GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL REPORT

1990 EXPLORATION PROGRAM

PELICAN PROPERTY

GOSSAN 1 - 9, 22, 25 CLAIMS

Volume 1 of 2

CATHEDRAL GOLD CORPORATION
ECSTALL MINING CORPORATION
CROSS LAKE MINERALS LTD.

LIARD MINING DIVISION

104B/10W

$56^0 33'$N $130^0 51'$W

for
CATHEDRAL GOLD CORPORATION
by
DENNIS GORC

APRIL 1991

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1.0 INTRODUCTION

This report describes the 1990 Exploration Program on the Pelican Property, Iskut River Area of northwestern British Columbia. The field portion of the program was completed during the period August 14-September 14, 1990. Aim of the program was to locate gold-bearing mineralized structures through geophysical and geochemical surveys as well as geological mapping and prospecting. Previous work by Lonestar (1983), Western Canadian (1987), Cathedral Gold Corporation (1988) and Aerodat (1989) had outlined several target areas to focus exploration on. To prepare for the 1990 program a camp was constructed in the central portion of the property. Grids were laid out on several of the target areas. These grids consisted of lines spaced every 100m and marked by wooden pickets every 25m. The geophysical section of this report was written by Mr. Roger Caven, Consulting Geophysicist. Mr. Caven conducted or supervised all of the geophysical surveys.

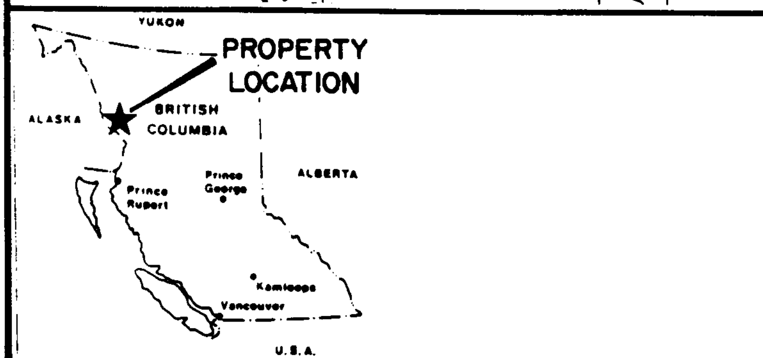
2.0 LOCATION, ACCESS, TOPOGRAPHY

The Pelican Property is located in the Iskut River Area of northwestern British Columbia on NTS map sheet 104B/10W.

The property is located along branches of Snippaker Creek approximately 16 km southeast of the Bronson Airstrip currently servicing the Cominco/Prime Snip Project.

Access to the property is by aircraft from either Smithers (320 km), Terrace (280 km) or Wrangell, Alaska (80 km) to one of three airstrips: Bronson, Johnny Mountain or Snippaker airstrip. The Snippaker airstrip is located along Snippaker Creek 1 km east of the Pelican Property. This strip is still in use but has not been maintained and can be used only by small aircraft. The Bronson airstrip has now been upgraded to enable large aircraft to land. Access to the property is by helicopter from either of the three airstrips. An alternative access route is by helicopter from the Bobquin airstrip - Highway Maintenance camp located along the Stewart-Cassiar Highway, 50 km to the east.

The property occurs within the Coast Range Mountains which are characterized by rugged, steep, glaciated terrain. Elevations on the property range from 600m to 2300m above sea level. The upper elevations are marked by ice caps and valley glaciers. The southwestern



CATHEDRAL GOLD CORPORATION

PELICAN
LIARD M.D.

FIGURE 1 — N.T.S. 104 B/10 W

LOCATION MAP

km 0 — 50 — 100 — 150 — 200 km

SCALE:	1:3,750,000	GEOLOGIST:	D. GORC
DATE:	JUNE, 1989	DRAWN BY:	J. CONKUM

PLATE 1 Pelican Camp looking NW towards Sericite Ridge and SJ Zone

portion of the property is marked by extremely rugged relief with many areas only accessible with mountain climbing gear. Movement about other portions of the property although time consuming is not overly difficult.

Vegetation ranges from thick alder growth along the valley bottoms to alpine grasses along the ridge tops. Stunted (1m-3m) spruce trees cover the slopes to most ridges.

3.0 CLAIM INFORMATION

The Pelican Property is comprised of 11 claim blocks totalling 188 units. The claims are located on NTS map sheet 104B/10W in the Liard Mining Division. The property has been divided into the following groups for assessment purposes:

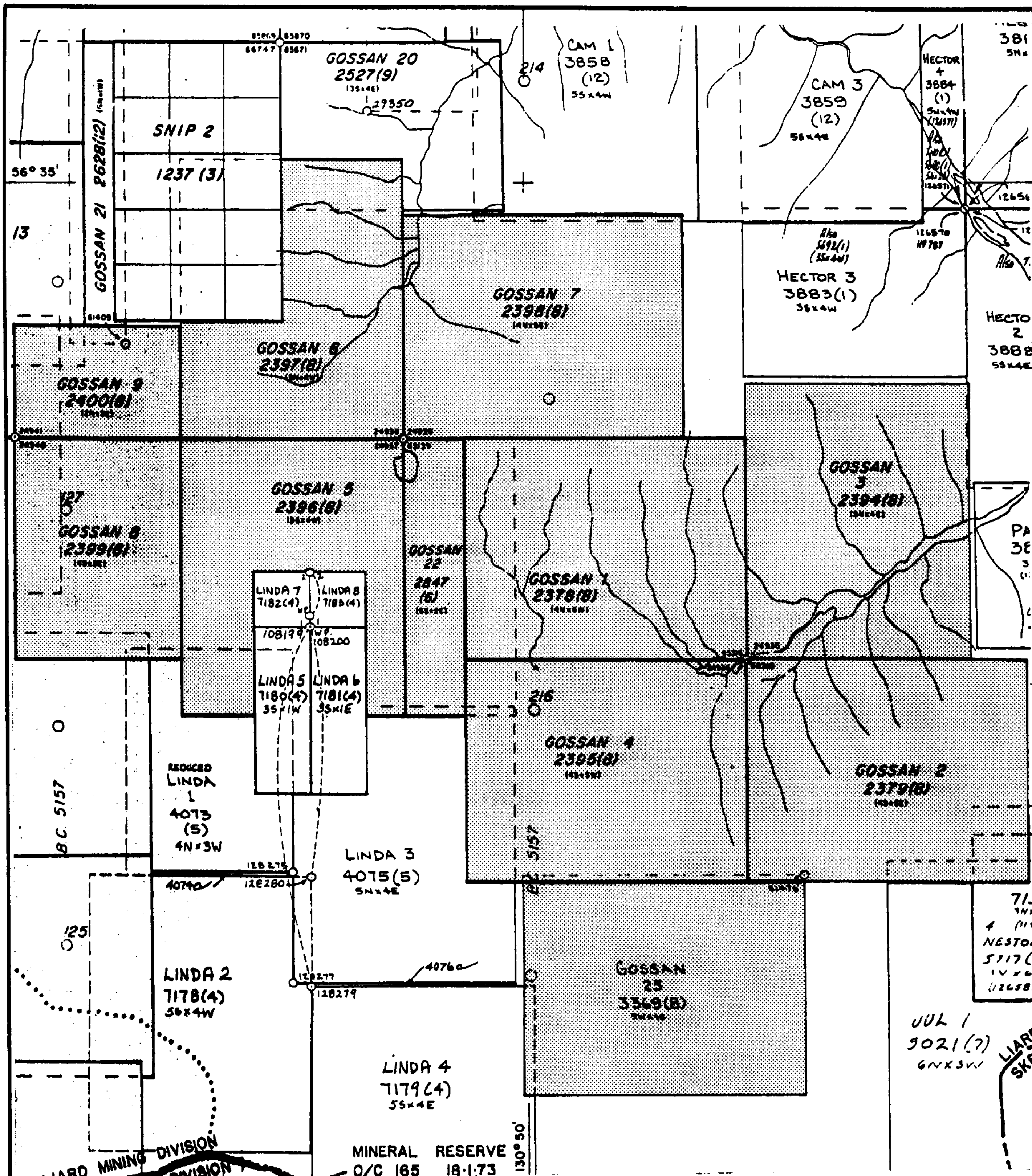
TABLE 1
Claim Information - Pelican Property

GROUP 1

Claim Name	Units	Record No.	Recording Date	Year of Expiry
Gossan 1	20	2378	August 12/82	1994
Gossan 2	20	2379	August 12/82	1993
Gossan 3	20	2394	August 12/82	1993
Gossan 6	20	2397	August 24/82	1999
Gossan 7	20	2398	August 24/82	1993
	100 units			

GROUP 2

Claim Name	Units	Record No.	Recording Date	Year of Expiry
Gossan 4	20	2395	August 24/82	1993
Gossan 5	20	2396	August 24/82	1993
Gossan 8	12	2399	August 24/82	1994
Gossan 9	6	2400	August 24/82	1999
Gossan 22	10	2487	June 30/82	1993
Gossan 25	20	3369	August 13/85	1994
	88 units			



CATHEDRAL GOLD CORPORATION

PELICAN
LIARD M.D.

FIGURE 2 N.T.S. 104 B/10 W

CLAIM MAP

m 0 1000 2000 3000 m

SCALE: 1:50 000
DATE: NOVEMBER 1989

The Pelican Property was staked by Mr. Chris Graf in 1982-83 as part of his Gossan Claim Group. In 1985, Western Canadian Mining Corporation signed an option agreement with Mr. Graf whereby Western Canadian could earn a 60% interest in the Gossan Property. In August 1988, Cathedral Gold Corporation signed an option agreement whereby Cathedral Gold Corporation could earn Western Canadian's 60% interest in two separate portions of the Gossan Property. One of these portions is now called the Pelican Property. In 1990 an agreement was signed with Cross Lake Minerals whereby Cross Lake Minerals could earn an interest in the Pelican Property.

4.0 EXPLORATION HISTORY

Mineral exploration in the area dates back to 1907 with the discovery of mineralization near Johnny Mountain. Since then the area has undergone sporadic episodes of mineral exploration for both precious metals and base metals. One such period was in the 1960-1970s when several of the prominent large gossans were examined as possible copper porphyry targets. One such gossan examined occurs on the ridge abounding the property to the north and east (Sericite Ridge Gossan). This large gossan was first explored by Great Plains Development in 1972. Subsequent work was done by Teck Corporation and Lonestar Resources Ltd. This work included geological mapping, soil geochemical surveys and silt geochemical surveys. Exploration in the area of the Pins Showing located in the southern portion of property was first recorded in 1972 by Cobre Explorations. This work consisted of prospecting, geological mapping, soil geochemical surveys, magnetometer surveys and ground electromagnetic surveys.

The present Pelican Property was staked in 1982-82 by Mr. Chris Graf as part of the larger Gossan Property which extended a further 10 km to the northwest. In 1983, Lonestar Resources Ltd. completed an extensive regional mapping, silt sampling and soil sampling program over the entire Gossan Property.

In 1987, Western Canadian completed a geological mapping, soil sampling and silt sampling program over portions of the Pelican Property.

In 1988, Cathedral Gold completed a rock chip sampling-prospecting program during which 237 rock chip and 383 soil samples were taken. The results returned from this program include: 0.5m wide quartz vein the area within the present Southeast Grid which returned a gold value of 6,205 ppb, a float sample from the Snow Grid area which returned 11,025 ppb Au and mineralized float near the Pelican Grid samples of which returned gold values of up to 2,895 ppb Au.

In 1989, Aerodat Ltd. was contracted to complete an airborne electromagnetic and magnetometer survey over the entire property. This survey outlined several electromagnetic and magnetic anomalies worthy of follow-up.

5.0 REGIONAL GEOLOGY

5.1 Introduction

Past geological mapping in the area by Kerr (1948) and Grove (1971, 1986) is currently being revised and updated by both the Federal and Provincial governments (Anderson, 1989); (Britton et.al, 1990). Although this work is not yet finished there is now a clearer understanding of the geology of the area.

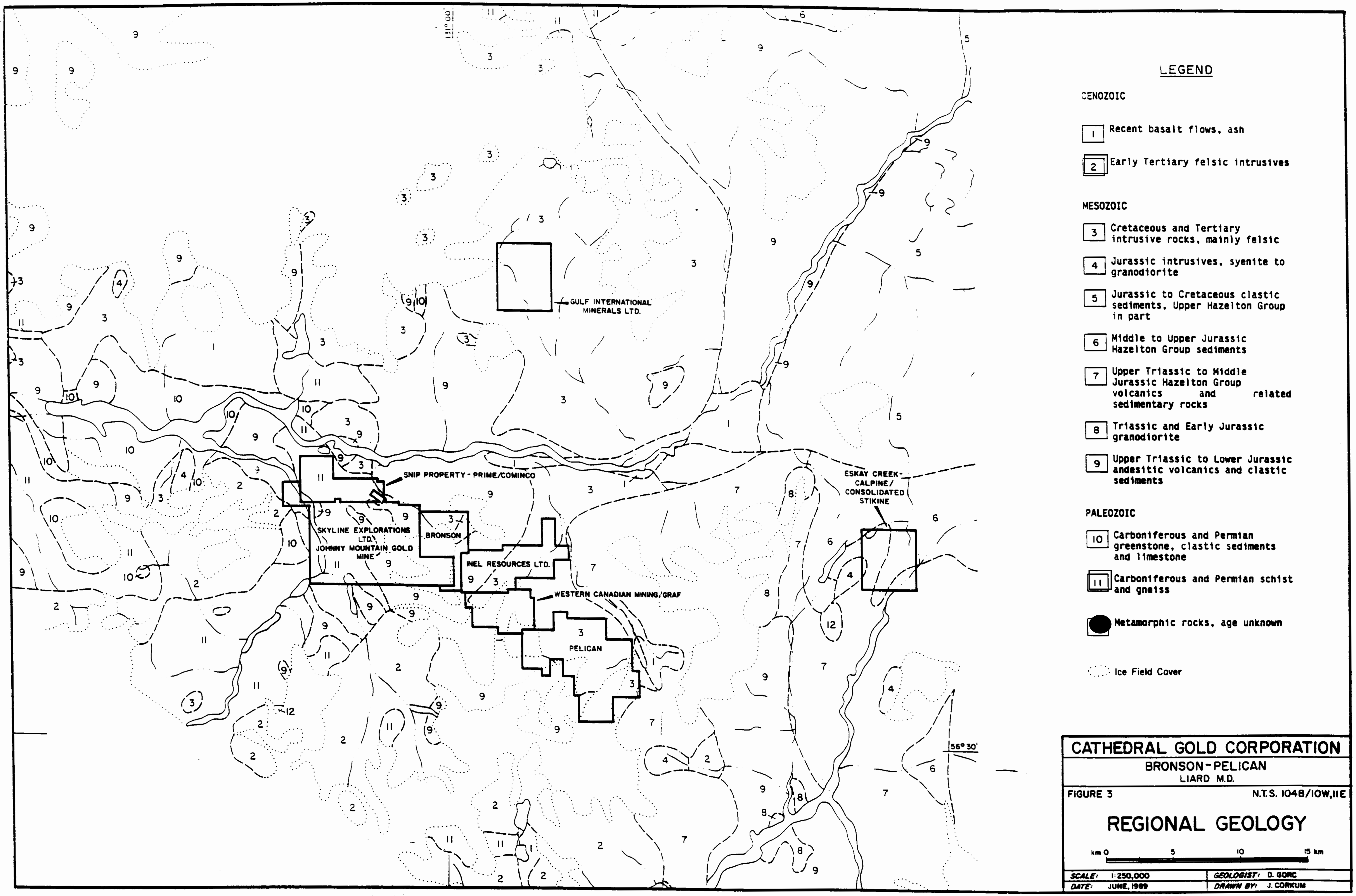
The Iskut map area is located near the boundary of the Intermontane Belt and the Coast Plutonic Complex. Anderson (1989) has proposed four tectonostratigraphic assemblages to define the geology of the area:

1. Tertiary Coast Plutonic Complex
2. Middle-Upper Jurassic Bowser Assemblage
3. Triassic-Jurassic volcanic-plutonic arc assemblage
4. Paleozoic Stikine Assemblage

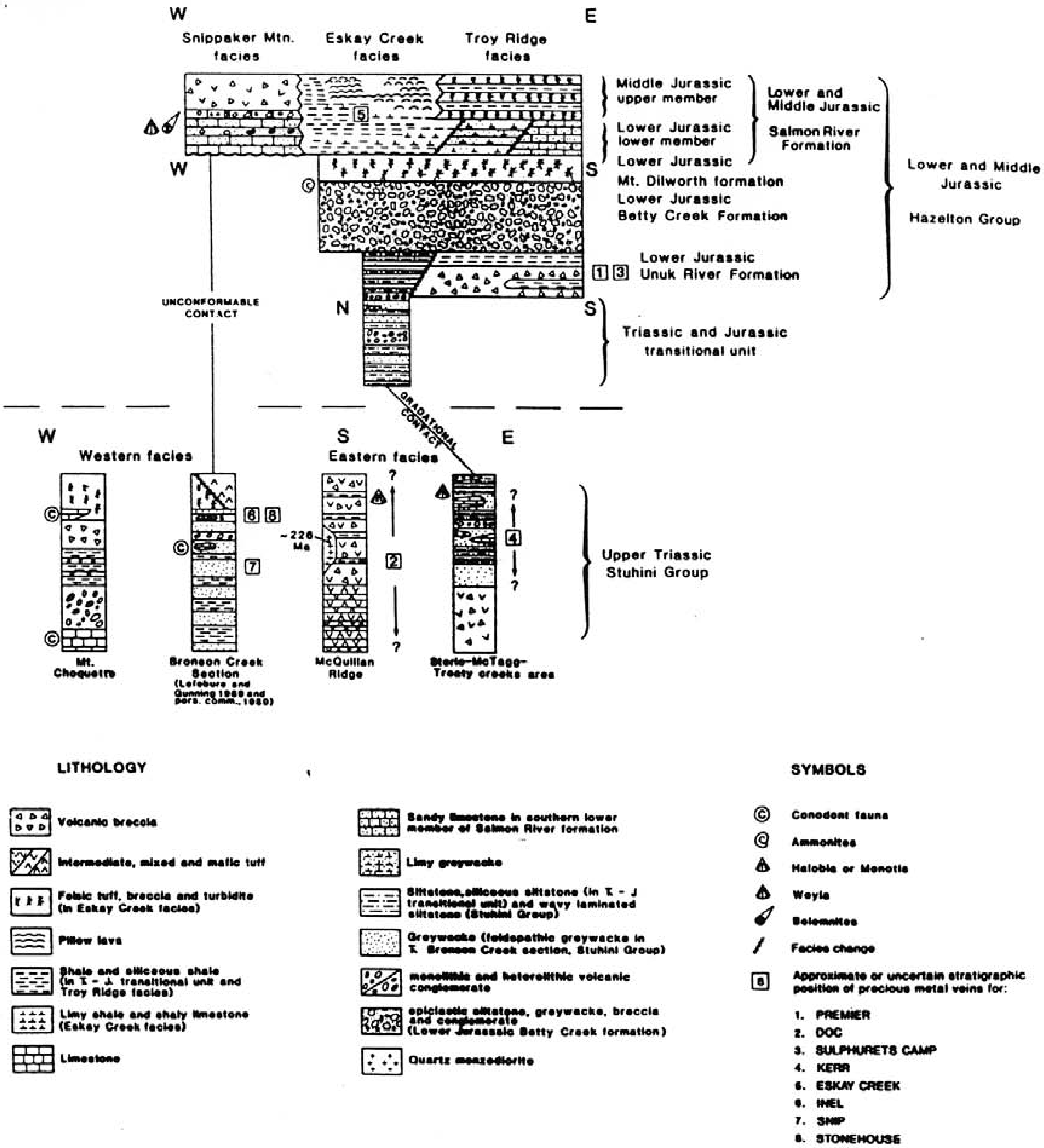
The Pelican Property is underlain by rocks belonging to Triassic-Jurassic volcanic-plutonic arc assemblage within 5-10 km of the Coast Plutonic Complex.

5.2 Triassic-Jurassic Volcanic-Plutonic Arc Assemblage

The Triassic-Jurassic Volcanic-Plutonic Arc Assemblage has been divided into the following stratigraphic units:

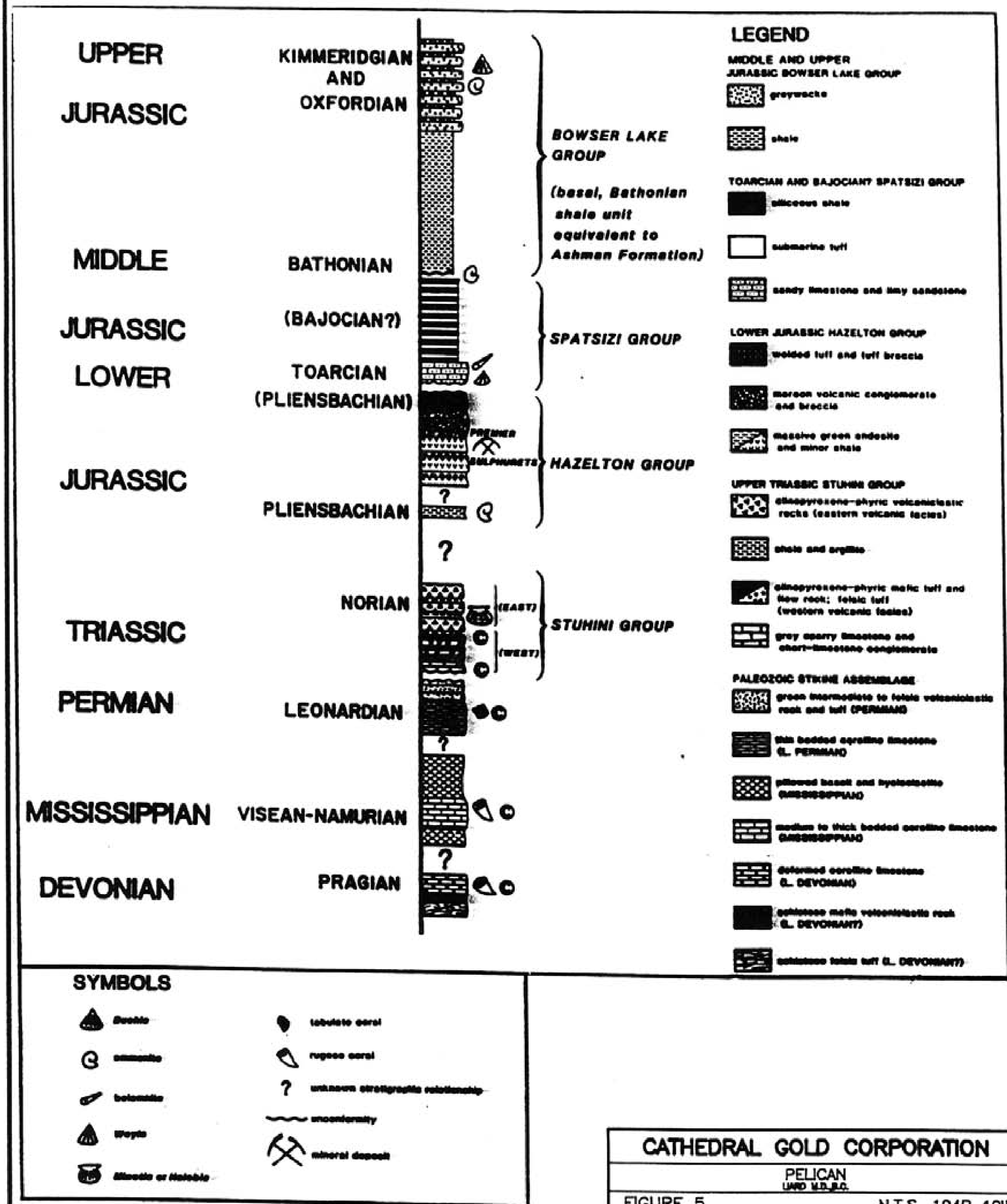


LEGEND
CENOZOIC
1 Recent basalt flows, ash
2 Early Tertiary felsic intrusives
MESOZOIC
3 Cretaceous and Tertiary intrusive rocks, mainly felsic
4 Jurassic intrusives, syenite to granodiorite
5 Jurassic to Cretaceous clastic sediments, Upper Hazelton Group in part
6 Middle to Upper Jurassic Hazelton Group sediments
7 Upper Triassic to Middle Jurassic Hazelton Group volcanics and related sedimentary rocks
8 Triassic and Early Jurassic granodiorite
9 Upper Triassic to Lower Jurassic andesitic volcanics and clastic sediments
PALEOZOIC
10 Carboniferous and Permian greenstone, clastic sediments and limestone
11 Carboniferous and Permian schist and gneiss
Metamorphic rocks, age unknown
Ice Field Cover
GULF INTERNATIONAL MINERALS LTD.
SNIP PROPERTY - PRIME/COMINCO
SKYLINE EXPLORATIONS LTD.
JOHNNY MOUNTAIN GOLD MINE
BRONSON
INEL RESOURCES LTD.
WESTERN CANADIAN MINING/GRAF
PELICAN
ESKAY CREEK-CALPINE/CONSOLIDATED STIKINE
131° 00'
56° 30'
CATHEDRAL GOLD CORPORATION
BRONSON-PELICAN
LIARD M.D.
FIGURE 3
N.T.S. 104B/10W,11E
REGIONAL GEOLOGY
km 0 5 10 15 km
SCALE: 1:250,000
DATE: JUNE, 1989
GEOLOGIST: D. GORC
DRAWN BY: J. CORKUM



After Anderson and Thorkelson (1990)

CATHEDRAL GOLD CORPORATION	
PELICAN	
FIGURE 4	N.T.S. 104B 10W
FACIES CHANGES TRIASSIC–JURASSIC STRATA ISKUT RIVER AREA	
SCALE:	GEOLOGIST: D. GORC
DATE: FEBRUARY 1991	DRAWN BY:



After Anderson (1989)

CATHEDRAL GOLD CORPORATION

PELICAN

FIGURE 5 N.T.S. 104B 10W

STRATIGRAPHIC COLUMN

ISKUT RIVER AREA

	GEOLOGIST: D. GORC
DATE: FEBRUARY 1991	DRAWN BY: D. GORC

a) Upper Triassic Stuhini Group
   i) Eastern Facies
   ii) Western Facies

b) Lower Jurassic Hazelton Group
   i) Unuk River Formation
   ii) Betty Creek Formation
   iii) Mount Dilworth Formation

c) Lower and Middle Jurassic Salmon River Formation

A brief description of the above stratigraphic units follow:

a) Stuhini Group

   i) Eastern Facies:
   This facies grades to the northeast from a largely intermediate to mafic tuff sequence to a sequence containing abundant greywackes and siltstone. This facies lacks the thick limestone and felsic tuff units of the western facies.

   ii) Western Facies:
   This facies consists of a lower unit of limestone and conglomerate which changes towards the east to a largely feldspathic greywacke-siltstone unit at Bronson Creek. This sedimentary unit is overlain by a bimodal volcanic suite consisting of volcanic breccia, limestone and felsic tuff. Overall the character of the sequence becomes more sedimentary towards the east.

b) Hazelton Group

   i) Unuk River Formation:
   This formation consists of andesitic breccias and lavas which grade into siltstones, conglomerates and greywackes west of the Bowser River.

ii) Betty Creek Formation:
This formation contains volcanic-siltstone, greywacke, conglomerate and breccia. A maroon colour characterizes this formation.

iii) Mount Dilworth Formation:
Consisting of felsic tuff, tuff breccia and dust tuff. This unit represents the final episode of Hazelton volcanism.

c) <u>Salmon River Formation</u>

The formation contains a basal calcareous sandstone unit overlain by one of three north trending facies:

i) East - Troy Ridge Facies:
Siltstone shale, tuff turbidite

ii) Central - Eskay Creek Facies:
Pillowed lava, limy to siliceous shale and siltstone

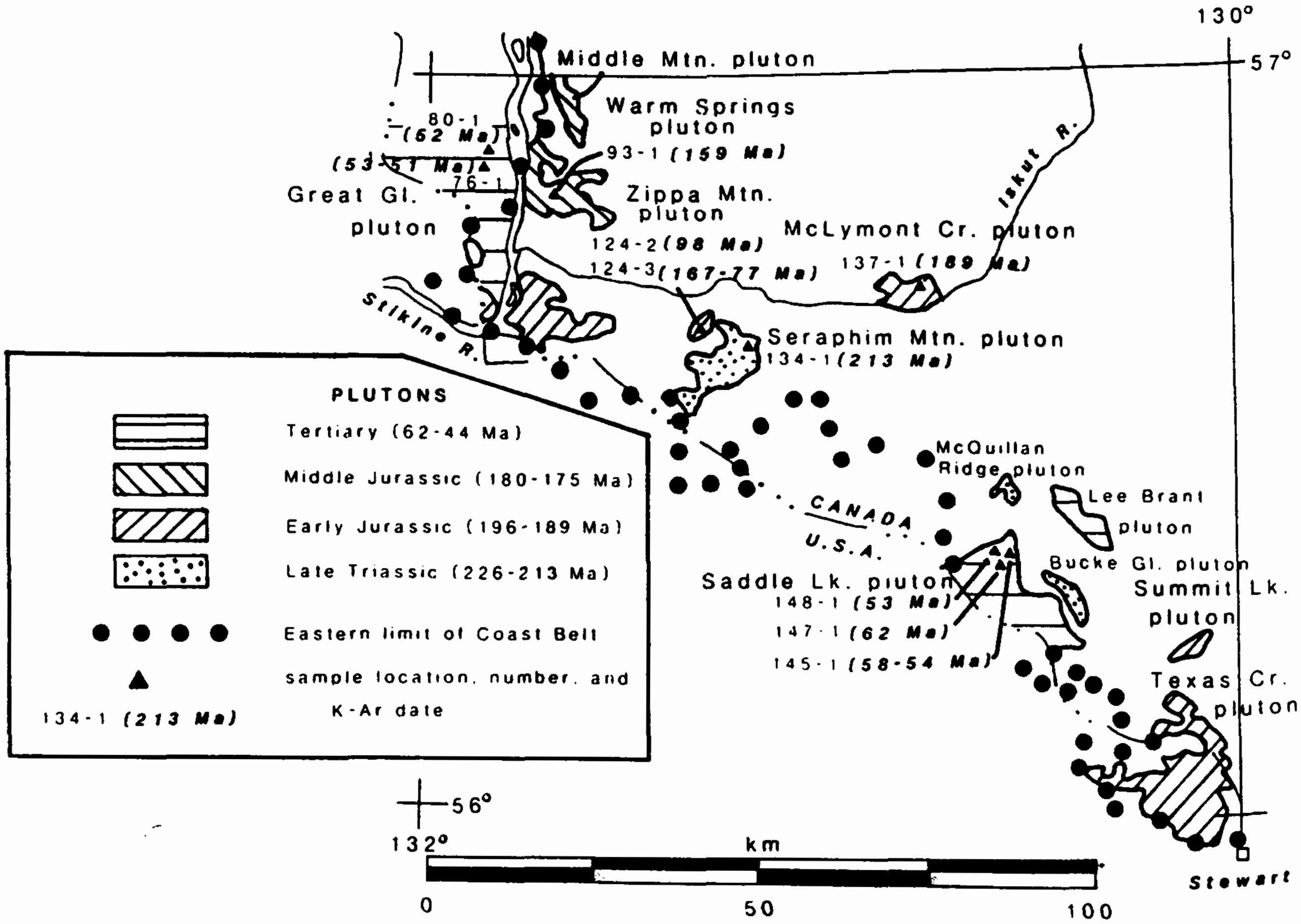
iii) West - Snippaker Mountain Facies:
Andesitic volcaniclastics

5.3 Intrusives

The northwestern area of British Columbia is characterized by four episodes of intrusive activity:

Hyder Suite	(Tertiary)	44-46 My
Three Sisters Suite	(Middle Jurassic)	175-180 My
Texas Creek Suite	(Early Jurassic)	189-196 My
Stikine Suite	(Late Jurassic)	213-226 My

These episodes appear to be coeval with volcanic rocks of the Stuhini Group, Hazelton Group and Salmon River Formation. The composition of plutons, associated with the various intrusive episodes are as follows:



After Anderson and Bevier (1990)

CATHEDRAL GOLD CORPORATION

PELICAN

FIGURE 6 N.T.S. 104B 10W

INSTRUSIVE SUITES
ISKUT RIVER AREA

SCALE:	GEOLOGIST: D. GORC
DATE: FEBRUARY 1991	DRAWN BY: D. GORC

Hyder Suite (Tertiary) - monzogranite, quartz monzonite and granodiorite with minor monzodiorite and microdiorite dykes.

Three Sisters Suite (Middle Jurassic) - Plutons of this age have not yet been recognized in the Iskut River area.

Texas Creek Suite (Early Jurassic) - a) calc-alkaline quartz monzodiorite and granodiorite characterized by widespread chlorite-epidote alteration, b) alkaline syenite often associated with gold and porphyry copper-gold deposits.

Stikine Suite (Late Jurassic) - gabbro, diorite, and quartz monzonite.

5.4 Structure

Detailed structural studies within the Iskut area have not yet been done. Extensive deformation is essentially limited to the Paleozoic strata whereas Mesozoic units are for the most part flatlying. Faults fall into northwesterly, northeasterly and north-south sets. These faults are the most part steep-angled. Recent mapping in the area has also suggested that flatlying faults often occur between rock units of differing competency.

6.0 ECONOMIC GEOLOGY - REGIONAL

6.1 "Golden Triangle" - NW British Columbia

The mineral deposits of the area can be divided into four main classes: vein, porphyry/disseminated, stratabound massive sulphide and skarn. High-grade gold-quartz-base metals veins are by far most abundant type of deposit and have constituted the main exploration target until recently. Recent exploration programs on porphyry targets such as the Kerr property and several properties in the Galore Creek area as well as exploration programs for massive sulphide targets such as Eskay Creek have significantly widened the scope of exploration.

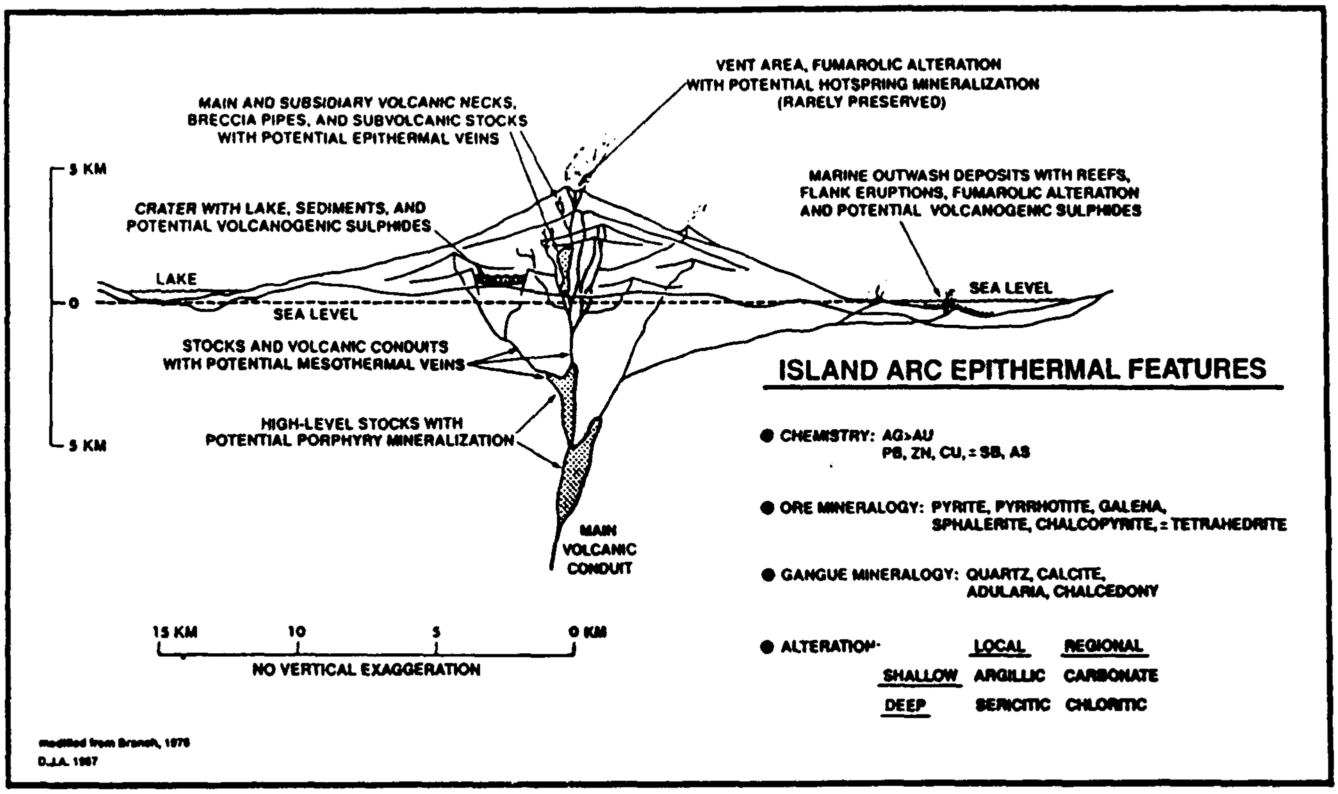


Figure 7. Distribution of ore deposits within a stratovolcano (modified from Branch, 1976).

TABLE 2

CHARACTERISTICS OF SELECTED DEPOSITS IN THE 'GOLDEN TRIANGLE'

DEPOSIT	DEPOSIT TYPE	HOST FORMATION	NEARBY INTRUSIVE	MINERALOGY	TRACE ELEMENTS
SNIP	VEIN	STUHINI GP.	MONZODIORITE	PYRITE	AU
	(SHEAR)	UPPER	-MONZONITE	PYRRHOTITE	AG
	120/60SW	TRIASSIC		SPHALERITE	ZN
		SILTSTONE-	TEXAS CK.	ARSENOPY.	CU
		WACKE	SUITE	GALENA	PB
				MOLYBDENITE	BI
				CHALCOPY.	CD
					AS
					SB
					HG
INEL	VEIN-	STUHINI GP?	FELSITE	PYRITE	AU
	INTRUSIVE	UPPER	STOCK AND	CHALCOPY.	AG
	BRECCIA	TRIASSIC	DYKES	GALENA	ZN
				SPHALERITE	CU
		UNUK RIVER?		PYRRHOTITE	PB
		LOWER JURASSIC			AS
					SB
		ANDESITIC			BI
		TO BASALTIC			
		TUFFS AND			
		SEDIMENTS			
STONEHOUSE	VEIN	SIMILIAR	SIMILIAR	PYRITE	AU
-JOHNNY	065	TO INEL	TO INEL	CHALCOPY.	AG
MTN.				SPHALERITE	CU
				GALENA	PB
					ZN
SILBACK-	VEINS	UNUK RIVER	PORPH.	PYRITE	AU
PREMIER	STOCKWORK		DACITE	SPHALERITE	AG
	BRECCIA		GRANODIORITE	CHALCOPY.	CU
		ANDESITE		TETRAHED.	PB
	MAIN-050	DACITE		GALENA	ZN
	WEST-290	FLOWS,TUFFS,		ARSENOPY.	AS
		BRECCIAS		PYRRHOTITE	

DEPOSIT	DEPOSIT TYPE	HOST FORMATION	NEARBY INTRUSIVE	MINERALOGY	TRACE ELEMENTS
MCLYMONT	VEIN AND	MISS. OR	QUARTZ	PYRITE	AU
NORTHWEST	MANTOS	PERMIAN	SYENITE	SPHALERITE	AG
	REPLACEMENT	SANDSTONE	AT DEPTH	GALENA	CU
	?	CHERT		CHALCOPY.	PB
	SKARN ?	MARBLE		BARITE	ZN
					AS
					BA
				GYPSUM	SB
				MAGNETITE	SB
				TETRAHED.	BI
ESKAY	STRATABOUND	MOUNT	FELDSPAR	PYRITE	AU
CREEK	MASSIVE	DILWORTH	PORPH.	SPHALERITE	AG
	SULPHIDES	SALMON		GALENA	PB
		RIVER		ARSENOPY.	ZN
	VEINS	LOWER TO		STIBNITE	CU
	STOCKWORK	MIDDLE		CINNABAR	AS
		JURASSIC		TERAHED.	SB
				ORPIMENT	HG

The vein deposits occur at a variety of stratigraphic levels from the Permian/Mississippian (e.g. McLymont Creek) to the lower Middle Jurassic (e.g. Eskay Creek). With the exception of the Eskay Creek, which is now believed to be at least in part a massive sulphide deposit, the deposits do not appear related to specific stratigraphic horizons but several do appear to be related to Early Jurassic intrusions (Texas Creek Suite) (Premier, Kerr, Inel, Snip). In Table 2 some characteristics of several vein deposits are listed.

6.2 Bronson Trend

In the Iskut Gold Camp gold mineralization has been discovered within a NW-SE trending corridor approximately 2 km in width extending from Cominco/Prime's Snip deposit to Cathedral Gold's Pelican Property. Mineralized zones discovered to date include:

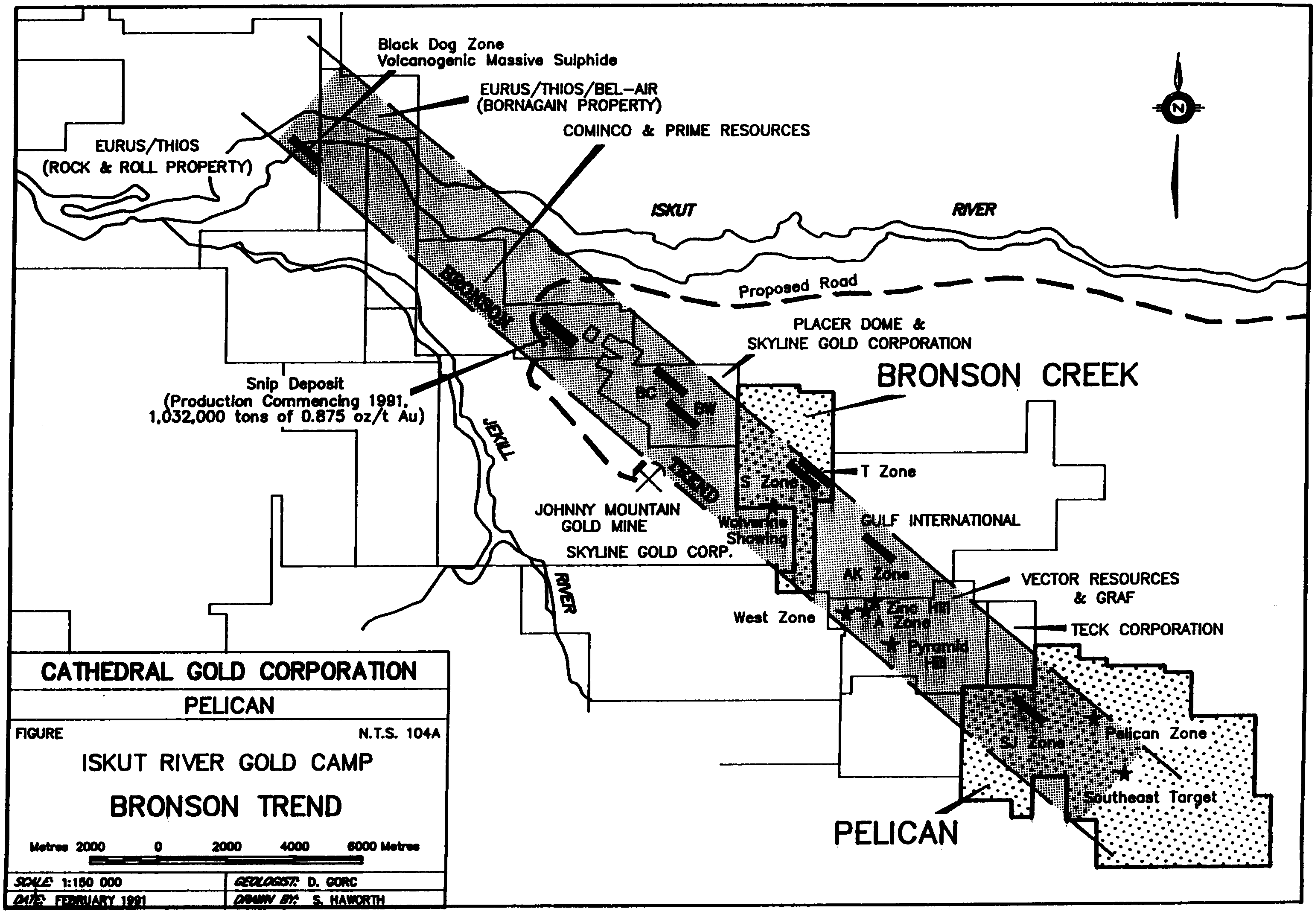
a) Snip (Twin Zone) - Cominco/Prime
b) Bronson Creek and Bonanza West - Placer Dome/Skyline
c) S and T Zones - Cathedral Gold Corporation/Ecstall Mining
d) AK Zone - Gulf International
e) Khyber - Vector Industries International/Graf
f) SJ - Cathedral Gold Corporation/Ecstall Mining

The above mineralized zones all trend NW-SE and appear to have similar mineralogy: gold, pyrite, pyrrhotite, sphalerite, chalcopyrite, galena, calcite and quartz.

THe information and data on this corridor obtained to date is insufficient as to why this corridor should be the focus of these mineralized zones. However it seems quite likely that additional exploration will uncover additional gold mineralization within the corridor.

A few kilometres southwest of the "Bronson Trend" workers in the area have mapped a major fault, the Sky Fault, which parallels the "Bronson Trend". The Sky Fault may have some economic significance in that no substantial mineralization has been found west of the Sky Fault.

PLATE 2 Bronson Trend - Looking NW from Pelican Property towards Brinco's Pyramid and Khyber Zones


Black Dog Zone
Volcanogenic Massive Sulphide
EURUS/THIOS/BEL-AIR
(BORNAGAIN PROPERTY)
COMINCO & PRIME RESOURCES
EURUS/THIOS
(ROCK & ROLL PROPERTY)
ISKUT
RIVER
Proposed Road
BRONSON
TREND
PLACER DOME &
SKYLINE GOLD CORPORATION
BRONSON CREEK
Snip Deposit
(Production Commencing 1991,
1,032,000 tons of 0.875 oz/t Au)
BC
BW
JEKILL
RIVER
T Zone
S Zone
JOHNNY MOUNTAIN
GOLD MINE
SKYLINE GOLD CORP.
Wolverine
Showing
GULF INTERNATIONAL
AK Zone
VECTOR RESOURCES
& GRAF
West Zone
Zinc Hill
A Zone
Pyramid
Hill
TECK CORPORATION
SJ Zone
Pelican Zone
Southeast Target
PELICAN
N
CATHEDRAL GOLD CORPORATION
PELICAN
FIGURE
N.T.S. 104A
ISKUT RIVER GOLD CAMP
BRONSON TREND
Metres 2000 0 2000 4000 6000 Metres
SCALE: 1:150 000
GEOLOGIST: D. GORC
DATE: FEBRUARY 1991
DRAWN BY: S. HAWORTH

7.0 PROPERTY GEOLOGY

7.1 Introduction

The volcanic and sedimentary rocks on the property were divided into the following lithological units by Lonestar Resources (1984):

a) Black Argillite Unit (BA)
b) Banded Siltstone Unit (BS)
c) Green Volcanic Unit (GB)

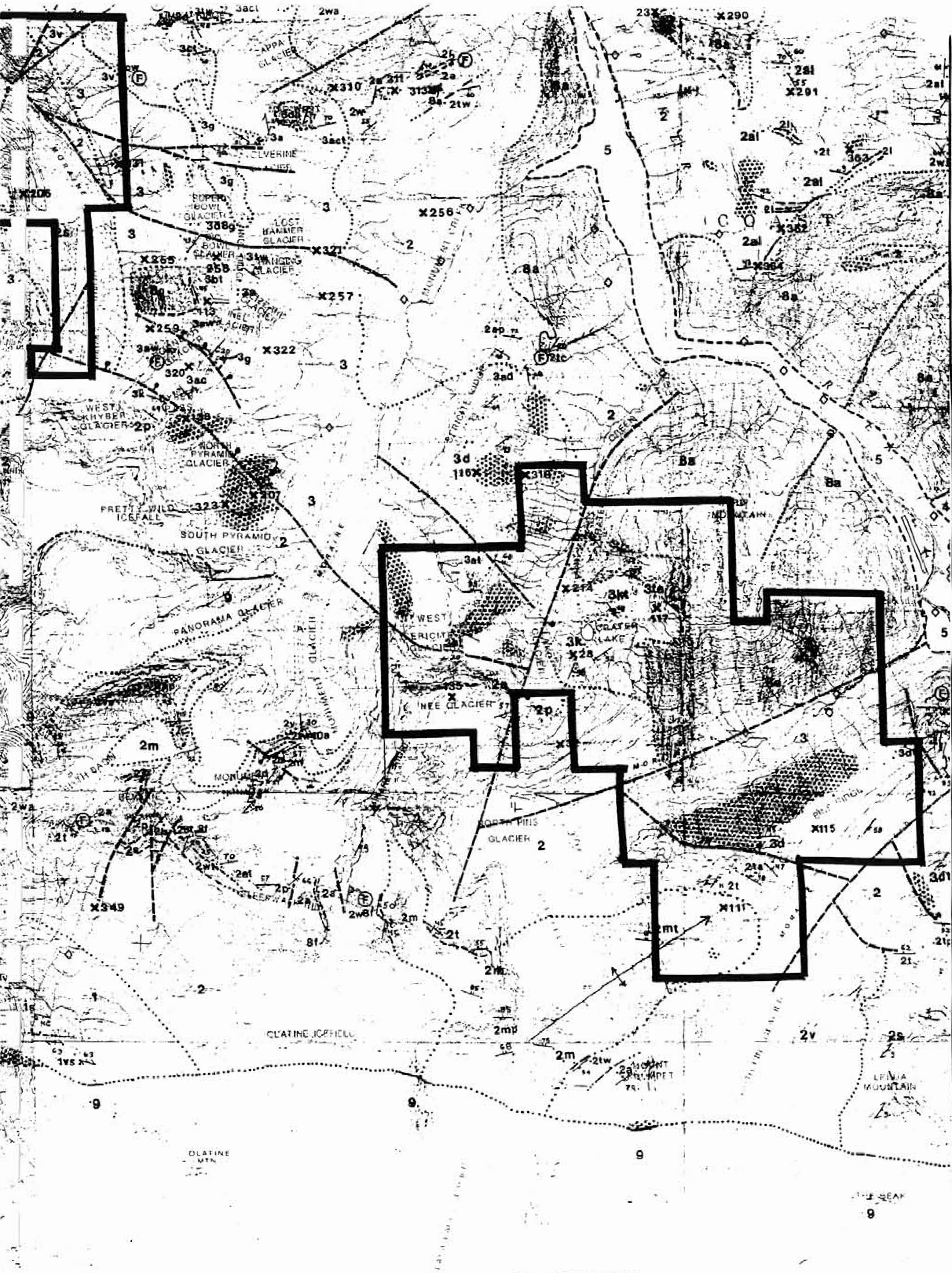
Alldrick et al (1990) in their recent geological mapping of the area have mapped most of the volcanic-sedimentary rocks on the property as belonging to the Jurassic Hazelton Group with the exception of the area south of the Sky Fault and west of "Southeast" Creek where they mapped the rocks as belonging to the Triassic Stuhini Group.

Lonestar Resources (1984) divided the intrusive rocks on the property into five suites:

a) Granodiorite-Diorite
b) Orthoclase Porphyry
c) Felsite Dykes
d) Coast Range Batholith
e) Alkali Basalt Dykes

Alldrick et al (1990) defined the following intrusive episodes in the immediate area of the property.

a) Triassic hornblende diorite dykes and plugs associated with adjacent Triassic volcanics.
b) Jurassic hypabyssal stocks and plutons. They include the Lehto Batholith, which underlies much of the northeastern portion of the property, within this intrusive category. Other stocks of this type have been mapped on the Johnny Mountain, Snip, Inel and Khyber properties and there is evidence that the significant mineralization occurring on these properties is directly related to these intrusives. The orthoclase porphyry plugs and dykes mapped on the Pelican property would be included in the above intrusive type.
c) Felsite, basaltic, andesitic sills and dykes.



GEOLOGY AND MINERAL DEPOSITS OF THE SNIPPAKER AREA

NTS 104B/6E, 104B/7W, 104B/10W, 104B/11E

GEOLOGY BY
D.J. ALLDRICK, J.M. BRITTON, M.E. MACLEAN, K.D. HANCOCK, B.A. FLETCHER AND S.N. HIEBERT

SCALE 1:50 000

CONTOUR INTERVAL 100 FEET

MAGNETIC DECLINATION (1982) 27° EAST

LEGEND

GOSSANOUS ALTERATION ZONES

Pyrite ± quartz ± sericite ± carbonate ± clay; locally foliated to schistose

INTRUSIVE ROCKS

TERTIARY

10 *POST-TECTONIC DYKES (Narrow, not shown)*

- *10a* Lamprophyre, andesite, diabase
- *10b* Leucogranite: holofelsic, quartz-rich, fine to coarse-grained
- *10c* Hoodoo dykes: basaltic dykes related to Quaternary extrusives

9 *COAST PLUTONIC COMPLEX:* Medium to coarse-grained biotite granite; biotite ± hornblende granodiorite; minor quartz diorite; locally foliated along margins

JURASSIC

8 *TEXAS CREEK PLUTONIC SUITE:* Fine to coarse-grained, quartz diorite, monzodiorite, quartz monzonite; syn to post-volcanic intrusions. Porphyritic to phaneritic textured; possibly hypabyssal equivalents of extrusive rocks

- *8a* Lehto Batholith: coarse K-feldspar ± hornblende porphyritic monzodiorite; equigranular monzonite and quartz diorite
- *8b* Bronson Stock: coarse K-feldspar porphyry hornblende monzodiorite to monzonite
- *8c* Red Bluff Stock: coarse K-feldspar porphyry hornblende monzodiorite to monzonite
- *8d* Iskut Stock: coarse K-feldspar porphyry hornblende monzodiorite to monzonite
- *8e* Gregor Stock: coarse K-feldspar porphyry hornblende monzodiorite to monzonite
- *8f* Isolated K-feldspar-porphyry dykes and sills (Narrow, not shown)
- *8g* Felsite: (Age unknown) hypabyssal sills, stocks and related dyke swarms; leucocratic to holofelsic; fine-grained feldspar ± quartz phenocrysts set in an aphanitic groundmass

TRIASSIC

7 *STIKINE PLUTONIC SUITE:* Foliated to massive, fine to medium-grained hornblende-biotite quartz diorite

- *7a* Mount Verrett Stock: medium to dark grey-green, fine-grained, plagioclase phyric diorite; extensively recrystallized
- *7b* Jekill River Stocks: fine to medium-grained hornblende diorite; variably recrystallized
- *7c* Synvolcanic sills and dykes; melanocratic, fine-grained; recrystallized

VOLCANIC AND SEDIMENTARY ROCKS

(Note: No stratigraphic order is implied within sequences.)

QUATERNARY

RECENT

6 *UNCONSOLIDATED SEDIMENTS:* Alluvium, glaciofluvial deposits, landslide debris, moraine

PLEISTOCENE TO RECENT

5 *BASALT FLOWS AND TEPHRA:* Dark grey to black, olivine and plagioclase phyric basalt flows and tephra

VOLCANIC AND SEDIMENTARY ROCKS (continued)

JURASSIC

HAZELTON GROUP

MIDDLE JURASSIC

4 *SILTSTONE SEQUENCE (Salmon River Formation):* Dark grey, well-bedded siltstone; minor sandstone

LOWER JURASSIC

3 *UPPER VOLCANOSEDIMENTARY SEQUENCE:* Heterogeneous, grey, green, rarely purple or maroon, massive to bedded pyroclastic and sedimentary rocks. Green and grey, intermediate to mafic volcaniclastics and flows intercalated with fine-grained immature sedimentary rocks. Locally thick conglomerates. Limestone rare or absent.

Includes equivalents of Unuk River, Betty Creek and Mount Dilworth formations. In the Snippaker-Johnny Mountain area an upper package of felsic volcanics (consisting of units 3d, 3b, 3g and 3dh) is probably correlative with the combined Betty Creek and Mount Dilworth formations of the Sulphurets map area (see Hancock, 1990, and MacLean, 1990).

- *3v* Undifferentiated, mainly volcanic rocks
- *3a* Green and grey, massive to poorly bedded andesite; ash tuff to tuff breccia; feldspar ± hornblende phyric
- *3b* Dark green, basaltic-andesite tuffs and flows
- *3d* Grey, green and purple dacitic tuff, lapilli tuff, crystal and lithic tuff; massive to well bedded, feldspar phyric; locally welded
- *3g* Light grey and green dacite crystal and lapilli tuffs with minor hematitic stringers (Snippaker-Inel Ridge)
- *3k* K-feldspar-plagioclase ± hornblende porphyritic andesitic to dacitic tuffs and flows ("Premier Porphyry")
- *3s* Undifferentiated, mainly sedimentary rocks
- *3t* Black, thinly bedded siltstone (turbidite), shale ,argillite, mudstone
- *3h* Maroon, hematitic mudstone with calcareous concretions
- *3w* Grey, brown and green tuffaceous wacke; variably bedded
- *3c* Conglomerate and volcanic conglomerate; polymictic, locally orange-weathering

TRIASSIC

STUHINI GROUP

UPPER TRIASSIC

2 *LOWER VOLCANOSEDIMENTARY SEQUENCE:* Medium to dark green, mafic to intermediate volcanic and volcaniclastic rocks and thick sequences of brown, black and grey, immature sedimentary rocks; minor limestone as beds, lenses and clasts

- *2v* Undifferentiated, mainly volcanic rocks
- *2a* Grey and green, plagioclase ± hornblende ± pyroxene phyric andesite
- *2p* Grey and green, pyroxene ± feldspar porphyritic andesite; rare pillow breccia
- *2m* Melanocratic, pyroxene-rich basalt and andesite; tuff, tuff-breccia, debris flows; with intercalated pyroxene-bearing wacke and conglomerate
- *2y* Light grey-green, waxy, dacitic pyroxene-plagioclase crystal and lapilli tuffs (Winslow Ridge)
- *2i* Aphyric andesitic tuffs and lapilli tuffs (Winslow Ridge)
- *2f* Light weathering, felsic tuffs and breccias
- *2s* Undifferentiated, mainly sedimentary rocks
- *2t* Black, thinly bedded siltstone and fine sandstone (turbidite); shale; argillite
- *2w* Grey, brown and green tuffaceous wacke; variably bedded; locally calcareous
- *2c* Conglomerate and volcanic conglomerate; polymictic
- *2l* Grey, variably bedded limestone (mostly recrystallized); locally silty or sandy

PALEOZOIC

STIKINE ASSEMBLAGE

1 *DEFORMED METAMORPHIC ROCKS (May include some Triassic strata):* Phyllite; fine-grained schist and gneiss. Metamorphosed tuffaceous siltstone and sandstone with interbeds of marble and quartzite. Metamorphosed volcanic rocks are distinguished by relict volcaniclastic textures.

- *1s* Mica-rich schist and phyllite; probable sedimentary protolith
- *1l* Marble (recrystallized limestone); massive to thinly layered
- *1q* White, fine-grained quartzite
- *1g* Grey, fine-grained, biotite-rich quartzofeldspathic gneiss
- *1m* Fine-grained, migmatitic amphibolite and quartzofeldspathic gneiss (xenolith in Coast Plutonic Complex)

7.2 Rock Types

7.2.1 Volcanic - Sedimentary

7.2.1.1 Black Argillite Unit (BA)

This unit is the lowermost litho-stratigraphic unit and is largely restricted to the area of the Pins Ridge in the southern part of the property. The unit consists of black, generally well bedded argillite.

7.2.1.2 Banded Siltstone Unit (BS)

This unit overlies the Black argillite unit and consists of thinly bedded siltstone with thin (1 to 3 cm) alternating bands of finer and coarser material giving the unit a distinctly banded appearance. Occasional 1-3m horizons of greywacke occur.

7.2.1.3 Green Volcanic Unit (GB)

This unit overlies the Banded Siltstone Unit and consists of andesitic to basaltic pyroclastics and breccias. The unit characteristically has a green colour.

One should not that Alldrick et al (1990) have mapped some of volcanics in the Pins-Snow-Lake area of the property as "Premier" Porphyry. Such rocks have been mapped near several of the significant deposits of the "Golden Triangle".

7.2.2 Intrusive Rocks

7.2.2.1 Granodiorite-Diorite

These rocks occur as small stocks and dykes throughout the property. These rocks are generally fine to medium grained and occasionally magnetic.

7.2.2.2 Orthoclase Porphyry

The term "orthoclase porphyry" was first termed by J. Kerr (1948) to describe the distinctive porphyritic intrusive occurring throughout the Iskut area. This intrusive is characterized by very large orthoclase phenocrysts (1-3 cm). Such intrusives are often associated with sericitization and pyritization both within the intrusive. Such alteration is most common with the smaller bodies.

7.2.2.3 Felsite and Alkali Basalt Dykes

Light coloured fine grained siliceous dykes have been mapped on Sericite Ridge but have not been mapped on the Pelican Property.

Very dark coloured basalt dykes up to 2m thick have been mapped on the property, although few in number. The dykes are fine grained and magnetic.

7.3 Alteration

7.3.1 Sericite Alteration

Sericite-pyrite alteration largely occurs within the Banded Siltstone Unit associated with shears and over much larger areas along Sericite Ridge. The intensity of alteration and the amount of disseminated pyrite varies.

Such alteration is less commonly found within the Green Volcanic Unit although Western Canadian (1987) mapped an area of sericite-altered volcaniclastics in the North Sericite area of the property.

7.3.2 Silicification, Pyritization

Areas of intense quartz veining and silica flooding occurring throughout the property. Such zones also contain a variable amount of disseminated pyritic.

These zones are generally associated with small shears and faults. For the most part, they are quite narrow and not extensive.

Some of the more extensive zones of silicification occur in the Snow and Lake target areas. Such alteration is often intermixed within sericite-pyrite alteration especially near the SJ Zone.

7.4 Structure

The structural history of the area has not yet been determined. Regionally four sets of faults have been mapped:

a) Northwest-Southwest

Since all significant mineralization in the Iskut Camp is structurally controlled the presence of shears and faults is an important feature of any property. Within the "Bronson" Trend NW-SE structures appear to be especially significant as the larger mineralized zones all occur along such structures. On the Pelican property one of the larger of these structures is associated with the SJ Zone.

The "Sky" Fault is one of the most extensive of the faults and extends from Johnny Mountain through the Pelican property to the Pins Ridge.

b) North-South

Such faults are very prominent in the Pelican property especially within the Sericite, Lake, Pelican and Snow portions of the property.

c) Northeast-Southwest

These faults are generally younger than the other sets and often offset the other faults. Mineralization has also been found along such faults in the Iskut Region.

On the Pelican property at least three of these faults have been mapped. These faults occur along the three major drainages of the property.

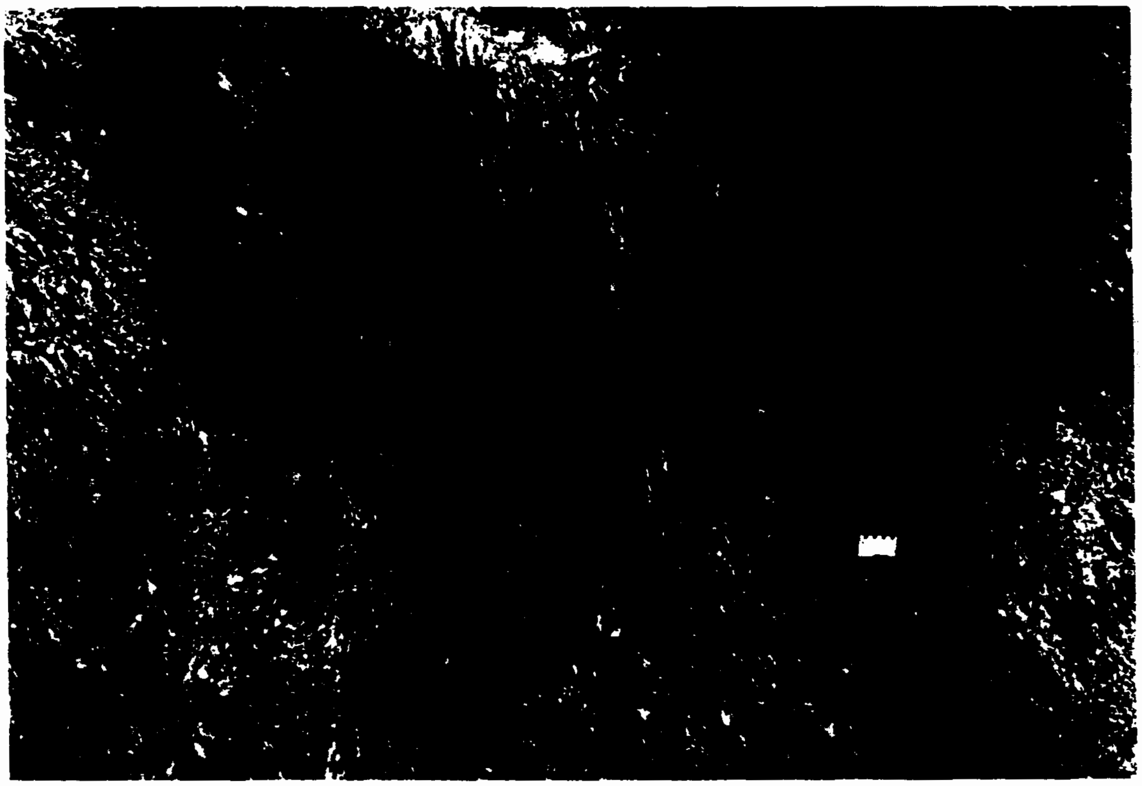


PLATE 3 Strong Shear - Southeast Grid (Sample Site)

d) Flat Faults

Flat faults have been mapped in the area largely near the contact between volcanic and sedimentary sequences. Examples of such include those occurring on the Inel and Johnny Mountain properties.

On the Pelican property such faults were noted on the Pelican Grid and SJ Zones.

7.5 Mineralization

7.5.1 SJ Zone

Talus fines samples in 1990 returned up to 3,090 ppb Au and defined a 200m (+) area of greater than 500 ppb Au. In 1990 a prominent, 5m wide NW-SE shear was mapped along the upper edge of this anomalous area. The shear dips moderately to the southwest.

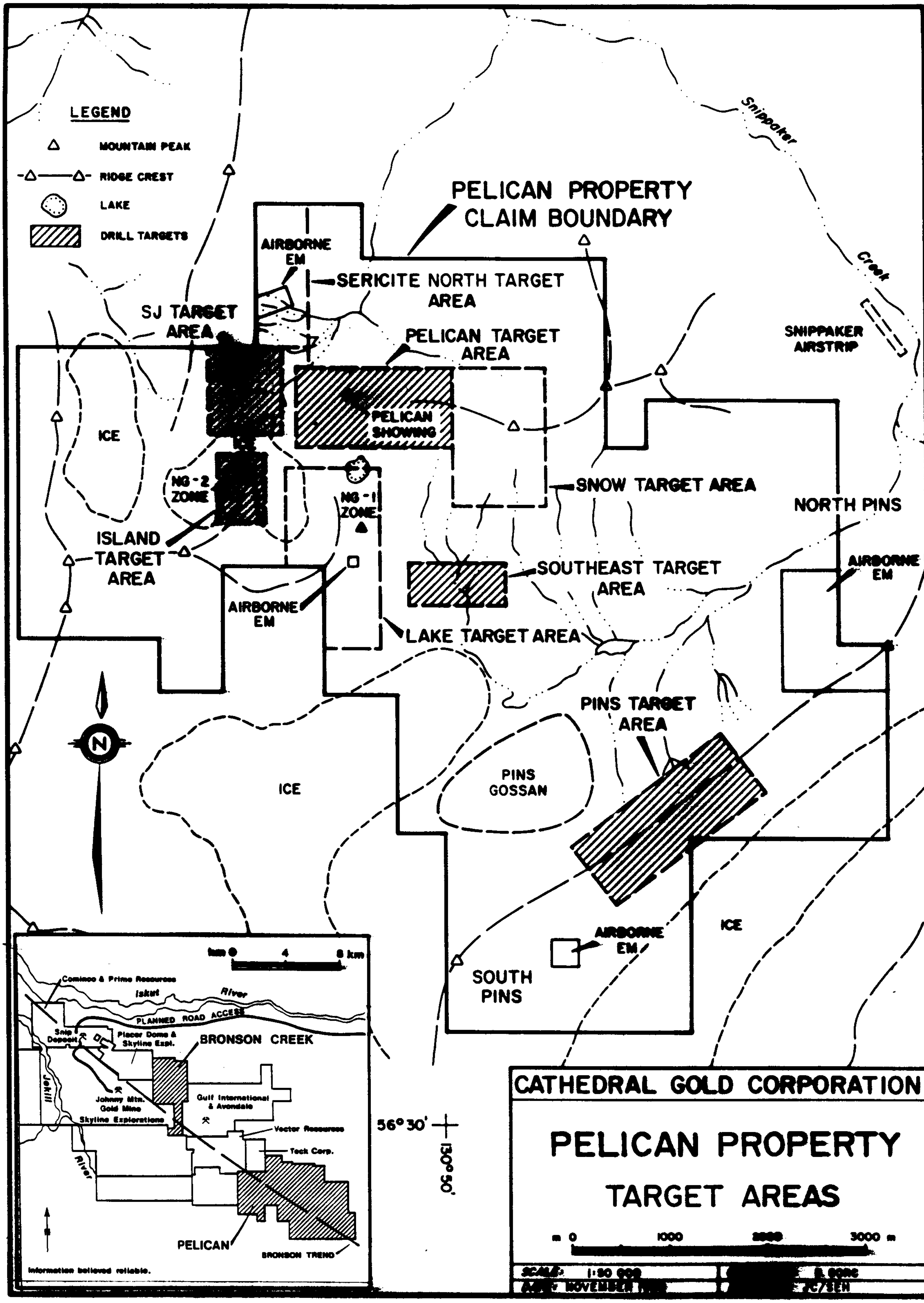
The area is underlain by rocks of the Banded Siltstone unit which has been variably affected by sericite alteration and silica flooding. Disseminated pyrite occurs throughout and appears to increase with more intense alteration. Pyrite content varies between 2%-10% although the presence of numerous iron stained vugs suggests that much pyrite has been leached from surface exposures.

Rock samples from the shear and nearby sericite-silica-pyrite rock returned anomalous gold, copper and zinc including highs of 340 ppb Au, 478 ppm Cu and 351 ppm Zn.

A sample of a (8 cm thick) galena vein (J-113) returned 6,910 ppb Au and 39.4 ppm Ag. The underlying 10 cm of sericite-silica-pyrite rock with 70% disseminated pyrite returned 2,180 ppb Au.

7.5.2 Southeast Grid

In 1988 a sample (J-88-82) of a 0.5m wide quartz-pyrite vein within the Southeast grid area returned 6,205 ppb Au. The vein occurs along a NE-SW structure. Additional mapping in 1990 discovered similar but narrow quartz-pyrite veins (2-10% pyrite) also trending NE-SW.



