from DR26: overall trend of outcrop 340/90:	5	<.2	5	30	5
HEN 93 DR 28	2m	f-grain conglom.	hornfels silica?	up to 15% pyrrhotite	off property ≈ 400m East on 6300 Rd: contains 1m wide shear @ 045/65E	5	<.2	15	102	5
HEN 93 DR 29	2m	f-grain volcanic	hornfels + carbonate veining	up to 7% pyrrhotite	just east of property on main road: 5m E a 50 cm wide granitic dyke trends 120/ungure of dip.	30	<.2	25	100	<5
HEN 93 DR 30	1.5m	volcanic breccia	"	1-3% f-grain pyrrhotite	just east of ravine bottom separating 2 knolls to east of claims: trend 115/80N	5	<.2	40	81	10

C-CHIP G-GRAB F-FLOAT

ROCK SAMPLE SHEET

Sampler D. Ridley
Date July 1993
Property HEN
NTS 93A/2

SAMPLE NO.	Sample Width	DESCRIPTION: Rock Type	Alteration	Mineralization	ADDITIONAL OBSERVATIONS	ASSAYS: Au	Ag	As	Cu	Sb
HEN 93 DR 31	F	volcanic conglomerate	heavy carbonate	up to 15% f-gr. pyrrhotite	in old burn east of property (eastern-most of 3 knolls): zone appears to trend NE.	10	.2	10	127	5
HEN 93 DR 32	1.5m	"	"	"	probable source of DR31 material: zone is 3-4 meters wide trending 040/90	5	<.2	35	104	20
HEN 93 DR 33	F	mafic volcanic	carbonate stockwork veinlets	trace py	probable subcrop: outcrop nearby is augite porphyry: ≈ 60 m SW of DR9 (in clearcut).	5	<.2	10	732	15
HEN 93 DR 34	60cm	"	carbonate chlorite	up to 3% pyrrhotite	shallow hand trenching indicates zone may be several meters wide: trends 120/80N:	35	<.2	165	74	15
HEN 93 DR 35	F	volcanic breccia	carbonate	up to 10% pyrrh-py + trace chalcopy	looks similar to main zone on 6300 road: fair bit of this lying about.	5	<.2	10	95	10
HEN 93 DR 36	F	altered volcanic?	"	none-visible.	resample of DR9 material:	885	<.2	60	81	35
HEN 93 DR 37	F	agglomerate	limonite	up to 15% pyrrh minor galena-sphalerite	contains f-gr grey mineral (galena??) lots of pyrrhotite-rich agglomerate from near center to SE. NB Pb 1316 ppm: Zn 686 ppm	10	1.2	10	58	15
HEN 93 DR 38	rock in soil hole	basaltic tuff	carb veinlets	trace pyrrhotite	@ L 43+00: 3+90W: outcrop ≈ 20m upslope.	5	<.2	10	102	5
HEN 93 DR 39	"	~~hornfels~~ "	hornfels carbonate	trace pyrrhotite	@ R - 5+80W: talus?	370	<.2	610	53	15
HEN 93 DR 40	1.5m	agglomerate	chlorite carbonate	"	@ 10 m upstream from DR9: grab from outcrop:	15	<.2	15	139	15
HEN 93 DR 41	sub crop	"	carbonate veinlets	up to 15% pyrrhotite	near N edge + E end of clearcut: recent digging by ~~excavator~~ backhoe has exposed lots of this all very angular.	10	<.2	120	118	15
HEN 93 DR 42	F	andesitic tuff	silica carbonate limonite	up to 5% pyrrhotite	along main road ≈ 250 m E of west edge of 3rd clearcut: very angular: probable subcrop.	5	<.2	15	85	10
HEN 93 DR 43	F	coarse grain tuff	"	minor pyrite less pyrrhotite	≈ 10 m E of DR42: probably very close to source:	15	<.2	15	91	15
HEN 93 DR 44	F	agglomerate	limonite	up to 10% pyrrhotite	@ junction main road + south fork: clasts are more angular then rounded ∴ possibly a breccia?	5	<.2	40	95	20
HEN 93 DR 45	F	diorite to gabbro	K-spar veinlets	minor pyrite	≈ 270 m S of junction (DR 44): probably close to source: boulders up to ½ the size of truck.	85	<.2	25	103	5

C-CHIP G-GRAB F-FLOAT

ROCK SAMPLE SHEET

Sampler D. Ridley
Date Aug/93
Property HEN
NTS 93A/2

SAMPLE NO.	Sample Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS				
		Rock Type	Alteration	Mineralization		Au	Ag	As	Cu	Sb
HEN 93 DR 46	2m	basaltic tuff	hornfels carb veinlets	trace pyrrhotite	main trend carb stockwork 090/70NW: major fractures trend 355/90	<5	<.2	30	130	15
HEN 93 DR 47	2m	"	hornfels	" "	con't chip from DR46	5	<.2	35	130	15
HEN 93 DR 48	1.1m	shear zone	carb stockwork veinlets	" "	shear trends 035/50NW.	<5	<.2	40	161	15
HEN 93 DR 49	1.2m	basaltic tuff?	limonite	up to 1% pyrrhotite	rubble (subcrop?) below DR50:	5	<.2	100	232	15
HEN 93 DR 50	2m	"	minor limonite	trace pyrrhotite	sheared rock trending 090/50N	<5	<.2	10	124	10
HEN 93 DR 51	1.6m	shear zone	hornfels	minor pyrrhotite	upper trench: wallrx are hornfelsed blk volcanic seds: main fractures + shear trend 050/80SE: other fractures @ 140/60SW + 150/50NE	5	<.2	30	117	20
HEN 93 DR 52	1m	unconsolidated material	carbonate + sulphides	pyrrhotite arseno-pyrite	beside DR51: grab from "till": calcite-rich boulders + hornfelsed volc. seds with high sulphides (to 3% ast py): lying ontop of outcrop.	1.32 g/t	.2	42%	80	60
HEN 93 DR 53	1.8m	volcanic seds	hornfels carbonate veinlets	pyrrhotite to 2%	outcrop beneath DR52: outcrop trends 098/70SW	15	<.2	45	65	10
HEN 93 DR 54	1.6m	unconsolidated material	carbonate + sulphides	pyrrhotite arsenopyrite	as @ DR52: farther downslope ≈ 4m:	1.10 g/t	<.2	11/30	62	30
HEN 93 DR 55	2.8m	sheared volcanic seds	hornfels abundant carb? veinlets.	minor pyrrhotite	chip across 2.3m subcrop (highly sheared rock) + 0.5m outcrop: includes narrow (30cm wide) shear trending 130/80NE: westward con't from DR54.	10	<.2	40	108	15
HEN 93 DR 56	1.5m	volcanic seds	hornfels carb veining	" "	veinlets trend 096/48N	5	<.2	60	110	15
HEN 93 DR 57	35cm	shear zone	hornfels limonite	pyrrhotite to 3%.	trends 124/80NE: below DR56:	<5	<.2	30	69	15
HEN 93 DR 58	1.3m	tuff?	hornfels, carbonate? veining	trace pyrrhotite	from footwall edge of DR57 shear:	5	<.2	20	108	15
HEN 93 DR 59	1.2m	volcanic seds	"	minor pyrrhotite	con't downward from DR58: ~~highly altered by carbonate veinlets~~:	5	<.2	20	88	15
HEN 93 DR 60	2m	shear zone	carb veining hornfels	1-3% f-grain pyrrhotite	2.5m westerly from DR58: rock very broken-up; main veins follow bedding(?) @ 140/50NE: HEN RT 3 soil sample from here:	10	<.2	25	121	15

C-CHIP G-GRAB F-FLOAT

ROCK SAMPLE SHEET

Sampler D. Ridley
Date Aug. 1993
Property HEN
NTS 93A/2

SAMPLE NO.	Sample Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS				
		Rock Type	Alteration	Mineralization		Au	Ag	As	Cu	Sb
HEN 93 DR 61	60cm	volcanic seds	hornfels carbonate veining	1-7% pyrrhotite local 1cm sq massive lenses.	6.0m from DR58: carbonate-rich zone in hornfels volc. seds. main trend 110/50NE: appears to be junction of several small shears (various attitudes)	5	<.2	20	70	15
HEN 93 DR 62	2.3m	"	"	minor pyrrhotite.	con't below DR60: parts appear to be mafic dyke? (hornblendite → gabbro) :/or intense hornfelsing	10	<.2	20	62	10
HEN 93 DR 63	25cm	gabbro	limonite	up to 7% pyrrhotite (very magnetic)	lying along main plane (bedding??) @ 315/70NE beside DR62	5	<.2	55	154	20
HEN 93 DR 64	G	volcanic seds	hornfels carbonate veining	pyrrhotite to 10% minor cpy	angular float: outcrop above too dangerous to try + get chip sample: outcrop zone 1 → 1.5m thick:	30	1.0	75	751	15
HEN 93 DR 65	on 1m	unconsolidated material	calcite cobbles	pyrrhotite + arsenopyrite?	sample from "till" above outcrop: @ 13m from DR58	4.23 g/t	.4	27.05	72	40
HEN 93 DR 66	2.3m	volcanic seds.	hornfels carbonate veinlets	minor pyrrhotite	outcrop below DR65: shear zone trending 010/80W rock N of shear trends 144/70NE: S of shear 132/60NE:	55	<.2	65	133	15
HEN 93 DR 67	1m	unconsolidated material		pyrrhotite minor arsenopyrite	@ 20m westerly from DR58: as DR65: less calcite cobbles.	2.04 g/t	.2	508	94	55
HEN 93 DR 68	1.5m	volcanic seds	hornfels carbonate veinlets	minor pyrrhotite	below DR67: as @ DR66: apparent end of outcrop in road trenches.	5	<.2	60	112	20
HEN 93 DR 69	F	fault breccia?	limonite carbonate	minor pyrrhotite	upper clearcut L0+86E: 0+38S: fairly soft: angular float: probably close to source.	10	<.2	20	63	25
HEN 93 DR 70	F	volcanic breccia	limonite	up to 15% disem. pyrite-pyrrhotite	upper clearcut: L0+86E: 0+20N: lots of similar material lying about.	5	<.2	45	156	30
HEN 93 DR 71	F	sulphide rich hornfelsed volc. sed.	hornfels carbonate	up to 5% arsenopy: minor pyrrhotite.	Trench 2: dug up during trenching 50cm diameter in mineralized till layer.					
HEN 93 DR 72	F	altered volc. sediment	"	up to 3% pyrrhotite	Trench 3: talus boulders?:					
HEN 93 DR 73	F	"	"	up to 5% pyrrhotite	Trench 3: as DR72 but more carb veining + sulphides.					
HEN 93 DR 74	1.2m	"	"	minor pyrrhotite	Trench 2 @ North end: highly sheared outcrop trending 080/65N:					
HEN 93 DR 75	F	"	"	up to 2% arsenopy. + pyrrhotite	Trench 2 between soils D-5 + D-6: boulder quite angular: 1 x 1.6 x 0.8 meters in size.					

C-Chip G-GRAB F-FLOAT

ROCK SAMPLE SHEET

Sampler D. Ridley
Date Nov. 1993

Property HEN

NTS 93A/2

SAMPLE NO.	Sample Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS
		Rock Type	Alteration	Mineralization		
HEN93 DR 76	F	altered volc. sediment	carbonate hornfels	up to 5% arsenopy up to 5% pyrrhotite	Trench 2 @ 7 m W of soil D-2: large boulder from mineralized till layer: 1 x 1.6 x 1.8 meter in size see photos.	
HEN 93 DR 77	1m	shear zone	"	minor pyrrhotite	Trench 2: outcrop below soil D-8: shear trends 122/70 NE.	
HEN 93 DR 78	2m	hornfelsed volcanic sediment	"	"	Trench 2: next to DR 77: wallrx that have the mineralized till layers directly on top of bedrock. bedding appears to trend 080/55N.	

C-CHIP G-GRAB F-FLOAT

ROCK SAMPLE SHEET

Sampler C. RIDLEY
Date JULY 26/93 Property HEN NTS 93 A/2

SAMPLE NO.	Sample Width	DESCRIPTION: Rock Type	Alteration	Mineralization	ADDITIONAL OBSERVATIONS	ASSAYS: Au	Ag	As	Cu	Sb
HEN 93 CR 1	.25cm	VOL TUFF		trace Py	≈ 22 m. SW of DR 39: - ? OC. FLATLYING	5	<.2	20	62	15
HEN 93 CR 2	G	Feldspar Porphyry		trace Py	NORTHERN MOST CLEARCUT: (CORRAL) - 325m. FROM CORNER	10	<.2	10	136	10
HEN 93 CR 3	.5M	Breccia		trace Py	- 1100 M. Corral CR. CUT - FIZZES: SLIGHTLY MAGNETIC	5	<.2	5	37	10
HEN 93 CR 4	G	Breccia	hornfels	trace Py: Po " Mag.	- 379 M: ANOMALY CK. CLR CUT	5	<.2	15	41	10
HEN 93 CR 5	F	VOL TUFF	hornfels	trace Py, Po & Mag.	- 352 M: ANOMALY CK. CLR CUT - SKARNY APPEARANCE - SPOTTY - ≈ garnets	5	<.2	15	82	5
HEN 93 CR 6	G	gabbro	Epidote	trace Py	- 911 M. ANOMALY CK. CLR. CUT - OC 5m. DIAMETER	5	<.2	10	91	5
HEN 93 CR 7	1.5m Chip	hornfelsed tuff	hornfels		≈ 21 m. W. of 6303 Km. post	<5	<.2	15	153	15
HEN 93 CR 8	2m Chip	"	"		adjoining CR 7	20	<.2	20	155	10
HEN 93 CR 9	2m Chip	"	"		adjoining CR 8	5	<.2	25	143	10
HEN 93 CR 10	2m Chip	"	hornfels carb. alt.	trace Py	adjoining CR 9 - calcite vein cuts OC @ 120°	5	<.2	20	141	15
HEN 93 CR 11	1.5m Chip	"		trace Py	- ≈ 5m. N. of CR 10 : adjacent but N of DR 50 - fractured & sheared - Strike of fracture 022° / ≈ vertical dip	<5	<.2	20	128	20
HEN 93 CR 12	2.4m Chip	hornfelsed tuff	hornfels	trace Py	- ≈ 5m. S of 6303 Km. post - some calcite veining - lge. fracture 040° carries calcite	<5	<.2	10	124	15
HEN 93 CR 13	1.5m Chip	"	"	"	- adj. CR 12 - calcite vein: 086° - slight fracturing	5	<.2	10	138	15
HEN 93 CR 14	2m Chip	"	"		- ≈ 3m. S of CR 13 - somewhat fractured - fracture plane: 168°/86° W	<5	<.2	15	143	15
HEN 93 CR 15	2.4m Chip	"	"		- adj. CR 13 - same fracture plane	5	<.2	10	127	15

C-CHIP G-GRAB F-FLOAT

ROCK SAMPLE SHEET

Sampler C.J. RIDLEY
Date SEPT. 14 -

Property HEN

NTS 93A/2

SAMPLE NO.	Sample Width	DESCRIPTION: Rock Type	DESCRIPTION: Alteration	DESCRIPTION: Mineralization	ADDITIONAL OBSERVATIONS	ASSAYS: Au	Ag	As	Cu	Sb
HEN93 CR16	1.0m chip	hornfelsed tuff	hornfels	–	- adj. to but S of CR16 - same OC - fractured & flattered: but of a piece	5	<.2	30	94	15
HEN93 CR17	1.5m chip	"	"		- adj. but S of CR16 - fault plane: 348°/88°E	5	<.2	15	124	10
HEN93 CR18	2.6m chip	"	"		- adj. but S. of CR17	<5	<.2	30	67	10
HEN 93 CR19	2m chip	"	"		- adj. but S. of CR18 - rock quite competent	<5	<.2	10	123	15
HEN 93 CR20	2m chip	"	"		- adj. to CR19 - some calcite veining	<5	<.2	15	108	10
HEN 93 CR21	2m chip	"	"	minor Py	- adj. to CR20 - more of a sandstone appearance - calcite veins ± NS trend	5	<.2	25	86	15
HEN 93 CR22	2m chip	"	"	minor Py	- adj. to but S. of CR21 - calcite vein - DB12 (HEN 93) ± .75m above sample	5	<.2	15	118	20
HEN 93 CR23	grab	hornfelsed tuff	"	- arsenopyrite 2-3% - pyrrhotite	- 2 previous samples of boulder returned ± 4000 ppb Au.	5.19 g/t	.8	2.63 %	26	110

C-CHIP G-GRAB F-FLOAT

ROCK SAMPLE SHEET

Sampler D. BLANN
Date JULY 25/93 Property HEN NTS

SAMPLE NO.	Sample Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS				
		Rock Type	Alteration	Mineralization		Au	Ag	As	Cu	Sb
HEN DB-1(F)	(M) F	M.G. Augite BASALT	WEAK HORNFELSING	5-10% Py_1Po DISS.	GREY, BLEACHED, SILICIFIED, GOSSANOUS NEAR DR-9	5	<.2	20	117	15
HEN DB-2(F)	F	Volc. Bx	HORNFELSED CARBONATE SILICIFIED	1-5% Py_1Po Tr AsPy?	NORTH EDGE OF CLEARCUT SILICIFIED-Ca ALTERED-SIMILAR TO HEN	5	<.2	35	62	10
HEN DB 3	3X3	Volc Aggl.	STRONG HNF. WEAK Ca	MINOR Py_1Po	MOD. FRACTURING/VUBINING LOCALLY CHIP OVER 4 M^2 OF SUBCROP-OUTCROP?	5	<.2	20	76	5
93 HEN DB-4	2X2	Volc Aggl.	HNF. Si, Ca	Po, Py 1%-5%	S. END OF HEN ZONE: ROCKS ARE BOULDERS AT TOP OF ROADBANK.	10	<.2	60	125	10
93 HEN DB-6	2X2	Volc Aggl.	INT. HNF. Ca-Si A	Py_1Po_1 AsPy	"TRENCH 2" LARGE BOULDERS-ANGULAR-SUBCROP? LIGHT-BROWN-PURPLE B-HNF. Ca BANDS TO 1-2CM.					
93 HEN 93-DB7	1X2	DARK Volc Aggl.	HNF., MINOR Ca-Si	Tr-1% Py_1Po	3M N. OF #6. FRACTURES Ca FILLED; TENSION GASH OR CRACKLE STOCKWORK.					
HEN 93 DB 8	1X2	V. Aggl.	HNF. Ca-Si A	Tr-5% Py_1Po	MOD-STRONG Ca FRACTURES/STOCKWORK. AT CR-2. CHIP OF VARIOUS BOULDERS.					
HEN 93-DB-9	2X3	Volc SEDS.	STRONG HNF. Si-Ca↑	Tr-1% Py_1Po AsPy	Ca LENSES, FRACTURES, HACKLY-BRITTLE STOCKWORK; TENSION GASH-VUGGY. OUTCROP?					
HEN 93-DB10	2X2	CARB. + Volc SEDS.	HNF Si-Ca↑	Py_1Po 0-5% AsPy 0-2%	CHIP/GRAB OF LARGE→SMALL ANGULAR BOULDERS IN FINE TALUS-RICH SOIL.					
HEN 93-DB11	1X2	Volc Aggl.	HNF. Ca↓ Si↓	1-2% Py_1Po	PURPLE HUE. BIOTITE HNF. LESS HARD Ca-QTZ VEINLETS; WEAK STOCKWORK.					
HEN 93-DB12	3X3	Volc SEDS.	HNF. Si Ca↑	Tr-3% Py_1Po Tr AsPy	POSSIBLE OUTCROP. Ca BANDED; TRENDS 080°. FRACTURES CUT AT 360°.					

