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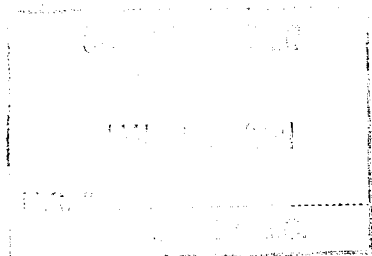
FILE NO:

KENA PROJECT

1990 DIAMOND DRILLING REPORT
ON THE K GROUP
DRILL HOLES K90-1 TO K90-4

NELSON MINING DIVISION

LAT. $49^{\circ}10'$; LONG. $117^{\circ}16'$
NTS 82F/6W



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

20,894

OWNER OF CLAIMS: OTTO & OTAKAR JANOUT, CHARLES PITTMAN,
ROBERT BOURDON, & NORAMCO MINING CORPORATION

OPERATOR: NORAMCO MINING CORPORATION

AUTHOR: W.J. LEWIS & D.A. SILVERSIDES

DATE: JANUARY 1991

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Introduction

This report was prepared in order to fulfill the requirements associated with the assessment credits applied to the K Group on November 1, 1990. The K Group consists of fractional, two post, and modified grid claims totalling 93 units located within the Nelson Mining Division.

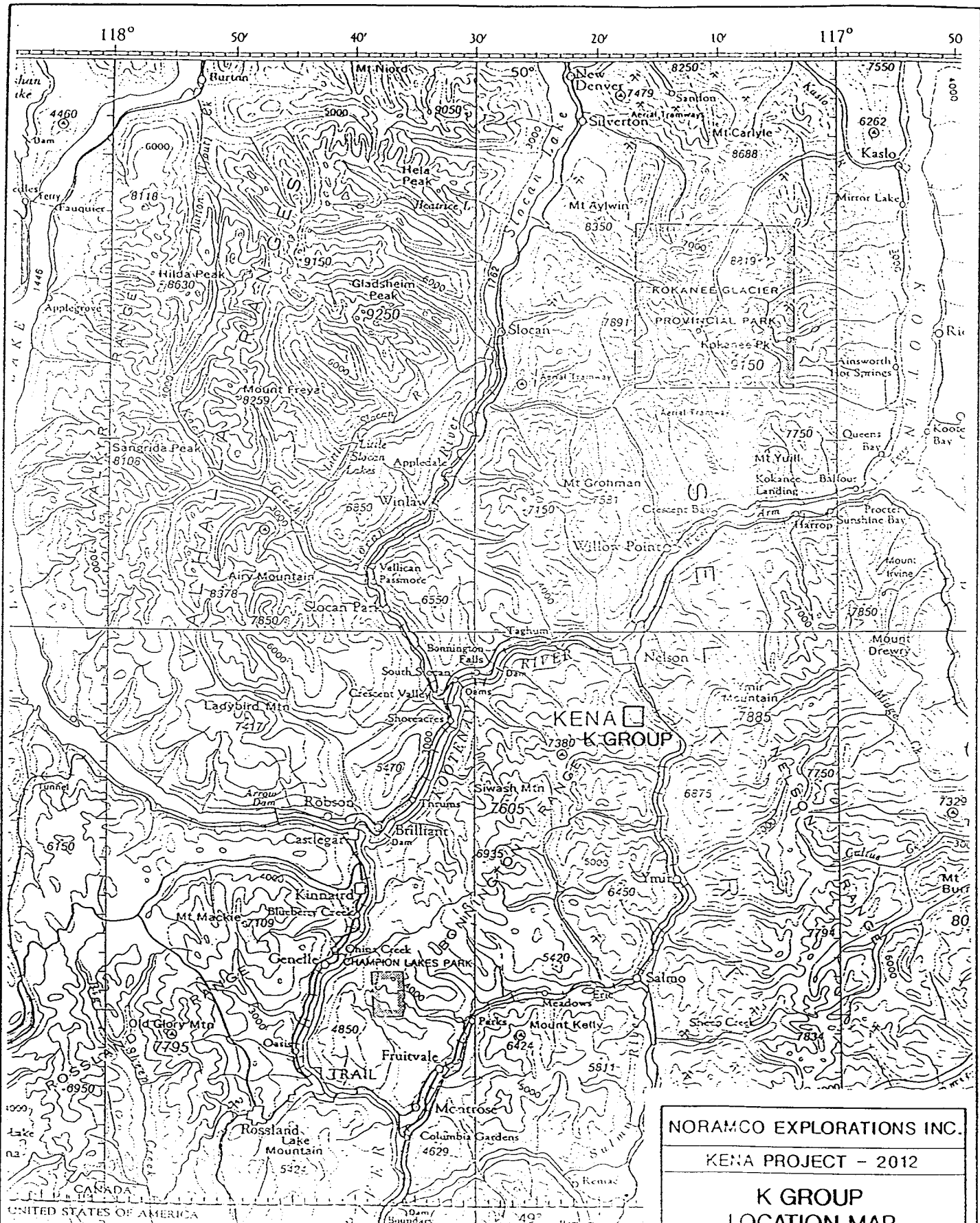
The direct costs associated with drilling four NQ diamond drill holes, during the period of October 15th to October 31st, 1990, was \$61,368.91, while costs associated with snow removal and water hauling totalled \$7,383.00. A portion of the previous figures, totalling \$53,300.00, was allocated to cover one to nine year's worth of assessment credits on the various claims which comprise the K Group.

Location and Access - See Fig. 1

The K Group is located approximately seven kilometres south of the city of Nelson, in southeastern British Columbia on NTS map sheet 82F/6.

Access to the property is via Highway #6A, connecting Nelson to Salmo, B.C., which runs through the eastern portion of the property. Access from Highway 6A is by the Giveout Creek and Gold Creek forestry roads, and by a number of four-wheel drive roads which run throughout the claims.

The claims are located on the northeast flanks of Toad Mountain, and much of the property covers the steeply forested slopes draining northeast and southeast into Cottonwood Creek. Elevations on the property range from approximately 895 metres at Cottonwood Lake to 1,795 metres above sea-level in the southwestern claim area.



NORAMCO EXPLORATIONS INC.

KENA PROJECT - 2012

**K GROUP
LOCATION MAP**

FIG. 1

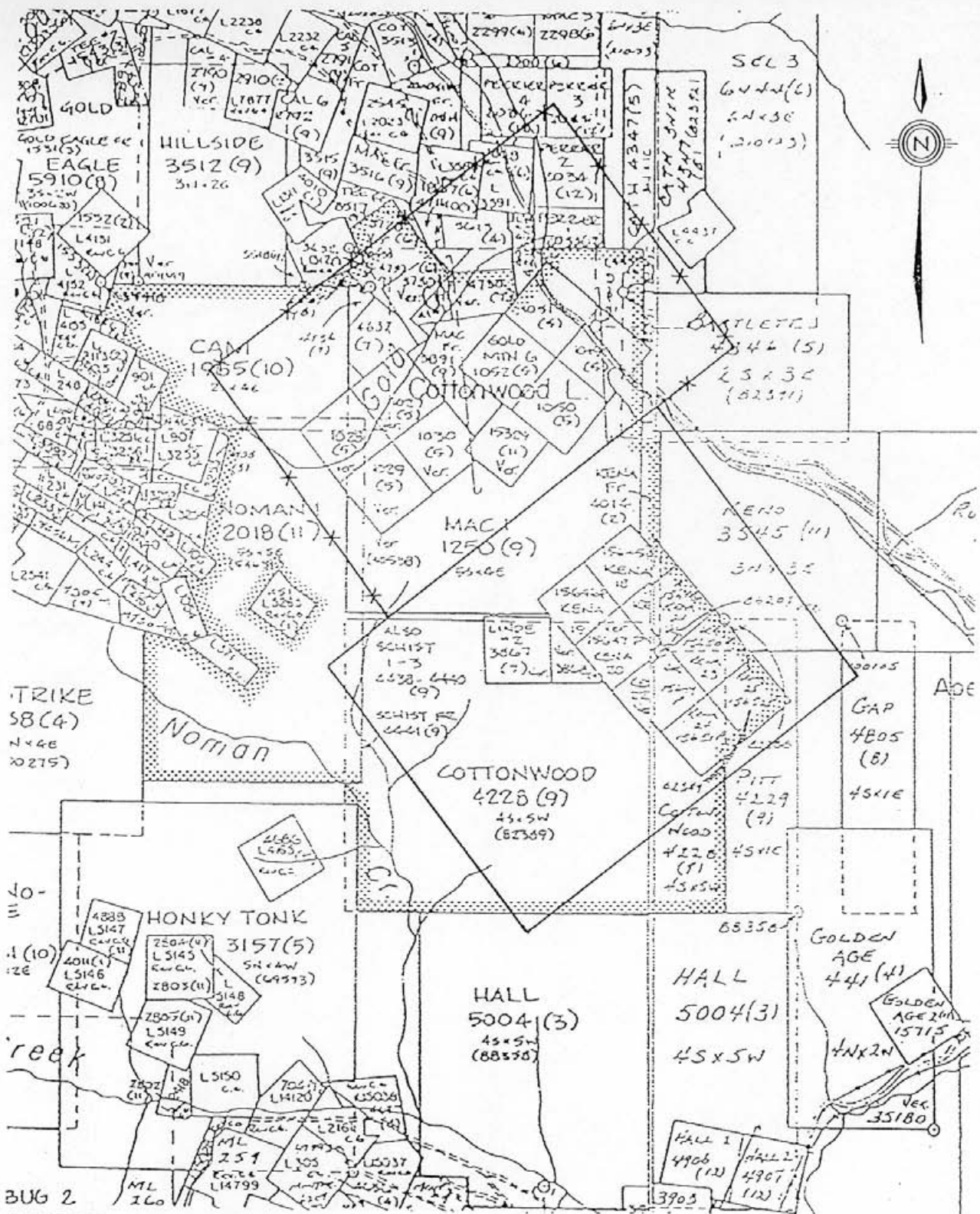
NORAMCO MINING CORP.