LEGEND
MOUNTAIN PEAK
RIDGE CREST
LAKE
DRILL TARGETS
PELICAN PROPERTY
CLAIM BOUNDARY
AIRBORNE EM
SERICITE NORTH TARGET AREA
SJ TARGET AREA
PELICAN TARGET AREA
PELICAN SHOWING
ICE
NG-2 ZONE
NG-1 ZONE
ISLAND TARGET AREA
SNOW TARGET AREA
NORTH PINS
SOUTHEAST TARGET AREA
AIRBORNE EM
LAKE TARGET AREA
Snippaker Creek
SNIPPAKER AIRSTRIP
PINS TARGET AREA
PINS GOSSAN
ICE
ICE
AIRBORNE EM
SOUTH PINS
N
km 0 4 8 km
Cominco & Prime Resources
Iskut River
PLANNED ROAD ACCESS
Snip Deposit
Placer Dome & Skyline Expl.
BRONSON CREEK
Jekill River
Johnny Mtn. Gold Mine
Skyline Explorations
Gulf International & Avondale
Vector Resources
Teck Corp.
PELICAN
BRONSON TREND
Information believed reliable.
56° 30'
130° 50'
CATHEDRAL GOLD CORPORATION
PELICAN PROPERTY
TARGET AREAS
m 0 1000 3000 m
SCALE: 1:50 000
[redacted]
JC/SEH

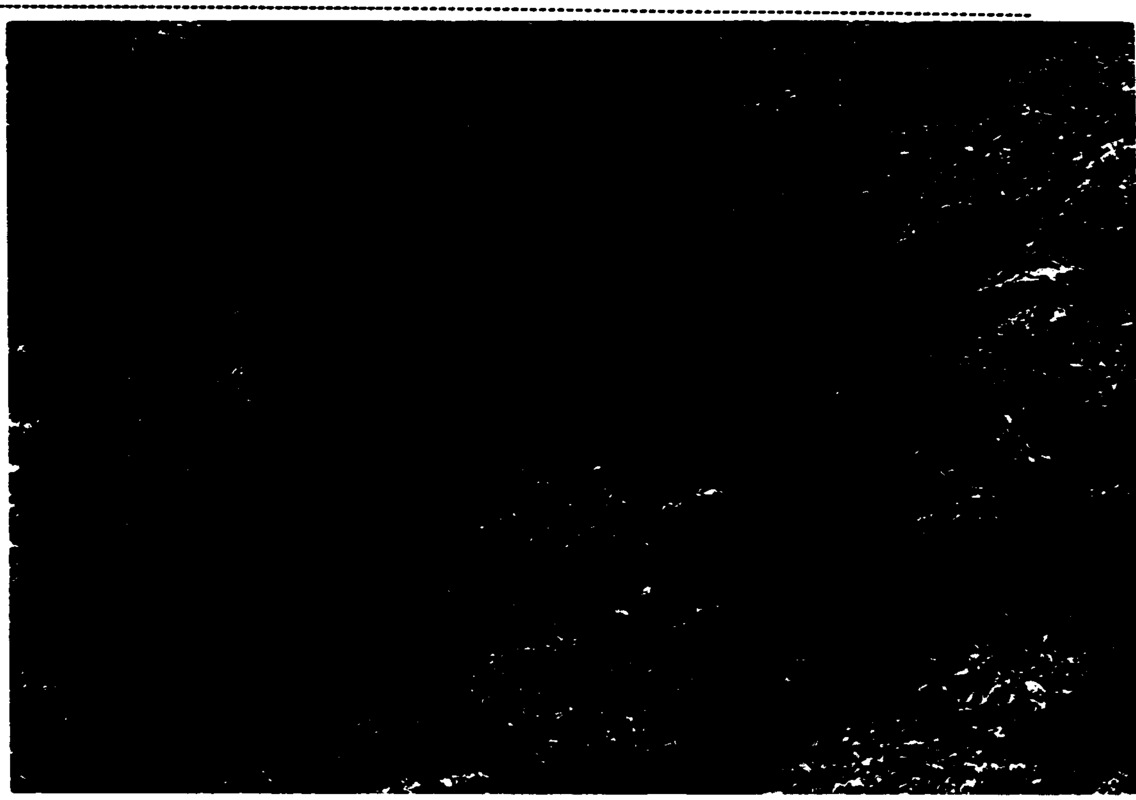


PLATE 4

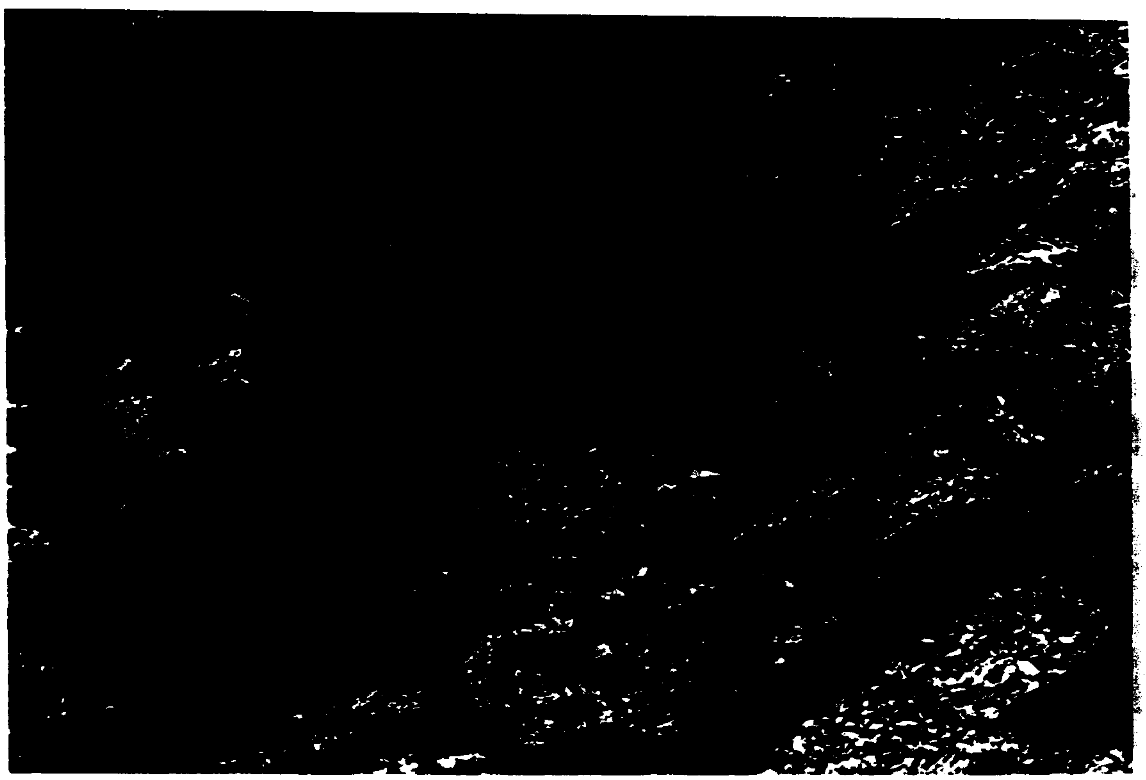


PLATE 5

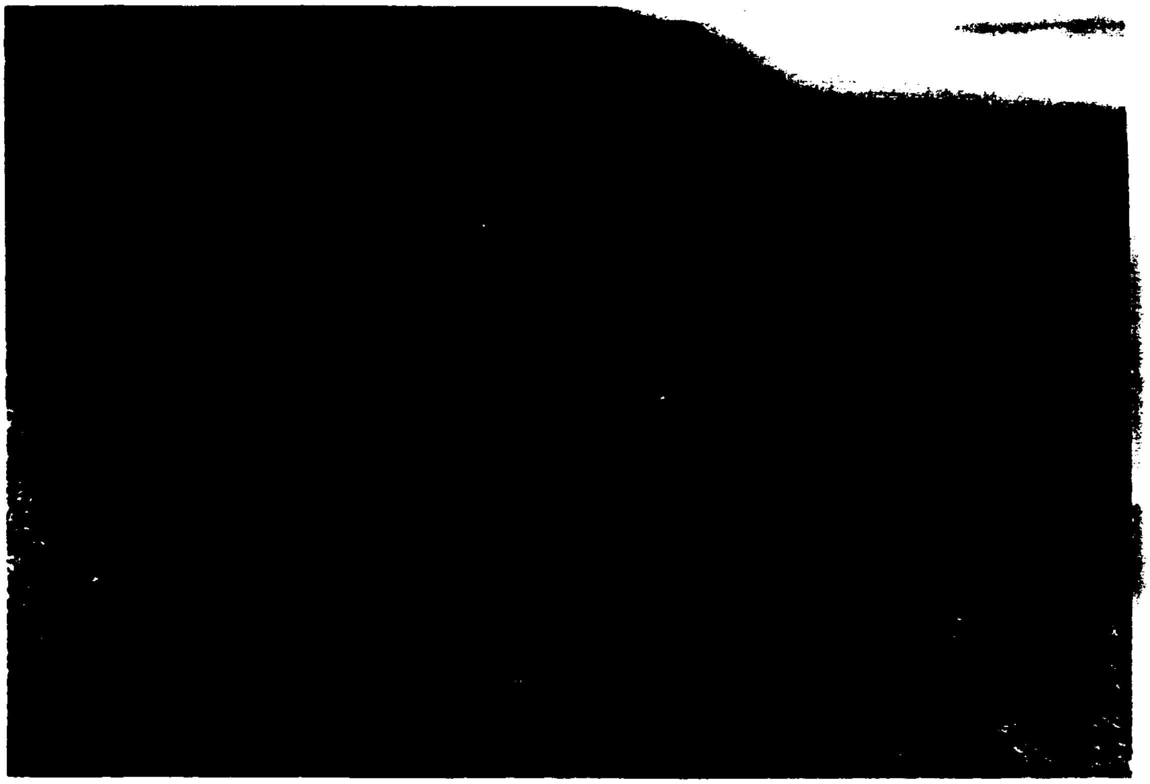


PLATE 6

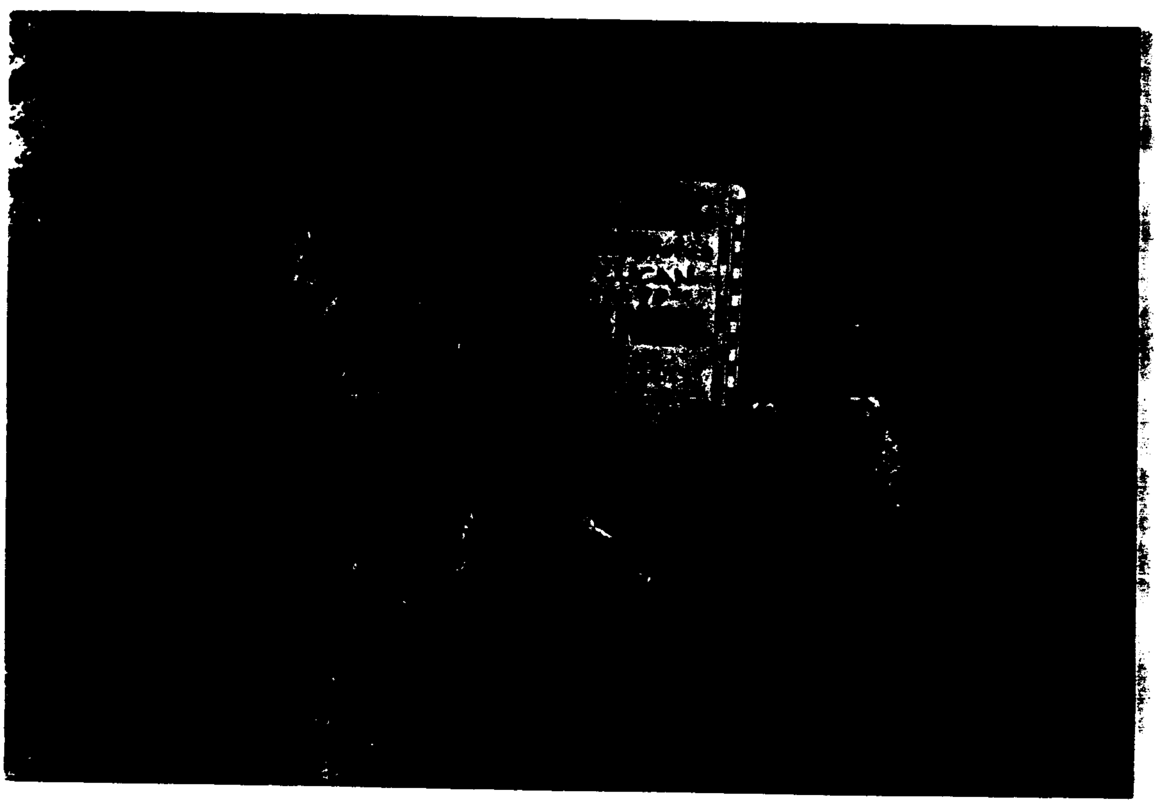


PLATE 7

TABLE 3 ROCK SAMPLE DESCRIPTIONS-SJ ZONE

SAMPLE NUMBER	DESCPIPTION
PEL-90-J-65	FLOAT;QUARTX VEIN,2% PYRITE
66	FLOAT;GOSSAN BOXWORK
67	GRAB;SHEAR,FRACT.,SILICIFIED,50M WIDTH
68	GRAB;4-4CM QTZ VEINS,CHLORITE CLOTS
69	GRAB 4CM;QTZ VEIN,CHLORITE,160/20W
70	GRAB;SILTSTONE,BLEACH.,SERICITIZED.3% PY
71	GRAB 3CM;QUARTZ VEIN;8% PYRITE
72	GRAB;SLICIFIED,3-5% DISS. PYRITE
73	GRAB;SLICIFIED,3-5% DISS. PYRITE
74	GRAB;SLICIFIED,3-5% DISS. PYRITE
75	GRAB:SILICFIED,FRACT.,5-10% DISS. PYRITE
76	GRAB:SILICFIED,FRACT.,5-10% DISS. PYRITE
77	GRAB 5M;SHEAR,SERICITE SCHIST,1 MM PY SEA
78	GRAB;GOSSAN
79	GRAB;GOUGE,SHEAR IN SAMPLE #77
80	CHIP 2M;SHEAR
81	CHIP 2M;SHEAR
82	CHIP 2.5M;SHEAR AND ADJ PY-SILICA
83	GRAB;SILICIFIED,PYRITIZED
84	GRAB;QUARTZ VEIN,10% PYRITE
85	GRAG,VERY SILICIFIED,1% PYRITE
109	grab 30 cm;silica rock,30-40% pyrite
110	grab;silicified,fractured,2% diss. pyrite
111	grab;gossan boxwork,estimate 40% py
112	grab;diorite,silicified,10% diss. pyrite
113	grab 18 cm;8 cm galena,10 cm silicifed rock
114	grab 1.5m;silicified rock adjacent to #113
115	grab 40 cm;rusty qtz vein,133/60w
PEL-90-G-62	FLOAT;QUARTZ-PYRITE VEIN

TABLE 4 **ROCK GEOCHEMISTRY-SJ ZONE**

SAMPLE #	AU(PPB)	CU(PPM)	ZN(PPM)	AG(PPM)	AS(PPM)	SB(PPM)	BI(PPM)
PEL-90-G-62R	3	11	19	0.4	4	2	2
PEL-90-G-62R	8	156	48	1.3	19	3	2
PEL-90-J-109R	340	31	67	0.8	2	2	2
PEL-90-J-110R	30	211	24	0.2	14	2	2
PEL-90-J-111R	320	33	8	0.5	6	2	7
PEL-90-J-112R	164	10	64	0.5	4	2	2
PEL-90-J-113R	6910	106	281	39.4	367	32	29
PEL-90-J-114R	2180	98	805	5.5	306	8	2
PEL-90-J-115R	94	32	7	0.9	136	2	2
PEL-90-J-65	18	32	49	0.1	2	2	2
PEL-90-J-66	540	478	351	0.3	18	2	29
PEL-90-J-67	300	348	104	1	20	2	2
PEL-90-J-68	13	141	216	0.2	11	2	2
PEL-90-J-69	32	163	251	0.8	6	2	2
PEL-90-J-70	69	84	156	0.5	5	2	2
PEL-90-J-71	28	277	177	5.4	10	2	2
PEL-90-J-72	89	9	131	0.8	31	2	2
PEL-90-J-73	31	11	58	0.1	15	2	2
PEL-90-J-74	29	18	60	0.7	19	2	6
PEL-90-J-75	27	12	28	0.2	22	2	2
PEL-90-J-76	110	11	9	0.3	93	2	2
PEL-90-J-77	61	42	26	1.7	6	2	2
PEL-90-J-78	31	23	38	0.1	14	2	2
PEL-90-J-79	82	320	192	2.2	26	2	2
PEL-90-J-80	125	251	138	2.8	29	2	2
PEL-90-J-81	9	39	15	0.1	3	2	2
PEL-90-J-82	92	39	77	1.2	26	2	2
PEL-90-J-83	200	25	48	2.8	85	2	2
PEL-90-J-84	133	21	8	1.8	20	2	2
PEL-90-J-85	73	15	86	0.8	35	2	2

TABLE 5 ROCK SAMPLE DESCRIPTIONS–SOUTHEAST GRID

SAMPLE NUMBER	DESCRIPTION
PEL-90-G-1R	GRAB;QUARTZ-PYRITE VEIN ALONG CREEK
2	FLOAT;10 CM QTZ-PY,25% PY,COARSE QTZ
3	FLOAT;10 CM QTZ-PY,25% PY,COARSE QTZ
16	grab;qtz-py vein near site 87-521
17	grab;qtz-py vein near site 87-521
18	grab;qtz-py vein near site 87-521
19	grab;qtz-py vein near site 87-521
20	grab;qtz-py vein near site 87-521
21	grab;pyritized highly fractured
22	float;quartz-pyrite vein 5%-10% py
23	float;quartz-pyrite vein 5%-10% py
24	float;quartz-pyrite vein 5%-10% py
25	grab;ferricrete 3m thick above shear
26	grab;granodiorite;mod. fract.,5% py
27	grab;1-2cm qtz veins at 205/60N
28	float;sercitized,pyritized granodiorite
29	GRAB;FERRICRETE,4-5M THICK
30	GRAB;SILIC.,BLEACH.GRANODIORITE,5% PY
31	GRAB;STRONG SHEAR,SERCITE SCHIST,5%PY
32	GRAB;ORTHO.PORPH.,INTENS.FRACT.,3% PY
33	GRAB;GRAB;ORTH.PORPH.SILIC..3%PY
34	GRAB;FRACT. SILTSTONE,SERIC.,3%PY
35	GRAB;SILTSTONE,BLEACH.,SERIC.,3% PY
36	QTZ.VEINS,1-10CM,VUGGY,COARSE,CHLORITE
37	GRAB;SHEAR GOUGE,315/75E
38	GRAB;SHEAR
39	GRAB;QTZ.VEIN,5CM,GRANOD.,N-S/85W
40	GRAB;SHEAR,5%,PY,BLEACHED INTRUS.
41	GRAB;SHEAR,5%,PY,BLEACHED INTRUS.
42	GRAB;GOSSAN EXTREMELY FRACT.
43	GRAB;GOSSAN EXTREMELY FRACT.
44	GRAB;SHEAR,2M,170/60E
45	GRAB;SILTSTONE,BLEACH.,3%PY,SILIC.
46	5CM;RUSTY SHEAR,090/85N
47	GRAB;GOSSAN,EXTREMELY WEATHERED
48	GRAB;SILTSTONE,SERICITIZED,5%PY
49	GRAB 20CM;150/60W
50	GRAB;DIORITE,SHATTERED,MODER. FE STAIN
51	GRAB;DIORITE,SHATTERED,MODER. FE STAIN
52	GRAB 5CM;QUARTZ VEIN,150/70S
53	GRAB;QTZ-CALCITE-CHLORITE VEIN,5CM

54	GRAB;SHEAR,DIORITE,N-S/45E
55	GRAB;SHEAR,DIORITE,N-S/45E
56	GRAB;RUSTY SHEAR,DIORITE
57	FLOAT;QUARTZ VEIN,CHLORITE,FE-CARBONATE
58	FLOAT;QUARTZ VEIN,CHLORITE,FE-CARBONATE
59	GRAB;SHEAR,DIORITE,8% DISS. PY
60	GRAB 40CM;SHEAR,DIORITE,SILICIFIED
61	GRAB;GOUGE AND INTERMIXED PYRITE
PEL-90-J-1R	GRAB;SILTSTONE,3% DISS. PY,FE STAINED
2	GRAB 3M;SHEARED SERICITE SCHIST
3	GRAB 3M;SHEARED SERICITE SCHIST
4	GRAB 3M;SHEARED SERICITE SCHIST
5	CHIP 10CM;GOSSAN WITH FLAT SHEARING
6	GRAB 4CM;QUARTZ VEIN
7	GRAB;SHEARED DIORITE,2-3% DISS. PY
8	GRAB;SHEAR,DIORITE,060/85W,3% DISS. PY
9	GRAB;DIORITE,3% DISS. PYRITE
10	FLOAT;4CM PYRITE BAND IN QUARTZ VEIN
11	FLOAT;SAME ROCK AS #10 QUARTZ ONLY
12	FLOAT;QUARTZ,4% PYRITE IN 5CM CLOTS
13	GRAB;SHEAR,CHLORITIC,3% DISS. PYRITE
14	GRAB;SHATTERED DIORITE,2% PY,3CM QTZ VEIN
15	GRAB 15CM;QUARTZ WITH 3-5% COARSE PYRITE
16	GRAB 15CM;QUARTZ WITH 3-5% COARSE PYRITE
17	GRAB;DIORITE,UNALTERED,WITIN 50 CM OF #16
18	GRAB 25CM;QUARTZ VEIN WITH 5% PYRITE
19	CHIP 2M;SILICIFIED ROCK,PYRITIZED
20	CHIP 1M;SILICIFIED ROCK,PYRITIZED
21	GRAB 20 CM;QUARTZ VEIN ,10% COARSE PYRITE
22	GRAB 20 CM;QUARTZ VEIN,8% COARSE PYRITE
23	GRAB 20 CM;QUARTZ VEIN ,10% COARSE PYRITE
24	GRAB;SILICIFIED,5-10% DISS. PYRITE(88-J-81)
25	FLOAT;20 CM QUARTZ VEIN,10% COARSE PYRITE
35	GRAB 3M;SHEAR,DIORITE,SILICIFIED,1-2% PY
36	GRAB;SHATTERED CHERT,1-2% DISS. PYRITE
37	GRAB;SHATTERED CHERT,1-2% DISS. PYRITE
38	GRAB;SHATTERED CHERT,1-2% DISS. PYRITE

TABLE 6 ROCK GEOCHEMISTRY-SOUTHEAST GRID

SAMPLE #	AU(PPB)	CU(PPM)	ZN(PPM)	AG(PPM)	AS(PPM)	SB(PPM)	BI(PPM)
PEL-90-G-1	1121	39	9	0.4	2	2	2
PEL-90-G-16	1796	15	39	0.2	2	2	3
PEL-90-G-17	40	21	26	0.4	8	2	2
PEL-90-G-18	15	12	15	0.1	3	2	2
PEL-90-G-19	13	19	48	0.1	2	2	2
PEL-90-G-2	25	76	8	0.4	15	2	7
PEL-90-G-20	27	17	8	0.1	4	2	3
PEL-90-G-21	9	34	77	0.3	3	2	2
PEL-90-G-22	599	4	11	0.2	2	2	2
PEL-90-G-23	33	79	9	4.5	2	3	2
PEL-90-G-24	85	5	8	0.1	2	2	2
PEL-90-G-25	12	12	57	0.3	2	2	2
PEL-90-G-26	10	6	40	0.1	2	2	2
PEL-90-G-27	5	5	35	0.3	2	2	2
PEL-90-G-28	10	66	77	0.1	2	2	2
PEL-90-G-29	15	10	30	0.2	3	2	2
PEL-90-G-3	11	36	8	0.3	7	2	5
PEL-90-G-30	4	10	10	0.2	6	2	2
PEL-90-G-31	3	5	36	0.2	25	2	2
PEL-90-G-32	1	1	31	0.1	2	2	2
PEL-90-G-33	4	1	32	0.1	3	2	2
PEL-90-G-34	1	2	64	0.2	2	2	2
PEL-90-G-35	21	30	38	0.1	8	2	2
PEL-90-G-36	2	1	35	0.1	2	2	2
PEL-90-G-37	7	158	92	0.3	2	2	2
PEL-90-G-38	10	51	89	0.3	9	2	2
PEL-90-G-39	4	14	21	0.1	2	2	2
PEL-90-G-40	26	21	11	0.3	4	2	2
PEL-90-G-41	25	27	33	0.2	5	2	2
PEL-90-G-42	10	1	46	0.2	5	2	2
PEL-90-G-43	12	30	11	0.2	9	2	2
PEL-90-G-44	51	18	482	0.2	20	2	2
PEL-90-G-45	25	23	50	0.1	12	3	5
PEL-90-G-46	220	62	20	0.9	23	2	7
PEL-90-G-47	15	11	6	0.2	334	2	2
PEL-90-G-48	59	728	1336	1.1	73	2	4
PEL-90-G-49	12	10	246	0.3	5	2	2
PEL-90-G-50	4	13	32	0.1	4	2	2
PEL-90-G-51	4	11	25	0.1	9	2	2
PEL-90-G-52	4	7	21	0.2	2	2	3
PEL-90-G-53	1	8	122	0.1	2	2	2

PEL-90-G-54R	55	197	108	0.7	6	11	2
PEL-90-G-55R	12	241	126	0.5	2	4	2
PEL-90-G-56R	7	9	78	0.3	5	2	2
PEL-90-G-57R	4	33	14	0.4	16	2	2
PEL-90-G-58R	5	39	30	0.1	3	2	2
PEL-90-G-58R	10	802	86	3.3	113	4	13
PEL-90-G-60R	7	87	42	1.1	23	2	2
PEL-90-G-61R	7	133	55	1.5	43	3	5
PEL-90-J-1	63	76	120	1.8	251	8	2
PEL-90-J-10	33400	29	6	5.2	33	25	275
PEL-90-J-10RD	46600	29	1	7.1	30	24	297
PEL-90-J-11	970	11	5	0.1	7	3	9
PEL-90-J-12	600	6	2	0.1	8	2	4
PEL-90-J-13	74	588	247	3.6	29	2	3
PEL-90-J-14	58	30	78	0.5	56	2	2
PEL-90-J-15	1260	19	5	0.7	2	2	7
PEL-90-J-16	470	30	1	0.3	8	2	8
PEL-90-J-17	45	14	18	0.1	10	2	4
PEL-90-J-18	3360	3	8	0.2	2	2	18
PEL-90-J-19	370	7	13	0.1	2	2	2
PEL-90-J-2	22	8	36	0.1	10	2	2
PEL-90-J-20	980	1	7	0.2	2	2	8
PEL-90-J-21	740	8	4	0.1	2	2	6
PEL-90-J-22	1010	3	1	0.1	4	2	2
PEL-90-J-23	140	7	3	0.1	2	2	2
PEL-90-J-24	18	4	1	0.2	3	2	2
PEL-90-J-25	610	5	1	0.1	7	2	2
PEL-90-J-3	18	29	37	0.3	6	2	2
PEL-90-J-35	4	1	2	0.1	2	2	2
PEL-90-J-36	8	4	13	0.2	2	2	2
PEL-90-J-37	24	22	11	0.3	2	2	2
PEL-90-J-38	15	16	2	0.2	2	2	2
PEL-90-J-4	32	12	32	0.2	7	2	2
PEL-90-J-5	36	27	25	0.5	4	2	2
PEL-90-J-6	21	18	17	0.3	2	2	2
PEL-90-J-7	61	26	58	0.3	11	2	2
PEL-90-J-8	83	87	63	1	16	2	2
PEL-90-J-9	34	76	25	0.3	27	2	2

Samples of these veins returned up to 3,360 ppb Au. Similar quartz-pyrite float, containing 4 cm seams of massive pyrite was discovered about 100m north of J-88-82. Samples of this float returned up to 46,600 ppb Au, 25 ppm Sb, and 297 ppb Bi.

The above mineralization suggests that similar mineralization will occur along the EM conductors outlined in this area.

7.5.3 Pelican

To date narrow discontinues sphalerite-galena-chalcopyrite-magnetite ± chlorite, quartz veins have been discovered on the Pelican Cliff. Samples taken to date have failed to return economic gold values although highly anomalous in gold, copper, zinc, silver and arsenic. Samples taken in 1990 include highs of 1,796 ppb Au, 4,152 ppm Cu, 23,124 ppm Zn, 30.8 ppm Ag and 527 ppm As. This geochemistry compares to that of other mineralization within the Iskut Camp and suggests that there maybe other more substantial higher grade zones of mineralization within the Pelican area.

The veins occur in a variety of orientations including, E-W, N-S and flat-lying. It is unclear if one of the veins orientations is more significant than the others.

7.5.4 Lake - NG1 - NG2

To date narrow discontinuous quartz-sulphide veins have been discovered samples of which returned anomalous but uneconomic precious and base metal values.

More substantial showings NG1 and NG2 were discovered in 1988 along NW-SE shears in the vicinity of orthoclase porphyry plugs. The NG1 showing is 130m long and 5m wide and consists of 3-5% pyrite. Local pods of up to 30% pyrite also occur. The mineralization at the NG2 showing is similar but exposed over a shorter strike length. Samples taken in 1988 failed to return anomalous values.

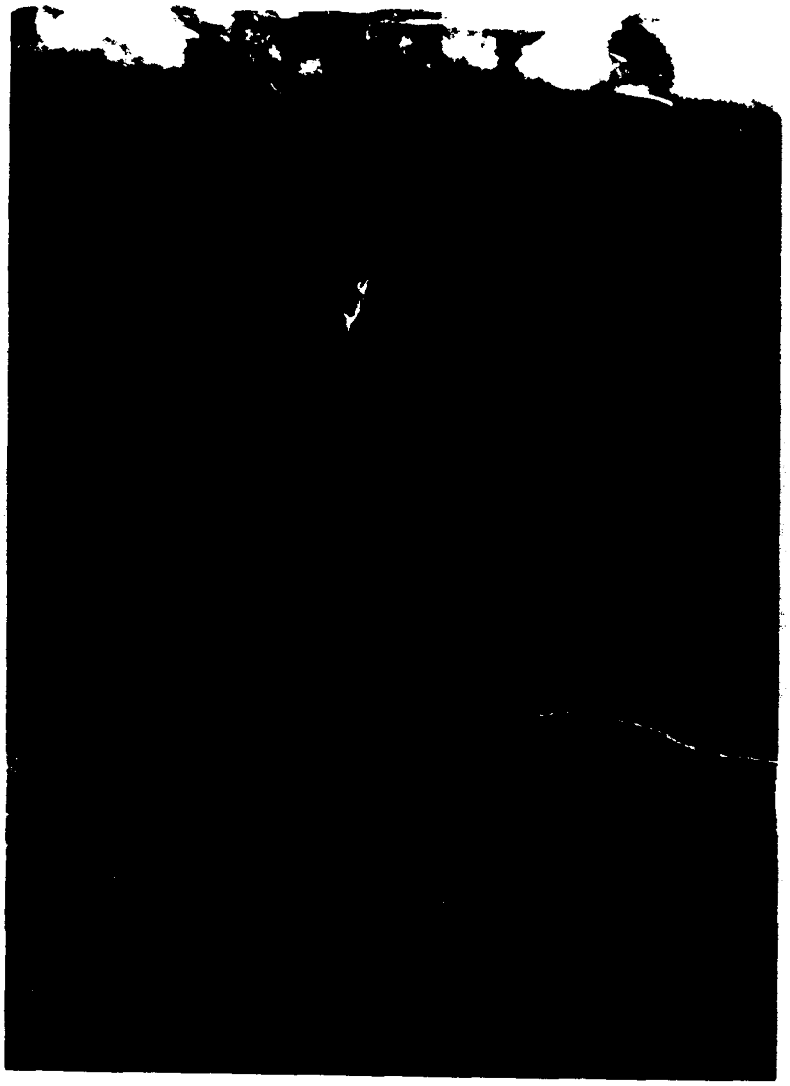


PLATE 8 Talus Slope below Pelican Cliff looking west towards SJ Zone

TABLE 7 ROCK SAMPLE DESCRIPTIONS–PELICAN GRID

SAMPLE NUMBER	DESCRIPTION
PEL–90–G–4R	GRAB;PYRITIZED BOULDERS AT EDGE OF CLIFF
5	GRAB;PYRITIZED BOULDERS AT EDGE OF CLIFF
6	GRAB;PYRITIZED SILICIFIED SILTSTONE
7	GRAB;PYRITIZED SILICIFIED SILTSTONE
8	GRAB;PYRITIZED SILICIFIED SILTSTONE
9	GRAB;MASSIVE E–W PY VEIN,DIP 80 S
10	FLOAT;PYRITIZED,SILICIFIED BOULDERS
11	FLOAT;PYRITIZED,SILICIFIED BOULDERS
12	GRAB;1–4CM PYRITE VEINS,20 DIP S
13	GRAB;1–4CM PYRITE VEINS,20 DIP S
14	GRAB;HYDROZINCITE,DISS.PYRITE
15	GRAB 20 CM;VERTICAL N–S QTZ–PY VEIN
PEL–90–J–86	GRAB;GOSSAN ABOVE MAIN ZONE
87	GRAB 40CM;SHEAR,N–S,VERTICAL
88	GRAB;SHEAR,065/90
89	GRAB 5CM;QUARTZ VEIN 2–3% PY,060/90
90	GRAB 50CM;QUARTZ VEIN,090/70S
91	GRAB 15 CM;QUARTZ VEIN,2% SPHALERITE
92	GRAB 1.5M;FLAT SHEAR,FE STAINED
93	GRAB 1.5M;FLAT SHEAR,FE STAINED
94	GRAB;20 CM;TOP OF FLAT SHEAR,40% PY

TABLE 8 ROCK GEOCHEMISTRY-PELICAN GRID

SAMPLE #	AU(PPB)	CU(PPM)	ZN(PPM)	AG(PPM)	AS(PPM)	SB(PPM)	BI(PPM)
PEL-90-G-10	200	4152	1604	15.1	337	7	7
PEL-90-G-10D	140	272	1891	22.5	288	8	2
PEL-90-G-11	333	1034	18217	14.2	319	9	2
PEL-90-G-12	276	639	15981	5	375	6	2
PEL-90-G-13	128	389	13020	6.7	499	8	2
PEL-90-G-14	1796	177	734	30.8	527	5	10
PEL-90-G-14D	77	93	570	6.6	457	8	2
PEL-90-G-15	98	316	3802	1.7	54	2	2
PEL-90-G-4	827	2478	1081	7.2	401	4	2
PEL-90-G-5	21	312	378	16	334	4	2
PEL-90-G-6	27	446	242	2.1	45	2	2
PEL-90-G-7	99	77	5693	1.1	162	2	3
PEL-90-G-8	105	233	1312	5.9	304	5	3
PEL-90-G-9	285	1124	21319	10.7	116	2	2
PEL-90-J-86	105	99	630	4.7	139	3	2
PEL-90-J-87	93	877	11726	4.2	109	2	2
PEL-90-J-88	340	332	3874	5.3	31	2	2
PEL-90-J-89	370	663	2197	11.3	319	4	2
PEL-90-J-90	320	1923	2116	8.7	459	5	2
PEL-90-J-91	860	1516	23124	7.7	151	2	2
PEL-90-J-92	280	322	3125	6.2	373	5	2
PEL-90-J-93	720	1053	12315	22.7	231	4	2
PEL-90-J-94	210	89	566	4.3	496	5	2

TABLE 9 ROCK SAMPLE DESCRIPTIONS-SNOW GRID

SAMPLE NUMBER	DESCRIPTION
PEL-90-G-63	FLOAT;QUARTZ VEIN MINOR PYRITE
64	GRAB 5CM;QUARTZ-CARBONATE VEIN
65	GRAB;QUARTZ VEIN 070/STEEPN
66	FLOAT; QUARTZ VEIN
67	GRAB;RUSTY GOSSAN ABOVE STRONG SHEAR
68	GRAB;SHEAR,BLEACH.QTZ VEINING,MALACHITE
69	GRAB;SHEAR,BLEACH.QTZ VEINING,MALACHITE
70	GRAB;SHEAR,BLEACH.QTZ VEINING,MALACHITE
71	FLOAT?;RUBBLE WITHIN TRACE OF SHEAR
72	4CM;VUGGY QUARTZ-CHLORITE,N-S/62W
73	FLOAT;EPIDOTE,BLEACH.,MALACHITE,PY
74	FLOAT;EPIDOTE,BLEACH.,MALACHITE,PY
75	FLOAT;SILTSTONE,MALACHITE
76	GRAB 2CM;BLEACH.,PYRITIZATION ALONG SHEAR
77	GRAB 2CM;BLEACH.,PYRITIZATION ALONG SHEAR
78	FLOAT;RUSTY,COARSE QUARTZ
79	GRAB 40 CM;QUARTZ IN FLAT SHEAR,MINOR PY
80	GRAB 40 CM;QUARTZ IN FLAT SHEAR,MINOR PY
81	GRAB 40 CM;QUARTZ IN FLAT SHEAR,MINOR PY
82	GRAB 40 CM;QUARTZ IN FLAT SHEAR,MINOR PY
83	GRAB;BRECCIATED VOLC.,IRREG.PY INFILLING
84	GRAB;BRECCIATED VOLC.,IRREG.PY INFILLING
85	FLOAT;SILTSONE,MALACHITE,DISS. PY
86	FLOAT;SILTSONE,MALACHITE,DISS. PY
87	4 CM;QUARTZ IN SHEAR,120/68S
88	GRAB 50 CM;INTERMIXED PY &BRECCIATED VOLC.
89	GRAB 50 CM;INTERMIXED PY &BRECCIATED VOLC.
90	FLOAT;QUARTZ-PYRITE ,30% PYRITE
91	FLOAT;QUARTZ-PYRITE ,30% PYRITE
92	FLOAT;QUARTZ-PYRITE ,30% PYRITE
93	FLOAT;QUARTZ-PYRITE ,30% PYRITE
94	FLOAT;VUGGY QUARTZ-PYRITE
95	GRAB 5CM;QUARTZ VEIN @005/70W
96	FLOAT;QUARTZ VEIN WITH 25% PYRITE
PEL-90-J-49	GRAB;WEAKLY PYRITIZED BASALT
50	GRAB 10CM;QUARTZ VEIN 30% PYRITE
51	GRAB 20CM;IRREGULAR QUARTZ VEINS
52	GRAB 3M;SILICIFIED,1M QTZ VEINS,1% DISS. PY
53	GRAB 5M;SILICIFIED
54	GRAB;QUARTZ VEIN ,5% PYRITE

55	GRAB 20CM;QUARTZ VEIN IN BASALT?,DIORITE?
56	GRAB:GOSSAN,4% DISS. PYRITE
57	GRAB:GOSSAN,4% DISS. PYRITE
58	GRAB:GOSSAN,4% DISS. PYRITE
59	GRAB:GOSSAN,4% DISS. PYRITE
60	GRAB;FRACT.,SILICIFIED SILTSTONE
61	GRAB;BOXWORK GOSSAN
62	GRAB;BOXWORK GOSSAN
63	GRAB 10 CM;QUARTZ,25% PYRITE
64	GRAB;IRREGULAR QUARTX VEIN,5% pyrite
124	grab 30-60cm;irregular qtz vein,8%py
125	grab 25 cm;quartz vein,10-20% pyrite
126	grab;pyrite intermixed with quartz
127	grab 1m;shear,1-2 cm seams of pyrite
128	float;95% pyrite intermixed with quartz
129	grab;irregular qtz-pyrite veins
130	grab;silicified,1-2% diss py,fractured

TABLE 10 ROCK GEOCHEMISTRY-SNOW GRID

SAMPLE #	AU(PPB)	CU(PPM)	ZN(PPM)	AG(PPM)	AS(PPM)	SB(PPM)	BI(PPM)
PEL-90-G-63R	7	20	8	3.6	96	2	4
PEL-90-G-64R	45	1751	112	9.8	10	5	2
PEL-90-G-65R	22	96	141	3.2	36	6	6
PEL-90-G-66R	15	75	22	1.6	44	2	3
PEL-90-G-67R	27	29	111	2.3	27	6	2
PEL-90-G-68R	5	4835	98	14.3	4	2	2
PEL-90-G-69R	2	9866	53	9.9	3	2	3
PEL-90-G-70R	5	455	182	0.6	3	3	2
PEL-90-G-71R	45	121	118	1.6	152	11	2
PEL-90-G-72R	55	407	145	0.3	5	2	2
PEL-90-G-73R	5	2219	87	3	2	6	2
PEL-90-G-74R	11	4986	290	6.8	6	2	2
PEL-90-G-75R	9	4663	266	4.7	9	2	2
PEL-90-G-76R	21	151	257	0.8	36	7	2
PEL-90-G-77R	16	102	175	1.3	324	7	2
PEL-90-G-78R	270	47	33	4.8	231	2	3
PEL-90-G-79R	22	533	2181	0.6	21	2	2
PEL-90-G-80R	16	22	19	1.1	24	2	2
PEL-90-G-80R	32	292	508	1.2	37	2	2
PEL-90-G-81R	16	193	595	0.6	15	2	2
PEL-90-G-82R	72	200	2128	1.2	171	2	2
PEL-90-G-83R	62	27	165	2.6	26	7	2
PEL-90-G-84R	13	50	236	2	18	7	2
PEL-90-G-85R	13	3953	512	2.9	2	4	2
PEL-90-G-86R	6	6548	295	4.5	2	2	2
PEL-90-G-87R	42	1698	128	3	118	3	6
PEL-90-G-88R	168	209	366	2.1	163	2	3
PEL-90-G-89R	122	231	325	1.4	144	3	2
PEL-90-G-90R	48	4187	69	6.7	14	2	11
PEL-90-G-91R	37	5717	76	7.8	12	2	2
PEL-90-G-92R	46	2163	54	15.7	11	2	11
PEL-90-G-93R	42	3353	104	16.2	10	2	6
PEL-90-G-94R	207	86	85	3.9	41	2	5
PEL-90-G-95R	112	84	106	0.1	6	2	4
PEL-90-G-96R	27260	22	1	1.2	2	2	9
PEL-90-J-49	1	18	58	0.1	4	2	2
PEL-90-J-50	1	361	94	2.6	186	2	3
PEL-90-J-51	280	127	175	5.9	285	2	5
PEL-90-J-52	13	63	56	13.7	248	6	2
PEL-90-J-53	151	49	64	5.9	203	4	2
PEL-90-J-54	860	82	63	17.7	45	2	3

PEL-90-J-55	290	153	1944	35	74	6	2
PEL-90-J-56	184	21	20	1.8	20	2	3
PEL-90-J-57	46	23	45	2.1	13	2	6
PEL-90-J-58	8	144	76	2.5	17	2	6
PEL-90-J-59	123	2160	111	6.1	81	2	2
PEL-90-J-60	5	101	164	1	25	2	2
PEL-90-J-61	88	23	18	3.3	13	2	10
PEL-90-J-62	30	22	14	1.7	40	2	6
PEL-90-J-63	980	87	197	18.8	1018	3	13
PEL-90-J-64	206	47	25	2.4	74	2	4
PEL-90-J-124R	93	25	12	16.2	8	2	75
PEL-90-J-125R	87	432	52	0.4	87	2	2
PEL-90-J-126R	240	65	226	1.4	123	2	3
PEL-90-J-127R	37	33	35	1.4	77	2	2
PEL-90-J-128R	520	646	5	3.3	56	2	2
PEL-90-J-128R	730	876	10	3.4	58	2	2
PEL-90-J-129R	320	508	59	8	815	2	6
PEL-90-J-130R	89	8	2	0.9	10	2	7

7.5.5 Snow

Previous work has located narrow quartz-sulphide within silicified zones in the Snow Zone. Such altered zones generally contain several percent pyrite and weather gossanous.

Samples taken to date have returned anomalous values in gold, copper, zinc, silver and arsenic, including highs of 980 ppb Au, 9,866 ppm cu, 2,181 ppm Zn, 18.8 ppm Ag, and 1,018 ppm As for samples taken in 1990.

In 1990 malachite was commonly found along fractures and along occasional small shears. Previous work by Great Plains Development (1973) reported chalcopyrite-malachite mineralization within granite porphyry which samples of which returned up to 7.07% Cu and 0.08 oz/ton Au.

7.5.6 Pins West

Numerous galena-sphalerite quartz veins occur within NW trending shears on the Pins Ridge. A 10-15 cm wide zone of sericite-carbonate alteration occurs alongside the mineralized shear.

Samples of this mineralized generally return several percent Pb+Zn with anomalous silver and low gold values. One sample in 1988 returned 1.1% Pb, 4.8% Zn and 3,605 ppb Au.

7.5.7 Additional Targets

Additional targets examined in 1990 include:

a) Sericite North

Previous work by Western Canadian (1987) and Aerodat (1989) outlined soils anomalous in gold and airborne conductors respectively. A brief visit in 1990 indicated zones of sericite-silica-pyrite alteration and widespread ferricrete. One sample of sericite-silica-pyrite altered rock returned a value of 630 ppb Au.

b) West Sericite

Previous work by Western Canadian (1987) in the West Sericite area included a soil sample which returned 1,190 ppb Au. In 1990 this area was briefly visited and additional soil samples taken to test significance of anomaly. Soil samples returned up to 390 ppb Au which enhances significance of the 1987 anomaly. A sample of a iron-stained silica boxwork in this area returned 1,290 ppb Au, 9.3 ppm Ag, 1.411 ppm As and 52 ppm Bi. Further work will be required in this area to develop in exploration target.

c) Lake Ridge West

The Lake Ridge West Showing is listed in the B.C. Minfile as 104B-135, where it is described as consisting of narrow arsenopyrite-galena-quartz veins in a silicified shear.

The showing occurs along a steep face overlooking the Nee Glacier. In 1990 attempts were made to visit showing although actual showing could not be reached due to steep terrain. A quartz vein within a gossanous shear was sampled but returned only low values. This area is of interest due to the North Pins Glacier mineralized float which likely has a source within the Nee Glacier basin.

d) Lake - EM Airborne Conductor

The 1989 Aerodat airborne EM survey detected a strong, >30 moh, conductor in the Lake area of the Pelican property. Ground follow-up was carried out with the Apex double dipole EM systems and the airborne conductor was found to be caused by a 1m wide graphitic pyritic basalt dyke trending 140^{o} intruding a host diorite.

The double dipole registered a >1,000 ppm positive response with a 1m conductor width at the location of the airborne conductor. The strongest ground response corresponds to the outcrop of the basalt dyke but the conductor was only extended over a 60m strike length under shallow overburden. Outcrops further along strike had no conductive response.

The basalt dyke contains 2-3% disseminated coarse pyrite and follows a strong narrow shear at 140^{o}. Irregular 10 cm patches of the basalt dyke contain 20-30% white 4mm feldspar laths in a black groundmass.

PLATE 9

TABLE 11 ROCK SAMPLE DESCRIPTIONS–ADDITIONAL TARGETS

PINS GRID

SAMPLE NUMBER	DESCRIPTION
PEL-90-J116	grab 3.5m;shear,125/45sw
117	grab;siltstone,silicified
118	grab;sheared diorite dyke
119	grab;sheared diorite dyke
120	grab;gossan,silicified,2-3% pyrite
121	grab,float;quartz,5% pyrite
122	grab;silicified,2-3% pyrite
123	grab 60 cm;vuggy quartz vein,no pyrite

WEST SERICITE

SAMPLE NUMBER	DESCPIPTION
PEL-90-J100	GRAB;RUSTY SHEAR IN DIORITE
101	GRAB;5% PYRITE IN 1CM CLOTS
102	GRAB;BOXWORK GOSSAN,3% DISS. PYRITE
103	FLOAT;SILICA ROCK,3% diss. pyrite
104	FLOAT;SILICA ROCK,3% diss. pyrite
105	grab 20 cm;quartz vein
106	grab;quartz vein unkown width
107	grab;siltstone,rusty
108	grab;silicified,trace pyrite

SERICITE NORTH

SAMPLE NUMBER	DESCRIPTION
PEL-90-J-39	GRAB;SERICITE SCHIST,SILICA,3% PY
40	GRAB;SERICITE SCHIST,SILICA,3% PY
41	GRAB;SERICITE SCHIST,SILICA,<1% PY
42	CHIP 2M:SERICITE-SILICA ROCK,FE STAINED
43	FLOAT;VERY SILICIFIED SERICIT ROCK,FE STAIN
44	FLOAT;TALUS
45	GRAB;DIORITE?,HYROZINCITE?
46	GRAB;SHATTERED,SICIFIED ROCK,1-2% PY
47	FLOAT;CHLORITIC,SILICA ROCK,GREEN STAIN

48	CHLORITIC ALTERED ROCK,NUMEROUS QTZ VEINS

LAKE AIRBORNE-EM

SAMPLE NUMBER	DESCRIPTION
PEL-90-J-26	DIORITE,SILICIFIED,5% DISS. PYRITE
27	DIORITE,SILICIFIED,5% DISS. PYRITE
28	BASALT DYKE,BLACK,3-5% DISS. PYRITE
29	GRAB;GOSSAN,SILICIFIED,2% DISS. PYRITE
30	GRAB;GOSSAN,SILICIFIED,2% DISS. PYRITE
31	GRAB;GOSSAN,SILICIFIED,2% DISS. PYRITE
32	GRAB;BASALT DYKE,DK GREEN,2-3% DISS. PY
33	GRAB;DIORITE,SILICIFIED,FE STAINED,2% PY
34	GRAB;DIORITE,SILICIFIED,FE STAINED,2% PY

AIRBORNE ANOMALY-K

SAMPLE NUMBER	DESCRIPTION
PEL-90-J-95	ARGILLITE,SILTSTONE,BANDED,FE STAINED
96	ARGILLITE,SILTSTONE,BANDED,FE STAINED

LAKE RIDGE WEST

SAMPLE NUMBER	DESCRIPTION
PEL-90-J-97	GRAB 3M;FLAT SHEAR WITH 1-5 CM QUARTZ VEINS
98	GRAB 3M;FLAT SHEAR WITH 1-5 CM QUARTZ VEINS
99	GRAB 3M;FLAT SHEAR WITH 1-5 CM QUARTZ VEINS

TABLE 12 ROCK GEOCHEMISTRY-ADDITIONAL TARGETS

PINS GRID

SAMPLE #	AU(PPB)	CU(PPM)	ZN(PPM)	AG(PPM)	AS(PPM)	SB(PPM)	BI(PPM)
PEL-90-J-116R	280	33	2	0.1	37	2	2
PEL-90-J-117R	189	46	19	1	9	2	2
PEL-90-J-118R	119	40	50	0.1	2	2	2
PEL-90-J-119R	1	53	35	0.2	2	2	3
PEL-90-J-119R	1	13	8	0.2	2	2	2
PEL-90-J-120R	18	25	110	0.6	4	2	2
PEL-90-J-121R	3	15	31	0.2	2	2	2
PEL-90-J-122R	1	12	36	0.4	3	2	5
PEL-90-J-123R	3	27	25	0.1	8	2	2
PIN-J-B-1 SOIL	6	235	141	0.5	14	2	2
PIN-J-B-2 SOIL	8	259	94	0.4	17	2	2
PIN-J-B-3 SOIL	29	574	318	0.4	59	5	2
PIN-J-B-4 SOIL	12	467	60	0.4	9	2	2

WEST SERICITE

SAMPLE #	AU(PPB)	CU(PPM)	ZN(PPM)	AG(PPM)	AS(PPM)	SB(PPM)	BI(PPM)
PEL-90-J-100	39	44	92	0.5	8	2	2
PEL-90-J-101	470	10	122	13.2	181	2	20
PEL-90-J-102	1290	25	29	9.3	1411	2	52
PEL-90-J-103	27	6	76	0.4	15	2	2
PEL-90-J-104	32	7	6	0.3	33	2	2
PEL-90-J-105	4	10	6	0.1	7	2	3
PEL-90-J-106	35	18	18	0.3	2	2	7
PEL-90-J-107	27	20	50	0.2	27	2	2
PEL-90-J-108	540	63	51	0.9	21	2	2
WS-90B1 SOIL	123	55	124	3.4	40	2	5
WS-90B2 SOIL	200	57	129	1.7	47	2	3
WS-90B3 SOIL	49	26	92	0.7	50	2	2
WS-90B4 SOIL	45	77	101	0.7	30	2	2
WS-90B5 SOIL	24	47	83	0.7	26	2	2
WS-90B6 SOIL	66	66	140	0.9	18	5	7
WS-90B7 SOIL	330	36	132	8.7	17	2	12
WS-90B8 SOIL	155	35	128	8.1	63	4	7
WS-90B9 SOIL	65	51	122	0.8	12	4	8
WS-90B10 SOIL	79	14	127	0.3	25	2	5
WS-90B11 SOIL	40	90	183	0.5	19	2	6
WS-90B12 SOIL	390	86	230	1.7	17	5	3
WS-90B13 SOIL	51	70	240	2.8	26	3	7
WS-90B14 SOIL	103	89	215	1.2	29	2	10

SERICITE NORTH

SAMPLE #	AU(PPB)	CU(PPM)	ZN(PPM)	AG(PPM)	AS(PPM)	SB(PPM)	BI(PPM)
BR-90-J-1	4	3	4	0.2	7	2	2
PEL-90-J-39	630	266	83	1.6	14	2	2
PEL-90-J-40	1	56	8	0.2	2	2	2
PEL-90-J-41	2	11	50	0.1	16	2	2
PEL-90-J-42	1	104	42	1	16	2	2
PEL-90-J-43	3	35	46	1	13	2	2
PEL-90-J-44	1	64	99	0.4	9	2	2
PEL-90-J-45	2	21	35	0.4	11	2	2
PEL-90-J-46	1	154	71	0.3	2	2	2
PEL-90-J-47	1	36	104	0.4	13	2	2
PEL-90-J-48	5	27	89	1.6	4	2	2

LAKE AIRBORNE-EM

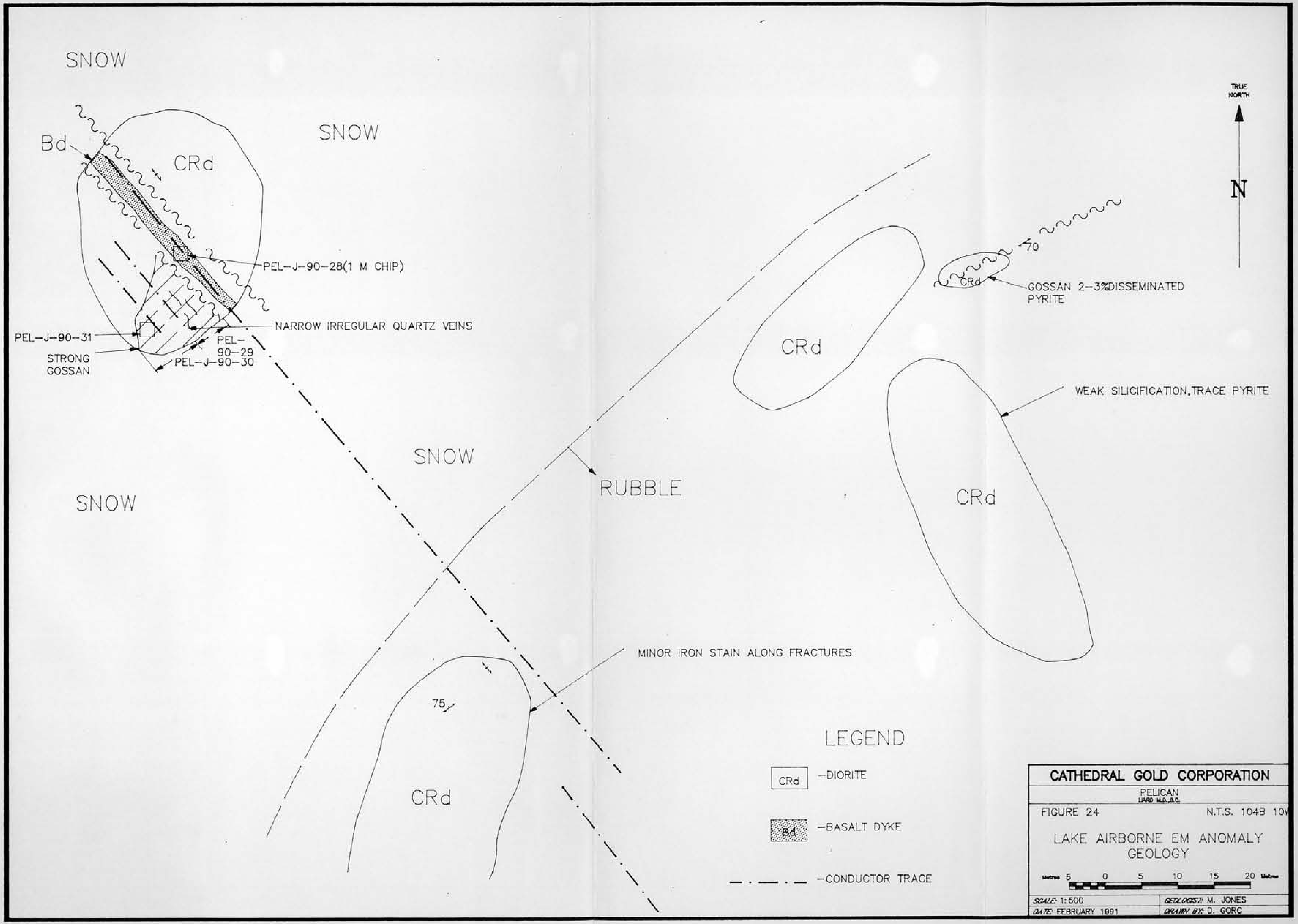
SAMPLE #	AU(PPB)	CU(PPM)	ZN(PPM)	AG(PPM)	AS(PPM)	SB(PPM)	BI(PPM)
PEL-90-J-26	5	8	30	0.1	2	2	2
PEL-90-J-27	14	4	42	0.3	4	2	2
PEL-90-J-28	1990	83	277	0.9	10	2	2
PEL-90-J-28D	2240	193	293	1	27	2	2
PEL-90-J-29	41	12	185	0.7	2	2	3
PEL-90-J-30	36	6	89	0.7	2	2	2
PEL-90-J-31	16	5	168	0.5	3	2	2
PEL-90-J-32	56	9	199	0.9	23	2	2
PEL-90-J-33	11	18	108	0.4	2	2	2
PEL-90-J-34	17	20	63	0.5	2	2	2

AIRBORNE ANOMALY K

K-B-90-1 SOIL	9	215	223	0.7	7	2	2
K-B-90-2 SOIL	13	135	99	0.6	15	2	2
K-B-90-3 SOIL	6	212	243	0.8	24	2	2
PEL-90-J-95	6	84	371	0.7	9	2	2
PEL-90-J-95D	780	28	56	1.1	130	3	2
PEL-90-J-96	3	105	94	0.6	2	2	2

LAKE RIDGE WEST

PEL-90-J-97	10	198	45	3.5	11	6	4
PEL-90-J-98	4	71	168	0.6	20	3	2
PEL-90-J-99	6	50	114	0.5	18	2	2


SNOW
SNOW
SNOW
SNOW
Bd
CRd
PEL-J-90-28(1 M CHIP)
NARROW IRREGULAR QUARTZ VEINS
PEL-J-90-31
STRONG GOSSAN
PEL-90-29
PEL-J-90-30
RUBBLE
CRd
70
CRd
GOSSAN 2-3%DISSEMINATED PYRITE
WEAK SILICIFICATION,TRACE PYRITE
CRd
MINOR IRON STAIN ALONG FRACTURES
75
CRd
TRUE NORTH
N
LEGEND
CRd -DIORITE
Bd -BASALT DYKE
-CONDUCTOR TRACE
CATHEDRAL GOLD CORPORATION
PELICAN
FIGURE 24
N.T.S. 104B 10W
LAKE AIRBORNE EM ANOMALY GEOLOGY
5 0 5 10 15 20
SCALE: 1:500
DATE: FEBRUARY 1991
GEOLOGIST: M. JONES
DRAWN BY: D. GORC

The 5m of outcrop south of the basalt dyke is gossanous and strongly silicified with 2% disseminated pyrite. The gossanous area and the basalt dyke were sampled.

Results from the 1990 sampling included a high of 2,240 ppb Au (pyritic basalt).

e) Pins - Airborne EM Anomalies

The 1989 Aerodat airborne Em survey outlined several conductors on the central portion of the Pins Ridge. In 1990 several lines of reconnaissance soil samples and VLF-EM electromagnetic survey were completed as preliminary follow-up. This work outlined several EM anomalies one of which was associated with marginally anomalous gold (>15 ppb Au).

Rock samples of pyritic shears returned up to 280 ppb Au.

f) Airborne Anomaly K

The 1989 Aerodat Airborne EM Survey outlined an EM anomaly on the southernmost portion of the property on the Gossan 25 mineral claim.

A brief visit was made to the area in 1990. Soil samples returned low gold values but up to 215 ppm Cu. A rock sample of rusty argillite returned 780 ppb Au.

Further work will be required in this area.

7.5.8 Skarn Mineralization - Iskut Region

The extensive exploration efforts in the Iskut region in the last few years has discovered skarn mineralization in addition to the more well known vein deposits such as the Snip mine.

There are two areas of skarn mineralization:

a) McLymont/Forrest-Kerr
- McLymont Northwest, Ken, Dirk, Kerr 1, Tic and Dundee Prospects

b) Snippaker Creek
- Stu, Shan, Kirk and Pyramid Hill Prospects

The McLymont Northwest Zone is the most significant and developed of the prospects. The mineralization consists of pyrite and magnetite, with lesser chalcopyrite, galena sphalerite and gold. The mineralization is hosted by a Mississippian sequence of tuffs, siltstones and marbles. A major NE-SW fault and marble members of the sequence appear to be the main ore controls.

As with many of the Iskut gold deposits diamond drilling has intersected some very high grade mineralization, such as DD87-29 which returned 11.2m assaying 55.02 gr/tonne Au, 1,362 gr/tonne Ag and 0.97% Cu.

The Snippaker Creek skarns include:

a) Shan

The mineralization is located near the northern contact of the Lehto Batholith and is hosted by a sequence of interbedded andesitic tuffs, limestones and siltstones.

The mineralization consists of pods of sphalerite pyrite, magnetite, galena and tetrahedrite within epidote-actinolite-garnet-quartz altered rock. Samples taken to date indicate only low gold values.

b) Kirk

This prospect is also located near the northern margin of the Lehto Batholith within similar rocks to the Shan. The main zone is a 2-8m thick massive magnetite horizon within a 150m thick marble unit, nearby intrusive rocks are altered (chlorite, epidote, carbonate veins). The skarn contains some potassium feldspar.

Mineralogy consists of magnetite, pyrite and chalcopyrite. Some carbonate-barite veins occur.

c) Stu

Located south of the previous two prospects. This showing is hosted by a tremolite-actinolite-quartz-carbonate skarn within a 20m thick marble unit of a tuff-sediment sequence similar to the above.

The mineralization occurs as irregular veins and pods over a 600m strike length. Mineralogy consists of magnetite, pyrite an pyrrhotite with lesser chalcopyrite, galena and sphalerite. Crosscutting pyrite-quartz veins also occurs. Gold values reported to date have been low.

Western Canadian (1987) considered much of the mineralization on the Pelican property to be related to skarns and certainly the mineralogy within the Pelican, Snow and Lake target areas is similar to that of the skarns in the area. However the quartz-pyrite gold mineralization sampled in the southeast area and the information to date on the SJ Zone suggest that additional types of mineralization are also present. One should note the rocks underlying the Pelican property do not contain carbonate horizons such as those found on the described skarn prospects.

8.0 SOIL GEOCHEMISTRY

8.1 Introduction

Soil samples were taken on several flagged grids to keep locate mineralization. Since significant portions of the property are above treeline in alpine conditions, soil development in such areas differs from those areas at lower elevations. Of the grids soil sampled in 1990 only the SJ Grid would fall in the above category. The SJ grid is well above treeline in steep terrain in which there is little or no soil development. Samples (300 gr) taken were of fine grained highly weathered talus. These samples were taken at 5-10 cm depths using a soil mattock.

The other Pelican, Southeast and Pins Grids are all near treeline and are characterized by intermixed alpine meadows and small stands of stunted evergreens. The eastern half of the southeast grid would extend into forested terrain. On the above grids soil samples were taken at B-horizon at depths of 15-20 cm using a soil mattock.

All samples were submitted to Acme Labs of Vancouver for 30 element ICP analysis and gold by atomic adsorption. A description of basic statistics and correlations can be found in Appendix V.

8.2 SJ Grid

Previous soil sampling by Western Canadian (1987) outlined a 400m x 400m area which returned greater than 50 ppb Au including a high of 650 ppb Au. Results for Cu, Ag and Zn also included anomalous values although more sporadic than that of gold.

Additional detailed sampling was completed by Cathedral Gold Corporation in 1990 within the above 1987 anomaly to more accurately delineate the source of anomalous gold.

Gold analyses returned indictate a sharp upper cutoff to the anomaly striking NW-SE. This cutoff is located near the strong NW-SE shear mapped in 1990 suggesting that the source of anomalous gold is located along the shear. Lead, arsenic and silver values indicate coincident although less pronounced anomalies. It is interesting to note that the above NW-SE trend also marks the edge of a copper anomaly but instead of higher values occurring below the trend (towards the east) as with gold, copper values increase above the trend in the west.

8.3 Southeast Grid

8.3.1 Features Affecting Geochemical Interpretation

Line 8W roughly defines the boundary between rocks containing several percent disseminated pyrite to the west from rocks with or minor disseminated pyrite. One should also note that elevations increase towards the southwest end of the grid with a corresponding increase in the amount outcrop and with a corresponding ever thinning layer of surface cover.

A third feature of the grid area is a seemingly quite widespread layer of ferricrete as much as 6m thick. The ferricrete is observed mainly where streams have cut deeply into surface material forming small canyons. The ferricrete is found just above outcrop and is generally covered by gravel, soils, etc. The ferricrete consists of a iron stained fine cement with abundant talus, gravel, and boulders. The ferricrete appears limited to basin like depression in the northern portion of the grid between L4W and L9W. Two samples of the ferricrete (Pel-90-G25, 29R) were taken which returned only low values It seems quite likely that the presence of the ferricrete would affect geochemical patterns and could well suppress anomalies.

8.3.2 Conclusions

Gold — Gold values from L8W to L12W are noticeably higher than those from L4W to L7W. The best values are from the southwestern portion grid (L11W, L12W) where eight samples returned greater than 100 ppb Au including a high of 250 ppb. Contouring of values suggest NE to NNE anomalies which broaden towards the southwest.

Copper — The northern half of the grid contains several areas of moderately anomalous copper values (>60 ppm) including a high of 710 ppm).

<u>Silver</u>	Occasional moderately anomalous but scattered values. No discernable patterns.
<u>Zinc/Lead</u>	A few marginally anomalous (>90 ppm Zn) zinc anomalies trending north to northwest, within the anomalies a few samples are also marginally anomalous in lead (>50 ppm Pb).
<u>Arsenic</u>	Occasional marginally anomalous values (>20 ppm As) but no discernable pattern.

8.4 Pelican Grid

<u>Gold</u>	Several marginally anomalous (>20 ppb Au) roughly northtrending anomalies, including a high of 172 ppb Au. One should note that much of the western and northwestern portion of the grid are not suitable for soil sampling due to thick talus cover.
<u>Copper</u>	A few marginally anomalous values (>60 ppm) with some suggestion of north-south trends.
<u>Silver</u>	Two sharply defined north-south anomalies (>1.0 ppm Ag) including a high of 3.8 ppm Ag. Such values would be considered as marginally anomalous.
<u>Zinc/Lead</u>	A few marginally anomalous zinc values (>100 ppm Zn) several of which are also anomalous in lead (>100 ppm Pb).

8.5 Pins Grid

The soil sampling done in 1990 returned a few marginally anomalous Au, Zn, Ag and As values. The most notable result is a northwest trending 15 ppb Au anomaly in the centre of the grid area.

9.0 GEOPHYSICS

9.1 Introduction

A. The 1990 geophysical exploration program on the Pelican Project had three aims, to locate structures, sulphide mineralization along structures, and also to determine suitability of various geophysical techniques for the property.

B. To fulfill the aims of the geophysical program Roger Caven, Consulting Geophysicist for Robert S Middleton Exploration Services Inc, brought five different instruments to the property. These instruments consisted of: Induced Polarization, Horizontal Loop EM, VLF-EM, Double Dipole EM, and Magnetometer.

The induced polarization equipment consisted of a Scintrex IPR-11 time domain receiver, a Scintrex TSQ-3 transmitter with motorgenerator and auxilliary items, such as wire, current and potential electrodes.

The horizontal loop electromagnetometer was an APEX MaxMin I unit with a 50 m cable to connect transmitter and receiver loops. The MaxMin I instrument has eight frequencies, of which five, 220, 880, 3520, 7040, and 14080 Hz, were used for this project.

In presenting the results, the inphase data were corrected by subtracting the 220H readings from the four higher frequencies, thereby removing the effects of terrain induced differencies in coil separation.

The VLF-EM surveys were conducted with a Geonics EM-16 unit with receiver crystals for Cutler, Maine (NAA), and Jim Creek, Seattle (NLK), transmitter frequencies respectively. Both inphase equivalent and quadrature readings were recorded.

The Double Dipole EM instrument consists of a stable 1.5m long wooden beam with transmitter and receiver coils mounted one at each end such that the primary signal from the transmitter coil is eliminated at the receiver coil, and thus only secondary signals are recorded, i.e. signals from the ground. The instrument operates at a frequency of 5000 Hz.

In mineral exploration it is usually helpful to know what the magnetic response of a potential target is. A Barringer GM122 portable proton precession magnetometer was included with the instruments. This magnetometer has a resolution of 1 nanoTesla (gamma).

C. On the Pelican project six target areas had been selected based upon earlier geological mapping work. These were: the Pelican Showing, the Southeast area, the Sericite - SJ target, the Pins area, the Snow Zone, and the Lake area, the latter was divided into two survey targets: an airborne EM anomaly, and a ground survey line, the Lake Line.

a. The Pelican Showing was closest to the camp and also the subject of immediate interest due to mineralized samples obtained from the talus on the north side of a cliff, and a gossan on the cliff face. Mapping had shown the possible existence of three intersecting faults or shears in the vicinity. Four east-west survey lines were available within the area of immediate interest: P 1N, P 2N, P 3+25N, above the cliff, and P 4+75N below the cliff.

   The three first lines were surveyed with induced polarization and horizontal loop EM, and all four lines with VLF-EM, Double Dipole EM and magnetics.

b. The Southeast area grid was surveyed on 9 lines: 1W to 9W. The grid was cut by a creek, deeply incising overburden and rock. Two of the lines, 5W and 6W were covered by horizontal loop EM, 8 lines with VLF-EM, and lines 5W to 9W with Double Dipole EM and magnetics.

c. The Sericite - SJ gossan was surveyed by horizontal loop EM by Mr Michael Jones.

d. Further southeast was the Pins area, which was covered by VLF-EM on three lines.

e. Another large gossan area, the Snow Zone, to the east of the camp on or near the top of a mountain, was tested with induced polarization.

f. A helicopter borne EM survey had picked up a sharp, apparently near surface conductor high up on a mountain nearly due south of the camp. In order to locate, and if possible examine this anomaly, the area indicated on the airborne survey was traversed with the Double Dipole EM.

g. Approximately 500 m south of Pelican line P 1N the Lake line was laid out east to west across the valley. This line was surveyed partly with horizontal loop EM, Double Dipole EM, and magnetics, and the easterly portion with VLF-EM.

The target areas are shown on the location map at a scale of 1:50,000, and the grids on the "Grid Locations (1990)" map at a scale of 1:10,000. The results of the surveys will be discussed below, and shown on accompanying pseudosections for the induced polarization and VLF-EM surveys. The Double Dipole, horizontal loop EM and magnetics are shown as profiles for each line.

The interpretations are compiled unto individual grid maps at a scale of 1:2,500, except for the Lake line for which there are only the profiles and pseudosection.

9.2 Pelican Target

A. The induced polarization survey was carried out with an array of six potential dipoles, each 25 m in length (a=25 m, n=1-6), where each increment in n increases the depth penetration to give the pseudosection. The locations of the resulting data points are by convention plotted as shown in the legend to the pseudosections.

The IP survey was done on the three lines above the cliff only since the line below the cliff was almost entirely on coarse talus, unsuitable for an electrical survey. The length of the lines which could in practice be covered was limited, and also the ground conditions in several places made it difficult, if not impossible, to inject sufficient current into the ground for synchronization of the receiver to the current pulses, and therefore no readings could be obtained. The area is heavily pyritized, hence the background is quite high. The line P 1N presented another difficulty in that it passed through the camp, with ensuing interference which most likely caused the negative apparent resistivity values. The results as interpreted from the pseudosections show two or more relatively thin lenses plunging to the south and possibly dipping shallowly to the west. Depth to significant mineralization is estimated at 20 - 25 m under line P 3+25N, although some may be present at shallower depth as it is difficult to separate background from desired response.

B. The horizontal loop EM survey results were influenced by the uneven terrain and the station spacing which had been chained to even distance along the surface. The resulting true coilseparation therefore varied with the topography, with even relatively small differences being amplified by the short, 50 m cable, and hence a noisy inphase response. The quadrature readings are much less affected and have been used in the interpretation. All anomalies are weak, visible only on the two highest frequencies, and especially the highest, 14080Hz, which is in the VLF-EM range. The horizontal loop EM responds well to horizontal targets, and indeed there is some correspondence between IP and EM anomalies. No conventional "conductor" was found however. On line P 3+25N the EM and IP anomalies are in close proximity about the 100W station, and also on line P 1N at 210-215E.

C. As mentioned with the horizontal loop method the responses were best at the highest frequency, in the VLF-EM range. It is then not surprising that the EM-16 VLF-EM instrument would produce better results in terms of outlining anomalies. On the Pelican target the EM-16 survey was done at a station spacing of 12.5 m, and the inphase readings filtered with a type of Hjelt filter to produce pseudosections. The original readings for inphase and quadrature are shown for each station, together with the pseudosection. All the anomalies are weak, but the best one corresponds with the horizontal loop EM and is adjacent to the interpreted IP anomaly at 75-100W, and flanking on a small magnetic anomaly situated to the west. A remnant of this anomaly on line P 2N is also associated with the IP anomaly, but is not to be found on line P 1N, as the depth penetration would be insufficient for a dipping body. Another anomaly is found on line P 2N at 75-100E and continues weaker at P 1N,but the association with the IP is uncertain due to the interference at the camp. A broader and deeper anomaly occurs further east at 200-225E, also coincident with an IP response. The EM-16 responses on line P 4+75N were very weak.

D. The Double Dipole EM (DDEM) instrument is intended to locate near surface conductors or narrow conductive features. The responses on the Pelican target grid were very weak, confirming the absence of such features here.

E. The magnetic survey was mostly conducted parallel to the DDEM survey and the results are plotted together also as profiles. The magnetic profiles show some sharp peaks indicating narrow features, some crosscutting the interpreted IP and EM trends. The magnetic peaks are indicated with an M on the anomaly map.

F. CONCLUSIONS
The VLF-EM survey appears to show structures, or mineralized structures, and the correspondence with the IP is encouraging. The weak anomalies indicate both depth and poor conductivity as seen also with the horizontal loop survey, and confirmed by the DDEM. The magnetic responses associated with the IP tend to indicate the presence of pyrrhotite, as magnetite would be expected to produce stronger peaks than is the case.

Several targets were located during the surveys as shown on the grid/ compilation map. The IP responses were very high, although this can be at least in part explained by the background disseminated pyritic mineralization seen in the rocks.

9.3 Southeast Target

A. Horizontal loop EM was used on two lines of the SE grid. In common with the results on the Pelican grid, the anomalies on the SE grid were also weak, although more distinct. The noisy inphase due to topography does not allow a quantitative conductivity thickness to be estimated, but qualitatively the conductivity is poor, as only the two highest frequencies clearly show the anomalies on the quadrature. The anomalies also coincide with VLF-EM anomalies. The anomaly widths are less than 10 m, and centred on L5W/6N and L6W/5N.

B. The EM-16 VLF survey was conducted at two separate frequencies, i.e. using two transmitter stations, NAA at Cutler, Maine, and NLK at Seattle, Washington. The anomalies are mostly different in strength, but also location. The NAA transmitter gave the better responses overall, but it is likely that two different structures were located, one (the NLK induced) being at an oblique angle to the grid. The NAA responses show good line to line correlation for two structures, one near baseline and the other to the south thereof, and on lines 5W and 6W also coincide with the horizontal loop anomalies, confirming that the anomalies are more than topographic expressions, and likely to be at least somewhat mineralized along structure. North of the baseline the line to line correlation is of shorter length. The readings were taken at 25 m intervals so the anomaly resolution is not as high as would have been the case with shorter intervals, but the anomalies do show clearly. While some correlation with magnetics exists it is not consistent. The results are shown in pseudosection form and on the grid/ compilation map.

C. The Double Dipole EM survey on the SE grid did not produce any clear anomalies except for an one station response at the baseline on line 7W which also is coincident with a sharp magnetic peak. A narrow feature is indicated, but not seen in the VLF-EM data, although likely to be a continuation of the horizontal loop anomaly on line 6W, and not extending to depth. This feature very likely continues to line 8W where two magnetic peaks coincide with DDEM quadrature responses. However, the inphase response is negative, possibly caused by the magnetics, which also makes an interpretation uncertain. The VLF-EM response is stronger.