C-CHIP G-GRAB F-FLOAT

APPENDIX B

PETROGRAPHIC EXAMINATION RESULTS

Vancouver Petrographics Ltd.

JAMES VINNELL, Manager
JOHN G. PAYNE, Ph.D. Geologist
CRAIG LEITCH, Ph.D. Geologist
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Report for: David Blann,
Standard Metals Exploration Ltd.,
P.O. Box 756,
SQUAMISH, B.C.
V0N 3G0

Job 920393

June 16th, 1993

SAMPLES:

Two rock samples, identified as HEN DB #1 and #2, were submitted for sectioning and petrographic examination. The samples were prepared as polished thin sections.

SUMMARY:

HEN DB #1 is composed predominantly of fine-grained plagioclase and K-feldspar. It shows pervasive sericitization and biotitization, and is cut by veinlets of carbonate with minor actinolite. The rock has a probable varigrqanular fragmental structure, and may be a trachyandesitic pyroclastic. It shows micro-textural features suggestive of mild hornfelsing.

It contains relatively abundant, evenly disseminated pyrrhotite and arsenopyrite. This has the appearance of being early - possibly developed, or redistributed, contemporaneously with the thermal metamorphic event. The carbonate veinlets appear to post-date the bulk of the mineralization.

HEN DB #2 is a pyroxene hornfels which could represent the recrystallization of a rock of similar general type to #1, under more intense thermal metamorphism. Sample #2 is, however, apparently devoid of mineralization.

Individual petrographic descriptions are attached.

J.F. Harris Ph.D

(929-5867)

SAMPLE HEN DB #2 **DIOPSIDE-PLAGIOCLASE HORNFELS**

Estimated mode

Plagioclase	47
Sericite	1
Diopside	45
Sphene	2
Quartz	5

This rock consists essentially of a homogenous intergrowth of fresh diopside and plagioclase.

The diopside consists of individual equant grains, 10 - 200 microns in size, occasionally aggregated as clumps and strings. These occur more or less densely and evenly disseminated through a matrix of plagioclase (producing the speckled texture displayed in the etched off-cut).

The plagioclase ranges from a mosaic aggregate of similar size to the diopside, up to coarser poikilitic plates of 1mm or more. The latter are sieved with included granules of diopside.

The plagioclase is strikingly fresh, except in the vicinity of quartz segregations where it shows a pervasive dusting of sericite

Accessories are sphene, as tiny dispersed individuals; and quartz, as sporadic clumps and veniform or network segregations.

The texture of this rock is typical of a hornfels, produced by recrystallization under strong thermal metamorphism.

The protolith was most likely a volcanic of andesitic composition. The patches of coarser plagioclase may reflect an original porphyritic or fragmental fabric, although the rock now appears completely recrystallized.

This thin section contains no sulfides or opaque minerals of any kind.

SAMPLE HEN DB #1
ALTERED TRACHYANDESITE FRAGMENTAL, WITH DISSEMINATED SULFIDES

Estimated mode

K-feldspar	34
Plagioclase	28
Sericite	8
Biotite	4
Chlorite	2
Sphene	3
Carbonate	10
Actinolite	3
Pyrrhotite	5
Arsenopyrite	3
Chalcopyrite	trace

This is a fine-grained feldspathic rock of heterogenous texture. It shows pervasive alteration and contains a rather even dissemination of fine-grained sulfides.

In thin section it is seen to consist essentially of a minutely fine-grained aggregate of feldspars, typically of grain size 10 - 50 microns, but locally showing diffuse coarser crystallization.

Tiny flecks of sericite, brown biotite and minor chlorite are developed pervasively throughout, with local concentrations as clumps and veniform streaks. There is also a relatively abundant accessory component of cryptocrystalline sphene, locally concentrating as strings and granules.

The overall aspect of this matrix is that of a tuff or fine-grained volcanic. It has somewhat the look of a hornfels, and may have been modified by thermal metamorphism.

Macroscopic examination of the stained off-cut of the sectioned area reveals a coarse, fragment-like patch of unstained material surrounded by a blocky cryptofragmental aggregate of more potassic (yellow-stained) composition.

Note that the unstained area is traversed by a system of sub-parallel veinlets. These consist of sparry carbonate, sometimes with interstitial and marginal development of fine-grained actinolite - suggestive of skarnic alteration.

The disseminated sulfides consist of pyrrhotite and arsenopyrite, with occasional intergrown chalcopyrite. They occur as anhedral-subhedral grains or irregular/skeletal grain clumps, ranging in size from 5 - 500 microns (occasionally to 1mm). For the most part the pyrrhotite and the arsenopyrite occur independently, the latter tending to be relatively coarser. Occasionally, however, the two minerals are intergrown as simple composites. The coarsest grains are often sieved with inclusions of the silicate matrix.

Sample HEN DB #1 cont.

The distribution of the disseminated sulfides is rather even, and appears free of structural control, except for a weak tendency to concentrate as discontinuous networks - possibly following a small-scale fragmental structure in the matrix. Sulfides occur in both the potassic and less potassic matrix variants.

The discrete carbonate veinlets are typically devoid of sulfides. However, small, more diffuse pockets of carbonate in the matrix are often mantled by sulfides.

This rock is probably an altered, possibly somewhat hornfelsed tuff of trachyandesite composition.

APPENDIX C

SAMPLE ANALYSIS CERTIFICATES

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C.

GEOCHEMICAL ANALYSIS CERTIFICATE

Standard Metals File # 93-0270

Box 756, Squamish BC V0N 3G0

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
93-HEN-DB-1	2	91	<2	39	2.7	36	28	251	3.49	13779	<5	7	<2	467	.7	166	<2	77	6.86	.057	3	44	.53	67	.08	8	3.42	.30	.34	27	8922
93-HEN-DB-2	<1	72	<2	50	.3	10	14	334	2.69	9	<5	<2	<2	140	<.2	<2	<2	100	1.89	.081	8	13	.72	341	.32	26	2.25	.19	.65	<1	9
93-HEN-DB-3	<1	127	8	52	<.1	16	12	249	2.41	<2	<5	<2	<2	59	<.2	<2	<2	75	.97	.098	10	21	.60	236	.37	3	1.49	.12	.49	<1	4
93-HEN-DB-4	<1	108	<2	55	<.1	18	19	308	3.26	52	<5	<2	<2	51	.3	<2	<2	134	.94	.065	5	31	1.04	193	.46	<2	1.60	.10	.41	<1	40
93-HEN-DB-5	2	175	6	35	.2	22	11	180	1.31	14	<5	<2	<2	58	<.2	<2	<2	35	1.28	.103	7	26	.54	127	.13	8	1.22	.15	.22	<1	<1
93-HEN-DB-6	41	180	3	51	.3	21	11	128	3.92	4	<5	<2	<2	35	1.1	6	<2	86	.31	.093	10	22	.31	50	.23	4	.40	.09	.25	<1	3
RE 93-HEN-DB-6	43	189	3	63	.3	26	12	122	4.06	10	<5	<2	<2	37	1.1	6	4	90	.33	.098	11	25	.32	49	.24	<2	.42	.09	.26	<1	4
93-HEN-DR-1	2	141	6	86	.4	45	19	405	3.06	56	<5	<2	<2	19	.5	<2	<2	95	.62	.066	9	52	.70	94	.25	<2	1.11	.09	.48	<1	12
93-HEN-DR-2	5	57	3	130	<.1	17	12	397	2.92	15	<5	<2	<2	114	2.0	<2	<2	117	1.35	.052	5	21	.84	71	.25	5	1.73	.19	.39	2	<1
STANDARD C/AU-R	20	62	39	136	7.5	69	32	1078	3.96	42	22	7	39	53	18.8	14	21	61	.49	.085	41	62	.93	183	.09	38	1.89	.07	.14	11	466

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.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: FEB 15 1993 **DATE REPORT MAILED:** Feb 19/93 **SIGNED BY.** D. Toye **D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS**

(*) SEE PETROGRAPHIC EXAMS
DB1 + DB2

ECO-TECH LABORATORIES LTD.
10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
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PIONEER METALS CORPORATION ETK 93-177
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: D. DUNN

JULY 15, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

125 SOIL SAMPLES RECEIVED JULY 7, 1993
PROJECT #: CANIM LAKE

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HEN R 0 + 25E	<5	<.2	1.55	20	4	175	<5	.41	<1	20	56	73	3.22	.38	<10	1.00	338	<1	<.01	28	890	6	5	<20	31	.17	<10	111	<10	11	47
2	- HEN R 0 + 50E	20	<.2	1.37	20	4	165	<5	.55	<1	22	67	80	3.49	.43	<10	1.06	466	<1	<.01	34	1250	6	5	<20	33	.14	<10	108	<10	11	49
3	- HEN R 0 + 75E	10	<.2	1.42	20	2	135	<5	.58	<1	20	69	49	3.14	.34	<10	1.02	587	1	<.01	30	950	6	<5	<20	35	.13	<10	100	<10	10	47
4	- HEN R 1 + 00E	<5	<.2	2.03	30	<2	180	<5	.51	1	23	81	63	3.71	.27	<10	.97	1912	1	<.01	41	370	8	<5	<20	41	.12	<10	106	<10	12	56
5	- HEN R 1 + 25E	<5	<.2	1.34	25	<2	90	<5	.17	<1	11	59	35	3.03	.11	<10	.58	197	1	<.01	21	280	8	<5	<20	18	.12	<10	89	<10	7	45
6	- HEN R 1 + 50E	5	<.2	1.31	20	<2	110	<5	.44	<1	15	56	35	2.73	.16	<10	.75	344	<1	<.01	23	940	6	5	<20	26	.11	<10	86	<10	7	54
7	- HEN R 1 + 75E	<5	<.2	1.67	20	<2	135	<5	.24	1	16	65	54	3.60	.18	<10	.79	238	1	<.01	31	200	10	5	<20	24	.16	<10	107	<10	9	50
8	- HEN R 2 + 00E	5	<.2	1.59	20	2	155	<5	.43	1	20	67	107	3.13	.28	<10	.98	446	2	<.01	55	260	8	5	<20	29	.13	<10	98	<10	15	64
9	- HEN R 0 + 00	<5	<.2	2.22	45	2	240	<5	.30	1	24	48	98	3.96	.53	<10	1.32	406	1	<.01	29	780	8	5	<20	25	.22	<10	145	<10	13	68
10	- HEN R 0 + 25W	30	<.2	1.51	20	2	115	<5	.29	<1	18	43	41	3.66	.13	<10	.69	187	1	<.01	20	940	8	<5	<20	22	.18	<10	113	<10	10	83
11	- HEN R 0 + 50W	<5	<.2	1.81	25	6	115	<5	.34	1	16	50	49	3.26	.12	<10	.65	189	1	<.01	29	850	10	<5	<20	25	.13	<10	88	<10	8	65
12	- HEN R 0 + 75W	<5	<.2	2.08	20	2	135	<5	.34	<1	24	41	144	3.93	.30	<10	.89	235	<1	<.01	30	740	8	5	<20	28	.20	<10	139	<10	14	58
13	- HEN R 1 + 00W	10	<.2	1.56	25	2	130	<5	.35	<1	16	48	54	3.02	.16	<10	.66	226	<1	<.01	28	340	8	<5	<20	29	.12	<10	89	<10	9	51
14	- HEN R 1 + 25W	<5	<.2	1.45	20	2	135	<5	.26	<1	20	39	55	2.95	.19	<10	.65	284	1	<.01	23	340	8	5	<20	22	.18	<10	102	<10	13	71
15	- HEN R 1 + 50W	<5	<.2	1.30	10	2	140	<5	.11	<1	19	19	46	2.72	.18	<10	.72	185	<1	<.01	10	590	10	5	<20	13	.27	<10	94	<10	14	87
16	- HEN R 1 + 75W	<5	<.2	1.11	10	2	140	5	.22	<1	17	36	21	2.24	.40	<10	.77	229	<1	<.01	11	580	10	<5	<20	16	.31	<10	78	<10	16	74
17	- HEN R 2 + 00W	<5	<.2	1.47	10	2	145	<5	.20	1	26	30	53	2.51	.14	<10	.53	200	<1	<.01	28	1010	10	<5	<20	20	.16	<10	71	<10	8	114
18	- HEN R 2 + 25W	<5	<.2	2.22	15	2	160	<5	.25	1	29	28	82	3.48	.12	<10	.64	156	<1	<.01	22	2320	12	5	<20	20	.22	<10	103	<10	12	129
19	- HEN R 2 + 50W	<5	<.2	1.96	20	2	170	<5	.22	<1	28	49	56	3.35	.16	<10	.88	198	<1	<.01	36	1190	8	5	<20	16	.21	<10	94	<10	11	81
20	- HEN R 2 + 75W	<5	<.2	1.46	30	2	185	<5	.15	<1	25	51	48	3.02	.29	<10	.89	270	<1	<.01	39	1150	8	5	<20	15	.23	<10	89	<10	12	99

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
21	HEN R 3 + 00W	<5	<.2	1.86	20	2	220	<5	.16	<1	30	42	106	3.46	.44	<10	1.13	317	<1	<.01	31	1040	8	5	<20	13	.31	<10	118	<10	16	90
22	HEN R 3 + 25W	<5	<.2	2.19	25	4	285	<5	.20	1	32	72	75	3.85	.29	<10	1.13	314	<1	<.01	55	1480	10	5	<20	17	.29	<10	109	<10	15	154
23	HEN R 3 + 50W	<5	<.2	2.24	20	2	265	<5	.29	1	25	44	60	3.31	.36	<10	1.13	835	<1	.01	32	770	10	<5	<20	25	.26	<10	99	<10	14	128
24	HEN R 3 + 75W	<5	<.2	1.77	20	2	210	<5	.26	1	26	63	38	2.84	.15	<10	.84	308	<1	<.01	36	1340	10	5	<20	21	.19	<10	72	<10	11	147
25	HEN R 4 + 00W	<5	<.2	1.60	15	2	135	<5	.17	1	21	63	28	2.41	.11	<10	.66	331	<1	<.01	33	1170	10	<5	<20	20	.16	<10	64	<10	9	89
26	HEN R 4 + 25W	10	<.2	2.21	25	2	165	<5	.26	1	27	101	62	3.52	.27	<10	1.33	355	<1	.01	49	1140	8	10	<20	21	.21	<10	104	<10	11	77
27	HEN R 4 + 50W	<5	<.2	2.19	25	2	145	<5	.17	1	30	94	58	3.12	.17	<10	.90	616	1	<.01	42	750	12	<5	<20	14	.19	<10	79	<10	11	134
28	HEN R 4 + 75W	<5	<.2	2.51	50	2	170	<5	.26	1	26	83	84	3.97	.36	<10	1.08	557	1	<.01	56	260	12	5	<20	25	.20	<10	122	<10	16	59
29	HEN R 5 + 00W	<5	<.2	2.59	65	2	210	<5	.43	1	31	80	180	4.26	.36	<10	1.15	497	<1	<.01	64	610	10	5	<20	31	.23	<10	144	<10	16	75
30	HEN R 5 + 10W	<5	<.2	1.89	25	2	155	<5	.19	1	25	58	79	3.43	.19	<10	.87	260	<1	<.01	33	2330	10	5	<20	15	.22	<10	94	<10	12	80
31	HEN R 5 + 20W	<5	<.2	1.43	10	<2	230	<5	.54	1	24	44	58	2.56	.18	<10	.73	456	<1	.01	22	1700	10	5	<20	48	.19	<10	67	<10	10	104
32	HEN R 5 + 30W	<5	<.2	1.20	15	2	340	<5	.44	1	28	22	58	2.27	.15	<10	.43	1360	<1	.01	14	1960	10	<5	<20	38	.13	<10	53	<10	7	122
33	HEN R 5 + 40W	<5	<.2	1.60	15	2	285	<5	.28	1	25	22	43	2.57	.14	<10	.47	467	<1	<.01	16	3470	12	5	<20	24	.16	<10	55	<10	9	148
34	HEN R 5 + 50W	<5	<.2	2.49	20	2	215	<5	.28	1	39	55	134	4.38	.47	<10	1.42	500	1	<.01	41	1340	8	10	<20	23	.26	<10	150	<10	13	110
35	HEN R 5 + 60W	<5	<.2	2.73	15	<2	230	<5	.30	1	41	27	137	4.54	.37	<10	1.40	375	<1	<.01	34	1300	10	5	<20	25	.28	<10	145	<10	14	169
36	HEN R 5 + 70W	10	<.2	2.16	45	<2	185	<5	.18	1	27	51	131	3.40	.35	<10	1.03	289	<1	<.01	34	650	10	5	<20	21	.23	<10	114	<10	12	77
37	HEN R 5 + 80W	30	<.2	1.96	45	2	150	<5	.22	1	28	43	89	2.99	.24	<10	.74	410	<1	.01	31	650	12	5	<20	27	.19	<10	85	<10	11	76
38	HEN R 5 + 90W	<5	<.2	2.32	45	2	225	<5	.25	1	30	61	121	3.67	.21	<10	1.04	335	<1	<.01	39	1910	10	5	<20	25	.26	<10	103	<10	14	130
39	HEN R 6 + 00W	<5	<.2	1.78	35	<2	160	<5	.18	1	24	36	70	2.64	.18	<10	.69	448	<1	<.01	25	1470	10	<5	<20	16	.19	<10	70	<10	10	122
40	HEN R 6 + 10W	<5	<.2	1.66	30	<2	175	<5	.21	1	19	26	41	2.31	.14	<10	.51	447	<1	<.01	19	2600	12	<5	<20	20	.16	<10	52	<10	9	120
41	HEN R 6 + 20W	10	<.2	1.56	20	<2	155	<5	.23	1	20	30	66	2.33	.17	<10	.56	380	<1	.01	26	1180	10	5	<20	22	.16	<10	56	<10	9	107
42	HEN R 6 + 30W	5	<.2	1.42	30	<2	115	<5	.19	<1	17	30	50	2.19	.14	<10	.53	220	<1	<.01	21	1010	10	<5	<20	16	.15	<10	57	<10	7	71
43	HEN R 6 + 40W	15	<.2	1.61	45	<2	140	<5	.31	<1	20	35	65	2.55	.27	<10	.63	395	<1	.01	23	540	10	<5	<20	27	.18	<10	74	<10	10	57
44	HEN R 6 + 50W	<5	<.2	1.71	35	2	200	<5	.39	<1	22	44	66	2.80	.29	<10	.70	426	<1	.01	30	310	10	5	<20	30	.19	<10	84	<10	10	63
45	HEN R 6 + 60W	5	<.2	2.11	50	<2	135	<5	.57	1	23	39	124	3.41	.36	<10	.91	202	<1	.01	36	330	8	5	<20	30	.23	<10	118	<10	14	63