Property - See Fig. 2




The K Group is comprised of 30 fractional and two post mineral claims as well as 63 metric mineral claims located within the Nelson Mining Division. Claims details are as follows:

<u>Claims</u>	<u>Record No.</u>	<u>Expiry Date</u>	<u>Units</u>
Kena 7	15329	Nov. 5, 2000*	1
Kena 18	15645	Nov. 5, 2000*	1
Kena 19	15646	Nov. 5, 2000*	1
Kena 20	15647	Nov. 5, 2000*	1
Kena 21	15648	Nov. 5, 2000*	1
Kena 22	15649	Nov. 5, 2000*	1
Kena 23	15650	Nov. 5, 2000*	1
Kena 24	15651	Nov. 5, 2000	1
Kena 25	15652	Nov. 5, 2000	1
Mac 1	1250	Sept. 18, 2000*	20
Gold Mtn.	1028	May 3, 2000*	1
Gold Mtn. 1	1027	May 3, 2000*	1
Gold Mtn. 2	1029	May 3, 2000*	1
Gold Mtn. 3	1030	May 3, 2000*	1
Gold Mtn. 9Fr	1049	May 22, 2000*	1
Gold Mtn. 8	1050	May 22, 2000*	1
Gold Mtn. 7	1051	May 22, 2000*	1
Gold Mtn. 6	1052	May 22, 2000*	1
Linde 2	3867	Sept. 7, 2000*	1
Linde 1	3868	Sept. 7, 2000*	1
Kena Fr	4014	Feb. 7, 2000*	1
Mac Fr	3891	Sept. 25, 2000*	1
Magpie	4736	July 20, 2000*	1
Eldorado	4737	July 20, 2000*	1
Pactolus Fr.	4738	July 20, 2000*	1
Shaft Fr.	4739	July 20, 2000*	1
Deer Fr.	4740	July 20, 2000*	1
Pete	6567	Aug. 14, 2000*	1
Au 2	3728	June 5, 2000	1
Au 4	3730	June 5, 2000	1
Cam	1965	Oct. 9, 1993*	8
Noman #1	2018	Nov. 20, 1992*	15
Cottonwood	4228	Sept. 27, 1992*	<u>20</u>
		TOTAL	93

* Anniversary dates as per assessment credits filed on November 1, 1990 in Nelson Recording Office - see Appendix III.



AFTER PROVINCIAL STAKING MAP 82F/6E & W

-  GROUP K AREA FILED FOR ASSESSMENT CREDITS
-  LOCATION OF FIGURE 4 NORTH SHEET
-  LOCATION OF FIGURE 5 SOUTH SHEET

NORAMCO EXPLORATIONS INC.
KENA PROJECT - 2012
K GROUP LOCATION
FIG. 2
NORAMCO MINING CORP.

Previous Work

Mineralization in the Kena Claim area was first described in a report by G.M. Dawson, contained within the Geological Survey of Canada Summary Report for 1888 - 1889, on the Cottonwood Mine.

No further information on exploration appears in either the Geological Survey of Canada records or the Provincial Government records within the Ministry of Energy, Mines and Petroleum Resources, thus little is known about exploration within the claim area prior to 1973. Post 1973 exploration, however, has identified numerous old prospect pits and trenches, as well as several old adits indicating periods of high exploration activity in the early part of the century.

Otto Janout staked the original Kena claims in 1973 with exploration work having been carried out by various companies as follows:

1974 Ducanex Resources Ltd.

The Company collected soil samples and drilled four percussion holes within a gold prospect in the northern section of the claim block. Sampling of the main Kena trench in 1973 yielded 0.07 oz./ton gold over 32.5 feet. The soil samples were analyzed for gold, copper, silver and arsenic, with the analytical results described as 'erratic and inconclusive'. However, copper and gold values were high ranging up to 1,100 ppm and 4,600 ppb respectively with background gold around 350 ppb.

The company drilled four percussion holes aggregating 250 metres on the gold prospect. The results of the drilling suggested the presence of a mineralized zone from 20 to 40 feet thick of about 0.04 to 0.05 oz./ton gold. The zone strikes at about 290°, dips 60° to the southwest, and has a projected strike length of 750 feet.

Prospecting also resulted in the discovery of a large zone of copper mineralization in the southeastern section of the claims.

1975 Lacanex Mining Company Ltd.

A program of geological mapping and geochemical sampling was carried out over widespaced (400 - 800 ft.) grid lines. This work resulted in identifying a series of large linear copper anomalies in the southeastern portion of the claim block, which follow the regional foliation. 27 chip samples were taken in ten foot intervals along the entire 270 foot length of an old adit located within the Copper Zone (Noramco grid co-ordinates 92+34N 1+60W), with the samples averaging 0.16% Cu over the entire length. This adit was probably driven to intersect a two foot wide quartz vein at depth. A grab sample from the quartz vein assayed 1.1% Cu and 0.076 oz./ton Au.

Previous Work (cont'd...)

1976 - 77 Quintana Minerals Corp.

The program consisted of geological and geochemical surveys based on the hypothesis that visible sulphide mineralization within the Copper Zone represented the upward extent of a porphyry copper sulphide system. In 1977 the Company carried out a wide spaced I.P. survey along lines 800 feet apart with a dipole spacing of 300 feet. The work resulted in a chargeability anomaly parallel to the strike of the volcanics and approximately coincident with the copper geochemical anomaly. Lithochemical sampling ranged as high as 70 feet of 0.53% Cu cut along an outcrop of sericite schist.

1981 - 82 Kerr Addison Mines Ltd.

Their program consisted of both geological and geochemical surveys conducted over the entire property with six drill holes completed later. Three drill holes aggregating 528.5 metres were completed on the Kena Gold Zone. The best intercept from this work was 0.064 oz./ton gold over 15 metres in hole 81-KK-2.

Three widespaced holes aggregating 635.2M were completed in the Copper Zone. The top 51.0 metres of drill hole 81-KK-4 assayed 0.271% copper. Samples representing, 63 metres of the underlying 85 metres, three to four metre staggered intervals totalling 22 metres were not assayed, average 0.16% copper. Gold content in the hole locally ranged up to 0.01 oz./ton.

Sampled intervals in drill hole 81-KK-6, near the previously sampled adit, yielded 0.181% copper over a 45 metre section. Gold content ranged up to 0.01 oz./ton locally as in hole 81-KK-4. Where assayed sections of hole 81-KK-5 yielded from 0.10 to 0.22% copper over various section widths.

1985 Lacana Mining Corporation

Lacana Mining Corporation carried out a program of backhoe trenching and drilled 13 holes aggregating 1,315.8M. Twelve of the holes were in the Kena Gold Zone with one hole, LK 85-12, drilled approximately 175 metres south of the Kerr Addison hole 81-KK-4, at the northern end of the Copper Zone. However this hole (LK 85-12) was not analyzed for copper and no further work was carried out by Lacana on the Copper Zone.

The best drill intercept, beneath the main Kena Gold trench, yielded 0.178 oz./ton gold over 4.80 metres in hole LK-85-7. While a step out hole LK-85-18 drilled about 100M southeast of 85-7, yielded 1.86 metres grading 0.186 oz./ton gold.

Previous Work (cont'd...)

Other work carried out in this period included an airborne geophysical survey that measured magnetics, resistivity, electromagnetics and VLF-EM.

1986 Lacana Mining Corporation

Lacana's program consisted of an extensive grid covering an area about 1.70 kilometres by 0.70 kilometres mainly northwest of the Kena Copper Zone. A total of 22.6 line kilometres mainly at 50 metre spacing, were picketed at 25 metre centres. The Company carried out geological and geochemical surveys as well as magnetic and VLF-EM surveys. The soil samples were run for gold, with select lines analyzed for 30 elements by I.C.P. The Company drilled 23 (22)? holes in the area of the Kena Gold Zone and its postulated extension. Hole LK-86-20 yielded 9.03 metres grading 0.14 oz./ton gold.

Numerous intersections of auriferous and barren silicified and pyritized fracture zones were identified in the drilling. Many of these zones tend to be aligned along a broad northwest trend. Most of the individual higher-grade zones were narrow with sub-economic grade, and the general conclusion was that their spotty and discontinuous characteristics made them difficult targets to chase to depth.

1987 Tournigan Mining Exploration Ltd.

Tournigan drilled six holes aggregating 918.93 metres. All the core from this program was selectively split with 89 samples aggregating 134.61M analyzed for gold, silver and copper.

Drill hole TK-87-42 was collared between previous holes KK-81-4 and LK-85-12, within the Kena Copper Zone, in order to test anomalous gold and copper soil geochemistry and where there appeared to be a gap in previous drill coverage. Hole TK-87-42 was selectively sampled with 25 samples taken of which the best copper intersection was 0.175% Cu over 9.72 metres from 85.04 - 94.76 metres.

Drill Hole TK-87-43 was drilled to test Lacana's geological interpretation of section 45+50N as seen in their report dated November 1985.

Previous Work (cont'd...)

The best intersections were as follows:

<u>From</u>	<u>To</u>	<u>Length</u> (Metres)	<u>Au/PPB</u>	<u>Au/oz./ton</u>
18.93	20.43	1.5	1300	.04
20.43	21.93	1.5	1450	.04
102.52	104.02	1.5	1750	.05
117.20	119.20	2.0	1700	.05
125.96	127.46	1.5	1500	.04

These grades were taken to suggest a continuation in depth of narrow zones intercepted in hole LK-85-14 on Section 48+50N.

The last four holes TK-87-44 to TK-87-47 were located in order to intersect the possible southern extension of a mineralized fracture zone approximately 500 metres north of the property, known as the Shaft showing. However, no structure or mineralized zone was recognized which could be interpreted as the southern extension of the Shaft mineralization.

1989

Golden Lake Resources Ltd.

Golden Lake Resources Ltd. optioned the property from the Janouts' in late August 1989, following a property examination and review of data from previous work conducted in mid-July, 1989.

Personnel for Noramco Explorations Inc., operator for Golden Lake Resources Limited, spent several days at the Kena property in October, 1989. A preliminary work program was undertaken to locate and tie in claim posts and several old grids over which much of the previous work had been completed. The results of this work were used to compile technical data with the objective of formulating a detailed exploration plan for the property.

Noramco Mining Corporation optioned the property from Golden News in June, 1990 and assumed the option agreement obligations to the prospector vendors.

1990

Noramco Mining Corporation

The exploration program carried out on the Kena property started July 3, 1990 and continued through September, 1990. Geological mapping and soil sampling was conducted under the supervision of T. Lisle, P.Eng., whereas geophysical surveys were carried out by Delta Geoscience Ltd.

Previous Work (cont'd...)

Work was restricted to the Kena Copper Zone in the southern part of the property and to an area encompassing Gold Creek north of the old Lacana grid. No work was carried out in the Kena Gold Zone; however the "old Lacana" base line covering this zone was "tied in" with chain and compass to the Gold Creek area and Kena Copper grids. The results of the summer program are contained within a company report dated January, 1990 by T.E. Lisle. The results of the geophysical survey over the Kena Copper grid is contained in a report, dated November 21, 1990, by Grant Hendrickson of Delta Geoscience Ltd.

Regional Geology - see Fig. 3

The Kena property lies on the eastern limb of the Hall Creek Syncline, a south plunging fold associated with internal northwest-trending shearing that dominates the structure of the Nelson map area.