D. The magnetic survey shows larger anomalies to the west, and near the baseline magnetic peaks correlate with EM anomalies suggesting sulphide mineralization.

E. CONCLUSIONS

The EM-16 VLF survey using the Cutler, Maine, transmitter produced the best and most consistent responses. The horizontal loop EM confirmed one of the anomalies, near the baseline, on the two lines surveyed, but this method was plagued by the topographic difficulties. From the results it would appear that the first priority on the SE grid should be placed on the anomaly along the baseline, unless geochemical or other data would favour other targets. The relatively deep overburden of a till-like material seen in the creek gorge has reduced the signal so that few anomalies can be determined with the DDEM.

Apart from the anomaly which closely follows the baseline, two other "conductors" merit attention. One is approximately 125 m south of the baseline, the other approximately 250 m north thereof. The results are shown on pseudosections and as profiles, and also plotted on the map.

9.4 Sericite - SJ Zone

A. The Sericite - SJ zone survey grid is situated on a steep slope near the top of a mountain approximately NW of the camp. Two lines of MaxMin I horizontal loop EM were read, lines L2S, and L2+50S. In common with other horizontal loop EM surveys there were difficulties with the inphase readings, and only the quadrature data could be used for interpretation. The two highest frequencies defined a weak anomaly on each line. On L2S the anomaly is very wide, estimated to be about 60 m, while on line L2+50S the anomaly is about 6 m wide. The anomalies are centred at 230E and 233E, respectively.

9.5 Pins - Airborne EM

A. The PINS target area, situated in the southern part of the Pelican property was surveyed by VLF-EM on three lines, L1S, L1N, and L2N, using both the NAA and NLK transmitters. Both transmitter directions gave good anomalies but not usually in the same location. A true north trending set of structures appears most likely, but this cannot be established definitely from the data obtained in this survey. The results are shown in pseudosection form. The anomaly strengths suggest that relatively good conductors exist under this grid. The airborne EM anomalies also show good conductivities, but are not definite regarding anomaly axes. The flight lines are NNE - SSW which would be close to the expected N - S trend of the ground EM anomalies, and thus would not produce recognizable trends in the airborne data. Short but conductive targets trending approximately E-W cannot be ruled out.

9.6 Snow Zone

A. Several gossanous outcrops on top of the mountain were the targets of an attempted induced polarization survey. Only a limited amount of data could be obtained since the area is mainly outcrop or coarse talus, thus lacking places to inject sufficient current into the ground to obtain readings. Parts of the baseline and line 4N (4+50N?) were read, and some good anomalies were found.

9.7 Lake Airborne EM

A. A very sharp airborne EM response was recorded high on the mountain due south of the Pelican target and the camp. It was an one line feature, but its conductivity thickness product was high with an indicated surface exposure, and of interest for exploration. In order to locate the anomaly the area was traversed with the Double Dipole EM instrument. A very thin graphitic conductor was found, giving DDEM readings of several parts per thousand. The lateral extent was found to be small, since it could only be traced 10 - 20 m in each direction from the strongest response. It is assumed that the helicopter traversed right over the best conductivity to produce the recorded response. Other anomalies were found towards the edge of the cliff, though not as strong as the first one, and all of short lateral extent. The rough topography precluded the determination of single or multiple trends. The anomalies were marked but no grid was established. No mineralization of interest could be located.

9.8 Lake Reconnaissance Line (Lake Line)

A. The western part of the Lake line was surveyed with horizontal loop EM, but no anomalies were found. Time did not permit continuation of this survey.

B. The eastern part (0-1100E) was read with EM-16 VLF-EM, at a station spacing of 12.5 m. Several weak to very weak anomalies are seen in the pseudosection.

C. Double Dipole EM and magnetic surveys were done from 275W to 612.5E. Three very weak DDEM anomalies and three magnetic anomalies (not correlated) were found.

9.9 An Overview and Conclusions

Although the survey time was short for a large property such as the Pelican Project, the results were very encouraging, at least from the view of using geophysical techniques to locate targets. Without other corroborating data, however, the economic potential cannot be determined since only physical properties are measured, and in most cases little will be revealed about the actual minerals present.

For future exploration of the Pelican Project it is recommended that the SE and Pins grids be resurveyed with EM-16 at a shorter station interval, and the SE grid be explored further west. The anomaly quality tended to increase somewhat in this direction. The Pins grid also would benefit from fill-in lines and some line extensions to the west, with one or more lines added to the south, topography permitting.

The Snow Zone remains an interesting target, and is recommended for testing with EM-16, and also an SP survey using high impedance electrodes to overcome the ground conditions (except for coarse talus where no technique requiring ground contact would be likely to succeed).

The Pelican property would appear to be well suited to induced polarization surveys from a mineralization point of view, however, the ground conditions and topography would make such surveys generally unsuitable. The IP method requires a current of sufficient amplitude to be injected into the ground to synchronize the receiver, without which no readings are possible. Normally a moist soil is required to make sufficient contact with the current electrodes, thus in an area with outcrop or talus difficulties are encountered. On outcrop sometimes moist soil can be brought in and packed down to produce the contact, but this is a time consuming and cumbersome procedure. On thick talus it becomes impossible to provide the right conditions. The till-like material found n many places also turned out to be too poorly conductive to be of use in for current injection.

The VLF-EM technique using the EM-16 and appropriate filtering to produce pseudosections appears to give the most consistent results. While many of the anomalies will be caused by faults and shears without economic potential they none the less aid in the mapping of an area. Other techniques need to be used to discriminate between responses. A station spacing of 10-15 m is recommended for the EM-16 surveys to give good definition of the anomalies.

The MaxMin I horizontal loop EM confirmed that the frequencies in the VLF-EM range (15 kHz and above) are generally the most useful in this area. The inphase readings of the HLEM method are critically dependent on a consistent and accurate coil separation. The degree of accuracy depends also on the nominal separation, with higher accuracy required for the shorter cables. On even slopes or in flat terrain it is sufficient to measure the grid along surface, but in uneven terrain chaining to the horizontal plane is most desirable. The horizontal distance together with recorded average slope angles ensures that the appropriate corrections can be made to obtain smooth data and profiles. On the Pelican property the average slope angles were measured where line of sight existed, however no assurance existed that the station intervals were consistent or corrected for rough topography.

The Double Dipole EM is designed to quickly locate shallow conductive features, such as the Lake Airborne EM anomaly, and would possibly be useful on the PINS grid also to determine anomaly axes. The conditions on the other grids did not appear to favour this technique.

The magnetic surveys were a useful adjunct to the EM surveys.

Roger J. Caven, P. Eng.
Consulting Geologist
January 29, 1991

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11.0 STATEMENT OF QUALIFICATIONS

I, DENNIS M. GORC, residing at 103-2083 Coquitlam Avenue, in Port Coquitlam, British Columiba, V3B 1J4 state that:

(1) I graduated from Queen's University, Kingston, Ontario with a B.SC. (Eng.) degree in mineral exploration in May 1976.

(2) Since 1976, I have supervised mineral epxploration programs in British Columbia, N.W.T., Manitoba and Ontario.

(3) I am presently employed as a geologist with Cathedral Gold Corporation, Suite 800-601 West Hastings Street, Vancouver, B.C. V6B 5A6

(4) I supervised the 1990 exploration program on the Pelican property.

Dated this 22 day of May, 1991, in the City of Vancouver, Province of British Columbia.

Dennis M. Gorc
CATHEDRAL GOLD CORPORATION
Vancouver, B.C.

APPENDIX I

COST STATEMENT

COST STATEMENT

Geological-Geophysical-Geochemical Program
August 25-September 15, 1990

Wages

D. Gorc	Aug. 25-27, 29-31, Sept. 2-15	$5,000	
R. M. Jones	Aug. 28-Sept. 13	4,000	
N. Bertrand	Aug. 25-31, Sept. 1-12, 14	2,500	
B. Murphy	Aug. 25-31, Sept. 1-3	1,200	
A. Saltiel	Aug. 25-29	500	
D. Philip	Aug. 25-29	500	
D. Ross	Sept. 7-12, 14	700	
K. Palm	Aug. 29-31, Sept. 1-12, 14	1,600	$16,000

Travel - Transportation

Airline tickets:	Vancouver-Smithers-Vancouver MJ, RC (Geophysicist)	1,000	
Air freight -	Air charter (Central Mountain Air) Smithers-Bronson Strip	8,500	
Helicopter -	Trans North; Northern Mountain	24,000	33,500

Camp - Equipment

Food	3,000	
Field and camp equipment and supplies	3,500	
Radio rental	500	7,000

Geophysical

Consulting fees-Geophysics (Roger Caven) Aug. 28-Sept. 13	5,750

Geochemical

494 soil samples analyzed for 30 element ICP + gold by Atomic adsorption		
240 rock samples analyzed for 30 element ICP + gold by atomic adsorption		
11 Hg analysis by flameless atomic adsorption		6,900

Miscellaneous

Report (geologist, secretary, drafting, computer, reproductions)	10,000	
Shipping	500	
Miscellaneous (courier, telephone, truck rental)	350	10,850

Cost Summary

Wages	$16,000	
Travel-Transportation	33,500	
Camp-Equipment	7,000	
Geophysical	5,750	
Geochemical	6,900	
Miscellaneous	10,850	
		$80,000

Pelican SW Group - Gossan 4, 5, 8, 9, 22, 25	$30,000
Pelican NE Group - Gossan 1, 2, 3, 6, 7	50,000
	$80,000

APPENDIX II

GEOPHYSICAL EQUIPMENT

GEOPHYSICAL EQUIPMENT

The induced polarization equipment consisted of a Scintrex IPR-11 time domain receiver and the Scintrex TSQ-3 transmitter with a 3kVA motorgenerator. The transmitter output is a squarewave current of 2 seconds on and 2 seconds off with every second on pulse alternating in polarity. The receiver reads the primary voltage during current on to determine resistivity, and the secondary decaying voltage during off intervals. The decaying secondary, or induced voltage is measured in 10 consecutive intervals, windows (or slices 0 - 9), of which the slice number 7 is normally used for the interpretation of chargeability (IP effect). The IPR-11 is able to read the voltage between six pairs of potential electrodes simultaneously. The electrode pairs form an array with each pair probing to a depth determined by its order and the ground resistivity. The results are shown as a pseudosection.

The chargeability is interpreted relative to the background readings, and therefore the anomalies are not absolute, but apparent.

The MaxMin I horizontal loop EM system is the latest development by APEX Parametrics, and features eight frequencies from 220 - 14080 Hz, five of which were used on the Pelican Project. The horizontal loop EM has two coils (or antennas) to be held co-planar, one transmitting the sine-wave signal and the other receiving a combination of primary and secondary voltage, out of phase with the transmitted signal. The connecting reference cable enables the receiver to determine the phase shift, and thus determine the inphase and quadrature components of the received signal. The inphase component includes the primary voltage, the strength of which is determined by the intercoil separation to the third power. When the received signal is of low amplitude, as was the case at the Pelican property any errors in the coil separation cause large variations in the inphase component overwhelming the desired signal. Accurate determination of true coilseparation and a coplanar alignment of the coils makes possible precise corrections. The quadrature component is but little affected. The anomaly width is the width of the conductor plus the coilseparation.

The Geonics (Ronka) EM-16 is a low frequency radiowave receiver in the 15-25 kHz range. The radio transmitters are the Naval submarine communications transmitters located in the US and other parts of the world. The magnetic component of the long radio waves locally follow the topography unless a conductive feature cause them to tilt relative to the ground surface. This tilt angle is measured together with an out of phase component. The tilt angle is a measure of the inphase component, and because of the great distance to the transmitter the radiowaves behave as plane waves and provide an even "illumination" over a large area, unlike the very local behaviour of the primary signal in the horizontal loop configuration.

Since the tilt angle is measured in the VLF (Very Low Frequency) survey, the direction of measurement determines the sign of the tilt. In the direction of travel and reading the change of tilt from positive to negative, relative to ground slope, signals the presence of a "conductor". Since the measurement of ground slope for each station is cumbersome, a filter technique is employed to remove the ground slope from the data, and at the same time convert the change of tilt angle into a positive peak over the conductor. The present filter is sensitive to weak conductors and effectively removes topographic effects. In order to avoid undue noise created by less than exact readings a lowest contour of +1 is used throughout, and attention is usually paid to values above +2. Values of filtered data less than 10% are classified as weak, although they may signify important mineralization or other ground condition to be investigated.

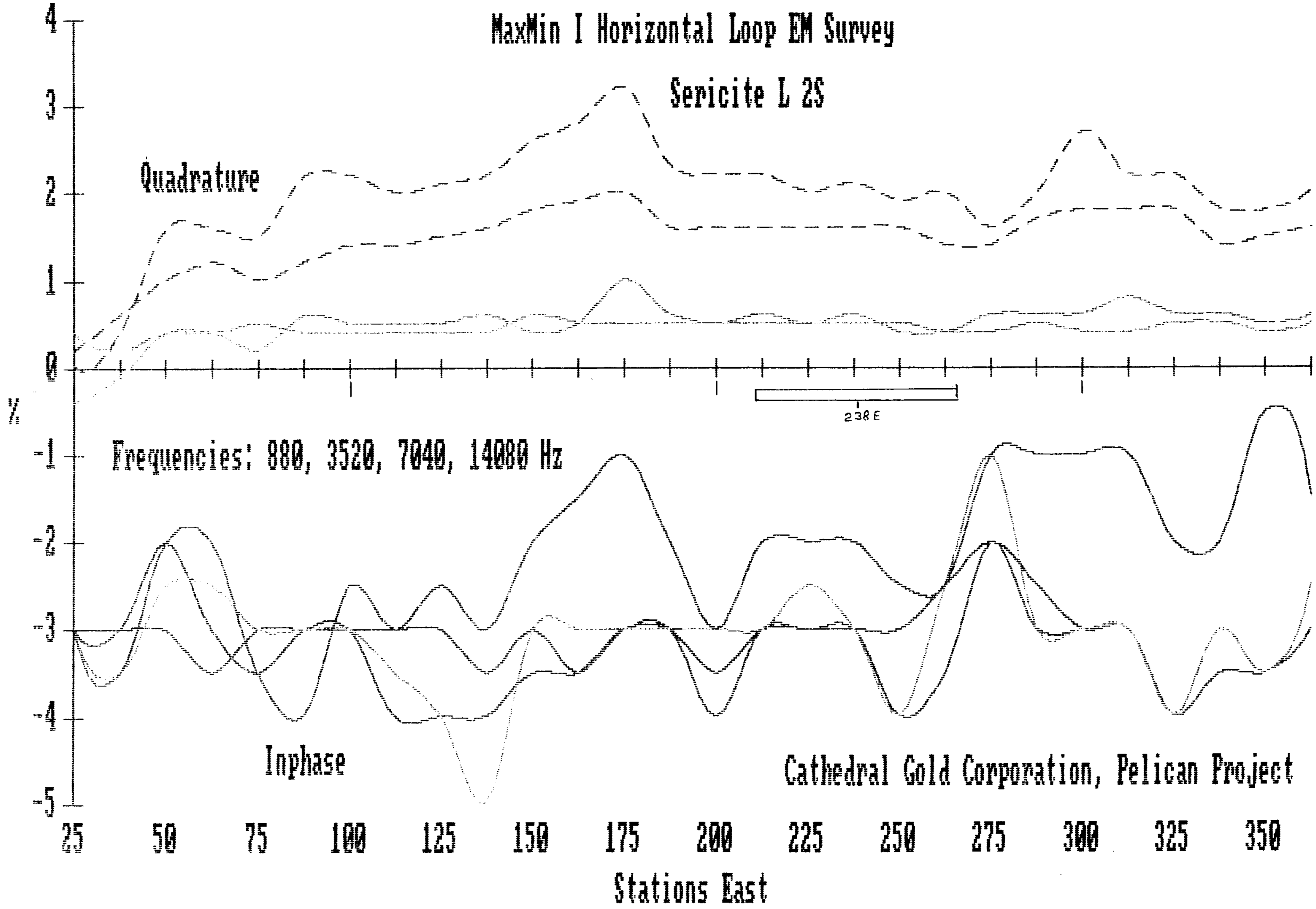
The Double Dipole EM by APEX Parametrics consists of a stable wooden beam with inclined parallel transmitter and receiver coils, one at each end. A sine wave at 5000Hz is transmitted. The principle is similar to the horizontal loop EM except that the inclination of the coils combined with a precise separation makes it possible to eliminate the primary transmitted signal from the receiver coil, which then only records the secondary voltages emanating from the ground. Sensitivity is thus enhanced, and it is possible to read signals in ppm of primary voltage. The 1.5 m coil separation diminishes the depth penetration, especially in conductive terrains.

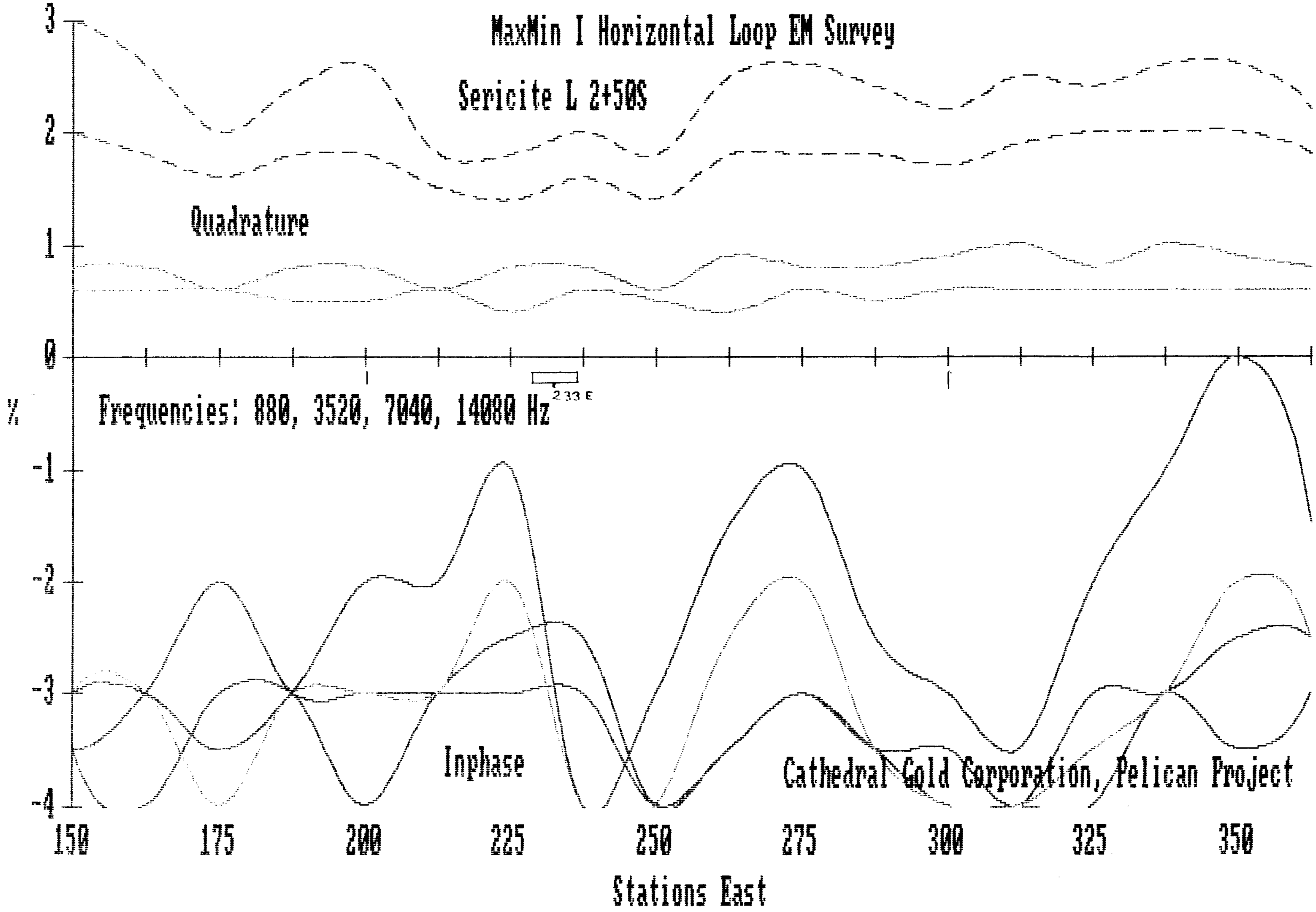
The DDEM has been useful in locating small conductive targets, and because it can be read while traversing precise locations can be obtained quickly without grids. Coincident positive inphase and quadrature peaks indicate conductors. Good conductors normally read 1000 - 10,000 ppm, as did the graphite band at the airborne anomaly. The Pelican and SE grids had much smaller values.

APPENDIX III

SJ ZONE - GEOPHYSICAL PLOTS

Max-Min Horizontal Loop EM
Sericite L2S, L2+50S


MaxMin I Horizontal Loop EM Survey
Sericite L 2S
Quadrature
Frequencies: 880, 3520, 7040, 14080 Hz
Inphase
Cathedral Gold Corporation, Pelican Project
238E
%
4
3
2
1
0
-1
-2
-3
-4
-5
25
50
75
100
125
150
175
200
225
250
275
300
325
350
Stations East


MaxMin I Horizontal Loop EM Survey
Sericite L 2+50S
Quadrature
Frequencies: 880, 3520, 7040, 14080 Hz
Inphase
Cathedral Gold Corporation, Pelican Project
%
3
2
1
0
-1
-2
-3
-4
150
175
200
225
250
275
300
325
350
Stations East

APPENDIX IV

SOUTHEAST GRID - GEOPHYSICAL PLOTS

EM-16 (Seattle, Washington)
L1W, L2W, L3W, L4W, L5W, L6W, L7W, L8W

EM-16 (Cather, Maine)
L1W, L2W, L3W, L4w, L5W, L6W, L7W, L8W

Max-Min Horizontal Loop EM
L5W, L5W

Double Dipole EM and Magnetics
L5W, L6W, L7W, L8W, L9W

Project: Cathedral Gold Corp/ Pelican Line#: SE 1 EM16 Seattle

Stn	Inph	Quad	n1	n2	n3	n4	n5
300N	20.0	3.0					
275N	20.0	3.0					
			1.7				
250N	23.0	4.0					
			0.4				
225N	24.0	4.0		0.1			
			-0.1				
200N	24.0	6.0		0.3			
			0.3		2.9		
175N	25.0	8.0		3.1			
			2.5		0.3		
150N	29.0	4.0		-0.1		0.1	
			-2.5		-0.1		
125N	25.0	3.0		-2.7		-0.4	
			0.2		-2.8		0.2
100N	25.0	3.0		0.0		-2.0	
			-0.1		0.5		-3.1
75N	25.0	5.0		0.6		-0.2	
			0.6		0.0		2.3
50N	26.0	6.0		-0.1		2.2	
			-0.9		2.7		1.2
25N	25.0	5.0		1.9		1.2	
			2.5		0.4		-0.2
000	29.0	6.0		1.2		-0.4	
			-1.3		-0.1		0.5
25S	27.0	8.0		-2.7		1.2	
			-1.2		-1.3		2.7
50S	25.0	6.0		-0.1		-0.2	
			1.2		1.2		-1.3
75S	27.0	7.0		2.8		-0.1	
			1.2		1.1		-0.8
100S	29.0	5.0		0.0		0.1	
			-1.2		-1.2		1.8
125S	27.0	6.0		-2.7		0.5	
			-1.2		-1.2		
150S	25.0	8.0		0.0		0.2	
			1.2		1.1		
175S	27.0	10.0		2.1			
			0.5		2.0		
200S	28.0	8.0		0.6			
			-0.5				
225S	27.0	8.0		-1.3			
			-0.6				
250S	25.0	5.0					
			-4.4				
275S	17.0	8.0					
300S	15.0	6.0					

Project: Cathedral Gold Corp/ Pelican Line#: SE 2 EM16 Seattle

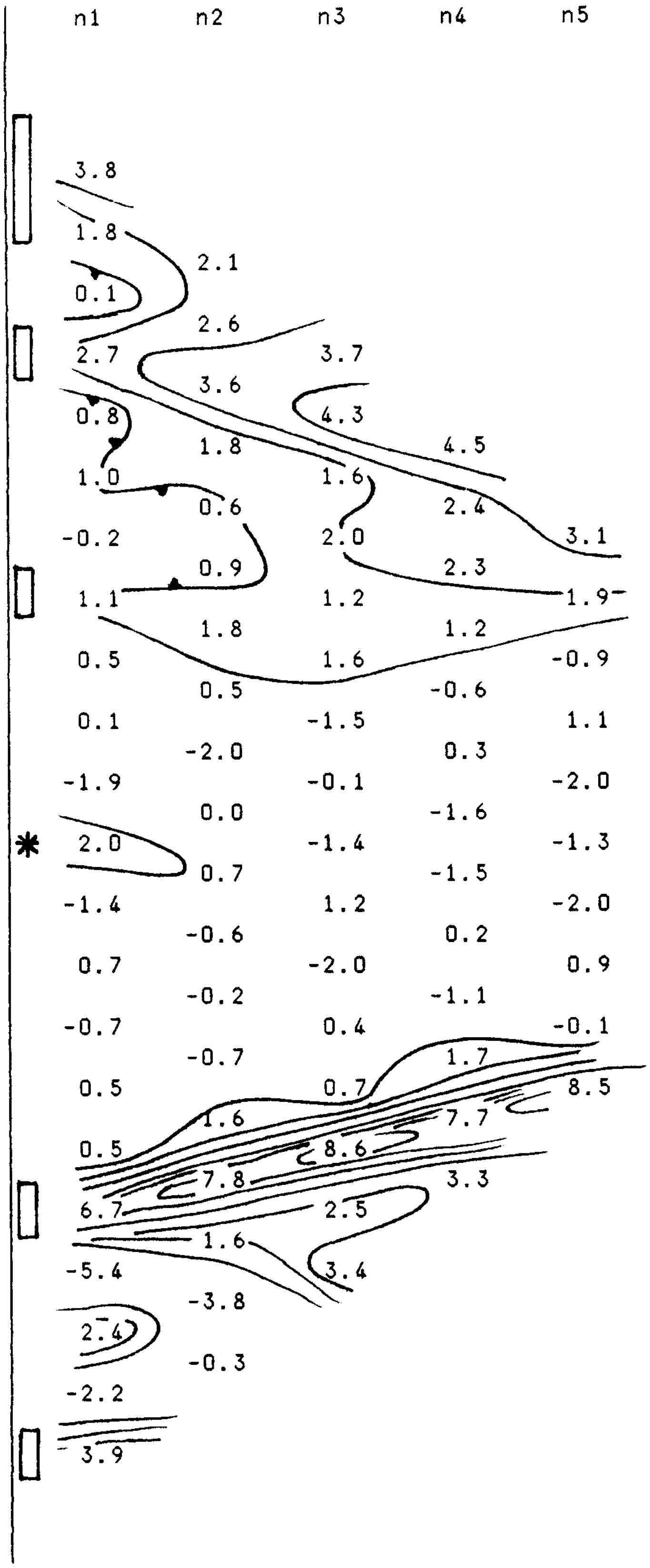
Stn	Inph	Quad	n1	n2	n3	n4	n5
300N	-20.0	-4.0					
275N	-15.0	-2.0					
			-0.8				
250N	-16.0	-2.0					
			-0.6				
225N	-17.0	-2.0		0.6			
			1.4				
200N	-15.0	-4.0		-1			
			-2.4		-1.1		
175N	-19.0	-3.0		-2.0			
			0.3		-3.1		
150N	-19.0	-7.0		-0.3		-6.3	
			-0.3		-3.5		
125N	-20.0	-6.0		-3.7		-2.2	
			-2.9		-2.4		1.7
100N	-25.0	-6.0		-1.8		1.7	
			1.1		2.2		-0.8
75N	-23.0	2.0		5.1		-0.1	
			3.6		2.8		0.5
50N	-17.0	-3.0		1.3		3.7	
			-2.7		2.4		3.0
25N	-21.0	-1.0		-2.0		1.6	
			0.9		-2.3		0.8
000	-20.0	-2.0		0.2		-3.5	
			-0.5		-1.3		-6.0
25S	-21.0	-4.0		-1.5		-3.3	
			-0.9		-4.3		-1.6
50S	-23.0	-4.0		-3.6		-2.5	
			-2.4		-1.2		-2.9
75S	-27.0	-2.0		-0.3		-2.4	
			2.0		-1.0		-2.2
100S	-24.0	-6.0		1.7		-0.8	
			-0.7		1.6		-3.5
125S	-25.0	-6.0		-0.5		-0.8	
			0.3		-2.9		
150S	-25.0	-5.0		-2.7		-0.2	
			-2.5		0.4		
175S	-29.0	-3.0		0.1			
			2.5		0.1		
200S	-25.0	-6.0		2.8			
			-0.2				
225S	-25.0	-7.0		0.2			
			0.3				
250S	-25.0	-6.0					
			-3.0				
275S	-30.0	-6.0					
300S	-28.0	-6.0					

Project: Cathedral Gold Corp/ Pelican Line#: SE 3 EM16 Seattle

Stn	Inph	Quad	n1	n2	n3	n4	n5
300N	17.0	6.0					
275N	10.0	5.0					
			4.0				
250N	16.0	4.0					
			-2.2				
225N	13.0	6.0		0.1			
			2.0				
200N	16.0	7.0		0.1			
			-1.4		1.8		
175N	14.0	6.0		-0.2			
			1.1		1.6		
150N	16.0	8.0		2.8		2.7	
			1.6		3.8		
125N	19.0	8.0		2.5		2.8	
			0.5		1.8		1.3
100N	20.0	10.0		-0.1		-0.1	
			-0.5		-2.0		-0.4
75N	19.0	8.0		-2.5		-2.1	
			-1.7		-2.7		-2.9
50N	16.0	5.0		-1.8		-3.2	
			0.2		-2.6		-2.2
25N	16.0	2.0		-0.5		-1.7	
			-0.7		0.7		-1.6
000	15.0	3.0		0.7		0.5	
			1.2		0.5		0.1
25S	17.0	3.0		1.2		0.5	
			-0.1		1.3		0.2
50S	17.0	3.0		-0.3		1.0	
			0.0		-0.3		4.3
75S	17.0	3.0		-0.2		2.9	
			-0.3		2.7		
100S	17.0	4.0		2.9		0.3	
			3.1		0.1		
125S	22.0	2.0		0.2			
			-2.8		2.2		
150S	18.0	3.0		-1.0			
			1.8				
175S	21.0	4.0		3.5			
			1.6				
200S	24.0	4.0					
			-0.1				
225S	24.0	4.0					
250S	22.0	6.0					

Project: Cathedral Gold Corp/ Pelican Line#: SE 4 EM16 Seattle

Stn	Inph	Quad
300N	-8.0	3.0
275N	-8.0	2.0
250N	-1.0	4.0
225N	3.0	2.0
200N	4.0	6.0
175N	9.0	7.0
150N	11.0	7.0
125N	13.0	8.0
100N	13.0	8.0
75N	15.0	10.0
50N	16.0	8.0
25N	16.0	9.0
000	13.0	6.0
25S	16.0	5.0
50S	14.0	5.0
75S	15.0	5.0
100S	14.0	6.0
125S	15.0	5.0
150S	17.0	4.0
175S	28.0	9.0
200S	20.0	9.0
225S	23.0	8.0
250S	20.0	6.0
275S	26.0	8.0
300S	22.0	5.0



Project: Cathedral Gold Corp/ Pelican Line#: SE 5 EM16 Seattle

Stn	Inph	Quad	n1	n2	n3	n4	n5
300N	-22.0	-5.0					
275N	-24.0	-12.0					
			4.0				
250N	-17.0	-6.0					
			1.2				
225N	-14.0	-3.0		2.2			
			0.6				
200N	-12.0	-6.0		4.5			
			4.0		3.8		
175N	-5.0	-1.0		3.1			
			-1.2		4.4		
150N	-6.0	-5.0		0.5		4.2	
			1.8		-0.1		
125N	-3.0	-7.0		0.7		2.4	
			-1		3.4		1.1
100N	-4.0	-9.0		1.8		2.0	
			2.5		0.5		0.3
75N	0.0	-8.0		1.3		-1	
			-1.3		0.2		-2.8
50N	-2.0	-9.0		-2.1		-2.1	
			-0.9		-4.3		-4.0
25N	-4.0	-10.0		-2.9		-5.9	
			-1.4		-4.8		-5.1
000	-7.0	-5.0		-3.3		-3.5	
			-1.7		-2.1		-3.3
25S	-10.0	-8.0		-0.3		-2.0	
			1.3		-0.0		-2.1
50S	-8.0	-6.0		1.7		-0.1	
			-0.1		1.8		-2.6
75S	-8.0	-8.0		0.2		-0.5	
			0.2		-2.0		-0.2
100S	-8.0	-6.0		-2.4		-1.3	
			-2.4		-1.5		-1.8
125S	-12.0	-4.0		-1.6		-2.1	
			0.9		-2.4		
150S	-11.0	-6.0		0.3		-2.8	
			-0.6		-0.4		
175S	-12.0	-7.0		-1			
			-0.5		-1.6		
200S	-13.0	-6.0		-1.3			
			-0.6				
225S	-14.0	-6.0		0.1			
			0.6				
250S	-13.0	-7.0					
			0.6				
275S	-12.0	-8.0					
300S	-13.0	-5.0					

Project: Cathedral Gold Corp/ Pelican Line#: SE 6 EM16 Seattle

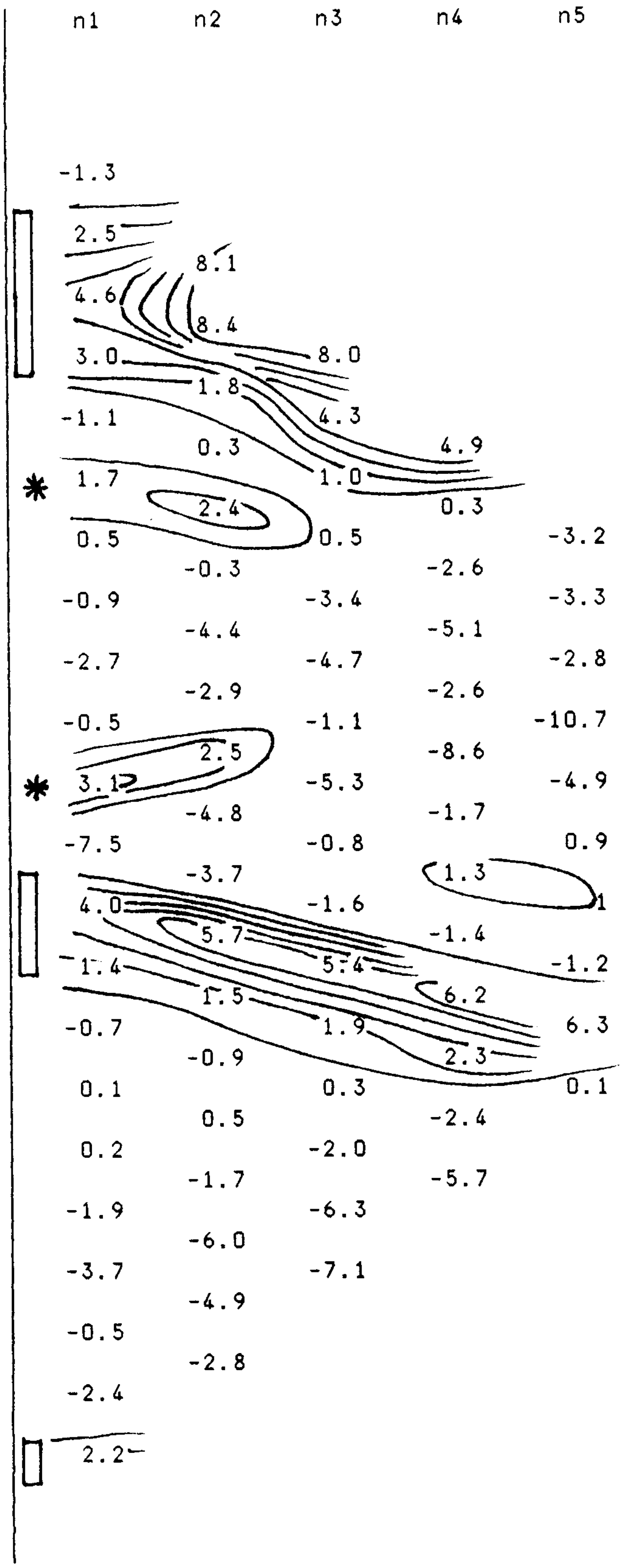
Stn	Inph	Quad	n1	n2	n3	n4	n5
300N	5.0	-2.0					
275N	1.0	-4.0					
			2.0				
250N	5.0	-4.0					
			5.5				
225N	15.0	-4.0		5.9			
			-0.6				
200N	15.0	-2.0		-0.6			
			0.2		-2.3		
175N	15.0	0.0		-2.4			
			-1.7		-2.4		
150N	12.0	-3.0		-1.7		-1.2	
			0.1		-1.3		
125N	12.0	-3.0		0.9		-1.8	
			0.6		0.6		-2.8
100N	13.0	-4.0		0.6		-0.9	
			-0.5		-0.4		-3.7
75N	12.0	-5.0		-1.4		-3.5	
			-0.8		-4.2		-4.2
50N	10.0	-4.0		-3.7		-4.2	
			-2.7		-4.3		-6.9
25N	5.0	-5.0		-3.0		-6.2	
			-0.1		-5.0		-6.8
000	4.0	-5.0		-2.4		-5.8	
			-2.2		-2.5		-6.3
25S	0.0	-5.0		-1.9		-3.2	
			-0.3		-2.7		-9.4
50S	-1.0	-4.0		-0.4		-8.9	
			0.1		-6.5		-7.3
75S	-2.0	-5.0		-6.3		-5.0	
			-5.8		-5.0		-2.3
100S	-12.0	-7.0		-4.5		-3.0	
			1.6		-2.9		
125S	-10.0	-6.0		2.9		-2.8	
			1.2		2.1		
150S	-8.0	-4.0		0.6			
			-1.4		3.2		
175S	-10.0	-4.0		0.2			
			1.5				
200S	-8.0	-4.0		0.2			
			-2.2				
225S	-12.0	-5.0					
			-0.3				
250S	-15.0	-6.0					
275S	-35.0	0.0					

Project: Cathedral Gold Corp/ Pelican Line#: SE 7 EM16 Seattle

Stn	Inph	Quad		n1	n2	n3	n4	n5
275N	5.0	0.0						
250N	8.0	0.0						
				2.6				
225N	13.0	2.0						
				0.6				
200N	15.0	4.0			3.1			
				2.0				
175N	19.0	-2.0			4.3			
				1.7		1.4		
150N	22.0	-4.0			-0.6		-3.0	
				-2.1		-5.3		-2.4
125N	18.0	-6.0			-6.9		-4.7	
				-3.9		-6.1		-4.2
100N	11.0	-5.0			-3.4		-5.7	
				0.9		-2.8		-6.3
75N	12.0	2.0	*		2.1		-3.5	
				0.6		1.3		-5.9
50N	13.0	-4.0			0.5		-1.3	
				-0.4		-1.7		-0.5
25N	12.0	-1.0			-3.0		-0.8	
				-2.3		-1.8		-1.4
000	8.0	-2.0			-1.6		-1.8	
				0.9		-1.9		-2.3
25S	9.0	-2.0			0.5		-1.9	
				-0.6		0.1		-3.2
50S	8.0	-1.0			-0.6		-0.9	
				-0.4		-1.6		
75S	7.0	-2.0			-1.4		-5.0	
				-0.8		-4.0		
100S	5.0	-2.0			-3.7			
				-2.7		-4.6		
125S	0.0	-2.0			-2.9			
				-0.1				
150S	-1.0	-2.0			-2.1			
				-1.5				
175S	-4.0	-1.0						
				-2.0				
200S	-7.0	2.0						
225S	0.0	3.0						

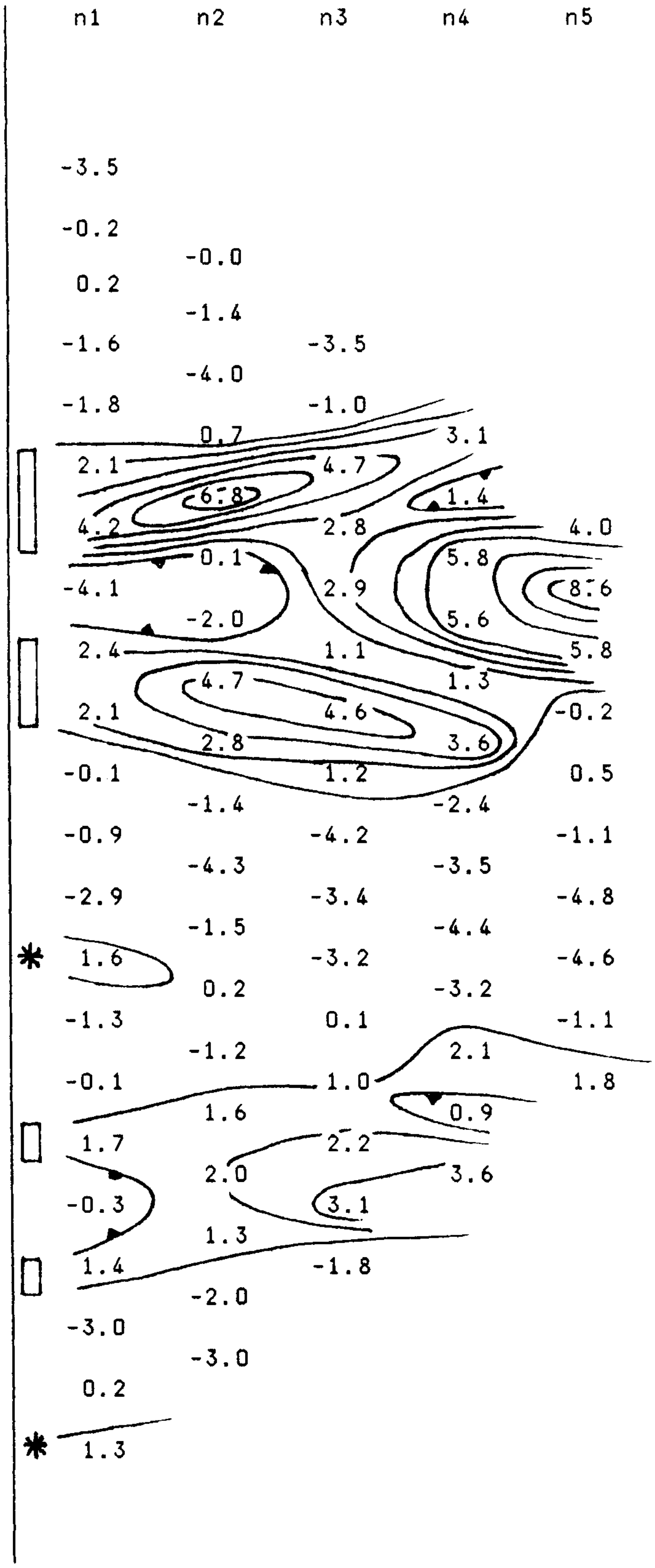
Project: Cathedral Gold Corp/ Pelican Line#: SE 8 EM16 Seattle

Stn	Inph	Quad
300N	5.0	6.0
275N	2.0	5.0
250N	0.0	5.0
225N	5.0	4.0
200N	14.0	3.0
175N	20.0	0.0
150N	19.0	-3.0
125N	22.0	-4.0
100N	23.0	-4.0
75N	21.0	-6.0
50N	16.0	-12.0
25N	15.0	-8.0
000	19.0	1.0
25S	7.0	-4.0
50S	13.0	0.0
75S	16.0	1.0
100S	15.0	-8.0
125*	15.0	-5.0
150S	15.0	-2.0
175S	11.0	-2.0
200S	4.0	-1.0
225S	2.0	-1.0
250S	-2.0	3.0
275S	1.0	4.0
300S	-3.0	2.0



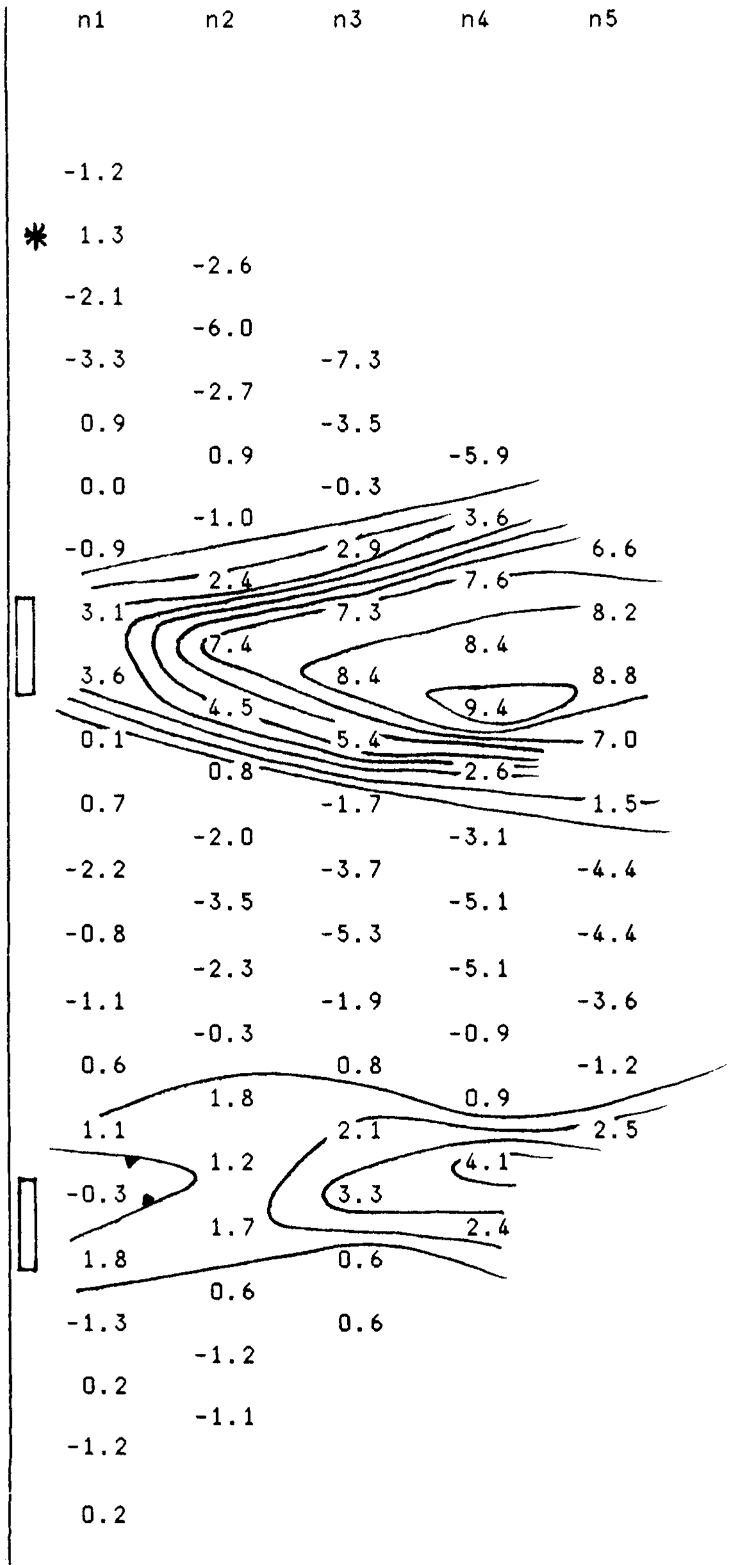
Project: Cathedral Gold Corp/ Pelican Line#: SE 1 EM16 Cutler

Stn	Inph	Quad
300N	20.0	2.0
275N	22.0	3.0
250N	16.0	2.0
225N	15.0	2.0
200N	15.0	2.0
175N	12.0	-1.0
150N	9.0	0.0
125N	13.0	2.0
100N	20.0	-2.0
75N	14.0	0.0
50N	18.0	0.0
25N	22.0	-2.0
000	22.0	-2.0
25S	20.0	0.0
50S	15.0	2.0
75S	17.0	2.0
100S	15.0	0.0
125S	15.0	1.0
150S	18.0	4.0
125S	18.0	4.0
200S	20.0	4.0
225S	15.0	6.0
250S	15.0	7.0
275S	17.0	10.0
300S	15.0	10.0



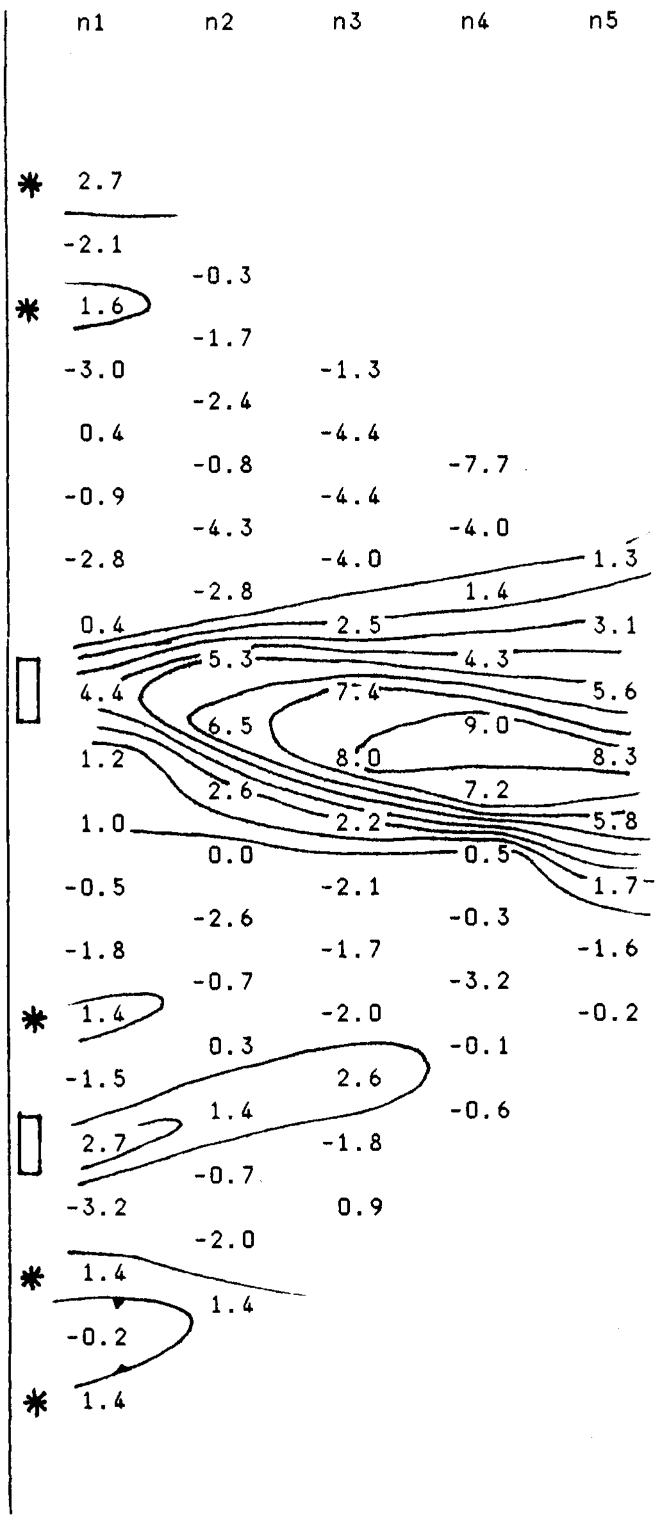
Project: Cathedral Gold Corp/ Pelican Line#: SE 2 EM16 Cutler

Stn	Inph	Quad
300N	-13.0	0.0
275N	16.0	5.0
250N	17.0	2.0
225N	19.0	0.0
200N	15.0	0.0
175N	9.0	-2.0
150N	10.0	-2.0
125N	10.0	3.0
100N	9.0	-2.0
75N	15.0	-3.0
50N	22.0	-3.0
25N	23.0	1.0
000	24.0	0.0
25S	20.0	-1.0
50S	18.0	0.0
75S	16.0	-2.0
100S	17.0	2.0
125S	19.0	2.0
150S	19.0	2.0
175S	22.0	6.0
200S	20.0	4.0
225S	20.0	8.0
250S	18.0	9.0
275S	18.0	9.0
300S	16.0	-10.0



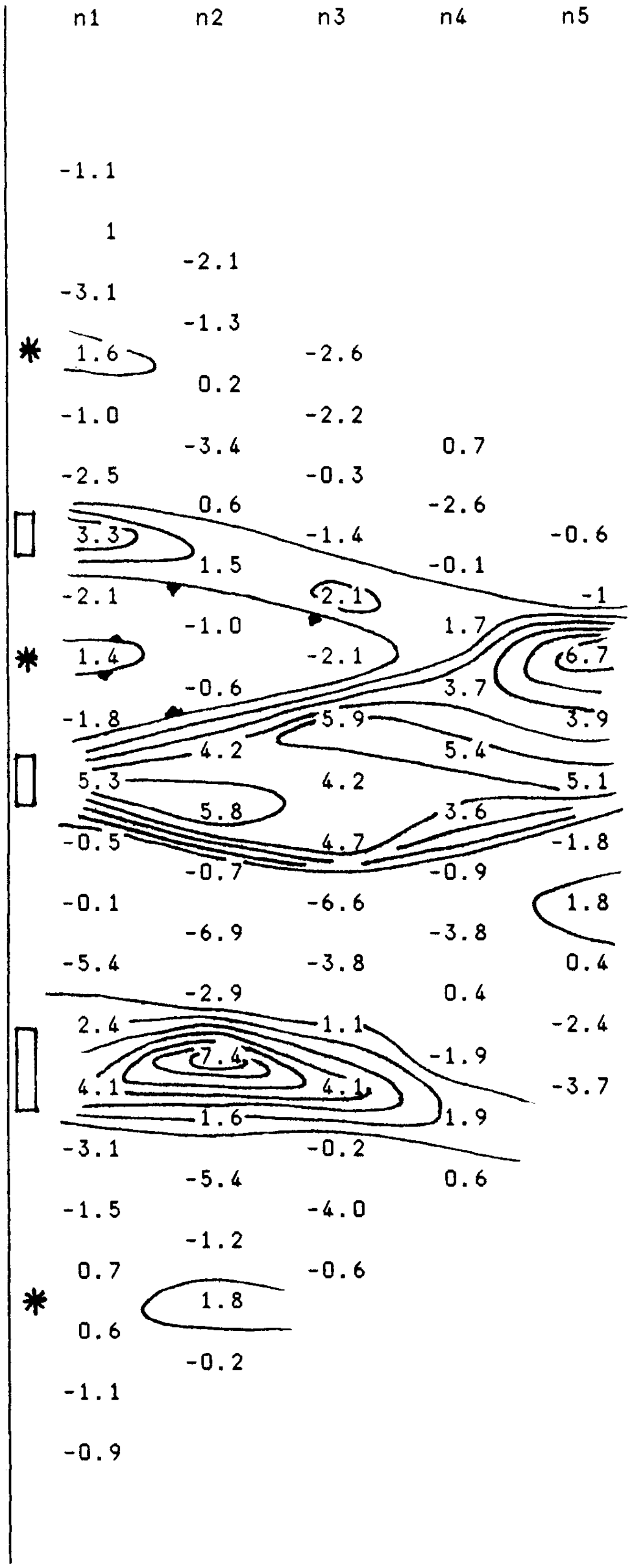
Project: Cathedral Gold Corp/ Pelican Line#: SE 3 EM16 Cutler

Stn	Inph	Quad
300N	17.0	3.0
275N	14.0	3.0
250N	18.0	4.0
225N	15.0	4.0
200N	17.0	6.0
175N	12.0	0.0
150N	12.0	2.0
125N	10.0	-4.0
100N	5.0	-5.0
75N	6.0	-7.0
50N	14.0	-2.0
25N	17.0	0.0
000	19.0	0.0
25S	18.0	2.0
50S	15.0	2.0
75S	17.0	3.0
100S	15.0	4.0
125S	19.0	4.0
150S	14.0	2.0
175S	16.0	8.0
200S	16.0	9.0
225S	18.0	10.0
250S	13.0	9.0



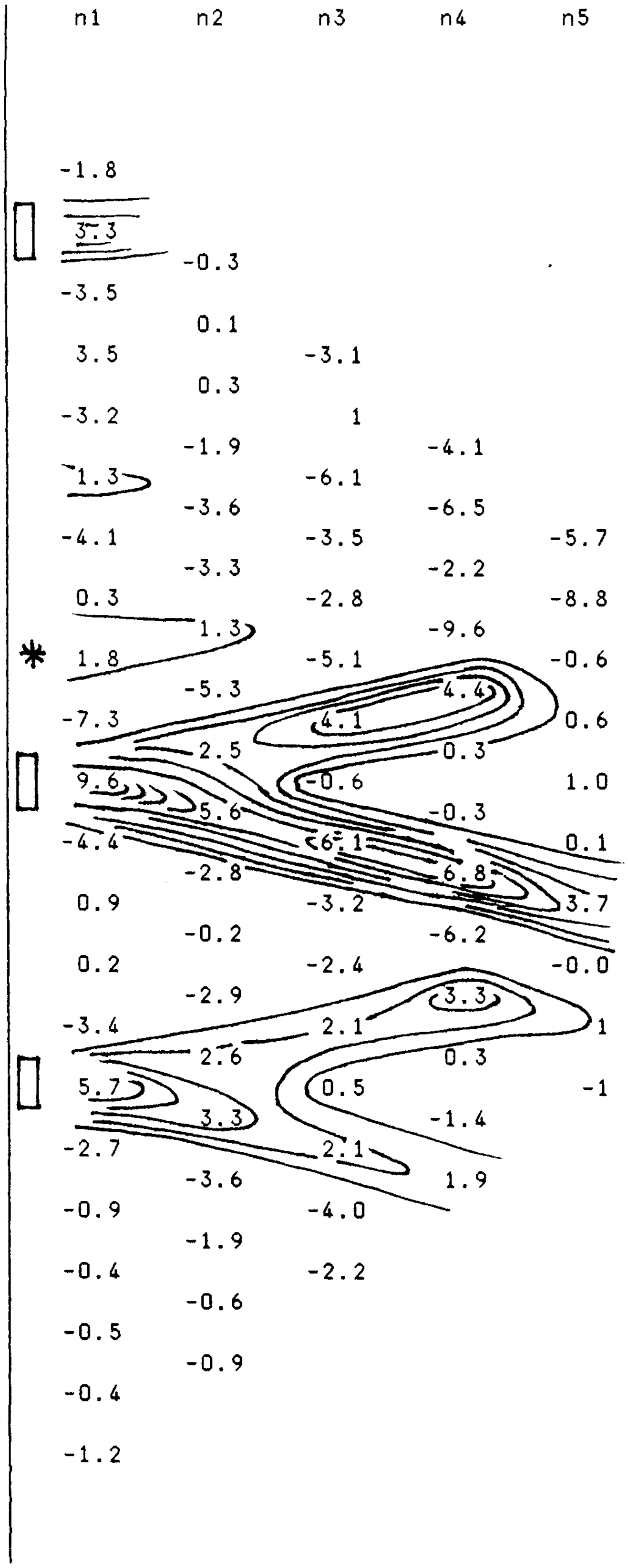
Project: Cathedral Gold Corp/ Pelican Line#: SE 4 EM16 Cutler

Stn	Inph	Quad
300N	23.0	4.0
275N	21.0	0.0
250N	19.0	2.0
225N	20.0	0.0
200N	15.0	4.0
175N	17.0	-2.0
150N	15.0	-2.0
125N	11.0	-2.0
100N	16.0	-3.0
75N	13.0	-2.0
50N	15.0	-2.0
25N	13.0	-2.0
000	22.0	0.0
25S	22.0	2.0
50S	21.0	2.0
75S	12.0	3.0
100S	16.0	4.0
125S	23.0	8.0
150S	18.0	4.0
175S	15.0	5.0
200S	16.0	8.0
225S	17.0	3.0
250S	15.0	6.0
275S	13.0	5.0
300S	11.0	5.0



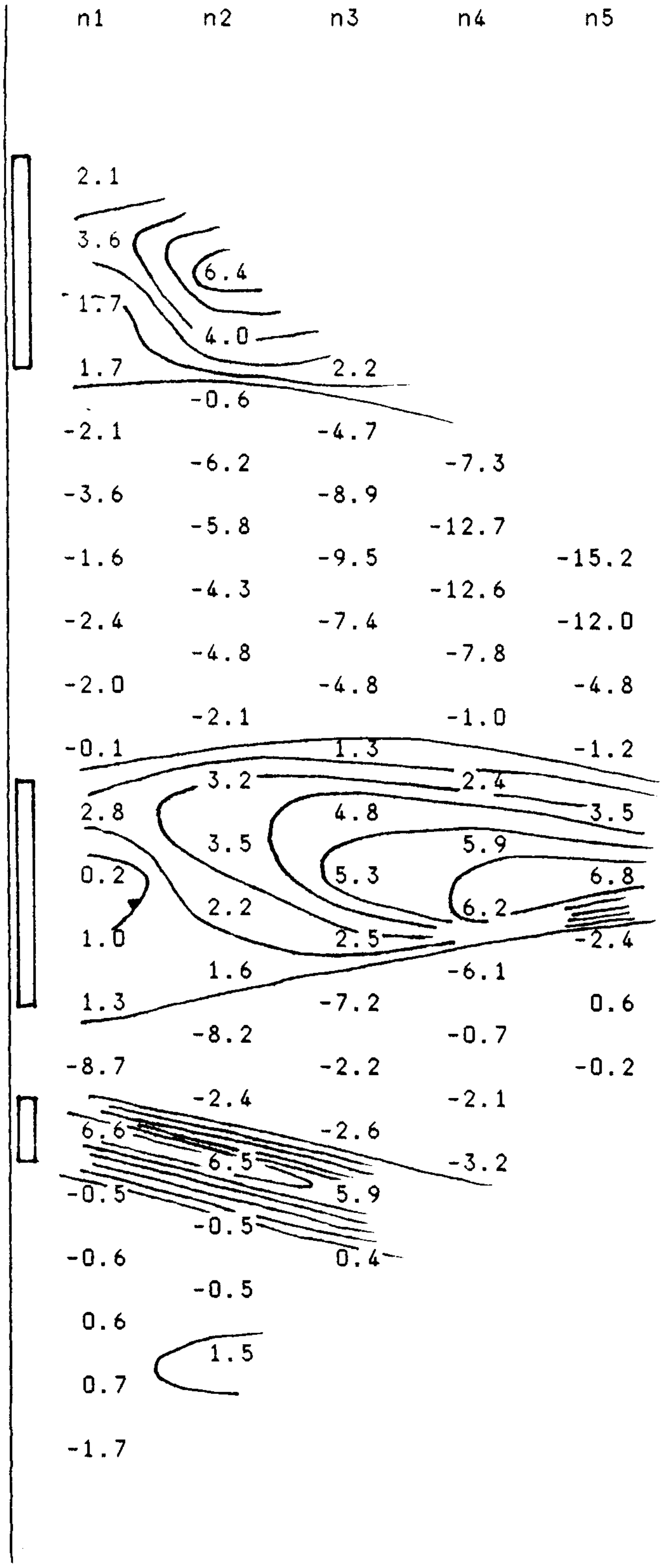
Project: Cathedral Gold Corp/ Pelican Line#: SE 5 EM16 Cutler

Stn	Inph	Quad
300N	15.0	-2.0
275N	22.0	0.0
250N	20.0	-3.0
225N	25.0	-3.0
200N	20.0	-3.0
175N	25.0	-2.0
150N	20.0	-3.0
125N	21.0	0.0
100N	14.0	-4.0
75N	14.0	-4.0
50N	16.0	-8.0
25N	5.0	-8.0
000	20.0	8.0
25S	14.0	2.0
50S	15.0	-3.0
75S	15.0	4.0
100S	10.0	2.0
125S	19.0	5.0
150S	15.0	8.0
175S	13.0	7.0
200S	12.0	6.0
225S	11.0	5.0
250S	10.0	10.0
275S	8.0	7.0
300S	9.0	9.0



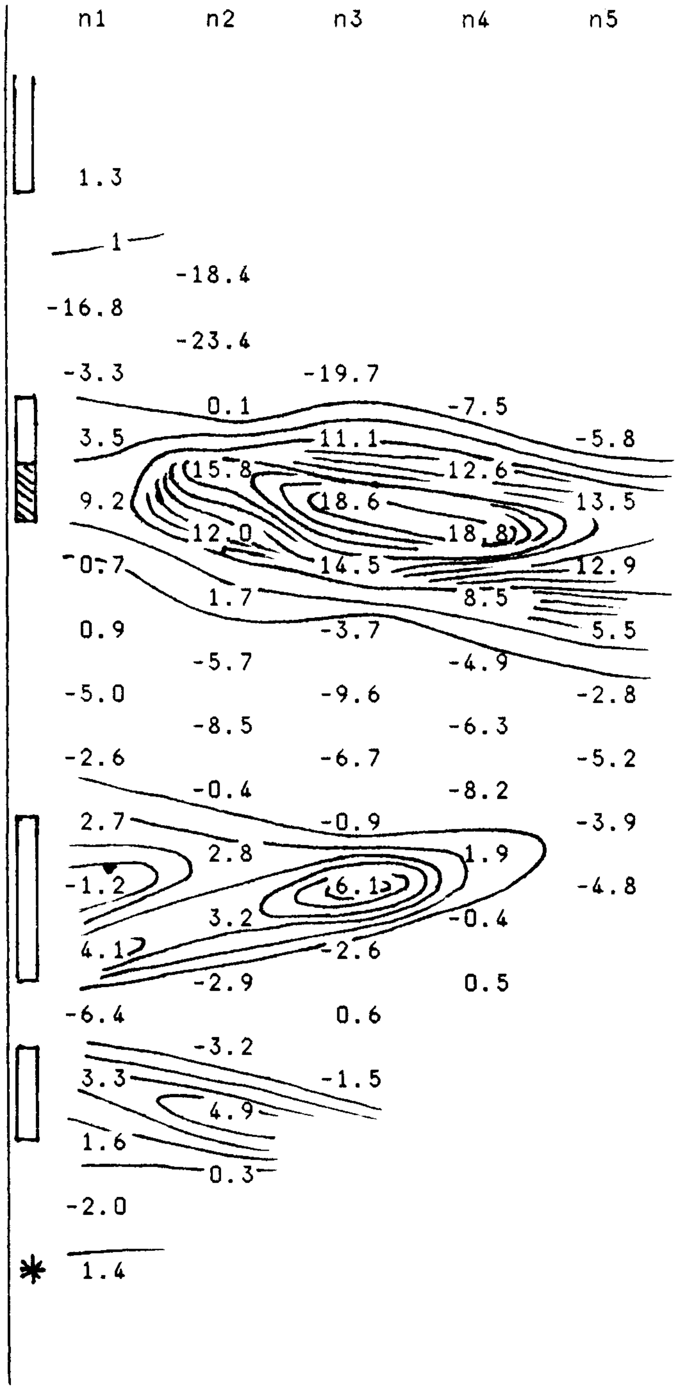
Project: Cathedral Gold Corp/ Pelican Line#: SE 6 EM16 Cutler

Stn	Inph	Quad
300N	20.0	-4.0
275N	16.0	-4.0
250N	20.0	-4.0
225N	27.0	-3.0
200N	31.0	-2.0
175N	34.0	-2.0
150N	30.0	-2.0
125N	23.0	-6.0
100N	19.0	-3.0
75N	14.0	-6.0
50N	10.0	-5.0
25N	10.0	-4.0
000	15.0	1.0
25S	16.0	0.0
50S	18.0	1.0
75S	19.0	2.0
100S	5.0	5.0
125S	15.0	5.0
150S	15.0	8.0
175S	14.0	4.0
200S	15.0	8.0
225S	16.0	8.0
250S	13.0	8.0
275S	11.0	8.0



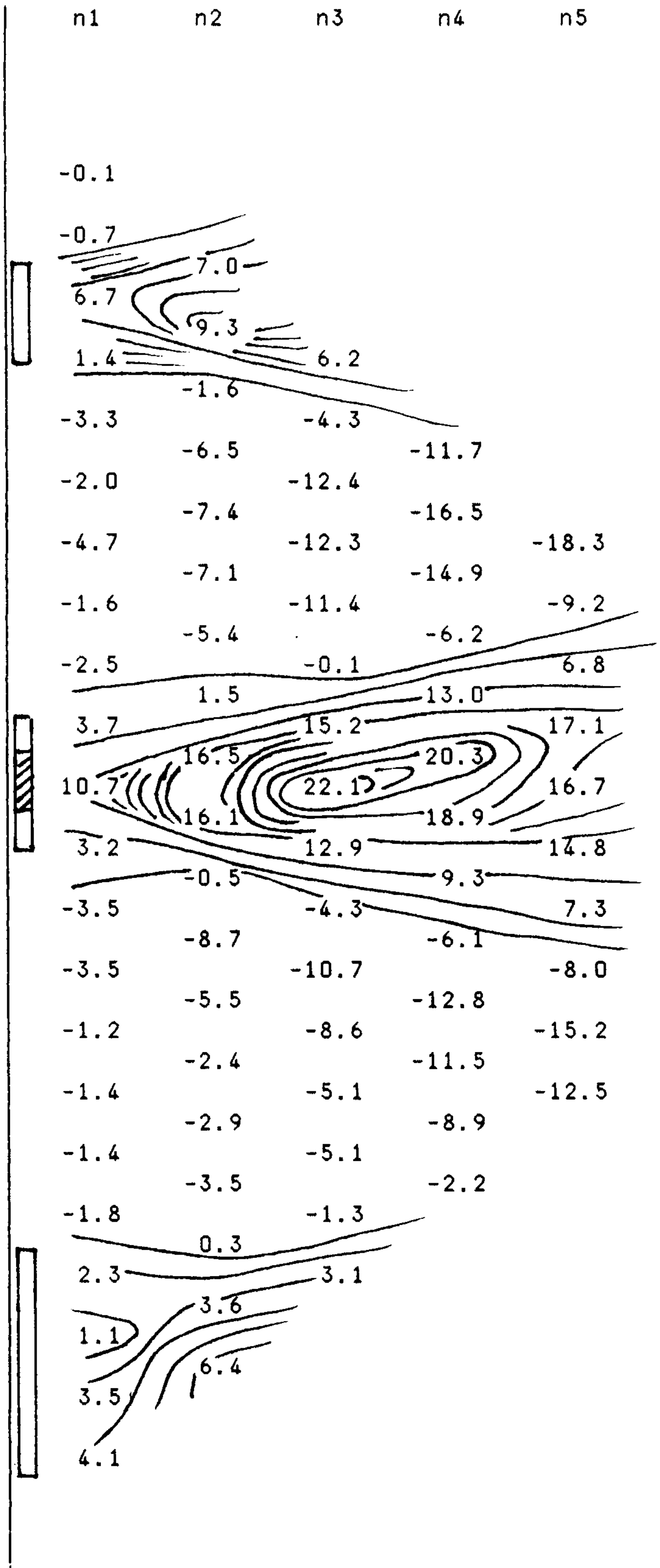
Project: Cathedral Gold Corp/ Pelican Line#: SE 7 EM16 Cutler

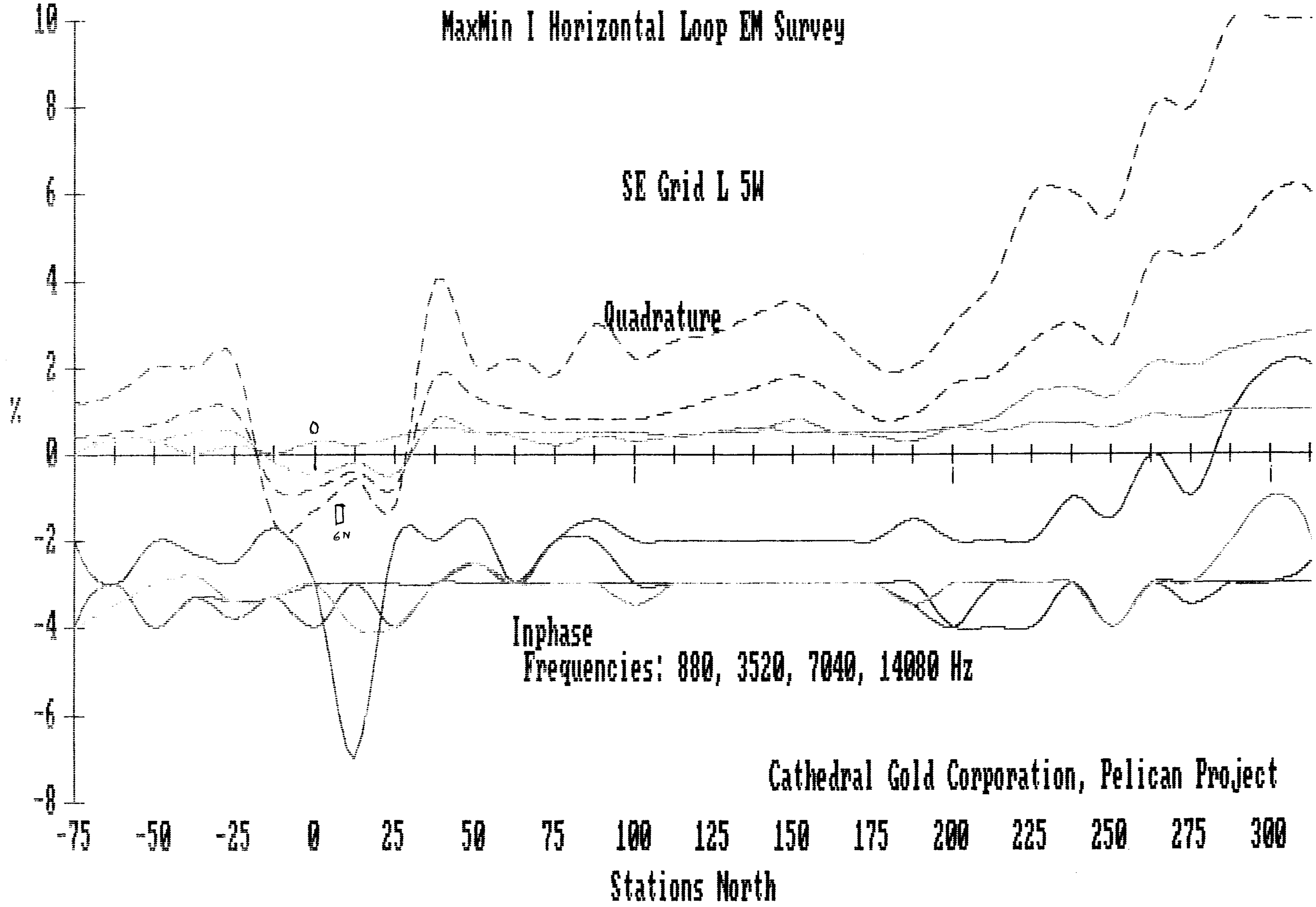
Stn	Inph	Quad
275N	-10.0	1.0
250N	-2.0	0.0
225N	1.0	4.0
200N	0.0	-2.0
175N	-30.0	2.0
150N	-38.0	0.0
125N	-31.0	6.0
100N	-14.0	4.0
75N	-11.0	3.0
50N	-10.0	0.0
25N	-19.0	1.0
000	-24.0	-2.0
25S	-20.0	0.0
50S	-21.0	-4.0
75S	-15.0	-4.0
100S	-25.0	-3.0
125S	-20.0	-4.0
150S	-17.0	-6.0
175S	-20.0	-8.0
200	-18.0	-7.0
225S	-20.0	-8.0