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
46	HEN R 6 + 70W	15	<.2	1.62	50	<2	110	<5	.37	<1	15	38	90	2.62	.19	<10	.54	179	<1	.01	48	230	10	5	<20	21	.15	<10	78	<10	16	44
47	HEN R 6 + 80W	<5	<.2	2.33	65	<2	155	<5	.31	1	24	59	83	3.36	.33	<10	.87	303	<1	.01	50	370	10	5	<20	27	.19	<10	100	<10	11	66
48	HEN R 6 + 90W	<5	<.2	2.01	35	2	115	<5	.32	1	23	42	69	2.92	.24	<10	.68	330	<1	.01	38	590	10	5	<20	25	.16	<10	83	<10	9	67
49	HEN R 7 + 00W	5	<.2	1.85	35	2	185	<5	.40	1	26	48	118	3.21	.36	<10	.80	898	<1	.01	88	240	10	10	<20	34	.19	30	101	<10	13	59
50	HEN R 7 + 10W	<5	<.2	3.07	75	2	240	<5	.51	1	30	93	439	4.44	.53	10	.96	655	<1	.01	397	260	14	5	<20	26	.17	<10	120	<10	27	57
51	HEN R 7 + 20W	5	<.2	2.03	25	2	170	<5	.43	1	25	58	66	3.16	.22	<10	.94	436	<1	.01	48	1560	12	5	<20	31	.18	<10	78	<10	10	103
52	HEN R 7 + 30W	5	<.2	1.57	15	<2	120	<5	.20	<1	19	44	54	2.70	.22	<10	.67	267	<1	<.01	38	780	8	<5	<20	16	.14	<10	75	<10	7	77
53	HEN R 7 + 40W	<5	<.2	1.12	10	2	90	<5	.14	<1	16	32	23	2.00	.09	<10	.46	266	<1	<.01	20	610	10	<5	<20	10	.12	<10	51	<10	6	77
54	HEN R 7 + 50W	5	<.2	1.86	25	2	110	<5	.35	1	24	56	60	3.11	.16	<10	.97	270	<1	.01	33	730	10	5	<20	22	.15	<10	84	<10	8	97
55	HEN R 7 + 75W	<5	<.2	1.98	15	2	210	<5	.36	1	22	49	47	3.32	.16	<10	.81	305	<1	<.01	33	2320	10	<5	<20	33	.16	<10	71	<10	8	107
56	HEN R 8 + 00W	5	<.2	2.27	25	2	140	<5	.20	1	27	106	87	3.67	.21	<10	1.01	227	1	.01	61	900	12	5	<20	19	.18	<10	99	<10	10	143
57	HEN R 8 + 25W	<5	<.2	.99	15	2	145	<5	.43	<1	12	33	39	1.72	.11	<10	.46	961	<1	<.01	27	570	8	<5	<20	21	.10	<10	45	<10	6	64
58	HEN R 8 + 50W	5	<.2	1.94	20	2	185	<5	.38	1	22	86	64	2.97	.24	<10	.94	423	<1	.01	43	1090	10	5	<20	24	.18	<10	85	<10	10	93
59	HEN R 8 + 75W	<5	<.2	1.70	20	4	150	<5	.32	1	19	49	66	2.80	.23	<10	.73	371	<1	.01	38	980	10	<5	<20	21	.15	<10	78	<10	9	80
60	HEN R 9 + 00W	<5	<.2	1.34	50	<2	90	<5	.23	<1	15	26	44	2.09	.10	<10	.33	406	<1	<.01	21	890	10	<5	<20	16	.12	<10	53	<10	7	62
61	HEN R 9 + 25W	<5	<.2	1.52	20	<2	90	<5	.19	<1	14	26	35	2.39	.10	<10	.41	252	<1	<.01	17	1250	12	<5	<20	13	.16	<10	59	<10	9	77
62	HEN R 9 + 50W	<5	<.2	1.82	20	2	135	<5	.23	1	21	43	65	3.09	.14	<10	.73	311	<1	<.01	26	1120	10	<5	<20	17	.17	<10	79	<10	9	84
63	HEN R 9 + 75W	<5	<.2	1.48	20	<2	125	<5	.15	<1	19	41	36	2.53	.12	<10	.58	289	<1	<.01	27	970	10	<5	<20	13	.13	<10	64	<10	6	85
64	HEN R 10 + 00W	<5	<.2	1.53	15	<2	95	<5	.15	<1	22	37	30	2.60	.14	<10	.53	264	<1	<.01	23	1100	10	<5	<20	16	.15	<10	61	<10	8	88
65	HEN R 10 + 25W	<5	<.2	1.78	25	<2	160	<5	.24	1	26	35	81	2.96	.17	<10	.60	436	<1	<.01	25	1420	10	5	<20	25	.16	<10	72	<10	9	63
66	HEN R 10 + 50W	<5	<.2	1.49	15	<2	130	<5	.16	<1	20	29	50	2.57	.13	<10	.47	274	<1	<.01	21	740	10	<5	<20	14	.16	<10	63	<10	8	65
67	HEN R 10 + 75W	<5	<.2	1.75	15	<2	75	<5	.23	1	17	45	45	2.74	.15	<10	.64	179	<1	<.01	26	890	10	<5	<20	17	.12	<10	79	<10	7	59
68	HEN R 11 + 00W	<5	<.2	2.18	45	<2	170	<5	.41	1	23	59	103	3.38	.31	<10	1.02	298	<1	.01	36	410	12	5	<20	33	.16	<10	96	<10	12	59
69	HEN R 11 + 25W	<5	<.2	2.53	45	<2	260	<5	.35	1	26	60	137	3.90	.34	<10	1.16	373	<1	.01	47	690	12	5	<20	30	.21	<10	114	<10	11	79
70	HEN R 11 + 50W	<5	<.2	1.77	45	<2	115	<5	.28	1	20	51	64	2.88	.20	<10	.76	386	<1	<.01	49	990	10	5	<20	17	.14	<10	76	<10	7	84

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
71	HEN R 11 + 75W	<5	<.2	1.57	30	2	100	<5	.28	<1	18	53	85	3.00	.28	<10	.92	323	<1	<.01	41	730	8	5	<20	22	.11	<10	87	<10	7	51
72	HEN R 12 + 00W	<5	<.2	1.39	20	2	130	<5	.33	<1	20	44	28	2.50	.16	<10	.58	654	<1	<.01	24	1590	10	<5	<20	25	.13	<10	62	<10	7	81
73	HEN R 12 + 25W	<5	<.2	1.32	10	<2	115	<5	.29	<1	18	52	36	2.55	.22	<10	.68	236	<1	<.01	24	700	10	<5	<20	17	.15	<10	69	<10	8	68
74	HEN R 12 + 50W	<5	<.2	2.66	50	2	355	<5	.66	1	25	64	139	3.58	.25	20	.72	560	<1	<.01	64	1640	16	5	<20	48	.14	<10	86	<10	18	75
75	HEN R 12 + 75W	<5	<.2	1.16	20	2	120	<5	.21	<1	17	44	31	2.37	.17	<10	.61	377	<1	<.01	24	300	10	<5	<20	15	.14	<10	64	<10	7	63
76	HEN R 13 + 00W	<5	<.2	1.46	20	<2	105	<5	.28	<1	18	52	54	2.70	.18	<10	.73	321	<1	<.01	31	340	8	5	<20	19	.13	<10	80	<10	7	52
77	HEN R 13 + 25W	<5	<.2	1.82	20	2	160	<5	.29	1	16	41	37	2.80	.14	<10	.65	305	<1	<.01	21	1960	12	<5	<20	21	.14	<10	69	<10	8	61
78	HEN R 13 + 50W	<5	<.2	2.86	15	2	280	<5	.29	2	20	35	80	3.15	.32	<10	.76	612	<1	<.01	25	3230	16	5	<20	40	.18	<10	66	<10	11	95
79	HEN R 13 + 75W	<5	<.2	1.90	20	2	215	<5	.52	1	22	54	86	2.92	.32	<10	.99	777	<1	.01	39	540	12	10	<20	38	.16	<10	80	<10	10	81
80	HEN R 14 + 00W	<5	<.2	2.44	30	2	180	<5	.33	1	26	64	137	3.84	.40	<10	1.17	401	<1	<.01	52	590	14	5	<20	23	.20	<10	107	<10	12	100
81	HEN R 14 + 25W	15	<.2	1.63	15	2	170	<5	.31	1	22	60	46	2.95	.31	<10	.86	587	<1	.01	36	700	12	<5	<20	20	.16	<10	79	<10	8	67
82	HEN R 14 + 50W	<5	.2	1.65	80	2	215	<5	1.11	1	17	59	161	3.05	.24	<10	.73	550	<1	<.01	94	290	10	<5	<20	57	.11	<10	93	<10	12	48
83	HEN R 14 + 75W	<5	.2	1.00	35	4	175	<5	1.62	1	12	36	172	1.69	.18	<10	.50	535	<1	<.01	63	380	6	<5	<20	74	.05	<10	54	<10	11	82
84	HEN R 15 + 00W	4	<.2	1.57	30	2	165	<5	.52	1	19	67	79	2.99	.39	<10	.92	373	<1	.01	45	560	10	5	<20	32	.13	<10	89	<10	11	46
85	L4300 0 + 00	<5	<.2	1.85	20	2	125	<5	.28	1	20	65	56	3.00	.20	<10	.89	201	<1	<.01	33	1260	10	5	<20	22	.15	<10	91	<10	8	54
86	L4300 0 + 10W	<5	<.2	1.43	10	2	245	<5	.36	<1	18	52	20	2.62	.11	<10	.61	281	<1	<.01	21	1760	12	5	<20	33	.18	<10	65	<10	9	75
87	L4300 0 + 20W	<5	<.2	2.27	30	<2	155	<5	.31	1	23	71	60	3.87	.23	<10	1.11	269	<1	<.01	40	1290	12	5	<20	27	.25	<10	112	<10	13	92
88	L4300 0 + 30W	<5	<.2	2.05	25	2	130	<5	.29	1	18	70	46	3.17	.17	<10	.81	202	<1	<.01	35	1970	10	<5	<20	21	.14	<10	87	<10	8	59
89	L4300 0 + 40W	<5	<.2	2.16	15	2	165	5	.25	1	22	60	39	3.23	.18	<10	.92	333	<1	.01	34	1270	12	5	<20	19	.18	<10	81	<10	10	117
90	L4300 0 + 50W	<5	<.2	1.05	20	2	125	<5	.18	<1	11	45	32	2.53	.10	<10	.43	219	1	<.01	23	240	10	<5	<20	20	.15	<10	70	<10	8	45
91	L4300 0 + 60W	<5	<.2	2.03	55	2	170	<5	.59	1	17	78	50	3.20	.18	<10	.96	333	1	<.01	43	320	10	<5	<20	43	.10	<10	98	<10	7	51
92	L4300 0 + 70W	<5	<.2	1.25	<5	2	205	<5	.31	1	18	43	29	2.09	.10	<10	.57	963	<1	<.01	18	1500	12	<5	<20	28	.16	<10	48	<10	9	139
93	L4300 0 + 80W	<5	<.2	2.20	30	<2	180	<5	.28	1	19	110	47	3.34	.11	<10	1.17	277	<1	<.01	47	2640	10	5	<20	20	.16	<10	88	<10	8	92
94	L4300 0 + 90W	<5	<.2	2.80	30	2	220	5	.27	1	23	65	62	3.90	.14	<10	1.12	378	<1	.01	41	3010	14	5	<20	22	.24	<10	87	<10	13	129
95	L4300 1 + 00W	<5	<.2	.74	10	2	165	<5	.23	<1	10	12	11	1.16	.07	<10	.19	795	<1	<.01	9	1040	8	<5	<20	21	.09	<10	28	<10	6	49

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
96	L4300 1 + 10W	<5	<.2	1.69	20	2	215	<5	.21	1	23	43	38	2.77	.21	<10	.72	531	<1	.01	30	1340	12	5	<20	18	.22	<10	72	<10	12	102
97	L4300 1 + 20W	<5	<.2	.83	5	<2	95	<5	.15	<1	15	61	14	1.64	.09	<10	.39	228	<1	<.01	15	1050	10	<5	<20	14	.11	<10	38	<10	5	46
98	L4300 1 + 30W	<5	<.2	.69	<5	<2	150	<5	.09	<1	11	10	16	1.26	.09	<10	.26	606	<1	<.01	5	940	8	<5	<20	9	.11	<10	34	<10	6	61
99	L4300 1 + 40W	<5	<.2	.80	5	<2	115	<5	.14	<1	8	7	15	1.26	.06	<10	.20	272	<1	<.01	5	1230	8	<5	<20	11	.10	<10	32	<10	6	48
100	L4300 1 + 50W	<5	<.2	1.43	10	2	340	<5	.43	1	19	41	33	2.35	.24	<10	.58	665	<1	.01	25	1810	10	<5	<20	38	.17	<10	53	<10	10	69
101	L4300 1 + 60W	<5	<.2	.70	5	2	150	<5	.12	<1	10	14	19	1.23	.10	<10	.22	394	<1	<.01	8	1010	8	<5	<20	9	.10	<10	33	<10	5	75
102	L4300 1 + 70W	<5	<.2	1.91	15	<2	175	<5	.23	1	21	63	86	2.67	.14	<10	.95	246	<1	.01	43	1850	12	5	<20	21	.18	<10	65	<10	9	122
103	L4300 1 + 80W	<5	<.2	1.15	10	<2	175	<5	.18	<1	17	26	30	1.81	.14	<10	.45	396	<1	<.01	17	1010	10	<5	<20	15	.14	<10	44	<10	8	79
104	L4300 1 + 90W	<5	<.2	1.57	10	<2	225	<5	.32	1	26	33	53	2.56	.21	<10	.72	666	<1	.01	22	830	10	<5	<20	24	.13	<10	75	<10	10	85
105	L4300 2 + 00W	<5	<.2	1.94	5	2	200	5	.29	1	31	30	50	3.29	.37	<10	1.17	633	<1	.01	26	950	10	5	<20	22	.23	<10	111	<10	12	103
106	L4300 2 + 10W	<5	<.2	1.49	10	<2	115	<5	.21	<1	24	44	37	2.39	.16	<10	.63	350	<1	<.01	31	780	12	<5	<20	15	.18	<10	63	<10	9	89
107	L4300 2 + 20W	<5	<.2	.91	10	<2	160	<5	.15	<1	21	27	33	1.82	.09	<10	.36	395	<1	<.01	18	830	10	<5	<20	13	.13	<10	43	<10	7	80
108	L4300 2 + 30W	<5	<.2	1.17	10	2	95	<5	.19	<1	17	48	21	1.93	.10	<10	.50	198	<1	<.01	29	1060	10	<5	<20	10	.12	<10	46	<10	6	75
109	L4300 2 + 40W	<5	<.2	1.45	10	2	375	<5	.21	1	32	23	148	2.64	.29	<10	.62	1251	<1	.01	15	1060	10	<5	<20	19	.25	<10	76	<10	14	148
110	L4300 2 + 50W	<5	<.2	2.17	10	<2	195	<5	.32	1	28	179	58	2.86	.30	<10	1.65	268	<1	.02	68	780	12	<5	<20	19	.25	<10	73	<10	13	83
111	L4300 2 + 60W	<5	<.2	2.47	15	2	220	<5	.26	1	37	37	122	3.66	.30	<10	1.11	667	1	.01	40	1730	12	5	<20	24	.22	<10	108	<10	11	93
112	L4300 2 + 70W	<5	<.2	1.78	10	<2	135	<5	.13	1	27	42	35	3.01	.18	<10	.79	314	<1	.01	29	1220	12	<5	<20	14	.21	<10	77	<10	11	91
113	L4300 2 + 80W	<5	<.2	1.62	20	<2	165	<5	.15	1	20	25	37	2.38	.13	<10	.53	512	<1	<.01	16	1820	12	<5	<20	14	.16	<10	58	<10	8	97
114	L4300 2 + 90W	<5	<.2	1.39	5	<2	140	<5	.14	<1	17	16	28	1.96	.11	<10	.38	580	<1	<.01	12	1570	14	<5	<20	12	.15	<10	49	<10	8	105
115	L4300 3 + 00W	<5	<.2	2.04	10	<2	175	<5	.23	1	20	41	76	2.98	.11	<10	.72	253	<1	<.01	25	1630	14	5	<20	23	.21	<10	76	<10	12	84
116	L4300 3 + 10W	<5	<.2	3.07	15	2	205	<5	.24	1	25	65	143	3.91	.26	<10	1.21	307	<1	.01	39	1120	12	5	<20	22	.26	<10	122	<10	15	75
117	L4300 3 + 20W	<5	<.2	2.66	15	<2	170	<5	.25	1	20	42	70	3.17	.19	<10	.66	266	<1	.01	27	2770	14	<5	<20	19	.21	<10	73	<10	12	141
118	L4300 3 + 30W	<5	<.2	.89	5	<2	65	<5	.18	<1	12	24	16	1.67	.07	<10	.34	166	<1	<.01	11	510	10	<5	<20	12	.13	<10	45	<10	7	54
119	L4300 3 + 40W	<5	<.2	1.58	20	<2	80	<5	.20	<1	17	45	32	2.92	.16	<10	.70	191	<1	<.01	27	680	8	5	<20	18	.14	<10	84	<10	8	54
120	L4300 3 + 50W	<5	<.2	2.05	15	<2	115	5	.21	1	22	79	39	3.30	.17	<10	1.02	187	<1	<.01	41	730	10	5	<20	19	.18	<10	95	<10	10	63