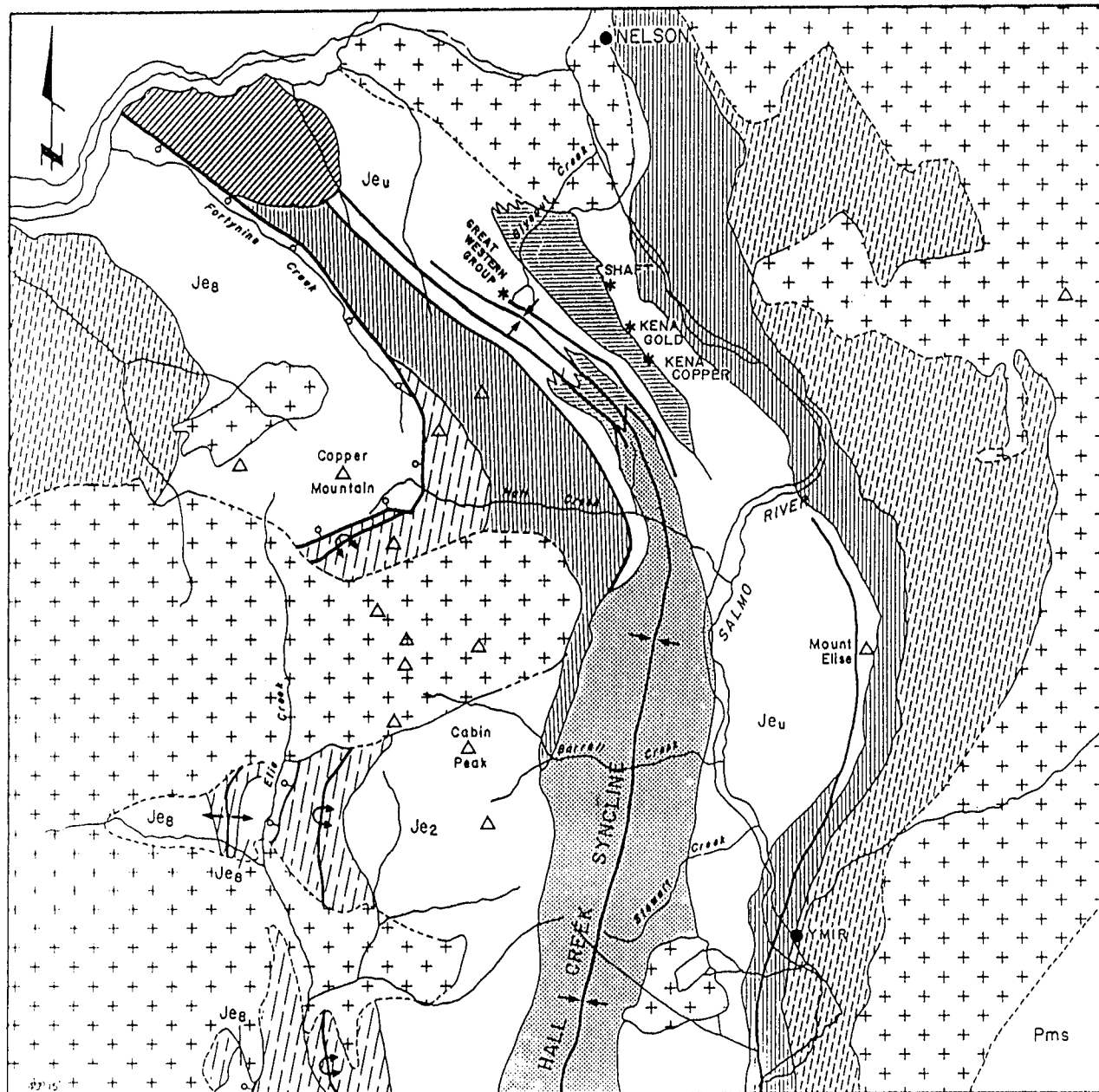
The syncline incorporates units of the lower Jurassic Rossland Group comprised of a basal assemblage of fine-grained clastic rocks of the Archibald Formation; volcanic rocks of the Elise Formation; and clastic rocks of the overlying Hall Formation. These are intruded by several coeval stocks, dykes and sill-like bodies of monzodiorite and by the lower Jurassic Silver King Porphyry (182 m.y.).

As well the Rossland Group is intruded by the middle Jurassic Nelson batholith (165 m.y.) and by a number of related granodiorite stocks.

Gold-copper mineralization in the Rossland Group is generally interpreted as being coeval with Lower Jurassic volcanism and ranges throughout a variety of deposit types including stratiform massive sulphides, skarns, and shear vein-stockworks associated with synvolcanic plutons. Mineralization occurring on the Kena property consists of shear vein and quartz stockworks containing pyrite and chalcopyrite with gold values.

Property Geology

The Kena property is underlain by intermediate to basic volcanic rocks of the upper Elise Formation which includes both pyroclastic and epiclastic members. The Elise volcanics are intruded by a synvolcanic monzodiorite complex, and by the younger Silver King Porphyry, a large coarse-grained plagioclase porphyry stock with related dykes and sills. The following is a description of lithologies encountered during mapping in 1990:



LEGEND

MIDDLE JURASSIC

+ + NELSON intrusions

LOWER OR MIDDLE JURASSIC (?)

diagonal lines diorite (?)

LOWER JURASSIC

ROSSLAND GROUP

horizontal lines SILVER KING intrusions

stippled pattern HALL FORMATION

ELISE FORMATION

upper Elise

Je_u intermediate to mafic crystal and fine tuff

Je_g intermediate lapilli and crystal tuff
lower Elise

Je₂ mafic pyroclastic breccia

vertical lines mafic flow breccia, flows

diagonal lines ARCHIBALD FORMATION / YMR GROUP

PALEOZOIC

Pms metasedimentary rocks

△ MOUNTAIN TOP

↑↔ ANTICLINE

↓↔ SYNCLINE

— FAULT

○ — FAULT (circle indicates downthrown slope)

— HIGHWAY

0 5 KM

NORAMCO EXPLORATIONS INC.
KENA PROJECT - 2012

REGIONAL GEOLOGY

FIG. 3

NORAMCO MINING CORP.

After Hoy and Andrew, 1989

Property Geology (cont'd...)

Tuff Assemblage

The Elise volcanic rocks include dark grey to green, fine to medium grained andesitic to basaltic tuff, plagioclase +/- augite crystal tuff, mafic fine tuff, lapilli tuff and felsic tuff. The assemblage is foliated and locally highly sheared along the northwest striking, southwest dipping foliation related to the Hall Creek Syncline. Augite-rich basalt flows, evident to the north of Gold Creek, are not recognized within the grid areas.

The lapilli tuff underlies and appears to form a relatively continuous unit along the northeast flank of the map area. In the southern section clasts of fine-grained mafic tuff and fine-grained intrusive occur in plagioclase-rich crystal tuff commonly highly altered by epidote and chlorite. Areas mapped as felsic tuff are commonly pale grey, fine-grained and pyritic. Suggestion that these rocks may be highly altered mafic to intermediate fine-grained tuff, or fine-grained intrusives indicates a need for further investigation.

The assemblage is commonly highly altered. In areas of intense shearing, chlorite-rich phyllite and schists are developed in the mafic units and sericite schists in the felsic units. Epidote is locally conspicuous, and carbonate in fractures of dissemination is widespread. Concentrations of 1% to 5% or more disseminated pyrite with minor chalcopyrite are common and fine-grained disseminated magnetite is evident in many areas of the Kena Copper grid.

Silver King Porphyry

The Silver King Porphyry stock is an elongate mass, up to 2.0 x 9.0 kilometres trending northwest along the northeast flank of the Hall Creek Syncline. Southerly sections of the stock are incorporated into the core of the Syncline.

Within the Kena property, the Silver King is a coarse to medium-grained plagioclase-hornblende porphyry. The unit is locally siliceous and in places weakly flooded with secondary potash feldspar. The plagioclase is weak to moderately sericitized, and hornblende is weak to locally highly chloritized. Epidote alteration is evident in many areas, and the porphyry is locally mineralized with up to 3% disseminated pyrite and traces of chalcopyrite.

Mapping indicates that the northeast margin of the Silver King Porphyry Stock is present in the upper Gold Creek area at an approximate elevation of 1,460M above sea level. The geological interpretation indicates that a fault trending northwest along the Gold Creek valley has resulted in a (right lateral) offset with the section north of Gold Creek moving northwest about 130 metres. Approximately 700 metres to the southeast of Gold Creek, a second fault of about the same trend has resulted in a similar offset of about 110 metres. The trace of the contact further to the southeast is not well defined.

Property Geology (cont'd...)

A number of dyke and sill-like masses of Silver King porphyry, roughly parallel to the contact, occur in a belt 400 to 500 metres northeast of the contact over a distance of about one kilometre southeast of Gold Creek. These masses are commonly less than two metres in width, and in places are highly sheared along the regional trend. To the northwest of Gold Creek, a large 170 to 200 metre wide section adjacent to the Silver King Porphyry contact is largely devoid of outcrop. It appears likely that Silver King Porphyry outcrops noted further to the north, may be part of the dyke-sill complex evident on the southeast side of Gold Creek, suggesting the complex trends through the Gold Creek area.

The Silver King porphyry occurs on the northwestern edge of the Kena Copper grid area and consists of the edge of a possible stock and a few dykes or sills. The southwestern extent of the porphyry is not completely known as the grid lines do not extend far enough to cover the contact area.

Monzodiorite Complex

A mafic intrusive complex in the Shaft - Kena area was recognized in 1988 by geologists working with the Provincial Ministry of Energy Mines and Petroleum Resources.

The complex is present throughout the length of the Kena property, a distance of slightly less than 4.0 kilometres, and commonly follows the regional foliation.

The complex commonly follows the regional foliation but appears to change from about 330° in the south to about 310° in the north.

The character of the monzodiorite is variable and at many sites, it is difficult to distinguish from altered volcanic units. Highly altered mafic crystal tuff for example resembles altered diorite. Fine-grained felsic phases (monzonites), highly sheared and sericitized, are difficult to distinguish from similarly altered felsic tuffs.

In the Kena Copper Grid area, a distinctive alteration phase or separate intrusion is present. A typical specimen may be buff to slightly pink in colour, fine-grained, locally porphyritic, rarely brecciated. The rock contains up to 5% altered fine biotite and augite? and in places is mineralized with disseminated pyrite, chalcopyrite and magnetite. Sections have been silicified by abundant quartz veinlets containing pyrite and chalcopyrite. Much of the previously investigated copper mineralization in the south part of the property occurs within or close to this unit.

Property Geology (cont'd...)

In the north two thirds of the property, the complex occurs as a number of narrow sills or dykes up to a few tens of metres wide. The geology in this area, particularly around and near Gold Creek, is highly disrupted resulting in uneven and locally discontinuous traces to the individual monzodiorite bodies.

Andesite Porphyry

Andesite porphyry, locally up to 150 metres wide, occurs in disjointed but persistent dyke-like northwest trending bodies.