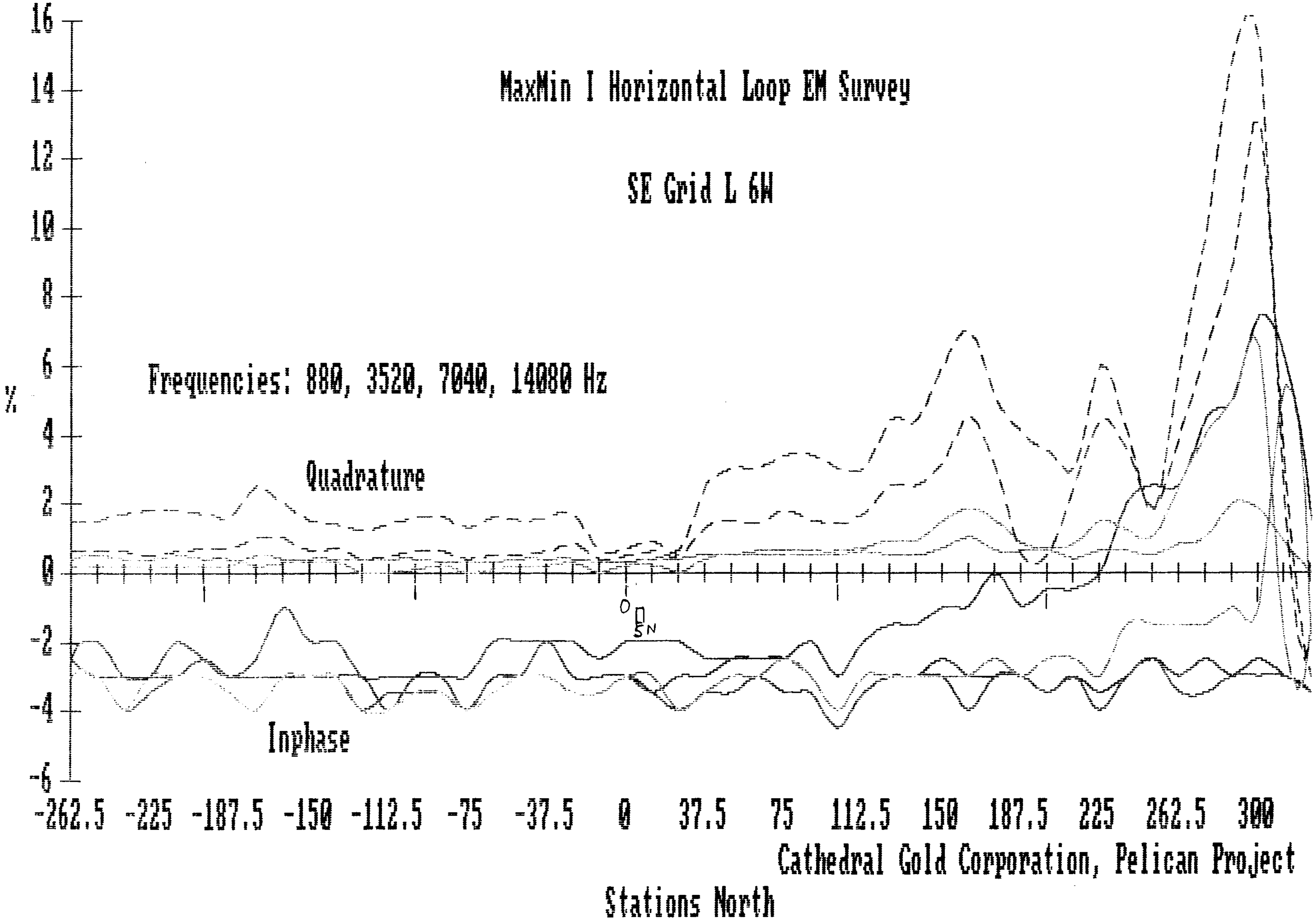
Project: Cathedral Gold Corp/ Pelican Line#: SE 8 EM16 Cutler

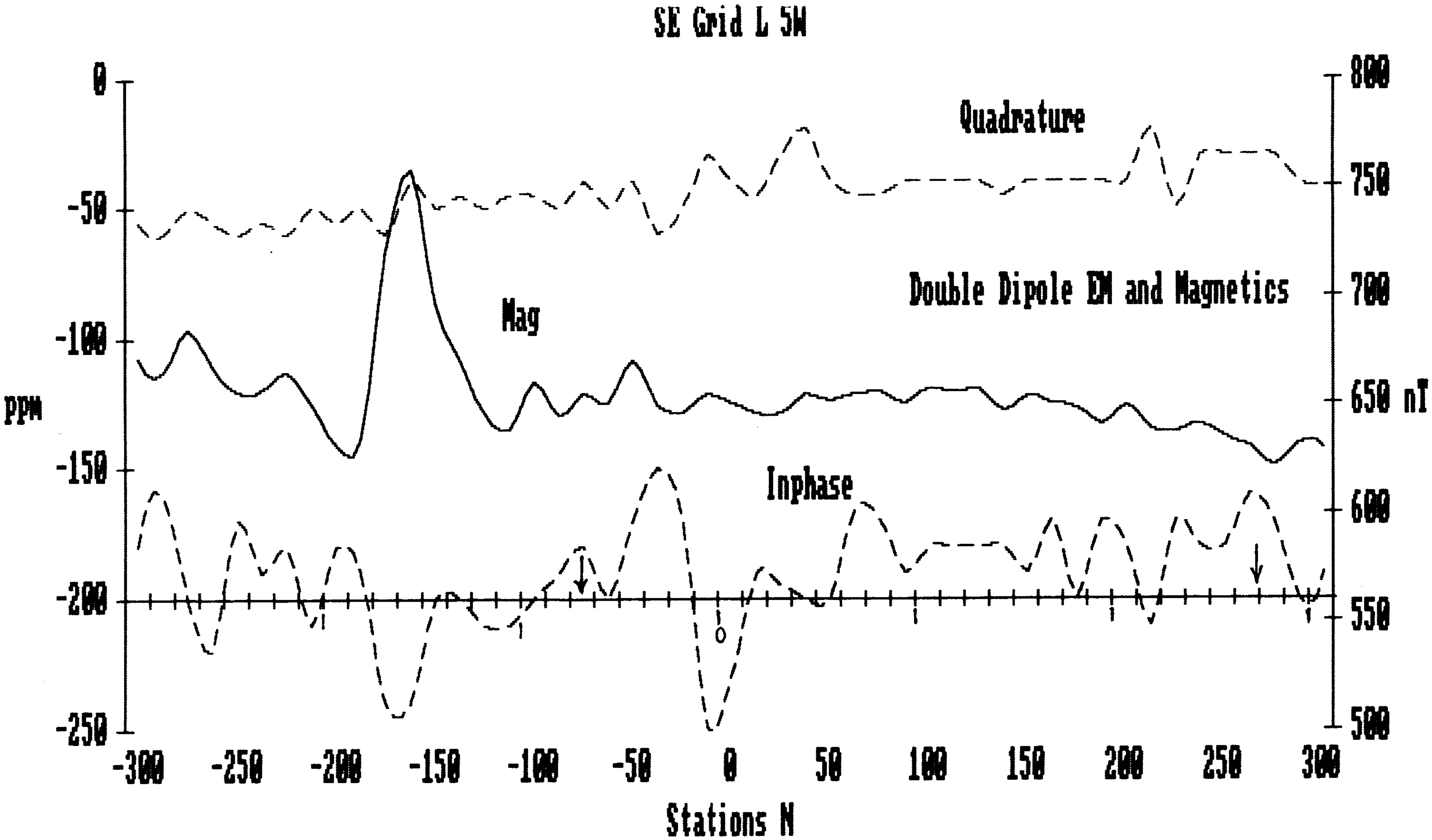
Stn	Inph	Quad
300N	7.0	0.0
275N	8.0	-1.0
250N	8.0	-4.0
225N	8.0	-1.0
200N	20.0	4.0
175N	23.0	-1.0
150N	17.0	-3.0
125N	12.0	-4.0
100N	3.0	-6.0
75N	-1.0	-8.0
50N	-5.0	-12.0
25N	3.0	-7.0
000	23.0	0.0
25S	30.0	5.0
50S	24.0	3.0
75S	17.0	1.0
100S	14.0	3.0
125*	11.0	2.0
150S	8.0	2.0
175S	5.0	-2.0
200S	9.0	-2.0
225S	12.0	1.0
250S	19.0	5.0
275S	25.0	4.0
300S	7.0	4.0



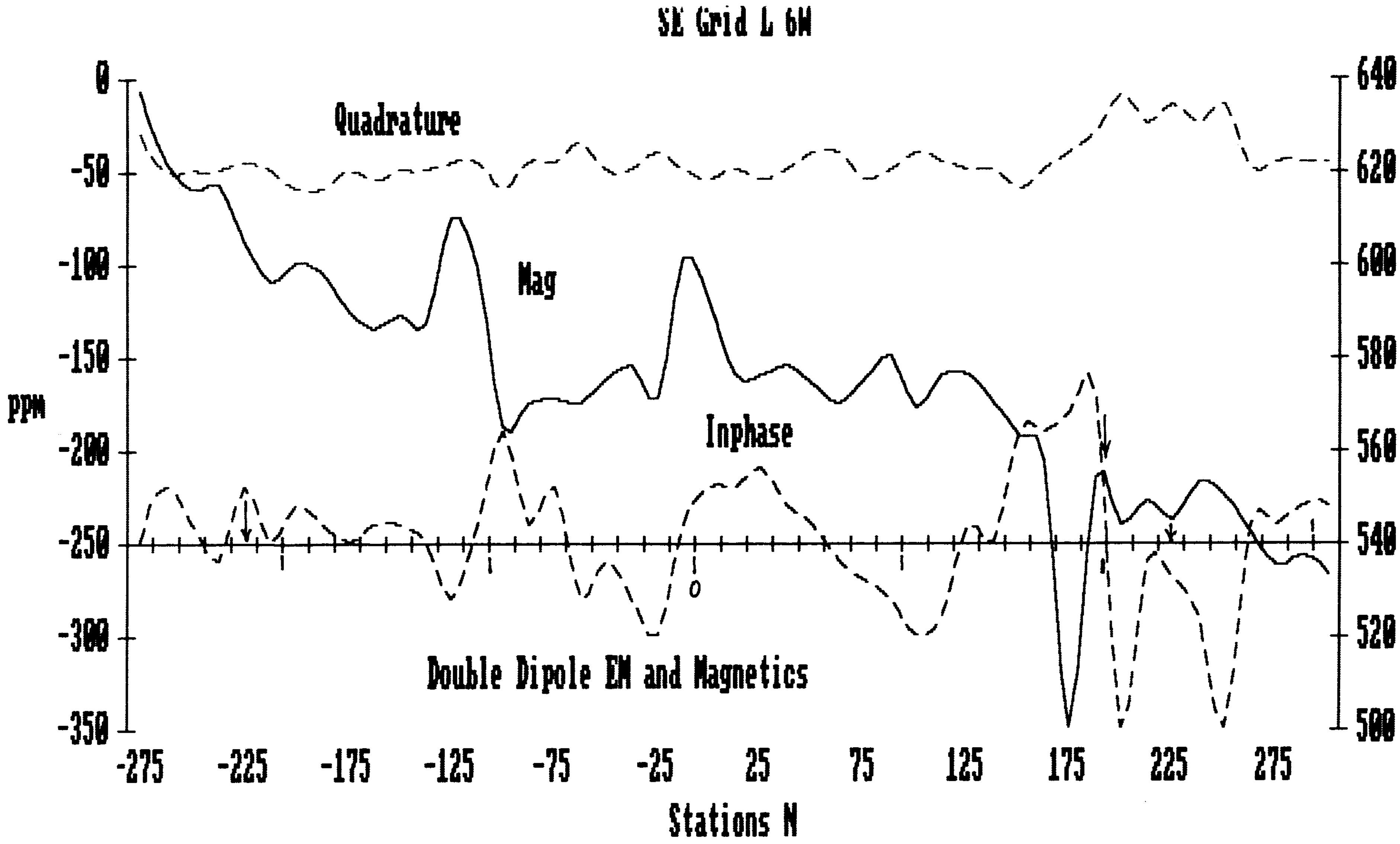


MaxMin I Horizontal Loop EM Survey
SE Grid L 5W
Quadrature
Inphase
Frequencies: 880, 3520, 7040, 14080 Hz
Cathedral Gold Corporation, Pelican Project
%
10
8
6
4
2
0
-2
-4
-6
-8
-75
-50
-25
0
25
50
75
100
125
150
175
200
225
250
275
300
Stations North
0
6N

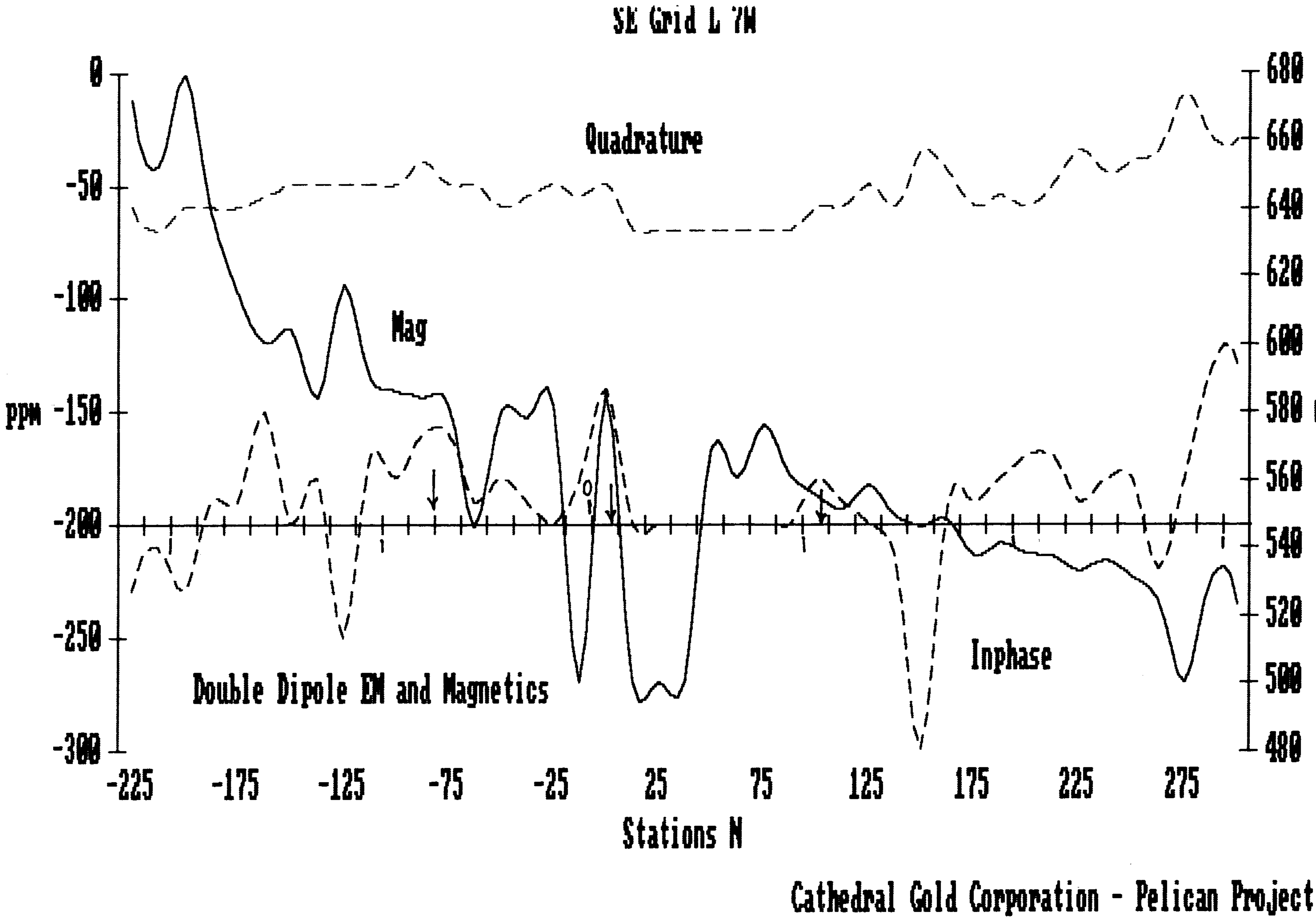

MaxMin I Horizontal Loop EM Survey
SE Grid L 6W
Frequencies: 880, 3520, 7040, 14080 Hz
Quadrature
Inphase
%
16
14
12
10
8
6
4
2
0
-2
-4
-6
-262.5 -225 -187.5 -150 -112.5 -75 -37.5 0 37.5 75 112.5 150 187.5 225 262.5 300
Cathedral Gold Corporation, Pelican Project
Stations North



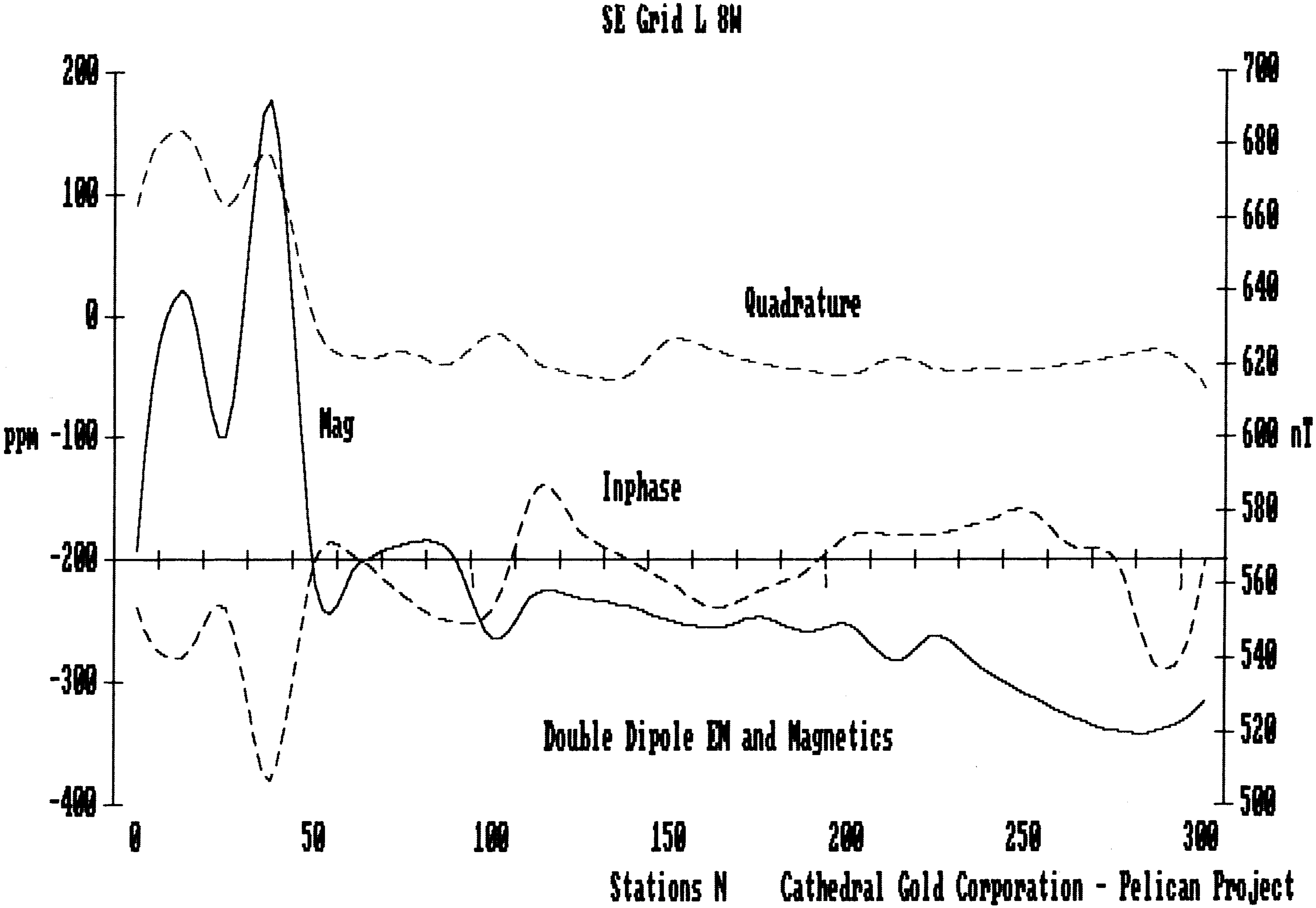
Cathedral Gold Corporation - Pelican Project

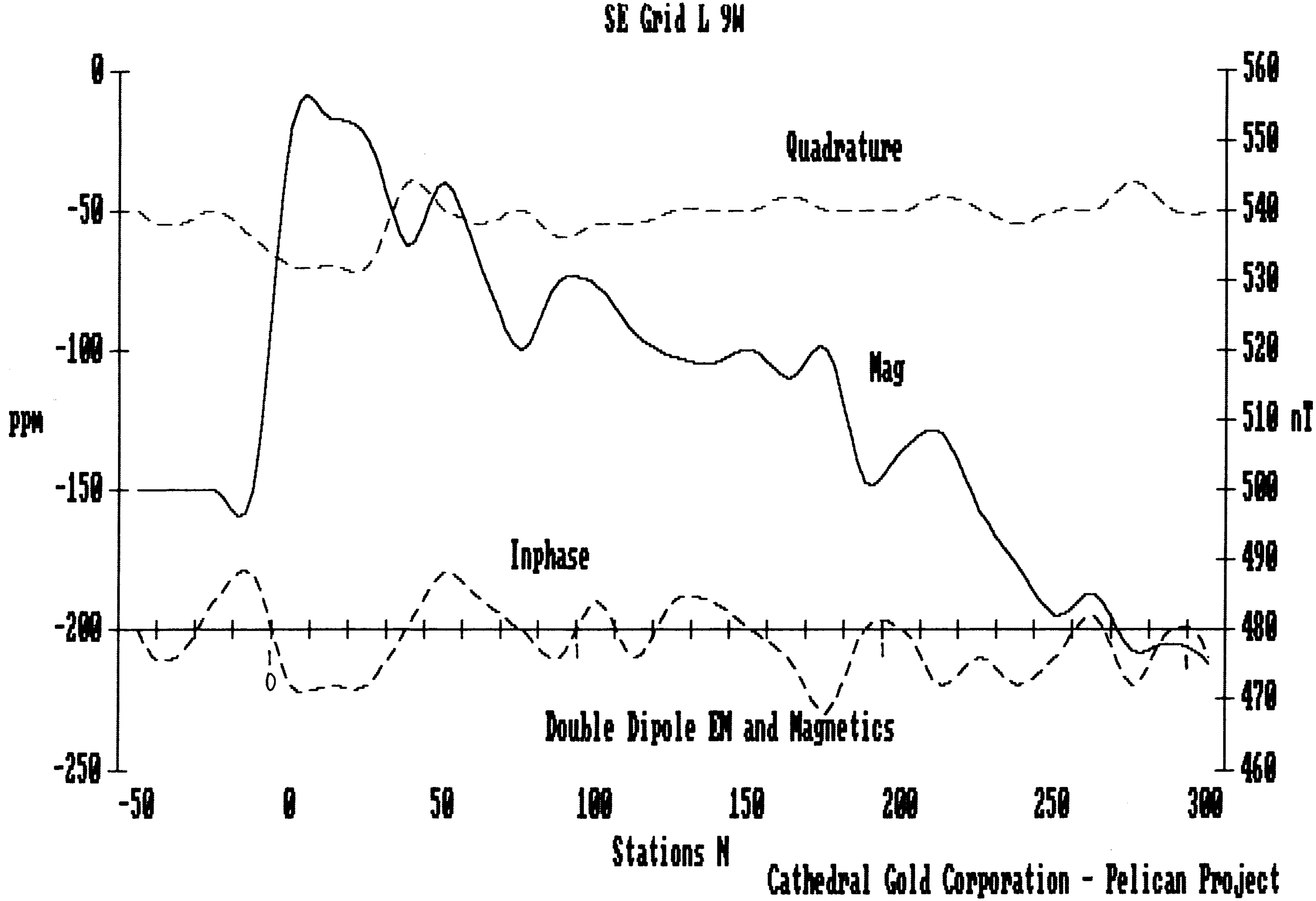


Cathedral Gold Corporation - Pelican Project



SE Grid L 7W
Quadrature
Mag
Inphase
Double Dipole EM and Magnetics
ppm
nT
0
-50
-100
-150
-200
-250
-300
680
660
640
620
600
580
560
540
520
500
480
-225
-175
-125
-75
-25
25
75
125
175
225
275
Stations N
Cathedral Gold Corporation - Pelican Project


SE Grid L 8W
200
100
0
ppm -100
-200
-300
-400
700
680
660
640
620
600 nT
580
560
540
520
500
Quadrature
Mag
Inphase
Double Dipole EM and Magnetics
0
50
100
150
200
250
300
Stations N
Cathedral Gold Corporation - Pelican Project


SE Grid L 9W
Quadrature
Mag
Inphase
Double Dipole EM and Magnetics
ppm
nT
0
-50
-100
-150
-200
-250
560
550
540
530
520
510
500
490
480
470
460
-50
0
50
100
150
200
250
300
Stations N
Cathedral Gold Corporation - Pelican Project

APPENDIX V

PELICAN GRID - GEOPHYSICAL PLOTS

EM-16 (Seattle, Washington)
L1N, L2N, L3+25N, L4+75N

Max-Min I Horizontal Loop EM
L1N, L2N, L3+25N

Double Dipole EM and Magnetics
L1N, L2N, L3+25N, L4+75N

Induced Polarization
L1N, L2N, L3+25N

Project: Cathedral Gold Corp/ Pelican Line#: P 1N EM16 Seattle

Stn	Inph	Quad	n1	n2	n3	n4	n5
325E	3.0	10.0					
312.5E	1.0	10.0					
			-1				
300E	-1.0	10.0					
			-0.3				
287.5E	-2.0	9.0		-1.5			
			-1.1				
275E	-4.0	9.0		-1.0			
			0.1		-1.0		
262.5E	-4.0	8.0		0.1			
			-0.1		0.7		
250E	-4.0	8.0		0.6		1.3	
			0.5		1.2		
237.5E	-3.0	8.0		1.0		1.9	
			0.5		1.7		2.8
225E	-2.0	9.0		1		2.5	
			0.5		1.6		3.1
212.5E	-1.0	9.0		0.9		2.5	
			0.5		1.7		2.9
200E	0.0	10.0		1.0		2.1	
			0.5		1.7		1.7
187.5E	1.0	10.0		1.2		0.8	
			0.6		0.3		-0.3
175E	2.0	11.0		0.0		-1	
			-0.5		-1.6		-0.9
162.5E	1.0	10.0		-2.1		-1.5	
			-1.1		-2.1		1.1
150E	-1.0	9.0		-1.4		0.5	
			-0.1		1.2		1.2
137.5E	-1.0	8.0		2.5		1.9	
			2.2		3.2		0.5
125E	3.0	10.0		3.2		2.0	
			0.5		2.1		1.2
112.5E	4.0	7.0		-0.7		1.3	
			-1.2		-1.2		1.2
100E	2.0	10.0		-1.9		-1.2	
			-0.5		-2.0		-2.5
87.5E	1.0	8.0		-0.4		-3.2	
			0.2		-2.0		-3.1
75E	1.0	9.0		-1.1		-2.0	
			-1.2		-1.2		-0.5
62.5E	-1.0	7.0		-1.2		-0.1	
			-0.0		0.2		0.1
50E	-1.0	6.0		1.3		0.3	
			1.2		1.4		0.1
37.5E	1.0	7.0		1.3		1.6	
			-0.1		1.4		1
25E	1.0	8.0		-0.1		0.9	
			0.1		-0.5		1.1
12.5E	1.0	7.0		-0.6		-0.4	
			-0.6		-0.5		-1.6
00	0.0	7.0		-0.5		-1.6	
			0.2		-1.8		-1.6
12.5W	0.0	7.0		-1.1		-1.7	
			-1.2		-1.0		-1.8

Project: Cathedral/ Pelican Line: P 1N cont'd...2

Stn	Inph	Quad	n1	n2	n3	n4	n5
25W	-2.0	6.0		-1.0		-1.4	
			0.1		-1.3		-1.6
37.5W	-2.0	6.0		-0.1		-1.5	
			-0.3		-0.3		-1.9
50W	-2.5	6.0		-0.4		-0.5	
			-0.2		-0.6		-1
62.5W	-3.0	6.0		-0.5		-0.9	
			-0.2		-0.6		-1.0
75W	-3.5	5.0		-0.4		-0.7	
			-0.3		-0.4		-2.0
87.5W	-4.0	6.0		-0.1		-1.7	
			0.1		-1.5		-1.7
100W	-4.0	6.0		-1.1		-1.5	
			-1.2		-1.2		-1.4
112.5W	-6.0	5.0		-1.2		-1.2	
			0.1		-1.3		0.1
125W	-6.0	5.0		-0.1		0.0	
			-0.1		1.2		0.7
137.5W	-6.0	5.0		1.2		2.0	
			1.1		1.8		2.0
150W	-4.0	6.0		1.7		1.9	
			0.5		1.9		2.0
162.5W	-3.0	6.0		0.5		1.9	
			-0.1		0.5		
175W	-3.0	6.5		-0.1		0.7	
			-0.0		-0.1		
187.5W	-3.0	7.0		0.0			
			0.1		-0.7		
200W	-3.0	7.0		-0.6			
			-0.6				
212.5W	-4.0	6.0		-0.5			
			0.1				
225W	-4.0	5.0					
			0.1				
237.5W	-4.0	6.0					
250W	-5.0	5.0					

Project: Cathedral Gold Corp/ Pelican Line#: P 2N EM16 Seattle

Stn	Inph	Quad	n1	n2	n3	n4	n5
250E	-7.0	9.0					
237.5E	-7.0	12.0					
			0.1				
225E	-7.0	12.0					
			-1.0				
212.5E	-9.0	10.0		-2.4			
			-1.1				
200E	-11.0	7.0		-0.5			
			0.7		-0.5		
187.5E	-10.0	8.0		0.8			
			-0.1		0.7		
175E	-10.0	7.0		0.1		0.6	
			-0.0		0.1		
162.5E	-10.0	6.0		-0.1		-0.1	
			-0.0		-0.1		0.2
150E	-10.0	7.0		-0.1		0.3	
			-0.1		0.3		0.2
137.5E	-10.0	5.0		0.5		0.1	
			0.6		0.2		1.6
125E	-9.0	6.0		0.3		1.3	
			-0.2		1.3		2.7
112.5E	-9.0	6.0		0.8		2.7	
			1.0		2.0		4.5
100E	-7.0	7.0		1.9		3.9	
			0.9		3.9		5.9
87.5E	-5.0	8.0		2.7		5.8	
			1.4		4.6		5.2
75E	-2.0	10.0		3.3		4.0	
			1.6		2.7		3.3
62.5E	1.0	12.0		0.9		2.0	
			-0.7		0.2		2.2
50E	0.0	11.0		-1.5		0.2	
			-0.5		-1.6		0.4
37.5E	-1.0	11.0		-0.6		-1.6	
			0.1		-0.9		-2.0
25E	-1.0	11.0		0.1		-1.3	
			0.1		-0.5		-0.6
12.5E	-1.0	11.0		-0.6		0.1	
			-0.6		0.4		0.1
00	-2.0	10.0		0.2		0.4	
			0.6		0.4		-1.6
12.5W	-1.0	10.0		0.9		-1.3	
			0.1		-0.8		-2.7
25W	-1.0	12.0		-1.6		-2.0	
			-1.6		-2.7		-2.5
37.5W	-4.0	10.0		-2.8		-3.3	
			-0.9		-3.3		-4.5
50W	-6.0	9.0		-1.4		-4.6	
			-0.3		-2.7		-4.7
62.5W	-7.0	8.0		-1.4		-2.7	
			-1.1		-1.4		-3.4
75W	-9.0	7.5		-0.9		-2.2	
			0.2		-1.4		-2.2
87.5W	-9.0	8.0		-0.4		-1.5	
			-0.6		-0.4		-1.6

Project: Cathedral/ Pelican Line: P 2N cont'd...2

Stn	Inph	Quad	n1	n2	n3	n4	n5
100W	-10.0	9.0		-0.5		-0.3	
			0.1		-0.5		-0.2
112.5W	-10.0	8.5		-0.1		-0.5	
			-0.0		-0.1		1.0
125W	-10.0	9.0		-0.1		1.4	
			-0.1		1.2		1.6
137.5W	-10.0	11.0		1.0		1.3	
			1.2		1.2		2.8
150W	-8.0	12.0		1.1		2.5	
			-0.2		2.4		2.1
162.5W	-8.0	11.0		1.2		2.0	
			1.2		0.6		
175W	-6.0	12.0		0.5		0.1	
			-0.6		-0.0		
187.5W	-7.0	13.0		-1.2			
			-0.5		-1.2		
200W	-8.0	12.0		-0.5			
			0.1				
212.5W	-8.0	11.0		-0.3			
			-0.5				
225W	-9.0	10.0					
			-0.5				
237.5W	-10.0	9.0					
250W	-11.0	7.0					

Project: Cathedral Gold Corp/ Pelican Line#: P 3+25N EM16 Seattle

Stn	Inph	Quad	n1	n2	n3	n4	n5
237.5E	-13.0	-3.0					
225E	-13.0	-3.0					
			-0.6				
212.5E	-14.0	-4.0					
			0.6				
200E	-13.0	-3.0		0.7			
			0.1				
187.5E	-13.0	-3.0		-1.1			
			-1.2		-1.0		
175E	-15.0	-3.0		-1.1			
			0.2		-1.6		
162.5E	-15.0	-4.0		-0.4		-2.1	
			-0.5		-0.9		
150E	-16.0	-4.0		-0.9		-0.8	
			-0.5		-0.8		-2.1
137.5E	-17.0	-4.0		-0.3		-2.2	
			0.2		-1.4		-2.6
125E	-17.0	-4.5		-0.9		-2.1	
			-1.1		-1.6		-2.5
112.5E	-19.0	-6.0		-1.6		-2.0	
			-0.4		-2.2		-1.7
100E	-20.0	-6.0		-1.1		-1.9	
			-0.5		-0.9		-0.7
87.5E	-21.0	-6.0		-0.5		0.4	
			-0.0		0.8		0.1
75E	-21.0	-4.5		1.2		0.7	
			* 0.9		1.3		-1.2
62.5E	-19.5	-3.0		1		-0.7	
			-0.2		-0.8		-2.5
50E	-20.0	-4.0		-1.8		-2.6	
			-1.5		-3.7		-3.7
37.5E	-23.0	-5.0		-3.4		-4.9	
			-1.4		-4.7		-4.8
25E	-26.0	-8.0		-2.7		-4.6	
			-1		-2.8		-4.2
12.5E	-28.0	-10.0		-0.9		-2.1	
			0.1		-0.1		-2.5
00	-28.0	-10.0		0.9		-0.5	
			0.6		1.1		-1.4
12.5W	-27.0	-9.0		0.8		0.1	
			0.0		0.1		-0.9
25W	-27.0	-9.0		-0.6		-0.7	
			-0.5		-1.6		-0.2
37.5W	-28.0	-8.5		-1.5		-1.0	
			-0.6		-1.2		1.7
50W	-29.0	-9.0		-0.3		1.3	
			0.4		1.8		3.3
62.5W	-28.0	-6.0		2.7		3.7	
			2.1		4.4		5.7
75W	-24.0	-1.5		3.7		6.2	
			1.3		5.7		7.4
87.5W	-21.0	1.0		3.1		6.9	
			1.4		4.3		
100W	-18.0	2.0		2.5		4.3	
			1		2.4		

Project: Cathedral/ Pelican   Line: P 3+25N cont'd...2

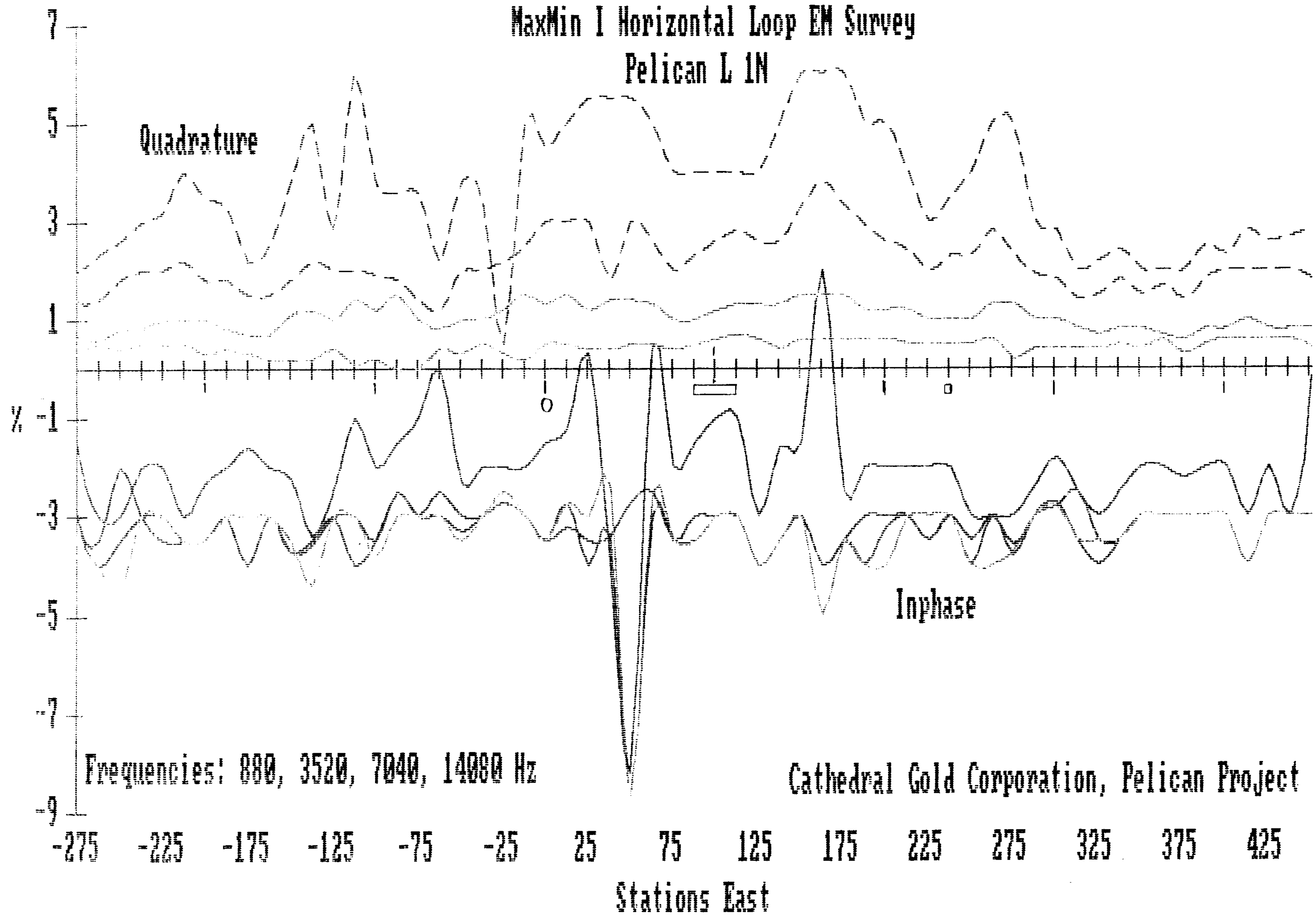
Stn	Inph	Quad	n1	n2	n3	n4	n5
112.5W	-16.0	3.0		0.8			
			-0.1		0.5		
125W	-16.0	2.5		-0.3			
			-0.1				
137.5W	-16.0	2.0		0.4			
			0.6				
150W	-15.0	2.0					
			-0.1				
162.5W	-15.0	1.0					
175W	-14.0	0.5					

Project: Cathedral Gold Corp/ Pelican   Line#: P 4+75N   EM16   Seattle

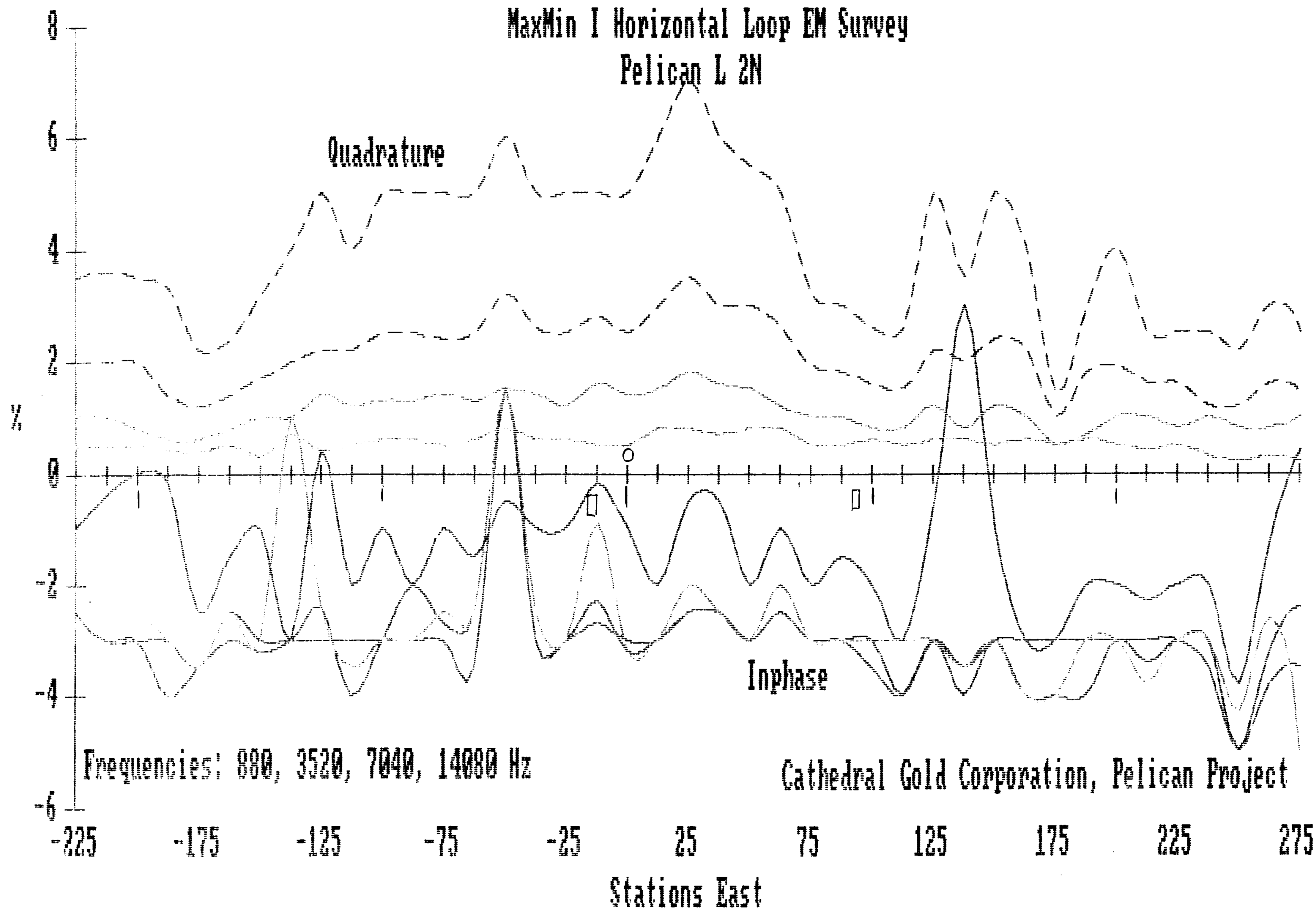
Stn	Inph	Quad	n1	n2	n3	n4	n5
12.5E	-18.0	-6.5					
00	-18.0	-5.5					
			0.6				
12.5W	-17.0	-5.0					
			0.1				
25W	-17.0	-5.0		-1.2			
			-1.2				
37.5W	-19.0	-6.0		-0.5			
			0.7		-1.3		
50W	-18.0	-5.5		0.2			
			-0.6		-0.6		
62.5W	-19.0	-6.5		-1.2		-0.7	
			-0.5		-1.2		
75W	-20.0	-6.0		-0.7		0.0	
			-0.1		0.6		-0.1
87.5W	-20.0	-7.0		1.3		0.6	
			1.2		1.2		0.6
100W	-18.0	-5.0		1.2		1.3	
			-0.1		1.2		1.9
112.5W	-18.0	-5.0		-0.1		1.8	
			-0.1		0.5		1.3
125W	-18.0	-5.0		0.5		-0.1	
			0.6		-0.2		0.5
137.5W	-17.0	-4.0		-0.1		0.6	
			-0.7		0.5		0.6
150W	-18.0	-4.0		-0.1		0.5	
			0.6		0.0		0.6
162.5W	-17.0	-3.0		0.6		-0.2	
			-0.1		0.6		-0.1
175W	-17.0	-3.0		0.1		0.6	
			-0.0		-0.1		-0.1
187.5W	-17.0	-3.0		-0.1		-0.6	
			0.1		-0.6		0.1
200W	-17.0	-3.0		-0.6		0.1	
			-0.6		0.0		0.1
212.5W	-18.0	-2.0		0.1		0.1	
			0.6		0.1		-0.7
225W	-17.0	-1.5		0.7		-0.6	
			0.0		0.1		-0.7
237.5W	-17.0	-1.0		-0.5		-0.0	
			-0.6		-0.5		-0.7
250W	-18.0	-2.0		-0.6		-1.3	
			0.1		-1.3		-1.3
262.5W	-18.0	-3.0		-0.5		-1.3	
			-0.6		-0.7		-1.3
275W	-19.0	-2.5		-0.6		-0.6	
			0.1		-0.7		0.7
287.5W	-19.0	-2.5		-0.1		0.6	
			-0.1		1.3		1.3
300W	-19.0	-2.5		1.2		2.0	
			1.1		1.8		1.5
312.5W	-17.0	-1.0		1.8		1.6	
			0.5		1.6		
325W	-16.0	-0.5		0.2		1.2	
			-0.3		-0.1		

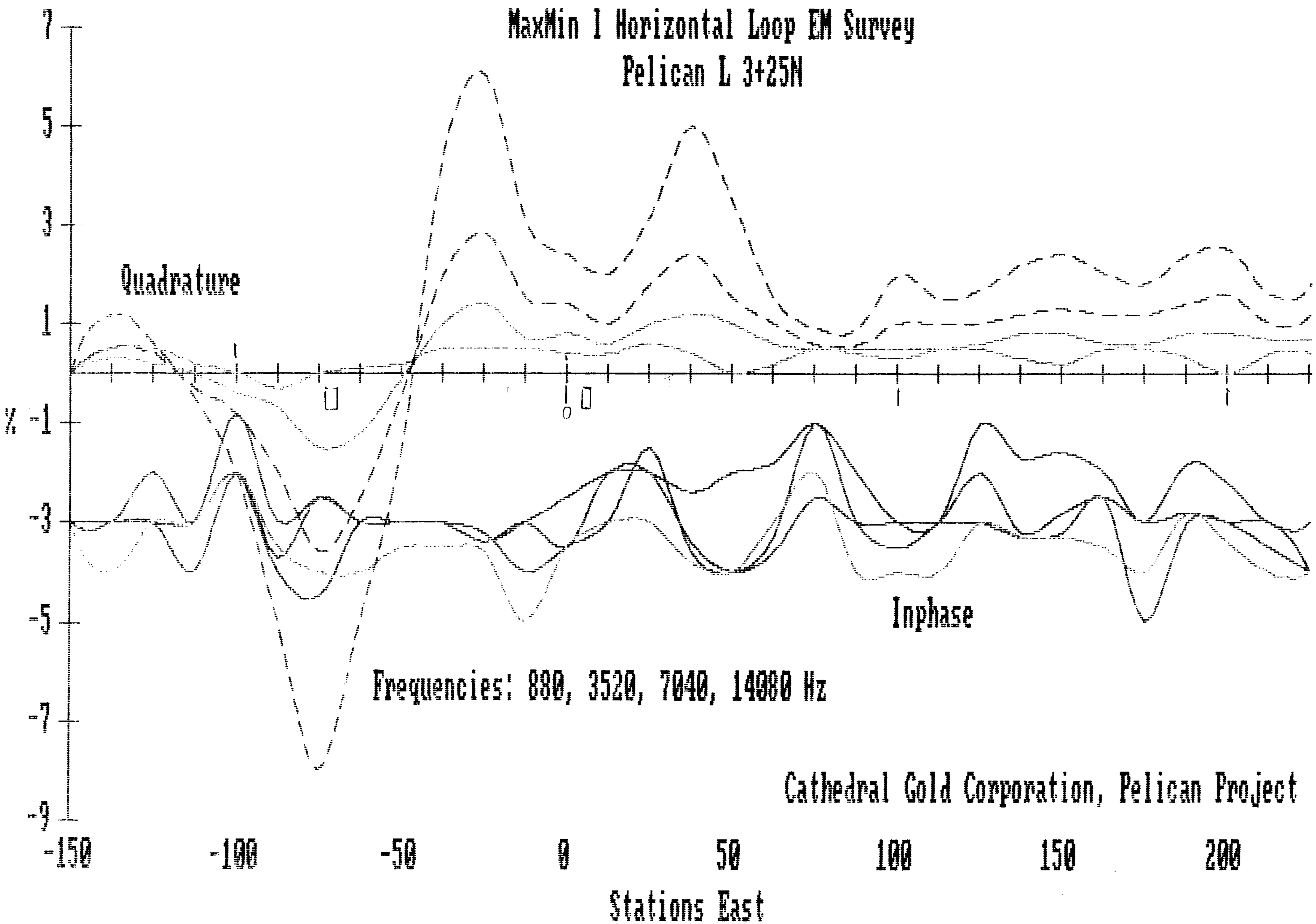
Project: Cathedral/ Pelican Line: P 4+75N cont'd...2

Stn	Inph	Quad	n1	n2	n3	n4	n5
337.5W	-16.5	-1.5		-0.7			
			-0.3		-0.7		
350W	-17.0	0.0		-0.3			
			0.1				
362.5W	-17.0	-2.0		-0.6			
			-0.6				
375W	-18.0	-2.5					
			0.6				
387.5W	-17.0	-2.0					
400W	-17.0	-2.0					



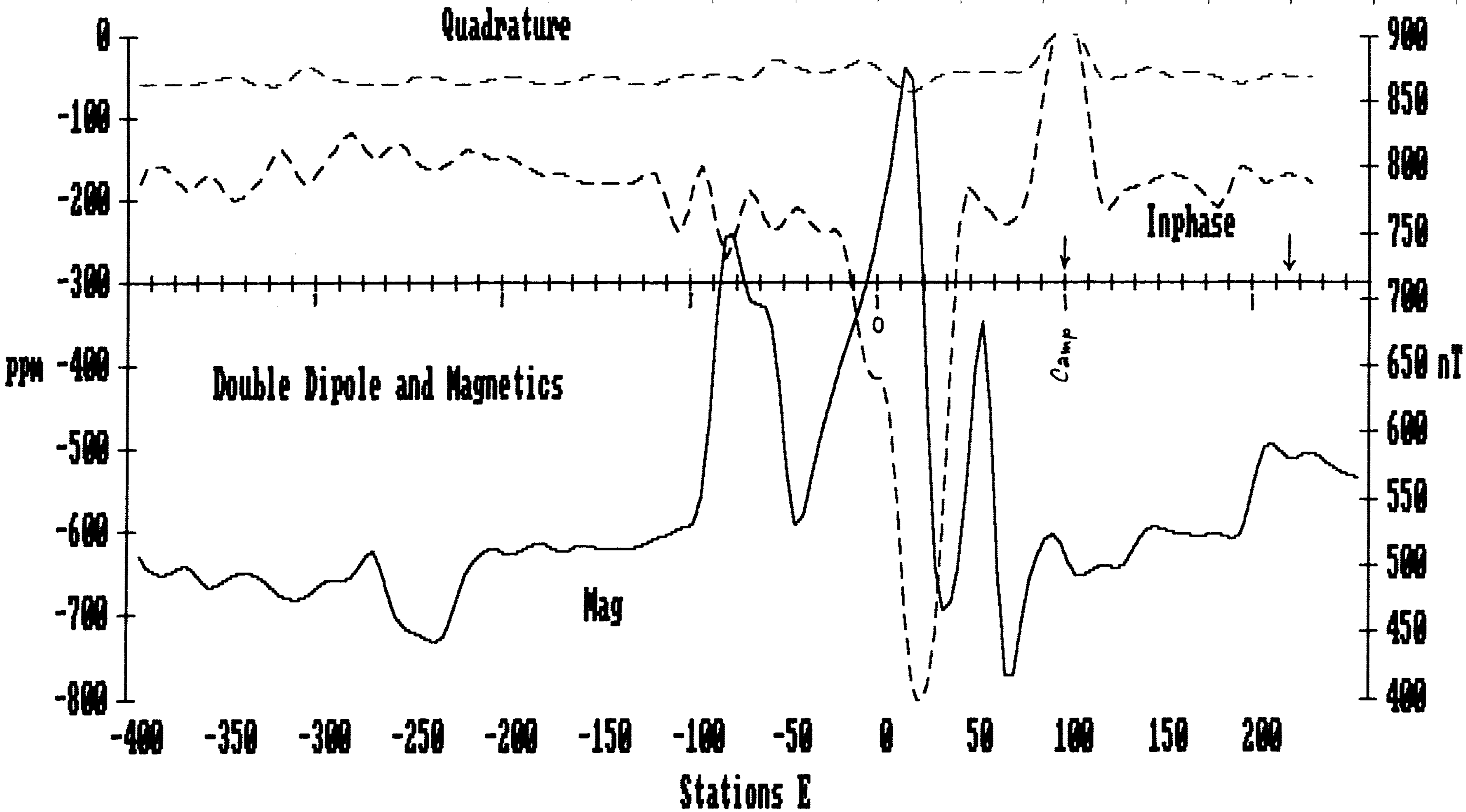
MaxMin I Horizontal Loop EM Survey
Pelican L 1N
Quadrature
Inphase
%
7
5
3
1
-1
-3
-5
-7
-9
Frequencies: 880, 3520, 7040, 14080 Hz
Cathedral Gold Corporation, Pelican Project
-275
-225
-175
-125
-75
-25
25
75
125
175
225
275
325
375
425
Stations East


MaxMin I Horizontal Loop EM Survey
Pelican L 2N
Quadrature
Inphase
%
8
6
4
2
0
-2
-4
-6
Frequencies: 880, 3520, 7040, 14080 Hz
Cathedral Gold Corporation, Pelican Project
-225
-175
-125
-75
-25
25
75
125
175
225
275
Stations East



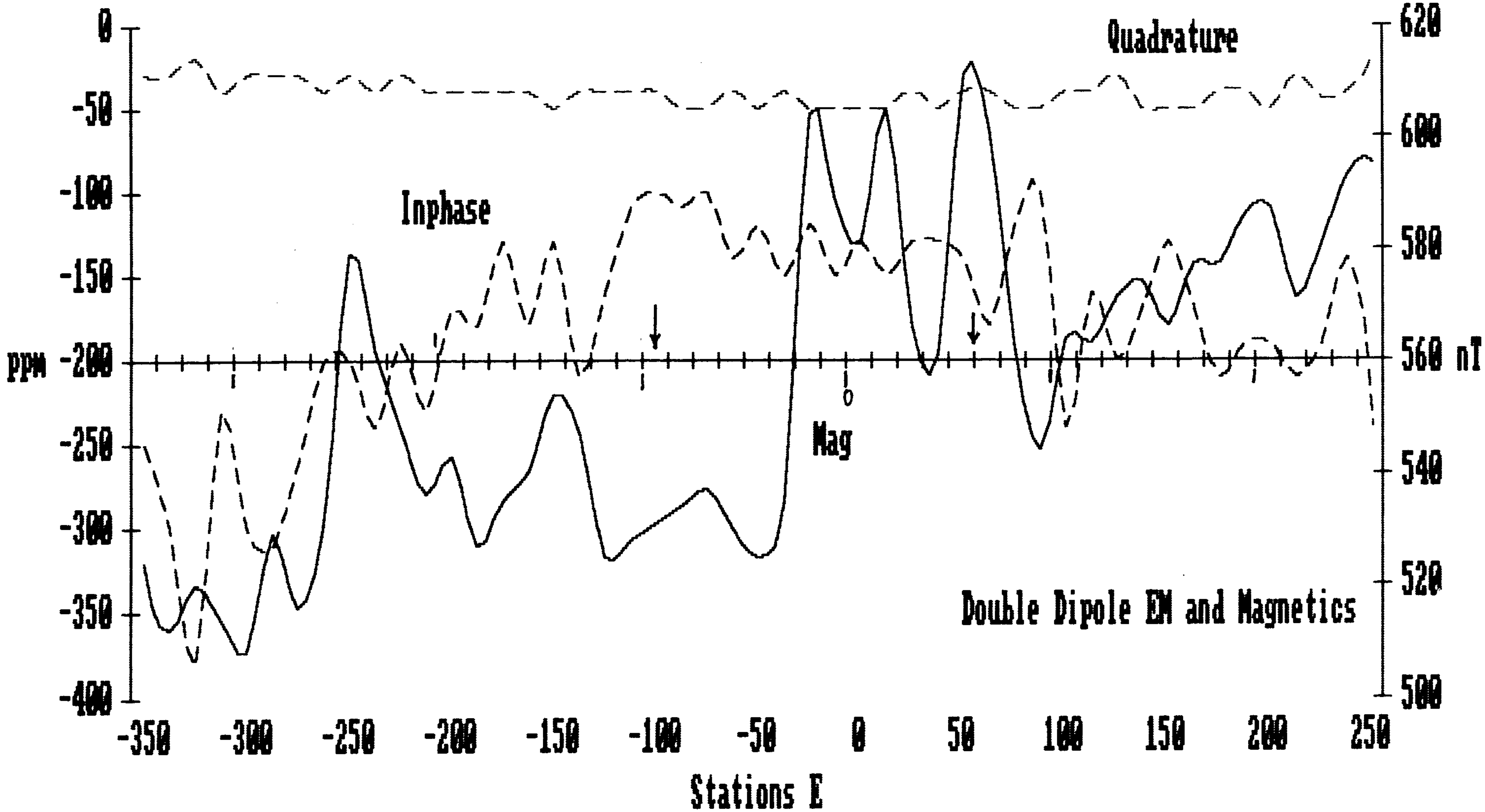
MaxMin I Horizontal Loop EM Survey
Pelican L 3+25N
Quadrature
Inphase
Frequencies: 880, 3520, 7040, 14080 Hz
Cathedral Gold Corporation, Pelican Project
7
5
3
1
% -1
-3
-5
-7
-9
-150
-100
-50
0
50
100
150
200
Stations East

Pelican L [illegible] 1N

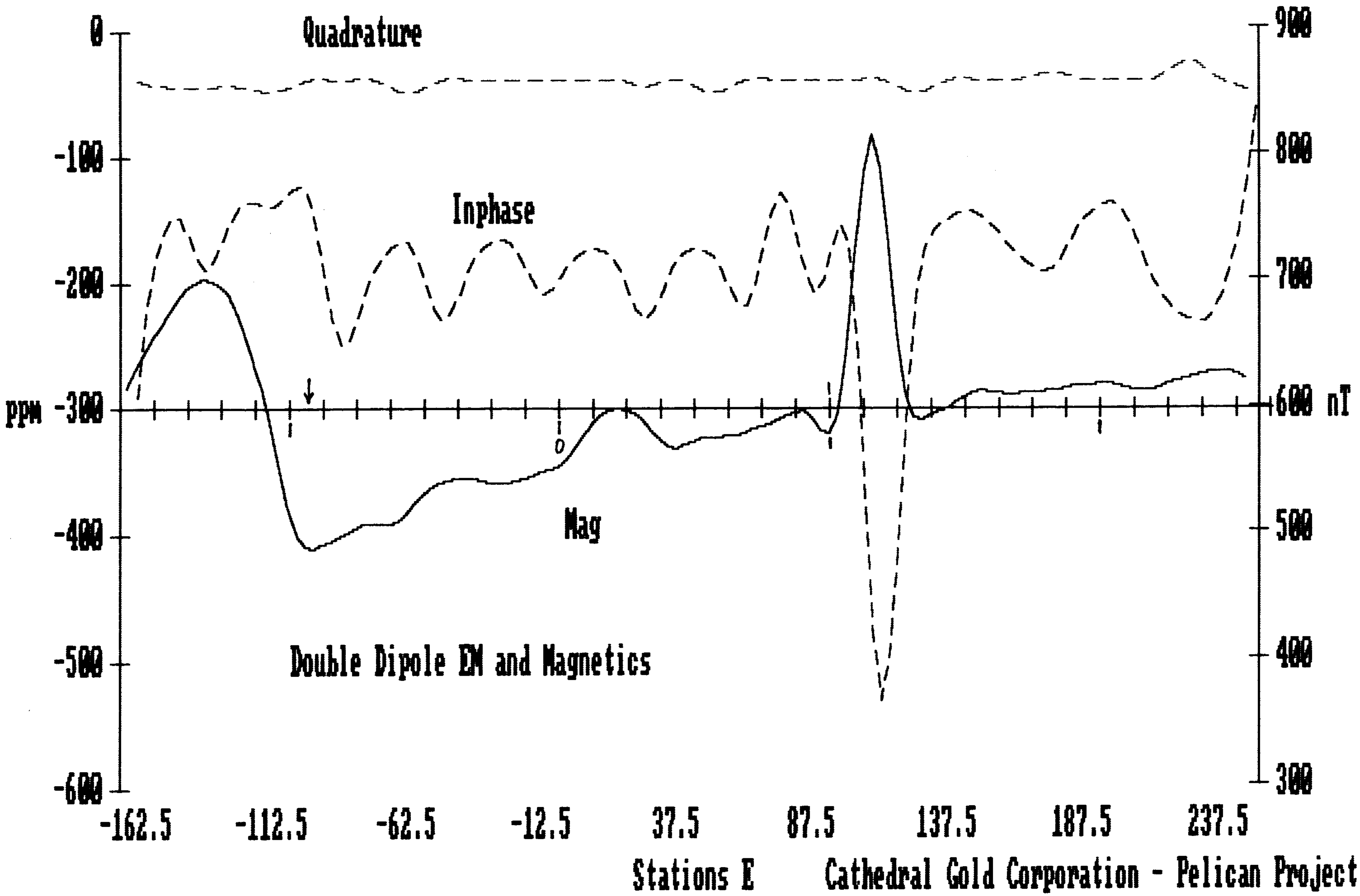


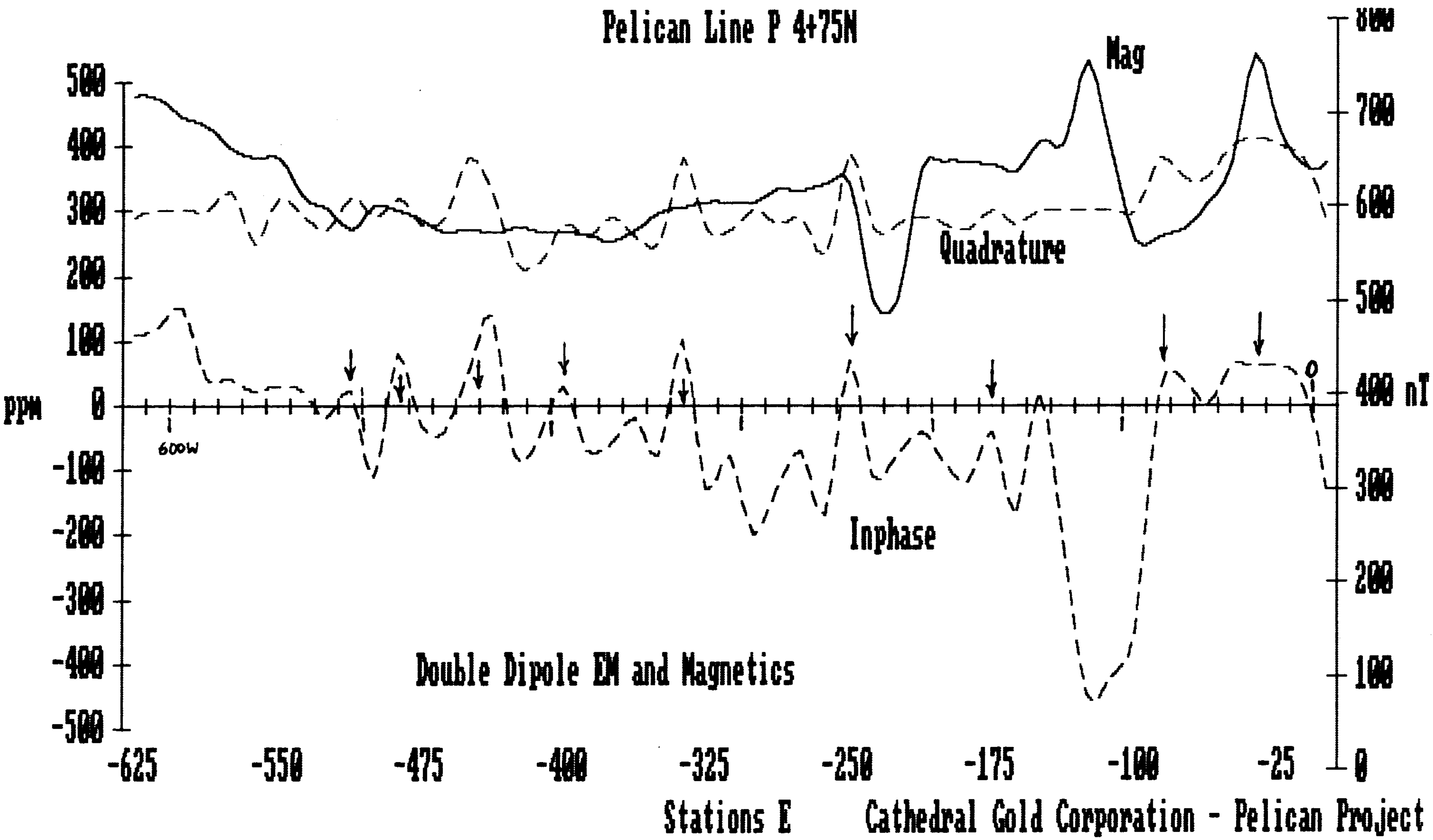
Cathedral Gold Corporation - Pelican Project

Pelican L F 2N

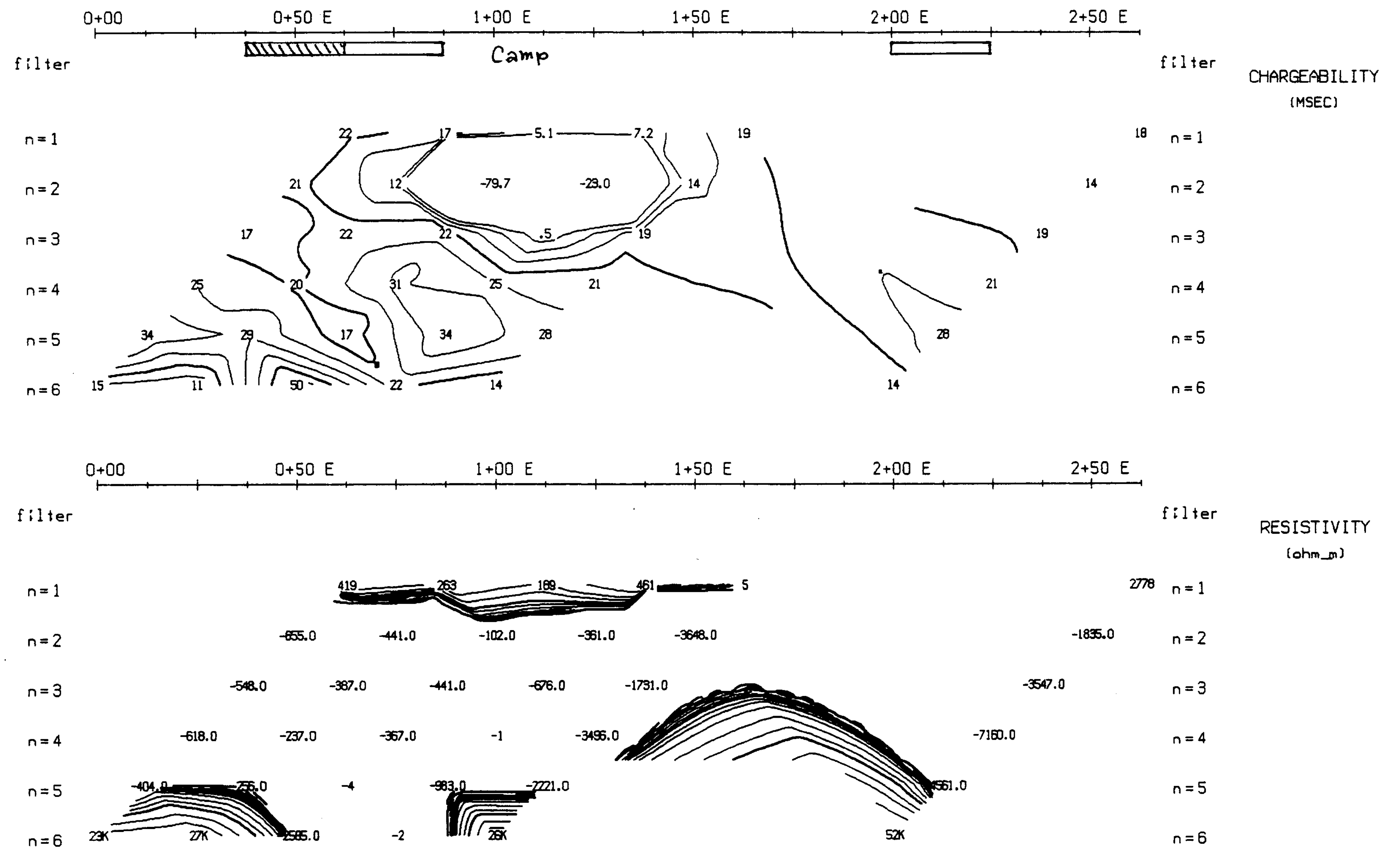


Cathedral Gold Corporation - Pelican Project


Quadrature
Inphase
Mag
Double Dipole EM and Magnetics
ppm
0
-100
-200
-300
-400
-500
-600
900
800
700
600 nT
500
400
300
-162.5
-112.5
-62.5
-12.5
37.5
87.5
137.5
187.5
237.5
Stations E
Cathedral Gold Corporation - Pelican Project



Pelican Line P 4+75N
Mag
Quadrature
Inphase
Double Dipole EM and Magnetics
ppm
nT
600W
500
400
300
200
100
0
-100
-200
-300
-400
-500
800
700
600
500
400
300
200
100
0
-625
-550
-475
-400
-325
-250
-175
-100
-25
Stations E
Cathedral Gold Corporation - Pelican Project



P 1+00N

Pole-Dipole Array

a = 25m
n = 1,2,3,4,5,6
plot point

Logarithmic Contours 1,1.5,2,3,5,7.5,10,...

Receiver: Scintrex IPR-11
Transmitter: Scintrex TSQ-3
Operator: Roger J Caven

INTERPRETATION

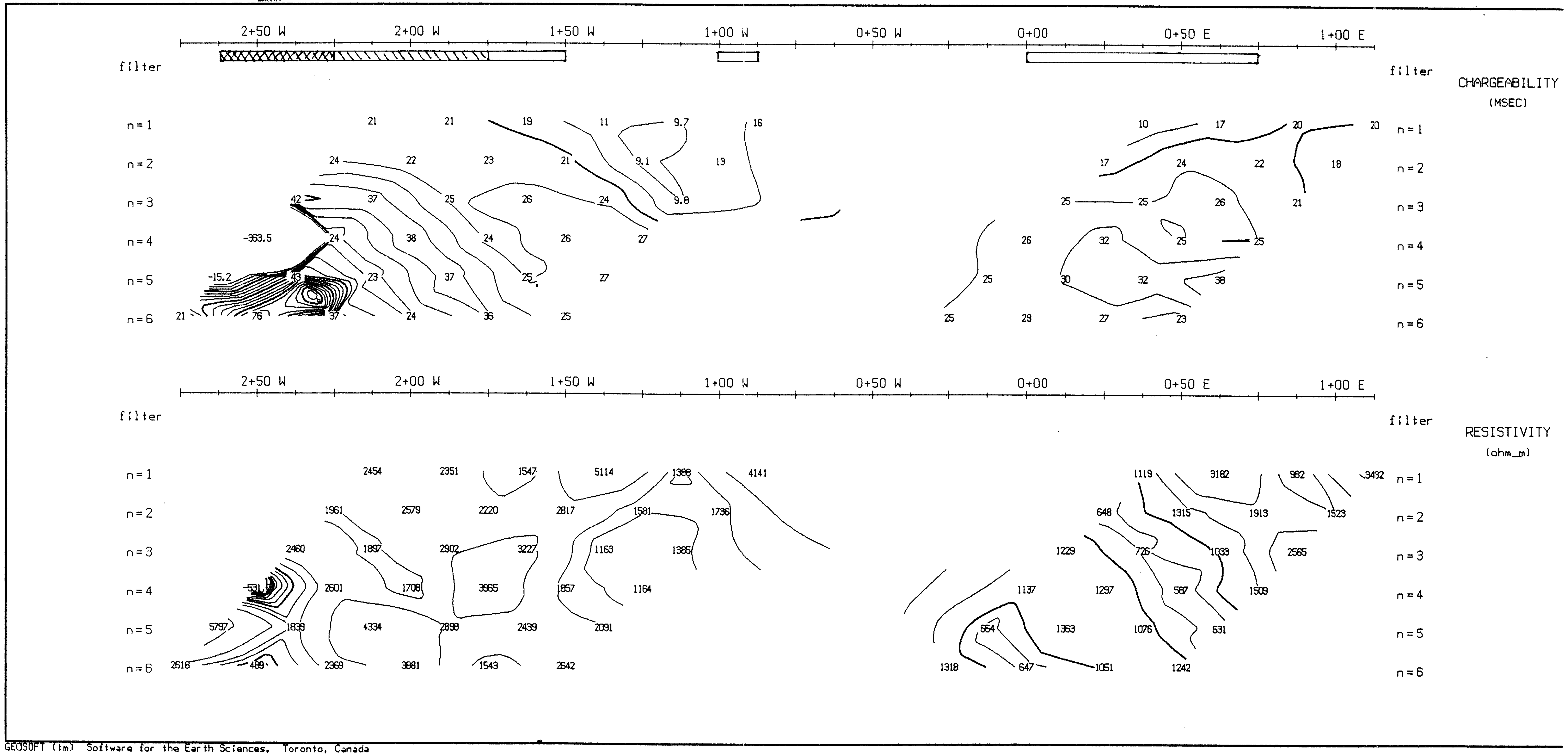
- ■ Strong increase in polarization accompanied by marked decrease in resistivity
- ◘ Well defined increase in polarization without marked resistivity decrease.
- □ Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

CATHEDRAL GOLD CORPORATION

Time Domain
INDUCED POLARIZATION SURVEY
PELICAN PROJECT
NW British Columbia

Date: September 1990	Scale= 1:1250
Interp. by: R J C	M



P 2+00N

Pole-Dipole Array

a = 25m
n = 1,2,3,4,5,6

plot point

Logarithmic Contours 1,1.5,2,3.5,7.5,10,...