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
121-	L4300 3 + 60W	<5	<.2	2.69	35	<2	190	5	.21	1	31	44	55	4.05	.17	<10	.91	399	<1	<.01	28	2480	16	5	<20	18	.25	<10	102	<10	14	139
122-	L4300 3 + 70W	<5	<.2	2.36	35	<2	195	<5	.26	1	24	44	58	3.28	.18	<10	.82	461	<1	.01	30	860	14	<5	<20	26	.20	<10	89	<10	11	78
123-	L4300 3 + 80W	10	<.2	1.39	60	<2	195	5	.22	<1	15	33	24	2.51	.09	<10	.55	308	<1	.02	12	980	14	<5	<20	29	.18	<10	73	<10	10	68
124-	L4300 3 + 90W	<5	.2	.95	10	6	45	35	.19	<1	13	26	11	2.03	.01	<10	.29	242	9	<.01	10	2010	22	<5	<20	17	.13	10	45	40	7	61
125-	L4300 4 + 00W	<5	<.2	2.31	15	<2	190	5	.28	1	21	65	42	3.66	.13	<10	.84	245	<1	<.01	32	3060	10	<5	<20	26	.17	<10	91	<10	9	109
QC/DATA:																																
Repeat #:																																
33-	HEN R 5 + 40W		<.2	1.50	15	<2	275	<5	.26	1	24	21	40	2.44	.14	<10	.45	449	<1	<.01	14	3360	12	<5	<20	24	.15	<10	51	<10	8	145
63-	HEN R 9 + 75W		<.2	1.42	20	2	120	<5	.15	<1	19	41	34	2.48	.11	<10	.56	279	<1	<.01	26	950	10	5	<20	11	.12	<10	62	<10	6	85
115-	L4300 3 + 00W		<.2	1.97	10	2	170	<5	.21	1	20	39	74	2.84	.11	<10	.72	240	<1	<.01	23	1570	12	5	<20	22	.20	<10	73	<10	11	80
STANDARD 1991:			1.2	1.41	60	2	145	<5	1.56	<1	16	45	81	2.95	.33	<10	.81	655	<1	<.01	20	580	16	5	<20	49	.05	<10	56	<10	8	68
STANDARD 1991:			1.0	1.47	65	2	145	<5	1.52	<1	15	44	76	3.06	.32	<10	.88	656	<1	<.01	20	570	16	5	<20	50	.04	<10	54	<10	7	69
STANDARD 1991:			1.2	1.41	60	2	155	<5	1.56	<1	17	49	85	3.15	.37	<10	.94	666	<1	<.01	22	610	16	5	<20	53	.05	<10	60	<10	8	70
STANDARD 1991:			1.2	1.41	55	2	155	<5	1.56	<1	17	49	85	3.15	.37	<10	.94	666	<1	<.01	22	610	16	5	<20	53	.05	<10	60	<10	8	70

NOTE: < = LESS THAN

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JULY 15, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

PIONEER METALS CORPORATION ETK 93-178
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: D. DUNN

7 SILT SAMPLES RECEIVED JULY 7, 1993
PROJECT #: CANIM LAKE

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HEN 93 CS1	<5	<.2	1.87	45	2	195	<5	.76	1	16	60	68	2.83	.28	10	.84	446	<1	.01	50	490	6	<5	<20	44	.10	<10	89	<10	15	53
2	- HEN 93 CS2	20	<.2	1.30	35	2	165	<5	.74	1	17	53	91	2.59	.29	<10	.76	520	<1	.01	58	390	6	5	<20	41	.09	<10	77	<10	10	65
3	- HEN 93 DS1	10	.2	1.46	20	2	215	<5	.64	1	19	65	124	2.66	.29	<10	.76	346	1	<.01	89	360	6	5	<20	40	.09	<10	78	<10	11	55
4	- HEN 93 DS2	<5	.6	1.37	20	<2	110	<5	.55	<1	15	49	35	2.69	.18	<10	.67	480	1	<.01	23	430	6	5	<20	30	.10	<10	82	<10	8	49
5	- HEN 93 DS3	<5	<.2	1.85	35	<2	200	<5	.52	1	26	75	78	3.64	.55	<10	1.46	657	<1	.01	50	1200	8	5	<20	44	.14	<10	99	<10	12	82
6	- STRAW 93 CS1	5	<.2	1.97	5	2	135	<5	.76	1	22	151	91	3.00	.10	<10	1.78	670	<1	<.01	37	500	4	5	<20	31	.08	<10	53	<10	8	55
7	- STRAW 93 DS1	<5	<.2	1.17	10	2	70	<5	.44	<1	14	42	30	2.63	.12	<10	.99	454	<1	<.01	23	710	4	5	<20	20	.04	<10	58	<10	4	44
QC/DATA:																																
Repeat #:																																
3	- HEN 93 DS1		.2	1.44	20	2	210	<5	.62	1	18	64	123	2.53	.27	<10	.76	333	1	<.01	86	350	6	5	<20	35	.09	<10	74	<10	10	56
STANDARD 1991:			1.2	1.40	65	2	155	<5	1.53	<1	17	48	84	3.14	.36	<10	.92	661	<1	<.01	22	610	16	5	<20	51	.05	<10	60	<10	8	75

NOTE: < = LESS THAN

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Fax (604) 573-4557

JULY 19, 1993

CERTIFICATE OF ASSAY ETK 93-179

PIONEER METALS CORPORATION
17770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: D. DUNN

SAMPLE IDENTIFICATION: 23 ROCK samples received JULY 7, 1993
PROJECT #: CANMIN LAKE

ET#	Description	Au (g/t)	Au (oz/t)
18-	HEN 93 DR 9	1.31	.038

cc: Dave Ridley

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PIONEER METALS CORPORATION ETK 93-179
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: D. DUNN

JULY 19, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

23 ROCK SAMPLES RECEIVED JULY 7, 1993
PROJECT #: CANIM LAKE

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- RED 93 DR 1	10	.2	.52	20	10	120	<5	1.42	1	14	178	10	2.56	.04	<10	.62	325	18	.04	42	1500	14	<5	<20	24	<.01	<10	36	<10	9	135
2	- RED 93 DR 2	10	.4	.33	25	18	155	5	1.86	<1	6	211	11	5.53	.05	<10	.44	104	31	.04	13	9270	14	<5	<20	38	.04	<10	54	<10	15	66
3	- STRAW 93 2	15	<.2	1.08	10	8	45	5	.89	<1	35	179	20	3.52	.05	<10	1.47	436	1	.04	17	1310	16	<5	<20	21	.16	<10	79	<10	9	42
4	- STRAW 93 3	10	.2	1.50	25	8	75	<5	4.33	<1	25	57	359	3.59	.40	<10	1.80	840	4	.05	8	1820	18	10	<20	149	.13	<10	128	<10	5	45
5	- STRAW 93 4	10	.2	1.85	15	10	110	<5	2.24	<1	26	46	170	3.49	.65	<10	1.75	752	1	.05	9	1840	24	5	<20	122	.17	<10	131	<10	9	78
6	- STRAW 93 5	15	.4	1.56	5	6	130	<5	.95	<1	14	91	42	2.79	.79	<10	1.06	574	5	.07	3	920	22	<5	<20	55	.12	<10	72	<10	8	38
7	- STRAW 93 6	170	.2	.07	<5	6	10	<5	.07	<1	6	274	300	.55	<.01	<10	.07	91	15	<.01	5	40	2	<5	<20	3	<.01	<10	5	<10	<1	7
8	- STRAW 93 7	10	.2	1.31	20	4	90	<5	3.06	<1	25	38	559	4.79	.21	<10	1.28	820	2	.05	5	1920	16	<5	<20	142	.18	<10	150	<10	12	51
9	- STRAW 93 8	115	.2	2.15	10	6	75	<5	3.49	<1	29	34	417	4.96	.18	<10	2.00	636	1	.12	12	9260	24	5	<20	192	.08	<10	222	<10	16	46
10	- STRAW 93 9	40	.2	1.76	10	6	140	<5	2.54	<1	25	27	113	4.76	.27	<10	1.49	521	1	.09	10	5840	22	5	<20	168	.08	<10	198	<10	13	45
11	- STRAW 93 10	10	<.2	2.17	30	14	140	<5	2.93	<1	41	53	191	4.18	.40	<10	2.29	559	1	.08	16	2910	26	5	<20	120	.12	<10	153	<10	8	32
12	- HEN 93 DR 3	10	.4	2.40	10	12	180	<5	3.52	<1	18	55	90	2.18	.52	<10	.66	339	1	.14	11	1440	32	5	<20	148	.23	<10	96	<10	17	29
13	- HEN 93 DR 4	10	.2	1.76	20	18	175	<5	3.93	<1	19	48	97	2.83	.61	<10	.66	343	2	.09	9	1220	24	5	<20	139	.21	<10	99	<10	17	31
14	- HEN 93 DR 5	5	<.2	3.85	80	10	105	<5	6.35	<1	17	135	102	2.03	.48	<10	.48	554	5	.17	39	1000	48	5	<20	210	.15	<10	80	<10	12	27
15	- HEN 93 DR 6	5	<.2	4.26	50	8	185	<5	3.16	<1	25	153	113	2.56	.82	<10	1.12	254	5	.25	77	1320	56	5	<20	197	.19	<10	92	<10	12	31
16	- HEN 93 DR 7	10	.2	.78	5	10	65	<5	.95	12	33	132	172	4.05	.23	<10	.62	251	25	.12	108	1070	16	5	<20	16	.21	<10	142	<10	16	430
17	- HEN 93 DR 8	5	.2	1.99	35	10	145	<5	.98	<1	33	269	110	3.44	1.24	<10	1.87	256	8	.11	129	1220	30	10	<20	31	.27	<10	130	<10	17	45
18	- HEN 93 DR 9	>1000	.4	2.85	35	6	90	<5	4.27	<1	19	92	50	1.90	.12	<10	.40	460	2	<.01	25	1030	44	15	<20	62	.07	<10	60	<10	5	18
19	- HEN 93 DR 10	45	.2	3.61	30	10	70	<5	2.79	<1	26	43	129	3.67	.11	<10	.57	186	38	.21	24	1200	48	5	<20	249	.06	<10	79	<10	5	47
20	- HEN 93 DR 11	15	<.2	.93	10	12	40	<5	5.16	<1	11	45	70	1.04	.13	<10	.18	314	3	.08	11	960	18	<5	<20	81	.12	<10	25	<10	12	12

PIONEER METALS ETK 93-179 ECO-TECH LABORATORIES LTD. JULY 19, 1993

PAGE 2

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
21	HEN 93 DR 12	5	.2	1.33	30	10	95	<5	2.01	<1	21	54	128	2.61	.31	<10	.60	216	2	.11	10	1160	22	5	<20	61	.20	<10	84	<10	16	28
22	HEN 93 DR 13	10	<.2	2.98	55	12	45	<5	3.46	<1	9	110	38	.72	.19	<10	.37	133	2	.03	54	780	46	5	<20	184	.10	<10	25	<10	7	9
23	HEN 93 DR 14	35	<.2	4.64	270	10	590	<5	3.54	<1	20	229	63	1.68	.56	<10	.91	183	2	.20	150	1200	64	15	<20	261	.17	<10	55	<10	10	20
QC/DATA:																																
Repeat #:																																
1	RED 93 DR 1		<.2	.54	20	6	110	<5	1.35	1	12	168	9	2.43	.04	<10	.59	315	16	.03	40	1390	12	<5	<20	23	<.01	<10	31	<10	8	131
STANDARD 1991:			1.2	1.00	70	4	135	<5	1.52	<1	18	56	67	3.27	.34	<10	.88	515	<1	.01	19	640	32	5	<20	53	.09	<10	66	<10	9	60

NOTE: < = LESS THAN
> = GREATER THAN
STRAW 93 DR 1 WAS NOT INCLUDED IN SHIPMENT

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cc: David Ridley

SC93/Pioneer Metals

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PIONEER METALS CORPORATION ETK 93-193
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: D. DUNN

JULY 22, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

18 ROCK SAMPLES RECEIVED JULY 18, 1993
PROJECT #: CANIM LAKE

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HEN 93 DR 15	20	<.2	2.41	5	18	285	<5	1.53	<1	27	89	103	3.91	1.50	<10	1.56	658	3	.15	16	1680	12	10	<20	41	.29	<10	156	<10	20	79
2	- HEN 93 DR 16	5	<.2	2.39	10	12	380	<5	1.90	<1	27	102	98	4.48	1.41	<10	2.32	541	1	.22	30	2330	10	5	<20	38	.29	<10	178	<10	19	53
3	- HEN 93 DR 17	10	<.2	2.02	10	16	135	<5	1.52	<1	23	44	140	4.75	.31	<10	.82	451	28	.14	7	1190	18	5	<20	62	.28	<10	135	<10	19	50
4	- HEN 93 DR 18	10	<.2	2.06	5	12	365	<5	1.43	<1	21	56	168	3.40	.68	<10	1.37	478	2	.18	11	1020	8	10	<20	214	.25	<10	135	<10	15	39
5	- HEN 93 DR 19	10	<.2	3.66	35	20	115	<5	4.75	<1	39	73	256	3.95	.42	<10	.71	349	4	.08	35	1970	16	<5	<20	142	.17	<10	82	<10	14	30
6	- HEN 93 DR 20	5	<.2	2.43	25	14	385	<5	1.69	<1	27	99	145	4.35	.88	<10	1.37	520	1	.12	23	1300	10	5	<20	63	.28	<10	154	<10	17	42
7	- HEN 93 DR 21	5	<.2	2.37	5	12	465	<5	1.41	<1	20	40	63	3.59	.96	<10	1.19	473	3	.13	7	1060	10	<5	<20	63	.26	10	133	<10	16	38
8	- HEN 93 DR 22	5	<.2	1.84	10	8	555	<5	.92	<1	18	65	99	3.10	.91	<10	1.06	321	2	.12	11	1220	10	5	<20	68	.28	<10	146	<10	17	34
9	- HEN 93 DR 23	5	<.2	4.26	35	12	85	<5	4.16	<1	28	55	153	3.77	.67	<10	.84	384	2	.39	30	2260	30	<5	<20	322	.14	<10	72	<10	11	34
10	- HEN 93 DR 24	5	<.2	2.64	45	8	90	<5	5.99	<1	20	44	113	2.88	.52	<10	.63	328	<1	.19	21	1570	16	<5	<20	214	.08	<10	42	<10	5	25
11	- HEN 93 DR 25	5	<.2	1.62	10	8	335	<5	1.31	<1	16	81	137	2.73	.48	<10	.90	348	3	.11	13	1470	14	5	<20	83	.17	<10	104	<10	13	33
12	- HEN 93 DR 26	5	<.2	3.21	30	8	150	<5	2.73	<1	33	117	272	4.19	.47	<10	.95	282	<1	.16	24	2080	28	<5	<20	204	.19	<10	147	<10	11	36
13	- HEN 93 DR 27	5	<.2	.96	5	8	365	<5	.67	<1	15	96	30	2.23	.60	10	.78	234	3	.05	18	1660	14	5	<20	27	.24	<10	76	<10	15	37
14	- HEN 93 DR 28	5	<.2	1.84	15	12	90	5	.98	<1	32	52	102	5.18	1.29	<10	1.38	490	1	.09	11	1950	20	5	<20	60	.34	<10	174	<10	20	47
15	- HEN 93 DR 29	30	<.2	3.34	25	12	50	<5	5.19	<1	30	98	100	2.79	.03	<10	.10	286	2	.11	35	1620	38	<5	<20	151	.10	<10	46	<10	8	20
16	- HEN 93 DR 30	5	<.2	1.96	40	8	115	<5	1.80	<1	29	96	81	3.73	.60	<10	1.21	238	1	.11	30	1470	26	10	<20	95	.22	<10	109	<10	14	43
17	- HEN 93 DR 31	10	.2	2.25	10	10	75	<5	5.36	<1	30	115	127	4.28	.34	<10	.51	353	4	.45	37	1460	38	5	<20	233	.19	<10	65	<10	13	54
18	- HEN 93 DR 32	5	<.2	1.95	35	8	55	<5	1.36	<1	31	103	104	5.28	1.17	<10	1.66	404	2	.13	30	1400	22	20	<20	104	.22	10	126	<10	14	64

PIONEER METALS CORPORATION ETK 93-193 ECO-TECH LABORATORIES LTD. JULY 22, 1993

PAGE 2

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
QC/DATA:																																
Repeat #:																																
7	- HEN 93 DR 21		<.2	2.27	5	12	470	10	1.38	<1	19	38	61	3.46	.95	<10	1.16	467	5	.12	8	1050	12	10	<20	64	.24	<10	124	10	20	39

NOTE: < = LESS THAN
> = GREATER THAN

Fax @: 669-1240

cc: David Ridley

SC93/Pioneer Metals

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Fax (604) 573-4557

AUGUST 10, 1993

CERTIFICATE OF ASSAY ETK 93-228

PIONEER METALS CORPORATION
17770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

SAMPLE IDENTIFICATION: 35 ROCK samples received JULY 28, 1993
PROJECT #: CANMIN LAKE
SHIPMENT #: 4

ET#	Description	Au (g/t)	Au (oz/t)
19-	D/B 6	1.01	.029
24-	D/B 10	4.83	.141

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FAX - 604-573-4557

PIONEER METALS CORPORATION ETK 93-228
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: D. DUNN

AUGUST 10, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

35 ROCK SAMPLES RECEIVED JULY 28, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 4

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	D/R 33	5	<.2	2.72	10	10	275	<5	3.93	<1	28	55	732	4.40	1.46	<10	1.90	740	1	.17	14	1320	2	15	<20	67	.28	<10	148	<10	19	55
2	D/R 34	35	<.2	1.74	165	10	85	<5	2.12	<1	30	169	74	2.88	.33	<10	1.41	595	1	.15	65	1290	14	15	<20	115	.11	<10	81	<10	7	34
3	D/R 35	5	<.2	1.88	10	10	205	<5	2.71	<1	20	47	95	2.77	.73	<10	1.07	349	1	.15	16	820	4	10	<20	39	.24	<10	111	<10	15	31
4	D/R 36	885	<.2	1.74	60	8	65	<5	2.74	<1	24	157	81	2.28	.09	<10	.59	498	1	.02	52	1060	4	35	<20	48	.09	<10	59	<10	6	29
5	D/R 37	10	1.2	1.80	10	6	55	<5	3.00	<1	27	122	58	5.68	.99	<10	1.83	617	1	.12	22	1070	1316	15	<20	116	.21	<10	184	<10	14	686
6	D/R 38	5	<.2	2.02	10	6	150	<5	1.62	<1	16	79	102	2.60	.84	<10	.97	382	2	.12	16	1090	20	5	<20	86	.24	<10	95	<10	17	49
7	D/R 39	370	<.2	3.67	610	30	165	<5	4.40	<1	18	71	53	1.53	.46	<10	.79	320	3	.10	17	750	12	15	<20	324	.16	<10	93	20	12	29
8	D/R 40	15	<.2	2.30	15	12	265	<5	1.72	<1	23	80	139	3.38	1.33	<10	1.75	447	<1	.14	21	980	2	15	<20	100	.23	<10	125	<10	14	42
9	D/R 41	10	<.2	1.08	120	12	25	<5	4.04	<1	31	35	118	5.21	.30	<10	.65	337	2	.04	13	1510	2	15	<20	174	.27	<10	88	<10	19	24
10	D/R 42	5	<.2	1.93	15	8	45	<5	2.56	<1	37	70	85	5.00	.34	<10	.80	272	<1	.31	65	1210	2	10	<20	208	.11	<10	46	<10	6	25
11	D/R 43	15	<.2	1.75	15	12	155	<5	5.28	<1	40	111	91	5.12	1.02	<10	1.50	1034	2	.01	99	1460	2	15	<20	222	.09	<10	86	<10	13	57
12	D/R 44	5	<.2	1.67	40	8	55	<5	1.52	<1	34	141	95	5.62	1.30	<10	2.02	451	1	.06	36	1200	4	20	<20	38	.25	<10	142	<10	16	49
13	D/R 45	85	<.2	2.59	25	6	200	<5	2.97	<1	26	186	103	4.06	1.15	<10	1.26	508	2	.17	34	1580	2	5	<20	171	.18	<10	163	<10	12	44
14	D/B 1	5	<.2	1.81	20	8	65	<5	4.06	<1	40	47	117	5.59	.81	<10	.95	462	1	.13	23	1610	2	15	<20	138	.19	<10	113	<10	12	42
15	D/B 2	5	<.2	2.65	35	8	60	<5	4.16	<1	23	33	62	4.70	.28	<10	1.27	477	<1	.04	9	1020	4	10	<20	45	.21	<10	139	<10	14	36
16	D/B 3	5	<.2	4.01	20	10	205	<5	3.40	<1	20	88	76	2.40	.60	<10	.71	395	3	.27	15	1310	6	5	<20	208	.22	<10	115	<10	16	37
17	D/B 4	10	<.2	2.89	60	8	285	<5	1.57	<1	25	78	125	3.41	.99	<10	1.12	321	1	.19	24	1270	8	10	<20	158	.29	<10	153	<10	19	52
18	D/B 5	130	<.2	1.98	1530	6	205	<5	1.44	<1	23	67	93	3.35	.46	<10	1.00	224	1	.08	17	1010	4	20	<20	131	.26	<10	124	<10	17	42
19	D/B 6	>1000	<.2	3.19	9070	8	100	<5	2.43	<1	25	83	86	2.59	<.01	<10	.62	211	3	.17	58	980	6	65	<20	314	.10	<10	69	20	8	31
20	D/B 7	5	<.2	1.89	75	12	255	<5	2.45	<1	15	48	63	2.22	.51	<10	.60	308	2	.10	7	940	4	5	<20	70	.21	<10	95	<10	16	32
21	D/B 8 A	10	<.2	1.67	20	8	275	<5	.97	<1	18	56	119	2.87	.97	<10	.94	364	1	.08	13	900	6	10	<20	56	.27	<10	122	<10	18	47
22	D/B 8 B	5	<.2	1.82	15	8	245	<5	1.73	<1	20	52	76	2.97	.85	<10	.82	327	1	.12	7	1080	4	5	<20	64	.29	<10	121	<10	21	44
23	D/B 9	5	<.2	1.89	20	10	280	<5	1.32	<1	18	48	85	2.84	.81	<10	.85	309	2	.14	10	1030	4	5	<20	73	.28	<10	125	<10	21	43
24	D/B 10	>1000	.8	3.86	8880	12	85	<5	8.42	<1	23	73	84	3.62	<.01	<10	.63	325	4	.13	34	870	2	140	<20	559	.09	<10	82	<10	6	31
25	D/B 11	50	<.2	2.91	85	6	350	<5	2.50	<1	25	61	116	2.94	.77	<10	1.26	305	<1	.19	37	1740	6	10	<20	167	.19	<10	95	<10	10	34