The rock is grey to greenish-grey and containing 1% to (+)10% coarse plagioclase laths up to 1.0 cm long, and up to 10%, 1 to 3 mm black augite crystals set in a fine-grained ground mass. The rock is locally well altered by chlorite and epidote and in places contains up to 2% pyrite.

Sections of the porphyry with significant plagioclase crystal development resemble Silver King Porphyry. Sections of the porphyry with limited plagioclase crystal development resemble dioritic rocks, particularly when the unit has been sheared.

Mineralization

Mineralization observed within the Kena Copper and Gold Creek Grid areas is described in the following:

Kena Copper Grid

Alkalic porphyry style copper-gold mineralization occurs in the southeast section of the property. It is spatially related to the large monzodiorite complex. Chalcopyrite and pyrite occur as disseminations, fracture fillings and in quartz veinlets in the intrusive rocks, and as weaker disseminations and fracture fillings in tuffaceous rocks. The copper mineralization is commonly marked by malachite. The area is marked by sericitic and siliceous shear zones parallel to the foliation, and by zones of moderate to intense fracturing that are variably altered by propylitic assemblages of chlorite, epidote and carbonate. Magnetite occurs as disseminations and fracture fillings, and biotite is locally conspicuous and may be part of a broad zone of potassic alteration centered on the complex.

The Kena Copper Zone has been silicified by numerous quartz veins that both cross and follow the foliation. They vary from weak to strong in narrow fracture fillings, weak stockworks or rarely coarse veins up to a metre wide. Some of the veins are barren of sulphide. Others are vuggy, contain calcite and are mineralized with pyrite and chalcopyrite.

Mineralization (cont'd...)

Sections of the mineralized area have been examined by short underground workings and a few drill holes. This work has resulted in a number of wide intercepts of low-grade copper mineralization with low gold content. Typical examples include an 81.0 metre adit that graded 0.16% copper and a nearby drill hole that yielded 0.181% over 45 metres. Another drill hole about one kilometre to the northwest yielded 0.271% copper over 51.0 metres and a nearby 21 metre trench sample yielded 0.53% copper. Rock samples collected from the mineralized area in 1990 ranged up to 1,111 PPB gold and 4,631 PPM copper.

Gold Creek Grid Area

Exposures are very poor in this area and interest is mainly generated by the occurrence of highly anomalous gold values in soils. The area is interpreted as being underlain by dykes of Silver King Porphyry and tuffs which to the north on the Shaft property are highly silicified, pyritic and contain anomalous gold values. The Gold Creek area is considered to be a "geochemical anomaly target".

No mapping was carried out in the Kena Gold Zone which has been the focus of most of previous work on the Kena Property. Thirty-eight drill holes aggregating 5,116 metres have been completed. This work has resulted in a number of interesting but sub-economic mineralized intercepts including 7.3 metres at 0.117 oz./ton gold and 8.03 metres at 0.14 oz./ton gold. The higher grade intersections occur in silicified tuffs and are along the regional foliation, however not all the silicified zones are gold bearing and the ones that are tend to be spotty and discontinuous.

Geochemistry

Copper

The Kena Copper Zone grid is marked by a strong (values of greater than 370 ppm to a maximum of 4,977 ppm Cu) copper-in-soils anomaly occurring over a northwest trending area 1,400 kilometres in length (the limits of the survey) and 300 to 500 metres in width.

A second parallel area of anomalous copper-in-soils with values greater than 370 ppm to a maximum of 1,345 ppm copper occurs along the southwestern edge of the property.

No anomalous copper values were encountered in the Gold Creek grid area.

Geochemistry (cont'd...)

Gold

Both the Kena Copper Zone and Gold Creek area grids contain highly anomalous gold values in soils. Anomalous values are considered to be greater than 70 ppb Au.

In the Kena Copper Zone grid, anomalous gold values are concentrated in a northwest trending area 1,000 metres long and 300 to 400 metres wide. This area fringes the western side of the strong copper-in-soils anomaly situated in the central part of the grid and is also coincident with a second parallel anomalous copper area. Gold values as high as 2,570 ppb occur.

The Gold Creek grid area returned highly anomalous gold values over an area extending from Gold Creek to the north edge of the property boundary and from the western edge of the property to Base Line 500E. This area is approximately 750 metres long in a northwest direction and up to 300 metres wide in a southeast direction. Values range up to a high of 2,680 ppb gold.

Discussion of Diamond Drilling and Results

Between October 15 and October 31, 1990, four NQ diamond drill holes aggregating 1,055.00 metres were completed on the property. Two of the drill holes were in the Gold Creek area and the other two were within the Kena Copper Zone. See below for individual hole lengths and survey data, and Figures 4 and 5 for locations.

<u>Hole</u>	<u>Noramco Co-ordinates</u>	<u>Length (Metres)</u>	<u>Azimuth</u>	<u>Dip</u>	<u>No. of Samples</u>
K90-1	3+00N, 1+41.5E	245.35	060 ⁰	-75 ⁰	129
K90-2	3+00N, 1+41.5E	64.63	240 ⁰	-45 ⁰	41
K90-3	94+98N, 1+75 W	353.07	090 ⁰	-60 ⁰	149
K90-4	88+97N, 3+09 W	<u>391.95</u>	090 ⁰	-60 ⁰	<u>259</u>
		1055.00			578

For the purposes of geochemical analysis each hole was split primarily in 1.5 metre intervals. The entire length of holes K90-2 and K90-4 was split and selective splitting was carried out on holes K90-1 and K90-3.

Discussion of Diamond Drilling and Results (cont'd...)

The core samples were shipped to Vancouver where they were analyzed by Acme Analytical Laboratories. All of the core samples were analyzed for 30 elements by I.C.P. methods, with gold determination by F.A./I.C.P. from 10 gram samples. A partial check of Acme results was conducted in December 1990. 38 samples (rejects) from the best mineralized intersection of hole K90-4 were sent to Chemex Labs Ltd. in North Vancouver, where they were analyzed for seven elements, with gold determination by F.A./A.A. from 10 gram samples.

Drill logs for individual holes and analytical data (Acme Analytical Laboratories and Chemex Labs Ltd. results listings) are contained within Appendix III. The following is a summary of rock types and mineralization intersected in each hole:

Drill Hole K90-1

This hole was drilled to investigate gold anomalies detected in the soils overlying and adjacent to a gap devoid of outcrop lying between two areas of Silver King Plagioclase Porphyry.

The hole collared in and remained in andesite tuff, with two exceptions, until 77.59 metres. The exceptions were a diorite dyke from 20.27 - 21.64 metres and a Silver King Plagioclase Porphyry dyke or sill from 23.47 - 49.69 metres. A 2.66 metre lamprophyre dyke separates the andesite tuff from the Silver King Porphyry.

At 77.59m the andesite tuff is fine to medium grained +/- augite and hornblende crystals and variably altered by silica, calcite, chlorite and epidote. The unit is mineralized with trace to 3% pyrrhotite, trace fine grained magnetite, trace to 1% chalcopyrite and trace to 5% pyrite, with narrow sections in which pyrite up to 10% occurs as tiny stringers along schistosity (shear) or fracture plains.

The main body of the Silver King Plagioclase Porphyry extends from 80.25m down to the end of the hole at 245.35, with the exception of a 3.2 metre interval at 152.6 metres where a lamprophyre dyke intrudes the porphyry. The porphyry is mineralized with trace chalcopyrite, and trace to 5% pyrite.

With few exceptions, the analysis of the hole revealed generally low background concentrations for copper, lead, zinc and arsenic.

Traces of chalcopyrite within the andesite tuff yielded five scattered anomalous copper assays in the 180 - 197 ppm range and one assay of 812 ppm. The copper content within the Silver King Porphyry is usually less than 40 ppm.

CORE STORED ON SITE IN RACKS.

Discussion of Diamond Drilling and Results (cont'd...)

Lead assays range to 12 ppm; zinc assays range to 78 ppm; and arsenic assays range to 37 ppm. The first 20.27 metres of the hole is anomalous in arsenic, 20 - 27 ppm, and at first it appears to coincide with an elevated gold values contained within this interval. However elsewhere in the hole where anomalous gold occurs there is no corresponding increase in the arsenic and thus no case for a correlation between these elements can be readily made.

Gold content within the hole ranged from 13 to 12,700 ppb, with five samples assaying greater than 1,000 ppb. These higher assays are widely separated but contained within broader intersections containing anomalous gold values.

Five intervals returned anomalously high gold assays as follows:

<u>Interval</u>	<u>Length</u> (Metres)	<u>Cu (PPM)</u>	<u>Au (PPB)</u>
6.10 - 22.50m	16.4	94	380
48.00 - 78.00m	30.0	151	606
102.00 - 105.00m*	3.0	5	6,692.5
115.50 - 154.50m	39.0	24	340
157.50 - 165.00m	7.5	34	300

* Contains only two samples (686 ppm and 12,700 ppm)

The first two intervals, 6.10 - 22.50m and 48.0 - 78.0m, are located mainly within the andesite tuff while the last three units are confined to the Silver King Porphyry.

The zone from 6.10 - 22.50m includes the diorite dyke at 20.27 - 21.64m. The zone from 102.0 - 105.0m contains pyrite stringers up to 1.2 cm wide which occur along some fracture plains and the one assay of 12,700 ppb may be due to a nugget effect.

Drill Hole K90-2

This short hole was drilled to further investigate the width of the andesite tuff/diorite assemblage and to determine whether or not the hanging wall contact between the tuff assemblage and Silver King Porphyry was mineralized.

From surface to 46.65 metres, the hole encountered an assemblage of dacite tuff and diorite with subsequent intrusion by Silver King Porphyry dykes up to 6.6 metres in width. The assemblage is variably altered by silica, calcite, chlorite and epidote and is mineralized primarily with trace chalcopyrite and trace to 5% pyrite, some of which is disseminated but it mainly occurs within calcite stringers where it is up to 10%. Occasionally within the diorite. A trace of fine grained magnetite and trace to 1% pyrrhotite occurs.

Discussion of Diamond Drilling and Results (cont'd...)

At 7.20 - 13.80 metres an unusual Silver King Porphyry dyke occurs. This dyke unlike any others encountered so far has a high concentration (>30%) of dacite and diorite? clasts and has the local appearance of a breccia. Up to this point all of the Silver King Porphyry dykes encountered on the property have had few to no clasts of the surrounding rock assemblage within them.

Between 46.65 and the end of the hole at 64.61 metres, Silver King Porphyry similarly altered and mineralized as noted for the interval 153.80 to 245.35 metres in hole K90-1 was encountered. However unlike hole K90-1 and a previously drilled hole SH90-3, to the north on the Shaft property, the contact was not abrupt, but irregular with partially assimilated clasts of a tuffaceous or dioritic nature contained within the porphyry.