Receiver: Scintrex IPR-11
Transmitter: Scintrex TSQ-3
Operator: Roger J Caven

INTERPRETATION

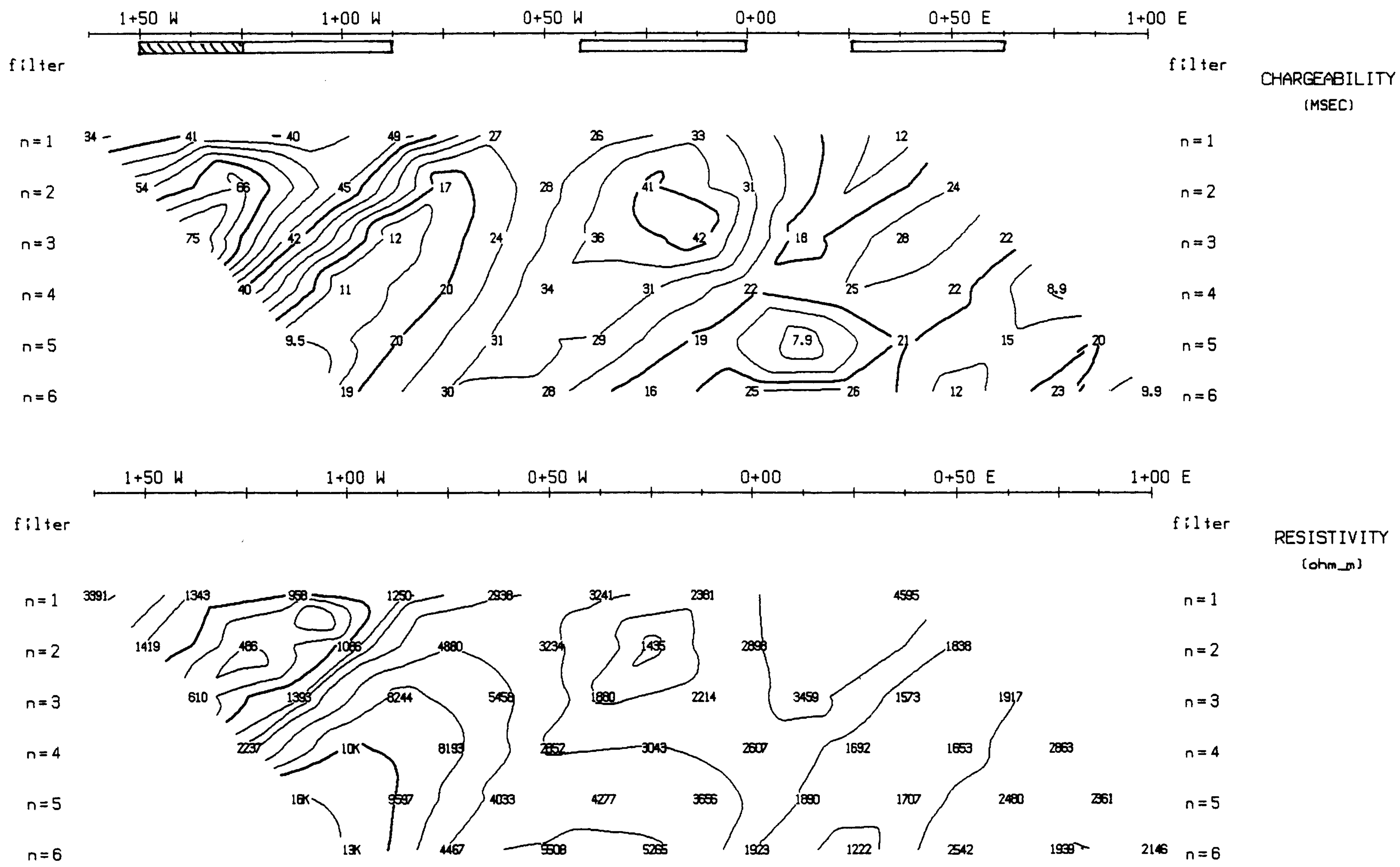
- ■ Strong increase in polarization accompanied by marked decrease in resistivity
- ◘ Well defined increase in polarization without marked resistivity decrease.
- □ Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

CATHEDRAL GOLD CORPORATION

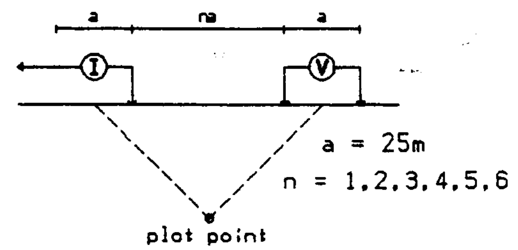
Time Domain
INDUCED POLARIZATION SURVEY
PELICAN PROJECT
NW British Columbia

Date: September 1990	Scale= 1:1250
Interp. by: R J C	M



P 3+25N

Pole-Dipole Array



Logarithmic Contours 1,1.5,2,3.5,7.5,10,...

Receiver: Scintrex IPR-11
Transmitter: Scintrex TSQ-3
Operator: Roger J Caven

INTERPRETATION

- ■ Strong increase in polarization accompanied by marked decrease in resistivity
- ◘ Well defined increase in polarization without marked resistivity decrease.
- □ Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

CATHEDRAL GOLD CORPORATION

Time Domain
INDUCED POLARIZATION SURVEY
PELICAN PROJECT
NW British Columbia

Date: September 1990	Scale= 1:1250
Interp. by: R J C	M

APPENDIX VI

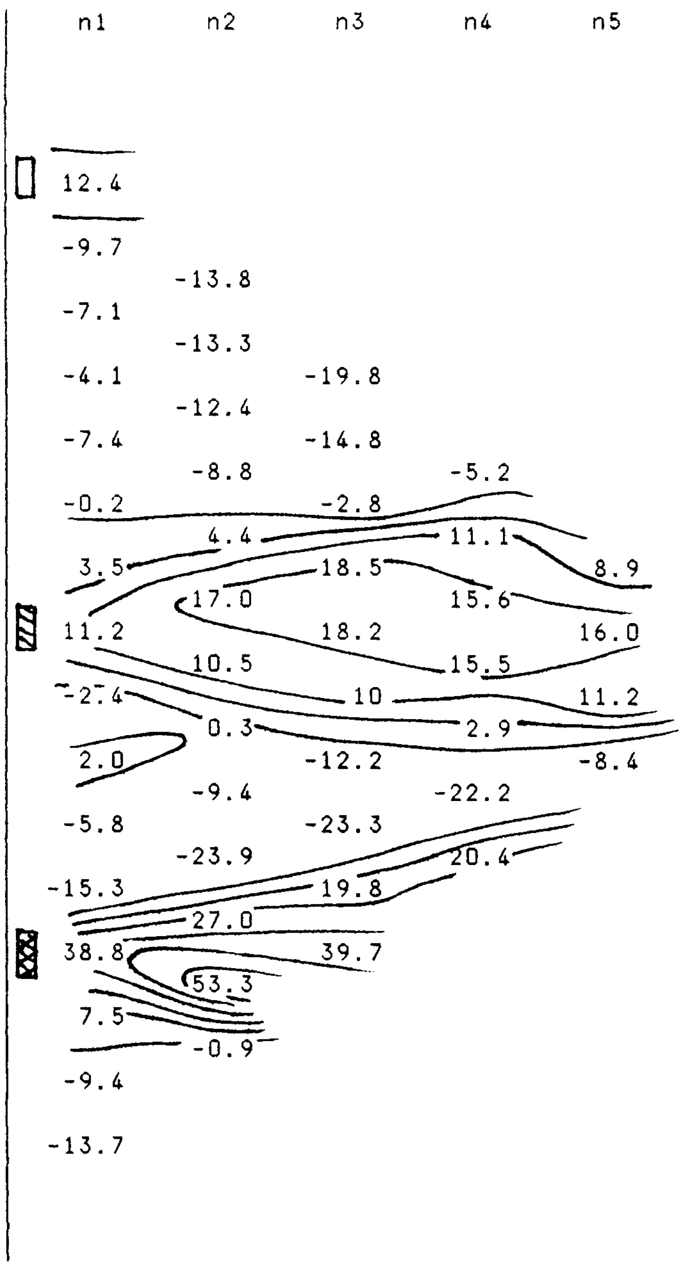
PINS GRID - GEOPHYSICAL PLOTS

EM-16 (Seattle, Washington)
L1S, L1N, L2N

EM-16 (Cather, Maine)
(L1S, L1N, L2N)

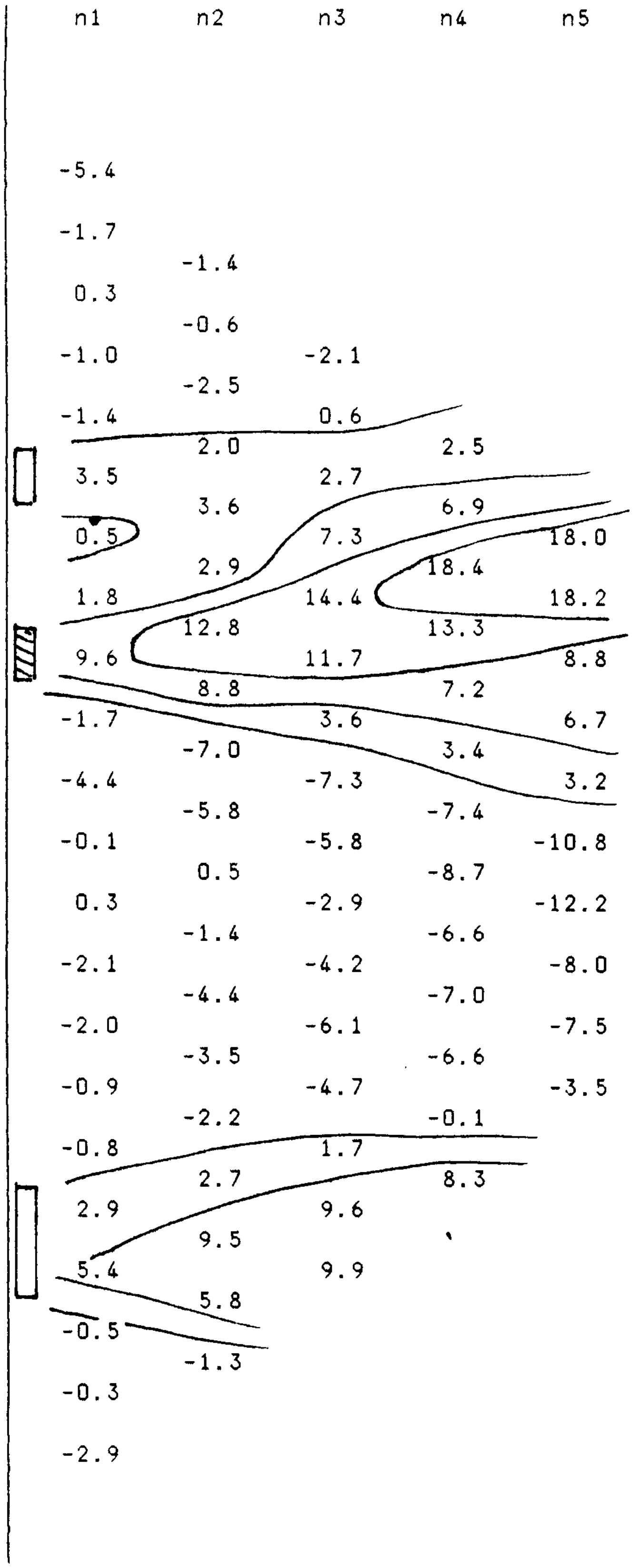
Project: Cathedral Gold Corp/ Pelican Line#: PIN 1S EM16 Seattle

Stn	Inph	Quad
450E	80.0	10.0
425E	11.0	8.0
400E	24.0	32.0
375E	7.0	32.0
350E	-8.0	22.0
325E	-18.0	18.0
300E	-32.0	18.0
275E	-33.0	16.0
250E	-25.0	15.0
225E	-5.0	18.0
200E	-7.0	16.0
175E	-5.0	16.0
150E	-17.0	9.0
125E	-38.0	-9.0
100E	29.0	4.0
75E	47.0	-6.0
50E	30.0	-12.0
25E	5.0	-2.0
0	10.0	3.0



Project: Cathedral Gold Corp/ Pelican Line#: PIN 1N EM16 Seattle

Stn	Inph	Quad	n1	n2	n3	n4	n5
600E	12.0	-18.0					
575E	10.0	-20.0					
			-5.4				
550E	0.0	-18.0					
			-1.7				
525E	-4.0	-17.0		-1.4			
			0.3				
500E	-4.0	-16.0		-0.6			
			-1.0		-2.1		
475E	-6.0	-17.0		-2.5			
			-1.4		0.6		
450E	-8.0	-19.0		2.0		2.5	
			3.5		2.7		
425E	-2.0	-14.0		3.6		6.9	
			0.5		7.3		18.0
400E	0.0	-14.0		2.9		18.4	
			1.8		14.4		18.2
375E	5.0	-7.0		12.8		13.3	
			9.6		11.7		8.8
350E	22.0	-8.0		8.8		7.2	
			-1.7		3.6		6.7
325E	20.0	-24.0		-7.0		3.4	
			-4.4		-7.3		3.2
300E	12.0	-29.0		-5.8		-7.4	
			-0.1		-5.8		-10.8
275E	11.0	-22.0		0.5		-8.7	
			0.3		-2.9		-12.2
250E	11.0	-18.0		-1.4		-6.6	
			-2.1		-4.2		-8.0
225E	7.0	-23.0		-4.4		-7.0	
			-2.0		-6.1		-7.5
200E	3.0	-21.0		-3.5		-6.6	
			-0.9		-4.7		-3.5
175E	1.0	-25.0		-2.2		-0.1	
			-0.8		1.7		
150E	0.0	-28.0		2.7		8.3	
			2.9		9.6		
125E	6.0	-23.0		9.5			
			5.4		9.9		
100E	16.0	-25.0		5.8			
			-0.5				
75E	16.0	-24.0		-1.3			
			-0.3				
50E	15.0	-25.0					
			-2.9				
25E	10.0	-22.0					
0	11.0	-24.0					

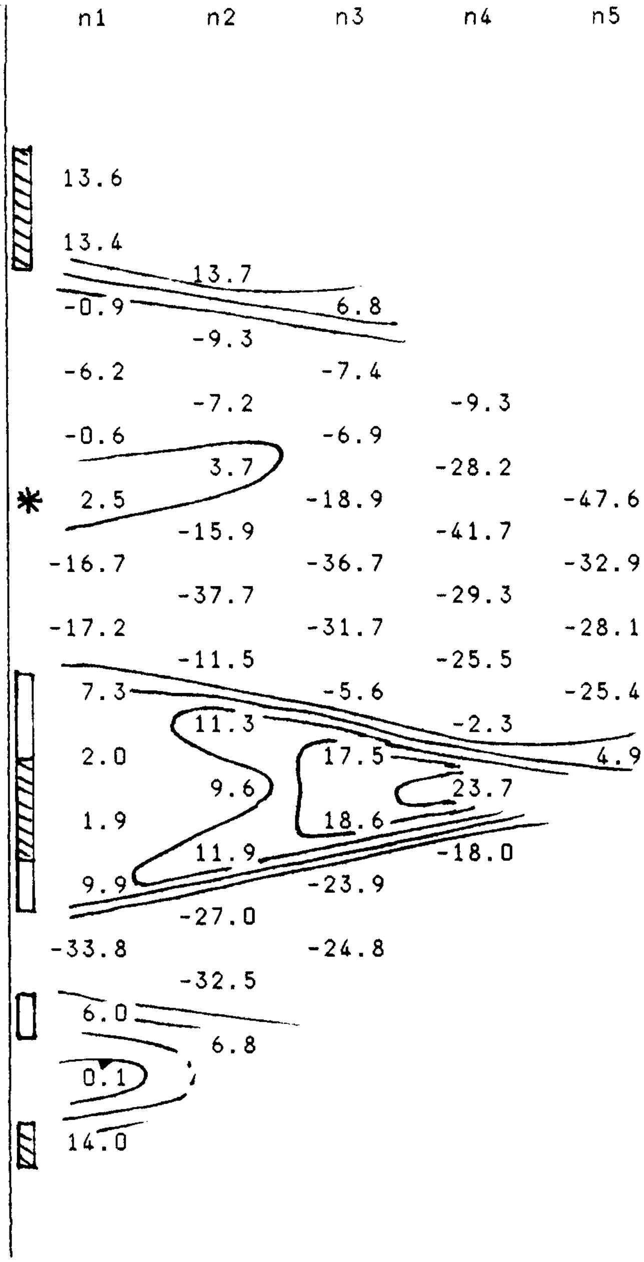


Project: Cathedral Gold Corp/ Pelican Line#: PIN 2N EM16 Seattle

Stn	Inph	Quad	n1	n2	n3	n4	n5
600E	30.0	4.0					
575E	26.0	-3.0					
			-2.6				
550E	21.0	0.0					
			0.1				
525E	20.0	-2.0		-4.8			
			-4.5				
500E	13.0	-6.0		1.6			
			5.4		3.7		
475E	22.0	4.0		7.4			
			1.4		6.5		
450E	25.0	-3.0		-0.6		8.8	
			-2.7		2.8		
425E	21.0	-24.0		0.7		0.1	
			2.8		-2.5		-11.5
400E	25.0	-12.0		0.3		-14.0	
			-2.0		-12.0		-11.5
375E	20.0	-14.0		-14.3		-8.9	
			-10.9		-11.4		-6.7
350E	1.0	-13.0		-8.4		-9.7	
			3.2		-5.5		-13.4
325E	5.0	-2.0		6.5		-10.4	
			2.5		1.6		-10.9
300E	9.0	1.0		-0.7		0.9	
			-4.2		-2.0		-1.3
275E	2.0	-3.0		-5.9		-1.6	
			-0.7		-5.1		0.1
250E	0.0	-8.0		-1.9		-2.4	
			-0.8		3.0		-2.4
225E	-1.0	-12.0		3.7		1.7	
			3.5		2.1		-1.4
200E	5.0	-14.0		5.0		-1.6	
			-0.0		-0.8		-11.6
175E	5.0	-18.0		-5.1		-11.5	
			-2.5		-15.5		
150E	-1.0	-24.0		-16.0		10.5	
			-11.8		10.4		
125E	-18.0	-16.0		14.5			
			24.6		13.8		
100E	23.0	-14.0		25.3			
			-2.1				
75E	23.0	-14.0		-4.6			
			-2.8				
50E	18.0	-13.0					
			-0.7				
25E	17.0	-12.0					
0	24.0	-10.0					

Project: Cathedral Gold Corp/ Pelican Line#: PIN 1S EM16 Cutler

Stn	Inph	Quad
450E	30.0	12.0
425E	38.0	9.0
400E	65.0	22.0
375E	91.0	20.0
350E	91.0	24.0
325E	80.0	14.0
300E	78.0	8.0
275E	79.0	10.0
250E	47.0	6.0
225E	15.0	-10.0
200E	25.0	-4.0
175E	30.0	-1.0
150E	35.0	0.0
125E	47.0	8.0
100E	-10.0	-8.0
75E	-5.0	1.0
50E	-2.0	3.0
25E	21.0	-10.0
0	5.0	4.0

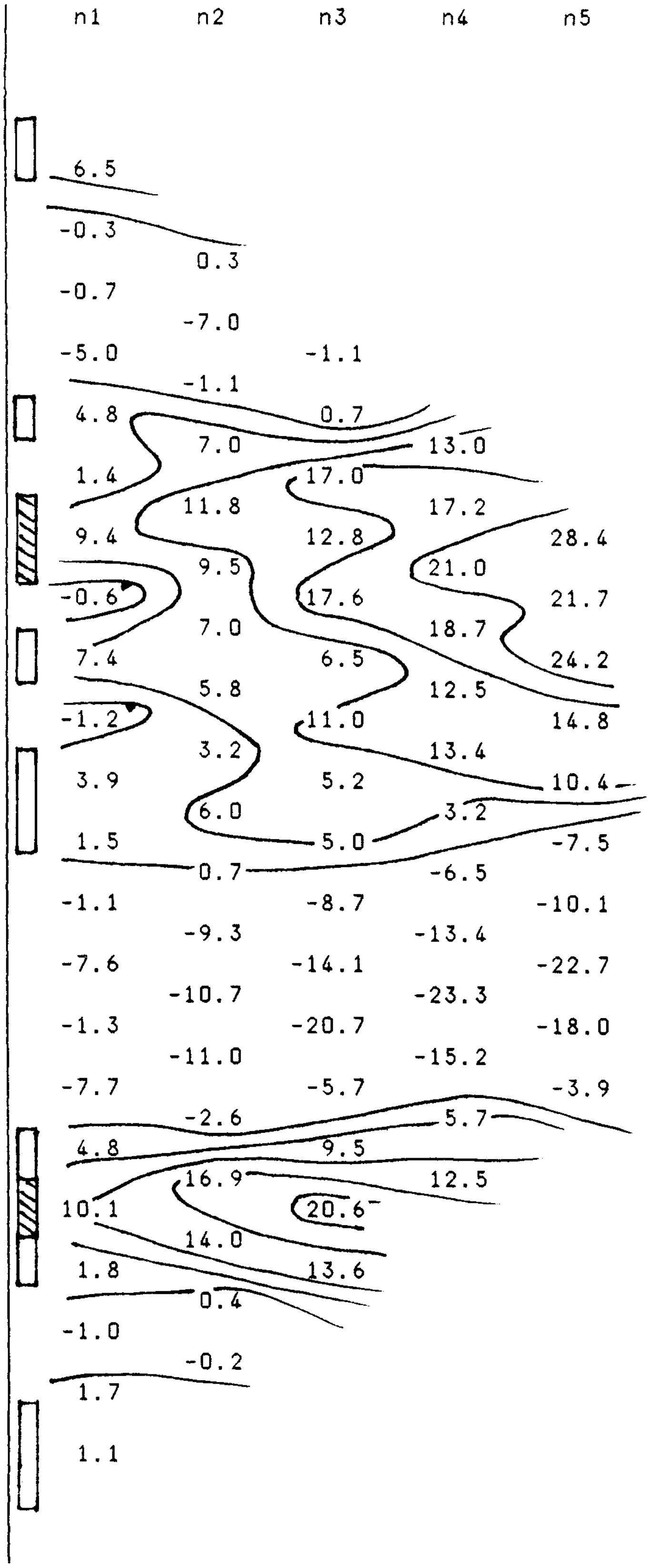


Project: Cathedral Gold Corp/ Pelican Line#: PIN 1N EM16 Cutler

Stn	Inph	Quad	n1	n2	n3	n4	n5
600E	-30.0	-10.0					
575E	-30.0	-8.0					
			4.8				
550E	-22.0	-7.0					
			-2.0				
525E	-25.0	-4.0		-4.4			
			-1.8				
500E	-29.0	-4.0		-5.4			
			-2.8		-3.7		
475E	-34.0	-2.0		-0.3			
			2.2		-3.8		
450E	-31.0	0.0		-0.2		-5.6	
			-2.3		-1.8		
425E	-35.0	3.0		-4.4		1.6	
			-1.8		-0.3		3.2
400E	-38.0	4.0		1.9		1.4	
			3.5		3.5		-0.8
375E	-32.0	3.0		5.1		1.6	
			1.0		2.6		3.9
350E	-30.0	4.0		-1.3		5.6	
			-2.6		1.3		3.1
325E	-34.0	5.0		-0.8		-1.2	
			2.2		-2.4		-0.6
300E	-31.0	10.0		-0.1		-2.3	
			-2.5		-0.2		-6.5
275E	-35.0	16.0		-1.4		-4.2	
			0.6		-6.2		-7.8
250E	-35.0	9.0		-3.7		-10.5	
			-3.6		-7.7		-9.3
225E	-42.0	10.0		-8.0		-5.3	
			-3.8		-5.8		-6.7
200E	-49.0	10.0		-1.6		-6.5	
			2.1		-0.8		-10.0
175E	-46.0	10.0		3.0		-5.2	
			0.1		-1.0		
150E	-46.0	6.0		-2.1		-3.0	
			-2.7		-4.7		
125E	-51.0	4.0		-5.6			
			-1.0		-10		
100E	-54.0	3.0		-6.6			
			-5.1				
75E	-61.0	2.0		8.8			
			13.3				
50E	-39.0	1.0					
			-3.5				
25E	-42.0	0.0					
0	-34.0	2.0					

Project: Cathedral Gold Corp/ Pelican Line#: PIN 2N EM16 Cutler

Stn	Inph	Quad
600E	-45.0	2.0
575E	-78.0	-2.0
550E	-70.0	-2.0
525E	-70.0	4.0
500E	-72.0	10.0
475E	-80.0	14.0
450E	-72.0	22.0
425E	-67.0	12.0
400E	-50.0	12.0
375E	-48.0	13.0
350E	-35.0	14.0
325E	-35.0	19.0
300E	-28.0	20.0
275E	-25.0	18.0
250E	-28.0	16.0
225E	-42.0	13.0
200E	-47.0	13.0
175E	-60.0	8.0
150E	-51.0	8.0
125E	-32.0	12.0
100E	-27.0	7.0
75E	-28.0	6.0
50E	-25.0	4.0
25E	-23.0	4.0
0	-25.0	3.0

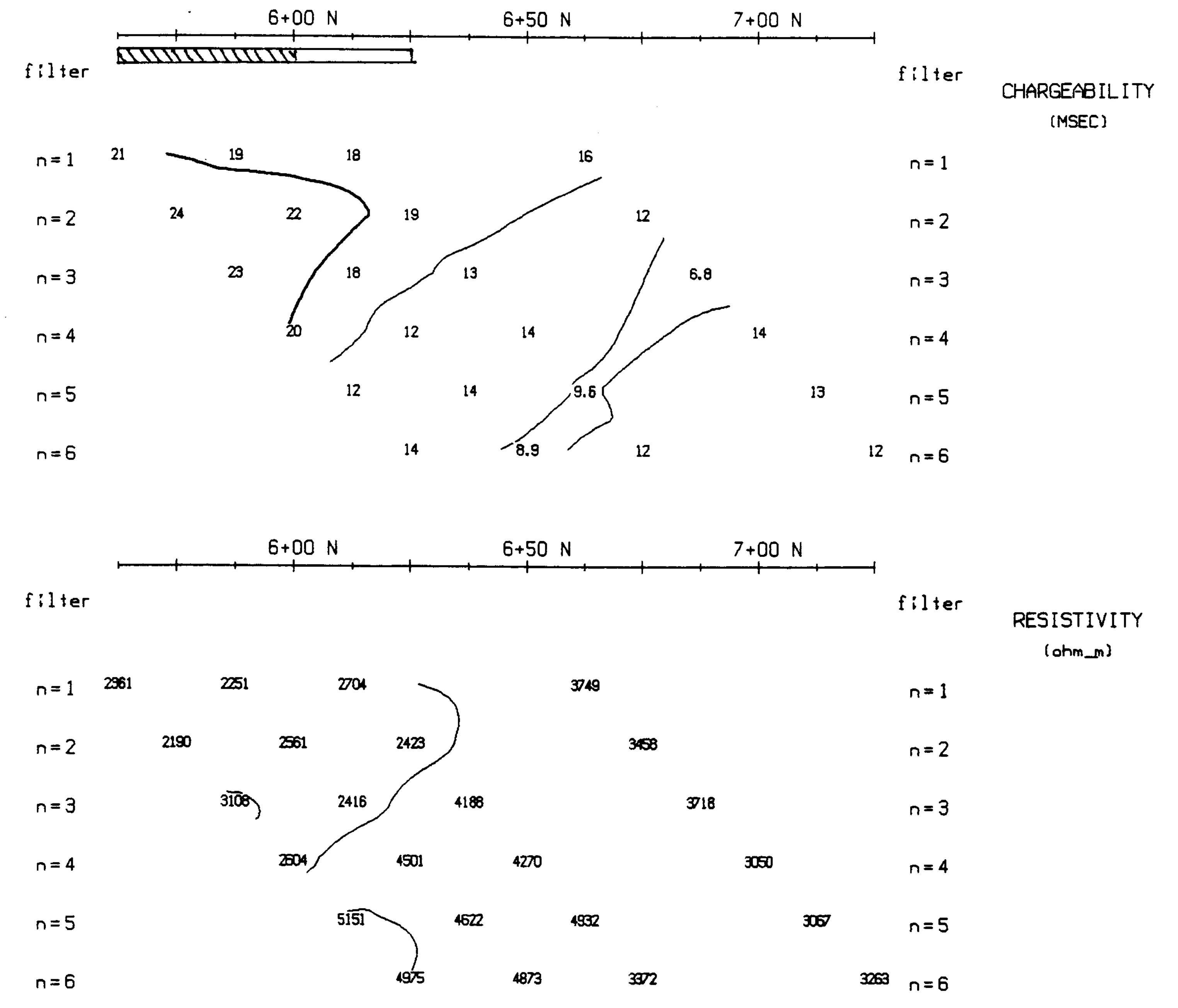


APPENDIX VII

SNOW GRID - GEOPHYSICAL PLOTS

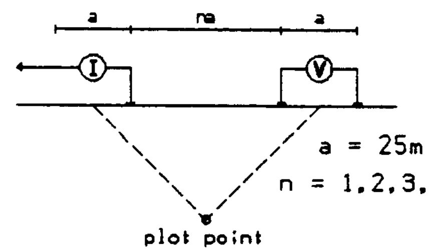
Induced Polarization

LB1, L4N



Snow BL

Pole-Dipole Array



Logarithmic Contours 1,1.5,2,3,5,7.5,10,...

Receiver: Scintrex IPR-11
Transmitter: Scintrex TSQ-3
Operator: Roger J Caven

INTERPRETATION

■ Strong increase in polarization accompanied by marked decrease in resistivity

◘ Well defined increase in polarization without marked resistivity decrease.

□ Poorly defined polarization increase with no resistivity signature.

▼ Low resistivity feature.

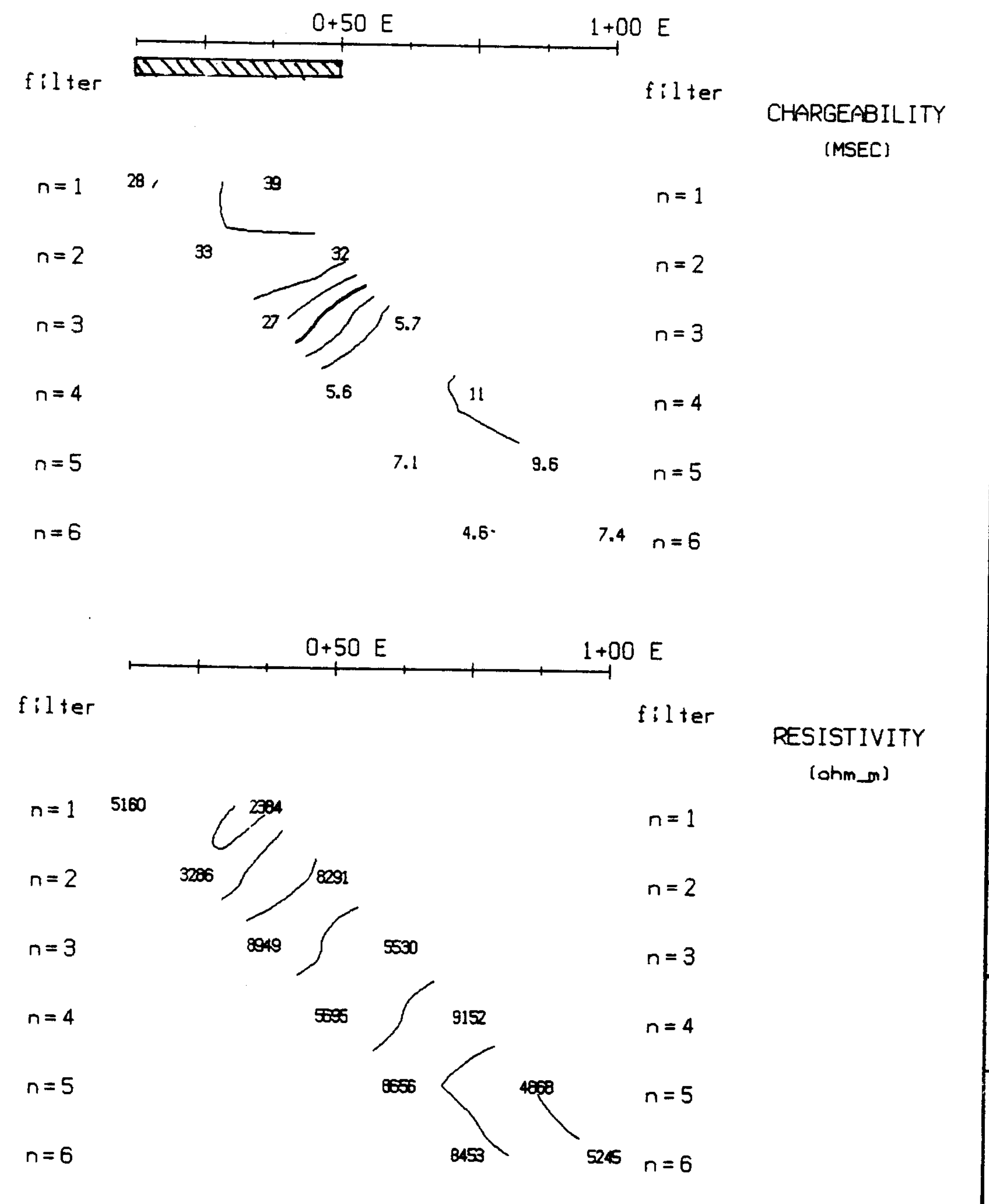
ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

CATHEDRAL GOLD CORPORATION

Time Domain
INDUCED POLARIZATION SURVEY
PELICAN PROJECT
NW British Columbia

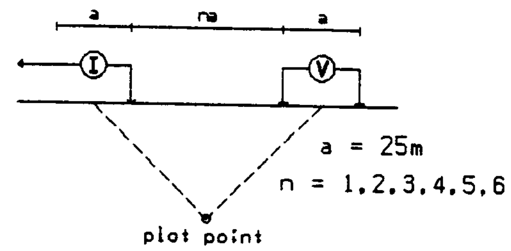
Date: September 1990	Scale= 1:1250
Interp. by: R J C	M

GEOSOFT (tm) Software for the Earth Sciences, Toronto, Canada



Snow 4+00N

Pole-Dipole Array



Logarithmic Contours 1,1.5,2,3,5,7.5,10,...

Receiver: Scintrex IPR-11
Transmitter: Scintrex TSQ-3
Operator: Roger J Caven

INTERPRETATION

- ■ Strong increase in polarization accompanied by marked decrease in resistivity
- ◘ Well defined increase in polarization without marked resistivity decrease.
- □ Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

CATHEDRAL GOLD CORPORATION

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INDUCED POLARIZATION SURVEY
PELICAN PROJECT
NW British Columbia

Date: September 1990	Scale= 1:1250
Interp. by: R J C	M

GEOSOFT (tm) Software for the Earth Sciences, Toronto, Canada

APPENDIX VIII

LAKE - GEOPHYSICAL PLOTS

EM-16 (Seattle, Washington)

Max-Min I - Horizontal Loop EM

Double Dipole EM and Magnetics

Project: Cathedral/ Pelican Line: Lake-line cont'd...2

Stn	Inph	Quad	n1	n2	n3	n4	n5
750E	13.0	3.0		0.7		-0.4	
			* 1.3		-0.0		0.6
737.5E	15.0	3.0		0.4		0.3	
			-1.0		0.7		0.0
725E	13.5	5.0		-0.6		0.7	
			0.4		-1.1		1.0
712.5E	14.0	4.0		-0.4		-0.5	
			-0.6		0.4		0.4
700E	13.0	6.0		-0.1		0.9	
			0.3		0.3		-0.3
687.5E	13.5	6.0		1		-0.5	
			0.4		-0.0		-3.5
675E	14.0	7.0		-0.5		-2.9	
			-0.9		-3.1		-3.3
662.5E	12.0	7.0		-3.6		-3.4	
			-2.5		-3.8		-5.2
650E	7.5	6.0		-2.5		-5.6	
			0.1		-4.2		-7.7
637.5E	7.0	6.0		-1.3		-6.5	
			-1.2		-3.7		-5.3
625E	4.5	2.0		-3.3		-2.5	
			-2.0		-2.0		-2.5
612.5E	1.0	3.0		-0.9		-2.1	
			1.4		-0.6		-0.4
600E	3.0	3.5		1.4		1.3	
			-0.3		3.2		0.5
587.5E	3.0	4.0		1.8		2.7	
			1.8		1.2		3.4
575E	6.0	5.0		1		1.8	
			-0.8		1.7		2.4
562.5E	5.0	6.0		-0.3		2.0	
			0.6		-0.2		3.1
550E	6.0	6.0		0.6		1.0	
			0.1		1.5		1.5
537.5E	6.5	7.0		1.0		1.8	
			0.8		1.3		3.0
525E	8.0	8.0		1		2.2	
			0.1		2.1		2.2
512.5E	8.5	7.0		1.1		2.0	
			0.8		1.1		1.1
500E	10.0	8.0		0.9		0.3	
			-0.0		-0.1		-0.2
487.5E	10.0	8.0		-1		-0.3	
			-0.8		-1.3		-0.3
475E	8.5	8.0		-1.2		-1.3	
			-0.2		-1.1		-1.9
462.5E	8.0	7.0		-0.1		-1.9	
			0.1		-0.8		-1.9
450E	8.0	7.0		-0.4		-0.8	
			-0.6		-0.4		-1.9
437.5E	7.0	6.0		-0.5		-1.5	
			0.1		-1.3		-1.0
425E	7.0	4.0		-0.8		-1.0	
			-0.9		-0.5		-1.0
412.5E	5.5	5.0		-0.5		-0.3	
			0.4		-0.5		-0.9

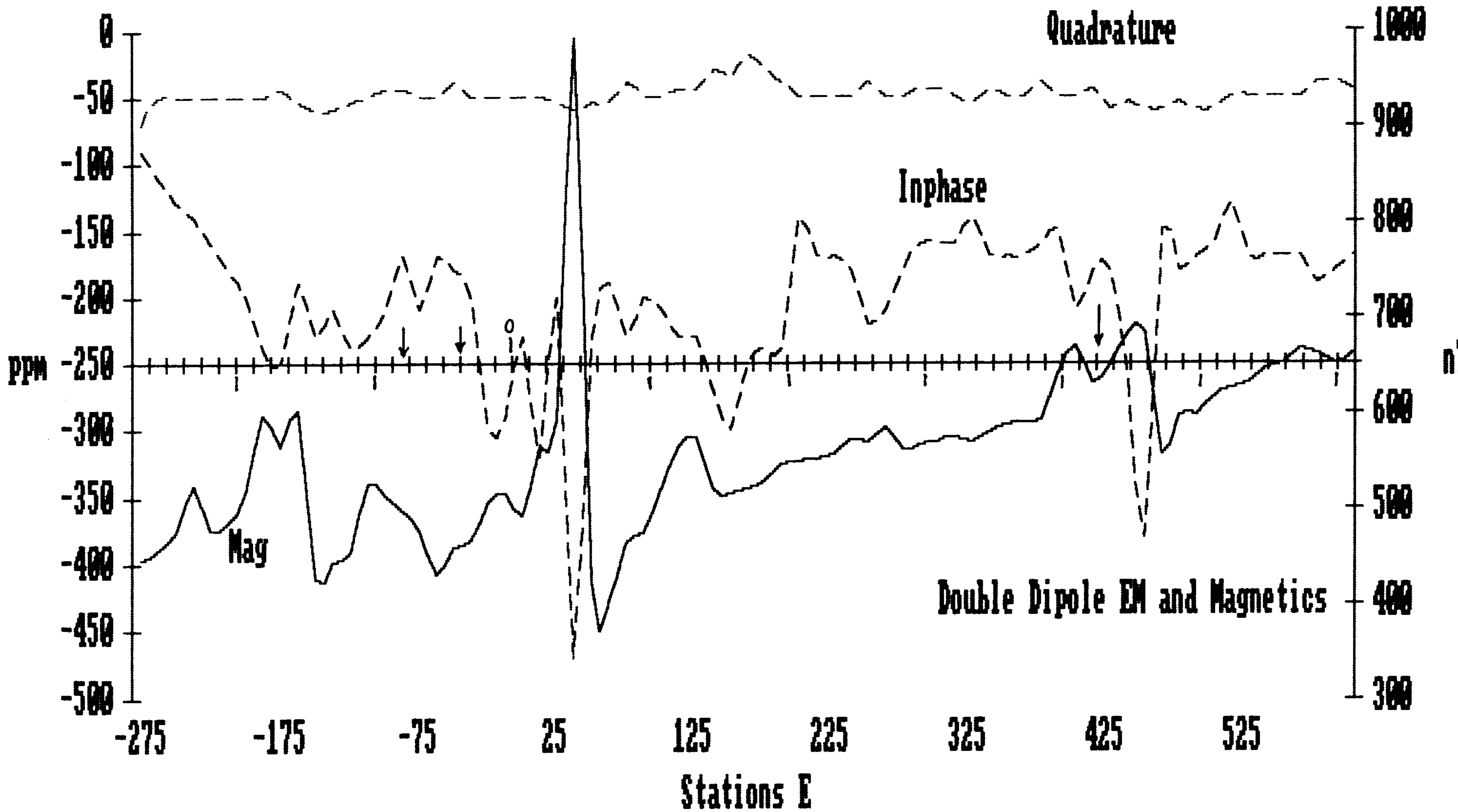
Project: Cathedral/ Pelican   Line: Lake-line   cont'd...3

Stn	Inph	Quad	n1	n2	n3	n4	n5
400E	6.0	4.0		0.3		-1.0	
			0.0		-0.1		-0.1
387.5E	6.0	4.0		-0.6		0.9	
			-0.7		0.5		0.5
375E	5.0	5.0		0.4		0.1	
			1		0.2		-1.2
362.5E	6.5	4.0		0.7		-1.2	
			-0.3		-0.7		-1.3
350E	6.0	3.0		-1.5		-0.6	
			-1.1		-1.5		-0.8
337.5E	4.0	3.0		-1.3		-1.7	
			0.1		-1.3		-0.5
325E	4.0	3.0		0.1		-0.2	
			-0.1		1.1		-0.8
312.5E	4.0	3.0		1.3		0.4	
			* 1.2		0.5		1.1
300E	6.0	3.0		0.4		1.1	
			-0.7		1.1		2.5
287.5E	5.0	4.0		-0.3		2.4	
			0.5		1.0		3.5
275E	6.0	4.0		1.6		2.2	
			1.0		2.6		2.3
262.5E	8.0	5.0		2.1		2.8	
			0.7		2.0		2.1
250E	9.5	7.0		0.7		1.2	
			-0.0		0.1		1.6
237.5E	9.5	8.0		-1.0		0.4	
			-0.9		-0.6		-0.4
225E	8.0	7.0		-0.4		-1.4	
			0.5		-1.4		-2.9
212.5E	8.5	6.0		-0.3		-2.9	
			-0.7		-1.9		-2.9
200E	7.0	6.0		-2.2		-1.8	
			-1.4		-2.0		-3.2
187.5E	4.5	5.0		-1.3		-3.1	
			0.2		-1.9		-3.4
175E	4.5	4.0		-0.5		-2.3	
			-0.9		-0.5		-4.1
162.5E	3.0	3.0		-0.5		-2.2	
			0.2		-2.3		-3.3
150E	3.0	0.0		-1.4		-3.5	
			-1.4		-2.4		-2.3
137.5E	0.5	-1.0		-2.6		-1.5	
			-0.8		-1.8		1.6
125E	-1.0	-2.0		-0.1		1.4	
			0.7		2.7		1.3
112.5E	0.5	-2.0		3.5		2.6	
			2.5		3.4		4.7
100E	5.0	-2.0		2.2		5.5	
			-0.7		4.4		5.2
87.5E	4.5	-5.0		1.2		4.1	
			1.8		1.1		
75E	7.5	0.0		1.4		0.1	
			-0.3		0.1		
62.5E	7.0	0.0		-1.5			
			-1.0		-2.9		

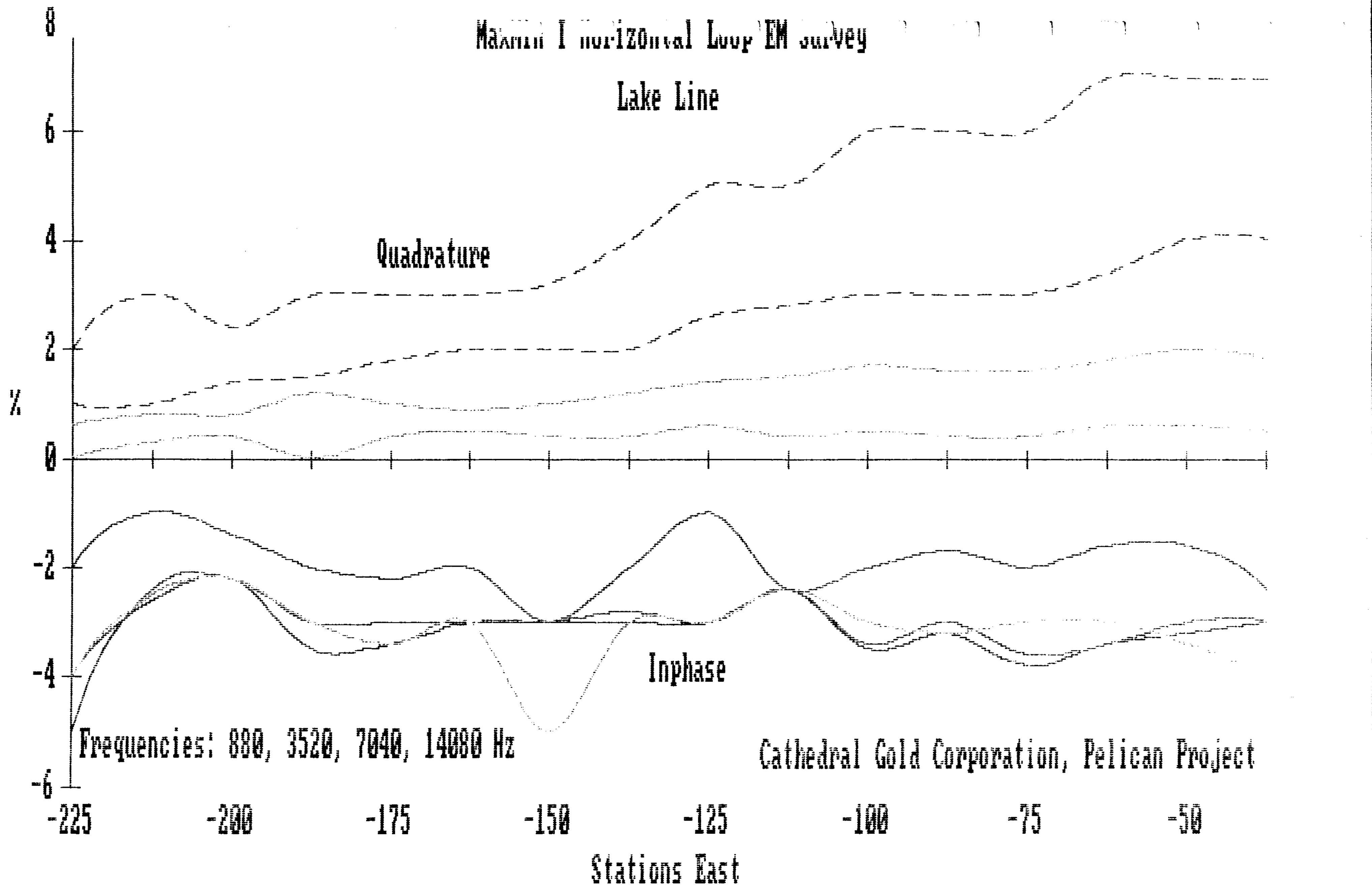
Project: Cathedral/ Pelican   Line: Lake-line   cont'd...4

Stn	Inph	Quad	n1	n2	n3	n4	n5
50E	5.0	-1.0		-2.4			
			-1.0				
37.5E	3.0	-1.0		-1			
			0.1				
25E	3.0	-3.0					
			0.1				
12.5E	3.0	-1.0					
00	2.0	-3.0					

Pelican Lake Line



Cathedral Gold Corporation - Pelican Project



MaxMin I Horizontal Loop EM Survey
Lake Line
Quadrature
Inphase
%
8
6
4
2
0
-2
-4
-6
-225
-200
-175
-150
-125
-100
-75
-50
Stations East
Frequencies: 880, 3520, 7040, 14080 Hz
Cathedral Gold Corporation, Pelican Project

Project: Cathedral Gold Corp/ Pelican Line#: Lake-line EM16 Seattle

Stn	Inph	Quad	n1	n2	n3	n4	n5
1100E	38.0	9.0					
1087.5E	35.0	8.0					
			-4.3				
1075E	28.0	6.0					
			4.9				
1062.5E	36.0	9.0		6.8			
			1.4				
1050E	38.5	8.0		-2.5			
			-4.1		-0.1		
1037.5E	32.0	8.0		-2.4			
			2.1		-2.1		
1025E	35.0	8.0		2.0		-3.3	
			-0.3		0.1		
1012.5E	34.5	8.0		-1.2		-2.2	
			-1.2		-3.7		-2.4
1000E	32.0	6.0		-3.8		-5.1	
			-2.1		-4.2		-4.5
987.5E	28.0	6.0		-2.5		-4.1	
			-0.3		-2.9		-7.1
975E	27.0	3.0		-0.3		-5.0	
			0.3		-2.6		-1.3
962.5E	27.0	2.0		-2.3		1.0	
			-2.7		1.8		0.9
950E	23.0	2.0		1.4		1.2	
			3.7		1.0		-0.7
937.5E	29.0	3.0		3.3		-0.6	
			-0.7		1.4		-0.3
925E	28.0	6.0		-2.4		2.2	
			-1.7		-2.0		2.2
912.5E	25.0	9.0		-1.7		-2.3	
			0.5		-1.6		-1.7
900E	25.5	8.0		0.3		-1.4	
			-0.3		-0.1		-2.7
887.5E	25.0	7.0		0.0		-0.7	
			0.1		-1		-1.2
875E	25.0	7.0		-1.2		-2.0	
			-1.1		-1.3		-0.2
862.5E	23.0	6.0		-1.5		0.2	
			-0.6		-0.3		-3.6
850E	22.0	8.0		1.1		-3.3	
			1.5		-2.2		-4.2
837.5E	24.0	4.0		-1.9		-3.2	
			-3.2		-2.6		-1.8
825E	18.5	3.0		-4.0		-1.2	
			-0.7		-2.5		-3.8
812.5E	17.0	3.0		0.7		-5.1	
			1.5		-1.6		-5.4
800E	19.0	3.0		-0.7		-1.9	
			-2.4		-1.2		-2.2
787.5E	15.0	3.0		-2.5		-1.4	
			-0.0		-2.6		-1.9
775E	14.5	4.0		-0.5		-3.3	
			-0.2		-1.0		-2.0
762.5E	14.0	5.0		-0.6		0.6	
			-0.7		0.5		-0.4

APPENDIX IX

GEOCHEMICAL ANALYSES

GEOCHEMICAL ANALYSIS CERTIFICATE

Cathedral Gold Corp. PROJECT 8103 File # 90-4205 Page 1

800 - 601 W. Hastings St., Vancouver BC V6B 5A6 Submitted by: D. GORE

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
PEL-90-G-1	4	39	37	9	.4	10	4	169	6.05	2	5	ND	1	4	.2	2	2	3	.08	.009	2	9	.04	22	.01	2	.09	.01	.04	1	1121
PEL-90-G-2	5	76	5	8	.4	43	76	567	16.20	15	5	ND	1	18	.8	2	7	5	.45	.005	2	7	.39	6	.01	2	.34	.01	.01	1	25
PEL-90-G-3	6	36	2	8	.3	32	57	445	14.19	7	5	ND	1	13	.5	2	5	7	.27	.010	2	40	.52	9	.01	2	.53	.01	.03	1	11
PEL-90-G-4	8	2478	782	1081	7.2	12	20	132	14.42	401	5	ND	1	3	6.7	4	2	12	.03	.022	4	10	.10	9	.01	3	.21	.01	.04	1	827
PEL-90-G-5	1	312	271	378	16.0	20	9	2879	8.12	334	5	ND	2	289	2.3	4	2	99	1.77	.180	11	34	1.58	18	.32	2	2.12	.01	.02	1	21
PEL-90-G-6	4	446	47	242	2.1	7	14	1890	5.16	45	5	ND	1	65	1.9	2	2	12	1.56	.025	2	31	.16	6	.08	2	.20	.01	.01	1	27
PEL-90-G-7	8	77	48	5693	1.1	7	7	993	20.80	162	5	ND	2	4	32.8	2	3	7	.12	.003	3	7	.07	22	.01	2	.04	.01	.02	10	99
PEL-90-G-8	31	233	210	1312	5.9	11	12	645	9.88	304	5	ND	1	129	8.9	5	3	42	.98	.161	3	14	.10	9	.34	2	.44	.01	.01	2	105
PEL-90-G-9	1	1124	171	21319✓	10.7	2	23	2823	25.08	116	5	ND	2	10	132.8	2	2	5	.88	.003	4	3	.08	6	.01	2	.03	.01	.01	30	285
PEL-90-G-10	12	4152	174	1604	15.1	21	39	1425	9.10	337	5	ND	1	207	12.6	7	7	40	1.92	.199	5	23	.40	7	.29	2	.75	.01	.02	1	200
PEL-90-G-10 (A)	3	272	1895	1891	22.5	25	18	1378	6.68	288	5	ND	1	175	10.2	8	2	64	1.35	.164	5	61	.55	22	.32	2	.86	.01	.05	1	140
PEL-90-G-11	2	1034	2064	18217✓	14.2	14	20	708	10.77	319	5	ND	1	34	105.8	9	2	23	.26	.023	3	16	.27	3	.04	2	.36	.01	.01	7	333
PEL-90-G-12	9	639	494	15981✓	5.0	34	20	1526	7.87	375	5	ND	1	71	86.2	6	2	36	.77	.104	3	66	.52	7	.18	2	.69	.01	.02	7	276
PEL-90-G-13	5	389	762	13020✓	6.7	33	23	1495	8.26	499	5	ND	1	122	68.8	8	2	42	.92	.132	3	77	.66	13	.17	2	.98	.01	.01	4	128
PEL-90-G-14	3	177	193	734	30.8✓	2	6	695	21.09	527	5	ND	1	5	2.2	5	10	5	.19	.006	3	3	.14	10	.01	2	.02	.01	.01	14	1796
PEL-90-G-14 (A)	4	93	746	570	6.6	68	50	1948	12.57	457	5	ND	1	178	5.5	8	2	59	1.74	.192	5	74	.85	10	.30	2	1.29	.01	.02	1	77
PEL-90-G-15	1	316	151	3802	1.7	7	40	2466	16.91	54	5	ND	1	36	12.5	2	2	8	4.07	.002	5	5	.06	2	.01	2	.05	.01	.01	7	98
PEL-90-G-16	5	15	2	39	.2	8	7	478	7.99	2	5	ND	2	19	.3	2	3	2	.56	.030	2	35	.19	22	.01	2	.19	.01	.10	1	1796
PEL-90-G-17	2	21	4	26	.4	6	11	508	5.28	8	5	ND	7	42	.2	2	2	5	1.13	.077	5	4	.23	40	.01	2	.35	.01	.12	1	40
PEL-90-G-18	6	12	4	15	.1	7	10	804	2.83	3	5	ND	6	38	.2	2	2	4	1.08	.071	3	6	.35	55	.01	2	.40	.01	.13	1	15
PEL-90-G-19	4	19	2	48	.1	6	9	511	4.33	2	5	ND	5	25	.2	2	2	3	.64	.050	3	6	.25	36	.01	3	.33	.01	.10	1	13
PEL-90-G-20	5	17	4	8	.1	7	12	447	4.98	4	5	ND	4	32	.2	2	3	3	.78	.055	3	28	.18	36	.01	2	.32	.01	.12	1	27
PEL-90-G-21	1	34	5	77	.3	9	26	976	8.66	3	5	ND	3	55	1.2	2	2	81	.33	.098	4	30	2.29	40	.28	2	1.97	.02	.06	1	9
PEL-90-G-22	3	4	2	11	.2	9	2	48	2.31	2	5	ND	1	2	.2	2	2	1	.01	.004	2	8	.01	22	.01	2	.03	.01	.01	1	599
PEL-90-G-23	6	79	3	9	4.5	13	3	42	1.46	2	5	ND	1	2	.2	3	2	1	.01	.001	2	9	.01	15	.01	3	.03	.01	.02	1	33
PEL-90-G-24	8	5	2	8	.1	16	10	261	1.97	2	5	ND	1	2	.2	2	2	1	.01	.001	2	69	.01	7	.01	2	.02	.01	.01	1	85
PEL-90-G-25	3	12	3	57	.3	5	4	565	3.06	2	5	ND	3	87	.3	2	2	38	.41	.141	5	6	1.24	33	.13	2	1.64	.03	.09	1	12
PEL-90-G-26	4	6	2	40	.1	6	7	238	3.27	2	5	ND	9	35	.2	2	2	42	.30	.095	4	6	.96	40	.09	2	1.13	.06	.06	1	10
PEL-90-G-27	4	5	2	35	.3	7	4	273	2.15	2	5	ND	5	48	.3	2	2	35	.37	.083	5	7	.99	28	.09	2	1.17	.05	.05	1	5
PEL-90-G-28	2	66	3	77	.1	18	12	494	4.12	2	5	ND	1	28	.2	2	2	64	.33	.096	2	47	2.16	66	.10	2	1.81	.05	.13	1	10
PEL-90-G-29	2	10	7	30	.2	3	2	265	2.31	3	5	ND	5	46	.3	2	2	44	.32	.136	5	6	.87	116	.15	2	1.11	.03	.14	1	15
PEL-90-G-30	10	10	4	10	.2	15	56	185	4.03	6	5	ND	2	209	.2	2	2	14	.95	.052	5	12	.19	47	.06	2	.97	.01	.10	1	4
PEL-90-G-31	2	5	3	36	.2	32	13	413	5.49	25	5	ND	2	14	.3	2	2	37	.24	.157	2	27	1.70	69	.17	2	1.51	.02	.18	1	3
PEL-90-G-32	4	1	6	31	.1	5	5	580	2.66	2	5	ND	3	125	.2	2	2	24	.68	.117	7	11	1.44	412	.10	2	1.75	.02	.11	1	1
PEL-90-G-33	3	1	4	32	.1	5	17	558	3.54	3	5	ND	2	189	.2	2	2	24	.86	.120	6	4	1.13	81	.09	2	1.64	.01	.11	1	4
PEL-90-G-34	3	2	3	64	.2	6	5	639	2.22	2	5	ND	1	123	.3	2	2	19	.61	.074	4	6	1.12	392	.07	2	1.39	.01	.08	1	1
STANDARD C/AU-R	19	58	40	133	7.1	73	31	1047	3.97	41	20	7	40	52	19.0	16	20	60	.52	.098	40	60	.89	176	.09	36	1.89	.06	.13	11	520

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

DATE RECEIVED: SEP 6 1990 **DATE REPORT MAILED:** Sept 11/90. **SIGNED BY** [signature] D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

✓ ASSAY RECOMMENDED

Cathedral Gold Corp. PROJECT 8103 FILE # 90-4205

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
PEL-90-G-35	2	30	2	38	.1	2	1	366	3.94	8	5	ND	2	6	.2	2	2	19	.21	.133	3	4	.66	77	.16	2	.94	.01	.19	1	21
PEL-90-G-36	1	1	2	35	.1	1	2	522	.79	2	5	ND	3	28	.2	2	2	5	.23	.038	7	1	.20	405	.02	6	.45	.02	.16	2	2
PEL-90-G-37	50	158	2	92	.3	20	42	1854	5.49	2	5	ND	1	12	.7	2	2	50	.06	.111	7	47	1.37	44	.05	2	2.56	.04	.10	1	7
PEL-90-G-38	32	51	3	89	.3	19	14	969	6.51	9	5	ND	2	86	.7	2	2	73	.29	.095	2	61	2.32	28	.28	2	2.51	.04	.08	1	10
PEL-90-G-39	4	14	2	21	.1	5	3	588	1.28	2	5	ND	4	19	.2	2	2	6	.18	.041	6	5	.36	69	.03	2	.65	.03	.09	2	4
PEL-90-G-40	5	21	2	11	.3	1	2	184	3.58	4	5	ND	5	25	.2	2	2	18	.14	.092	2	3	.26	86	.16	4	.66	.01	.27	1	26
PEL-90-G-41	4	27	2	33	.2	4	3	464	4.77	5	5	ND	4	17	.3	2	2	37	.21	.181	3	12	.79	74	.22	2	1.00	.01	.25	1	25
PEL-90-G-42	1	1	4	46	.2	3	2	248	2.62	5	5	ND	2	16	.4	2	2	44	.31	.160	3	9	.91	74	.16	2	.99	.03	.18	2	10
PEL-90-G-43	1	30	2	11	.2	1	2	87	7.84	9	5	ND	2	8	.3	2	2	27	.03	.014	3	5	.26	53	.18	2	.73	.01	.19	1	12
PEL-90-J-1	1	76	93	120	1.8	26	25	2156	6.81	251	5	ND	2	216	1.1	8	2	74	1.49	.250	7	45	1.52	10	.32	2	1.94	.01	.02	2	53
PEL-90-J-2	4	8	2	36	.1	1	2	329	3.82	10	5	ND	4	32	.2	2	2	30	.21	.125	3	2	.80	77	.17	2	.96	.03	.17	1	22
PEL-90-J-3	4	29	8	37	.3	13	7	483	4.22	6	5	ND	4	17	.2	2	2	52	.38	.204	5	21	1.18	76	.20	3	1.13	.04	.17	1	18
PEL-90-J-4	3	12	9	32	.2	7	4	261	4.28	7	5	ND	3	15	.2	2	2	24	.27	.221	5	8	.63	89	.15	2	.77	.02	.18	1	32
PEL-90-J-5	5	27	6	25	.5	10	2	275	4.18	4	5	ND	3	17	.3	2	2	46	.22	.207	5	34	.78	106	.22	2	.86	.03	.21	1	36
PEL-90-J-6	18	18	2	17	.3	10	3	218	1.71	2	5	ND	1	8	.2	2	2	10	.18	.087	3	10	.30	84	.11	3	.44	.01	.13	1	21
PEL-90-J-7	1	26	4	58	.3	4	2	693	4.17	11	5	ND	3	45	.3	2	2	76	.46	.262	6	14	1.33	62	.18	2	1.20	.04	.12	1	61
PEL-90-J-8	1	87	5	63	1.0	15	20	1241	9.67	16	5	ND	5	74	1.5	2	2	74	.58	.295	7	35	1.47	27	.34	2	1.30	.01	.09	1	83
PEL-90-J-9	1	76	2	25	.3	46	27	453	5.56	27	5	ND	2	82	.6	2	2	49	1.04	.278	14	68	.74	30	.30	2	.85	.04	.11	1	34
PEL-90-J-10	4	29	9	6	5.2	10	20	49	17.02	33	5	15	1	7	.6	25	275	2	.05	.015	2	9	.01	5	.01	2	.08	.01	.05	1	33400
PEL-90-J-10 REF	1	29	4	1	7.1	5	18	32	16.90	30	5	23	1	7	.3	24	297	1	.05	.013	2	5	.01	5	.01	3	.03	.01	.03	1	46600
PEL-90-J-11	6	11	3	5	.1	17	5	78	2.65	7	5	ND	1	3	.2	3	9	2	.03	.005	2	13	.01	21	.01	2	.08	.01	.04	1	970
PEL-90-J-12	1	6	2	2	.1	7	16	64	3.63	8	5	ND	1	1	.2	2	4	1	.01	.003	2	4	.01	5	.01	2	.04	.01	.01	1	600
PEL-90-J-13	5	588	10	247	3.6	34	29	1705	10.27	29	5	ND	2	31	1.6	2	3	121	.80	.305	5	86	4.09	30	.18	2	3.72	.01	.06	1	74
PEL-90-J-14	1	30	20	78	.5	22	20	88	6.06	56	5	ND	1	18	.4	2	2	19	.46	.104	2	7	.35	14	.01	2	.71	.03	.12	1	58
PEL-90-J-15	6	19	2	5	.7	10	12	101	5.63	2	5	3	5	7	.2	2	7	9	.16	.073	3	8	.13	30	.01	2	.36	.01	.16	1	1260
PEL-90-J-16	7	30	3	1	.3	4	26	18	7.54	8	5	ND	6	6	.2	2	8	5	.12	.055	2	1	.02	19	.01	3	.28	.01	.17	1	470
PEL-90-J-17	6	14	2	18	.1	7	26	448	4.11	10	5	ND	8	44	.2	2	4	12	.96	.082	11	3	.66	69	.01	2	1.11	.01	.23	1	45
PEL-90-J-18	1	3	2	8	.2	1	6	88	2.75	2	5	2	2	9	.2	2	18	8	.15	.068	7	1	.31	61	.01	3	.56	.02	.17	1	3360
PEL-90-J-19	3	7	2	13	.1	5	6	368	3.62	2	5	ND	10	22	.2	2	2	13	.48	.092	4	3	.46	60	.01	3	.70	.03	.16	1	370
PEL-90-J-20	2	1	2	7	.2	1	2	72	3.63	2	5	ND	9	10	.2	2	8	8	.09	.064	3	1	.28	60	.01	2	.53	.02	.15	1	980
PEL-90-J-21	13	8	3	4	.1	5	8	94	6.08	2	5	ND	7	9	.2	2	6	5	.17	.073	4	4	.22	28	.01	5	.53	.02	.19	1	740
PEL-90-J-22	1	3	2	1	.1	2	4	96	3.31	4	5	ND	2	8	.2	2	2	2	.17	.024	2	2	.05	28	.01	2	.17	.01	.07	1	1010
PEL-90-J-23	13	7	2	3	.1	7	2	875	2.86	2	5	ND	5	33	.2	2	2	3	.78	.047	2	5	.24	53	.01	2	.30	.01	.15	1	140
PEL-90-J-24	16	4	2	1	.2	4	32	53	6.16	3	5	ND	2	12	.2	2	2	6	.07	.019	2	1	.04	22	.03	2	.23	.01	.11	1	18
PEL-90-J-25	5	5	2	1	.1	20	8	52	3.66	7	5	ND	1	1	.2	2	2	1	.01	.004	2	11	.01	22	.01	2	.04	.01	.01	1	610
PEL-90-J-26	1	8	2	30	.1	12	29	214	3.18	2	5	ND	3	45	.3	2	2	35	.56	.148	3	10	1.32	34	.10	3	1.22	.05	.15	1	5
STANDARD C/AU-R	19	57	39	132	7.2	72	31	1048	3.97	40	20	7	40	52	19.2	16	19	60	.52	.094	40	60	.89	183	.09	36	1.89	.06	.13	13	530

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
PEL-90-J-27	3	4	7	42	.3	9	8	301	2.90	4	5	ND	7	17	.2	2	2	31	.18	.088	3	7	.67	40	.06	2	.69	.08	.11	2	14
PEL-90-J-28	1	83	6	277	.9	14	14	1086	18.72	10	6	ND	2	76	1.9	2	2	64	.48	.104	2	15	3.02	9	.13	2	3.28	.02	.03	3	1990
PEL-90-J-28 REF	1	193	7	293	1.0	4	20	1296	26.59	27	13	ND	2	17	1.6	2	2	60	.14	.056	2	4	3.43	7	.10	2	3.76	.01	.05	1	2240
PEL-90-J-29	4	12	44	185	.7	11	19	970	7.76	2	5	ND	2	55	1.4	2	3	79	.42	.185	2	17	2.02	60	.20	2	1.97	.15	.16	1	41
PEL-90-J-30	1	6	32	89	.7	4	5	347	5.38	2	5	ND	1	63	.2	2	2	41	.25	.085	4	7	.59	71	.17	2	.97	.07	.20	1	36
PEL-90-J-31	2	5	6	168	.5	7	18	439	3.29	3	5	ND	1	81	.8	2	2	24	.45	.073	4	22	.54	25	.09	2	.90	.16	.08	1	16
PEL-90-J-32	2	9	55	199	.9	6	11	1073	10.73	23	5	ND	2	28	1.5	2	2	141	.16	.142	2	10	3.11	40	.28	2	2.92	.10	.12	1	56
PEL-90-J-33	4	18	23	108	.4	11	14	477	5.85	2	5	ND	2	97	.5	2	2	84	.40	.147	4	13	1.62	65	.21	2	1.71	.17	.15	1	11
PEL-90-J-34	2	20	17	63	.5	14	39	461	8.91	2	5	ND	2	49	1.0	2	2	82	.33	.175	2	9	1.63	47	.22	2	1.64	.15	.13	1	17
PEL-90-J-35	25	1	3	2	.1	2	2	41	2.01	2	5	ND	8	6	.2	2	2	6	.07	.049	2	12	.05	110	.05	2	.52	.02	.33	1	4
PEL-90-J-36	2	4	4	13	.2	4	4	129	2.51	2	5	ND	3	38	.2	2	2	34	.43	.200	3	5	.44	200	.16	2	.82	.10	.24	1	8
PEL-90-J-37	4	22	11	11	.3	1	1	76	5.57	2	5	ND	3	14	.2	2	2	42	.09	.049	2	5	.25	190	.29	2	.82	.05	.35	2	24
PEL-90-J-38	19	16	2	2	.2	1	1	10	5.65	2	5	ND	2	2	.2	2	2	13	.01	.001	2	1	.04	230	.17	2	.73	.01	.32	1	15
BR-90-J-1	5	3	3	4	.2	10	3	288	.99	7	5	ND	1	24	.2	2	2	6	.91	.020	2	45	.03	31	.01	2	.14	.01	.08	1	4
STANDARD C/AU-R	18	59	38	132	7.2	72	31	1049	3.97	42	20	7	39	55	19.5	15	18	58	.52	.097	39	59	.90	182	.09	35	1.90	.06	.13	13	520

Cathedral Gold Corp. PROJECT 8103 FILE # 90-4205

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
PEL-90-DS-1	12	91	18	71	.2	2	7	825	7.75	11	9	ND	11	9	.4	2	4	25	.06	.048	30	8	.15	30	.18	2	3.71	.06	.07	1	9
PEL-90-DS-2	5	31	39	104	.8	12	3	850	3.69	16	5	ND	3	65	.2	2	2	51	.37	.105	18	32	1.24	380	.24	2	1.88	.01	.14	1	12
PEL-90-DS-3	15	103	20	112	.5	9	7	724	5.47	7	5	ND	6	50	.3	2	2	50	.25	.144	15	17	.98	90	.22	2	2.09	.03	.08	1	40
PEL-90-DS-4	7	43	41	91	.9	14	5	614	4.74	13	5	ND	4	66	.3	2	3	52	.24	.168	13	35	1.02	304	.30	2	1.97	.02	.11	1	89
PEL-90-DS-5	7	84	44	111	1.0	12	16	776	5.16	19	5	ND	4	60	.5	2	3	81	.20	.086	11	45	1.12	104	.47	3	2.86	.02	.06	1	190
PEL-90-DS-6	9	14	18	96	.1	2	5	1154	9.25	15	7	ND	11	2	.8	2	4	32	.03	.039	35	13	.08	9	.26	2	3.43	.06	.08	1	10
PEL-90-DS-7	7	748	8	75	1.5	10	57	1059	1.02	30	5	ND	1	28	.8	2	2	7	.31	.127	39	3	.04	26	.02	2	10.10	.01	.01	1	29
PEL-90-DS-8	7	28	51	70	.7	7	3	360	4.58	6	5	ND	3	31	.4	2	2	51	.13	.087	19	19	.51	109	.31	2	2.34	.02	.07	1	38
PEL-90-DS-9	7	27	212	70	1.0	8	2	411	3.49	17	5	ND	2	49	.2	2	2	46	.20	.101	10	22	.87	170	.24	2	1.68	.01	.06	1	12
PEL-90-DS-10	7	31	27	84	.3	16	7	888	5.68	11	5	ND	5	33	.2	2	2	43	.15	.122	20	23	.80	137	.23	2	2.88	.02	.06	1	32
PEL-90-DS-11	14	112	150	292	.7	20	32	992	28.09	157	5	ND	2	42	1.3	2	2	15	.04	.514	28	6	.19	154	.08	2	3.26	.01	.04	9	99
PEL-90-DS-12	7	35	44	80	.5	6	4	361	6.16	13	5	ND	5	16	.2	2	4	43	.09	.113	17	13	.57	58	.36	2	2.36	.03	.05	1	85
PEL-90-DS-13	22	44	46	67	.5	9	8	369	5.20	23	5	ND	4	54	.8	2	2	54	.39	.081	11	15	.81	67	.45	2	1.83	.13	.11	1	350
PEL-90-DS-14	43	137	17	91	.6	16	20	797	14.53	15	9	ND	8	43	2.1	2	5	118	.15	.292	5	44	1.40	92	.40	2	2.50	.04	.06	1	56
PEL-90-DS-15	169	215	10	42	.4	7	28	802	15.59	5	7	ND	14	17	1.4	2	4	35	.07	.348	3	14	.44	51	.20	2	1.17	.01	.07	1	69
PEL-90-DS-16	10	35	19	59	.3	6	6	452	4.03	9	5	ND	3	75	.2	2	2	39	.35	.168	7	10	.86	228	.24	2	1.27	.05	.10	1	21
STANDARD C/AU-S	18	57	40	131	7.1	72	31	1048	3.97	41	20	7	39	53	19.3	15	19	57	.51	.093	39	58	.90	181	.09	35	1.90	.06	.14	11	48