PIONEER METALS CORPORATION ETK 93-228 ECO-TECH LABORATORIES LTD. AUGUST 10, 1993

PAGE 2

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
26	D/B 12	5	<.2	1.65	20	8	205	<5	1.15	<1	19	49	96	2.76	.64	<10	.84	329	2	.06	9	1130	4	5	<20	62	.25	<10	117	<10	19	42
27	D/B 13	5	<.2	1.20	20	6	45	<5	4.57	<1	24	18	133	5.59	.08	<10	1.75	1071	<1	.02	11	1270	<2	15	<20	290	<.01	<10	122	<10	7	72
28	D/B 14	10	<.2	1.99	15	6	85	<5	1.23	<1	12	56	58	5.14	.09	<10	1.55	525	10	.02	12	1180	6	15	<20	29	.23	<10	163	<10	17	81
29	PRO D/B 1	5	<.2	3.45	5	4	60	<5	2.21	<1	29	30	44	4.57	.03	<10	1.39	605	<1	.12	11	410	4	5	<20	95	.27	<10	103	<10	18	48
30	C/R 1	5	<.2	3.51	20	4	50	<5	3.62	<1	19	59	62	4.57	.09	<10	2.99	1216	<1	.03	20	710	<2	15	<20	40	.17	<10	290	<10	12	59
31	C/R 2	10	<.2	2.77	10	4	145	<5	2.30	<1	25	41	136	4.21	.46	<10	1.60	732	1	.28	14	850	4	10	<20	90	.13	<10	162	<10	13	50
32	C/R 3	5	<.2	2.22	5	4	170	<5	8.34	<1	16	29	37	2.26	.40	<10	.71	597	1	.19	9	650	4	10	<20	143	.18	<10	52	<10	15	33
33	C/R 4	5	<.2	3.27	15	6	60	<5	2.84	<1	36	79	<1	4.32	.37	<10	1.37	279	<1	.20	65	960	4	10	<20	144	.19	<10	99	<10	12	30
34	C/R 5	5	<.2	3.55	15	4	70	<5	4.15	<1	26	86	82	3.44	.13	<10	.82	282	3	.23	34	910	8	5	<20	188	.17	<10	90	<10	13	19
35	C/R 6	5	<.2	3.03	10	6	90	<5	3.54	<1	20	84	91	3.52	.18	<10	1.22	505	4	.24	23	1210	6	5	<20	81	.18	<10	159	<10	14	47
QC/DATA:																																
Repeat #:																																
1	D/R 33		<.2	2.83	15	8	285	<5	4.08	<1	29	57	760	4.57	1.50	<10	1.90	770	<1	.18	15	1390	2	15	<20	71	.29	<10	155	<10	20	57
STANDARD 1991:			1.2	1.77	65	6	115	<5	1.62	<1	18	62	82	3.52	.33	<10	.85	642	<1	.01	30	570	20	10	<20	69	.11	<10	74	<10	10	66

NOTE: < = LESS THAN
> = GREATER THAN

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PIONEER METALS CORPORATION ETK 93-246
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

AUGUST 17, 1993

1 SOIL SAMPLE RECEIVED AUGUST 5, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 5

VALUES IN PPM UNLESS OTHERWISE REPORTED

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- L 43 : 3 + 90 W A	<5	<.2	1.78	20	6	115	<5	.31	<1	14	34	19	2.27	.06	<10	.35	251	<1	.01	13	1610	14	<5	<20	21	.17	<10	54	<10	9	66
QC/DATA:																																
Repeat #:																																
1	- L 43 : 3 + 90 W A		<.2	1.78	20	6	115	<5	.31	<1	14	34	19	2.27	.06	<10	.35	251	<1	.10	13	1610	14	10	<20	21	.17	<10	54	<10	9	66
STANDARD 1991:			1.0	1.80	60	4	120	<5	1.74	<1	19	66	82	3.56	.32	<10	.91	665	<1	.02	24	670	12	5	<20	71	.14	<10	82	<10	12	69

NOTE: < = LESS THAN
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PIONEER METALS CORPORATION ETK 93-247
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

AUGUST 19, 1993

2 MOSS MATT SAMPLES RECEIVED AUGUST 5, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 5

VALUES IN PPM UNLESS OTHERWISE REPORTED

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HEN 93 MM1	<5	<.2	1.83	40	6	115	<5	1.57	<1	15	51	65	2.62	.10	<10	.68	672	<1	.03	29	840	6	5	<20	54	.15	<10	76	<10	15	84
2	- HEN 93 MM2	<5	<.2	1.45	50	2	95	<5	.84	<1	16	65	45	2.78	.10	<10	.86	584	<1	.03	32	790	<2	<5	<20	45	.12	<10	77	<10	9	56

NOTE: < = LESS THAN

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PIONEER METALS CORPORATION ETK 93-248
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

AUGUST 23, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

56 SILT SAMPLES *RECEIVED AUGUST 4, 1993*
PROJECT #: CANIM LAKE
SHIPMENT #: 5

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- 93 HEN CS- 3	<5	<.2	2.12	40	10	125	<5	.81	<1	26	88	75	3.88	.43	<10	1.43	621	1	.04	53	1180	4	10	<20	54	.20	440	112	10	16	69
2	- 93 HEN CS- 4	<5	<.2	1.75	40	10	120	<5	.75	<1	23	81	57	3.47	.39	<10	1.25	614	<1	.03	46	1100	2	5	<20	46	.18	230	102	<10	14	80
3	- HEN 93 CS- 5	<5	.2	1.78	15	8	100	<5	1.33	<1	14	50	48	2.66	.11	10	.64	717	1	.03	28	650	<2	5	<20	48	.13	100	70	<10	14	96
4	- HEN 93 CS- 6	<5	<.2	1.61	15	8	90	<5	.82	<1	16	56	40	2.71	.13	10	.74	384	<1	.03	31	680	<2	<5	<20	39	.16	250	75	<10	14	64
5	- HEN 93 CS- 7	<5	<.2	1.54	20	12	95	5	.64	<1	18	57	30	3.08	.18	<10	.76	580	<1	.03	29	770	<2	<5	<20	34	.18	190	82	<10	13	66
6	- HEN 93 CS- 8	<5	.2	2.25	25	14	115	<5	1.55	<1	19	52	94	3.27	.15	<10	1.06	763	1	.05	33	580	2	5	<20	49	.13	130	91	20	15	87
7	- HEN 93 CS- 9	<5	<.2	2.07	40	14	135	<5	1.14	<1	25	71	74	3.75	.24	<10	1.02	657	1	.06	43	920	2	5	<20	57	.21	<10	99	<10	18	84
8	- HEN 93 CS- 10	<5	<.2	2.30	180	10	140	<5	1.52	<1	21	75	101	3.12	.10	<10	.99	833	<1	.04	65	850	<2	5	<20	64	.13	<10	81	<10	13	128
9	- HEN 93 CS- 11	<5	.2	1.10	100	12	175	<5	2.57	<1	18	23	26	3.37	.05	<10	.30	3357	3	.01	19	1330	2	5	<20	69	.06	<10	60	<10	6	112
10	- HEN 93 CS- 12	<5	<.2	1.29	30	14	75	<5	.87	<1	14	53	28	2.75	.11	<10	.59	458	<1	.02	28	720	2	<5	<20	33	.14	<10	75	<10	12	68
11	- HEN 93 CS- 13	<5	<.2	2.03	70	14	105	<5	1.14	<1	18	67	59	3.06	.15	10	.78	491	<1	.04	38	630	<2	5	<20	49	.17	<10	83	<10	17	69
12	- HEN 93 CS- 14	<5	<.2	2.91	270	8	145	<5	1.09	<1	25	83	173	4.20	.15	<10	.99	533	1	.04	72	420	2	5	<20	49	.20	<10	108	<10	18	83
13	- HEN 93 CS- 15	<5	<.2	1.46	25	14	95	5	.86	<1	18	56	50	2.96	.18	10	.83	508	<1	.04	36	870	<2	5	<20	40	.19	<10	79	<10	15	58
14	- HEN 93 CS- 16	<5	<.2	2.08	20	14	110	<5	1.35	<1	18	52	55	3.34	.14	<10	.76	595	1	.03	33	910	2	5	<20	49	.20	<10	95	<10	15	104
15	- HEN 93 CS- 17	<5	<.2	1.33	40	14	80	<5	.76	<1	16	60	50	2.85	.13	<10	.82	422	<1	.03	39	690	<2	5	<20	34	.17	<10	79	<10	13	56
16	- HEN 93 DS- 4	<5	<.2	1.74	35	16	95	<5	1.21	<1	19	63	62	3.30	.31	<10	1.10	743	<1	.03	37	980	2	5	<20	59	.16	<10	102	<10	13	93
17	- HEN 93 DS- 5	<5	<.2	2.35	35	14	150	<5	.94	<1	29	150	75	4.37	.43	<10	1.95	661	2	.04	94	1190	2	10	<20	58	.20	<10	102	<10	16	111
18	- HEN 93 DS- 6	<5	<.2	2.10	50	14	155	<5	.77	<1	33	98	70	4.34	.43	<10	1.59	944	<1	.03	58	1170	<2	10	<20	56	.20	<10	117	<10	15	92
19	- HEN 93 DS- 7	10	<.2	2.02	40	10	130	<5	.81	<1	27	105	60	4.17	.36	<10	1.55	782	1	.02	54	1200	<2	10	<20	46	.21	<10	120	<10	16	90
20	- HEN 93 DS- 8	<5	<.2	2.41	65	14	135	5	.84	<1	41	99	64	4.70	.35	<10	1.72	2222	2	.03	48	1310	<2	10	<20	54	.24	<10	138	<10	17	98
21	- HEN 93 DS- 9	5	<.2	2.13	20	12	145	5	.72	<1	30	127	59	4.12	.36	10	1.55	940	2	.03	71	1120	<2	10	<20	45	.21	<10	111	<10	16	76
22	- HEN 93 DS- 10	10	<.2	2.04	25	12	145	5	.65	<1	28	116	63	3.87	.37	<10	1.50	797	2	.02	66	970	2	5	<20	45	.20	<10	104	<10	15	79
23	- HEN 93 DS- 11	5	<.2	1.90	25	8	130	<5	.64	<1	26	109	54	3.56	.31	<10	1.37	657	1	.03	64	1020	<2	10	<20	44	.18	<10	94	<10	15	69
24	- HEN 93 DS- 12	<5	<.2	2.43	20	12	145	<5	.56	<1	29	116	41	3.94	.22	<10	1.27	998	3	.02	52	960	2	10	<20	45	.18	<10	111	<10	12	112
25	- HEN 93 DS- 13	<5	<.2	2.07	35	12	135	5	.63	<1	38	109	45	4.21	.29	<10	1.35	1760	4	.02	53	1130	<2	5	<20	44	.19	<10	115	<10	14	95

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
26	DEC 93 SC- 1	<5	<.2	1.93	15	8	90	5	.38	<1	20	32	14	2.54	.25	10	.53	776	<1	.01	35	470	2	<5	<20	28	.12	<10	29	<10	12	97
27	DEC 93 SC- 2	<5	<.2	1.73	10	8	95	<5	.22	<1	20	31	31	2.97	.50	20	.50	626	3	.01	33	660	8	<5	<20	19	.12	<10	25	20	14	70
28	DEC 93 SC- 3	<5	<.2	2.23	10	12	140	5	.61	<1	30	35	27	5.63	.45	30	.58	2952	2	.01	56	800	6	5	<20	42	.13	<10	30	20	23	109
29	DEC 93 SC- 4	<5	<.2	1.97	15	12	120	<5	.44	<1	28	44	31	4.21	.67	20	.79	1001	3	.01	73	1030	8	5	<20	24	.14	<10	32	20	17	85
30	DEC 93 SC- 5	<5	<.2	2.19	15	6	80	<5	.38	<1	25	77	16	2.49	.22	10	.77	869	<1	.01	95	490	6	<5	<20	27	.08	<10	28	10	9	75
31	DEC 93 SC- 6	<5	<.2	2.31	15	12	80	<5	.39	<1	18	58	16	2.54	.27	10	.85	425	<1	.02	82	520	8	<5	<20	30	.10	<10	28	<10	11	62
32	DEC 93 SC- 7	<5	<.2	1.47	5	8	85	<5	.36	<1	13	28	17	2.05	.36	10	.51	340	<1	.02	58	840	2	<5	<20	26	.09	<10	19	20	12	51
33	DEC 93 SC- 8	<5	<.2	1.20	5	12	50	<5	.21	<1	12	32	10	1.93	.16	10	.62	416	<1	.01	62	260	4	5	<20	14	.08	<10	18	<10	8	54
34	DEC 93 SC- 9	<5	<.2	1.35	20	12	60	<5	.31	<1	11	21	13	1.86	.27	20	.40	487	1	.01	19	520	2	<5	<20	21	.10	<10	20	20	11	80
35	DEC 93 SC- 10	<5	<.2	2.13	5	10	110	5	.72	<1	19	38	22	4.57	.48	10	.87	1737	<1	.03	30	550	6	<5	<20	86	.16	<10	37	<10	13	123
36	DEC 93 SC- 11	<5	<.2	2.50	10	8	110	<5	.56	<1	23	38	19	3.49	.32	10	.70	1174	1	.02	42	520	4	<5	<20	46	.14	<10	35	<10	14	114
37	DEC 93 SC- 12	<5	<.2	1.88	15	12	80	5	.25	<1	21	32	14	3.00	.34	10	.81	813	1	.01	46	350	4	<5	<20	21	.12	<10	29	<10	10	87
38	DEC 93 SC- 13	<5	<.2	1.82	15	8	75	<5	.30	<1	23	28	13	2.63	.35	10	.64	853	<1	.01	32	320	6	5	<20	25	.13	<10	29	<10	10	94
39	DEC 93 SC- 14	<5	<.2	2.19	10	12	95	<5	.32	<1	19	33	18	2.82	.37	10	.62	520	1	.01	32	360	4	<5	<20	24	.14	<10	32	<10	12	74
40	DEC 93 SC- 15	<5	.2	2.27	5	12	50	<5	2.14	2	19	67	79	3.47	.08	<10	.96	850	1	.01	30	1130	4	5	<20	74	.12	<10	89	<10	14	141
41	DEC 93 SC- 16	<5	1.6	6.20	10	18	110	<5	2.32	<1	27	231	172	4.39	.04	10	1.34	1048	2	.01	68	1720	8	5	<20	152	.10	<10	110	10	29	153
42	DEC 93 SC- 17	<5	.4	2.99	5	12	50	<5	1.30	1	28	94	92	4.39	.03	<10	1.01	725	2	.01	46	1100	10	10	<20	63	.11	<10	106	<10	14	195
43	DEC 93 SC- 18	<5	.4	1.78	10	12	135	<5	.87	<1	18	65	27	3.37	.16	10	.84	1360	1	.02	48	780	6	<5	<20	52	.09	<10	51	<10	9	115
44	DEC 93 SC- 19	<5	<.2	1.75	5	14	135	<5	.82	<1	19	78	27	3.40	.16	10	1.00	867	2	.02	58	890	8	5	<20	47	.11	<10	58	<10	11	129
45	DEC 93 SC- 20	<5	<.2	2.48	10	6	105	5	.59	<1	23	38	20	3.37	.31	20	.69	1140	1	.02	42	540	18	5	<20	47	.14	<10	36	<10	13	102
46	DEC 93 DS- 1	<5	<.2	1.88	5	4	80	<5	.26	<1	20	34	18	2.99	.36	10	.79	744	2	.01	43	320	8	<5	<20	21	.12	<10	28	<10	8	77
47	DEC 93 DS- 2	<5	<.2	1.81	15	4	75	<5	.36	<1	21	28	14	2.52	.35	10	.62	812	2	.02	31	350	20	<5	<20	28	.13	<10	29	<10	10	82
48	DEC 93 DS- 3	<5	<.2	2.15	10	6	95	<5	.33	<1	19	34	19	2.71	.37	20	.60	527	1	.01	31	360	10	5	<20	26	.14	<10	33	<10	11	66
49	LED 93 DS- 1	<5	<.2	1.90	20	6	45	<5	1.86	1	17	56	67	3.03	.08	<10	.82	745	12	.01	24	820	8	5	<20	71	.11	<10	83	<10	10	108
51	LED 93 DS- 3	<5	.2	2.56	65	6	40	<5	1.22	1	25	80	85	3.86	.05	<10	.83	674	1	.01	39	990	14	10	<20	60	.09	<10	96	<10	11	152