The analysis returned a range of assays with low background concentrations for copper, lead, zinc and arsenic which are generally comparable to hole K90-1.

Traces of chalcopyrite within the dacite and diorite assemblage yielded a few scattered anomalous copper values in the 167 - 223 ppm range. Copper values are generally less than 37 ppm in the Silver King Porphyry.

Once again as in hole K90-1, the upper portion of the hole was anomalous in arsenic, 21 - 27 ppm, which appeared to coincide with elevated gold values. As in hole K90-1 no correlation could readily be made between the elevated gold values and the increased arsenic content.

Gold content ranged to 905 ppm, with the upper portion of the hole averaging 371 ppb over 24.84 metres. This interval is most likely a continuation of the interval averaging 380 ppb Au over 16.40m intersected in the upper portion of hole K90-1.

Drill Hole K90-3

This hole was drilled to investigate an area of highly anomalous copper ranging to 4,977 ppm, in the soils.

The hole was collared and remained in an assemblage of tuffaceous rocks consisting of andesite and dacite tuffs with occasionally a diorite dyke or sill crosscutting the tuffs. Variable alteration of the assemblage included chlorite, sericite, carbonate (calcite), epidote, silica, and clay. Mineralization within the assemblage consists of trace chalcopyrite and trace to 5% pyrite, with mafic members containing up to 8% locally.

Discussion of Diamond Drilling and Results (cont'd...)

Analysis of the hole indicates that the copper content of the tuffaceous assemblage ranged from 9 to 3,745 ppm. Four intersections returned assays of anomalously high copper, over 1,000 ppm, and these are shown below:

<u>Interval</u>	<u>Length (Metres)</u>	<u>Cu (PPM)</u>	<u>Au (PPB)</u>
11.00 - 18.50m	7.5	2,797	201
30.50 - 41.00m	10.5	1,290	105
51.50 - 68.00m	16.5	1,581	117
188.00 - 201.50m	13.5	1,249	133

Lead (2 - 14 ppm), zinc (4 - 53 ppm), and arsenic (2 - 24 ppm) are found in low background concentrations.

Gold content of the hole ranges from 1 - 370 ppb with the average sample usually ranging between 30 and 140 ppb. Elevated gold values are sporadic, consisting of 2 - 5 consecutive samples, and can not be correlated with the elevated values of any other mineral.

Drill Hole K90-4

This hole was drilled to investigate an area of highly anomalous copper in the soils and outcrops of highly altered and pyritized monzodiorite containing disseminated chalcopyrite.

The assemblage cut by the hole consists of andesite and dacite tuffs, cross cut by diorite and monzodiorite dykes and sills. As well there is possibly dykes and sills of a andesite porphyry and felsic intrusive. The above assemblage is highly altered by carbonate (calcite), chlorite and occasionally silica, as well as by minor amounts of epidote, limonite, sericite and clay. In many cases the highly altered nature of the individual units has interfered with their visual interpretation. Mineralization consists of trace - 1% pyrrhotite, trace -1% magnetite, trace to 2% chalcopyrite (occasionally up to 4%) and a trace to 4% pyrite, with higher sections up to 10% usually associated with calcite stringers.

Analysis of the hole reveals that lead, zinc and arsenic are once again encountered generally in low background concentrations.

Discussion of Diamond Drilling and Results (cont'd...)

Copper content ranged from 33 - 6,109 ppm, with the average range above 200 ppm. A number of intersections returned highly anomalous copper values, over 950 ppm, as shown below:

<u>Interval</u>	<u>Length</u> (Metres)	<u>Cu (PPM)</u>	<u>Au (PPB)</u>
30.00 - 40.50m	10.5	957	624
66.00 - 79.50m	13.5	1,281	85
91.50 - 97.50m	6.0	2,180	141
102.00 - 105.00m	3.0	1,633	295
126.00 - 132.00m	6.0	2,321	114
139.50 - 196.50m	57.0	2,739	165
166.50 - 184.50m*	18.0	4,134	257
214.50 - 231.00m	16.5	1,289	80
238.50 - 250.50m	12.0	3,530	184
261.00 - 265.50m	4.5	1,062	48
271.50 - 276.00m	4.5	1,556	139
301.50 - 322.50m	22.5	1,769	116
354.00 - 369.00m	15.0	1,540	108

* Also located within the 139.5 - 196.5 intersection.

Gold content of the hole ranges from 10 - 1572 ppb with the average range from 30 to 240 ppb. The best intersection encountered was 624 ppb over 10.5m from 30.0 - 40.5m. As in hole K90-3 the elevated gold values are sporadic and cannot be correlated with the elevated values of other minerals.

Summary of Costs

A total of \$53,300.00 derived from \$68,751.91 drilling, snow removal, and water hauling costs was applied as assessment credits upon the K Group claims. This total was determined as follows:

Drill Holes K90-1 to K90-4 (October 15 - October 31, 1990)

I) Lone Ranger Diamond Drilling Co.*

Mobilization & Demobilization	\$ 2,000.00	
Casing @ \$15.50/ft. (64')	992.00	
<u>Footage Charges</u>		
First 500' @ 14.50/ft (1,748')	25,346.00	
500' to 1,000' @ 15.50/ft (1,005')	15,577.50	
After 1,000' @ 17.00/ft (451')	7,667.00	
Acid Tests @ 60.00/test (12)	720.00	
Tractor Time @ 75.00/hour (10 hr)	750.00	
Rig Time @ 90.00/hour (0.5 hr)	45.00	
Extra Labour @ 27.50/hour (16 hr)	440.00	
Material at cost + 12%	1,107.66	
Water Supply Labour @ 27.50/hour (219 hr)	6,022.50	
Travel Time @ 27.50/hour (25.5 hr)	701.25	
Lone Ranger Total	\$ 61,368.91	\$ 61,368.91

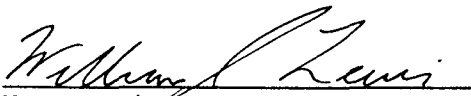
II) Leber Mines Ltd.*


Mobilization & Demobilization	\$ 270.00	
D7 @ 97.50/hour	3,705.00	
Leber Total	\$ 3,975.00	\$ 3,975.00

III) Gallant Trucking Ltd.* (Water Haul)

Mobilization & Demobilization	\$ 1,200.00	
Truck & Driver @ 48/hr (46 hr)	2,208.00	
Gallant Total	\$ 3,408.00	\$ 3,408.00

Job Total \$ 68,751.91


W.J. Lewis, B.Sc.
Noramco Exploration Inc.


D.A. Silversides, M.Sc.
Noramco Explorations Inc.

* Supporting invoices are included as Appendix IV.

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APPENDIX I

STATEMENT OF QUALIFICATIONS

Statement of Qualifications

I William J. Lewis of 305 - 6689 Willingdon Avenue, Burnaby, B.C. do hereby certify that:


- I am a Geologist employed by Noramco Exploration Inc. with a business address of #900 - 999 West Hastings Street, Vancouver, B.C.

- I am a graduate of the University of British Columbia with a Bachelor of Science Degree in Geology, 1985.

- That I am a member in good standing of:
 - Geological Association of Canada

- That I provided on site supervision of the drilling program from October 1 to November 15, 1990.

- That I assisted in the preparation of this report, for assessment purposes, describing the diamond drilling program carried out at the Kena Property by Noramco Explorations Inc. on behalf of Noramco Mining Corp.



William J. Lewis, B.Sc.
January 1991

Statement of Qualifications

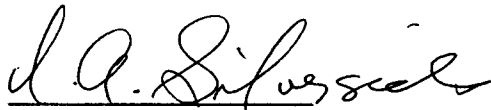
I David A. Silversides of 581 Ellis St., North Vancouver, B.C. certify:

- That I am a geologist employed by Noramco Explorations Inc. with business address of #900 - 999 West Hastings St., Vancouver, B.C.

- That I am a graduate of the University of British Columbia and hold a Bachelor of Science Degree (Honours Geology) 1961 and I hold a Master of Science Degree (Geology) University of Manitoba, 1968.

- That I am a member of good standing of:
 - Geological Association of Canada (Fellow)
 - Canadian Institute of Mining and Metallurgy

- That I have provided direct supervision of the Kena Property exploration programs from September 1, 1989 to November 15, 1990.



D.A. Silversides, B.Sc., M.Sc., F.G.A.C.
January 1991

APPENDIX III

DRILL LOGS, SAMPLE DATA DRILL LOGS
AND
ANALYTICAL CERTIFICATES
FOR
DRILL HOLES K90-1 TO K90-4

ABBREVIATIONS USED ON SAMPLE DATA DRILL LOGS

BREC, BX	-	Brecciated or Breccia
BKN	-	Broken
FRG	-	Fragments
FRX	-	Fracture
LOC	-	Local or Locally
SEC	-	Sections
STN	-	Strong
STP	-	Steep

DRILL LOG

K90-1

DRILL LOG

HOLE NO. K 90-1

DRILLING CO. <u>LONE RANGER DIAMOND DRILLING COMPANY</u>	LOCATION SKETCH	ACID TESTS		DATE STARTED:	PROJECT:	
		DEPTH	DIP ANGLE	AZIMUTH	<u>OCTOBER 19 1990</u>	<u>KENA</u>
		COLLAR	<u>-75°</u>	<u>060°</u>	DATE COMPLETED: <u>OCTOBER 22 1990</u>	N.T.S.: <u>82 F/6W</u>
		<u>90.83m</u>	<u>-74°</u>	<u>"</u>	COLLAR ELEV.: <u>~1505.0 METRES</u>	LOCATION: <u>GOLD CREEK</u>
		<u>182.87m</u>	<u>-74°</u>	<u>"</u>	NORTHING: <u>3+00N</u> } SHAFT	<u>ZONE</u>
		<u>245.35m</u>	<u>-75°</u>	<u>"</u>	EASTING: <u>1+41.5E</u> } GRID	
				AZIMUTH: <u>060</u>		
				DEPTH: <u>245.35 METRES</u>	DATE LOGGED: <u>OCT 20-24 1990</u>	
HOLE TYPE <u>CORE</u>				CORE SIZE: <u>NQ</u>	LOGGED BY: <u>W.J. LEWIS</u>	