GEOCHEMICAL ANALYSIS CERTIFICATE

Cathedral Gold Corp. PROJECT 8103 File # 90-4290 Page 1

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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
PEL-90-G-44	3	18	38	482	.2	7	4	414	3.92	20	5	ND	1	8	1.4	2	2	37	.16	.098	2	16	1.32	98	.17	4	1.15	.02	.15	2	51
PEL-90-G-45	2	23	4	50	.1	7	5	359	2.52	12	5	ND	1	20	.5	3	5	20	.33	.077	2	7	1.07	99	.12	5	1.28	.03	.19	3	25
PEL-90-G-46	16	62	5	20	.9	6	10	37	13.33	23	5	ND	4	9	.4	2	7	35	.03	.055	3	25	.06	74	.10	8	.40	.01	.13	2	220
PEL-90-G-47	9	11	584	6	.2	2	17	8	40.74	334	5	ND	6	2	.9	2	2	167	.01	4.484	2	44	.02	29	.02	3	.68	.01	.02	3	15
PEL-90-G-48	5	728	88	1336	1.1	460	52	2410	8.55	73	7	ND	2	57	7.2	2	4	79	.77	.284	6	643	3.50	23	.13	5	4.10	.01	.06	2	59
PEL-90-G-49	16	10	2	246	.3	22	45	4879	3.54	5	5	ND	9	29	1.4	2	2	19	.59	.097	13	3	.85	115	.01	5	1.76	.04	.12	1	12
PEL-90-G-50	13	13	2	32	.1	5	18	625	2.11	4	5	ND	7	73	.7	2	2	45	.55	.104	8	10	1.16	177	.08	3	1.43	.05	.08	2	4
PEL-90-G-51	15	11	16	25	.1	4	6	404	2.71	9	5	ND	6	63	.4	2	2	46	.49	.164	8	5	1.00	140	.06	2	1.19	.05	.07	1	4
PEL-90-G-52	3	7	2	21	.2	13	1	504	.79	2	5	ND	1	20	.4	2	3	8	.75	.024	8	14	.27	23	.01	3	.40	.01	.04	1	4
PEL-90-G-53	2	8	3	122	.1	7	9	4170	4.72	2	5	ND	6	306	.9	2	2	61	12.64	.019	6	3	1.25	182	.01	5	2.05	.01	.05	1	1
PEL-90-J-65	8	32	8	49	.1	19	13	417	2.44	2	5	ND	1	17	.2	2	2	15	.20	.095	3	46	.50	126	.02	3	.76	.01	.13	2	18
PEL-90-J-66	15	478	24	351	.3	5	13	208	22.28	18	5	ND	2	87	.2	2	29	147	.33	.282	5	10	.10	25	.11	5	.85	.01	.01	1	540
PEL-90-J-67	39	348	23	104	1.0	23	20	344	18.02	20	5	ND	1	172	1.1	2	2	80	.44	.201	8	31	.15	92	.13	2	1.01	.01	.08	2	300
PEL-90-J-68	6	141	3	216	.2	13	7	1610	7.63	11	5	ND	1	78	.7	2	2	66	.22	.178	13	8	1.75	76	.13	4	1.96	.01	.03	1	13
PEL-90-J-69	7	163	23	251	.8	16	9	927	8.22	6	5	ND	3	56	.4	2	2	63	.03	.192	17	44	1.65	161	.06	4	2.43	.03	.15	1	32
PEL-90-J-70	4	84	23	156	.5	28	31	873	12.37	5	5	ND	1	24	1.4	2	2	51	.04	.069	4	45	1.18	59	.25	2	1.54	.01	.11	1	69
PEL-90-J-71	7	277	93	177	5.4	8	10	772	6.07	10	5	ND	1	171	.9	2	2	60	.43	.098	10	31	1.38	143	.28	2	1.79	.03	.10	1	28
PEL-90-J-72	3	9	16	131	.8	8	7	769	5.82	31	5	ND	1	200	.9	2	2	85	.85	.104	6	27	1.18	25	.35	6	1.49	.01	.10	2	89
PEL-90-J-73	3	11	21	58	.1	6	16	814	6.45	15	5	ND	1	204	1.0	2	2	72	1.02	.085	5	19	1.49	21	.33	3	1.66	.02	.03	1	31
PEL-90-J-74	2	18	4	60	.7	7	28	1260	9.79	19	5	ND	2	39	.7	2	6	69	.50	.178	4	12	2.37	61	.17	5	2.20	.05	.29	3	29
PEL-90-J-75	3	12	7	28	.2	4	22	353	4.16	22	5	ND	1	63	.2	2	2	37	.34	.056	4	6	.63	52	.15	4	.78	.06	.13	1	27
PEL-90-J-76	5	11	16	9	.3	17	16	113	8.23	93	5	ND	1	106	1.1	2	2	114	.33	.095	4	42	.15	32	.43	2	.51	.04	.09	1	110
PEL-90-J-77	1	42	2	26	1.7	6	3	62	1.12	6	5	ND	1	11	.2	2	2	8	.22	.099	4	5	.08	55	.05	2	.68	.01	.19	1	61
PEL-90-J-78	1	23	12	38	.1	40	9	439	5.61	14	5	ND	1	26	.5	2	2	85	.25	.122	5	67	1.54	74	.24	6	1.36	.05	.06	2	31
PEL-90-J-79	4	320	13	192	2.2	59	71	3542	5.42	26	5	ND	1	11	.9	2	2	17	.17	.200	6	6	.46	132	.01	2	2.39	.01	.12	1	82
PEL-90-J-80	2	251	16	138	2.8	43	116	5385	4.93	29	5	ND	1	7	.6	2	2	15	.12	.137	5	6	.41	91	.05	3	1.39	.01	.15	1	125
PEL-90-J-81	2	39	2	15	.1	8	11	708	.44	3	5	ND	14	7	.2	2	2	2	.11	.033	5	11	.05	114	.01	2	.43	.01	.17	1	9
PEL-90-J-82	5	39	10	77	1.2	12	8	260	3.57	26	5	ND	1	15	.6	2	2	16	.35	.183	5	5	.66	85	.14	2	.98	.01	.19	1	92
PEL-90-J-83	4	25	37	48	2.8	14	8	206	4.70	85	5	ND	1	98	.6	2	2	53	.60	.101	4	25	.32	54	.29	6	.70	.04	.07	1	200
PEL-90-J-84	4	21	21	8	1.8	14	13	112	7.31	20	5	ND	1	49	.2	2	2	20	.23	.044	2	11	.03	29	.10	2	.29	.02	.06	1	133
PEL-90-J-85	3	15	14	86	.8	10	3	761	4.21	35	5	ND	1	21	.8	2	2	53	.36	.163	6	15	2.19	76	.29	2	2.01	.04	.16	1	73
STANDARD C/AU-R	20	62	42	130	7.1	73	32	1053	3.97	40	18	7	39	56	19.2	15	20	57	.52	.095	40	59	.90	183	.08	39	1.89	.06	.13	11	510

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1 ROCK P2 SOIL AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: SEP 11 1990 **DATE REPORT MAILED:** Sept 14/90. **SIGNED BY**.........D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
PEL-90-DS-18	7	18	53	80	.6	9	6	433	4.44	15	5	ND	5	53	.2	2	3	56	.43	.064	17	18	.82	85	.43	2	2.54	.13	.11	1	46
PEL-90-DS-19	31	99	229	138	.9	15	45	1182	6.77	29	6	ND	5	52	.3	3	3	52	.44	.118	15	18	.79	175	.33	2	4.37	.15	.13	1	66
PEL-90-DS-20	10	48	34	84	.4	6	12	599	6.65	12	5	ND	8	48	.2	2	2	43	.21	.086	14	16	.60	34	.26	3	2.09	.01	.05	2	19
SER-90-B-1	6	208	36	189	.7	24	14	1284	10.72	17	5	ND	5	75	1.4	2	3	88	.22	.363	16	33	1.63	170	.30	2	2.83	.07	.10	1	104
SER-90-B-2	4	231	39	218	.6	24	23	1916	10.37	13	5	ND	4	72	1.4	2	2	109	.35	.330	13	27	1.77	139	.36	2	2.92	.11	.13	1	65
SER-90-B-3	5	160	23	190	.6	22	18	1566	9.67	18	5	ND	7	54	1.2	2	2	87	.21	.307	21	23	1.41	145	.39	2	3.13	.08	.11	1	67
SER-90-B-4	4	222	23	179	.6	31	26	1719	9.19	19	5	ND	4	68	1.4	2	2	114	.42	.316	14	28	1.91	170	.39	2	3.22	.14	.13	1	52
SER-90-B-6	5	190	26	250	.7	44	38	3573	8.79	10	5	ND	5	64	1.7	2	2	72	.50	.205	19	23	1.52	286	.37	2	3.14	.18	.12	1	65
SER-90-B-7	5	118	26	172	1.0	25	21	1701	8.87	26	5	ND	5	66	.9	2	3	77	.28	.263	16	33	1.44	188	.34	2	3.25	.09	.10	1	280
SER-90-B-8	4	78	75	160	2.0	21	9	976	8.58	33	5	ND	4	67	.9	3	2	99	.20	.217	23	48	1.48	278	.41	2	2.86	.07	.10	1	134
SER-90-B-9	5	117	50	153	1.3	27	18	1192	7.73	26	5	ND	4	62	.6	2	2	77	.33	.228	16	34	1.29	197	.35	3	3.07	.11	.10	1	90
SER-90-B-10	6	174	26	220	.6	35	29	3015	8.94	13	5	ND	7	35	1.1	2	2	57	.11	.227	22	24	1.09	189	.24	2	3.25	.04	.08	1	57
SER-90-B-12	4	231	25	178	.6	31	27	1840	9.12	17	5	ND	4	62	1.3	2	2	109	.33	.324	14	27	1.80	151	.34	2	3.11	.11	.11	1	52
SER-90-B-13	4	200	32	204	.6	24	21	1738	9.66	15	5	ND	4	67	1.3	2	2	98	.29	.322	14	26	1.67	130	.35	2	2.75	.09	.13	1	760
SER-90-B-14	5	213	34	179	.7	22	15	1237	10.09	20	5	ND	5	73	1.3	2	2	85	.23	.337	15	27	1.44	184	.33	2	2.63	.07	.10	1	141
SER-90-B-15	4	47	27	139	1.2	11	8	532	7.32	32	5	ND	3	55	.3	2	3	81	.37	.158	17	27	.99	109	.36	2	2.73	.13	.09	1	140
SER-90-B-16	2	54	18	108	.6	39	12	568	9.93	40	5	ND	3	55	1.2	2	2	116	.41	.201	9	31	1.55	74	.45	2	2.21	.14	.09	1	79
SER-90-B-17	5	105	29	115	1.0	22	11	810	8.96	46	5	ND	5	70	1.1	2	4	79	.27	.254	15	26	1.21	188	.38	2	2.70	.08	.08	1	145
SER-90-B-18	6	219	43	155	1.1	25	15	1106	12.58	51	5	ND	11	73	1.5	2	4	74	.17	.364	20	26	1.34	337	.29	2	2.98	.05	.11	1	110
SER-90-B-19	5	223	55	183	1.4	30	23	1527	10.01	59	5	ND	5	51	1.7	2	4	68	.12	.309	17	24	1.38	210	.39	2	2.80	.04	.08	1	320
STANDARD C/AU-S	18	57	38	131	6.8	70	32	1049	3.97	38	21	7	38	53	18.1	15	20	55	.52	.094	37	57	.90	180	.09	35	1.90	.06	.14	11	45

E A TIC LAB ORI TD. 8 . H NGS VANCOUVER C. 1R PHONE(604)253-3158 FAX(604)253-17

GEOCHEMICAL ANALYSIS CERTIFICATE

Cathedral Gold Corp. PROJECT 8103 File # 90-4294 Page 1

800 - 601 W. Hastings St., Vancouver BC V6B 5A6

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
B 12+00W	6	48	10	63	.2	8	16	1542	5.89	2	5	ND	1	48	.3	2	2	72	.37	.093	16	17	.58	97	.31	5	3.35	.11	.08	1	7
B 11+75W	4	26	5	79	.1	15	7	777	5.26	3	5	ND	1	127	.4	2	2	65	.73	.098	4	26	1.00	67	.23	6	1.86	.07	.10	1	7
B 11+25W	6	27	18	65	.2	3	2	185	7.02	13	5	ND	6	10	.2	2	2	57	.06	.059	39	20	.11	16	.27	7	4.42	.04	.05	1	2
B 10+25W	7	34	21	90	.2	6	3	299	3.56	7	5	ND	1	58	.4	2	2	58	.25	.077	16	17	.70	172	.23	5	2.46	.01	.04	1	32
B 10+00W	3	33	16	71	.2	9	5	471	3.35	12	5	ND	2	84	.2	3	2	49	.41	.105	8	20	1.06	282	.26	4	1.77	.05	.19	1	148
B 9+75W	5	20	19	49	.3	3	2	132	6.99	6	5	ND	2	12	.2	2	2	106	.08	.062	16	17	.13	25	.55	7	1.43	.02	.05	1	7
B 9+50W	9	20	13	90	.3	4	3	439	9.30	15	5	ND	6	6	.8	2	2	35	.09	.052	57	14	.01	18	.18	5	3.76	.05	.06	1	3
B 9+25W	9	23	19	67	.2	5	4	477	8.77	8	5	ND	4	12	.5	2	2	94	.11	.133	15	17	.25	25	.50	6	1.99	.02	.04	1	8
B 9+00W	3	19	49	32	.3	2	1	147	5.42	16	5	ND	6	13	.2	2	4	36	.04	.047	2	5	.22	51	.45	6	.50	.01	.06	2	68
B 8+75W	5	27	45	85	.7	10	4	440	6.38	21	5	ND	1	59	.3	2	2	75	.31	.063	7	29	.78	264	.24	5	2.42	.01	.10	1	40
B 8+50W	10	41	13	72	.3	9	3	118	1.35	4	5	ND	1	20	1.1	2	2	49	.26	.110	42	20	.41	35	.35	2	4.97	.03	.03	2	8
B 8+25W	1	65	33	68	.1	6	4	87	15.34	6	5	ND	4	14	1.4	3	2	118	.12	.063	17	22	.20	18	1.06	3	2.87	.04	.02	1	1
B 8+00W	31	17	2	34	.2	3	2	35	7.39	2	5	ND	2	62	.5	2	2	23	.48	.067	16	3	.03	10	.18	2	10.17	.02	.01	4	3
BLI 10+00W 3+00N	8	45	19	86	.2	11	10	571	5.24	11	5	ND	5	74	.2	3	2	61	.43	.148	21	16	.90	214	.34	7	2.19	.10	.11	1	22
BLI 10+00W 2+75N	8	48	14	60	.1	8	5	277	6.65	7	5	ND	4	39	.4	2	4	81	.28	.112	20	20	.60	53	.42	9	3.05	.07	.06	1	33
BLI 10+00W 2+50N	7	41	11	85	.2	13	11	614	5.38	5	5	ND	5	75	.4	2	2	69	.55	.121	15	18	1.01	156	.40	7	2.52	.18	.12	1	54
BLI 10+00W 2+25N	11	51	14	66	.1	11	27	974	6.67	8	5	ND	7	59	.2	3	2	64	.33	.186	11	16	.90	220	.30	6	1.90	.07	.08	1	56
BLI 10+00W 2+00N	7	49	13	128	.3	14	10	857	5.58	7	5	ND	4	85	.2	2	2	69	.54	.155	22	26	1.16	448	.31	6	2.38	.10	.14	2	84
BLI 10+00W 1+75N	5	63	12	320	.1	16	30	3784	6.99	5	5	ND	1	59	.9	3	2	81	.53	.215	14	29	1.62	358	.10	6	3.44	.08	.08	1	26
BLI 10+00W 1+50N	1	23	6	83	.2	18	17	538	4.66	2	5	ND	1	109	.2	2	2	94	1.06	.093	4	18	1.20	76	.61	6	1.80	.36	.14	1	14
BLI 10+00W 1+25N	48	53	14	75	.1	8	16	608	4.33	3	5	ND	1	50	.3	2	2	72	.29	.091	21	24	.64	144	.17	7	2.81	.02	.05	1	41
BLI 10+00W 0+50N	10	71	12	66	.1	5	6	410	6.63	7	5	ND	1	57	.3	2	2	52	.19	.092	14	13	.71	135	.16	5	2.56	.01	.05	1	23
BLI 10+00W 0+25N	7	25	3	54	.1	3	2	168	9.12	10	5	ND	6	5	1.0	2	2	37	.05	.052	43	20	.01	14	.22	2	5.23	.03	.04	1	4
BLI 9+00W 3+00N	9	46	13	78	.1	9	4	339	6.04	10	5	ND	5	28	.5	2	2	55	.14	.109	26	20	.56	50	.29	7	3.41	.04	.07	1	16
BLI 9+00W 2+75N	9	23	17	105	.1	7	5	533	7.16	10	5	ND	15	9	.3	2	2	38	.10	.058	22	11	.21	25	.32	7	3.94	.13	.09	1	3
BLI 9+00W 2+50N	7	32	11	75	.2	4	2	214	7.39	15	5	ND	8	5	.8	2	2	37	.07	.077	37	14	.11	9	.22	6	4.21	.06	.08	1	11
BLI 9+00W 2+25N	8	38	16	73	.1	10	6	372	5.02	8	5	ND	3	46	.2	2	2	61	.29	.097	18	19	.74	63	.32	6	2.50	.08	.07	1	36
BLI 9+00W 2+00N	11	33	18	71	.1	9	5	342	4.91	6	5	ND	2	55	.4	2	2	60	.29	.108	13	18	.79	125	.29	7	2.10	.05	.06	1	38
BLI 9+00W 1+75N	31	64	11	68	.1	10	5	371	6.84	10	5	ND	1	42	.4	2	2	56	.19	.134	19	38	.70	95	.13	6	5.04	.01	.03	1	31
BLI 9+00W 1+50N	6	49	16	56	.2	6	4	137	4.78	4	5	ND	1	18	.2	2	2	87	.20	.080	22	29	.33	28	.53	6	4.30	.04	.04	1	6
BLI 9+00W 1+25N	10	24	13	63	.1	3	2	341	12.38	17	9	ND	11	4	1.0	2	2	41	.04	.043	26	17	.01	13	.30	4	3.49	.03	.03	1	1
BLI 9+00W 1+00N	10	22	13	73	.2	4	6	1039	8.79	13	5	ND	8	7	.8	3	2	63	.06	.046	34	21	.10	9	.42	4	2.89	.04	.05	1	1
BLI 9+00W 0+75N	8	20	15	69	.1	3	2	557	7.89	14	5	ND	8	4	.2	2	4	30	.06	.050	36	15	.01	6	.22	6	4.66	.05	.04	1	1
BLI 9+00W 0+50N	7	14	12	87	.2	4	3	442	6.09	14	8	ND	14	4	.2	2	2	16	.06	.033	48	8	.08	27	.18	6	5.05	.07	.07	1	34
BLI 9+00W 0+25N	24	115	26	116	.2	11	24	973	9.09	38	5	ND	3	52	1.0	4	2	58	.49	.170	8	12	.89	74	.38	3	1.90	.18	.08	1	59
BLI 8+00W 3+00N	9	27	7	74	.1	6	4	357	4.45	5	5	ND	1	50	.3	3	3	58	.25	.125	7	14	.63	152	.26	7	2.21	.02	.05	1	27
STANDARD C/AU-S	19	60	37	131	6.8	72	31	1048	3.97	39	19	6	39	52	18.6	15	18	59	.52	.091	38	57	.90	182	.09	40	1.89	.06	.14	12	45

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-6 SOIL P7 ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: SEP 11 1990 DATE REPORT MAILED: Sept 14/90. SIGNED BY.........D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
BLI 8+00W 2+75N	8	33	19	99	.3	15	7	811	6.70	16	5	ND	12	26	.8	2	2	44	.13	.084	30	21	.69	85	.24	9	3.50	.05	.07	1	31
BLI 8+00W 2+50N	12	121	21	65	.1	7	3	207	10.72	15	5	ND	9	16	1.8	2	2	63	.08	.085	26	24	.31	17	.29	6	2.89	.05	.05	1	79
BLI 8+00W 2+25N	25	175	8	107	.2	4	13	812	5.77	4	5	ND	6	71	.8	2	2	51	.25	.167	9	8	.96	57	.12	9	1.64	.02	.05	1	20
BLI 8+00W 2+00N	9	19	12	74	.1	3	3	217	6.44	18	5	ND	15	4	.8	3	2	14	.05	.040	40	10	.04	10	.18	6	4.87	.07	.05	1	6
BLI 8+00W 1+75N	34	61	13	69	.5	5	8	448	5.62	12	5	ND	6	7	.7	3	2	34	.07	.040	37	15	.16	11	.25	7	3.97	.07	.06	1	3
BLI 8+00W 1+50N	13	31	24	48	.3	4	4	290	3.79	17	5	ND	3	15	.2	2	2	31	.09	.055	4	8	.42	54	.39	4	.89	.02	.06	3	98
BLI 8+00W 1+25N	4	43	76	123	.8	14	4	709	3.19	21	5	ND	2	61	.3	3	2	56	.20	.048	8	29	1.12	404	.35	5	1.62	.01	.13	35	55
BLI 8+00W 1+00N	5	40	145	125	.8	51	4	905	4.14	41	5	ND	2	65	.4	2	2	60	.27	.081	11	96	1.42	281	.26	7	2.12	.01	.08	5	80
BLI 8+00W 0+75N	7	24	16	57	.2	5	4	280	7.29	10	5	ND	7	7	.9	3	2	65	.07	.048	29	22	.22	15	.43	9	2.97	.04	.06	1	4
BLI 8+00W 0+50N	1	91	6	30	.2	3	4	36	41.65	2	5	ND	4	3	.2	7	2	52	.02	.041	5	6	.01	6	.05	2	1.03	.01	.01	1	2
BLI 8+00W 0+25N	75	12	7	49	.1	5	1	196	.91	17	5	ND	1	383	1.1	2	2	6	2.91	.117	24	4	.01	21	.01	2	1.88	.02	.01	19	1
BLI 7+00W 3+00N	5	200	2	39	.2	4	3	66	7.29	20	5	ND	2	6	1.3	5	2	27	.04	.121	36	16	.05	12	.12	5	7.10	.01	.01	1	8
BLI 7+00W 2+75N	13	97	70	146	.8	11	21	1117	9.02	48	5	ND	3	55	1.5	6	2	70	.25	.238	12	29	.97	150	.26	9	1.86	.04	.08	1	102
BLI 7+00W 2+50N	6	22	9	70	.1	4	4	450	6.90	14	5	ND	6	6	.7	2	2	41	.06	.053	35	21	.10	15	.25	6	5.01	.05	.05	1	3
BLI 7+00W 2+25N	8	55	110	73	.8	7	3	432	4.08	29	5	ND	3	53	.2	2	2	51	.20	.100	6	20	.81	80	.29	4	1.58	.01	.05	2	53
BLI 7+00W 2+00N	7	17	22	110	.1	4	5	832	7.41	18	5	ND	8	5	1.0	3	2	33	.06	.038	38	16	.11	14	.22	7	4.13	.09	.09	1	3
BLI 7+00W 1+75N	7	13	11	77	.2	3	3	1089	6.27	14	5	ND	6	4	.6	3	2	20	.05	.057	45	11	.06	14	.13	5	5.16	.06	.06	1	2
BLI 7+00W 1+50N	6	28	26	51	.1	5	2	266	7.61	17	5	ND	9	30	1.2	2	2	50	.15	.047	19	21	.45	43	.25	4	4.35	.01	.03	2	17
BLI 7+00W 1+00N	9	36	21	71	.4	5	2	311	8.28	15	5	ND	12	23	1.3	2	5	58	.10	.078	16	22	.30	41	.25	5	4.55	.03	.05	1	25
BLI 7+00W 0+75N	10	26	15	76	.1	6	4	350	8.74	13	5	ND	6	16	1.4	2	2	58	.09	.046	26	20	.28	20	.31	7	2.72	.03	.05	1	4
BLI 7+00W 0+50N	38	75	13	119	.1	11	28	2196	4.22	8	5	ND	4	56	.9	2	2	27	.37	.114	21	10	.64	132	.06	3	2.39	.01	.03	1	8
BLI 7+00W 0+25N	14	46	19	84	.4	6	12	587	4.70	8	5	ND	2	45	1.0	2	2	62	.28	.078	11	15	.59	49	.24	5	2.60	.03	.04	1	100
BLI 6+00W 3+00N	8	18	13	85	.1	3	5	1006	6.71	18	5	ND	16	4	.6	2	2	20	.06	.034	33	11	.08	10	.19	7	4.53	.08	.07	1	2
BLI 6+00W 2+75N	7	15	18	76	.1	3	3	634	6.07	18	5	ND	11	3	.5	2	2	20	.06	.044	38	10	.05	9	.19	6	4.86	.06	.06	1	2
BLI 6+00W 2+50N	6	12	10	54	.3	4	6	559	4.09	6	5	ND	1	43	.5	2	2	46	.21	.061	11	12	.48	41	.13	4	2.00	.02	.04	1	87
BLI 6+00W 2+25N	6	18	15	78	.1	4	5	1169	6.17	13	5	ND	6	5	.2	4	2	31	.07	.048	34	15	.09	13	.20	6	3.82	.06	.07	1	1
BLI 6+00W 2+00N	5	39	13	73	.1	5	15	942	4.34	7	5	ND	7	84	.2	2	2	34	.51	.168	10	10	.86	160	.09	4	1.86	.01	.05	1	10
BLI 6+00W 1+75N	16	41	19	68	.3	7	12	747	5.31	12	5	ND	3	51	.4	2	2	53	.39	.112	29	12	.72	51	.14	6	2.39	.08	.06	1	120
BLI 6+00W 1+50N	2	18	9	48	.1	4	10	739	2.46	2	5	ND	2	90	.2	2	2	26	.67	.140	8	5	.74	54	.07	2	1.31	.01	.03	2	4
BLI 6+00W 1+25N	7	19	15	70	.1	6	4	461	9.78	14	5	ND	6	19	1.5	2	3	49	.15	.052	25	17	.15	19	.29	3	3.38	.03	.04	1	2
BLI 6+00W 1+00N	7	20	16	83	.1	4	4	846	7.49	18	5	ND	10	5	.8	3	2	34	.06	.041	37	17	.08	12	.23	7	4.69	.06	.06	1	2
BLI 6+00W 0+75N	2	10	10	49	.2	2	5	916	2.03	2	5	ND	2	47	.2	2	2	61	.30	.052	7	6	.45	34	.30	2	1.00	.03	.03	2	3
BLI 6+00W 0+50N	35	40	15	131	.1	5	4	478	6.74	22	5	ND	18	22	.7	2	2	19	.22	.041	39	12	.23	63	.16	5	4.36	.08	.08	1	3
BLI 6+00W 0+25N	6	32	12	58	.1	5	15	2158	4.45	4	5	ND	4	43	.2	2	2	43	.22	.092	15	13	.57	23	.19	4	2.44	.03	.04	1	1
BLI 5+00W 3+00N	1	710	4	49	1.5	10	7	200	3.23	12	5	ND	1	16	.4	5	2	64	.25	.116	37	18	.61	27	.46	3	6.58	.04	.05	1	1
BLI 5+00W 2+50N	3	401	9	61	.4	12	14	311	3.38	2	5	ND	2	96	.4	2	2	77	1.04	.094	32	14	.85	47	.50	3	3.20	.39	.16	2	1
STANDARD C/AU-S	18	58	36	131	6.9	71	32	1048	3.97	38	20	7	40	52	18.4	18	19	57	.52	.088	37	57	.90	182	.09	37	1.90	.06	.14	11	46

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
BLI 5+00W 2+25N	10	40	16	58	.3	7	8	375	4.07	4	5	ND	4	54	.2	3	3	73	.45	.057	15	21	.73	30	.40	2	2.40	.08	.05	1	17
BLI 5+00W 2+00N	21	18	8	65	.4	3	2	151	5.24	14	5	ND	20	5	.2	5	2	15	.09	.028	32	11	.07	22	.22	3	2.75	.21	.12	1	9
BLI 5+00W 1+75N	13	18	12	92	.3	4	3	465	7.18	20	9	ND	12	6	1.1	4	2	33	.07	.055	60	13	.11	23	.23	4	4.44	.08	.07	1	4
BLI 5+00W 1+50N	20	27	12	84	.5	4	2	345	7.38	15	5	ND	11	4	.2	2	2	28	.07	.086	49	14	.10	17	.20	6	3.99	.09	.09	1	3
BLI 5+00W 1+25N	12	30	11	91	.1	8	9	1987	6.83	17	5	ND	7	6	.8	5	2	49	.10	.076	41	21	.26	22	.27	8	4.33	.09	.08	1	2
BLI 5+00W 1+00N	9	14	15	80	.1	2	4	927	6.96	20	5	ND	17	3	.5	3	2	17	.07	.039	35	10	.02	12	.19	4	4.24	.08	.07	1	3
BLI 5+00W 0+75N	7	18	9	67	.2	3	5	703	6.69	13	5	ND	6	4	.4	5	2	29	.05	.065	39	15	.04	13	.18	5	4.42	.06	.06	1	3
BLI 5+00W 0+50N	8	24	8	92	.2	5	7	1745	6.65	14	5	ND	2	10	.7	3	2	43	.09	.079	44	15	.14	18	.15	5	3.79	.05	.05	1	2
BLI 5+00W 0+25N	14	17	8	104	.2	7	9	844	4.27	6	5	ND	3	55	.2	3	2	48	.50	.088	33	15	.51	68	.15	4	2.48	.03	.06	1	9
BLI 4+00W 3+00N	4	61	13	71	2.0	9	8	461	4.53	4	5	ND	2	31	.2	2	2	61	.33	.080	51	21	.53	41	.26	2	3.16	.08	.07	1	5
BLI 4+00W 2+75N	12	94	18	67	.3	8	18	888	3.83	14	5	ND	3	71	.2	2	2	39	.58	.105	17	11	.77	49	.14	2	1.97	.06	.05	2	34
BLI 4+00W 2+50N	8	20	10	58	.2	6	5	311	3.44	5	5	ND	4	58	.2	2	2	81	.39	.048	11	18	.70	32	.55	2	2.26	.04	.04	1	30
BLI 4+00W 2+25N	10	23	8	67	.1	8	4	381	6.96	10	5	ND	6	13	.2	2	2	72	.12	.087	23	19	.36	20	.38	4	2.20	.07	.07	1	12
BLI 4+00W 2+00N	4	24	7	80	.4	14	12	587	5.31	5	5	ND	3	60	.3	2	2	98	.58	.062	8	21	.84	50	.47	2	2.35	.19	.09	1	9
BLI 4+00W 1+75N	8	16	14	106	.1	4	4	736	6.66	19	5	ND	18	4	.7	2	2	22	.07	.030	38	13	.10	19	.21	5	4.44	.12	.10	1	3
BLI 4+00W 1+50N	11	20	2	82	.1	12	25	1051	7.01	10	5	ND	10	86	.8	3	2	65	.80	.123	15	16	.97	45	.36	2	2.61	.26	.11	1	8
BLI 4+00W 1+25N	12	28	3	125	.3	17	16	1389	5.26	7	6	ND	7	72	.3	2	2	68	.64	.124	51	22	.75	108	.43	3	4.15	.11	.09	1	6
BLI 4+00W 1+00N	4	41	4	92	.2	14	9	337	5.16	9	5	ND	6	46	.6	2	2	95	.50	.102	20	23	.73	53	.60	3	3.86	.14	.08	1	3
BLI 4+00W 0+75N	9	19	12	69	.1	6	4	310	8.60	14	5	ND	9	10	.9	2	2	66	.11	.048	24	20	.23	16	.48	4	2.57	.09	.09	1	4
BLI 4+00W 0+50N	8	24	9	73	.1	5	3	370	7.96	14	5	ND	6	8	.8	2	2	43	.09	.062	38	20	.14	15	.27	4	3.79	.07	.07	1	1
BLI 4+00W 0+25N	10	16	21	84	.1	3	3	713	8.92	17	5	ND	14	4	.9	3	2	32	.06	.037	43	15	.04	9	.28	3	3.55	.06	.07	1	2
IL 4+00 0+25S	10	21	5	88	.2	5	3	181	6.02	16	5	ND	7	10	.9	5	2	29	.09	.072	32	18	.11	22	.18	4	5.33	.05	.05	1	2
IL 4+00 0+50S	4	25	6	93	.1	13	9	554	4.75	10	5	ND	7	42	.2	3	2	57	.33	.103	25	19	.66	39	.37	2	2.78	.09	.07	1	3
IL 4+00 0+75S	5	24	7	55	.1	5	4	568	5.75	8	5	ND	2	26	.3	2	2	44	.16	.068	30	18	.30	23	.17	4	3.69	.03	.03	1	2
IL 4+00 1+00S	8	8	9	82	.1	4	2	372	9.09	15	5	ND	9	5	1.1	2	2	37	.05	.035	51	18	.09	9	.26	2	2.89	.07	.08	1	5
IL 4+00 1+25S	8	15	6	60	.2	4	5	494	8.45	11	5	ND	4	11	.7	2	2	59	.07	.054	26	18	.10	14	.29	2	2.77	.02	.05	1	4
IL 4+00 1+50S	10	13	8	76	.1	4	5	652	8.64	10	5	ND	5	7	.8	2	2	47	.06	.060	35	17	.09	15	.24	6	3.25	.03	.05	1	1
IL 4+00 1+75S	9	17	16	73	.1	5	4	398	8.53	10	5	ND	5	10	1.1	2	2	66	.08	.061	25	20	.17	13	.35	2	3.15	.03	.04	1	2
IL 4+00 2+00S	15	21	12	81	.1	7	13	1833	7.26	10	5	ND	2	11	.6	3	2	80	.11	.076	31	22	.24	28	.30	4	3.35	.04	.04	1	2
IL 4+00 2+25S	5	21	13	50	.6	3	5	683	3.86	29	13	ND	6	3	.7	19	2	33	.04	.039	25	12	.11	9	.15	6	2.52	.03	.04	1	3
IL 4+00 2+50S	1	25	2	33	.7	2	4	399	2.97	45	15	ND	7	1	1.1	34	2	30	.03	.028	22	12	.03	3	.10	9	1.89	.03	.05	1	2
IL 4+00 2+75S	13	12	26	67	.1	7	6	735	9.19	8	6	ND	7	8	1.2	2	15	85	.06	.042	18	23	.22	19	.52	2	3.16	.03	.03	9	8
IL 4+00 3+00S	9	23	12	88	.1	5	5	907	7.14	18	5	ND	7	4	.4	3	2	45	.06	.047	35	22	.14	16	.30	4	4.08	.07	.08	1	4
IL 5+00 0+25S	3	21	3	50	.3	11	7	200	5.68	11	5	ND	4	17	.2	3	2	113	.24	.064	29	23	.72	20	.78	3	2.40	.05	.05	1	7
IL 5+00 0+50S	8	18	14	52	.2	5	3	202	6.10	9	5	ND	1	17	.4	3	2	76	.11	.059	32	18	.21	23	.36	2	2.72	.03	.03	1	2
IL 5+00 0+75S	12	21	15	59	.1	4	3	261	8.35	17	5	ND	4	19	.7	3	3	76	.24	.064	34	12	.11	24	.47	4	1.87	.03	.06	1	2
STANDARD C/AU-S	19	58	37	131	6.9	70	32	1047	3.98	41	21	7	39	52	18.4	14	20	56	.52	.088	37	57	.89	182	.09	33	1.89	.06	.14	13	48

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
IL 5+00 1+00S	7	14	10	65	.1	5	4	458	6.95	12	5	ND	2	9	.8	3	2	63	.08	.050	28	13	.17	12	.39	8	2.54	.03	.04	1	2
IL 5+00 1+25S	6	14	7	55	.3	5	4	275	4.84	7	5	ND	1	11	.5	3	2	45	.12	.052	37	15	.26	10	.28	8	3.02	.05	.05	2	1
IL 5+00 1+50S	6	16	11	59	.2	5	5	442	6.21	8	5	ND	2	11	.5	2	6	62	.07	.058	28	17	.19	8	.34	8	2.57	.03	.04	1	2
IL 5+00 1+75S	8	15	7	65	.2	5	8	1554	7.08	6	5	ND	2	11	.3	2	2	67	.06	.049	24	19	.19	14	.38	8	2.70	.02	.04	1	1
IL 5+00 2+00S	10	18	14	59	.1	5	2	281	6.36	9	5	ND	3	7	.2	3	4	80	.06	.036	24	17	.13	14	.60	9	1.50	.03	.06	1	1
IL 5+00 2+25S	8	20	8	62	.1	4	3	591	7.05	16	5	ND	3	6	.9	4	2	56	.05	.060	22	17	.09	12	.32	10	3.39	.04	.04	1	7
IL 5+00 2+75S	7	21	9	78	.1	7	4	521	7.81	17	5	ND	5	6	.2	4	2	57	.05	.044	28	21	.19	12	.37	9	2.30	.05	.07	1	2
IL 6+00 0+25S	11	11	10	58	.2	4	3	279	8.33	8	5	ND	3	6	.7	3	2	70	.04	.058	19	17	.04	10	.42	7	2.23	.03	.05	1	1
IL 6+00 0+50S	6	14	4	66	.4	5	7	674	5.43	4	5	ND	1	9	.2	4	2	62	.09	.057	16	14	.16	12	.35	8	2.15	.03	.06	1	2
IL 6+00 0+75S	27	14	10	80	.1	2	2	746	5.88	19	7	ND	15	12	.2	3	2	14	.09	.039	37	9	.03	24	.16	7	3.95	.10	.08	1	2
IL 6+00 1+00S	64	11	10	73	.4	6	8	724	3.87	8	5	ND	1	59	.3	3	2	94	.34	.066	31	15	.47	43	.48	7	1.77	.03	.05	1	1
IL 6+00 1+25S	9	12	13	64	.2	7	11	532	3.12	4	5	ND	1	76	.4	2	2	56	.56	.056	10	9	.83	40	.23	6	1.46	.12	.08	1	8
IL 6+00 1+50S	10	19	8	60	.1	4	2	320	9.12	15	5	ND	5	19	.6	5	2	101	.08	.057	20	19	.15	30	.54	7	2.27	.01	.04	1	1
IL 6+00 1+75S	10	27	15	66	.1	4	3	369	9.13	18	5	ND	12	23	1.2	7	2	67	.10	.085	24	17	.27	28	.34	8	3.19	.02	.04	1	1
IL 6+00 2+00S	12	32	14	78	.2	6	5	436	9.57	20	5	ND	22	13	.7	3	2	46	.07	.060	28	22	.19	21	.35	5	3.56	.03	.05	1	1
IL 6+00 2+25S	8	22	10	68	.3	5	3	325	9.58	15	5	ND	4	12	1.0	5	2	81	.09	.069	23	23	.10	15	.41	6	2.96	.02	.04	1	5
IL 6+00 2+50S	9	24	13	78	.2	5	6	895	7.80	9	5	ND	5	14	.7	2	2	84	.08	.059	17	23	.25	17	.47	8	2.10	.03	.05	1	2
IL 6+00 2+75S	8	19	12	50	.3	4	4	325	6.62	11	5	ND	2	11	.3	3	2	85	.07	.052	18	16	.14	17	.47	9	1.88	.03	.05	1	2
IL 7+00 0+25S	6	22	10	65	.2	8	4	255	6.53	11	5	ND	4	21	.3	3	4	65	.14	.049	19	32	.45	31	.33	8	3.74	.03	.03	1	7
IL 7+00 0+50S	5	21	16	54	.1	6	5	353	4.82	11	5	ND	3	21	.2	2	2	57	.14	.082	20	19	.40	35	.35	7	3.19	.04	.04	1	4
IL 7+00 0+75S	4	16	26	62	.2	6	2	379	3.42	16	5	ND	2	40	.2	2	2	42	.18	.045	6	19	.81	37	.22	6	1.28	.01	.03	2	80
IL 7+00 1+00S	9	16	13	75	.1	4	6	1457	8.54	22	5	ND	10	6	.8	3	2	49	.05	.085	24	22	.14	15	.30	10	2.33	.05	.07	1	4
IL 7+00 1+25S	5	21	7	50	.1	5	3	313	4.77	12	5	ND	2	44	.2	4	2	48	.21	.067	12	19	.58	37	.18	7	2.20	.02	.04	2	16
IL 7+00 1+50S	9	15	11	77	.1	3	3	623	7.64	19	6	ND	15	7	.5	4	2	19	.07	.038	28	15	.09	12	.17	9	3.47	.06	.06	1	3
IL 7+00 1+75S	7	14	12	71	.1	3	2	435	9.05	19	6	ND	6	5	.6	3	2	44	.05	.041	44	12	.01	14	.30	6	3.14	.04	.05	1	1
IL 7+00 2+00S	10	25	21	72	.1	6	4	805	8.01	13	5	ND	5	14	.4	4	3	74	.08	.051	21	21	.19	22	.43	9	2.38	.02	.04	1	1
IL 7+00 2+25S	10	15	9	52	.1	4	2	223	9.94	23	5	ND	10	5	.8	5	2	74	.04	.031	20	16	.01	18	.47	7	1.85	.05	.07	1	2
IL 8+00 0+25S	10	15	55	54	.7	4	4	328	6.73	18	5	ND	1	21	.7	5	3	57	.10	.036	22	21	.27	26	.23	8	2.11	.01	.03	1	34
IL 8+00 0+50S	10	23	90	30	.9	4	2	59	4.55	14	5	ND	1	14	.2	2	2	44	.08	.130	30	14	.17	22	.07	8	3.02	.01	.03	1	7
IL 8+00 0+75S	30	103	58	93	.2	10	96	3149	14.93	43	5	ND	5	32	1.5	4	2	76	.21	.131	8	22	.44	47	.28	5	3.06	.07	.05	1	110
IL 8+00 1+25S	7	31	2	81	.1	12	32	1720	3.45	9	5	ND	5	97	.5	2	2	42	.67	.107	8	14	1.07	116	.14	7	2.53	.09	.07	1	8
IL 8+00 1+50S	18	49	2	126	.1	19	74	3692	6.17	15	5	ND	10	93	1.3	4	2	53	.72	.220	10	16	1.03	193	.22	9	4.20	.14	.07	1	9
IL 8+00 1+75S	10	88	12	145	.2	12	65	4662	6.17	34	5	ND	4	19	1.6	9	3	23	.21	.106	12	15	.34	90	.06	9	10.01	.04	.01	1	6
IL 8+00 2+00S	16	37	55	65	.4	7	19	1065	6.48	20	5	ND	3	36	.2	4	2	49	.19	.167	8	17	.66	127	.18	6	3.24	.01	.03	1	48
IL 8+00 2+25S	12	94	18	119	.1	7	11	657	4.73	6	5	ND	3	68	.5	3	2	49	.41	.124	9	13	.86	66	.13	10	1.37	.03	.04	1	57
IL 8+00 2+50S	22	105	20	90	.1	6	12	737	5.40	13	5	ND	2	61	.4	2	2	42	.41	.134	14	12	.78	59	.10	10	1.78	.01	.04	1	93
STANDARD C/AU-S	18	58	37	130	6.9	70	32	1047	3.97	39	20	7	39	52	18.3	16	20	56	.52	.088	36	57	.90	182	.09	38	1.89	.06	.14	11	46

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
IL 8+00 2+75S	15	108	20	94	.3	7	20	867	4.80	13	5	ND	1	53	.2	3	2	39	.36	.116	11	12	.79	49	.10	10	1.61	.02	.04	2	168
IL 8+00 3+00S	9	14	18	32	.3	3	3	188	2.24	6	5	ND	1	37	.2	2	2	52	.16	.034	5	9	.39	22	.17	5	1.31	.01	.02	2	39
IL 9+00 0+25S	4	21	42	55	.4	9	4	320	5.34	14	5	ND	3	27	.2	4	2	80	.19	.092	8	22	.76	74	.50	11	2.08	.02	.08	2	47
IL 9+00 0+50S	8	25	58	153	.3	25	5	1479	5.58	28	5	ND	5	61	.6	3	2	65	.23	.106	24	61	1.14	529	.26	10	2.83	.02	.09	1	40
IL 9+00 0+75S	7	24	14	44	1.0	5	3	180	6.87	11	5	ND	2	15	.2	3	2	69	.09	.062	24	23	.18	50	.27	9	2.71	.02	.04	2	26
IL 9+00 1+00S	1	12	9	41	.2	5	3	76	.69	3	6	ND	4	16	.9	2	5	56	.12	.050	15	18	.30	27	.95	3	1.94	.05	.03	3	2
IL 9+00 1+25S	5	32	15	61	.2	9	5	297	5.01	8	5	ND	1	38	.2	3	2	75	.20	.081	8	17	.64	70	.32	10	1.79	.04	.06	1	15
IL 9+00 1+50S	5	18	20	50	.1	6	3	349	3.09	9	5	ND	1	46	.2	2	2	49	.25	.143	5	17	.72	78	.13	7	1.27	.03	.06	2	44
IL 9+00 1+75S	4	34	23	56	.1	10	6	353	4.09	8	5	ND	1	55	.3	2	2	61	.36	.071	9	19	.87	101	.26	8	1.68	.10	.08	2	37
IL 9+00 2+00S	5	14	6	42	.2	5	2	153	7.83	17	5	ND	6	6	.4	6	2	49	.07	.062	17	19	.07	15	.28	9	3.52	.05	.06	1	3
IL 9+00 2+25S	8	12	8	52	.2	4	2	193	9.43	10	5	ND	5	7	.8	2	2	47	.05	.052	23	18	.02	17	.30	8	3.22	.02	.03	2	1
IL 9+00 2+50S	6	17	7	50	.2	8	6	354	6.68	6	5	ND	2	26	.4	4	2	95	.25	.066	9	16	.51	26	.55	12	1.85	.09	.06	1	3
IL 9+00 2+75S	5	17	7	49	.4	8	6	363	5.43	8	5	ND	1	28	.3	2	2	84	.25	.061	12	17	.43	22	.50	12	2.17	.09	.06	1	1
IL 9+00 3+00S	1	22	2	71	.6	18	16	412	3.67	2	5	ND	1	120	.7	2	2	71	1.20	.080	70	16	1.30	63	.48	10	3.05	.46	.16	1	1
IL 10+00 0+25S	6	31	17	69	.2	7	4	338	3.66	7	5	ND	2	59	.2	2	2	48	.23	.138	15	13	.78	256	.22	10	1.71	.02	.07	1	64
IL 10+00 0+50S	4	35	10	47	.2	6	3	166	5.10	6	5	ND	3	21	.3	4	2	92	.17	.068	12	20	.38	49	.48	12	2.89	.03	.04	1	15
IL 10+00 0+75S	9	23	33	66	.1	7	5	897	8.33	21	5	ND	4	27	.8	3	2	71	.12	.076	15	27	.45	36	.40	10	2.05	.03	.06	1	11
IL 10+00 1+00S	5	51	34	80	.6	10	6	498	4.46	14	5	ND	1	42	.8	3	2	74	.18	.086	15	26	.75	88	.34	11	2.20	.03	.07	1	90
IL 10+00 1+25S	7	40	13	61	.1	5	6	528	7.90	14	5	ND	4	13	.9	4	3	41	.08	.058	27	17	.19	23	.21	12	2.95	.03	.04	1	15
IL 10+00 1+50S	6	42	40	69	.5	5	1	116	5.01	22	5	ND	4	16	.7	3	2	64	.07	.064	24	30	.16	23	.22	11	3.63	.04	.04	1	20
IL 10+00 1+75S	6	17	7	50	.4	3	2	133	6.57	18	5	ND	3	6	.5	6	2	49	.06	.084	21	20	.06	8	.20	9	4.88	.04	.04	1	5
IL 10+00 2+25S	1	12	3	59	.4	11	10	249	3.53	2	5	ND	1	65	.3	2	2	93	.64	.079	3	15	.79	56	.61	8	1.26	.18	.08	1	3
IL 10+00 2+50S	2	8	15	48	1.0	8	7	269	2.42	6	5	ND	1	64	.4	2	2	64	.48	.074	9	16	.78	64	.42	6	1.31	.14	.07	2	14
IL 10+00 3+00S	2	19	7	47	.7	9	7	189	3.63	6	5	ND	1	38	.5	3	2	112	.37	.088	6	19	.61	33	.81	8	1.70	.13	.08	2	4
IL 11+00 0+25S	5	35	25	86	.4	13	10	479	4.56	8	5	ND	4	92	.3	2	2	73	.65	.106	14	21	1.11	143	.44	9	2.43	.22	.14	1	65
IL 11+00 0+50S	5	35	19	108	.2	12	8	536	5.82	12	5	ND	11	29	.2	3	2	64	.20	.101	24	21	.64	81	.44	12	3.45	.11	.12	1	31
IL 11+00 0+75S	5	14	23	40	.3	5	1	116	4.18	9	5	ND	1	23	.2	2	2	90	.09	.036	21	14	.12	27	.39	8	1.33	.01	.04	1	14
IL 11+00 1+00S	2	43	36	53	.6	6	4	216	6.59	28	5	ND	1	31	.2	4	2	131	.11	.148	2	20	.38	57	.54	9	1.03	.01	.03	2	19
IL 11+00 1+25S	1	16	4	115	.6	12	12	1264	2.52	6	5	ND	1	73	.5	2	2	44	.86	.144	2	11	.77	80	.29	7	1.17	.19	.17	1	3
IL 11+00 1+50S	6	36	58	85	.8	34	2	671	3.49	13	5	ND	2	133	.2	2	2	60	.33	.073	8	60	1.17	339	.20	6	1.76	.01	.11	1	250
IL 11+00 1+75S	2	68	298	104	.8	11	4	915	4.88	40	5	ND	3	241	.5	3	2	119	.55	.207	17	45	1.07	145	.45	9	2.38	.04	.05	1	139
IL 11+00 2+00S	6	16	35	45	.3	7	3	277	4.91	28	5	ND	2	84	.2	3	2	147	.35	.141	7	22	.52	155	.52	8	1.34	.03	.05	2	73
IL 11+00 3+00N	6	35	14	78	.2	6	6	482	4.07	9	5	ND	4	83	.2	3	2	43	.32	.115	20	11	.90	274	.15	9	1.80	.03	.11	1	30
IL 11+00 2+75N	8	27	7	122	.1	9	9	959	6.10	15	5	ND	12	33	.4	4	2	40	.27	.069	26	12	.57	57	.27	10	3.03	.14	.11	1	8
IL 11+00 2+50N	9	34	7	74	.1	11	6	351	7.72	13	5	ND	5	27	.6	5	3	87	.16	.096	20	22	.62	39	.45	10	2.74	.03	.04	1	16
IL 11+00 2+25N	12	39	13	72	.1	7	8	583	5.16	9	5	ND	1	40	.6	4	2	59	.18	.108	14	17	.67	55	.24	10	2.54	.03	.05	1	18
STANDARD C/AU-S	18	57	38	130	6.8	71	32	1048	3.97	39	21	7	40	52	18.4	14	22	55	.52	.089	37	56	.89	187	.09	39	1.89	.06	.14	11	49

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
IL 11+00 2+00N	12	79	14	105	.4	10	11	579	5.84	7	5	ND	5	41	.6	2	2	66	.24	.106	15	17	.79	64	.30	4	3.27	.04	.05	1	20
IL 11+00 1+75N	24	218	18	169	.3	21	56	2242	6.57	13	6	ND	8	74	1.9	3	2	59	.55	.212	24	19	.96	163	.22	5	2.49	.09	.10	1	35
IL 11+00 1+50N	15	38	34	72	.5	6	6	447	4.10	5	6	ND	3	95	.2	3	2	50	.30	.144	11	12	.95	549	.29	3	1.70	.02	.16	1	50
IL 11+00 1+25N	1	26	8	75	.1	24	24	706	5.59	7	7	ND	3	151	.6	3	2	106	1.62	.077	6	23	1.86	90	.75	5	2.17	.71	.27	1	10
IL 11+00 0+75N	5	25	15	93	.1	8	22	534	5.50	13	5	ND	3	99	.2	3	2	47	.48	.109	6	8	.71	1480	.31	4	1.57	.07	.07	1	31
IL 11+00 0+50N	8	62	20	95	.2	9	11	534	4.71	4	5	ND	4	69	.4	2	2	48	.32	.138	13	12	.82	177	.27	4	1.71	.06	.09	1	25
IL 11+00 0+25N	6	66	22	75	.3	10	16	603	4.48	4	7	ND	4	80	.5	2	3	55	.48	.137	19	16	.97	286	.29	5	2.23	.13	.13	1	44
IL 12+00 0+25S	7	56	24	81	.3	7	5	502	3.58	9	5	ND	4	63	.4	2	2	48	.25	.105	25	19	1.04	392	.17	4	2.04	.01	.16	1	59
IL 12+00 0+50S	5	44	19	68	.3	9	5	409	3.77	7	5	ND	3	57	.2	2	2	57	.21	.094	13	20	.88	163	.26	4	1.88	.02	.08	1	24
IL 12+00 0+75S	5	44	28	69	.3	8	5	413	3.44	12	5	ND	4	80	.3	3	2	60	.26	.093	10	21	.96	168	.28	4	1.61	.04	.08	1	180
IL 12+00 1+00S	6	47	36	73	.4	9	3	455	3.76	12	5	ND	3	105	.2	2	2	62	.24	.128	13	23	.94	274	.24	4	1.73	.02	.09	1	190
IL 12+00 1+25S	7	48	26	64	.1	7	4	454	4.98	15	7	ND	5	60	.4	2	2	51	.22	.109	18	19	.75	163	.19	5	1.99	.01	.08	1	160
IL 12+00 1+50S	5	41	28	72	.2	9	6	417	3.76	8	5	ND	2	91	.2	2	2	63	.40	.106	12	19	.94	181	.30	4	1.79	.11	.10	1	87
IL 12+00 1+75S	4	27	20	79	.2	7	4	410	2.96	6	5	ND	2	84	.2	2	2	58	.43	.072	6	21	1.08	95	.26	2	1.54	.11	.11	1	47
IL 12+00 2+00S	5	23	26	57	.3	6	2	268	2.83	9	6	ND	2	63	.5	2	2	54	.22	.081	14	20	.74	107	.18	2	1.98	.02	.06	1	101
IL 12+00 2+25S	4	25	29	56	.2	8	2	277	2.23	6	5	ND	1	66	.2	2	2	46	.19	.090	13	22	.74	100	.16	2	1.53	.01	.05	1	210
IL 12+00 2+50S	5	29	28	84	.4	15	2	391	3.66	11	6	ND	2	56	.3	2	2	51	.22	.099	13	39	.81	122	.18	3	2.24	.02	.05	1	220
IL 12+00 2+75S	5	27	30	77	.3	9	3	343	3.67	6	5	ND	1	66	.3	2	2	53	.23	.093	12	21	.78	134	.19	4	1.56	.02	.06	1	96
IL 12+00 3+00N	9	98	12	98	.1	17	20	876	6.15	5	5	ND	4	88	1.0	2	2	90	.79	.105	9	18	1.27	66	.48	4	2.29	.29	.13	1	25
IL 12+00 2+50N	8	77	18	97	.1	17	19	719	5.86	6	5	ND	6	88	.7	2	2	84	.71	.135	11	20	1.17	71	.47	5	2.43	.24	.14	1	18
IL 12+00 2+25N	9	96	13	117	.1	16	18	865	6.06	8	6	ND	8	61	.8	2	2	81	.35	.172	16	21	.96	116	.46	6	2.92	.07	.10	1	22
IL 12+00 2+00N	12	130	19	122	.1	11	21	1183	6.48	9	5	ND	9	71	.7	2	2	65	.26	.186	12	15	.95	229	.24	2	1.86	.04	.09	1	20
IL 12+00 1+25N	7	40	18	66	.2	8	7	344	5.53	17	5	ND	3	43	.9	2	2	58	.22	.167	11	15	.64	76	.27	6	2.07	.03	.07	1	33
IL 12+00 1+00N	3	25	19	61	.3	8	7	192	5.45	18	5	ND	1	42	.3	3	2	72	.33	.104	5	13	.48	34	.32	5	1.94	.06	.05	1	34
IL 12+00 0+75N	2	13	8	45	.3	5	5	131	2.47	2	5	ND	1	36	.3	2	2	61	.26	.068	3	10	.35	52	.54	2	.90	.05	.05	2	17
STANDARD C/AU-S	19	60	38	131	6.7	73	31	1048	3.97	40	15	7	39	52	18.6	15	21	61	.52	.091	39	59	.90	183	.09	40	1.89	.06	.14	11	45

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
PEL-90-5-39	7	266	21	83	1.6	5	10	126	4.30	14	5	ND	3	24	.2	2	2	10	.14	.077	5	3	.18	45	.01	3	.68	.01	.25	1	630
PEL-90-5-40	1	56	12	8	.2	1	1	2	9.26	2	5	ND	1	32	.3	2	2	2	.01	.024	2	3	.01	349	.01	2	.09	.01	.01	1	1
PEL-90-5-41	1	11	20	50	.1	3	4	442	3.76	16	5	ND	2	84	.2	2	2	12	.07	.249	5	13	1.01	58	.01	2	1.12	.04	.22	1	2
PEL-90-5-42	2	104	45	42	1.0	1	1	179	5.10	16	5	ND	2	448	.2	2	2	36	.06	.202	20	10	.29	249	.14	2	1.01	.01	.32	1	1
PEL-90-5-43	3	35	53	46	1.0	4	2	192	1.74	13	5	ND	1	141	.2	2	2	25	.11	.103	2	4	.16	221	.02	3	1.08	.01	.25	2	3
PEL-90-5-44	4	64	23	99	.4	7	13	1021	4.86	9	5	ND	2	49	.3	2	2	103	.75	.182	4	6	2.56	67	.27	2	2.15	.04	.14	1	1
PEL-90-5-45	1	21	7	35	.4	5	5	557	2.51	11	5	ND	1	88	.4	2	2	67	.95	.152	4	6	1.34	53	.24	2	1.33	.12	.09	1	2
PEL-90-5-46	2	154	21	71	.3	5	5	253	1.89	2	5	ND	4	35	.4	2	2	29	.55	.098	5	4	.55	41	.08	3	.90	.13	.11	1	1
PEL-90-5-47	1	36	26	104	.4	3	1	1095	7.46	13	5	ND	1	13	.8	2	2	120	.20	.123	2	5	2.70	120	.29	2	2.47	.02	.19	1	1
PEL-90-5-48	6	27	25	89	1.6	6	36	800	9.88	4	5	ND	3	31	1.8	2	2	39	1.41	.125	5	3	1.35	75	.07	2	1.87	.05	.34	1	5
PEL-90-5-49	1	18	12	58	.1	59	7	1215	2.20	4	5	ND	1	282	.5	2	2	22	2.47	.051	6	120	.66	213	.08	2	1.69	.01	.25	1	1
PEL-90-5-50	2	361	31	94	2.6	25	27	1561	7.54	186	5	ND	2	73	.7	2	3	54	1.25	.156	11	35	1.64	52	.14	2	1.97	.01	.13	1	1
PEL-90-5-51	1	127	647	175	5.9	9	1	1175	7.91	285	5	ND	2	138	.9	2	5	104	.19	.190	18	66	1.79	160	.28	2	2.07	.01	.13	1	280
PEL-90-5-52	3	63	321	56	13.7	10	2	247	3.37	248	5	ND	1	116	.5	6	2	38	.45	.062	6	26	.12	35	.22	2	.49	.01	.02	1	13
PEL-90-5-53	11	49	332	64	5.9	13	11	317	5.52	203	5	ND	1	94	.2	4	2	25	.40	.044	3	36	.27	27	.15	2	.58	.01	.09	1	151
PEL-90-5-54	3	82	95	63	17.7	8	8	654	6.47	45	5	ND	1	49	.2	2	3	23	.22	.040	2	12	.54	20	.08	2	.69	.01	.08	1	860
PEL-90-5-55	2	153	328	1944	35.0 √	10	3	699	5.51	74	5	ND	1	25	12.4	6	2	42	.21	.076	15	19	.84	41	.17	2	.99	.01	.06	1	290
PEL-90-5-56	2	21	13	20	1.8	10	6	197	6.80	20	5	ND	1	145	.3	2	3	29	.85	.077	3	17	.16	64	.16	3	.89	.01	.12	1	184
PEL-90-5-57	3	23	19	45	2.1	15	14	802	8.34	13	5	ND	1	52	.7	2	6	37	.43	.090	3	34	1.47	36	.12	3	1.89	.01	.13	1	46
PEL-90-5-58	2	144	28	76	2.5	16	25	970	8.87	17	5	ND	1	59	1.2	2	6	47	.63	.134	4	27	2.10	34	.15	2	2.25	.01	.09	1	8
PEL-90-5-59	1	2160	45	111	6.1	20	10	1537	6.74	81	5	ND	4	212	.9	2	2	76	1.57	.266	18	31	2.25	37	.23	2	2.74	.01	.07	1	123
PEL-90-5-60	2	101	179	164	1.0	4	2	64	9.51	25	5	ND	2	27	.9	2	2	32	.03	.128	9	16	.02	100	.15	2	.41	.01	.12	1	5
PEL-90-5-61	9	23	64	18	3.3	7	9	63	7.10	13	5	ND	2	5	.4	2	10	21	.03	.061	2	36	.03	56	.21	3	.22	.01	.12	1	88
PEL-90-5-62	30	22	31	14	1.7	5	14	159	9.97	40	5	ND	2	44	1.7	2	6	70	.22	.084	2	19	.21	46	.44	4	.45	.01	.0[illegible]	1	30
PEL-90-5-63	2	87	183	197	18.8	42	44	222	11.29	1018	5	ND	1	48	2.3	3	13	13	.24	.012	2	12	.37	12	.05	3	.48	.01	.03	1	980
PEL-90-5-64	3	47	40	25	2.4	11	7	102	2.60	74	5	ND	1	2	.2	2	4	2	.02	.004	2	9	.01	14	.01	3	.03	.01	.02	1	206
STANDARD C/AU-R	18	59	40	130	6.9	71	31	1051	3.98	45	21	7	39	55	19.7	15	19	57	.52	.095	39	59	.91	182	.09	36	1.91	.06	.13	13	540

√ASSAY RECOMMENDED

CME LYT LA ATOI LT E. TIN T. OUV B.C. 5A NE( )25 58)(60 3-1

GEOCHEMICAL ANALYSIS CERTIFICATE

Cathedral Gold Corp. PROJECT 8103 File # 90-4390 Page 1

800 - 601 W. Hastings St., Vancouver BC V6B 5A6 Submitted by: SEP 10 90

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
PEL-90-DS-20	6	138	45	112	2.9	18	11	827	10.67	46	5	ND	4	121	.7
PEL-90-DS-21	5	702	21	421	.8	79	74	2102	17.05	54	5	ND	5	8	1.1
SER-L2+00S 0+25E	7	148	27	153	.6	23	17	1246	7.06	21	5	ND	8	34	.3
SER-L2+00S 0+50E	5	171	44	171	.9	20	14	1437	10.22	19	5	ND	6	92	1.1
SER-L2+00S 0+75E	4	172	25	153	.4	26	17	1143	11.39	16	5	ND	5	81	1.4
SER-L2+00S 1+00E	3	171	44	173	.5	24	15	1163	10.71	18	5	ND	5	80	1.4
SER-L2+00S 1+25E	4	216	45	193	.4	25	12	1126	11.86	23	5	ND	5	69	.9
SER-L2+00S 1+50E	4	207	46	198	.5	25	12	1120	11.43	7	5	ND	5	65	.8
SER-L2+00S 1+75E	4	212	31	173	.6	30	19	1464	10.74	22	5	ND	5	55	.9
SER-L2+00S 2+00E	3	164	31	179	.6	28	18	1208	9.63	16	5	ND	4	72	1.1
SER-L2+00S 2+25E	4	190	28	203	1.0	37	24	1657	10.56	20	5	ND	5	72	1.1
SER-L2+00S 2+50E	3	111	39	179	1.3	19	13	1074	9.63	125	5	ND	5	89	1.2
SER-L2+00S 2+75E	2	50	185	89	4.5	8	7	792	8.74	248	5	ND	5	165	1.0
SER-L2+00S 3+00E	4	51	185	128	7.0	12	8	818	9.87	84	5	ND	4	116	.7
SER-L2+00S 3+25E	4	36	35	80	1.3	12	6	602	7.60	50	5	ND	4	113	.6
SER-L2+00S 3+50E	4	50	25	83	1.1	13	6	653	8.60	51	5	ND	4	112	.8
SER-L2+50S 0+50E	5	112	44	192	1.2	22	19	1556	7.97	29	5	ND	6	72	.7
SER-L2+50S 0+75E	5	157	30	142	.6	24	18	1123	7.93	13	5	ND	6	78	.7
SER-L2+50S 1+00E	4	184	27	155	.6	26	30	1711	9.77	17	5	ND	5	89	1.8
SER-L2+50S 1+25E	5	207	30	192	.5	25	20	1452	11.51	17	5	ND	5	76	1.2
SER-L2+50S 1+50E	4	214	33	187	.6	24	17	1293	11.19	25	5	ND	6	71	1.1
SER-L2+50S 1+75E	3	218	20	186	.6	33	26	1707	9.32	13	5	ND	5	81	1.7
SER-L2+50S 2+00E	3	232	23	195	.6	32	26	1793	9.61	17	5	ND	5	74	1.5
SER-L2+50S 2+25E	5	220	30	194	.7	29	23	1715	10.08	16	5	ND	6	55	1.2
SER-L2+50S 2+50E	6	253	22	272	.7	37	26	1931	10.99	21	5	ND	6	54	1.6
SER-L2+50S 2+75E	5	126	27	144	.7	18	11	1161	8.64	21	5	ND	5	39	.6
SER-L2+50S 3+00E	3	33	33	60	1.4	5	4	479	8.08	37	5	ND	2	43	.2
SER-L2+50S 3+33E	3	38	27	90	1.3	12	8	688	7.09	35	5	ND	3	106	.5
SER-L2+50S 3+58E	3	41	31	83	1.6	11	5	587	7.11	45	5	ND	3	70	.4
SER-L2+50S 3+83E	3	68	33	113	1.7	15	8	1085	11.59	80	5	ND	4	73	.9
SER-L2+50S 4+08E	3	45	49	95	2.3	10	6	766	8.26	61	5	ND	3	88	.8
WS-90-B-1	13	55	35	124	3.4	84	46	2613	9.22	40	5	ND	3	78	.8
WS-90-B-2	7	57	27	129	1.7	32	18	972	8.19	47	5	ND	7	101	.3
WS-90-B-3	8	26	21	92	.7	17	7	515	4.82	50	5	ND	1	75	.2
WS-90-B-4	7	77	21	101	.7	49	12	797	6.40	30	5	ND	2	69	.2
WS-90-B-5	9	47	23	83	.7	24	19	1139	5.68	26	5	ND	1	65	.2
STANDARD C/AU-S	18	57	36	131	7.0	71	31	1048	3.97	38	20	7	38	53	19.0

SAMPLE#	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
PEL-90-DS-20	2	4	100	.21	.323	16	23	1.13	305	.21	2	2.20	.10	.12	1	1020
PEL-90-DS-21	2	2	51	.03	.600	6	8	.78	172	.16	2	4.64	.01	.02	1	340
SER-L2+00S 0+25E	3	2	56	.20	.164	20	28	.83	106	.28	3	3.14	.09	.10	1	48
SER-L2+00S 0+50E	2	2	93	.27	.317	26	30	1.54	338	.38	2	2.93	.07	.12	1	68
SER-L2+00S 0+75E	2	2	118	.46	.426	13	33	1.49	157	.27	2	2.80	.18	.12	1	51
SER-L2+00S 1+00E	2	2	109	.40	.378	13	34	1.59	209	.35	2	2.75	.16	.12	1	93
SER-L2+00S 1+25E	3	2	105	.15	.460	13	37	1.39	193	.26	2	2.68	.05	.07	1	184
SER-L2+00S 1+50E	2	2	105	.13	.462	14	36	1.46	181	.29	2	2.87	.05	.09	1	97
SER-L2+00S 1+75E	2	2	102	.13	.447	13	31	1.47	159	.27	2	2.91	.05	.09	1	65
SER-L2+00S 2+00E	2	2	104	.42	.352	12	32	1.60	129	.36	2	2.83	.15	.14	1	65
SER-L2+00S 2+25E	2	2	86	.53	.317	14	26	1.71	126	.36	2	2.71	.21	.15	1	122
SER-L2+00S 2+50E	5	4	118	.32	.265	15	17	1.18	177	.46	2	1.98	.10	.12	1	1480
SER-L2+00S 2+75E	6	2	142	.30	.234	22	16	.87	322	.48	2	1.60	.10	.19	1	2270
SER-L2+00S 3+00E	3	10	175	.17	.242	33	24	1.29	327	.40	2	2.30	.10	.19	1	2090
SER-L2+00S 3+25E	4	3	128	.19	.245	16	31	1.09	272	.47	2	1.95	.09	.13	1	450
SER-L2+00S 3+50E	4	2	123	.23	.366	16	27	1.14	236	.36	3	2.18	.06	.10	1	280
SER-L2+50S 0+50E	6	2	79	.23	.223	31	31	1.39	324	.32	3	3.18	.05	.10	1	49
SER-L2+50S 0+75E	3	2	96	.53	.234	15	28	1.64	137	.42	2	2.63	.17	.13	1	140
SER-L2+50S 1+00E	3	2	103	.58	.314	14	27	1.78	156	.44	2	2.81	.21	.16	1	65
SER-L2+50S 1+25E	2	2	103	.24	.396	16	28	1.65	131	.27	2	2.89	.08	.09	1	79
SER-L2+50S 1+50E	2	2	97	.21	.379	14	26	1.49	114	.32	2	2.71	.06	.09	1	107
SER-L2+50S 1+75E	4	2	100	.55	.293	15	23	1.75	168	.46	2	3.10	.19	.14	1	53
SER-L2+50S 2+00E	3	2	97	.42	.313	15	22	1.70	147	.41	2	3.07	.14	.12	1	93
SER-L2+50S 2+25E	2	2	91	.17	.352	17	25	1.46	127	.32	2	3.18	.05	.10	1	96
SER-L2+50S 2+50E	2	2	97	.24	.370	14	24	1.63	137	.32	2	3.49	.07	.10	1	88
SER-L2+50S 2+75E	2	2	85	.15	.192	18	24	1.08	118	.29	2	3.75	.04	.07	1	75
SER-L2+50S 3+00E	2	3	98	.14	.142	12	22	.57	59	.31	2	2.58	.03	.05	1	620
SER-L2+50S 3+33E	3	2	111	.36	.183	15	25	1.23	192	.45	2	2.32	.12	.12	1	290
SER-L2+50S 3+58E	3	2	109	.25	.162	16	27	1.04	161	.37	2	2.78	.06	.08	1	310
SER-L2+50S 3+83E	2	2	179	.11	.455	23	39	1.07	201	.31	2	3.97	.04	.09	1	480
SER-L2+50S 4+08E	4	3	136	.22	.188	14	26	1.12	265	.47	2	2.47	.04	.09	1	570
WS-90-B-1	2	5	84	.31	.252	9	102	1.82	188	.28	2	3.08	.10	.12	1	123
WS-90-B-2	2	3	72	.32	.289	8	28	1.44	134	.22	2	3.15	.09	14	1	200
WS-90-B-3	2	2	54	.94	.304	5	26	1.16	90	.07	4	2.07	.02	.09	1	49
WS-90-B-4	2	2	74	.39	.088	6	105	1.53	68	.19	2	2.84	.03	.08	1	45
WS-90-B-5	2	2	72	.34	.110	5	33	.87	51	.13	2	2.14	.01	.05	1	24
STANDARD C/AU-S	16	18	56	.52	.097	37	59	.90	181	.09	36	1.90	.06	.14	11	49

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1 TO P2 SOIL P3 ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: SEP 13 1990 DATE REPORT MAILED: Sept 18/90 SIGNED BY. D. Toye .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
WS-90-B-6	7	66	41	140	.9	26	37	1491	5.69	18	5	ND	3	58	1.3	5	7	66	.42	.135	10	26	1.26	101	.17	3	3.04	.08	.08	1	66
WS-90-B-7	4	36	27	132	8.7	33	18	1121	6.39	17	5	ND	3	71	1.1	2	12	82	.26	.179	7	36	1.67	271	.13	2	5.34	.02	.50	1	330
WS-90-B-8	10	35	55	128	8.1	52	19	1216	6.27	63	5	ND	1	57	1.0	4	7	105	.22	.148	6	72	1.35	138	.14	5	3.01	.05	.08	1	155
WS-90-B-9	14	51	20	122	.8	24	44	1464	7.18	12	5	ND	1	89	1.7	4	8	65	.19	.115	7	31	1.15	133	.11	6	4.18	.02	.13	1	65
WS-90-B-10	6	14	11	127	.3	29	21	1164	11.56	25	5	ND	2	109	2.5	2	5	102	.16	.153	7	64	2.60	283	.24	2	4.44	.04	.99	1	79
WS-90-B-11	18	90	37	183	.5	29	48	2012	6.21	19	5	ND	1	69	.7	2	6	70	.31	.108	6	27	1.40	245	.13	5	3.81	.02	.19	2	40
WS-90-B-12	10	86	146	230	1.7	33	53	2915	7.02	17	5	ND	1	64	1.8	5	3	70	.21	.133	14	25	1.36	671	.11	2	4.60	.02	.12	3	390
WS-90-B-13	7	70	74	240	2.8	16	39	3733	5.91	26	5	ND	2	36	1.4	3	7	52	.15	.102	16	21	.71	100	.10	3	4.06	.01	.06	3	51
WS-90-B-14	9	89	68	215	1.2	26	37	2008	5.95	29	5	ND	1	77	.9	2	10	67	.32	.141	9	25	1.20	115	.12	4	3.20	.02	.09	2	103
STANDARD C	20	59	36	133	7.6	73	32	1055	3.98	39	20	7	39	55	19.3	15	20	57	.52	.096	39	58	.90	181	.08	38	1.89	.06	.14	11	-