PIONEER METALS CORPORATION ETK 93-248 ECO-TECH LABORATORIES LTD. AUGUST 23, 1993

PAGE 3

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
52	- ART 93 CS- 1	<5	<.2	1.82	20	8	145	<5	.95	<1	18	66	28	3.36	.17	10	.83	1386	1	.03	49	810	8	5	<20	57	.09	<10	55	<10	9	102
53	- ART 93 CS- 2	<5	<.2	1.67	20	6	125	<5	.82	<1	17	70	25	3.07	.17	10	.95	786	<1	.03	48	790	8	<5	<20	49	.10	<10	56	<10	9	96
54	- ART 93 CS- 3	<5	<.2	4.86	25	4	240	<5	2.00	1	23	140	42	5.00	.56	<10	3.30	611	<1	.34	53	1400	2	5	<20	479	.23	30	196	<10	15	137
QC/DATA:																																
Repeat #:																																
1-	93 HEN CS-3		<.2	2.29	45	8	150	5	.83	<1	28	93	76	4.32	.44	<10	1.50	675	1	.04	54	1330	<2	10	<20	52	.22	<10	123	<10	16	76
54-	ART 93 CS- 3		<.2	4.94	100	6	235	<5	2.04	1	24	144	42	5.10	.56	<10	3.37	621	<1	.34	54	1460	<2	10	<20	482	.24	<10	200	<10	16	145
STANDARD 1991:		1.2	2.02	65	10	120	<5	1.78	<1	20	69	85	4.10	.36	<10	.99	706	<1	.02	27	640	12	5	<20	74	.14	<10	86	<10	13	77
STANDARD 1991:		1.2	2.06	85	4	115	<5	1.73	<1	18	68	78	3.74	.37	<10	.96	658	<1	.04	23	570	16	5	<20	91	.14	<10	86	<10	11	73

NOTE: < = LESS THAN
> = GREATER THAN
SAMPLES LABELLED: LED 93 DS-2; ART 93 DS-1, ART 93 DS-2 INSUFFICIENT SAMPLE

Fax @: 669-1240

cc: David Ridley
Fax @: 397-2958
CALL: 397-2771 for pick-up

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SEPTEMBER 20, 1993

CERTIFICATE OF ASSAY ETK 93-341

PIONEER METALS CORPORATION
17770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

SAMPLE IDENTIFICATION: 42 ROCK samples received SEPTEMBER 2, 1993
PROJECT #: CANMIN LAKE
SHIPMENT #: 07

ET#	Description	Au (g/t)	Au (oz/t)	As (%)
7	HEN 93 : DR 52	1.32	.038	-
9	HEN 93 : DR 54	1.10	.032	-
20	HEN 93 : DR 65	4.23	.123	-
22	HEN 93 : DR 67	2.04	.059	-
42	HEN 93 : CR 23	5.19	.151	2.63

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SC93/Pioneer

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PHONE - 604-573-5700
FAX - 604-573-4557

PIONEER METALS CORPORATION ETK 93-341
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

SEPTEMBER 20, 1993

42 ROCK SAMPLES RECEIVED SEPTEMBER 9, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

SHIPMENT #: 07

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HEN 93 : DR 46	<5	<.2	1.53	30	12	190	<5	1.57	<1	18	58	130	2.61	.42	<10	.78	248	2	.10	18	1100	4	15	<20	86	.23	<10	97	<10	18	66
2	- HEN 93 : DR 47	5	<.2	2.16	35	10	175	5	1.28	<1	22	120	130	3.50	.75	<10	1.12	285	4	.15	25	1110	2	15	<20	103	.30	<10	121	<10	21	65
3	- HEN 93 : DR 48	<5	<.2	2.40	40	10	200	<5	1.16	<1	19	100	161	3.23	.91	<10	1.27	306	1	.19	29	900	4	15	<20	119	.28	<10	116	<10	18	56
4	- HEN 93 : DR 49	5	<.2	2.81	100	10	75	<5	1.61	<1	27	145	232	3.68	.66	<10	.87	310	7	.33	19	1630	6	15	<20	150	.27	<10	141	<10	20	53
5	- HEN 93 : DR 50	<5	<.2	1.69	10	8	230	<5	.88	<1	21	64	124	3.09	.76	<10	.99	249	1	.12	15	1210	2	10	<20	56	.30	<10	137	<10	23	49
6	- HEN 93 : DR 51	5	<.2	2.01	30	10	435	5	.79	<1	27	39	117	4.52	1.39	10	1.36	433	1	.08	12	1250	2	20	<20	46	.43	<10	194	<10	31	65
7	- HEN 93 : DR 52	>1000	.2	3.02	4270	16	90	<5	11.79	59	16	33	80	2.62	.27	<10	.70	331	2	.04	28	920	4	60	<20	1040	.08	<10	67	<10	6	23
8	- HEN 93 : DR 53	15	<.2	2.07	45	14	375	5	1.88	<1	21	41	65	3.46	.94	<10	1.08	388	1	.14	8	1020	2	10	<20	81	.29	<10	135	<10	22	50
9	- HEN 93 : DR 54	>1000	<.2	2.64	1130	12	265	<5	10.84	16	12	28	62	2.19	.53	<10	.73	457	2	.12	15	560	2	30	<20	804	.14	<10	70	<10	12	31
10	- HEN 93 : DR 55	10	<.2	2.50	40	8	220	<5	4.11	<1	20	54	108	2.46	.68	<10	.93	307	1	.13	23	1350	2	15	<20	137	.20	<10	97	<10	16	38
11	- HEN 93 : DR 56	5	<.2	2.63	60	12	225	<5	2.95	<1	20	49	110	2.70	.55	<10	1.09	303	1	.09	23	1420	2	15	<20	124	.18	<10	94	<10	14	36
12	- HEN 93 : DR 57	<5	<.2	1.95	30	4	370	10	1.17	<1	25	36	69	4.26	1.28	<10	1.17	525	2	.07	10	900	2	15	<20	66	.38	<10	159	<10	26	59
13	- HEN 93 : DR 58	5	<.2	1.71	20	6	295	<5	3.16	<1	18	30	108	3.21	.79	<10	.99	397	1	.10	10	1100	2	15	<20	93	.27	<10	124	<10	22	45
14	- HEN 93 : DR 59	5	<.2	2.29	20	72	155	5	3.61	<1	17	29	88	2.86	.60	<10	.91	371	1	.11	13	1000	2	15	<20	112	.23	<10	98	<10	20	45
15	- HEN 93 : DR 60	10	<.2	2.48	25	6	185	<5	1.84	<1	23	49	121	2.92	.80	<10	1.03	252	1	.17	37	1530	2	15	<20	112	.21	<10	95	<10	17	39
16	- HEN 93 : DR 61	5	<.2	2.33	20	12	220	5	3.00	<1	19	30	70	2.89	.59	<10	.81	390	1	.14	9	1040	2	15	<20	79	.27	<10	108	<10	21	43
17	- HEN 93 : DR 62	10	<.2	1.82	20	14	285	5	3.34	<1	18	36	62	2.75	.65	<10	.77	436	1	.12	6	910	4	10	<20	76	.26	<10	102	<10	20	43
18	- HEN 93 : DR 63	5	<.2	2.88	55	6	220	<5	2.20	<1	35	109	154	4.15	.94	<10	2.16	455	1	.15	89	1880	6	20	<20	90	.13	<10	92	<10	9	44
19	- HEN 93 : DR 64	30	1.0	2.68	75	16	55	<5	3.42	<1	50	50	751	4.30	.22	<10	.59	198	<1	.16	61	1550	4	15	<20	126	.10	<10	43	<10	6	28
20	- HEN 93 : DR 65	>1000	.4	3.41	2705	18	510	<5	10.19	39	20	43	72	2.15	.44	<10	.79	386	11	.04	29	830	2	40	<20	1452	.14	<10	72	<10	11	29
21	- HEN 93 : DR 66	55	<.2	2.91	65	8	205	<5	2.59	1	23	68	133	2.71	.55	<10	.93	277	3	.17	37	1560	4	15	<20	121	.16	<10	88	<10	14	42
22	- HEN 93 : DR 67	>1000	.2	4.10	5000	14	135	5	2.56	73	24	72	94	3.20	.77	<10	.96	265	3	.25	37	1000	10	55	<20	244	.19	<10	109	10	13	47
23	- HEN 93 : DR 68	5	<.2	2.36	60	12	150	<5	1.94	2	21	79	112	2.71	.50	10	.77	296	4	.15	25	1300	4	20	<20	90	.21	<10	88	<10	19	46
24	- HEN 93 : DR 69	10	<.2	3.16	20	4	50	10	.38	<1	14	176	63	6.22	.02	10	3.46	653	11	.02	19	980	8	25	<20	22	.31	<10	363	<10	21	160
25	- HEN 93 : DR 70	5	<.2	3.04	45	12	100	<5	1.98	<1	31	62	156	5.05	1.13	<10	1.52	562	2	.21	25	2050	8	30	<20	191	.21	<10	162	<10	16	55

ET# DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
26 - HEN 93 : CR 7	<5	<.2	2.60	15	26	170	<5	2.08	<1	19	123	153	2.73	.44	<10	.52	299	12	.19	35	1130	2	15	<20	160	.22	<10	88	<10	18	37
27 - HEN 93 : CR 8	20	<.2	2.43	20	24	130	<5	1.82	<1	18	83	155	2.48	.29	<10	.46	247	5	.15	46	1190	2	10	<20	100	.20	<10	89	<10	18	37
28 - HEN 93 : CR 9	5	<.2	1.52	25	16	160	<5	1.17	<1	18	76	143	2.64	.41	<10	.50	237	3	.11	36	1230	2	10	<20	81	.21	<10	101	<10	20	37
29 - HEN 93 : CR 10	5	<.2	2.49	20	304	320	<5	1.76	<1	20	76	141	2.95	.73	<10	.80	308	3	.12	39	1090	4	15	<20	166	.27	<10	116	<10	23	47
30 - HEN 93 : CR 11	<5	<.2	2.15	20	16	165	<5	1.83	2	22	193	128	3.07	.40	10	1.26	306	9	.15	35	1420	4	20	<20	87	.22	<10	118	<10	17	38
31 - HEN 93 : CR 12	<5	<.2	2.36	10	22	290	5	1.25	<1	25	50	124	4.06	1.14	<10	1.15	345	2	.13	14	1200	4	15	<20	87	.42	<10	174	<10	28	57
32 - HEN 93 : CR 13	5	<.2	2.42	10	12	205	5	1.68	<1	28	46	138	4.19	.52	<10	1.11	396	1	.10	17	1150	4	15	<20	112	.40	<10	187	<10	26	52
33 - HEN 93 : CR 14	<5	<.2	2.18	15	6	350	5	.89	<1	23	65	143	3.75	1.09	<10	1.16	380	1	.16	23	900	2	15	<20	71	.41	<10	127	<10	28	57
34 - HEN 93 : CR 15	5	<.2	1.98	10	10	385	5	.88	<1	22	51	127	3.48	.99	10	1.03	327	1	.10	22	1040	4	15	<20	60	.37	<10	127	<10	26	54
35 - HEN 93 : CR 16	5	<.2	2.23	30	12	245	5	1.29	<1	19	58	94	2.93	.72	<10	.99	404	2	.14	22	950	4	15	<20	111	.28	<10	120	<10	23	48
36 - HEN 93 : CR 17	5	<.2	1.61	15	10	260	<5	.66	<1	19	53	114	3.08	.92	10	.96	267	2	.09	17	1160	2	10	<20	54	.31	<10	136	<10	25	47
37 - HEN 93 : CR 18	<5	<.2	1.52	30	10	195	5	.74	<1	18	49	67	2.93	.67	10	.87	291	2	.10	15	1070	2	10	<20	45	.28	<10	119	<10	23	45
38 - HEN 93 : CR 19	<5	<.2	1.81	10	10	290	5	.57	<1	22	52	123	3.56	1.20	10	1.16	300	2	.09	14	1130	2	15	<20	40	.34	<10	166	<10	29	72
39 - HEN 93 : CR 20	<5	<.2	1.76	15	10	185	<5	1.05	<1	21	42	108	3.09	.74	10	.96	273	3	.09	19	1330	2	10	<20	50	.28	<10	123	<10	22	46
40 - HEN 93 : CR 21	5	<.2	1.62	25	10	205	<5	1.19	<1	19	51	86	2.79	.52	10	.91	309	2	.08	23	1330	4	15	<20	49	.23	<10	101	<10	19	40
41 - HEN 93 : CR 22	5	<.2	1.50	15	10	180	5	.68	<1	21	36	118	3.94	.76	10	.98	317	1	.05	13	1270	2	20	<20	32	.32	<10	160	<10	25	57
42 - HEN 93 : CR 23	>1000	.8	2.26	>10000	12	35	<5	2.76	410	25	69	26	1.92	.05	<10	.31	175	18	.11	82	1000	2	110	<20	422	.02	<10	18	20	4	13
QC/DATA:																															
Repeat #:																															
30 - HEN 93 : CR 11		<.2	2.11	20	12	165	<5	1.80	<1	22	154	126	3.01	.41	<10	1.23	298	7	.15	33	1420	4	15	<20	85	.22	<10	116	<10	17	38
41 - HEN 93 : CR 23		<.2	1.50	15	10	180	5	.68	2	21	35	116	3.90	.75	10	.97	312	1	.05	13	1290	2	20	<20	34	.33	<10	159	<10	25	56
STANDARD 1991:		1.0	1.82	70	10	125	<5	1.61	1	18	63	88	3.79	.37	<10	.93	666	<1	.02	26	630	14	20	<20	60	.11	<10	76	<10	11	79

NOTE: < = LESS THAN
> = GREATER THAN
Fax #: 669-1240

cc: David Ridley
Fax #: 397-2958
CALL : 397-2771 for pick-up
SC93/Pioneer Metals

ECO-TECH LABORATORIES LTD.
FRANK J. PEZZOTTI, A.Sc.T.
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KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

SEPTEMBER 20, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

PIONEER METALS CORPORATION ETK 93-342
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

89 SOIL SAMPLES RECEIVED SEPTEMBER 2, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 07

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HEN RT 1	10	<.2	2.57	35	8	120	<5	.55	<1	26	95	145	4.25	.50	10	1.39	411	<1	.04	58	600	<2	10	<20	41	.27	<10	134	<10	17	81
2	- HEN RT 2	3970	4.2	4.80	3120	16	455	<5	5.45	55	41	122	594	7.72	.66	30	1.75	1196	7	.06	103	780	12	70	<20	473	.17	<10	141	<10	40	72
3	- HEN RT 3	80	<.2	3.25	140	16	390	<5	1.48	2	44	44	382	6.57	1.04	20	2.20	996	1	.05	45	1240	8	35	<20	78	.44	10	200	<10	35	113
4	- HEN RT 4	70	<.2	2.47	150	8	240	<5	.90	2	36	48	410	5.42	.97	20	1.76	555	<1	.03	46	1120	<2	30	<20	66	.39	<10	174	<10	29	95
5	- HEN RT 5	60	<.2	2.50	85	8	260	<5	.69	<1	29	55	320	4.60	.87	20	1.62	463	<1	.03	38	930	2	5	<20	61	.36	<10	162	20	26	85
6	- HEN RT 6	235	<.2	3.91	260	12	400	<5	1.78	3	39	86	291	5.73	.86	20	2.39	835	<1	.10	67	1260	10	20	<20	196	.34	<10	159	<10	22	107
7	- HEN RT 7	180	<.2	3.65	245	10	250	<5	1.25	6	37	76	385	6.13	1.26	20	2.50	745	<1	.08	68	1080	4	85	<20	159	.37	40	180	<10	30	102
8	- HEN RT 8	95	<.2	2.27	295	6	150	<5	.95	3	24	49	246	3.78	.60	10	1.20	474	<1	.06	38	940	<2	35	20	95	.24	<10	124	<10	17	72
9	- HEN RT 9	70	<.2	2.33	60	10	210	<5	.67	<1	25	58	230	4.25	.87	10	1.37	524	<1	.03	34	920	<2	15	20	57	.29	<10	147	<10	20	75
10	- HEN RT 10	120	<.2	2.74	290	12	195	<5	1.03	4	31	71	279	5.03	1.00	20	2.00	577	1	.07	50	1120	8	25	<20	118	.28	<10	149	10	21	75
11	- HEN L/W 0 + 10 N	15	.8	3.58	15	4	90	<5	.54	<1	21	82	192	5.13	.32	20	2.23	369	<1	.04	43	880	<2	10	<20	45	.27	<10	150	<10	15	90
12	- HEN L/W 0 + 20 N	25	<.2	2.72	5	4	135	<5	.57	<1	18	54	112	3.18	.38	<10	1.55	286	<1	.06	19	740	<2	5	<20	95	.21	<10	89	<10	11	73
13	- HEN L/W 0 + 30 N	10	<.2	1.99	10	6	135	5	.78	<1	19	99	41	3.17	.16	10	1.48	497	<1	.08	42	910	<2	5	<20	46	.19	<10	74	<10	10	112
14	- HEN L/W 0 + 40 N	5	<.2	5.34	15	8	190	<5	.51	<1	40	152	194	5.53	.34	20	2.85	423	1	.06	84	1640	<2	15	<20	63	.28	<10	141	<10	14	134
15	- HEN L/W 0 + 50 N	10	.4	2.64	20	6	130	5	.43	<1	22	132	60	4.83	.15	10	1.68	277	1	.06	53	1860	<2	20	<20	37	.23	<10	114	<10	13	105
16	- HEN L/W 0 + 10 S	5	.6	2.04	20	8	135	5	1.33	<1	18	60	65	4.31	.23	10	1.11	294	1	.05	33	330	<2	15	<20	105	.24	<10	139	<10	14	84
17	- HEN L/W 0 + 20 S	10	.8	2.64	65	6	240	<5	1.75	1	35	60	92	4.69	.27	10	1.32	2518	2	.03	45	840	<2	10	<20	171	.08	<10	129	<10	8	129
18	- HEN L/W 0 + 30 S	5	<.2	2.83	20	10	165	5	.65	<1	22	83	79	4.82	.30	10	1.75	464	1	.07	41	480	2	15	<20	78	.26	<10	143	10	13	115
19	- HEN L/W 0 + 40 S	5	<.2	2.66	5	14	285	<5	.91	<1	27	27	76	4.77	.59	10	1.92	909	1	.13	19	1050	<2	20	<20	74	.35	<10	141	<10	18	137
20	- HEN L/W 0 + 50 S	5	.8	2.41	10	6	125	<5	.46	<1	15	67	32	3.90	.18	10	1.00	264	<1	.05	23	1210	<2	<5	<20	45	.23	<10	105	<10	11	95
21	- BLO+ 00 1 W	10	<.2	3.38	15	8	175	<5	.56	<1	27	94	82	5.32	.33	10	2.11	442	1	.07	47	470	<2	5	<20	63	.29	<10	147	<10	15	113
22	- LO + 50 W 0 + 10 N	<5	<.2	3.81	25	8	170	<5	.72	<1	27	102	100	5.80	.32	20	2.17	396	2	.04	59	580	8	10	<20	108	.29	<10	156	<10	15	145
23	- LO + 50 W 0 + 20 N	<5	<.2	3.63	15	8	160	5	.54	<1	27	92	109	5.64	.31	20	2.60	424	<1	.08	46	800	<2	15	<20	81	.26	<10	144	<10	14	114
24	- LO + 50 W 0 + 30 N	<5	<.2	4.50	20	8	240	<5	.77	<1	36	118	172	5.56	.85	20	3.39	616	<1	.06	74	1770	<2	15	<20	87	.29	<10	136	<10	17	121
25	- LO + 50 W 0 + 40 N	<5	.2	4.86	15	10	335	<5	.78	<1	40	132	112	7.35	.56	20	3.75	647	<1	.09	66	840	<2	25	<20	99	.40	<10	198	<10	23	142