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
<u>0</u>	<u>6.1m</u>	<u>CASING</u>					<u>CASING-THROUGH OVERBURDEN</u>
<u>6.10m</u>	<u>20.27m</u>	<u>ANDESITE TUFF</u>	<u>LIGHT TO DARK GREEN Loc mottled</u>	<u>FINE TO MED GR.</u>	<u>STRONG CHLORITE & CALCITE, LOCAL SERICITE, EPIDOTE IN CLOTS & STRINGERS LOCAL SILICIFICATION</u>	<u>TR-5% PYRITE TR-3% PYRRHOTITE TR-1% CALCOPYRITE</u>	<u>ANDESITE TUFF - FINE TO MED GRAINED, SLIGHTLY SCHISTOSE (SHEARED). CALCITE STRINGERS AT 60° TO C.A. WITH EPIDOTE REPLACEMENT OF THE CALCITE LOCALLY. PYRITE AND PYRRHOTITE OCCUR AS DISSEMINATED BLEBS AND ALONG FRACTURES , IN THE DIRECTION OF THE SCHISTOSITY AT ~55° TO C.A. LOCALLY THERE IS A TRACE OF CALCOPYRITE ALONG SOME OF THE MICROFRACTURES ~6.1-11.3m - WELL BROKEN AND STRONGLY SCHISTOSE (SHEARED) SECTION, WITH LIMONITE AND SERICITE ALTERATION WITHIN SOME FRACTURES. THIS SECTION APPEARS DIORITIC IN PART DUE TO THE CHLORITE ALTERATION FOR THE MOST PART ~11.3-14.3m - HIGHLY SILICIFIED SECTION, QUARTZ-CALCITE AND CALCITE STRINGERS AT 30-35° TO C.A. THE CALCITE REPLACES QUARTZ LOCALLY WITH EPIDOTE LATER REPLACING CALCITE LOCALLY. PYRITE AND PYRRHOTITE ARE PRIMARILY ASSOCIATED WITH THE QUARTZ-CALCITE AND</u>

DRILL LOG

HOLE NO. K 90-1

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							CALCITE STRINGERS. PYRITE AND PYRRHOTITE ARE PRIMARILY ASSOCIATED WITH THE QUARTZ-CALCITE AND CALCITE STRINGERS, WITH SOME DISSEMINATED PYRITE AND PYRRHOTITE.
							~14.3-17.4m - LOCALLY SILICIFIED WITH SOME SMALL STRINGERS OF AgK PORPHYRY ~2-17cm WIDE AT 50° TO C.A.
							~17.4-20.3m - SIMILAR TO 11.3-14.3m INTERVAL. TUFF IS LOCALLY DIORITIC IN APPEARANCE. POSSIBLE BEDDING AT 45-50° TO C.A.
20.27m	21.64m	DIORITE 3	DARK GREEN MOTTLED	FINE - MED. GRAINED	LOCAL SILICIFICATION STRONG CALCITE MODERATE EPIDOTE	TRACE - 10% PYRITE	DIORITE - POSSIBLE DIORITE DYKE, HIGHLY CALCITE ALTERED. CALCITE STRINGERS AT 45° TO C.A. PYRITE PRIMARILY WITHIN THE CALCITE STRINGERS WHERE IT LOCALLY CONSTITUTES UP TO 10%. MOTTLED COLOUR DUE TO LOCAL EPIDOTE REPLACEMENT OF THE CALCITE.
21.64m	23.47m	ANDESITE TUFF	LIGHT TO DARK GREEN	FINE TO MED. GR. POSSIBLE BEDDING	CHLORITE, CALCITE, EPIDOTE, SILICEOUS	TRACE - 5% PYRITE	ANDESITE TUFF - SIMILAR TO INTERVAL 17.4-20.3m POSSIBLE THIN BEDDING AT 45° TO C.A. PYRITE IS LOCATED PRIMARILY WITHIN THE CALCITE STRINGERS AT ~30-35° TO C.A.
23.47m	49.69m	SILVER KING PORPHYRY	WHITE TO LIGHT GREEN	PORPHYRITIC	CHLORITE, CALCITE, EPIDOTE, SILICEOUS, LOCAL LIMONITE	TRACE - 2% PYRITE TRACE PYRRHOTITE	AgK PORPHYRY - UPPER CONTACT AT 23.47 HAS A 15cm WIDE CHALKED MARGIN WITH A NARROW CALCITE STRINGER RUNNING ALONG THE CONTACT, AT ~35° TO C.A. THIS SECTION IS PRIMARILY UNALTERED WITH BOTH HORNBLANDITE AND BIOTITE PRESENT, HOWEVER THERE ARE LOCAL WELL

DRILL LOG

HOLE NO. K90-1

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							SILICIFIED ZONES WHICH RANGE FROM 1-35cm WIDE WITH THE OCCASIONAL ZONE THAT RANGES UP TO 1 METRE WIDE. LOCALLY SOME FRACTURES ARE LIMONITIC. PYRITE IS PRESENT AS STRINGERS UP TO 1/4 cm WIDE AND GENERALLY AT 30° TO C.A. CALCITE STRINGERS USUALLY ALONG FRACTURE PLAINS AND ARE POST SILICIFICATION. CHLORITE AND EPIDOTE OCCUR LOCALLY. AS WELL THERE IS THE OCCASIONAL QUARTZ STRINGER AT ~10° TO C.A. WHICH HAS BEEN FLOODED BY CALCITE AND CHLORITE.
49.69m	77.59m	ANDESITE XTAL TUFF? POSSIBLY MONZODIORITE	LIGHT TO DARK GREEN	FINE GR. TO XTALLINE	SILICEOUS, CALCITE CHLORITE, EPIDOTE	TRACE - 5% PYRITE TRACE - 1% PYRRHOTITE TRACE CHALCOPYRITE TRACE MAGNETITE	ANDESITE XTAL TUFF/MONZODIORITE? - MODERATELY SCHISTOSE, SOME CRYSTALS APPEAR TO BE STRECHED. SILICIFICATION APPEARS TO HAVE A FLOW STRUCTURE TO IT AT ~60-70° TO C.A. CALCITE STRINGERS HAVE FILLED MOST FRACTURES WITH THIS STRINGERS UP TO 45-50° TO C.A. MOST CALCITE STRINGERS CONTAIN PYRITE IN CONCENTRATIONS FROM TRACE TO 10% LOCALLY. PYRITE ALSO OCCURS AS STRINGERS UP TO 1/2 cm WIDE AND OCCASIONALLY IT IS DISSEMINATED AS WELL. PYRRHOTITE AND CHALCOPYRITE OCCUR BOTH AS DISSEMINATED SULPHIDES AND PREDOMINANTLY AS SMALL REELS WITHIN THE CALCITE & PYRITE STRINGERS. EPIDOTE & PYRITE APPEARS TO REPLACE FELDSPAR AND SOME MAfic CRYSTALS LOCALLY ~61.0-61.30m - SILICEOUS SECTION WITH CALCITE STRINGERS, PYRITE LOCALLY TO 4%, TRACE CHALCOPYRITE

DRILL LOG

HOLE NO. K 90-1

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							~ 64.87m - 6cm wide LAMPROPHYRE STRINGER AT 75° TO C.A.
							~ 66.28m - 3cm wide LAMPROPHYRE STRINGER AT 30° TO C.A.
							~ 71.50m - 2.5cm wide LAMPROPHYRE STRINGER
							~ 72.0m - 25cm wide LAMPROPHYRE STRINGER AT 64° TO C.A.
							~ 72.35m - 5cm wide LAMPROPHYRE STRINGER
							~ 74.65m - GROUP OF SMALL LAMPROPHYRE STRINGERS UP TO 1cm wide
							~ 76.68m - 3cm wide LAMPROPHYRE STRINGER. BRÉCCIATED APPEARANCE TO THE TUFF FROM THIS POINT DOWN TO THE CONTACT.
77.59m	80.25m	LAMPROPHYRE DYKE	DARK GREEN	MASSIVE	CALCITE		LAMPROPHYRE DYKE - MASSIVE, DARK GREEN, SLIGHT SCHISTOSITY (SHEARED) LOCALLY ~ 78.43 SMALL CALCITE STRINGERS CUT THE DYKE THE LOWER CONTACT AT 80.25m IS SHEARED AND HAS A CHILLED MARGIN. THE LAMPROPHYRE INTERFUS INTO THE LOWER AgK PORPHYRY AND THE CONTACT IS AT 20° TO C.A.
80.25m	150.60	SILVER KING PORPHYRY	DARK GREY TO WHITE MOTTLED	PORPHYRITIC	SILICEOUS, CALCITE CHLORITE (MINOR) EPIDOTE (MINOR)	TRACE - 5% PYRITE TRACE CHALCOPYRITE	AgK PORPHYRY - HIGHLY SILICEOUS ALONG THE CONTACT WITH THE LAMPROPHYRE DYKE AT 80.25m FRACTURES HAVE BEEN LOCALLY

DRILL LOG

HOLE NO. K 90-1

INTERVAL MÈTRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							SILICIFIED. ALTHOUGH THERE HAS BEEN SOME ALTERATION OF THE MAFICS BY EPIDOTE, CALCITE, AND CHLORITE, THE PORPHYRY IS GENERALLY UNALTERED. PYRITE IS PRIMARILY DISSEMINATED, HOWEVER IT ALSO OCCURS IN CALCITE STRINGERS ALONG WITH A TRACE OF CHALCOPYRITE.
							~ 88.3m - CALCITE STRINGER ~ 1/2 cm WIDE AT 30° TO C.A. WITHIN A FRACTURE
							~ 94.8m - 8cm WIDE ZONE CONTAINING MASSIVE BLENDS OF PYRITE, CONSISTING OF UP TO 10%, WITH A TRACE OF CHALCOPYRITE
							~ 97.5m - 10 cm WIDE ZONE OF CALCITE VEINS ALONG FRACTURE PLAINS. PYRITE ~ 5%
							~ 103.5-103.75m - STRINGERS OF PYRITE, UP TO 1/2 cm WIDE, ALONG FRACTURE PLAINS, AT 55-60° TO C.A.
							~ 114.4-124.6m - HIGHLY SILICEOUS SECTION WITH THE PORPHYRITIC TEXTURE MOSTLY OBSERVED. CALCITE STRINGERS, 1mm - 2cm, AT 10-50° TO C.A. CROSSCUT THE CORE. CHLORITE IS LOCALLY PRESENT IN THE STRINGERS.
							~ 115.5-117.0m - CALCITE STRINGERS UP TO 3/4 cm WIDE CROSSCUT THE CORE AT 35°-60° TO C.A. PYRITE IS PRESENT LOCALLY IN SOME STRINGERS.