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
K-B-90-1	2	215	4	223	.7	162	37	1336	6.88	7	5	ND	2	195	2.5	2	2	102	1.90	.136	7	56	1.19	262	.30	2	4.81	.28	.78	2	9
K-B-90-2	1	135	7	99	.6	60	19	974	3.51	15	5	ND	2	103	.6	2	2	78	1.21	.097	7	49	1.13	150	.27	2	2.96	.30	.50	1	13
K-B-90-3	1	212	7	243	.8	88	33	1134	6.21	24	5	ND	2	234	1.5	2	2	95	2.32	.129	6	37	1.24	127	.30	2	5.16	.57	.46	1	6
PEL-90-J-86	1	99	60	630	4.7	18	13	598	8.26	139	5	ND	1	189	3.9	3	2	44	1.45	.113	4	84	.15	11	.34	2	.82	.01	.01	3	105
PEL-90-J-87	2	877	77	11726	4.2	15	14	2090	9.57	109	5	ND	2	166	60.0	2	2	54	2.61	.193	4	22	.55	22	.30	2	1.06	.01	.02	6	93
PEL-90-J-88	1	332	20	3874	5.3	1	4	894	14.64	31	5	ND	1	8	14.1	2	2	23	.25	.007	4	2	.17	12	.02	2	.14	.01	.01	9	340
PEL-90-J-89	5	663	235	2197	11.3	6	5	404	11.18	319	5	ND	1	44	9.9	4	2	33	.30	.049	2	16	.16	4	.12	2	.39	.01	.01	3	370
PEL-90-J-90	4	1923	377	2116	8.7	11	22	408	6.68	459	5	ND	1	95	13.9	5	2	27	.50	.054	2	10	.15	9	.11	2	.41	.01	.01	2	320
PEL-90-J-91	15	1516	438	23124	7.7	13	7	1064	5.12	151	5	2	1	62	147.1	2	2	41	.53	.091	2	43	.65	5	.17	2	.87	.01	.01	15	860
PEL-90-J-92	4	322	156	3125	6.2	17	26	1169	8.91	373	5	ND	2	262	28.7	5	2	47	1.99	.153	4	22	.25	11	.46	2	.96	.01	.01	6	280
PEL-90-J-93	1	1053	249	12315	22.7	3	6	1092	20.93	231	5	ND	1	30	62.3	4	2	22	.29	.040	6	11	.04	14	.08	2	.19	.01	.01	18	720
PEL-90-J-94	1	89	159	566	4.3	21	28	1305	8.20	496	5	ND	2	331	3.7	5	2	53	2.25	.282	7	22	.67	4	.41	3	1.48	.01	.01	3	210
PEL-90-J-95	1	84	5	371	.7	19	14	734	6.16	9	5	ND	2	23	1.5	2	2	149	.48	.146	4	37	2.12	408	.41	2	4.15	.07	2.37	1	6
PEL-90-J-95 (DUP)	1	28	13	56	1.1	14	16	1164	5.76	130	5	ND	2	114	.2	3	2	65	1.18	.266	5	16	1.26	26	.34	2	1.31	.01	.08	2	780
PEL-90-J-96	1	105	3	94	.6	6	6	805	5.74	2	5	ND	2	50	.3	2	2	179	.70	.132	4	34	2.00	99	.37	2	3.79	.24	1.85	1	3
PEL-90-J-97	1	198	123	45	3.5	6	3	576	1.36	11	5	ND	1	9	.4	6	4	2	.01	.003	2	4	.01	10	.01	2	.04	.01	.01	2	10
PEL-90-J-98	1	71	20	168	.6	7	11	2193	4.45	20	5	ND	3	544	1.7	3	2	28	5.30	.120	9	3	1.20	60	.03	4	.61	.02	.21	1	4
PEL-90-J-99	1	50	10	114	.5	8	15	1850	5.01	18	5	ND	2	496	.7	2	2	36	4.76	.109	9	4	1.27	47	.04	3	.91	.02	.18	1	6
PEL-90-J-100	16	44	13	92	.5	59	135	9858	5.55	8	5	ND	3	36	.7	2	2	17	.14	.084	10	11	.59	436	.03	2	1.65	.01	.15	1	39
PEL-90-J-101	10	10	23	122	13.2	59	25	1213	6.22	181	5	ND	1	144	.2	2	20	90	.89	.151	2	24	3.07	15	.27	2	2.70	.01	.03	1	470
PEL-90-J-102	83	25	279	29	9.3	11	7	288	27.77	1411	5	ND	3	92	.7	2	52	111	.05	.199	4	11	.47	52	.21	2	.95	.07	.06	1	1290
PEL-90-J-103	1	6	6	76	.4	24	24	837	6.13	15	5	ND	1	61	.2	2	2	53	.52	.089	2	13	2.21	31	.12	2	2.50	.03	.26	1	27
PEL-90-J-104	35	7	12	6	.3	17	23	146	3.80	33	5	ND	1	200	.2	2	2	31	.94	.036	2	16	.10	14	.20	2	.78	.01	.02	1	32
PEL-90-J-105	3	10	3	6	.1	4	4	111	1.60	7	5	ND	1	12	.2	2	3	4	.04	.008	2	4	.05	11	.01	2	.11	.01	.01	1	4
PEL-90-J-106	25	18	7	18	.3	3	18	112	24.92	2	5	ND	9	52	.2	2	7	61	.18	.149	2	2	.01	95	.02	2	.78	.01	.11	1	35
PEL-90-J-107	5	20	12	50	.2	9	3	366	4.33	27	5	ND	1	187	.2	2	2	79	.81	.047	2	25	.96	13	.26	2	1.57	.01	.01	1	27
PEL-90-J-108	47	63	22	51	.9	14	10	480	2.31	21	5	ND	1	10	.5	2	2	10	.15	.030	2	8	.09	54	.01	2	.45	.01	.06	3	540
STANDARD C/AU-R	19	61	37	131	6.9	72	32	1049	3.96	39	20	7	40	55	19.5	16	20	57	.52	.095	39	60	.90	182	.09	35	1.90	.06	.14	11	530

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Cathedral Gold Corp. PROJECT 8103 File # 90-4553 Page 1

800 - 601 W. Hastings St., Vancouver BC V6B 5A6

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
PL1-0+75N	3	36	36	68	.2	10	4	285	3.79	11	5	ND	1	23	.2	3	4	50	.15	.083	13	19	.60	113	.19	2	1.81	.04	.07	1	10
PL1-0+50N	6	22	39	45	.4	5	5	147	5.18	9	5	ND	1	16	.2	2	3	113	.09	.050	8	15	.26	47	.35	2	1.34	.01	.04	1	20
PL1-0+25N	2	9	18	40	.4	2	1	104	1.68	7	5	ND	1	15	.2	2	8	49	.09	.053	7	6	.15	37	.22	3	.74	.01	.04	1	45
PL1-0+00N	7	30	11	66	.6	1	5	331	6.05	13	10	ND	8	2	.2	2	6	10	.06	.038	32	8	.06	8	.15	5	4.55	.07	.06	1	18
PL2-0+75N	5	29	26	69	.1	10	6	309	6.72	9	5	ND	4	19	1.6	2	2	80	.14	.080	16	26	.67	155	.42	4	2.77	.02	.07	1	17
PL2-0+50N	5	54	34	88	.3	10	6	420	5.07	12	5	ND	5	27	.3	2	2	43	.17	.118	22	18	.70	168	.23	3	2.36	.06	.09	1	66
PL2-0+25N	5	62	46	112	.4	8	6	431	5.06	17	5	ND	3	41	.5	3	2	44	.13	.138	15	17	.79	468	.18	2	1.87	.02	.10	1	48
PL2-0+00N	5	55	71	100	.6	9	5	371	4.90	17	5	ND	2	24	.2	5	4	47	.15	.103	23	18	.71	179	.17	2	2.36	.04	.09	1	29
PL3-0+00N	7	85	59	85	.6	9	11	613	7.73	16	5	ND	4	20	.6	2	2	53	.14	.147	19	21	.63	72	.22	2	2.37	.04	.07	1	57
PL1-2+50W	2	15	6	52	1.0	9	8	273	6.73	2	5	ND	3	17	1.1	2	2	118	.24	.119	6	20	.45	31	.62	2	1.52	.03	.04	1	4
PL1-2+25W	6	34	27	75	.8	8	8	741	6.95	17	5	ND	5	23	.2	2	2	42	.11	.120	19	18	.55	130	.18	2	2.94	.03	.09	1	31
PL1-2+00W	3	7	18	34	.2	6	4	230	2.75	4	5	ND	1	33	1.1	2	2	68	.27	.056	6	9	.28	44	.31	2	.99	.04	.04	1	8
PL1-1+75W	3	11	13	70	.2	7	6	731	4.53	12	5	ND	1	24	.3	3	2	68	.24	.107	7	12	.37	50	.29	3	1.16	.03	.08	1	4
PL1-1+50W	4	13	17	71	.1	12	14	384	4.25	3	5	ND	1	70	.4	2	2	70	.80	.087	12	13	1.11	45	.29	2	1.72	.29	.14	1	3
PL1-1+25W	4	11	19	39	.5	3	4	144	4.62	3	5	ND	1	14	.3	3	2	65	.11	.074	9	15	.16	40	.24	2	1.68	.01	.03	1	7
PL1-1+00W	1	8	46	38	.4	7	8	291	2.37	3	5	ND	1	38	.9	3	2	52	.37	.054	4	8	.47	39	.35	2	.82	.10	.06	1	12
PL1-0+75W	2	3	26	16	.1	1	1	49	.55	4	5	ND	1	17	.7	2	4	37	.09	.026	5	4	.09	35	.17	3	.75	.01	.03	1	29
PL1-0+50W	4	7	24	39	.6	3	3	102	4.81	6	5	ND	1	20	.2	3	2	60	.16	.062	10	10	.08	66	.16	2	1.15	.01	.03	1	3
PL1-0+25W	12	15	25	56	.1	4	5	235	6.28	11	5	ND	3	9	1.2	3	2	102	.05	.030	23	11	.11	18	.41	2	1.44	.01	.03	1	4
PL1-0+50E	5	13	20	43	1.6	2	4	94	6.24	6	5	ND	2	6	.2	5	2	34	.06	.075	18	14	.07	16	.14	2	3.62	.02	.03	1	4
PL1-0+75E	5	75	30	85	.5	10	9	694	5.37	21	5	ND	3	27	.2	3	2	37	.14	.125	15	16	.74	158	.16	2	1.74	.02	.09	1	27
PL1-1+00E	6	23	29	75	.5	4	4	223	3.57	7	5	ND	1	17	.4	2	2	40	.15	.082	27	13	.34	41	.19	3	2.80	.06	.05	1	7
PL1-1+25E	6	169	16	66	1.3	7	6	298	4.94	8	7	ND	3	14	.9	2	2	55	.20	.098	23	15	.36	26	.33	2	4.58	.06	.05	1	3
PL1-1+50E	9	75	10	69	1.3	10	10	394	4.80	9	5	ND	1	41	1.0	2	4	58	.48	.095	30	15	.67	54	.28	2	3.29	.17	.09	1	5
PL1-1+75E	5	50	23	88	.4	12	13	619	5.64	16	6	ND	7	32	.5	2	4	50	.24	.121	21	15	.64	127	.33	2	2.78	.08	.10	1	49
PL1-2+00E	9	40	18	98	.5	11	16	1039	6.31	14	5	ND	8	42	1.3	2	2	45	.41	.112	20	13	.77	149	.29	5	2.63	.16	.12	1	22
PL1-2+25E	5	44	27	92	.5	10	12	566	5.34	17	5	ND	6	35	.3	4	2	41	.20	.136	21	14	.67	174	.24	2	2.38	.06	.10	1	51
PL1-2+50E	4	28	16	80	.3	11	9	450	4.62	13	5	ND	5	33	.2	2	3	45	.22	.107	21	12	.61	138	.28	2	2.40	.05	.07	1	43
PL2-2+50W	5	25	24	81	.6	7	4	527	3.27	10	5	ND	2	67	.3	3	2	44	.30	.133	8	18	.99	354	.14	3	1.58	.02	.18	2	32
PL2-2+25W	5	35	26	112	.3	10	5	456	3.25	14	5	ND	7	105	.9	2	2	45	.22	.122	7	19	.96	376	.21	2	1.70	.01	.18	1	34
PL2-2+00W	4	23	55	60	.2	6	6	408	6.63	13	5	ND	1	36	.2	2	2	53	.14	.097	8	25	.60	164	.14	2	2.29	.01	.08	1	15
PL2-1+75W	7	47	293	73	1.2	5	14	1036	8.49	13	6	ND	3	15	1.9	3	4	55	.07	.116	15	18	.28	60	.18	2	2.49	.01	.06	1	7
PL2-1+50W	6	22	20	52	.4	7	6	200	7.03	9	6	ND	1	14	.7	2	2	57	.12	.089	18	19	.24	40	.20	3	1.93	.03	.05	1	10
PL2-1+25W	5	44	25	85	.4	10	6	519	4.55	13	5	ND	5	58	.3	2	2	43	.17	.109	18	20	.77	277	.19	2	2.15	.04	.14	1	15
PL2-0+75W	6	50	34	87	.4	13	8	599	5.70	16	5	ND	5	30	.2	2	2	42	.14	.124	17	25	.83	127	.19	2	1.95	.02	.08	1	28
PL2-0+50W	3	33	30	100	.4	10	5	572	4.56	20	5	ND	2	36	.8	2	2	35	.14	.139	17	21	.93	296	.14	2	1.51	.01	.11	1	35
STANDARD C/AU-S	19	61	35	130	6.9	72	31	1054	3.98	40	18	7	37	53	19.9	15	22	55	.52	.098	38	56	.90	181	.07	37	1.89	.06	.14	12	50

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-P6 SOIL P7-P8 ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: SEP 18 1990 DATE REPORT MAILED: Sept 24/90 SIGNED BY. C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
PL2-0+00W	2	24	19	101	.3	13	11	625	5.56	8	5	ND	5	21	.2	2	4	58	.28	.102	19	19	.54	50	.37	3	3.20	.10	.09	1	14
PL2-0+25E	6	22	41	83	.3	4	12	1666	9.57	34	5	ND	4	8	.2	2	6	20	.10	.136	15	12	.23	18	.16	2	2.68	.05	.05	1	10
PL2-0+50E	7	9	27	90	.4	3	3	324	5.54	9	7	ND	10	3	.2	2	7	13	.05	.041	22	6	.11	13	.15	2	3.52	.09	.08	1	4
PL2-0+75E	9	18	40	94	.1	8	6	603	7.25	14	5	ND	6	13	.2	2	4	50	.07	.099	12	24	.38	38	.30	2	1.73	.02	.05	1	13
PL2-1+00E	11	143	179	59	1.3	2	12	891	13.40	126	5	ND	1	8	.2	7	6	12	.09	.241	2	8	.33	26	.05	2	1.14	.01	02	1	33
PL2-1+25E	2	18	27	53	3.8	5	2	163	5.96	11	5	ND	1	19	.2	2	4	48	.11	.076	8	16	.19	56	.15	2	1.74	.01	.02	1	12
PL2-1+50E	3	64	47	107	1.2	8	36	2274	3.94	12	5	ND	1	14	.2	3	6	34	.17	.209	27	15	.31	95	.15	2	4.67	.03	.04	1	22
PL2-1+75E	4	6	16	44	.8	3	2	172	5.62	8	5	ND	1	15	.2	2	5	42	.10	.104	12	7	.07	60	.19	2	2.03	.01	.03	1	6
PL2-2+00E	4	5	17	46	.8	3	2	116	5.27	4	5	ND	1	7	.2	2	5	78	.05	.060	26	12	.09	16	.38	2	1.99	.01	.03	1	3
PL2-2+25E	2	3	26	21	.4	1	1	333	.60	3	5	ND	1	29	.6	3	5	27	.10	.026	4	2	.06	113	.11	4	.86	.01	.05	3	9
PL2-2+50E	1	1	12	36	1.9	4	3	134	1.66	2	5	ND	1	26	.5	3	8	69	.27	.057	5	9	.22	60	.46	2	.74	.05	.05	2	7
PL3-1+75W	1	90	101	56	2.6	6	4	689	10.21	79	5	ND	1	27	.2	2	2	68	.15	.180	2	40	.52	103	.20	2	1.31	.01	.06	1	34
PL3-1+50W	1	7	43	33	.6	5	3	179	3.18	6	5	ND	1	24	.2	2	5	101	.18	.062	3	11	.22	49	.47	2	1.13	.02	.04	2	10
PL3-1+25W	1	7	37	60	1.6	7	7	235	2.43	4	5	ND	1	45	.4	3	2	70	.46	.082	4	14	.33	41	.45	2	.96	.13	.07	2	7
PL3-1+00W	3	25	144	70	1.9	5	2	334	6.27	23	5	ND	1	35	.2	2	2	69	.10	.151	6	22	.55	327	.12	2	1.57	.01	.10	1	18
PL3-0+75W	3	21	43	56	.9	4	2	281	6.04	18	5	ND	1	24	.2	2	3	72	.09	.173	9	16	.35	162	.19	2	1.66	.01	.06	1	11
PL3-0+50W	5	28	27	53	2.0	3	3	415	6.32	8	5	ND	1	8	.2	2	2	38	.12	.121	16	11	.13	26	.18	2	3.00	.01	.03	1	18
PL3-0+25W	6	13	27	59	.8	4	4	465	6.77	10	5	ND	1	12	.2	2	2	67	.08	.070	10	16	.19	25	.33	2	1.46	.02	.05	1	12
PL3-0+25E	3	16	20	47	.5	2	1	140	3.99	2	5	ND	1	9	.2	2	2	47	.08	.064	14	11	.15	27	.26	2	2.40	.03	.03	1	5
PL3-0+50E	3	48	35	139	.5	12	9	753	4.42	15	5	ND	2	31	.2	2	2	37	.16	.100	19	20	.68	179	.19	2	2.07	.04	.10	1	172
PL3-0+75E	4	24	31	47	.6	6	6	952	5.06	5	5	ND	1	11	.2	2	2	92	.07	.126	5	11	.14	54	.26	2	1.02	.01	.03	1	8
PL3-1+00E	4	20	36	40	.4	4	3	665	6.21	21	5	ND	1	17	.2	2	5	89	.07	.116	8	14	.23	36	.27	2	1.76	.01	.02	1	79
PL3-1+25E	5	40	23	70	1.4	7	13	1134	6.50	13	5	ND	2	18	.2	2	3	41	.16	.141	26	17	.46	33	.25	2	3.20	.05	.05	1	22
PL3-1+50E	7	9	27	49	1.3	4	3	218	4.47	11	5	ND	1	23	.2	2	2	69	.14	.111	16	14	.17	53	.30	2	1.04	.02	.04	2	13
PL3-2+00E	1	13	14	55	1.1	6	2	92	2.19	2	5	ND	1	13	.3	2	2	77	.14	.081	6	16	.19	39	.46	3	1.91	.02	.03	3	4
PL3-2+25E	2	31	27	59	.3	9	10	797	4.44	10	5	ND	1	33	.2	2	2	48	.19	.135	10	14	.56	125	.25	2	1.87	.03	.06	2	32
PIN L1-0+00E	3	25	32	63	.6	10	9	338	5.23	2	5	ND	1	22	.2	2	3	88	.18	.083	12	21	.39	31	.40	4	3.08	.03	.04	2	8
PIN L1-0+25E	7	39	28	79	.4	8	7	516	8.75	6	5	ND	2	13	.2	2	2	66	.07	.061	16	34	.36	23	.28	2	2.79	.04	.06	1	4
PIN L1-0+50E	9	34	29	74	.2	8	7	489	7.37	5	5	ND	1	17	.2	2	2	95	.08	.054	13	31	.28	27	.38	2	2.36	.02	.04	1	3
PIN L1-0+75E	6	28	20	67	.2	9	9	636	6.53	4	5	ND	1	15	.2	2	2	79	.15	.070	12	21	.29	24	.40	2	2.60	.04	.06	1	4
PIN L1-1+00E	5	40	30	74	.1	9	9	454	8.39	5	5	ND	2	12	.2	2	2	73	.07	.049	15	35	.37	23	.31	2	3.47	.03	.05	1	15
PIN L1-1+25E	1	21	19	66	.5	11	9	231	5.44	2	5	ND	1	28	.2	3	2	102	.41	.085	14	25	.61	35	.63	2	4.29	.09	.05	1	3
PIN L1-1+50E	4	36	48	92	.6	13	10	651	5.17	3	5	ND	1	64	.2	2	2	75	.61	.102	13	31	1.04	65	.36	3	2.79	.21	.11	1	21
PIN L1-1+75E	6	20	23	66	.7	7	14	838	5.82	3	5	ND	1	14	.2	2	2	80	.13	.062	14	22	.28	22	.40	2	2.61	.04	.05	2	8
PIN L1-2+00E	3	17	25	63	.5	11	6	267	6.80	2	5	ND	1	16	.2	2	2	105	.19	.074	9	27	.58	26	.55	2	2.57	.04	.06	1	5
PIN L1-2+25E	1	19	12	70	.4	10	14	556	6.24	3	5	ND	1	21	.2	2	2	100	.30	.086	11	24	.54	28	.61	2	4.00	.07	.06	1	3
STANDARD C/AU-S	17	59	42	133	7.2	72	31	1059	3.98	39	21	7	36	53	18.6	16	21	56	.53	.099	36	60	.90	180	.07	39	1.89	.06	.14	11	46

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
PIN L1-2+50E	6	23	21	82	.9	6	20	870	6.91	8	5	ND	1	11	.2	2	4	72	.13	.059	26	24	.22	21	.35	5	3.27	.05	.05	1	7
PIN L1-2+75E	9	13	27	62	.4	2	3	183	6.50	5	5	ND	2	7	.3	2	2	82	.05	.036	19	21	.11	14	.36	2	2.09	.05	.06	1	1
PIN L1-3+00E	3	25	19	74	.5	9	9	330	7.84	5	5	ND	3	31	.7	6	2	105	.43	.110	14	29	.57	34	.63	3	4.33	.12	.07	1	7
PIN L1-3+25E	4	41	33	131	.5	19	14	560	5.43	13	5	ND	5	24	.6	2	2	69	.28	.116	25	28	.64	43	.43	5	3.79	.12	.09	1	1
PIN L1-3+50E	4	17	24	80	.5	12	8	309	4.59	7	5	ND	2	42	.2	3	5	91	.46	.070	12	24	.68	33	.45	4	2.54	.17	.10	1	1
PIN L1-4+00E	1	13	13	84	.5	19	32	1822	5.66	5	5	ND	1	112	1.8	5	2	96	1.65	.097	10	23	1.27	70	.44	3	2.45	.40	.16	1	2
PIN L1-4+25E	2	19	21	137	.7	14	12	419	5.91	8	5	ND	1	49	3.4	3	2	107	.64	.091	14	22	.60	43	.58	2	2.84	.16	.09	1	6
PIN L1-4+50E	3	15	27	69	.7	9	8	307	4.92	10	5	ND	2	23	.6	4	2	80	.30	.084	12	22	.48	25	.45	2	2.96	.07	.06	1	7
PIN L1-4+75E	3	42	22	121	.5	25	23	835	6.09	11	5	ND	1	96	.2	5	2	81	1.14	.103	13	30	1.46	64	.42	2	2.97	.44	.18	2	9
PIN L1-5+00E	2	57	21	139	.9	35	27	1316	7.37	33	5	ND	1	81	.6	6	2	76	.99	.150	13	31	1.46	58	.38	2	2.96	.38	.16	1	6
PIN L1-5+25E	2	81	22	211	1.6	55	45	1967	9.92	208	5	ND	1	55	.6	9	2	64	.66	.203	21	33	1.05	51	.28	2	3.05	.23	.11	1	1
PIN L1-5+50E	3	13	13	74	.9	11	11	518	5.84	10	5	ND	1	31	.8	5	2	95	.40	.075	18	21	.54	32	.48	4	2.94	.10	.06	1	1
PIN L2-0+00E	8	30	24	72	.8	7	6	532	6.80	5	5	ND	2	13	.2	2	4	84	.14	.058	13	26	.32	22	.43	5	2.86	.05	.06	1	1
PIN L2-0+25E	8	27	17	80	.4	4	11	1303	7.82	8	5	ND	2	6	.2	2	3	42	.05	.046	27	23	.16	14	.25	2	2.87	.04	.07	1	5
PIN L2-0+50E	8	27	23	61	.3	4	15	851	7.71	5	5	ND	2	8	.2	2	3	69	.06	.049	22	20	.16	19	.35	2	2.49	.03	.06	1	3
PIN L2-0+75E	6	20	21	58	.3	4	15	680	5.53	3	5	ND	1	13	.5	2	5	73	.10	.046	25	17	.15	26	.37	2	2.55	.03	.04	1	11
PIN L2-1+00E	6	25	20	85	.4	5	26	1224	8.25	6	5	ND	1	8	.2	2	2	56	.09	.049	31	28	.16	19	.27	2	3.01	.05	.05	1	3
PIN L2-1+25E	9	27	27	92	.6	12	29	1157	9.00	13	5	ND	4	14	.4	5	3	112	.11	.054	21	46	.34	36	.48	3	2.81	.04	.07	1	15
PIN L2-1+50E	6	53	57	111	1.0	16	8	561	4.62	5	5	ND	3	31	.7	2	3	73	.19	.128	20	35	.93	90	.35	2	3.10	.04	.06	1	25
PIN L2-1+75E	6	28	26	78	.4	7	12	615	6.94	9	5	ND	3	8	.4	2	2	50	.08	.064	21	27	.20	18	.29	2	3.54	.05	.06	1	1
PIN L2-2+00E	3	41	33	135	.5	13	10	378	6.39	3	5	ND	3	30	.2	2	2	109	.33	.111	15	30	.59	41	.68	2	4.76	.10	.07	1	8
PIN L2-2+25E	9	30	34	101	.2	8	16	1974	8.03	13	5	ND	3	7	.3	2	2	54	.05	.057	17	31	.35	16	.25	2	2.59	.04	.06	1	9
PIN L2-2+50E	10	21	23	56	.3	7	6	480	5.30	2	5	ND	2	11	.3	2	3	71	.12	.052	17	17	.23	19	.44	2	2.38	.04	.05	1	1
PIN L2-2+75E	8	15	20	75	.2	2	2	570	7.51	14	5	ND	8	2	.2	2	2	15	.05	.043	28	12	.05	8	.15	2	4.01	.06	.06	1	1
PIN L2-3+00E	2	1	7	62	.4	11	6	210	4.85	2	5	ND	3	25	.4	2	2	130	.30	.080	6	17	.42	23	.77	2	1.68	.09	.06	1	1
PIN L2-3+25E	3	40	23	145	.5	20	22	1431	6.60	7	5	ND	1	19	.9	3	2	63	.26	.123	13	25	.73	57	.14	2	3.11	.04	.05	1	4
PIN L3-2+00E	3	33	43	108	.5	17	10	357	4.29	8	5	ND	2	39	.5	3	2	105	.43	.095	16	34	.74	47	.57	3	4.10	.14	.08	1	5
PIN L3-2+25E	3	32	15	93	.5	13	8	286	6.74	11	5	ND	3	25	.4	4	4	98	.35	.092	15	26	.55	32	.61	2	4.47	.09	.06	1	5
PIN L3-2+50E	3	17	22	77	.2	14	12	457	5.26	2	5	ND	1	55	.7	2	2	85	.63	.077	11	22	.85	38	.47	2	2.62	.23	.11	1	1
PIN L3-2+75E	1	6	10	71	.5	17	15	410	4.77	2	5	ND	1	102	.5	2	2	93	1.16	.078	7	20	1.23	54	.56	2	2.17	.42	.17	1	3
PIN L3-3+00E	2	26	15	62	.2	13	9	282	4.94	2	5	ND	2	36	.3	2	3	98	.51	.099	10	25	.66	30	.61	2	3.98	.13	.06	1	3
PIN L3-3+25E	1	11	12	100	.9	15	11	705	4.62	2	5	ND	1	40	.4	2	2	89	.50	.113	7	19	.48	53	.38	2	2.83	.12	.06	1	1
PIN L3-3+50E	1	4	2	100	.4	23	24	1116	5.64	2	5	ND	1	165	.4	5	2	96	2.26	.112	9	24	1.96	91	.62	2	2.51	.77	.28	1	1
PIN-90 1	2	10	14	51	.7	10	5	218	4.55	2	5	ND	2	21	.2	4	2	86	.26	.093	8	18	.38	25	.48	2	2.53	.06	.05	1	2
PIN-90 2	2	17	14	57	.3	9	5	171	4.08	5	5	ND	3	19	.6	2	3	85	.25	.080	13	25	.37	26	.48	2	3.82	.05	.04	1	1
PIN-90 3	3	21	16	72	.3	12	8	303	5.38	5	5	ND	2	37	.3	4	3	87	.44	.086	14	24	.57	34	.50	2	3.73	.14	.08	1	2
STANDARD C/AU-S	19	60	39	135	7.2	72	31	1058	3.98	39	16	7	37	53	18.4	16	22	55	.53	.094	37	60	.90	181	.07	40	1.90	.06	.14	12	55

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
PIN-90 4	1	25	12	57	.2	13	12	390	3.84	5	5	ND	1	88	.2	2	2	71	.95	.064	7	15	1.01	49	.50	5	1.87	.35	.13	1	11
PIN-90 5	5	51	24	87	.2	12	6	434	6.12	4	5	ND	3	23	.2	2	2	72	.21	.072	17	29	.71	31	.37	6	3.87	.05	.05	1	7
PIN-90 6	3	45	17	83	.3	13	17	1277	5.90	3	5	ND	3	52	.2	2	2	86	.55	.087	11	29	.92	42	.47	4	3.51	.18	.09	1	15
PIN-90 7	5	41	16	82	.3	7	11	2019	5.39	2	5	ND	2	13	.2	2	2	57	.13	.080	20	22	.36	25	.29	6	3.21	.05	.06	1	2
PIN-90 8	3	47	27	85	.2	16	15	630	5.40	4	5	ND	2	124	.4	3	2	92	1.28	.092	12	22	1.19	77	.62	4	3.16	.53	.21	1	1
PIN-90 9	2	32	16	54	.4	8	6	139	3.39	5	5	ND	1	39	.2	2	2	99	.37	.060	4	17	.58	35	.84	4	1.76	.09	.05	1	7
PIN-90 10	3	32	9	75	.1	16	18	632	5.15	2	5	ND	1	141	.3	2	2	92	1.48	.081	6	16	1.27	68	.66	4	2.51	.62	.23	1	2
PIN-90 11	4	34	17	64	.1	10	12	523	4.76	5	5	ND	1	55	.2	2	2	82	.55	.080	7	15	.75	40	.52	4	1.79	.20	.09	1	3
PIN-90 12	2	39	6	47	.7	9	6	202	5.82	2	7	ND	2	23	.2	2	2	96	.29	.071	6	20	.61	29	.59	4	3.15	.04	.03	2	2
PIN-90 13	4	43	16	78	.9	11	7	239	5.06	5	5	ND	1	31	.2	2	2	93	.26	.071	7	20	.56	34	.42	5	1.75	.08	.07	1	2
PIN-90 14	4	41	14	71	.1	14	13	583	5.74	4	5	ND	2	82	.2	2	2	104	.82	.078	8	23	.97	47	.67	4	2.39	.33	.14	1	8
PIN-90 15	2	47	6	54	.6	12	9	247	6.54	2	7	ND	3	30	.4	2	2	110	.33	.093	6	22	.78	40	.83	4	3.32	.05	.04	1	3
SER L150S 0+25E	4	131	23	182	.4	33	35	1657	7.42	7	5	ND	6	82	1.2	2	2	76	.82	.151	19	26	1.14	135	.45	3	2.80	.32	.18	1	28
SER L150S 0+50E	6	201	31	306	.2	47	119	7583	12.47	13	7	ND	7	39	2.0	2	4	71	.14	.337	17	28	.84	191	.20	2	2.50	.04	.07	1	56
SER L150S 0+75E	9	165	33	255	.4	42	45	3982	10.76	14	5	ND	7	39	1.5	2	3	68	.16	.269	19	32	.92	163	.23	2	2.64	.06	.08	1	53
SER L150S 1+00E	4	119	31	176	.9	19	14	1262	9.72	16	5	ND	6	68	1.3	3	2	105	.21	.240	19	40	1.12	189	.36	2	2.57	.07	.09	1	166
SER L150S 1+25E	5	70	22	135	.6	18	11	1041	8.10	10	5	ND	6	37	.8	3	2	82	.15	.189	21	35	.87	105	.28	3	3.28	.06	.07	1	44
SER L150S 1+50E	6	121	23	169	.4	24	18	1605	8.41	20	5	ND	7	60	.6	2	2	74	.23	.235	17	30	1.04	179	.30	2	3.21	.08	.09	1	41
SER L150S 1+75E	8	128	25	185	.4	39	24	1526	7.32	15	5	ND	5	61	1.1	2	2	74	.33	.236	15	33	1.03	193	.31	3	3.74	.11	.09	1	93
SER L150S 2+00E	6	124	27	173	.7	35	23	1653	8.50	24	5	ND	6	60	1.0	3	2	85	.25	.272	16	37	1.05	231	.33	2	3.23	.08	.09	1	185
SER L150S 2+25E	5	84	44	115	.7	21	13	961	8.21	29	5	ND	5	91	.8	3	5	87	.29	.260	12	30	.96	169	.36	2	1.85	.10	.09	1	880
SER L150S 2+50E	4	59	172	74	2.0	11	8	668	7.72	40	5	ND	4	171	.6	4	4	128	.36	.207	15	27	.86	330	.38	2	1.48	.12	.13	1	1040
SER L150S 2+75E	5	49	99	37	1.1	5	4	356	6.70	24	5	ND	7	167	.2	2	5	87	.21	.254	14	18	.50	314	.39	3	.90	.05	.09	2	860
SER L150S 3+00E	6	38	55	63	.8	13	9	568	12.56	27	5	ND	4	83	1.4	2	2	105	.42	.465	6	35	.90	190	.09	2	1.24	.13	.11	1	690
PEL 90-DS 22	42	344	3	97	.5	16	77	2014	13.29	4	6	ND	6	8	1.9	2	2	37	.07	.361	6	18	.70	22	.19	2	5.73	.02	.03	1	89
PEL 90-DS 23	18	300	19	132	.7	11	28	1067	16.64	7	5	ND	9	5	1.9	3	7	69	.05	.478	13	20	.78	21	.22	2	2.45	.01	.03	1	81
PEL 90-DS 24	14	155	11	114	.2	20	52	1830	11.10	6	5	ND	6	15	1.1	2	6	52	.08	.378	12	35	.98	60	.18	2	2.22	.02	.05	1	69
PEL 90-DS 25	20	132	10	140	.2	63	72	1971	11.31	2	5	ND	6	12	1.5	2	3	43	.09	.324	9	69	1.05	36	.20	2	1.89	.03	.04	1	80
PEL 90-DS 26	30	64	11	86	.2	7	23	1433	5.80	6	5	ND	1	56	.2	2	2	50	.23	.170	13	11	.78	41	.12	5	2.48	.02	.06	1	11
PEL 90-DS 27	31	87	9	93	.1	6	47	1628	6.60	5	5	ND	2	71	.3	2	2	43	.33	.259	8	9	.76	59	.08	4	2.57	.02	.04	1	11
PEL 90-DS 28	12	83	17	76	.4	5	20	1027	6.03	7	5	ND	2	48	.2	2	2	56	.17	.111	17	11	.56	32	.18	4	3.33	.02	.06	1	10
PEL 90-DS 29	46	703	55	117	1.8	3	49	1142	11.17	62	5	ND	5	49	.9	2	16	46	.18	.125	11	7	.46	52	.14	2	2.08	.02	.10	1	18
PEL 90-DS 30	6	403	111	135	.5	16	13	951	11.79	28	5	ND	6	44	1.4	2	2	121	.18	.174	13	57	1.03	64	.45	2	3.31	.01	.04	1	47
PEL 90-DS 31	5	156	65	117	.8	12	20	1113	5.78	9	5	ND	3	37	.2	2	2	62	.26	.100	17	23	.68	118	.27	5	2.85	.03	.06	2	17
PEL 90-DS 31 (A)	86	903	96	116	.8	26	157	4820	13.98	178	5	ND	3	35	2.1	4	8	98	.19	.283	4	33	.90	169	.32	2	2.41	.04	.04	2	65
PEL 90-DS 32	18	2861	276	428	2.8	38	65	4433	8.22	92	5	ND	3	39	3.9	3	3	81	.36	.181	19	29	.89	335	.32	2	3.04	.04	.08	1	80
STANDARD C/AU-S	19	62	42	132	6.9	72	31	1049	3.98	39	20	7	40	52	18.4	15	19	56	.52	.093	38	56	.90	182	.09	38	1.89	.06	.13	13	48

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
1460-1	6	178	45	125	2.4	20	12	977	10.01	39	5	ND	6	135	.8	2	2	123	.32	.432	22	25	1.05	322	.30	2	2.34	.16	.12	1	500
1460-2	9	406	28	154	1.0	39	70	3093	9.55	31	6	ND	12	71	1.1	4	6	104	.21	.383	26	31	.96	218	.28	2	3.99	.09	.07	1	320
1460-3	5	93	29	91	1.8	12	7	658	7.53	40	5	ND	3	68	.4	2	2	109	.11	.229	12	23	.88	299	.27	2	2.24	.03	.06	1	310
1460-4	3	103	83	107	2.6	11	8	1048	9.08	185	5	2	8	133	.8	3	2	178	.22	.242	20	20	.94	269	.47	6	2.01	.09	.14	1	1540
1460-5	2	45	188	58	3.1	6	5	476	6.20	218	5	ND	6	349	.2	5	2	152	.26	.185	47	13	.70	398	.54	21	.91	.09	.13	1	2260
1460-6	7	56	32	68	1.2	14	11	594	8.06	44	5	ND	9	223	.6	2	2	115	.35	.432	26	22	.83	628	.32	4	1.78	.17	.12	1	430
1460-7	6	48	436	28	3.0	3	7	356	4.09	77	5	2	7	431	.2	3	4	98	.23	.171	41	10	.33	557	.60	6	.65	.05	.07	1	3080
1460-8	5	51	85	59	1.8	10	4	384	5.90	31	5	ND	7	198	.2	2	2	83	.10	.248	21	31	.75	415	.35	7	1.26	.08	.10	1	470
1460-9	6	64	108	61	2.4	8	4	418	5.16	30	5	ND	5	238	.2	2	2	90	.21	.239	20	21	.64	401	.50	6	1.05	.07	.16	1	2110
1460-10	15	76	61	80	1.9	15	5	436	8.28	31	5	ND	5	122	.2	2	3	190	.19	.226	12	39	.93	300	.53	2	2.57	.08	.11	1	670
1460-11	8	81	34	122	1.4	22	9	1388	7.17	22	5	ND	4	88	.4	2	2	101	.10	.217	19	41	.88	425	.24	5	3.48	.04	.08	1	135
1460-12	4	106	53	84	1.1	31	9	366	11.89	71	5	ND	4	113	.6	2	2	127	.21	.617	13	61	.88	189	.13	2	1.62	.13	.15	1	270
1460-13	7	142	22	94	1.0	23	8	503	12.02	152	5	ND	5	109	.4	2	6	125	.15	.503	13	71	.73	222	.25	2	1.62	.09	.08	1	102
1460-14	3	267	24	156	1.3	37	13	605	12.98	99	5	ND	4	106	.9	2	6	165	.17	.542	10	71	.93	170	.27	2	2.34	.04	.07	1	115
1460-15	7	270	46	116	2.2	19	12	633	10.77	185	5	ND	4	306	1.3	3	2	153	.24	.349	24	57	.79	224	.27	2	1.72	.14	.13	1	290
1460-16	3	272	27	148	1.2	30	18	1032	9.88	69	5	ND	4	91	1.1	2	2	129	.26	.367	13	62	1.10	150	.27	2	2.43	.07	.09	1	108
1460-17	3	187	36	166	1.1	29	10	691	7.72	57	5	ND	3	66	.5	3	2	112	.17	.240	16	34	.95	124	.23	4	2.47	.05	.06	1	111
1460-18	3	117	44	111	1.0	14	9	1606	8.89	65	5	ND	2	78	.6	4	2	138	.15	.220	12	48	.81	209	.19	3	2.07	.02	.10	1	65
1460-19	3	196	47	225	1.0	31	16	1527	7.72	65	5	ND	4	90	.3	3	2	92	.14	.336	20	38	1.07	615	.26	4	2.65	.02	.09	1	141
1460-20	5	403	66	264	1.2	38	43	2196	7.66	57	5	ND	7	76	1.2	2	2	104	.20	.329	24	41	1.20	327	.32	3	3.40	.04	.11	1	164
1460-21	3	533	83	233	1.0	34	34	2049	8.72	49	5	ND	6	114	1.6	2	2	111	.24	.319	21	56	1.21	303	.30	2	2.75	.06	.11	1	109
1460-22	3	415	172	286	3.4	35	44	3134	10.41	94	5	ND	6	54	2.3	4	2	129	.19	.441	11	58	1.55	199	.24	2	3.37	.02	.15	1	123
1460-23	4	237	49	170	1.0	27	38	2707	9.40	68	5	ND	8	56	1.0	2	3	112	.26	.376	15	49	1.33	127	.29	2	3.37	.08	.13	1	83
1460-24	6	92	74	107	1.3	14	8	853	7.12	30	5	ND	7	45	.2	2	2	76	.09	.180	27	28	.86	248	.24	4	2.81	.03	.06	1	94
1460-25	5	107	31	126	1.1	19	11	943	7.18	35	5	ND	8	72	.2	2	2	83	.20	.220	22	27	1.00	283	.30	4	2.25	.08	.10	1	101
1460-26	4	75	35	101	1.2	12	7	610	6.28	19	5	ND	7	88	.2	2	2	66	.12	.223	25	18	.82	401	.24	5	1.48	.06	.10	1	68
1460-27	8	55	25	88	1.5	13	12	570	6.58	24	5	ND	6	102	.2	2	2	62	.37	.228	18	12	.81	331	.26	5	1.28	.16	.15	1	30
1460-28	7	59	25	89	1.4	12	11	589	6.38	23	5	ND	6	96	.2	2	2	56	.33	.227	18	11	.75	290	.26	5	1.26	.14	.14	1	26
1460-29	5	123	61	145	2.2	18	10	1001	7.28	40	5	ND	6	76	.3	2	2	81	.11	.186	18	32	1.00	649	.28	2	2.46	.03	.11	1	150
1460-30	4	41	47	54	2.2	5	3	328	4.79	21	5	ND	6	106	.2	2	2	34	.04	.265	24	6	.41	466	.18	5	.85	.03	.10	1	29
1500-1	6	164	20	111	.9	21	12	965	8.45	16	5	ND	7	90	1.0	2	2	111	.29	.347	17	25	1.04	223	.32	2	2.38	.12	.13	2	97
1500-2	6	258	42	177	.7	25	16	1260	9.77	16	5	ND	7	78	1.0	2	2	105	.13	.374	18	31	1.06	237	.24	2	2.48	.05	.08	1	200
1500-3	6	293	23	185	.5	35	29	1763	8.85	23	5	ND	8	54	1.2	3	5	110	.12	.366	19	25	1.05	170	.28	2	2.80	.05	.07	1	73
1500-4	6	254	34	169	.5	32	25	1571	9.83	15	5	ND	8	57	1.2	3	2	123	.13	.449	17	34	1.06	199	.26	2	2.97	.07	.09	1	64
1500-5	6	255	31	220	1.4	39	31	1572	12.70	69	5	ND	8	48	1.3	5	2	84	.16	.439	17	21	.83	139	.18	2	1.77	.08	.06	1	330
1500-6	6	117	43	139	1.1	27	12	905	9.66	42	5	ND	8	63	.9	3	2	88	.12	.415	19	27	.95	259	.25	2	2.20	.06	.07	1	210
STANDARD C/AU-S	20	65	41	134	6.7	74	33	1050	3.98	42	20	7	40	54	18.6	15	21	57	.52	.097	41	59	.90	182	.09	40	1.89	.07	.13	12	46

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
1500-7	4	63	134	125	2.6	17	9	891	8.08	106	5	ND	1	82	.2	3	5	71	.21	.377	16	29	1.24	297	.30	2	1.81	.08	.13	1	220
1500-8	3	70	60	78	7.2	16	7	486	11.03	130	5	ND	1	69	.2	2	4	95	.29	.381	9	61	.87	196	.26	2	1.51	.11	.10	1	153
1500-9	1	39	28	86	1.1	12	7	1381	6.19	25	5	ND	1	77	.6	2	2	104	.29	.188	9	37	.81	218	.25	4	1.34	.05	.09	1	32
1500-10	3	55	57	96	2.5	13	6	652	8.15	40	5	ND	2	88	.2	4	2	98	.15	.278	17	33	.74	188	.27	3	2.26	.06	.09	1	50
1500-11	1	23	27	72	1.1	13	8	454	4.98	15	5	ND	1	48	.2	2	4	78	.29	.123	8	22	.63	101	.21	6	1.76	.07	.06	1	29
1500-12	1	75	47	147	1.2	26	13	730	7.59	28	5	ND	1	84	.2	2	2	94	.39	.230	14	37	1.18	216	.30	3	2.26	.14	.12	1	28
1500-13	3	83	26	136	.8	20	5	508	6.25	30	6	ND	1	44	.2	2	2	59	.10	.179	16	32	.82	146	.17	2	2.58	.02	.05	1	29
1500-14	3	433	25	493	.6	53	49	2572	12.21	78	5	ND	1	53	4.1	2	2	41	.22	.628	11	47	1.10	493	.18	2	5.55	.08	.09	1	23
1500-15	1	188	57	272	1.4	27	34	2466	10.78	93	5	ND	1	46	.2	2	2	102	.21	.428	10	54	1.55	235	.23	2	3.15	.05	.09	1	26
1500-16	3	33	32	76	.7	10	3	374	4.61	17	5	ND	1	23	.2	2	2	57	.09	.092	14	27	.52	87	.17	6	2.48	.02	.04	1	14
1500-17	3	64	36	111	1.5	15	10	873	6.94	32	5	ND	1	41	.2	2	2	62	.19	.166	17	29	.84	120	.21	4	2.64	.07	.08	1	36
1500-18	1	212	134	342	1.3	30	44	2606	9.34	87	5	ND	1	47	.5	3	2	85	.39	.303	12	43	1.89	74	.24	2	3.08	.03	.08	1	26
1500-19	1	194	44	125	.8	12	9	865	10.23	32	5	ND	1	45	.2	2	2	72	.09	.187	17	43	.80	120	.16	2	2.69	.01	.05	1	48
1500-20	1	118	25	122	.8	18	14	1039	9.18	37	5	ND	2	70	.2	2	2	77	.15	.277	15	40	1.10	145	.29	2	2.43	.04	.09	1	24
1500-21	2	87	33	119	1.0	19	14	930	7.73	36	5	ND	2	84	.2	2	2	70	.24	.222	17	30	1.06	178	.28	3	2.05	.08	.10	1	26
1500-22	2	137	27	121	1.0	24	20	1228	8.79	48	5	ND	1	88	.3	2	2	70	.25	.369	11	40	1.21	213	.24	2	2.06	.06	.08	1	48
1500-23	2	57	27	95	.9	18	12	708	7.86	23	5	ND	2	80	.2	2	2	75	.42	.205	14	30	1.24	188	.31	2	2.01	.16	.13	1	66
1500-24	2	98	25	129	.8	17	11	1075	7.91	30	5	ND	2	64	.2	3	2	65	.17	.241	16	27	1.08	251	.23	3	2.21	.05	.10	1	128
1500-25	2	90	34	132	.9	19	12	934	8.28	31	5	ND	2	74	.2	2	2	69	.31	.216	19	30	1.24	186	.29	2	2.23	.11	.11	1	33
1500-26	1	35	24	83	1.0	10	7	505	6.06	21	5	ND	3	82	.2	2	2	46	.22	.194	17	15	.73	274	.20	4	1.33	.08	.11	1	10
1500-27	8	30	28	69	1.4	5	5	372	6.59	30	7	ND	2	97	.2	2	3	29	.13	.259	15	5	.34	267	.15	3	.82	.03	.11	1	10
1500-28	4	67	29	114	1.6	5	12	1153	7.20	28	5	ND	2	65	.2	2	3	30	.11	.227	13	9	.49	250	.16	3	1.08	.04	.09	1	15
1500-29	2	49	39	109	2.1	6	7	502	6.32	28	5	ND	3	67	.2	2	2	26	.08	.230	15	6	.37	288	.18	3	.81	.03	.09	1	14
1500-30	2	32	43	64	1.5	4	4	494	5.30	23	5	ND	3	101	.3	2	2	30	.05	.221	17	6	.40	377	.18	4	.81	.03	.10	2	23
PIN-J-B-1	12	235	35	141	.5	67	66	1588	8.82	14	5	ND	5	94	.3	2	2	57	.11	.337	23	76	1.18	679	.09	2	3.98	.03	.12	1	6
PIN-J-B-2	34	259	34	94	.4	32	68	1577	12.70	17	5	ND	5	28	.2	2	2	47	.04	.401	18	50	.96	699	.05	2	3.10	.01	.09	1	8
PIN-J-B-3	18	574	456	318	.4	62	73	1969	8.89	59	5	ND	2	47	.4	5	2	80	.33	.224	20	108	1.41	550	.08	2	3.51	.01	.09	1	29
PIN-J-B-4	26	467	36	60	.4	17	35	818	9.20	9	10	ND	12	34	.3	2	2	12	.04	.461	29	8	.31	560	.01	3	2.71	.01	.04	1	12
STANDARD C/AU-S	18	58	40	131	6.8	70	32	1055	3.98	39	18	7	36	52	18.4	15	21	55	.52	.094	35	58	.89	179	.07	41	1.89	.06	.14	11	45

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
PEL-90-G-54R	26	197	13	108	.7	12	12	1205	7.90	6	5	ND	2	4	.8	11	2	59	.25	.193	6	32	1.95	53	.19	4	5.03	.01	.10	3	55
PEL-90-G-55R	21	241	14	126	.5	20	60	2619	7.12	2	5	ND	1	9	.4	4	2	57	.64	.198	8	27	2.12	77	.12	3	5.65	.01	.08	1	12
PEL-90-G-56R	3	9	6	78	.3	5	3	719	4.89	5	5	ND	4	6	.2	2	2	26	.20	.174	6	16	1.22	104	.05	3	1.36	.01	.16	1	7
PEL-90-G-57R	6	33	18	14	.4	6	4	162	2.30	16	5	ND	3	7	.5	2	2	7	.10	.036	2	8	.18	37	.01	5	.55	.01	.14	1	4
PEL-90-G-58R	3	39	9	30	.1	5	7	217	2.00	3	5	ND	4	14	.5	2	2	13	.21	.075	14	8	.41	37	.01	3	.81	.03	.10	1	5
PEL-90-G-58R (A)	29	802	12	86	3.3	1	61	258	28.35	113	12	ND	4	35	.2	4	13	30	.19	.052	2	8	.38	24	.09	5	1.45	.01	.08	1	10
PEL-90-G-60R	22	87	26	42	1.1	1	48	328	7.33	23	5	ND	1	230	.2	2	2	19	1.02	.070	3	13	.40	42	.07	2	1.37	.01	.14	1	7
PEL-90-G-61R	86	133	57	55	1.5	3	72	689	9.26	43	5	ND	1	199	.3	3	5	21	.75	.072	2	12	.44	60	.06	2	1.53	.01	.21	1	7
PEL-90-G-62R	5	11	10	19	.4	11	2	221	.90	4	12	ND	1	13	.4	2	2	2	.03	.019	2	10	.11	16	.01	4	.29	.01	.03	1	3
PEL-90-G-62R (A)	9	156	7	48	1.3	2	18	839	8.02	19	5	ND	1	153	.3	3	2	32	.61	.048	4	13	1.35	24	.10	3	2.37	.01	.09	1	8
PEL-90-G-63R	7	20	81	8	3.6	10	2	91	2.30	96	5	ND	1	57	.2	2	4	14	.16	.018	2	59	.05	187	.04	2	.19	.01	.03	1	7
PEL-90-G-64R	4	1751	24	112	9.8	24	28	1238	5.63	10	5	ND	1	112	.4	5	2	70	.91	.139	6	44	2.16	31	.21	3	2.12	.01	.02	7	45
PEL-90-G-65R	1	96	264	141	3.2	27	20	1536	5.96	36	5	ND	1	288	.4	6	6	89	.99	.210	6	59	3.21	28	.24	2	2.90	.01	.01	2	22
PEL-90-G-66R	7	75	35	22	1.6	6	7	184	4.75	44	5	ND	1	69	.2	2	3	39	.24	.050	2	24	.28	294	.19	5	.53	.01	.02	1	15
PEL-90-G-67R	5	29	93	111	2.3	17	25	1481	10.12	27	5	ND	1	90	.2	6	2	112	.97	.274	13	73	2.72	88	.30	2	3.13	.01	.08	2	27
PEL-90-G-68R	5	4835	68	98	14.3	42	8	1233	4.05	4	5	ND	1	86	.5	2	2	30	.78	.101	11	28	1.56	1054	.07	2	2.03	.01	.11	1	5
PEL-90-G-69R	6	9866	88	53	9.9	26	5	1078	2.39	3	5	ND	1	112	1.8	2	3	28	1.14	.094	12	17	.78	747	.07	2	1.33	.01	.13	1	2
PEL-90-G-70R	1	455	11	182	.6	34	12	1841	3.66	3	5	ND	1	99	.9	3	2	28	1.88	.123	15	31	1.79	280	.05	2	2.39	.01	.14	1	5
PEL-90-G-71R	4	121	59	118	1.6	24	24	1298	9.55	152	5	ND	2	112	.5	11	2	97	1.19	.305	11	86	2.28	64	.34	3	2.80	.01	.05	2	45
PEL-90-G-72R	4	407	4	145	.3	11	10	981	1.72	5	5	ND	1	65	.9	2	2	17	.45	.049	3	12	.47	143	.04	3	.85	.01	.02	1	55
PEL-90-G-73R	1	2219	40	87	3.0	17	16	1894	7.51	2	5	ND	1	92	.6	6	2	79	.98	.158	6	24	3.32	192	.10	2	3.89	.01	.06	1	5
PEL-90-G-74R	19	4986	112	290	6.8	7	15	627	2.04	6	5	ND	1	363	4.5	2	2	25	2.08	.192	6	10	.20	92	.10	5	1.25	.01	.08	1	11
PEL-90-G-75R	1	4663	119	266	4.7	78	16	1813	5.08	9	5	ND	1	51	1.0	2	2	26	2.25	.128	8	52	1.05	242	.07	2	2.36	.01	.28	1	9
PEL-90-G-76R	3	151	12	257	.8	30	25	1760	8.99	36	5	ND	1	107	.3	7	2	69	.71	.140	3	44	2.23	16	.17	2	2.38	.01	.09	1	21
PEL-90-G-77R	1	102	23	175	1.3	13	14	1144	9.30	324	5	ND	1	95	.6	7	2	90	.50	.111	4	54	2.11	22	.19	2	2.22	.01	.04	1	16
PEL-90-G-78R	2	47	177	33	4.8	4	2	114	3.88	231	5	ND	1	96	.2	2	3	36	.32	.040	4	15	.02	61	.13	2	.36	.01	.08	2	270
PEL-90-G-79R	4	533	14	2181	.6	10	5	525	2.64	21	5	ND	1	6	10.0	2	2	2	.19	.004	4	37	.28	68	.01	4	.29	.01	.02	1	22
PEL-90-G-80R	2	22	19	19	1.1	3	2	76	2.46	24	7	ND	1	165	.2	2	2	11	.17	.100	2	5	.07	244	.10	2	.32	.01	.16	1	16
PEL-90-G-80R (A)	2	292	19	508	1.2	5	5	383	3.92	37	5	ND	1	12	1.7	2	2	4	.22	.007	3	6	.21	99	.01	2	.17	.01	.01	1	32
PEL-90-G-81R	2	193	25	595	.6	7	4	409	2.89	15	5	ND	1	7	1.8	2	2	4	.16	.009	2	7	.22	108	.01	3	.25	.01	.01	1	16
PEL-90-G-82R	4	200	49	2128	1.2	10	7	306	3.87	171	5	ND	1	34	10.6	2	2	7	.28	.013	2	37	.12	38	.04	2	.14	.01	.01	1	72
PEL-90-G-83R	2	27	61	165	2.6	25	53	988	12.52	26	5	ND	1	88	.2	7	2	65	.92	.199	4	54	2.17	6	.24	2	2.29	.01	.09	4	62
PEL-90-G-84R	3	50	39	236	2.0	29	55	1750	12.13	18	5	ND	1	81	.4	7	2	73	1.58	.253	6	63	3.32	23	.19	2	3.33	.01	.08	2	13
PEL-90-G-85R	1	3953	2	512	2.9	38	31	2473	6.27	2	5	ND	1	121	4.0	4	2	89	1.82	.313	6	76	3.87	86	.23	3	3.29	.01	.01	1	13
PEL-90-G-86R	1	6548	2	295	4.5	43	38	2223	7.61	2	5	ND	1	116	2.3	2	2	100	1.71	.375	6	86	4.56	80	.25	4	3.79	.01	.01	1	6
PEL-90-G-87R	3	1698	29	128	3.0	37	31	653	5.83	118	5	ND	1	122	.5	3	6	41	.96	.115	4	45	.91	15	.17	2	1.09	.01	.01	1	42
STANDARD C/AU-R	18	59	39	133	7.2	72	31	1058	3.98	40	18	7	36	53	18.8	15	19	55	.52	.099	38	59	.90	180	.07	38	1.90	.06	.14	13	540

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
PEL-90-G-88R	18	209	144	366	2.1	15	31	466	12.70	163	5	ND	1	20	.2	2	3	24	.11	.041	3	15	.37	8	.06	2	.79	.01	.05	2	168
PEL-90-G-89R	10	231	71	325	1.4	11	41	159	17.17	144	5	ND	1	13	.2	3	2	22	.08	.029	2	11	.08	2	.04	2	.34	.01	.04	2	122
PEL-90-G-90R	2	4187	12	69	6.7	11	147	253	17.96	14	5	ND	2	129	.2	2	11	35	.37	.047	3	15	.56	11	.20	7	.81	.01	.05	3	48
PEL-90-G-91R	2	5717	9	76	7.8	13	177	268	19.89	12	5	ND	1	40	.2	2	2	31	.07	.054	2	11	.61	8	.09	4	.72	.01	.01	3	37
PEL-90-G-92R	3	2163	9	54	15.7	11	129	103	19.68	11	5	ND	1	62	.2	2	11	40	.14	.053	2	13	.20	9	.15	2	.42	.01	.02	13	46
PEL-90-G-93R	3	3353	15	104	16.2	11	117	127	18.08	10	5	ND	2	51	.2	2	6	41	.12	.075	2	18	.29	11	.16	2	.57	.01	.03	4	42
PEL-90-G-94R	1	86	333	85	3.9	1	5	59	3.17	41	5	ND	1	364	.2	2	5	14	.11	.020	2	1	.04	25	.04	6	.33	.01	.19	1	207
PEL-90-G-95R	1	84	8	106	.1	8	6	606	2.09	6	5	ND	1	108	.2	2	4	32	.67	.068	2	15	.83	297	.13	5	.89	.01	.01	1	112
PEL-90-G-96R	3	22	2	1	1.2	11	60	25	14.45	2	5	24	1	3	.2	2	9	1	.01	.002	2	5	.01	4	.01	6	.05	.01	.01	1	27260
PEL-90-J-109R	8	31	18	67	.8	21	33	500	11.95	2	5	ND	1	70	.2	2	2	33	.38	.048	2	10	.91	10	.20	2	1.02	.01	.10	1	340
PEL-90-J-110R	1	211	7	24	.2	23	6	193	2.16	14	5	ND	1	33	.2	2	2	45	.44	.061	2	15	.52	34	.21	6	.79	.04	.20	1	30
PEL-90-J-111R	4	33	12	8	.5	1	6	68	11.42	6	5	ND	2	17	.2	2	7	52	.04	.042	2	12	.06	115	.13	2	.30	.01	.06	1	320
PEL-90-J-112R	2	10	11	64	.5	13	7	660	5.99	4	5	ND	3	82	.2	2	2	76	.20	.085	4	60	1.59	16	.19	4	1.37	.05	.13	2	164
PEL-90-J-113R	4	106	17723✓	281	39.4✓	1	7	95	16.79	367	5	5	2	220	2.3	32	29	23	.23	.460	44	22	.05	40	.15	2	.60	.01	.09	1	6910
PEL-90-J-114R	2	98	956	805	5.5	5	7	148	7.17	306	5	2	1	113	4.2	8	2	29	.16	.104	23	9	.06	27	.14	5	.33	.01	.09	1	2180
PEL-90-J-115R	9	32	187	7	.9	1	6	119	10.23	136	5	ND	3	122	.2	2	2	62	.03	.632	3	14	.14	159	.13	7	.33	.02	.17	1	94
PEL-90-J-116R	3	33	26	2	.1	3	4	24	8.91	37	5	ND	3	5	.2	2	2	17	.01	.102	2	7	.03	106	.30	6	.28	.01	.13	1	280
PEL-90-J-117R	9	46	979	19	1.0	1	5	32	3.24	9	5	ND	3	39	.2	2	2	12	.02	.078	19	2	.03	1117	.01	4	.48	.03	.12	1	189
PEL-90-J-118R	12	40	17	50	.1	5	20	872	4.61	2	5	ND	4	16	.2	2	2	24	.06	.165	14	1	.44	95	.07	4	.91	.05	.25	1	119
PEL-90-J-119R	6	53	12	35	.2	4	3	89	2.07	2	5	ND	9	26	.2	2	3	13	.08	.082	31	1	.38	105	.01	2	.85	.02	.14	1	1
PEL-90-J-119R (A)	15	13	5	8	.2	6	11	91	1.77	2	5	ND	1	9	.2	2	2	18	.04	.018	5	4	.30	87	.01	5	.48	.02	.16	1	1
PEL-90-J-120R	9	25	122	110	.6	38	20	471	9.57	4	5	ND	2	16	.6	2	2	82	.73	.262	7	50	1.45	19	.16	3	1.51	.03	.13	1	18
PEL-90-J-121R	5	15	9	31	.2	4	11	400	4.96	2	5	ND	2	54	.2	2	2	55	.71	.158	7	1	.97	28	.13	5	1.11	.07	.08	1	3
PEL-90-J-122R	4	12	21	36	.4	4	9	426	3.60	3	5	ND	5	43	.2	2	5	26	.50	.102	8	1	.91	44	.09	6	1.01	.05	.11	1	1
PEL-90-J-123R	4	27	10	25	.1	13	5	393	1.08	8	5	ND	1	2	.2	2	2	14	.02	.007	2	10	.14	45	.01	3	.37	.01	.06	1	3
PEL-90-J-124R	3	25	51	12	16.2	8	136	26	7.54	8	5	ND	1	10	.2	2	75	3	.02	.003	2	7	.02	2	.01	3	.05	.01	.02	1	93
PEL-90-J-125R	1	432	6	52	.4	65	46	301	16.93	87	5	ND	1	59	.2	2	2	9	.27	.004	2	11	.37	5	.01	2	.48	.01	.01	1	87
PEL-90-J-126R	8	65	130	226	1.4	27	51	285	15.40	123	5	ND	1	86	1.4	2	3	13	.42	.020	3	6	.33	4	.04	2	.63	.01	.06	1	240
PEL-90-J-127R	109	33	49	35	1.4	12	37	471	7.22	77	5	ND	1	42	.2	2	2	15	.93	.088	2	2	.57	11	.01	2	.98	.01	.18	1	37
PEL-90-J-128R	5	646	20	5	3.3	58	53	39	17.68	56	5	ND	2	32	.2	2	2	3	.11	.001	2	6	.01	6	.01	3	.12	.01	.02	1	520
PEL-90-J-128R (REF)	3	876	9	10	3.4	55	34	73	18.45	58	5	ND	2	29	.2	2	2	4	.11	.001	2	2	.01	11	.01	2	.14	.01	.03	1	730
PEL-90-J-129R	18	508	73	59	8.0	52	36	200	16.96	815	5	ND	2	7	.2	2	6	29	.09	.015	4	21	.29	4	.05	6	.47	.01	.08	1	320
PEL-90-J-130R	10	8	17	2	.9	5	14	21	4.14	10	5	ND	1	3	.2	2	7	3	.02	.009	2	1	.01	13	.01	4	.26	.01	.16	1	89
PIN L1 1+05-1+15E	17	41	9	22	.4	4	4	103	4.49	56	5	ND	2	3	.2	5	2	16	.04	.085	10	5	.47	42	.01	4	1.31	.01	.17	1	14
STANDARD C/AU-R	18	59	38	131	6.7	67	32	1052	3.97	38	19	7	37	53	18.7	15	20	55	.51	.096	37	56	.90	181	.07	39	1.89	.06	.14	13	480

✓ ASSAY RECOMMENDED

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

DATE RECEIVED: NOV 27 1990
DATE REPORT MAILED: Dec. 3/90.

GEOCHEMICAL ANALYSIS CERTIFICATE

Cathedral Gold Corp. FILE # 90-4390R

SAMPLE#	Hg ppb
SER L2+00S 2+50E	20
SER L2+00S 2+75E	10
SER L2+00S 3+00E	20
PEL-90-J-91	680

- SAMPLE TYPE: SOIL & ROCK PULP HG ANALYSIS BY FLAMELESS AA.

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

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
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DATE RECEIVED: NOV 27 1990
DATE REPORT MAILED: Dec 3/90.

GEOCHEMICAL ANALYSIS CERTIFICATE

Cathedral Gold Corp. PROJECT 8103 FILE # 90-4294R

SAMPLE#	Hg ppb
1L 12+00 1+00S	20

- SAMPLE TYPE: SOIL PULP HG ANALYSIS BY FLAMELESS AA.

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

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

DATE RECEIVED: NOV 27 1990
DATE REPORT MAILED: Dec 3/90

GEOCHEMICAL ANALYSIS CERTIFICATE

Cathedral Gold Corp. PROJECT 8103 FILE # 90-4205R

SAMPLE#	Hg ppb
PEL-90-G-11	230
PEL-90-G-14	30
PEL-90-J-10	20

- SAMPLE TYPE: ROCK PULP HG ANALYSIS BY FLAMELESS AA.

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

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

DATE RECEIVED: NOV 27 1990
DATE REPORT MAILED: Dec. 3/90.

GEOCHEMICAL ANALYSIS CERTIFICATE

Cathedral Gold Corp. PROJECT 8103 FILE # 90-4553R

SAMPLE#	Hg ppb
PEL-90-G-96R	10
PEL-90-J-113R	20
PEL-90-J-114R	10

- SAMPLE TYPE: ROCK PULP HG ANALYSIS BY FLAMELESS AA.