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
26	- LO + 50 W 0 + 50 N	<5	<.2	5.01	20	8	555	<5	1.00	<1	42	130	160	7.30	.67	20	3.52	669	1	.07	80	1390	<2	30	<20	106	.32	<10	177	<10	18	343
27	- LO + 50 W 0 + 10 S	<5	.4	4.81	6	10	195	<5	.78	1	37	128	183	6.63	.66	20	2.98	800	2	.05	86	770	2	30	<20	94	.26	<10	187	<10	19	128
28	- LO + 50 W 0 + 20 S	5	.8	4.54	45	8	205	<5	.92	1	35	122	269	6.88	.58	20	2.55	669	3	.06	97	470	2	20	<20	128	.28	<10	181	<10	21	119
29	- LO + 50 W 0 + 30 S	<5	1.6	4.87	40	6	295	<5	1.01	1	45	124	291	6.56	.75	30	2.49	1421	1	.04	90	760	<2	15	<20	134	.21	<10	170	<10	22	132
30	- LO + 50 W 0 + 40 S	20	.8	4.69	35	10	265	<5	.97	1	42	138	245	6.77	1.12	20	3.01	1405	1	.06	99	920	<2	30	<20	106	.29	<10	182	<10	22	130
31	- LO + 50 W 0 + 50 S	<5	1.0	4.89	30	10	270	<5	1.09	1	43	155	270	6.81	.92	20	3.08	1244	1	.05	117	700	6	40	<20	116	.30	<10	168	<10	22	154
32	- BLO+ 00 - 0 + 50 W	<5	<.2	3.53	10	4	180	<5	1.00	<1	33	108	94	5.09	.36	10	2.21	707	<1	.09	64	1240	<2	20	<20	97	.24	<10	116	<10	13	142
33	- LO + 25 W 0 + 10 N	10	<.2	3.25	20	6	200	<5	1.11	<1	24	98	136	4.86	.36	20	1.72	403	2	.04	57	500	6	15	<20	151	.22	<10	132	<10	14	116
34	- LO + 25 W 0 + 20 N	<5	<.2	5.00	10	8	135	<5	.56	<1	30	74	142	5.08	.28	10	2.95	430	2	.09	47	830	2	15	<20	98	.27	<10	127	<10	15	115
35	- LO + 25 W 0 + 30 N	5	<.2	2.97	15	8	135	<5	.44	<1	21	106	78	5.17	.17	20	1.67	329	<1	.03	51	1100	<2	5	<20	59	.25	<10	133	<10	13	110
36	- LO + 25 W 0 + 40 N	<5	<.2	2.70	10	8	125	<5	.46	<1	19	93	50	4.86	.19	10	1.37	320	1	.04	41	1790	2	<5	<20	68	.23	<10	113	<10	12	122
37	- LO + 25 W 0 + 50 N	<5	<.2	3.86	15	10	125	<5	.57	<1	28	110	104	5.63	.26	20	2.26	423	1	.06	64	820	<2	15	<20	67	.29	<10	142	<10	15	119
38	- LO + 25 W 0 + 10 S	10	<.2	3.74	10	10	230	<5	1.20	<1	34	102	138	6.30	.70	20	2.18	1089	2	.05	65	600	4	15	<20	169	.26	<10	167	<10	15	131
39	- LO + 25 W 0 + 20 S	20	.2	4.89	60	8	290	<5	.91	1	44	145	224	7.00	1.04	30	2.93	1303	2	.06	104	1010	8	30	<20	109	.29	<10	189	<10	22	136
40	- LO + 25 W 0 + 30 S	10	<.2	4.66	60	8	300	<5	1.05	<1	43	142	200	6.64	1.07	30	2.83	1378	1	.06	100	1140	4	20	<20	117	.26	<10	180	<10	21	142
41	- LO + 25 W 0 + 40 S	45	.4	4.82	45	10	245	<5	1.11	<1	39	134	193	6.13	1.04	30	2.61	1068	3	.06	98	1260	2	15	<20	148	.23	<10	164	<10	19	134
42	- LO + 25 W 0 + 50 S	65	<.2	5.31	40	8	235	<5	.47	<1	45	135	250	7.84	1.01	30	2.89	980	2	.07	94	480	6	20	<20	70	.35	<10	210	<10	22	133
43	- BLO+ 00 0 + 25 W	40	<.2	3.01	20	6	115	<5	.54	<1	23	75	109	4.88	.32	20	1.38	471	2	.04	46	400	<2	15	<20	80	.21	<10	126	<10	13	91
44	- LO + 10 W 0 + 10 N	15	<.2	3.25	20	8	220	<5	1.02	<1	31	107	115	5.39	.60	20	2.00	914	2	.06	66	480	6	15	<20	116	.30	<10	142	<10	18	105
45	- LO + 10 W 0 + 20 N	5	<.2	2.84	20	6	115	<5	.78	<1	23	97	80	5.42	.25	20	1.50	314	2	.04	50	480	2	10	<20	100	.24	<10	135	<10	14	92
46	- LO + 10 W 0 + 30 N	5	<.2	4.33	45	8	150	<5	.56	<1	34	158	167	5.99	.41	20	2.67	449	1	.05	100	410	<2	20	<20	90	.27	<10	147	<10	15	118
47	- LO + 10 W 0 + 40 N	<5	<.2	2.61	15	6	140	<5	.37	<1	23	93	49	5.57	.14	10	1.39	364	1	.03	35	850	<2	15	<20	33	.33	<10	151	<10	17	116
48	- LO + 10 W 0 + 50 N	15	.2	2.62	15	6	115	<5	.43	<1	20	105	52	5.18	.10	20	1.19	331	1	.02	45	1120	<2	10	<20	45	.22	<10	119	<10	12	94
49	- LO + 10 W 0 + 10 S	15	.2	3.53	50	8	220	<5	.94	<1	36	120	146	5.70	.93	20	2.27	1023	2	.05	71	1270	<2	25	<20	67	.26	<10	161	<10	18	119
50	- LO + 10 W 0 + 20 S	20	.2	3.48	40	6	220	<5	.95	<1	34	114	140	5.32	.91	20	2.18	905	1	.05	68	1470	<2	15	<20	65	.24	<10	153	<10	17	124
51	- LO + 10 W 0 + 50 S	5	<.2	3.52	50	6	240	<5	1.00	<1	36	118	162	6.13	1.01	20	2.41	916	1	.05	79	1340	<2	25	<20	65	.29	<10	163	<10	19	112
52	- BLO+ 00 0 + 10 W	55	.4	3.81	95	6	175	<5	.80	<1	51	84	135	8.24	.56	40	1.64	1894	7	.02	53	1640	<2	15	<20	63	.18	<10	226	<10	17	97
53	- LO + 00 0 + 20 N	5	<.2	3.49	50	6	75	<5	.46	<1	22	85	131	4.78	.23	20	1.30	426	3	.04	44	390	<2	15	<20	41	.22	<10	134	<10	13	77
54	- LO + 00 0 + 30 N	10	<.2	2.34	15	6	120	<5	.41	<1	19	83	53	4.22	.17	10	1.39	345	1	.06	33	530	<2	10	<20	46	.25	<10	122	<10	12	97
55	- LO + 00 0 + 50 N	15	<.2	2.16	10	6	100	5	.39	<1	20	77	42	4.85	.15	10	1.19	439	1	.04	29	890	<2	10	<20	28	.27	<10	147	<10	13	96

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
56	LO + 00 0 + 10 S	80	.2	4.25	50	8	250	<5	1.09	<1	42	168	153	6.28	.98	30	2.85	1064	2	.08	88	1390	<2	25	<20	75	.25	<10	170	<10	18	137
57	LO + 00 0 + 40 S	20	.2	3.17	35	8	165	<5	.65	<1	27	100	112	4.84	.62	20	1.57	698	<1	.04	60	920	<2	15	<20	50	.21	<10	134	<10	16	95
58	LO + 00 0 + 50	20	.4	2.83	30	6	100	<5	.38	<1	17	79	112	4.76	.42	20	1.03	338	2	.02	44	560	<2	10	<20	40	.18	<10	126	<10	9	86
59	BLO+ 00 0 + 00	25	<.2	2.91	60	8	235	<5	.84	<1	33	86	125	5.72	1.08	20	2.09	764	1	.04	48	1420	<2	15	<20	58	.28	<10	167	<10	18	87
60	LO + 25 E 0 + 20 N	<5	<.2	5.06	30	8	210	<5	.62	<1	42	115	176	7.23	1.15	30	3.19	930	2	.04	63	430	<2	25	<20	52	.37	<10	191	<10	20	109
61	LO + 25 E 0 + 30 N	10	.8	4.94	50	8	220	<5	.61	<1	34	125	200	6.21	.89	30	2.24	887	2	.04	87	1060	<2	15	<20	60	.22	<10	164	<10	15	151
62	LO + 25 E 0 + 40 N	<5	.4	4.66	45	6	235	<5	.74	<1	38	132	184	6.27	.96	30	2.48	991	3	.05	86	1170	<2	15	<20	68	.24	<10	167	<10	17	137
63	LO + 25 E 0 + 50 N	5	.4	4.12	30	6	200	<5	.64	<1	31	105	146	5.42	.72	20	2.04	819	2	.04	67	980	<2	20	<20	61	.21	<10	145	<10	15	137
64	BLO+ 25 E	10	.4	3.48	60	6	235	<5	1.02	<1	36	111	157	5.66	1.02	30	2.13	971	1	.06	81	1480	<2	20	<20	71	.23	<10	154	<10	18	121
65	BLO+ 50 E	10	1.2	4.74	55	8	170	<5	.47	<1	28	125	214	6.29	.71	30	1.86	655	3	.04	84	900	<2	15	<20	45	.19	<10	161	<10	14	128
66	BLO+ 75 E	10	1.4	4.15	50	8	185	<5	.82	<1	33	120	219	6.19	.73	30	1.72	1137	2	.03	88	970	<2	20	<20	68	.19	<10	154	<10	14	141
67	LO + 86 E 0 + 10 N	5	1.8	4.39	65	8	150	<5	.39	1	28	118	218	6.33	.62	30	1.51	686	2	.03	82	760	<2	15	<20	40	.21	<10	160	<10	15	118
68	LO + 86 E 0 + 20 N	10	.4	3.50	55	8	165	<5	.77	<1	27	100	132	5.20	.67	20	1.79	683	2	.04	66	1120	<2	15	<20	66	.21	<10	146	<10	15	105
69	LO + 86 E 0 + 30 N	15	<.2	3.23	65	6	195	<5	.74	1	33	104	132	5.32	.86	20	2.13	789	<1	.04	85	1440	<2	20	<20	46	.25	<10	149	<10	16	100
70	LO + 86 E 0 + 50 N	15	<.2	2.49	35	6	140	<5	.81	<1	26	96	77	4.50	.55	20	1.79	655	<1	.04	60	1300	<2	20	<20	48	.24	<10	129	<10	17	82
71	LO + 86 E 0 + 60 N	10	1.0	4.85	50	8	235	<5	.68	1	44	166	215	7.50	.88	30	2.48	1442	3	.03	111	1050	<2	20	<20	49	.25	<10	186	<10	17	178
72	LO + 86 E 0 + 10 S	5	<.2	4.04	35	8	180	<5	.94	<1	36	118	168	5.78	.73	30	2.33	785	1	.07	72	580	<2	25	<20	60	.28	<10	149	<10	19	130
73	LO + 86 E 0 + 20 S	<5	.4	4.76	75	8	205	<5	.79	1	37	148	263	7.16	.68	40	1.91	980	2	.03	97	760	<2	20	<20	78	.22	<10	174	<10	21	125
74	LO + 86 E 0 + 30 S	70	.4	2.91	25	6	110	<5	.44	<1	25	83	115	4.92	.30	20	1.04	538	1	.04	47	410	<2	10	<20	41	.25	<10	131	<10	16	88
75	LO + 86 E 0 + 40 S	35	<.2	3.16	30	8	120	<5	.77	<1	28	97	93	5.15	.50	20	1.68	633	1	.04	54	860	<2	10	<20	74	.22	<10	133	<10	15	121
76	LO + 86 E 0 + 50 S	5	<.2	3.29	60	10	150	<5	1.15	<1	26	89	99	5.10	.54	20	1.93	641	1	.07	51	1030	<2	20	<20	88	.20	<10	141	<10	13	102
77	LO + 86 E 0 + 60 S	10	.4	3.39	55	6	195	<5	1.08	<1	28	93	124	5.17	.53	30	1.63	1005	<1	.04	63	1220	<2	15	<20	78	.15	<10	133	<10	14	136
78	LO + 86 E 0 + 70 S	5	.8	4.56	35	8	200	<5	.91	<1	39	116	198	6.61	.82	30	2.23	1027	1	.05	80	860	<2	25	<20	67	.26	<10	162	<10	17	147
79	LO + 86 E 0 + 80 S	10	<.2	2.82	25	8	115	<5	.71	<1	25	84	88	4.66	.55	20	1.67	490	<1	.05	51	1010	<2	10	<20	51	.23	<10	130	<10	15	84
80	LO + 86 E 0 + 90 S	5	<.2	3.40	25	8	135	<5	.58	<1	29	83	111	4.91	.36	20	1.54	533	1	.04	50	780	<2	15	<20	43	.24	<10	132	<10	16	124
81	LO + 86 E 1 + 00SS	<5	<.2	2.85	20	8	140	<5	.52	<1	19	75	59	4.65	.23	20	1.27	313	1	.03	39	2420	<2	10	<20	43	.18	<10	116	<10	11	113
82	LO + 86 E 1 + 25 S	10	.2	2.86	20	6	105	<5	.50	<1	19	77	45	4.55	.20	20	1.18	349	1	.03	34	2100	<2	10	<20	39	.17	<10	108	<10	9	134
83	LO + 86 E BLO+ 00	5	1.2	4.88	50	8	225	<5	.67	1	38	136	238	6.74	.84	40	2.08	1131	2	.04	100	810	<2	20	<20	64	.25	<10	166	<10	19	164
84	LO + 25 E 0 + 10 S	10	.8	4.30	25	6	225	<5	.97	<1	33	95	162	5.26	.73	30	2.15	638	1	.07	64	1470	<2	20	<20	65	.23	<10	151	<10	22	127
85	LO + 25 E 0 + 20 S	10	<.2	3.72	40	8	170	<5	.51	<1	31	99	133	5.85	.69	30	1.78	496	1	.04	57	470	<2	15	<20	56	.26	<10	161	<10	17	93

PIONEER METALS CORPORATION ETK 93-342 ECO-TECH LABORATORIES LTD. SEPTEMBER 20, 1993

PAGE 4

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
86	LO + 25 E 0 + 40 S	10	.4	2.75	50	8	125	<5	.67	<1	21	82	92	4.69	.42	20	1.43	524	1	.04	47	920	<2	10	<20	65	.17	<10	131	<10	11	89
87	LO + 25 E 0 + 50 S	15	<.2	2.66	25	8	80	<5	.49	<1	18	80	66	4.50	.33	20	1.32	378	1	.05	39	1100	<2	10	<20	38	.21	<10	127	<10	12	99
88	LO + 25 E 0 + 70 S	5	.4	1.91	15	8	90	<5	.43	<1	19	58	50	4.00	.33	20	.94	401	1	.05	31	500	<2	10	<20	38	.23	<10	110	<10	12	104
89	LO + 25 E 1 + 00 S	5	<.2	2.60	10	8	155	<5	.46	<1	21	76	38	4.46	.19	20	1.18	365	1	.04	36	1150	<2	10	<20	45	.21	<10	104	<10	12	146
QC/DATA:																																
Repeat #:																																
75	LO + 86 E 0 + 40 S		<.2	3.24	30	8	125	<5	.79	<1	29	100	95	5.25	.51	20	1.71	644	1	.04	54	890	<2	20	<20	77	.23	<10	136	<10	15	124
88	LO + 25 E 0 + 70 S		.4	1.79	15	8	85	5	.43	<1	18	58	47	3.95	.29	20	.88	394	<1	.04	29	480	<2	15	<20	33	.22	<10	109	<10	12	101
STANDARD 1991:			1.4	2.15	65	8	125	<5	1.69	<1	19	65	86	4.05	.50	10	1.10	692	<1	.03	29	630	18	15	<20	68	.12	<10	81	<10	11	72

NOTE: < = LESS THAN

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cc: David Ridley
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10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

PIONEER METALS CORPORATION ETK 93-343
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

SEPTEMBER 21, 1993

2 SILT SAMPLES RECEIVED SEPTEMBER 2, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 7

VALUES IN PPM UNLESS OTHERWISE REPORTED

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- C 518	35	<.2	3.19	130	4	255	5	1.23	1	50	109	256	5.46	.75	10	1.92	957	1	.03	121	1210	22	30	<20	76	.28	<10	160	<10	29	126
2	- 127433	5	<.2	1.59	5	2	70	5	.40	<1	27	94	16	2.69	.19	<10	2.45	652	<1	.01	217	540	12	15	<20	22	.08	<10	30	<10	9	74
QC/DATA:																																
Repeat #:																																
1	- C 518		<.2	3.38	130	4	265	5	1.31	1	53	115	271	5.81	.80	10	2.02	1023	<1	.04	130	1270	24	35	<20	79	.29	<10	170	<10	31	132
STANDARD 1991:			1.2	1.89	65	2	125	10	1.73	<1	20	66	80	3.84	.40	<10	.97	710	<1	.02	25	660	18	15	<20	61	.11	<10	80	<10	13	74

NOTE: < = LESS THAN
> = GREATER THAN

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FAX - 604-573-4557

PIONEER METALS CORPORATION ETK 93-474
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