DRILL LOG

HOLE NO. K 90-1

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							~ 121.45 m - 2 cm wide QUARTZ - CALCITE STRINGER AT 15° TO C.A.
							~ 124.60 m - 1 cm wide PYRITE STRINGER WITH A TRACE OF CHALCOPYRITE. THE STRINGER IS CUT BY A MICRO FRACTURE WITH ~ 1 cm DISPLACEMENT OF THE PYRITE STRINGER. THE MICRO-FRACTURE IS FILLED BY CALCITE
							~ 124.6 - 129.0 m - CALCITE FLOODED, SILICEOUS ZONE. CALCITE STRINGERS UP TO 2 cm THICK AT 30° - 85° TO C.A. BUT GENERALLY FROM 30° - 45° TO C.A.
							~ 129.0 - 136.5 m SILICEOUS ZONE WITH MINOR CHLORITE
							- 133.30 - 133.70 m ZONE OF 3-4% DISSEMINATED PYRITE WITH SMALL PYRITE STRINGERS ALONG SOME FRACTURES
							- 134.25 - 135.0 m AS ABOVE BUT 1-3% DISSEMINATED PYRITE
							~ 136.3 - 138.8 m - CALCITE FLOODED, SILICEOUS ZONE. GENERALLY DISSEMINATED PYRITE, TRACE - 2%, BUT VERY THIN PYRITE STRINGERS ARE PRESENT ALONG SOME MICROFRACTURES.
							~ 140.0 m CALCITE STRINGER VARYING IN WIDTH UP TO 1 1/2 cm.
							~ 140.3 - 150.6 m SILICEOUS ZONE WITH MODERATE

DRILL LOG

HOLE NO. K90-1

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							CHLORITE. PYRITE IS DISSEMINATED, TRACE - 2%, WITH THE OCCASIONAL PYRITE STRINGER. LOCAL EPIDOTE ALTERATION ALONG WITH SOME SILICEOUS FLOODING ALONG MICROFRACTURES.
							- 145.5 - 150.6m - HIGHER CONCENTRATION OF PYRITE 3-4% PRIMARILY DISSEMINATED, OR BLEBBY NATURE ALONG THE EDGES AND WITHIN FRACTURES. SOME CALCITE PRESENT
150.6m	153.80m	LAMPROPHYRE DYKE	DARK GREEN	FINE GR. TO MASSIVE	HIGH CALCITE MINOR CHLORITE MODERATELY SILICEOUS	TRACE - 5% PYRITE TRACE CHALCOPYRITE	LAMPROPHYRE DYKE - FINE GRAINED TO MASSIVE, DARK GREEN, HIGH CALCITE ALTERATION WITH NUMEROUS CALCITE STRINGERS TRENDING 0° - 5° TO C.A. PYRITE IS VERY FINE GRAINED AND FOR THE MOST PART ASSOCIATED WITH THE CALCITE. TRACE CHALCOPYRITE.
							- 152.2 - 153.80m - TRANSITION ZONE BETWEEN LAMPROPHYRE DYKE AND SILVER KING PORPHYRY
							- 152.2 - 153.43m AgK PORPHYRY, SILICEOUS WITH CALCITE ALTERATION. LOCALIZED CHLORITE PYRITE TRACE - 2%. AT 153.2 A THIN STRINGER OF LAMPROPHYRE IS PRESENT.
							- 153.43 - 153.80 LAMPROPHYRE STRINGER WITH A HIGH CONCENTRATION OF PYRITE, UP TO 5%.
							- 153.80m - LOWER CONTACT WITH AgK PORPHYRY THE CONTACT IS HIGHLY SCHISTOSE (SHANGED) WITH A VERY PROMINENT CHILL ZONE.
153.80m	245.35	SILVER KING PORPHYRY	DARK GREY WHITE	PORPHYRIC	SILICEOUS, CALCITE MINOR EPIDOTE AND CHLORITE	TRACE - 3% PYRITE	AgK PORPHYRY - SILICEOUS WITH LATER CALCITE ALTERATION. MINOR EPIDOTE REPLACEMENT OF FELDSPAR AND CALCITE. CHLORITE USUALLY LOCATED IN OR AROUND CALCITE STRINGERS. PYRITE IS

D R I L L L O G

HOLE NO. K 90-1

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							USUALLY DISSEMINATED IN CONCENTRATIONS OF UP TO 1%, BUT PYRITE ALSO OCCURS AS SMALL STRINGERS OR FRACTURE FILLINGS OF UP TO 3% LOCALLY.
							- 162.0 - 168.0 m - CALCITE RICH INTERVAL WITH MINOR EPIDOTE AND CHLORITE. SMALL PYRITE STRINGERS.
							- 167.5 ^m - 1 cm CALCITE STRINGER WITHIN A CALCITE ALTERED SILICEOUS SHEAR ZONE. PYRITE IS UP TO 3% WITHIN THE ZONE
							- 205.3 m - 1/2 cm WIDE LAMPROPHYRE STRINGER? AT 18" TO C.A.
END OF THE HOLE AT 245.35 METRES							

SAMPLE DATA DRILL LOG

K90-1

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME ANALYTICAL LABS

NUMBER	SAMPLE (METRES)			% REC	CORE RQD	S.G.	VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS					
	FROM	TO	LENGTH					Cu (PPM)	Pb (PPM)	Zn (PPM)	As (PPM)	Au** (PPB)	
43001	6.10	7.50	1.4 m	81%	1-20cm F&B 100% B&B & F&B			100	2	42	20	157	
43002	7.50	9.00	1.5 m	91%	5-40cm F&B 100% F&B			107	2	37	21	668	
43003	9.00	10.50	1.5 m	+100%	10-50cm F&B			56	2	49	21	216	
43004	10.5	12.0	1.5 m	100%	25-57cm F&B MASSIVE		94 ppm Cu	54	2	48	20	158	380 ppt Au
43005	12.0	13.5	1.5 m	100%	20-93cm F&B MASSIVE		OVER 16.40m	80	4	22	21	302	OVER 16.40m
43006	13.5	15.0	1.5 m	100%	50-90cm F&B			63	3	26	27	168	
43007	15.0	16.5	1.5 m	100%	51-40cm F&B 100% F&B & B&B			76	4	30	26	442	
43008	16.5	18.0	1.5 m	98%	1-45cm F&B 100% F&B & B&B			158	2	39	21	337	
43009	18.0	19.5	1.5 m	96%	51-35cm F&B 100% F&B & B&B			103	2	43	25	1139	
43010	19.5	21.0	1.5 m	98%	1-55cm F&B 100% F&B & B&B			124	2	63	19	315	
43011	21.0	22.5	1.5 m	+100%	1-50cm F&B 100% F&B & B&B			112	2	72	17	279	
43012	22.5	24.0	1.5 m	100%	20-70cm F&B MASSIVE			93	2	45	11	97	
43013	24.0	25.5	1.5 m	99%	15-80cm F&B MASSIVE			69	4	24	8	101	
43014	25.5	27.0	1.5 m	100%	5-50cm F&B			68	3	26	10	91	
43015	27.0	28.5	1.5 m	+100%	10-70cm F&B MASSIVE			53	6	38	9	125	
43016	28.5	30.0	1.5 m	100%	25-95cm F&B MASSIVE			32	6	38	11	34	
43017	30.0	31.5	1.5 m	99%	15-90cm F&B MASSIVE			26	7	40	9	34	
43018	31.5	33.0	1.5 m	99%	21-25cm F&B 100% F&B & B&B			22	8	25	10	244	
43019	33.0	34.5	1.5 m	99%	30-40cm F&B 100% F&B			10	6	27	6	132	
43020	34.5	36.0	1.5 m	99%	1-45cm F&B 100% F&B & B&B			35	5	35	2	97	
43021	36.0	37.5	1.5 m	100%	10-45cm F&B			30	8	42	7	42	
43022	37.5	39.0	1.5 m	99%	20-75cm F&B MASSIVE			14	7	40	7	47	
43023	39.0	40.5	1.5 m	99%	5-70cm F&B 100% B&B			15	8	32	10	105	
43024	40.5	42.0	1.5 m	99%	21-55cm F&B 100% F&B & B&B			26	6	28	13	165	
43025	42.0	43.5	1.5 m	+100%	15-70cm F&B MASSIVE			29	5	33	8	55	
43026	43.5	45.0	1.5 m	100%	21-65cm F&B 100% F&B & B&B			30	7	31	7	45	
43027	45.0	46.5	1.5 m	100%	10-40cm F&B 100% F&B & B&B			28	4	29	8	58	
43028	46.5	48.0	1.5 m	100%	5-95cm F&B			17	5	25	4	109	
43029	48.0	49.5	1.5 m	100%	10-60cm F&B MASSIVE			24	3	22	9	170	
43030	49.5	51.0	1.5 m	100%	41-50cm F&B			812	2	47	37	1944	
43031	51.0	52.5	1.5 m	99%	10-70cm F&B			59	2	48	17	662	

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME ANALYTICAL LABS

SAMPLE (METRES)				CORE			VISUAL ESTIMATES		ASSAY RESULTS					
NUMBER	FROM	TO	LENGTH	% REC	RQD	S.G.	(% ORE MINERALS)	Cu (PPM)	Pb (PPM)	Zn (PPM)	As (PPM)	Au** (PPM)		
43032	52.5	54.0	1.5m	99%	10cm-1.0m FINE MASSIVE			34	2	48	10	224		
43033	54.0	55.5	1.5m	100%	2cm-1.0m FINE MASSIVE			180	2	57	13	232		
43034	55.5	57.0	1.5m	100%	10cm-1.1m FINE MASSIVE			118	3	52	12	170		
43035	57.0	58.5	1.5m	100%	15cm-1.1m FINE MASSIVE			190	2	54	3	355		
43036	58.5	60.0	1.5m	100%	10-45cm FINE MASSIVE			180	2	47	8	930		
43037	60.0	61.5	1.5m	+100%	5cm-1.0m FINE MASSIVE			101	2	59	26	347		
43038	61.5	63.0	1.5m	+100%	25cm-1.3m FINE MASSIVE		151ppm Cu	60	2	58	10	142	606ppb Au	
43039	63.0	64.5	1.5m	98%	20-80cm FINE MASSIVE		OVER 30.0m	125	8	52	13	1306	OVER 30.0m	
43040	64.5	66.0	1.5m	98%	21-40cm FINE MASSIVE			131	6	62	12	281		
43041	66.0	67.5	1.5m	97%	10-40cm FINE MASSIVE			116	2	51	9	544		
43042	67.5	69.0	1.5m	97%	10-55cm FINE MASSIVE			197	2	47	14	457		
43043	69.0	70.5	1.5m	100%	21-30cm FINE MASSIVE			105	2	52	11	246		
43044	70.5	72.0	1.5m	100%	2-70cm FINE MASSIVE			157	2	49	9	120		
43045	72.0	73.5	1.5m	+100%	4-50cm FINE MASSIVE			107	7	68	7	120		
43046	73.5	75.0	1.5m	+100%	3-45cm FINE MASSIVE			76	12	67	10	279		
43047	75.0	76.5	1.5m	+100%	2-30cm FINE MASSIVE			198	4	46	20	3351		
43048	76.5	78.0	1.5m	+100%	21-35cm FINE MASSIVE			58	2	56	12	234		
43049	78.0	79.5	1.5m	100%	2-25cm FINE MASSIVE			64	2	72	2	8		
43050	79.5	81.0	1.5m	100%	10-60cm FINE MASSIVE			44	2	57	5	35		
43051	81.0	82.5	1.5m	84%	15-55cm FINE MASSIVE			2	3	32	4	77		
43052	82.5	84.0	1.5m	83%	20cm-1.3m FINE MASSIVE			7	2	40	3	41		
43053	84.0	85.5	1.5m	89%	5cm-1.0m FINE MASSIVE			4	2	33	3	23		
43054	85.5	87.0	1.5m	+100%	2-70cm FINE MASSIVE			4	2	35	2	23		
43055	87.0	88.5	1.5m	+100%	2-40cm FINE MASSIVE			5	2	28	2	56		
43056	88.5	90.0	1.5m	97%	15-30cm FINE MASSIVE			5	5	39	2	61		
43057	90.0	91.5	1.5m	95%	1-30cm FINE MASSIVE			3	2	29	3	23		
43058	91.5	93.0	1.5m	93%	1-50cm FINE MASSIVE			6	7	41	2	25		
43059	93.0	94.5	1.5m	98%	10cm-1.10m FINE MASSIVE			6	2	31	2	28		
43060	94.5	96.0	1.5m	+100%	7-85cm FINE MASSIVE			3	4	20	3	186		
43061	96.0	97.5	1.5m	100%	2-55cm FINE MASSIVE			5	2	35	6	32		
43062	97.5	99.0	1.5m	+100%	5-55cm FINE MASSIVE			6	3	43	4	38		