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

APPENDIX X

STATISTICAL REPORT - ROCK GEOCHEMICAL DATA

----------------------------Descriptive Statistics----------------------------

Date/Time 01-21-1991 13:55:40

Data Base Name C:\stats\ncss\data\pel90rnc

Description Imported from A:pel90rnc.prn

Detail Report

Variable: CU

Mean - Average	375.8677	No. observations	257
Lower 95% c.i.limit	240.6831	No. missing values	0
Upper 95% c.i.limit	511.0523	Sum of frequencies	257
Adj sum of squares	3.129907E+08	Sum of observations	96598
Standard deviation	1105.721	Std.error of mean	68.973
Variance	1222620	T-value for mean=0	5.44949
Coef. of variation	2.941783	T prob level	0.0000
Skewness	5.008907	Kurtosis	29.83405
Normality Test Value	0.641	Reject if > 1.021(10%)	1.035(5%)
100-%tile (Maximum)	9866	90-%tile	663
75-%tile	193	10-%tile	7
50-%tile (Median)	46	Range	9865
25-%tile	18	75th-25th %tile	175
0-%tile (Minimum)	1		

```
1----------------------------Line Plot / Box Plot--------------------------9866
ZZL8652221  1111 21 1      1   1 2   111     1      1                          1
m-]a--
```

Distribution & Histogram

Variable: CU

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	20	72	28.0	72	28.0	:******************
2	20	40	53	20.6	125	48.6	:*************
3	40	60	16	6.2	141	54.9	:****
4	60	80	16	6.2	157	61.1	:****
5	80	100	17	6.6	174	67.7	:****
6	100	120	5	1.9	179	69.6	:*
7	120	140	4	1.6	183	71.2	:*
8	140	160	7	2.7	190	73.9	:**
9	160	180	2	0.8	192	74.7	:*
10	180	200	4	1.6	196	76.3	:*
11	200	220	5	1.9	201	78.2	:*
12	220	240	3	1.2	204	79.4	:*
13	240	260	3	1.2	207	80.5	:*
14	260	280	3	1.2	210	81.7	:*
15	280	300	1	0.4	211	82.1	:
0	Values out of range		46	17.9			:

---------------------------Descriptive Statistics---------------------------

Date/Time 01-21-1991 13:56:24

Data Base Name C:\stats\ncss\data\pel90rnc

Description Imported from A:pel90rnc.prn

Detail Report

Variable: PB

Mean - Average	149.9494	No. observations	257
Lower 95% c.i.limit	12.67209	No. missing values	0
Upper 95% c.i.limit	287.2268	Sum of frequencies	257
Adj sum of squares	3.227562E+08	Sum of observations	38537
Standard deviation	1122.839	Std.error of mean	70.04074
Variance	1260766	T-value for mean=0	2.140889
Coef. of variation	7.488115	T prob level	0.0323
Skewness	15.13061	Kurtosis	236.941
Normality Test Value	0.687	Reject if > 1.021(10%)	1.035(5%)
100-%tile (Maximum)	17723	90-%tile	187
75-%tile	49	10-%tile	2
50-%tile (Median)	16	Range	17721
25-%tile	4	75th-25th %tile	45
0-%tile (Minimum)	2		

2---------------------------Line Plot / Box Plot-------------------------17723

ZQ452 11 1

ma

Distribution & Histogram

Variable: PB

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	10	98	38.1	98	38.1	:********************
2	10	20	40	15.6	138	53.7	:********
3	20	30	33	12.8	171	66.5	:*******
4	30	40	13	5.1	184	71.6	:***
5	40	50	10	3.9	194	75.5	:**
6	50	60	6	2.3	200	77.8	:*
7	60	70	5	1.9	205	79.8	:*
8	70	80	4	1.6	209	81.3	:*
9	80	90	3	1.2	212	82.5	:*
10	90	100	4	1.6	216	84.0	:*
11	100	110	0	0.0	216	84.0	:
12	110	120	2	0.8	218	84.8	:
13	120	130	2	0.8	220	85.6	:
14	130	140	1	0.4	221	86.0	:
15	140	150	2	0.8	223	86.8	:
0	Values out of range		34	13.2			:

```
---------------------------Descriptive Statistics---------------------------
Date/Time          01-21-1991  13:56:46
Data Base Name C:\stats\ncss\data\pel90rnc
Description        Imported from A:pel90rnc.prn
```

Detail Report

Variable: ZN

Mean - Average	678.3347	No. observations	257
Lower 95% c.i.limit	334.2043	No. missing values	0
Upper 95% c.i.limit	1022.465	Sum of frequencies	257
Adj sum of squares	2.028256E+09	Sum of observations	174332
Standard deviation	2814.76	Std.error of mean	175.5799
Variance	7922876	T-value for mean=0	3.863395
Coef. of variation	4.149516	T prob level	0.0001
Skewness	6.012025	Kurtosis	37.8723
Normality Test Value	0.700	Reject if > 1.021(10%)	1.035(5%)
100-%tile (Maximum)	23124	90-%tile	570
75-%tile	168	10-%tile	8
50-%tile (Median)	64	Range	23123
25-%tile	25	75th-25th %tile	143
0-%tile (Minimum)	1		

```
1---------------------------Line Plot / Box Plot-------------------------23124
ZZ812215    1 2     1                   1 1 1        1      1          1     1
m]a
```

Distribution & Histogram

Variable: ZN

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	20	56	21.8	56	21.8	:***********
2	20	40	37	14.4	93	36.2	:*******
3	40	60	28	10.9	121	47.1	:******
4	60	80	19	7.4	140	54.5	:****
5	80	100	18	7.0	158	61.5	:****
6	100	120	13	5.1	171	66.5	:***
7	120	140	13	5.1	184	71.6	:***
8	140	160	5	1.9	189	73.5	:*
9	160	180	7	2.7	196	76.3	:*
10	180	200	6	2.3	202	78.6	:*
11	200	220	2	0.8	204	79.4	:
12	220	240	4	1.6	208	80.9	:*
13	240	260	7	2.7	215	83.7	:*
14	260	280	2	0.8	217	84.4	:
15	280	300	4	1.6	221	86.0	:*
0	Values out of range		36	14.0			:

```
---------------------------Descriptive Statistics---------------------------
Date/Time       01-21-1991  13:55:16
Data Base Name C:\stats\ncss\data\pel90rnc
Description     Imported from A:pel90rnc.prn
```

Detail Report

Variable: MO

Mean - Average	7.377432	No. observations	257
Lower 95% c.i.limit	5.889842	No. missing values	0
Upper 95% c.i.limit	8.865023	Sum of frequencies	257
Adj sum of squares	37900.39	Sum of observations	1896
Standard deviation	12.16751	Std.error of mean	.7589887
Variance	148.0484	T-value for mean=0	9.720081
Coef. of variation	1.649289	T prob level	0.0000
Skewness	4.917408	Kurtosis	31.14831
Normality Test Value	0.636	Reject if > 1.021(10%)	1.035(5%)
100-%tile (Maximum)	109	90-%tile	16
75-%tile	7	10-%tile	1
50-%tile (Median)	4	Range	108
25-%tile	2	75th-25th %tile	5
0-%tile (Minimum)	1		

```
1---------------------------Line Plot / Box Plot---------------------------109
ZZWJM79735445211 22 112 11 1     1 1                        1 1              1
-[mX]a------
```

Distribution & Histogram

Variable: MO

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	2	53	20.6	53	20.6	:******************
2	2	4	67	26.1	120	46.7	:**********************
3	4	6	51	19.8	171	66.5	:*****************
4	6	8	22	8.6	193	75.1	:*******
5	8	10	16	6.2	209	81.3	:*****
6	10	12	7	2.7	216	84.0	:**
7	12	14	7	2.7	223	86.8	:**
8	14	16	5	1.9	228	88.7	:**
9	16	18	4	1.6	232	90.3	:*
10	18	20	7	2.7	239	93.0	:**
11	20	22	1	0.4	240	93.4	:
12	22	24	1	0.4	241	93.8	:
13	24	26	2	0.8	243	94.6	:*
14	26	28	2	0.8	245	95.3	:*
15	28	30	2	0.8	247	96.1	:*
0	Values out of range		10	3.9			:

---------------------------Descriptive Statistics---------------------------

Date/Time 01-21-1991 13:57:12

Data Base Name C:\stats\ncss\data\pel90rnc

Description Imported from A:pel90rnc.prn

Detail Report

Variable: AG

Mean - Average	2.815953	No. observations	257
Lower 95% c.i.limit	2.15935	No. missing values	0
Upper 95% c.i.limit	3.472556	Sum of frequencies	257
Adj sum of squares	7383.845	Sum of observations	723.7
Standard deviation	5.370581	Std.error of mean	.3350077
Variance	28.84314	T-value for mean=0	8.405639
Coef. of variation	1.907198	T prob level	0.0000
Skewness	3.681805	Kurtosis	16.82565
Normality Test Value	0.644	Reject if > 1.021(10%)	1.035(5%)
100-%tile (Maximum)	39.4	90-%tile	7.8
75-%tile	2.8	10-%tile	.1
50-%tile (Median)	.7	Range	39.3
25-%tile	.2	75th-25th %tile	2.6
0-%tile (Minimum)	.1		

```
.1--------------------------Line Plot / Box Plot--------------------------39.4
ZZQG6775353254222212 11    112 113  1 1      11                1       1       1
[mXXXa----------
```

Distribution & Histogram

Variable: AG

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	.2	38	14.8	38	14.8	:********
2	.2	.4	50	19.5	88	34.2	:**********
3	.4	.6	27	10.5	115	44.7	:*****
4	.6	.8	17	6.6	132	51.4	:***
5	.8	1	14	5.4	146	56.8	:***
6	1	1.2	12	4.7	158	61.5	:**
7	1.2	1.4	7	2.7	165	64.2	:*
8	1.4	1.6	4	1.6	169	65.8	:*
9	1.6	1.8	9	3.5	178	69.3	:**
10	1.8	2	3	1.2	181	70.4	:*
11	2	2.2	4	1.6	185	72.0	:*
12	2.2	2.4	2	0.8	187	72.8	:
13	2.4	2.6	4	1.6	191	74.3	:*
14	2.6	2.8	0	0.0	191	74.3	:
15	2.8	3	6	2.3	197	76.7	:*
0	Values out of range		60	23.3			:

```
----------------------------Descriptive Statistics----------------------------
Date/Time      01-21-1991  13:57:56
Data Base Name C:\stats\ncss\data\pel90rnc
Description    Imported from A:pel90rnc.prn

                            Detail Report

Variable: NI

Mean - Average          18.18677       No. observations        257
Lower 95% c.i.limit     14.10662       No. missing values      0
Upper 95% c.i.limit     22.26692       Sum of frequencies      257
Adj sum of squares      285121         Sum of observations     4674

Standard deviation      33.37296       Std.error of mean       2.081748
Variance                1113.754       T-value for mean=0      8.7363
Coef. of variation      1.835013       T prob level            0.0000
Skewness                9.62718        Kurtosis                121.518
Normality Test Value    0.644          Reject if >  1.021(10%) 1.035(5%)

100-%tile (Maximum)     460            90-%tile                40
 75-%tile               21             10-%tile                3
 50-%tile (Median)      10             Range                   459
 25-%tile               5              75th-25th %tile         16
  0-%tile (Minimum)     1
1---------------------------Line Plot / Box Plot---------------------------460
YZZPIC662373 111        1                                                    1
-[ma----

                      Distribution & Histogram

Variable: NI
Bin Lower       Upper       Count Prcnt Total Prcnt  Histogram
 1  0           3             25   9.7    25   9.7 :*****
 2  3           6             44  17.1    69  26.8 :*********
 3  6           9             43  16.7   112  43.6 :*********
 4  9           12            31  12.1   143  55.6 :******
 5  12          15            22   8.6   165  64.2 :****
 6  15          18            17   6.6   182  70.8 :***
 7  18          21            10   3.9   192  74.7 :**
 8  21          24             7   2.7   199  77.4 :*
 9  24          27            12   4.7   211  82.1 :**
10  27          30             6   2.3   217  84.4 :*
11  30          33             5   1.9   222  86.4 :*
12  33          36             6   2.3   228  88.7 :*
13  36          39             3   1.2   231  89.9 :*
14  39          42             1   0.4   232  90.3 :
15  42          45             5   1.9   237  92.2 :*
 0  Values out of range       20   7.8             :
```

---------------------------Descriptive Statistics---------------------------

Date/Time 01-21-1991 14:05:42
Data Base Name C:\stats\ncss\data\pel90rnc
Description Imported from A:pel90rnc.prn

Detail Report

Variable: FE%

Mean - Average	7.364436	No. observations	257
Lower 95% c.i.limit	6.668376	No. missing values	0
Upper 95% c.i.limit	8.060495	Sum of frequencies	257
Adj sum of squares	8297.931	Sum of observations	1892.66
Standard deviation	5.693311	Std.error of mean	.355139
Variance	32.41379	T-value for mean=0	20.73677
Coef. of variation	.7730818	T prob level	0.0000
Skewness	2.040741	Kurtosis	5.936097
Normality Test Value	1.389	Reject if > 1.021(10%)	1.035(5%)
100-%tile (Maximum)	40.74	90-%tile	16.2
75-%tile	8.91	10-%tile	2.2
50-%tile (Median)	5.91	Range	40.3
25-%tile	3.63	75th-25th %tile	5.28
0-%tile (Minimum)	.44		

```
.44-------------------------Line Plot / Box Plot-------------------------40.74
166EI9FJ9BKGB8CA8793232421 4 1 17132 1112 1    11  1 11                      1
   ---[XXXXmXaXX]---------------
```

Distribution & Histogram

Variable: FE%

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	1	5	1.9	5	1.9	:*
2	1	2	12	4.7	17	6.6	:**
3	2	3	32	12.5	49	19.1	:******
4	3	4	27	10.5	76	29.6	:*****
5	4	5	26	10.1	102	39.7	:*****
6	5	6	30	11.7	132	51.4	:******
7	6	7	23	8.9	155	60.3	:*****
8	7	8	21	8.2	176	68.5	:****
9	8	9	18	7.0	194	75.5	:****
10	9	10	15	5.8	209	81.3	:***
11	10	11	5	1.9	214	83.3	:*
12	11	12	5	1.9	219	85.2	:*
13	12	13	6	2.3	225	87.5	:*
14	13	14	1	0.4	226	87.9	:
15	14	15	4	1.6	230	89.5	:*
0	Values out of range		27	10.5			:

```
---------------------------Descriptive Statistics---------------------------
Date/Time      01-21-1991  14:06:09
Data Base Name C:\stats\ncss\data\pel90rnc
Description    Imported from A:pel90rnc.prn

                                Detail Report

Variable: AS

Mean - Average       67.65759        No. observations         257
Lower 95% c.i.limit  48.89713        No. missing values       0
Upper 95% c.i.limit  86.41805        Sum of frequencies       257
Adj sum of squares   6027872         Sum of observations      17388

Standard deviation   153.4483        Std.error of mean        9.57184
Variance             23546.38        T-value for mean=0       7.068399
Coef. of variation   2.268013        T prob level             0.0000
Skewness             4.733779        Kurtosis                 30.33678
Normality Test Value 0.735           Reject if >  1.021(10%)  1.035(5%)

100-%tile (Maximum)  1411            90-%tile                 231
 75-%tile            41              10-%tile                 2
 50-%tile (Median)   14              Range                    1409
 25-%tile            4               75th-25th %tile          37
  0-%tile (Minimum)  2
2---------------------------Line Plot / Box Plot--------------------------1411
ZZJ754434321 22 2251121  2 111             1          1                      1
[m]-a---------

                          Distribution & Histogram

Variable: AS
Bin Lower       Upper       Count Prcnt Total Prcnt  Histogram
 1  0           4              59  23.0    59  23.0 :************
 2  4           8              33  12.8    92  35.8 :*******
 3  8           12             27  10.5   119  46.3 :*****
 4  12          16             17   6.6   136  52.9 :***
 5  16          20             15   5.8   151  58.8 :***
 6  20          24             11   4.3   162  63.0 :**
 7  24          28             14   5.4   176  68.5 :***
 8  28          32              7   2.7   183  71.2 :*
 9  32          36              3   1.2   186  72.4 :*
10  36          40              4   1.6   190  73.9 :*
11  40          44              4   1.6   194  75.5 :*
12  44          48              4   1.6   198  77.0 :*
13  48          52              1   0.4   199  77.4 :
14  52          56              1   0.4   200  77.8 :
15  56          60              4   1.6   204  79.4 :*
 0  Values out of range        53  20.6             :
```

```
----------------------------Descriptive Statistics----------------------------
Date/Time          01-21-1991  14:08:16
Data Base Name  C:\stats\ncss\data\pel90rnc
Description        Imported from A:pel90rnc.prn

                                 Detail Report

Variable: SB

Mean - Average         2.945525        No. observations         257
Lower 95% c.i.limit    2.567673        No. missing values       0
Upper 95% c.i.limit    3.323378        Sum of frequencies       257
Adj sum of squares     2445.237        Sum of observations      757

Standard deviation     3.090584        Std.error of mean        .1927853
Variance               9.551708        T-value for mean=0       15.27878
Coef. of variation     1.049247        T prob level             0.0000
Skewness               6.261556        Kurtosis                 47.85271


100-%tile (Maximum)    32              90-%tile                 5
 75-%tile              2               10-%tile                 2
 50-%tile (Median)     2               Range                    30
 25-%tile              2               75th-25th %tile          0
  0-%tile (Minimum)    2
2----------------------------Line Plot / Box Plot----------------------------32
Z  D A  9 7  5  5 1    2                                  1  1              1
m-a------

                          Distribution & Histogram

Variable: SB
Bin Lower       Upper       Count Prcnt Total Prcnt  Histogram
 1  0           1               0   0.0     0   0.0 :
 2  1           2               0   0.0     0   0.0 :
 3  2           3             202  78.6   202  78.6 :*****************
 4  3           4              13   5.1   215  83.7 :*
 5  4           5              10   3.9   225  87.5 :*
 6  5           6               9   3.5   234  91.1 :*
 7  6           7               7   2.7   241  93.8 :*
 8  7           8               5   1.9   246  95.7 :
 9  8           9               5   1.9   251  97.7 :
10  9           10              1   0.4   252  98.1 :
11  10          11              0   0.0   252  98.1 :
12  11          12              2   0.8   254  98.8 :
13  12          13              0   0.0   254  98.8 :
14  13          14              0   0.0   254  98.8 :
15  14          15              0   0.0   254  98.8 :
 0  Values out of range         3   1.2             :
```

```
----------------------------Descriptive Statistics----------------------------
Date/Time       01-21-1991  14:08:39
Data Base Name  C:\stats\ncss\data\pel90rnc
Description     Imported from A:pel90rnc.prn

                               Detail Report

Variable: BI

Mean - Average          6.015564        No. observations         257
Lower 95% c.i.limit     2.877013        No. missing values       0
Upper 95% c.i.limit     9.154116        Sum of frequencies       257
Adj sum of squares      168707.9        Sum of observations      1546

Standard deviation      25.6713         Std.error of mean        1.601331
Variance                659.0154        T-value for mean=0       3.756602
Coef. of variation      4.267479        T prob level             0.0002
Skewness                10.36553        Kurtosis                 111.4341


100-%tile (Maximum)     297             90-%tile                 7
 75-%tile               3               10-%tile                 2
 50-%tile (Median)      2               Range                    295
 25-%tile               2               75th-25th %tile          1
  0-%tile (Minimum)     2
2----------------------------Line Plot / Box Plot--------------------------297
ZZA311 2     1     1                                                     1     1
ma

                          Distribution & Histogram

Variable: BI
Bin Lower        Upper        Count Prcnt Total Prcnt  Histogram
 1  0            1                0   0.0     0   0.0 :
 2  1            2                0   0.0     0   0.0 :
 3  2            3              182  70.8   182  70.8 :*****************
 4  3            4               19   7.4   201  78.2 :**
 5  4            5                7   2.7   208  80.9 :*
 6  5            6                8   3.1   216  84.0 :*
 7  6            7               10   3.9   226  87.9 :*
 8  7            8               10   3.9   236  91.8 :*
 9  8            9                3   1.2   239  93.0 :
10  9            10               2   0.8   241  93.8 :
11  10           11               3   1.2   244  94.9 :
12  11           12               2   0.8   246  95.7 :
13  12           13               1   0.4   247  96.1 :
14  13           14               2   0.8   249  96.9 :
15  14           15               0   0.0   249  96.9 :
 0  Values out of range           8   3.1             :
```

----------------------------Descriptive Statistics----------------------------

Date/Time 01-21-1991 14:10:30
Data Base Name C:\stats\ncss\data\pel90rnc
Description Imported from A:pel90rnc.prn

Detail Report

Variable: CA

Mean - Average	.5894942	No. observations	257
Lower 95% c.i.limit	.4644358	No. missing values	0
Upper 95% c.i.limit	.7145525	Sum of frequencies	257
Adj sum of squares	267.8566	Sum of observations	151.5
Standard deviation	1.022895	Std.error of mean	6.380646E-02
Variance	1.046315	T-value for mean=0	9.238785
Coef. of variation	1.735209	T prob level	0.0000
Skewness	7.40059	Kurtosis	77.76251
Normality Test Value	0.700	Reject if > 1.021(10%)	1.035(5%)
100-%tile (Maximum)	12.64	90-%tile	1.25
75-%tile	.75	10-%tile	.04
50-%tile (Median)	.32	Range	12.63
25-%tile	.15	75th-25th %tile	.6
0-%tile (Minimum)	.01		

```
.01-------------------------Line Plot / Box Plot-------------------------12.64
ZZZSEFI6234341311        1   1   1                                           1
-[mXa]---
```

Distribution & Histogram

Variable: CA

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	.1	47	18.3	47	18.3	:****
2	.1	.2	40	15.6	87	33.9	:****
3	.2	.3	35	13.6	122	47.5	:***
4	.3	.4	25	9.7	147	57.2	:**
5	.4	.5	21	8.2	168	65.4	:**
6	.5	.6	12	4.7	180	70.0	:*
7	.6	.7	8	3.1	188	73.2	:*
8	.7	.8	12	4.7	200	77.8	:*
9	.8	.9	7	2.7	207	80.5	:*
10	.9	1	15	5.8	222	86.4	:*
11	1	1.1	4	1.6	226	87.9	:
12	1.1	1.2	4	1.6	230	89.5	:
13	1.2	1.3	2	0.8	232	90.3	:
14	1.3	1.4	1	0.4	233	90.7	:
15	1.4	1.5	3	1.2	236	91.8	:
0	Values out of range		21	8.2			:

----------------------------Descriptive Statistics----------------------------

Date/Time	01-21-1991 14:15:07
Data Base Name	C:\stats\ncss\data\pel90rnc
Description	Imported from A:pel90rnc.prn

Detail Report

Variable: NA%

Mean - Average	2.750973E-02	No. observations	257
Lower 95% c.i.limit	2.130102E-02	No. missing values	0
Upper 95% c.i.limit	3.371844E-02	Sum of frequencies	257
Adj sum of squares	.6602062	Sum of observations	7.07
Standard deviation	5.078317E-02	Std.error of mean	3.167767E-03
Variance	2.578931E-03	T-value for mean=0	8.684264
Coef. of variation	1.846008	T prob level	0.0000
Skewness	6.542815	Kurtosis	56.92672

100-%tile (Maximum)	.57	90-%tile	.05
75-%tile	.03	10-%tile	.01
50-%tile (Median)	.01	Range	.56
25-%tile	.01	75th-25th %tile	.02
0-%tile (Minimum)	.01		

```
.01--------------------------Line Plot / Box Plot---------------------------.57
ZP HD D24 21 3 1 1 2 11         1     1 1                                      1
mXa]---
```

Distribution & Histogram

Variable: NA%

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	.02	192	74.7	192	74.7	:*****************
2	.02	.04	30	11.7	222	86.4	:***
3	.04	.06	15	5.8	237	92.2	:*
4	.06	8.000E-02	6	2.3	243	94.6	:*
5	8.000E-02	.1	4	1.6	247	96.1	:
6	.1	.12	1	0.4	248	96.5	:
7	.12	.14	1	0.4	249	96.9	:
8	.14	.16	3	1.2	252	98.1	:
9	.16	.18	1	0.4	253	98.4	:
10	.18	.2	0	0.0	253	98.4	:
11	.2	.22	0	0.0	253	98.4	:
12	.22	.24	1	0.4	254	98.8	:
13	.24	.26	0	0.0	254	98.8	:
14	.26	.28	1	0.4	255	99.2	:
15	.28	.3	1	0.4	256	99.6	:
0	Values out of range		1	0.4			:

---------------------------Descriptive Statistics---------------------------
Date/Time 01-21-1991 14:15:35
Data Base Name C:\stats\ncss\data\pel90rnc
Description Imported from A:pel90rnc.prn

Detail Report

Variable: K%

Mean - Average	.1244747	No. observations	257
Lower 95% c.i.limit	9.896116E-02	No. missing values	0
Upper 95% c.i.limit	.1499882	Sum of frequencies	257
Adj sum of squares	11.14855	Sum of observations	31.99
Standard deviation	.2086841	Std.error of mean	1.301735E-02
Variance	4.354904E-02	T-value for mean=0	9.562212
Coef. of variation	1.676518	T prob level	0.0000
Skewness	7.586895	Kurtosis	71.00193
Normality Test Value	0.826	Reject if > 1.021(10%)	1.035(5%)
100-%tile (Maximum)	2.37	90-%tile	.21
75-%tile	.15	10-%tile	.01
50-%tile (Median)	.09	Range	2.36
25-%tile	.03	75th-25th %tile	.12
0-%tile (Minimum)	.01		

```
.01-------------------------Line Plot / Box Plot--------------------------2.37
ZSZZZNG57323   12        1      1                        1              1
-[Xma]--
```

Distribution & Histogram

Variable: K%

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	.02	55	21.4	55	21.4	:*****
2	.02	.04	18	7.0	73	28.4	:**
3	.04	.06	24	9.3	97	37.7	:**
4	.06	8.000E-02	23	8.9	120	46.7	:**
5	8.000E-02	.1	25	9.7	145	56.4	:**
6	.1	.12	24	9.3	169	65.8	:**
7	.12	.14	22	8.6	191	74.3	:**
8	.14	.16	17	6.6	208	80.9	:**
9	.16	.18	6	2.3	214	83.3	:*
10	.18	.2	16	6.2	230	89.5	:*
11	.2	.22	4	1.6	234	91.1	:
12	.22	.24	2	0.8	236	91.8	:
13	.24	.26	6	2.3	242	94.2	:*
14	.26	.28	2	0.8	244	94.9	:
15	.28	.3	1	0.4	245	95.3	:
0	Values out of range		12	4.7			:

----------------------------Descriptive Statistics----------------------------

```
Date/Time      01-21-1991  14:16:29
Data Base Name C:\stats\ncss\data\pel90rnc
Description    Imported from A:pel90rnc.prn
```

Detail Report

Variable: AUPPB

Mean - Average	624.4397	No. observations	257
Lower 95% c.i.limit	139.5043	No. missing values	0
Upper 95% c.i.limit	1109.375	Sum of frequencies	257
Adj sum of squares	4.027585E+09	Sum of observations	160481
Standard deviation	3966.454	Std.error of mean	247.4206
Variance	1.573276E+07	T-value for mean=0	2.523799
Coef. of variation	6.35202	T prob level	0.0116
Skewness	9.559584	Kurtosis	95.95003
Normality Test Value	0.640	Reject if > 1.021(10%)	1.035(5%)
100-%tile (Maximum)	46600	90-%tile	610
75-%tile	151	10-%tile	4
50-%tile (Median)	36	Range	46599
25-%tile	10	75th-25th %tile	141
0-%tile (Minimum)	1		

```
1--------------------------Line Plot / Box Plot-------------------------46600
ZR732 1     1                                1         1                   1
ma
```

Distribution & Histogram

Variable: AUPPB

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	5	34	13.2	34	13.2	:***
2	5	10	26	10.1	60	23.3	:**
3	10	15	21	8.2	81	31.5	:**
4	15	20	14	5.4	95	37.0	:*
5	20	25	9	3.5	104	40.5	:*
6	25	30	13	5.1	117	45.5	:*
7	30	35	10	3.9	127	49.4	:*
8	35	40	6	2.3	133	51.8	:*
9	40	45	5	1.9	138	53.7	:
10	45	50	8	3.1	146	56.8	:*
11	50	55	2	0.8	148	57.6	:
12	55	60	5	1.9	153	59.5	:
13	60	65	4	1.6	157	61.1	:
14	65	70	3	1.2	160	62.3	:
15	70	75	3	1.2	163	63.4	:
0	Values out of range		94	36.6			:

---------------------------Descriptive Statistics---------------------------

Date/Time	01-21-1991 14:16:56
Data Base Name	C:\stats\ncss\data\pel90rnc
Description	Imported from A:pel90rnc.prn

Detail Report

Variable: AUPPB

Mean - Average	624.4397	No. observations	257
Lower 95% c.i.limit	139.5043	No. missing values	0
Upper 95% c.i.limit	1109.375	Sum of frequencies	257
Adj sum of squares	4.027585E+09	Sum of observations	160481
Standard deviation	3966.454	Std.error of mean	247.4206
Variance	1.573276E+07	T-value for mean=0	2.523799
Coef. of variation	6.35202	T prob level	0.0116
Skewness	9.559584	Kurtosis	95.95003
Normality Test Value	0.640	Reject if > 1.021(10%)	1.035(5%)
100-%tile (Maximum)	46600	90-%tile	610
75-%tile	151	10-%tile	4
50-%tile (Median)	36	Range	46599
25-%tile	10	75th-25th %tile	141
0-%tile (Minimum)	1		

```
1---------------------------Line Plot / Box Plot-------------------------46600
ZR732 1     1                                  1         1                  1
ma
```

Distribution & Histogram

Variable: AUPPB

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	100	178	69.3	178	69.3	:****************
2	100	200	20	7.8	198	77.0	:**
3	200	300	15	5.8	213	82.9	:*
4	300	400	11	4.3	224	87.2	:*
5	400	500	2	0.8	226	87.9	:
6	500	600	4	1.6	230	89.5	:
7	600	700	3	1.2	233	90.7	:
8	700	800	4	1.6	237	92.2	:
9	800	900	3	1.2	240	93.4	:
10	900	1000	3	1.2	243	94.6	:
11	1000	1100	1	0.4	244	94.9	:
12	1100	1200	1	0.4	245	95.3	:
13	1200	1300	2	0.8	247	96.1	:
14	1300	1400	0	0.0	247	96.1	:
15	1400	1500	0	0.0	247	96.1	:
0	Values out of range		10	3.9			:

Correlations –Rock.

	AS	SB	BI	PB	AG	FE%
AS	1.0000	0.2395	0.0601	0.2045	0.4786	0.3799
SB	0.2395	1.0000	0.6289	0.6251	0.4537	0.2106
BI	0.0601	0.6289	1.0000	0.0489	0.1369	0.2083
PB	0.2045	0.6251	0.0489	1.0000	0.4958	0.1312
AG	0.4786	0.4537	0.1369	0.4958	1.0000	0.2924
FE	0.3799	0.2106	0.2083	0.1312	0.2924	1.0000
AUPPB	0.0101	0.6021	0.8754	0.0930	0.1075	0.1996

APPENDIX XI

STATISTICAL REPORT - SOIL GEOCHEMICAL DATA

```
----------------------------Descriptive Statistics----------------------------
Date/Time      01-21-1991  13:31:11
Data Base Name C:\stats\ncss\data\pel90snc
Description    Imported from A:pel90snc.prn

                              Detail Report

Variable: MO

Mean - Average          7.754202        No. observations          476
Lower 95% c.i.limit     6.749097        No. missing values        0
Upper 95% c.i.limit     8.759306        Sum of frequencies        476
Adj sum of squares      59460.24        Sum of observations       3691

Standard deviation      11.18836        Std.error of mean         .5128177
Variance                125.1795        T-value for mean=0        15.12077
Coef. of variation      1.442877        T prob level              0.0000
Skewness                8.321219        Kurtosis                  99.82639
Normality Test Value    0.691           Reject if >  1.011(10%)   1.019(5%)

100-%tile (Maximum)     169             90-%tile                  12
 75-%tile               8               10-%tile                  2
 50-%tile (Median)      6               Range                     168
 25-%tile               4               75th-25th %tile           4
  0-%tile (Minimum)     1
1----------------------------Line Plot / Box Plot---------------------------169
ZZZZZID23323124111 2 11      1    1    1                                      1
-[ma--

                        Distribution & Histogram

Variable: MO
Bin Lower        Upper       Count Prcnt Total Prcnt  Histogram
 1  0            2              31   6.5    31   6.5 :****
 2  2            4              87  18.3   118  24.8 :************
 3  4            6             117  24.6   235  49.4 :*****************
 4  6            8              97  20.4   332  69.7 :**************
 5  8            10             61  12.8   393  82.6 :*********
 6  10           12             26   5.5   419  88.0 :****
 7  12           14             17   3.6   436  91.6 :**
 8  14           16              9   1.9   445  93.5 :*
 9  16           18              2   0.4   447  93.9 :
10  18           20              3   0.6   450  94.5 :
11  20           22              3   0.6   453  95.2 :
12  22           24              2   0.4   455  95.6 :
13  24           26              3   0.6   458  96.2 :
14  26           28              1   0.2   459  96.4 :
15  28           30              2   0.4   461  96.8 :
 0  Values out of range         15   3.2             :
```

---------------------------Descriptive Statistics---------------------------

Date/Time 01-21-1991 13:32:17
Data Base Name C:\stats\ncss\data\pel90snc
Description Imported from A:pel90snc.prn

Detail Report

Variable: CU

Mean - Average	79.40966	No. observations	476
Lower 95% c.i.limit	64.60574	No. missing values	0
Upper 95% c.i.limit	94.21359	Sum of frequencies	476
Adj sum of squares	1.289905E+07	Sum of observations	37799
Standard deviation	164.7905	Std.error of mean	7.553159
Variance	27155.9	T-value for mean=0	10.51344
Coef. of variation	2.075194	T prob level	0.0000
Skewness	11.11722	Kurtosis	173.7125
Normality Test Value	0.614	Reject if > 1.011(10%)	1.019(5%)
100-%tile (Maximum)	2861	90-%tile	190
75-%tile	83	10-%tile	14
50-%tile (Median)	36	Range	2860
25-%tile	21	75th-25th %tile	62
0-%tile (Minimum)	1		

```
1-------------------------Line Plot / Box Plot-------------------------2861
ZZZWGHJ721 51  1   31    1                                               1
-ma---
```

Distribution & Histogram

Variable: CU

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	20	103	21.6	103	21.6	:***************
2	20	40	147	30.9	250	52.5	:*********************
3	40	60	76	16.0	326	68.5	:***********
4	60	80	28	5.9	354	74.4	:****
5	80	100	23	4.8	377	79.2	:***
6	100	120	18	3.8	395	83.0	:***
7	120	140	12	2.5	407	85.5	:**
8	140	160	6	1.3	413	86.8	:*
9	160	180	11	2.3	424	89.1	:**
10	180	200	7	1.5	431	90.5	:*
11	200	220	15	3.2	446	93.7	:**
12	220	240	7	1.5	453	95.2	:*
13	240	260	4	0.8	457	96.0	:*
14	260	280	3	0.6	460	96.6	:
15	280	300	2	0.4	462	97.1	:
0	Values out of range		14	2.9			:

```
---------------------------Descriptive Statistics---------------------------
Date/Time        01-21-1991  13:32:45
Data Base Name C:\stats\ncss\data\pel90snc
Description     Imported from A:pel90snc.prn

                              Detail Report

Variable: PB

Mean - Average          31.63235        No. observations          476
Lower 95% c.i.limit     27.96047        No. missing values        0
Upper 95% c.i.limit     35.30423        Sum of frequencies        476
Adj sum of squares      793562.7        Sum of observations       15057

Standard deviation      40.87369        Std.error of mean         1.873442
Variance                1670.658        T-value for mean=0        16.88461
Coef. of variation      1.292148        T prob level              0.0000
Skewness                4.932584        Kurtosis                  32.53784
Normality Test Value    0.749           Reject if >  1.011(10%)   1.019(5%)

100-%tile (Maximum)     436             90-%tile                  55
 75-%tile               33              10-%tile                  8
 50-%tile (Median)      22              Range                     434
 25-%tile               13              75th-25th %tile           20
  0-%tile (Minimum)     2
2---------------------------Line Plot / Box Plot---------------------------436
HZZZZXVHP4E333 312121   2 21   213    1  1       1  11                        1
 -[Xma]----

                        Distribution & Histogram

Variable: PB
Bin Lower        Upper        Count Prcnt Total Prcnt  Histogram
 1  0            10              64  13.4    64  13.4 :*********
 2  10           20             146  30.7   210  44.1 :*********************
 3  20           30             120  25.2   330  69.3 :*****************
 4  30           40              55  11.6   385  80.9 :********
 5  40           50              37   7.8   422  88.7 :*****
 6  50           60              17   3.6   439  92.2 :**
 7  60           70               5   1.1   444  93.3 :*
 8  70           80               5   1.1   449  94.3 :*
 9  80           90               3   0.6   452  95.0 :
10  90           100              3   0.6   455  95.6 :
11  100          110              2   0.4   457  96.0 :
12  110          120              2   0.4   459  96.4 :
13  120          130              0   0.0   459  96.4 :
14  130          140              2   0.4   461  96.8 :
15  140          150              3   0.6   464  97.5 :
 0  Values out of range          12   2.5             :
```

```
---------------------------Descriptive Statistics---------------------------
Date/Time      01-21-1991  13:33:17
Data Base Name C:\stats\ncss\data\pel90snc
Description    Imported from A:pel90snc.prn

                              Detail Report

Variable: ZN

Mean - Average         96.05462         No. observations        476
Lower 95% c.i.limit    90.96709         No. missing values      0
Upper 95% c.i.limit    101.1422         Sum of frequencies      476
Adj sum of squares     1523415          Sum of observations     45722

Standard deviation     56.63205         Std.error of mean       2.595726
Variance               3207.189         T-value for mean=0      37.00492
Coef. of variation     .5895817         T prob level            0.0000
Skewness               2.674068         Kurtosis                10.93403
Normality Test Value   0.848            Reject if >  1.011(10%) 1.019(5%)

100-%tile (Maximum)    493              90-%tile                170
 75-%tile              112              10-%tile                50
 50-%tile (Median)     79               Range                   477
 25-%tile              63               75th-25th %tile         49
  0-%tile (Minimum)    16
16---------------------------Line Plot / Box Plot---------------------------493
1138BKSZZZZZPHBCIDA78754167665121311  11 12 11 1  1  1             11        1
      --[XmXXaXX]---------

                       Distribution & Histogram

Variable: ZN
Bin Lower       Upper       Count Prcnt Total Prcnt  Histogram
 1  0           20              1   0.2     1   0.2 :
 2  20          40             16   3.4    17   3.6 :**
 3  40          60             81  17.0    98  20.6 :************
 4  60          80            141  29.6   239  50.2 :*********************
 5  80          100            90  18.9   329  69.1 :*************
 6  100         120            46   9.7   375  78.8 :*******
 7  120         140            31   6.5   406  85.3 :****
 8  140         160            17   3.6   423  88.9 :**
 9  160         180            18   3.8   441  92.6 :***
10  180         200            14   2.9   455  95.6 :**
11  200         220             4   0.8   459  96.4 :*
12  220         240             4   0.8   463  97.3 :*
13  240         260             2   0.4   465  97.7 :
14  260         280             3   0.6   468  98.3 :
15  280         300             2   0.4   470  98.7 :
 0  Values out of range         6   1.3             :
```

```
---------------------------Descriptive Statistics---------------------------
Date/Time       01-21-1991  13:33:59
Data Base Name  C:\stats\ncss\data\pel90snc
Description     Imported from A:pel90snc.prn

                            Detail Report

Variable: AG

Mean - Average          .6352941      No. observations        476
Lower 95% c.i.limit     .5683304      No. missing values      0
Upper 95% c.i.limit     .7022579      Sum of frequencies      476
Adj sum of squares      263.9271      Sum of observations     302.4

Standard deviation      .7454099      Std.error of mean       3.416581E-02
Variance                .5556359      T-value for mean=0      18.59444
Coef. of variation      1.17333       T prob level            0.0000
Skewness                3.975503      Kurtosis                25.68104
Normality Test Value    0.990         Reject if >  1.011(10%) 1.019(5%)

100-%tile (Maximum)     7.2           90-%tile                1.4
 75-%tile               .8            10-%tile                .1
 50-%tile (Median)      .4            Range                   7.1
 25-%tile               .2            75th-25th %tile         .6
  0-%tile (Minimum)     .1
.1---------------------------Line Plot / Box Plot---------------------------7.2
ZZZZXZ MKEIA9B855 1334131213  1111  1    1     1                            1 1
-[XmXXaX]------

                    Distribution & Histogram

Variable: AG
Bin Lower       Upper        Count Prcnt Total Prcnt  Histogram
 1  0           .2              93  19.5    93  19.5 :**************
 2  .2          .4             116  24.4   209  43.9 :*****************
 3  .4          .6              79  16.6   288  60.5 :***********
 4  .6          .8              57  12.0   345  72.5 :********
 5  .8          1               34   7.1   379  79.6 :*****
 6  1           1.2             28   5.9   407  85.5 :****
 7  1.2         1.4             20   4.2   427  89.7 :***
 8  1.4         1.6             13   2.7   440  92.4 :**
 9  1.6         1.8              6   1.3   446  93.7 :*
10  1.8         2                6   1.3   452  95.0 :*
11  2           2.2              5   1.1   457  96.0 :*
12  2.2         2.4              4   0.8   461  96.8 :*
13  2.4         2.6              6   1.3   467  98.1 :*
14  2.6         2.8              0   0.0   467  98.1 :
15  2.8         3                3   0.6   470  98.7 :
 0  Values out of range          6   1.3             :
```

```
---------------------------Descriptive Statistics---------------------------
Date/Time      01-21-1991  13:36:30
Data Base Name C:\stats\ncss\data\pel90snc
Description    Imported from A:pel90snc.prn

                           Detail Report

Variable: FE%

Mean - Average        6.840715       No. observations        476
Lower 95% c.i.limit   6.551989       No. missing values      0
Upper 95% c.i.limit   7.12944        Sum of frequencies      476
Adj sum of squares    4906.543       Sum of observations     3256.18

Standard deviation    3.213964       Std.error of mean       .1473118
Variance              10.32956       T-value for mean=0      46.43698
Coef. of variation    .4698287       T prob level            0.0000
Skewness              3.590145       Kurtosis                32.1059
Normality Test Value  0.918          Reject if >  1.011(10%) 1.019(5%)

100-%tile (Maximum)   41.65          90-%tile                10.08
 75-%tile             8.305          10-%tile                3.69
 50-%tile (Median)    6.49           Range                   41.1
 25-%tile             4.915          75th-25th %tile         3.39
  0-%tile (Minimum)   .55
.55-------------------------Line Plot / Box Plot------------------------41.65
32357FNQZZZZZSSNRJEB664431 211 2                 1                         1
      --[XXmaXX]---

                     Distribution & Histogram

Variable: FE%
Bin Lower        Upper       Count Prcnt Total Prcnt  Histogram
 1  0            1               4   0.8     4   0.8 :*
 2  1            2               4   0.8     8   1.7 :*
 3  2            3              14   2.9    22   4.6 :**
 4  3            4              37   7.8    59  12.4 :*****
 5  4            5              65  13.7   124  26.1 :*********
 6  5            6              75  15.8   199  41.8 :***********
 7  6            7              86  18.1   285  59.9 :************
 8  7            8              58  12.2   343  72.1 :********
 9  8            9              44   9.2   387  81.3 :******
10  9            10             39   8.2   426  89.5 :******
11  10           11             19   4.0   445  93.5 :***
12  11           12             12   2.5   457  96.0 :**
13  12           13              8   1.7   465  97.7 :*
14  13           14              3   0.6   468  98.3 :
15  14           15              2   0.4   470  98.7 :
 0  Values out of range          6   1.3             :
```

```
---------------------------Descriptive Statistics---------------------------
Date/Time      01-21-1991  13:37:00
Data Base Name C:\stats\ncss\data\pel90snc
Description    Imported from A:pel90snc.prn

                                   Detail Report

Variable: AS

Mean - Average          20.84244        No. observations          476
Lower 95% c.i.limit     18.19259        No. missing values        0
Upper 95% c.i.limit     23.49228        Sum of frequencies        476
Adj sum of squares      413281.2        Sum of observations       9921

Standard deviation      29.49688        Std.error of mean         1.351987
Variance                870.0657        T-value for mean=0        15.41615
Coef. of variation      1.415232        T prob level              0.0000
Skewness                4.210248        Kurtosis                  21.756
Normality Test Value    0.761           Reject if >  1.011(10%)   1.019(5%)

100-%tile (Maximum)     248             90-%tile                  41
 75-%tile               21              10-%tile                  4
 50-%tile (Median)      13              Range                     246
 25-%tile               7               75th-25th %tile           14
  0-%tile (Minimum)     2
2---------------------------Line Plot / Box Plot---------------------------248
ZZZZZZODAF9483443212231 3111 3 1 1     2 1      11      1 2      1  1        1
 -[mXXa------

                              Distribution & Histogram

Variable: AS
Bin Lower        Upper       Count  Prcnt  Total  Prcnt  Histogram
 1  0            4              43    9.0     43    9.0 :******
 2  4            8              88   18.5    131   27.5 :*************
 3  8            12             79   16.6    210   44.1 :***********
 4  12           16             79   16.6    289   60.7 :***********
 5  16           20             57   12.0    346   72.7 :********
 6  20           24             32    6.7    378   79.4 :*****
 7  24           28              8    1.7    386   81.1 :*
 8  28           32             22    4.6    408   85.7 :***
 9  32           36              9    1.9    417   87.6 :*
10  36           40              5    1.1    422   88.7 :*
11  40           44              9    1.9    431   90.5 :*
12  44           48              5    1.1    436   91.6 :*
13  48           52              6    1.3    442   92.9 :*
14  52           56              1    0.2    443   93.1 :
15  56           60              3    0.6    446   93.7 :
 0  Values out of range         30    6.3               :
```

---------------------------Descriptive Statistics---------------------------
Date/Time 01-21-1991 13:39:29
Data Base Name C:\stats\ncss\data\pel90snc
Description Imported from A:pel90snc.prn

Detail Report

Variable: SB

Mean - Average	2.714286	No. observations	476
Lower 95% c.i.limit	2.540229	No. missing values	0
Upper 95% c.i.limit	2.888342	Sum of frequencies	476
Adj sum of squares	1783.143	Sum of observations	1292
Standard deviation	1.93752	Std.error of mean	.0888061
Variance	3.753985	T-value for mean=0	30.56418
Coef. of variation	.7138233	T prob level	0.0000
Skewness	10.50399	Kurtosis	153.4261
100-%tile (Maximum)	34	90-%tile	4
75-%tile	3	10-%tile	2
50-%tile (Median)	2	Range	32
25-%tile	2	75th-25th %tile	1
0-%tile (Minimum)	2		

```
2---------------------------Line Plot / Box Plot---------------------------34
Z Z  Y L  7 3    2                         1                                  1
m-a---
```

Distribution & Histogram

Variable: SB

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	1	0	0.0	0	0.0	:
2	1	2	0	0.0	0	0.0	:
3	2	3	304	63.9	304	63.9	:****************
4	3	4	103	21.6	407	85.5	:*****
5	4	5	34	7.1	441	92.6	:**
6	5	6	21	4.4	462	97.1	:*
7	6	7	7	1.5	469	98.5	:
8	7	8	3	0.6	472	99.2	:
9	8	9	0	0.0	472	99.2	:
10	9	10	2	0.4	474	99.6	:
11	10	11	0	0.0	474	99.6	:
12	11	12	0	0.0	474	99.6	:
13	12	13	0	0.0	474	99.6	:
14	13	14	0	0.0	474	99.6	:
15	14	15	0	0.0	474	99.6	:
0	Values out of range		2	0.4			:

```
---------------------------Descriptive Statistics---------------------------
Date/Time      01-21-1991  13:40:11
Data Base Name C:\stats\ncss\data\pel90snc
Description    Imported from A:pel90snc.prn

                              Detail Report

Variable: BI

Mean - Average          2.510504        No. observations        476
Lower 95% c.i.limit     2.387057        No. missing values      0
Upper 95% c.i.limit     2.633951        Sum of frequencies      476
Adj sum of squares      896.9475        Sum of observations     1195

Standard deviation      1.374158        Std.error of mean       6.298444E-02
Variance                1.88831         T-value for mean=0      39.85912
Coef. of variation      .5473634        T prob level            0.0000
Skewness                5.015595        Kurtosis                36.55122


100-%tile (Maximum)     16              90-%tile                4
 75-%tile               2               10-%tile                2
 50-%tile (Median)      2               Range                   14
 25-%tile               2               75th-25th %tile         0
  0-%tile (Minimum)     2
2---------------------------Line Plot / Box Plot---------------------------16
Z     Z    V     E     9     2    3          1                         1     1
m--a--------

                        Distribution & Histogram

Variable: BI
Bin Lower        Upper        Count Prcnt Total Prcnt  Histogram
 1  0            1                0   0.0     0   0.0 :
 2  1            2                0   0.0     0   0.0 :
 3  2            3              374  78.6   374  78.6 :*******************
 4  3            4               40   8.4   414  87.0 :**
 5  4            5               31   6.5   445  93.5 :**
 6  5            6               14   2.9   459  96.4 :*
 7  6            7                9   1.9   468  98.3 :
 8  7            8                2   0.4   470  98.7 :
 9  8            9                3   0.6   473  99.4 :
10  9            10               0   0.0   473  99.4 :
11  10           11               1   0.2   474  99.6 :
12  11           12               0   0.0   474  99.6 :
13  12           13               0   0.0   474  99.6 :
14  13           14               0   0.0   474  99.6 :
15  14           15               1   0.2   475  99.8 :
 0  Values out of range           1   0.2             :
```

```
---------------------------Descriptive Statistics---------------------------
Date/Time        01-21-1991  13:41:23
Data Base Name   C:\stats\ncss\data\pel90snc
Description      Imported from A:pel90snc.prn
```

Detail Report

Variable: CA%

Mean - Average	.2611975	No. observations	476
Lower 95% c.i.limit	.2368418	No. missing values	0
Upper 95% c.i.limit	.2855532	Sum of frequencies	476
Adj sum of squares	34.91442	Sum of observations	124.33
Standard deviation	.2711163	Std.error of mean	1.242659E-02
Variance	7.350404E-02	T-value for mean=0	21.01923
Coef. of variation	1.037974	T prob level	0.0000
Skewness	4.237563	Kurtosis	28.61817
Normality Test Value	0.911	Reject if > 1.011(10%)	1.019(5%)
100-%tile (Maximum)	2.91	90-%tile	.5
75-%tile	.325	10-%tile	.06
50-%tile (Median)	.2	Range	2.89
25-%tile	.1	75th-25th %tile	.225
0-%tile (Minimum)	.02		

```
.02--------------------------Line Plot / Box Plot--------------------------2.91
4ZZZZZZLQK8I97A42523 321 11 2 111 1    1   11                  1              1
 -[XXmXa]-----
```

Distribution & Histogram

Variable: CA%

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	.1	112	23.5	112	23.5	:******
2	.1	.2	120	25.2	232	48.7	:******
3	.2	.3	111	23.3	343	72.1	:******
4	.3	.4	51	10.7	394	82.8	:***
5	.4	.5	31	6.5	425	89.3	:**
6	.5	.6	20	4.2	445	93.5	:*
7	.6	.7	9	1.9	454	95.4	:
8	.7	.8	4	0.8	458	96.2	:
9	.8	.9	5	1.1	463	97.3	:
10	.9	1	2	0.4	465	97.7	:
11	1	1.1	2	0.4	467	98.1	:
12	1.1	1.2	2	0.4	469	98.5	:
13	1.2	1.3	2	0.4	471	98.9	:
14	1.3	1.4	0	0.0	471	98.9	:
15	1.4	1.5	1	0.2	472	99.2	:
0	Values out of range		4	0.8			:

```
---------------------------Descriptive Statistics---------------------------
Date/Time      01-21-1991  13:47:07
Data Base Name C:\stats\ncss\data\pel90snc
Description    Imported from A:pel90snc.prn
```

Detail Report

```
Variable: NA%

Mean - Average          7.313025E-02   No. observations        476
Lower 95% c.i.limit     6.527023E-02   No. missing values      0
Upper 95% c.i.limit     8.099028E-02   Sum of frequencies      476
Adj sum of squares      3.636236       Sum of observations     34.81

Standard deviation      .0874942       Std.error of mean       4.01029E-03
Variance                7.655234E-03   T-value for mean=0      18.23565
Coef. of variation      1.196416       T prob level            0.0000
Skewness                3.880473       Kurtosis                20.75063
Normality Test Value    0.831          Reject if >  1.011(10%) 1.019(5%)

100-%tile (Maximum)     .77            90-%tile                .14
 75-%tile               .09            10-%tile                .01
 50-%tile (Median)      .05            Range                   .76
 25-%tile               .03            75th-25th %tile         .06
  0-%tile (Minimum)     .01
.01--------------------------Line Plot / Box Plot---------------------------.77
ZZZZZTRPMDB8AC26463 14121 1  2  11 11 111 1 1 1      1         1        1     1
--[XmXaX]-----
```

Distribution & Histogram

Variable: NA%

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	.02	112	23.5	112	23.5	:******
2	.02	.04	115	24.2	227	47.7	:******
3	.04	.06	74	15.5	301	63.2	:****
4	.06	8.000E-02	52	10.9	353	74.2	:***
5	8.000E-02	.1	35	7.4	388	81.5	:**
6	.1	.12	19	4.0	407	85.5	:*
7	.12	.14	22	4.6	429	90.1	:*
8	.14	.16	8	1.7	437	91.8	:
9	.16	.18	4	0.8	441	92.6	:
10	.18	.2	10	2.1	451	94.7	:*
11	.2	.22	5	1.1	456	95.8	:
12	.22	.24	3	0.6	459	96.4	:
13	.24	.26	1	0.2	460	96.6	:
14	.26	.28	0	0.0	460	96.6	:
15	.28	.3	2	0.4	462	97.1	:
0	Values out of range		14	2.9			:

---------------------------Descriptive Statistics---------------------------

Date/Time 01-21-1991 13:47:49

Data Base Name C:\stats\ncss\data\pel90snc

Description Imported from A:pel90snc.prn

Detail Report

Variable: K%

Mean - Average	7.680672E-02	No. observations	476
Lower 95% c.i.limit	7.330445E-02	No. missing values	0
Upper 95% c.i.limit	.080309	Sum of frequencies	476
Adj sum of squares	.7219462	Sum of observations	36.56
Standard deviation	3.898573E-02	Std.error of mean	1.786908E-03
Variance	1.519887E-03	T-value for mean=0	42.98304
Coef. of variation	.5075822	T prob level	0.0000
Skewness	1.285731	Kurtosis	2.929319
Normality Test Value	1.032	Reject if > 1.011(10%)	1.019(5%)
100-%tile (Maximum)	.28	90-%tile	.13
75-%tile	.1	10-%tile	.04
50-%tile (Median)	.07	Range	.27
25-%tile	.05	75th-25th %tile	.05
0-%tile (Minimum)	.01		

```
.01-------------------------Line Plot / Box Plot--------------------------.28
6  6  W  Z  Z Z  Z  Z  Z  X  O  F  H  C 4  8  2  4  3     1     1        1  1
         ---[XXXXmXaXXXXXX]---------
```

Distribution & Histogram

Variable: K%

Bin	Lower	Upper	Count	Prcnt	Total	Prcnt	Histogram
1	0	.02	12	2.5	12	2.5	:*
2	.02	.04	83	17.4	95	20.0	:****
3	.04	.06	125	26.3	220	46.2	:*******
4	.06	8.000E-02	86	18.1	306	64.3	:*****
5	8.000E-02	.1	77	16.2	383	80.5	:****
6	.1	.12	39	8.2	422	88.7	:**
7	.12	.14	29	6.1	451	94.7	:**
8	.14	.16	12	2.5	463	97.3	:*
9	.16	.18	2	0.4	465	97.7	:
10	.18	.2	7	1.5	472	99.2	:
11	.2	.22	1	0.2	473	99.4	:
12	.22	.24	1	0.2	474	99.6	:
13	.24	.26	0	0.0	474	99.6	:
14	.26	.28	2	0.4	476	100.0	:
15	.28	.3	0	0.0	476	100.0	:

```
---------------------------Descriptive Statistics---------------------------
Date/Time       01-21-1991  13:48:56
Data Base Name  C:\stats\ncss\data\pel90snc
Description     Imported from A:pel90snc.prn

                              Detail Report

Variable: AUPPB

Mean - Average          92.42017       No. observations          476
Lower 95% c.i.limit     66.78626       No. missing values        0
Upper 95% c.i.limit     118.0541       Sum of frequencies        476
Adj sum of squares      3.867534E+07   Sum of observations       43992

Standard deviation      285.345        Std.error of mean         13.07877
Variance                81421.77       T-value for mean=0        7.066428
Coef. of variation      3.087476       T prob level              0.0000
Skewness                6.628696       Kurtosis                  50.94736
Normality Test Value    0.590          Reject if >  1.011(10%)   1.019(5%)

100-%tile (Maximum)     3080           90-%tile                  164
 75-%tile               65.5           10-%tile                  2
 50-%tile (Median)      19.5           Range                     3079
 25-%tile               4              75th-25th %tile           61.5
  0-%tile (Minimum)     1
1---------------------------Line Plot / Box Plot--------------------------3080
ZZZKD83552 2211 12 1  2   2          1 1            2   2                    1
m-a--

                         Distribution & Histogram

Variable: AUPPB
Bin Lower         Upper         Count  Prcnt  Total  Prcnt  Histogram
 1  0             5               125   26.3    125   26.3 :*******
 2  5             10               57   12.0    182   38.2 :***
 3  10            15               31    6.5    213   44.7 :**
 4  15            20               25    5.3    238   50.0 :*
 5  20            25               17    3.6    255   53.6 :*
 6  25            30               21    4.4    276   58.0 :*
 7  30            35               23    4.8    299   62.8 :*
 8  35            40                8    1.7    307   64.5 :
 9  40            45                9    1.9    316   66.4 :
10  45            50               12    2.5    328   68.9 :*
11  50            55               10    2.1    338   71.0 :*
12  55            60                9    1.9    347   72.9 :
13  60            65                2    0.4    349   73.3 :
14  65            70               17    3.6    366   76.9 :*
15  70            75                3    0.6    369   77.5 :
 0  Values out of range           107   22.5                :
```

```
---------------------------Descriptive Statistics---------------------------
Date/Time      01-21-1991  13:49:19
Data Base Name C:\stats\ncss\data\pel90snc
Description    Imported from A:pel90snc.prn

                                Detail Report

Variable: AUPPB

Mean - Average          92.42017         No. observations          476
Lower 95% c.i.limit     66.78626         No. missing values        0
Upper 95% c.i.limit     118.0541         Sum of frequencies        476
Adj sum of squares      3.867534E+07     Sum of observations       43992

Standard deviation      285.345          Std.error of mean         13.07877
Variance                81421.77         T-value for mean=0        7.066428
Coef. of variation      3.087476         T prob level              0.0000
Skewness                6.628696         Kurtosis                  50.94736
Normality Test Value    0.590            Reject if >  1.011(10%)   1.019(5%)

100-%tile (Maximum)     3080             90-%tile                  164
 75-%tile               65.5             10-%tile                  2
 50-%tile (Median)      19.5             Range                     3079
 25-%tile               4                75th-25th %tile           61.5
  0-%tile (Minimum)     1
1---------------------------Line Plot / Box Plot--------------------------3080
ZZZKD83552 2211 12 1  2   2          1 1           2   2                     1
m-a--

                          Distribution & Histogram

Variable: AUPPB
Bin Lower       Upper        Count Prcnt Total Prcnt  Histogram
 1  0           100            399  83.8   399  83.8 :********************
 2  100         200             38   8.0   437  91.8 :**
 3  200         300             11   2.3   448  94.1 :*
 4  300         400              7   1.5   455  95.6 :
 5  400         500              4   0.8   459  96.4 :
 6  500         600              2   0.4   461  96.8 :
 7  600         700              3   0.6   464  97.5 :
 8  700         800              1   0.2   465  97.7 :
 9  800         900              2   0.4   467  98.1 :
10  900         1000             0   0.0   467  98.1 :
11  1000        1100             2   0.4   469  98.5 :
12  1100        1200             0   0.0   469  98.5 :
13  1200        1300             0   0.0   469  98.5 :
14  1300        1400             0   0.0   469  98.5 :
15  1400        1500             1   0.2   470  98.7 :
 0  Values out of range          6   1.3             :
```

Correlations -Soil

	AS	SB	BI	PB	AG	FE%
AS	1.0000	0.1871	0.1541	0.4757	0.5902	0.3674
SB	0.1871	1.0000	-0.0273	0.0106	0.0380	0.0410
BI	0.1541	-0.0273	1.0000	0.1510	0.2196	0.1171
PB	0.4757	0.0106	0.1510	1.0000	0.5182	0.1165
AG	0.5902	0.0380	0.2196	0.5182	1.0000	0.1446
FE%	0.3674	0.0410	0.1171	0.1165	0.1446	1.0000
AUPPB	0.5197	0.0408	0.1336	0.5416	0.5551	0.0986

APPENDIX XII

ROCK SAMPLE DESCRIPTIONS - 1990

ROCK SAMPLE DESCRIPTIONS-1990
ALL SAMPLES

SAMPLE NUMBER	TARGET AREA	DESCRIPTION
PEL-90-G-1R	SOUTHEAST	GRAB;QUARTZ-PYRITE VEIN ALONG CREEK
2	SOUTHEAST	FLOAT;10 CM QTZ-PY,25% PY,COARSE QTZ
3	SOUTHEAST	FLOAT;10 CM QTZ-PY,25% PY,COARSE QTZ
4	PELICAN	GRAB;PYRITIZED BOULDERS AT EDGE OF CLIFF
5	PELICAN	GRAB;PYRITIZED BOULDERS AT EDGE OF CLIFF
6	PELICAN	GRAB;PYRITIZED SILICIFIED SILTSTONE
7	PELICAN	GRAB;PYRITIZED SILICIFIED SILTSTONE
8	PELICAN	GRAB;PYRITIZED SILICIFIED SILTSTONE
9	PELICAN	GRAB;MASSIVE E-W PY VEIN,DIP 80 S
10	PELICAN	FLOAT;PYRITIZED,SILICIFIED BOULDERS
11	PELICAN	FLOAT;PYRITIZED,SILICIFIED BOULDERS
12	PELICAN	GRAB;1-4CM PYRITE VEINS,20 DIP S
13	PELICAN	GRAB;1-4CM PYRITE VEINS,20 DIP S
14	PELICAN	GRAB;HYDROZINCITE,DISS.PYRITE
15	PELICAN	GRAB 20 CM;VERTICAL N-S QTZ-PY VEIN
16	SOUTHEAST	grab;qtz-py vein near site 87-521
17	SOUTHEAST	grab;qtz-py vein near site 87-521
18	SOUTHEAST	grab;qtz-py vein near site 87-521
19	SOUTHEAST	grab;qtz-py vein near site 87-521
20	SOUTHEAST	grab;qtz-py vein near site 87-521
21	SOUTHEAST	grab;pyritized highly fractured
22	SOUTHEAST	float;quartz-pyrite vein 5%-10% py
23	SOUTHEAST	float;quartz-pyrite vein 5%-10% py
24	SOUTHEAST	float;quartz-pyrite vein 5%-10% py
25	SOUTHEAST	grab;ferricrete 3m thick above shear
26	SOUTHEAST	grab;granodiorite;mod. fract.,5% py
27	SOUTHEAST	grab;1-2cm qtz veins at 205/60N
28	SOUTHEAST	float;sercitized,pyritized granodiorite
29	SOUTHEAST	GRAB;FERRICRETE,4-5M THICK
30	SOUTHEAST	GRAB;SILIC.,BLEACH.GRANODIORITE,5% PY
31	SOUTHEAST	GRAB;STRONG SHEAR,SERCITE SCHIST,5%PY
32	SOUTHEAST	GRAB;ORTHO.PORPH.,INTENS.FRACT.,3% PY
33	SOUTHEAST	GRAB;GRAB;ORTH.PORPH.SILIC..3%PY
34	SOUTHEAST	GRAB;FRACT. SILTSTONE,SERIC.,3%PY
35	SOUTHEAST	GRAB;SILTSTONE,BLEACH.,SERIC.,3% PY
36	SOUTHEAST	QTZ.VEINS,1-10CM,VUGGY,COARSE,CHLORITE
37	SOUTHEAST	GRAB;SHEAR GOUGE,315/75E
38	SOUTHEAST	GRAB;SHEAR
39	SOUTHEAST	GRAB;QTZ.VEIN,5CM,GRANOD.,N-S/85W
40	SOUTHEAST	GRAB;SHEAR,5%,PY,BLEACHED INTRUS.
41	SOUTHEAST	GRAB;SHEAR,5%,PY,BLEACHED INTRUS.

42	SOUTHEAST	GRAB;GOSSAN EXTREMELY FRACT.
43	SOUTHEAST	GRAB;GOSSAN EXTREMELY FRACT.
44	SOUTHEAST	GRAB;SHEAR,2M,170/60E
45	SOUTHEAST	GRAB;SILTSTONE,BLEACH.,3%PY,SILIC.
46	SOUTHEAST	5CM;RUSTY SHEAR,090/85N
47	SOUTHEAST	GRAB;GOSSAN,EXTREMELY WEATHERED
48	SOUTHEAST	GRAB;SILTSTONE,SERICITIZED,5%PY
49	SOUTHEAST	GRAB 20CM;150/60W
50	SOUTHEAST	GRAB;DIORITE,SHATTERED,MODER. FE STAIN
51	SOUTHEAST	GRAB;DIORITE,SHATTERED,MODER. FE STAIN
52	SOUTHEAST	GRAB 5CM;QUARTZ VEIN,150/70S
53	SOUTHEAST	GRAB;QTZ-CALCITE-CHLORITE VEIN,5CM
54	SOUTHEAST	GRAB;SHEAR,DIORITE,N-S/45E
55	SOUTHEAST	GRAB;SHEAR,DIORITE,N-S/45E
56	SOUTHEAST	GRAB;RUSTY SHEAR,DIORITE
57	SOUTHEAST	FLOAT;QUARTZ VEIN,CHLORITE,FE-CARBONATE
58	SOUTHEAST	FLOAT;QUARTZ VEIN,CHLORITE,FE-CARBONATE
59	SOUTHEAST	GRAB;SHEAR,DIORITE,8% DISS. PY
60	SOUTHEAST	GRAB 40CM;SHEAR,DIORITE,SILICIFIED
61	SOUTHEAST	GRAB;GOUGE AND INTERMIXED PYRITE
62	SJ ZONE	FLOAT;QUARTZ-PYRITE VEIN
63	SNOW	FLOAT;QUARTZ VEIN MINOR PYRITE
64	SNOW	GRAB 5CM;QUARTZ-CARBONATE VEIN
65	SNOW	GRAB;QUARTZ VEIN 070/STEEPN
66	SNOW	FLOAT; QUARTZ VEIN
67	SNOW	GRAB;RUSTY GOSSAN ABOVE STRONG SHEAR
68	SNOW	GRAB;SHEAR,BLEACH.QTZ VEINING,MALACHITE
69	SNOW	GRAB;SHEAR,BLEACH.QTZ VEINING,MALACHITE
70	SNOW	GRAB;SHEAR,BLEACH.QTZ VEINING,MALACHITE
71	SNOW	FLOAT?;RUBBLE WITHIN TRACE OF SHEAR
72	SNOW	4CM;VUGGY QUARTZ-CHLORITE,N-S/62W
73	SNOW	FLOAT;EPIDOTE,BLEACH.,MALACHITE,PY
74	SNOW	FLOAT;EPIDOTE,BLEACH.,MALACHITE,PY
75	SNOW	FLOAT;SILTSTONE,MALACHITE
76	SNOW	GRAB 2CM;BLEACH.,PYRITIZATION ALONG SHEAR
77	SNOW	GRAB 2CM;BLEACH.,PYRITIZATION ALONG SHEAR
78	SNOW	FLOAT;RUSTY,COARSE QUARTZ
79	SNOW	GRAB 40 CM;QUARTZ IN FLAT SHEAR,MINOR PY
80	SNOW	GRAB 40 CM;QUARTZ IN FLAT SHEAR,MINOR PY
81	SNOW	GRAB 40 CM;QUARTZ IN FLAT SHEAR,MINOR PY
82	SNOW	GRAB 40 CM;QUARTZ IN FLAT SHEAR,MINOR PY
83	SNOW	GRAB;BRECCIATED VOLC.,IRREG.PY INFILLING
84	SNOW	GRAB;BRECCIATED VOLC.,IRREG.PY INFILLING
85	SNOW	FLOAT;SILTSONE,MALACHITE,DISS. PY
86	SNOW	FLOAT;SILTSONE,MALACHITE,DISS. PY
87	SNOW	4 CM;QUARTZ IN SHEAR,120/68S
88	SNOW	GRAB 50 CM;INTERMIXED PY &BRECCIATED VOLC.
89	SNOW	GRAB 50 CM;INTERMIXED PY &BRECCIATED VOLC.

90	SNOW	FLOAT;QUARTZ-PYRITE ,30% PYRITE
91	SNOW	FLOAT;QUARTZ-PYRITE ,30% PYRITE
92	SNOW	FLOAT;QUARTZ-PYRITE ,30% PYRITE
93	SNOW	FLOAT;QUARTZ-PYRITE ,30% PYRITE
94	SNOW	FLOAT;VUGGY QUARTZ-PYRITE
95	SNOW	GRAB 5CM;QUARTZ VEIN @005/70W
96	SNOW	FLOAT;QUARTZ VEIN WITH 25% PYRITE
PEL-90-J-1R	SOUTHEAST	GRAB;SILTSTONE,3% DISS. PY,FE STAINED
2	SOUTHEAST	GRAB 3M;SHEARED SERICITE SCHIST
3	SOUTHEAST	GRAB 3M;SHEARED SERICITE SCHIST
4	SOUTHEAST	GRAB 3M;SHEARED SERICITE SCHIST
5	SOUTHEAST	CHIP 10CM;GOSSAN WITH FLAT SHEARING
6	SOUTHEAST	GRAB 4CM;QUARTZ VEIN
7	SOUTHEAST	GRAB;SHEARED DIORITE,2-3% DISS. PY
8	SOUTHEAST	GRAB;SHEAR,DIORITE,060/85W,3% DISS. PY
9	SOUTHEAST	GRAB;DIORITE,3% DISS. PYRITE
10	SOUTHEAST	FLOAT;4CM PYRITE BAND IN QUARTZ VEIN
11	SOUTHEAST	FLOAT;SAME ROCK AS #10 QUARTZ ONLY
12	SOUTHEAST	FLOAT;QUARTZ,4% PYRITE IN 5CM CLOTS
13	SOUTHEAST	GRAB;SHEAR,CHLORITIC,3% DISS. PYRITE
14	SOUTHEAST	GRAB;SHATTERED DIORITE,2% PY,3CM QTZ VEIN
15	SOUTHEAST	GRAB 15CM;QUARTZ WITH 3-5% COARSE PYRITE
16	SOUTHEAST	GRAB 15CM;QUARTZ WITH 3-5% COARSE PYRITE
17	SOUTHEAST	GRAB;DIORITE,UNALTERED,WITIN 50 CM OF #16
18	SOUTHEAST	GRAB 25CM;QUARTZ VEIN WITH 5% PYRITE
19	SOUTHEAST	CHIP 2M;SILICIFIED ROCK,PYRITIZED
20	SOUTHEAST	CHIP 1M;SILICIFIED ROCK,PYRITIZED
21	SOUTHEAST	GRAB 20 CM;QUARTZ VEIN ,10% COARSE PYRITE
22	SOUTHEAST	GRAB 20 CM;QUARTZ VEIN,8% COARSE PYRITE
23	SOUTHEAST	GRAB 20 CM;QUARTZ VEIN ,10% COARSE PYRITE
24	SOUTHEAST	GRAB;SILICIFIED,5-10% DISS. PYRITE(88-J-81)
25	SOUTHEAST	FLOAT;20 CM QUARTZ VEIN,10% COARSE PYRITE
26	LAKE-AIRBORNE EM	DIORITE,SILICIFIED,5% DISS. PYRITE
27	LAKE-AIRBORNE EM	DIORITE,SILICIFIED,5% DISS. PYRITE
28	LAKE-AIRBORNE EM	BASALT DYKE,BLACK,3-5% DISS. PYRITE
29	LAKE-AIRBORNE EM	GRAB;GOSSAN,SILICIFIED,2% DISS. PYRITE
30	LAKE-AIRBORNE EM	GRAB;GOSSAN,SILICIFIED,2% DISS. PYRITE
31	LAKE-AIRBORNE EM	GRAB;GOSSAN,SILICIFIED,2% DISS. PYRITE
32	LAKE-AIRBORNE EM	GRAB;BASALT DYKE,DK GREEN,2-3% DISS. PY
33	LAKE-AIRBORNE EM	GRAB;DIORITE,SILICIFIED,FE STAINED,2% PY
34	LAKE-AIRBORNE EM	GRAB;DIORITE,SILICIFIED,FE STAINED,2% PY
35	SOUTHEAST	GRAB 3M;SHEAR,DIORITE,SILICIFIED,1-2% PY
36	SOUTHEAST	GRAB;SHATTERED CHERT,1-2% DISS. PYRITE
37	SOUTHEAST	GRAB;SHATTERED CHERT,1-2% DISS. PYRITE
38	SOUTHEAST	GRAB;SHATTERED CHERT,1-2% DISS. PYRITE
39	SERICITE NORTH	GRAB;SERICITE SCHIST,SILICA,3% PY
40	SERICITE NORTH	GRAB;SERICITE SCHIST,SILICA,3% PY
41	SERICITE NORTH	GRAB;SERICITE SCHIST,SILICA,<1% PY

42	SERICITE NORTH	CHIP 2M:SERICITE-SILICA ROCK,FE STAINED
43	SERICITE NORTH	FLOAT;VERY SILICIFIED SERICIT ROCK,FE STAIN
44	SERICITE NORTH	FLOAT;TALUS
45	SERICITE NORTH	GRAB;DIORITE?,HYROZINCITE?
46	SERICITE NORTH	GRAB;SHATTERED,SICIFIED ROCK,1-2% PY
47	SERICITE NORTH	FLOAT;CHLORITIC,SILICA ROCK,GREEN STAIN
48	SERICITE NORTH	CHLORITIC ALTERED ROCK,NUMEROUS QTZ VEINS
49	SNOW	GRAB;WEAKLY PYRITIZED BASALT
50	SNOW	GRAB 10CM;QUARTZ VEIN 30% PYRITE
51	SNOW	GRAB 20CM;IRREGULAR QUARTZ VEINS
52	SNOW	GRAB 3M;SILICIFIED,1M QTZ VEINS,1% DISS. PY
53	SNOW	GRAB 5M;SILICIFIED
54	SNOW	GRAB;QUARTZ VEIN ,5% PYRITE
55	SNOW	GRAB 20CM;QUARTZ VEIN IN BASALT?,DIORITE?
56	SNOW	GRAB:GOSSAN,4% DISS. PYRITE
57	SNOW	GRAB:GOSSAN,4% DISS. PYRITE
58	SNOW	GRAB:GOSSAN,4% DISS. PYRITE
59	SNOW	GRAB:GOSSAN,4% DISS. PYRITE
60	SNOW	GRAB;FRACT.,SILICIFIED SILTSTONE
61	SNOW	GRAB;BOXWORK GOSSAN
62	SNOW	GRAB;BOXWORK GOSSAN
63	SNOW	GRAB 10 CM;QUARTZ,25% PYRITE
64	SNOW	GRAB;IRREGULAR QUARTX VEIN,5% pyrite
65	SJ ZONE	FLOAT;QUARTX VEIN,2% PYRITE
66	SJ ZONE	FLOAT;GOSSAN BOXWORK
67	SJ ZONE	GRAB;SHEAR,FRACT.,SILICIFIED,50M WIDTH
68	SJ ZONE	GRAB;4-4CM QTZ VEINS,CHLORITE CLOTS
69	SJ ZONE	GRAB 4CM;QTZ VEIN,CHLORITE,160/20W
70	SJ ZONE	GRAB;SILTSTONE,BLEACH.,SERICITIZED.3% PY
71	SJ ZONE	GRAB 3CM;QUARTZ VEIN;8% PYRITE
72	SJ ZONE	GRAB;SLICIFIED,3-5% DISS. PYRITE
73	SJ ZONE	GRAB;SLICIFIED,3-5% DISS. PYRITE
74	SJ ZONE	GRAB;SLICIFIED,3-5% DISS. PYRITE
75	SJ ZONE	GRAB:SILICFIED,FRACT.,5-10% DISS. PYRITE
76	SJ ZONE	GRAB:SILICFIED,FRACT.,5-10% DISS. PYRITE
77	SJ ZONE	GRAB 5M;SHEAR,SERICITE SCHIST,1 MM PY SEAMS
78	SJ ZONE	GRAB;GOSSAN
79	SJ ZONE	GRAB;GOUGE,SHEAR IN SAMPLE #77
80	SJ ZONE	CHIP 2M;SHEAR
81	SJ ZONE	CHIP 2M;SHEAR
82	SJ ZONE	CHIP 2.5M;SHEAR AND ADJ PY-SILICA
83	SJ ZONE	GRAB;SILICIFIED,PYRITIZED
84	SJ ZONE	GRAB;QUARTZ VEIN,10% PYRITE
85	SJ ZONE	GRAG,VERY SILICIFIED,1% PYRITE
86	PELICAN	GRAB;GOSSAN ABOVE MAIN ZONE
87	PELICAN	GRAB 40CM;SHEAR,N-S,VERTICAL
88	PELICAN	GRAB;SHEAR,065/90
89	PELICAN	GRAB 5CM;QUARTZ VEIN 2-3% PY,060/90

90	PELICAN	GRAB 50CM;QUARTZ VEIN,090/70S
91	PELICAN	GRAB 15 CM;QUARTZ VEIN,2% SPHALERITE
92	PELICAN	GRAB 1.5M;FLAT SHEAR,FE STAINED
93	PELICAN	GRAB 1.5M;FLAT SHEAR,FE STAINED
94	PELICAN	GRAB;20 CM;TOP OF FLAT SHEAR,40% PY
95	AIRBORNE ANOM. K	ARGILLITE,SILTSTONE,BANDED,FE STAINED
96	AIRBORNE ANOM. K	ARGILLITE,SILTSTONE,BANDED,FE STAINED
97	LAKE RIDGE WEST	GRAB 3M;FLAT SHEAR WITH 1-5 CM QUARTZ VEINS
98	LAKE RIDGE WEST	GRAB 3M;FLAT SHEAR WITH 1-5 CM QUARTZ VEINS
99	LAKE RIDGE WEST	GRAB 3M;FLAT SHEAR WITH 1-5 CM QUARTZ VEINS
100	SERICITE WEST	GRAB;RUSTY SHEAR IN DIORITE
101	SERICITE WEST	GRAB;5% PYRITE IN 1CM CLOTS
102	SERICITE WEST	GRAB;BOXWORK GOSSAN,3% DISS. PYRITE
103	SERICITE WEST	FLOAT;SILICA ROCK,3% diss. pyrite
104	SERICITE WEST	FLOAT;SILICA ROCK,3% diss. pyrite
105	SERICITE WEST	grab 20 cm;quartz vein
106	SERICITE WEST	grab;quartz vein unkown width
107	SERICITE WEST	grab;siltstone,rusty
108	SERICITE WEST	grab;silicified,trace pyrite
109	SERICITE EAST-SJ	grab 30 cm;silica rock,30-40% pyrite
110	SERICITE EAST-SJ	grab;silicified,fractured,2% diss. pyrite
111	SERICITE EAST-SJ	grab;gossan boxwork,estimate 40% py
112	SERICITE EAST-SJ	grab;diorite,silicified,10% diss. pyrite
113	SERICITE EAST-SJ	grab 18 cm;8 cm galena,10 cm silicifed rock
114	SERICITE EAST-SJ	grab 1.5m;silicified rock adjacent to #113
115	SERICITE EAST-SJ	grab 40 cm;rusty qtz vein,133/60w
116	PINS	grab 3.5m;shear,125/45sw
117	PINS	grab;siltstone,silicified
118	PINS	grab;sheared diorite dyke
119	PINS	grab;sheared diorite dyke
120	PINS	grab;gossan,silicified,2-3% pyrite
121	PINS	grab,float;quartz,5% pyrite
122	PINS	grab;silicified,2-3% pyrite
123	PINS	grab 60 cm;vuggy quartz vein,no pyrite
124	SNOW	grab 30-60cm;irregular qtz vein,8%py
125	SNOW	grab 25 cm;quartz vein,10-20% pyrite
126	SNOW	grab;pyrite intermixed with quartz
127	SNOW	grab 1m;shear,1-2 cm seams of pyrite
128	SNOW	float;95% pyrite intermixed with quartz
129	SNOW	grab;irregular qtz-pyrite veins
130	SNOW	grab;silicified,1-2% diss py,fractured