NOVEMBER 24, 1993

12 SOIL SAMPLES RECEIVED NOVEMBER 11, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 16

VALUES IN PPM UNLESS OTHERWISE REPORTED

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HEN T2 D 1	85	<.2	2.25	715	8	300	15	1.16	15	33	49	206	4.87	.71	10	1.43	743	1	.04	35	1450	4	35	<20	78	.32	<10	159	<10	34	75
2	- HEN T2 D 2	35	<.2	3.14	95	6	260	10	1.11	1	39	62	258	6.12	.64	10	1.51	588	3	.08	37	980	4	40	<20	93	.31	<10	213	<10	35	68
3	- HEN T2 D 3	125	<.2	2.72	975	8	330	15	1.14	21	33	86	189	4.92	.62	10	1.64	612	<1	.05	57	1170	6	40	<20	111	.33	<10	163	<10	33	71
4	- HEN T2 D 4	535	<.2	3.32	2505	8	325	15	.94	54	36	100	230	6.09	.58	10	1.88	516	5	.05	71	900	6	45	<20	107	.28	<10	195	<10	34	97
5	- HEN T2 D 4 A	5	<.2	2.09	50	6	180	5	.44	<1	24	74	182	3.49	.42	<10	1.08	273	<1	.02	42	580	4	20	<20	35	.23	<10	120	<10	19	42
6	- HEN T2 D 5	10	<.2	3.22	55	8	290	15	.55	1	37	47	149	4.09	.32	<10	.96	398	<1	.03	58	1690	10	20	<20	44	.30	<10	119	<10	25	233
7	- HEN T2 D 6	5	<.2	2.60	<5	8	350	30	.43	<1	32	45	141	4.98	.68	10	1.89	307	1	.02	24	810	4	35	<20	58	.43	<10	191	<10	34	67
8	- HEN T2 D 7	55	<.2	3.02	60	6	1410	20	.59	<1	45	90	250	5.47	.95	10	2.18	488	1	.02	58	630	4	40	<20	68	.42	<10	196	<10	39	66
9	- HEN T2 D 8	215	<.2	3.20	880	8	360	10	.76	18	33	123	189	4.85	.46	10	1.31	434	<1	.06	89	610	6	40	<20	101	.22	<10	145	<10	26	62
10	- HEN T2 D 9 (B	50	<.2	3.51	80	6	340	25	.83	<1	35	67	186	5.47	.55	10	2.37	416	<1	.02	32	990	4	35	<20	62	.44	<10	226	<10	41	65
11	- HEN T3 D A	15	<.2	2.41	5	6	205	10	.58	<1	32	79	188	4.18	.42	10	1.23	401	1	.03	50	1410	2	25	<20	45	.28	<10	133	<10	24	80
12	- HEN T3 D B	5	<.2	3.08	<5	6	215	15	.50	<1	43	76	214	4.85	.37	<10	1.49	422	<1	.03	57	1750	6	30	<20	34	.35	<10	146	<10	28	124

QC/DATA:

Repeat #:

2	- HEN T2 D 2		<.2	3.06	90	8	250	15	1.07	1	38	61	251	6.01	.61	10	1.46	573	3	.08	36	950	4	35	<20	90	.30	<10	209	<10	33	67

NOTE: < = LESS THAN
> = GREATER THAN

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SC93/Pioneer Metals

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ASSAYING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY
ENVIRONMENTAL TESTING

10041 E. Trans Canada Hwy., R.R. #2, Kamloops, B.C. V2C 2J3 Phone (604) 573-5700
Fax (604) 573-4557

DECEMBER 1, 1993

CERTIFICATE OF ASSAY ETK 93-470

PIONEER METALS CORPORATION
17770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

SAMPLE IDENTIFICATION: 8 ROCK samples received NOVEMBER 11, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 16

ET#	Description	Au (g/t)	Au (oz/t)
1	HEN93 DR 71	4.21	.123
2	HEN93 DR 72	<.03	<.001
3	HEN93 DR 73	<.03	<.001
4	HEN93 DR 74	.06	.002
5	HEN93 DR 75	.63	.018
6	HEN93 DR 76	2.93	.085
7	HEN93 DR 77	<.03	<.001
8	HEN93 DR 78	<.03	<.001

NOTE: < = LESS THAN

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SC93/Pioneer#4

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APPENDIX D

LABORATORY PROCEDURES

ECO-TECH LABORATORIES LTD.
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GEOCHEMICAL LABORATORY METHODS

SAMPLE PREPARATION (STANDARD)

1. Soil or Sediment: Samples are dried and then sieved through 80 mesh nylon sieves.

2. Rock, Core: Samples dried (if necessary), crushed, riffled to pulp size and pulverized to approximately -140 mesh.

3. Heavy Mineral Separation: Samples are screened to -20 mesh, washed and separated in Tetrabromoethane. (SG 2.96)

METHODS OF ANALYSIS

All methods have either certified or in-house standards carried through entire procedure to ensure validity of results.

1. Multi-Element Cd, Cr, Co, Cu, Fe (acid soluble), Pb, Mn, Ni, Ag, Zn, Mo

Digestion	Finish
Hot aqua-regia	Atomic Absorption, background correction applied where appropriate

A) Multi-Element ICP

Digestion	Finish
Hot aqua-regia	ICP

2. Antimony

Digestion	Finish
Hot aqua regia	Hydride generation - A.A.S.

3. Arsenic

Digestion	Finish
Hot aqua regia	Hydride generation - A.A.S.

4. Barium

Digestion	Finish
Lithium Metaborate Fusion	I.C.P.

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13. Tin

Digestion	Finish
Ammonium Iodide Fusion	Hydride generation - A.A.S.

14. Tungsten

Digestion	Finish
Potassium Bisulphate Fusion	Colorimetric or I.C.P.

15. Gold

Digestion	Finish
a) Fire Assay Preconcentration followed by Aqua Regia	Atomic Absorption
b) 10g sample is roasted at 600°C then digested with hot Aqua Regia. The gold is extracted by MIBK and determined by A.A.	

16. Platinum, Palladium, Rhodium

Digestion	Finish
Fire Assay Preconcentration followed by Aqua Regia	Graphite Furnace - A.A.S.

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LABORATORY METHOD ASSAYS

Gold	-	Coventional fire assay with A.A. finish
Gold "Metallics"	-	A 300g re-split is taken from the rejects and pulverized in a ring and puck pulverizer. The entire split is screened to -140mesh. The entire +140 mesh oversize is assayed separately. Two replicate assays are performed on the -140 mesh fraction.
Ag Pb Sb Zn	-	Aqua regia digestion, A.A. finish
As	-	Aqua regia digestion, ICP finish

CS18
CR7
CR8
CR9
CR10
CR11
DK30
DK31
DK29
DK32
DK33
DK34
DK35
DK36
DK37
DK38
DK39
DK40
DK41
DK42
DK43
DK44
DK45
DK46
Road Soil line station 6+150W
CR12
CR13
CR14
CR15
CR16
CR17
CR18
CR19
CR20
CR21
50 rock values
CR22
RT1
RT2
RT3
RT4
RT5
RT6
RT7
RT8
RT9
RT10
DR53
DR54
DR52
DR51
DR50
DR55
DR56
DR57
DR58
DR59
DR60
DR61
DR64
DR62
DR63
gabbro dyke
DR65
DR66
DR67
DR68
DR69
DR70
DR71
DR72
DR73
DR74
DR75
DR76
DR77
DR78
T2D1
T2D2
T2D3
T2D8
T2D9
T2D4A
T2D4
T2D5
T2D6
T2D7
mineralized boulders from Trench 2
mineralized float
TRENCH 1
TRENCH 2
TRENCH 3
T3DA
T3DB
DR72
DR73
6300 Forest Access Road

SOIL PROFILES

SURFACE

up to 100cms: light grey glacial till + unmineralized talus blocks + fines
Soil Sample RT1

100-250cms: mineralized till layer; rusty-grey; 15% greater proportion of fines; silicified limestone cobbles and trachyandesitic boulders
Soil Sample RT2
"Rock" Sample DR54

250-400cms: bedrock hornfelsed, sheared + minor carbonate veining + alteration
Rock Sample DR55

North End
TRENCH 1

centimeters

surface
25-100 cm glacial till and unmineralized talus
25-50cm "B" horizon
Soil Sample T2D9
50-100cm "C" horizon unmineralized lt-grey till
Soil Sample T2D4A
100-225 cm mineralized till layer: rusty-orange; minor recrystallized limestone cobble and altered trachyandesitic boulders:
Soil Sample T2D4
225-400cm bedrock hornfelsed, sheared + brecciated tuffaceous sediments

N.E. corner
TRENCH 2

METAL CORP.
HB CLAIMS | DECEMBER, 1993
Cariboo Mining Division NTS 93A/2
GEOLOGY and SAMPLING PLAN
D. Ridley | FIG. 7

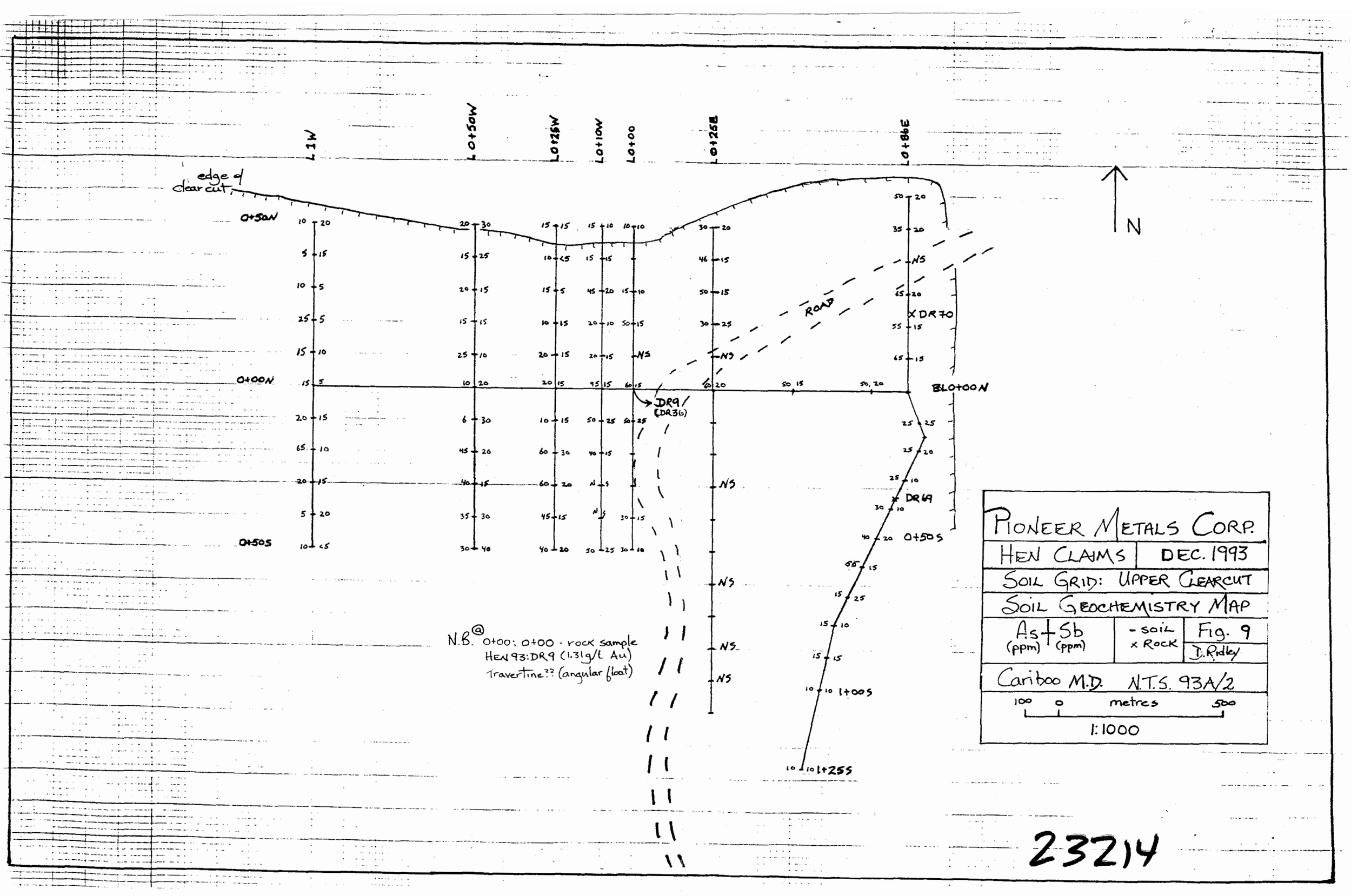
5 0 5 10 15 20
meters
1:200

- forest access road
- disturbed area (clearing)
- sampling survey line
- outcrop
- shearzone
- mineralized till horizon
- sample
- x ole (float)
- (angular float)
- bedrock vein attitudes
- HEN DB1 appendix
- HEN DB2 appendix

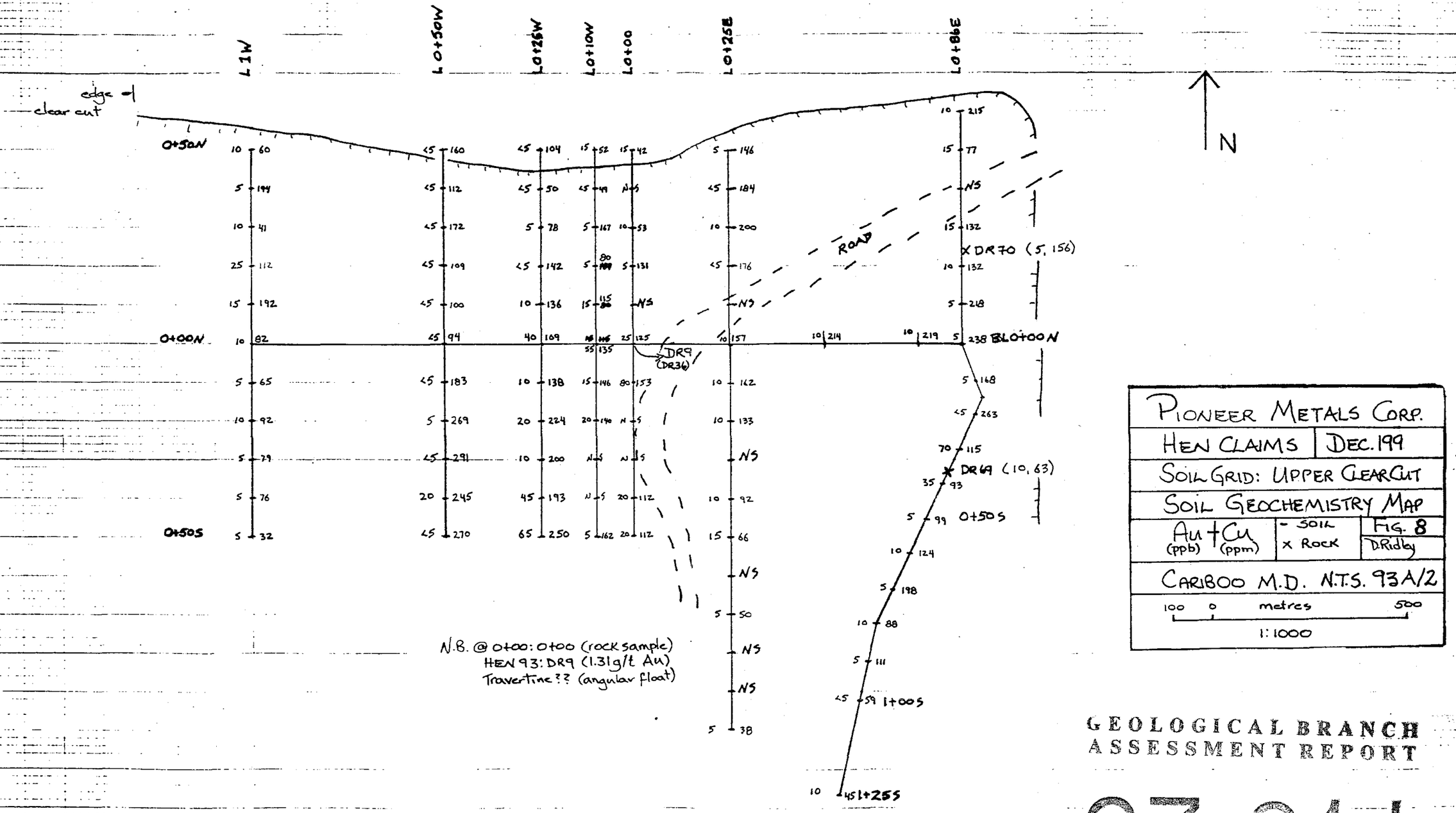
N

O soil sample site

stream sample site


L1W
L0+50W
L0+25W
L0+10W
L0+00
L0+25E
L0+86E
edge of clear cut
0+50N
0+00N
0+50S
1+00S
1+25S
N
ROAD
DR9
(DR36)
DR69
XDR70
BL0+00N
N.B. @ 0+00; 0+00 - rock sample
HEN 93:DR9 (1.31g/t Au)
Travertine?? (angular float)
PIONEER METALS CORP.
HEN CLAIMS | DEC. 1993
SOIL GRID: UPPER CLEARCUT
SOIL GEOCHEMISTRY MAP
As+Sb (ppm) (ppm) - soil x Rock
Fig. 9
J. Ridley
Cariboo M.D. N.T.S. 93A/2
100 0 metres 500
1:1000

23214



PIONEER METALS CORP.

HEN CLAIMS	DEC. 199
SOIL GRID: UPPER CLEARCUT	
SOIL GEOCHEMISTRY MAP	
Au (ppb) + Cu (ppm)	- SOIL x ROCK — FIG. 8 — D.Ridley
CARIBOO M.D. N.T.S. 93A/2	

100 0 metres 500

1:1000

GEOLOGICAL BRANCH
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CS5
MM 1
CS6
CS7
CS8
CR2
CS9
CS10
CR3
5000
4500
3500
HENDRIX CREEK
Area of Mineralized Till. See Fig.
Area of Soil Grid See Fig.
5000
5500
N
LAKE
4500
4000
3500
CS11
CS12
CS13
CR4
CS14
CR5
CS15
CR6
CS16
CS17
LAKE
4500
4000
3500
Anomaly Creek
MM 2
DS12
DS11
DS12
DS13

LEGEND
6000 Rd.
6300 Rd.
Auxiliary Rd.
Power Line
Clear Cut
Silt or Moss Mat
Rock Sample x

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PIONEER METALS CORP.	
HEN CLAIMS	DEC. 1993
SILT SAMPLING MAP	
CARIBOO M.D. N.T.S. 93A/2	
D. Ridley	FIG. 5

0 500 1000
1:20,000 meters


PIONEER METALS ORP.
HEN CLA S
Division
NTS. E+W
Soil + Rock Sample Locations
6
D.W. Ridley December, 1993
100 75 50 25 0 100 200 300
meters
1: 5,000
contour interval feet
clearcut boundary
access roads
soil sampling line
limit of outcrop
rock sample (float)
rock sample (outcrop)
sample
N
GEOLOGICAL BRANCH
ASSESSMENT REPORT
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MAIN SHOWING
see Fig. 7
see Fig. 8+9
CS2
CS3
DS1
DS2
DS4
DS5
agglomerate
5000
5500
4500
4000
augite porphyry
volcanic breccia
basalt
Road Soil Line (A)
augite porphyry cut by E-W trending granitic dykes K-spar veinlets, epidote
lake