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME ANALYTICAL LAB

SAMPLE (METERS)		CORE			VISUAL ESTIMATES		ASSAY RESULTS					
NUMBER	FROM	TO	LENGTH	% REC	RQD	S.G.	(% ORE MINERALS)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Au** (ppm)
43063	99.0	100.5	1.5m	+100%	10-65cm Frag			4	2	32	3	39
43064	100.5	102.0	1.5m	+99%	21-30cm Frag 40cm Frag & 10cm			3	2	29	2	28
43065	102.0	103.5	1.5m	+100%	3-40cm Frag 6cm Frag & 10cm		Sppm Cu	5	2	28	2	685
43066	103.5	105.0	1.5m	+100%	21-65cm Frag 6cm Frag & 10cm		OVER 3.0m	5	3	28	2	12700
43067	105.0	106.5	1.5m	99%	4-75cm Frag 6cm Frag & 10cm			5	4	28	7	157
43068	106.5	108.0	1.5m	98%	10-50cm Frag			7	4	29	2	59
43069	108.0	109.5	1.5m	99%	21-40cm Frag 4cm Frag & 10cm			5	4	28	2	39
43070	109.5	111.0	1.5m	100%	30-70cm Frag			11	2	47	2	51
43071	111.0	112.5	1.5m	+100%	21-65cm Frag 4cm Frag & 10cm			10	5	31	5	49
43072	112.5	114.0	1.5m	+100%	21-45cm Frag 6cm Frag & 10cm			6	4	26	5	182
43073	114.0	115.5	1.5m	+99%	21-35cm Frag 6cm Frag & 10cm			5	3	18	2	47
43074	115.5	117.0	1.5m	99%	5-70cm Frag 20cm Frag			6	4	17	5	576
3075	117.0	118.5	1.5m	+99%	21-50cm Frag 6cm Frag & 10cm			5	5	20	4	626
43076	118.5	120.0	1.5m	100%	21-45cm Frag 6cm Frag & 10cm			12	3	19	2	788
43077	120.0	121.5	1.5m	98%	21-40cm Frag 6cm Frag & 10cm			17	4	18	3	476
43078	121.5	123.0	1.5m	+100%	21-30cm Frag 6cm Frag & 10cm			16	4	17	4	148
43079	123.0	124.5	1.5m	+99%	10-45cm Frag			7	5	20	16	474
43080	124.5	126.0	1.5m	+99%	4-35cm Frag 6cm Frag & 10cm			27	5	20	19	609
43081	126.0	127.5	1.5m	100%	4-40cm Frag 40cm Frag			12	6	31	5	88
43082	127.5	129.0	1.5m	97%	10-30cm Frag			27	5	18	5	165
43083	129.0	130.5	1.5m	95%	21-45cm Frag 6cm Frag & 10cm			20	3	15	7	264
43084	130.5	132.0	1.5m	85%	15cm-105cm Frag 10cm Frag			24	2	22	2	166
43085	132.0	133.5	1.5m	65%	15-50cm Frag			26	4	21	2	759
43086	133.5	135.0	1.5m	100%	25-40cm Frag			42	3	21	2	190
43087	135.0	136.5	1.5m	100%	10cm-90cm Frag 20cm Frag			34	5	28	3	272
43088	136.5	138.0	1.5m	99%	10cm-60cm Frag 6cm Frag & 10cm			10	2	16	5	68
43089	138.0	139.5	1.5m	99%	21-20cm Frag 6cm Frag & 10cm		24ppm Cu	36	4	22	10	672
43090	139.5	141.0	1.5m	100%	21-60cm Frag 6cm Frag & 10cm		OVER 3.0m	68	3	21	4	401
43091	141.0	142.5	1.5m	+100%	10-65cm Frag			19	4	24	2	139
43092	142.5	144.0	1.5m	100%	5-80cm Frag 6cm Frag & 10cm			29	4	29	6	119
43093	144.0	145.5	1.5m	100%	2-40cm Frag 6cm Frag & 10cm			30	3	27	3	125

↑ 6692.5 ppm Au
↓ OVER 3.0m

↑

340 ppm Au
OVER 3.0m

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME ANALYTICAL LAB

SAMPLE (METRES)			CORE		S.G.	VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS				
NUMBER	FROM	TO	LENGTH	% REC			RQD	Cu (PPM)	Pb (PPM)	Zn (PPM)	As (PPM)
43094	145.5	147.0	1.5m	100%	4m-1m F&B 6m-2m F&B		43	5	26	5	153
43095	147.0	148.5	1.5m	97%	10-45cm F&B		38	2	27	3	483
43096	148.5	150.0	1.5m	99%	21-80cm F&B 6m-2m F&B		28	3	17	2	163
43097	150.0	151.5	1.5m	100%	21-75cm F&B 6m-2m F&B		15	2	74	7	82
43098	151.5	153.0	1.5m	100%	20-45cm F&B MASSIVE		18	2	35	2	725
43099	153.0	154.5	1.5m	100%	10-60cm F&B		6	3	78	9	177
43100	154.5	156.0	1.5m	100%	10-60cm F&B MASSIVE		6	5	30	2	110
43101	156.0	157.5	1.5m	100%	20cm-1m F&B MASSIVE		38	4	33	2	81
43102	157.5	159.0	1.5m	99%	10-30cm F&B		60	8	20	6	361
43103	159.0	160.5	1.5m	100%	10-70cm F&B		44	5	23	5	214
43104	160.5	162.0	1.5m	100%	10cm-1.2m F&B MASSIVE	34ppm Cu OVER 7.5m	20	4	28	2	91
43105	162.0	163.5	1.5m	99%	20cm-60cm F&B		32	4	20	2	407
43106	163.5	165.0	1.5m	100%	1-60cm F&B 6m-2m F&B		16	6	18	5	425
43107	165.0	166.5	1.5m	100%	20-90cm F&B		7	3	18	2	126
43108	166.5	168.0	1.5m	96%	21-30cm F&B 4m-2m F&B		6	2	20	5	81
SELECTED SAMPLING		TO END OF HOLE									
43109	171.0	172.5	1.5m	98%	5-65cm F&B		7	2	31	2	15
43110	172.5	174.0	1.5m	99%	30-60cm F&B		4	4	24	7	46
43111	174.0	175.5	1.5m	100%	240cm F&B		4	3	23	2	465
43112	185.0	184.5	1.5m	100%	10-45cm F&B		19	5	26	5	146
43113	189.0	190.5	1.5m	99%	10-75cm F&B		6	2	44	2	14
43114	190.5	192.0	1.5m	99%	2-75cm F&B		7	4	43	3	13
43115	199.5	201.0	1.5m	100%	22-40cm F&B		13	3	18	2	72
43116	202.5	204.0	1.5m	100%	40-80cm F&B		6	5	31	2	53
43117	225.0	226.5	1.5m	99%	10-80cm F&B		16	4	30	2	105
43118	226.5	228.0	1.5m	99%	21-75cm F&B 6m-2m F&B		10	6	33	7	48
43119	228.0	229.5	1.5m	99%	2-60cm F&B 10cm F&B		29	5	30	2	98
43120	229.5	231.0	1.5m	99%	20cm-1.0m F&B		23	7	33	4	98
43121	231.0	232.5	1.5m	93%	5-35cm F&B		5	9	16	2	244

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME ANALYTICAL LAB

SAMPLE (METRES)				CORE			VISUAL ESTIMATES	ASSAY RESULTS					
NUMBER	FROM	TO	LENGTH	% REC	RQD	S.G.	(% ORE MINERALS)	Cu (PPM)	Pb (PPM)	Zn (PPM)	As (PPM)	Au** (PPM)	
43122	232.5	234.0	1.5m	93%	1-45cm F26 60cm RQM F26 5-40cm F26			17	5	26	12	133	
43123	234.0	235.5	1.5m	+100%				22	5	26	3	147	
43124	235.5	237.0	1.5m	+100%	10-75cm F26			26	4	27	4	190	
43125	237.0	238.5	1.5m	+100%	10-80cm F26 10-33cm F26 10-35cm F26			16	4	26	6	111	
43126	238.5	240.0	1.5m	100%				16	4	34	7	189	
43127	240.0	241.5	1.5m	100%	1-40cm F26 60cm RQM F26 10-60cm F26			16	7	38	3	55	
43128	241.5	243.0	1.5m	100%				3	4	40	3	28	
43129	243.0	245.35	2.35m	+99%	2-80cm F26 60cm RQM F26			23	5	32	7	58	
—	END OF	HOLE AT	245.35	METRES	—								

ANALYTICAL CERTIFICATES

K90-1

GEOCHEMICAL ANALYSIS CERTIFICATE

Noramco Exploration Inc. PROJECT 2012 (KENA)

File # 90-5538

Page 1

900 - 999 W. Hasting St., Vancouver BC V6C 2W2

Submitted by: B. LEWIS

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au**
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb
D 43001	2	100	2	42	.2	8	19	416	5.88	20	5	ND	1	63	.2	8	2	54	1.01	.132	4	2	1.39	75	.12	2	1.74	.03	1.09	1	157
D 43002	2	107	2	37	.5	8	19	521	5.75	21	5	ND	1	296	.2	7	4	48	2.67	.100	4	3	1.37	58	.09	2	1.28	.03	.84	1	668
D 43003	1	56	2	49	.2	10	23	570	6.44	21	5	ND	1	67	.2	2	2	57	1.71	.122	2	3	1.79	83	.16	2	2.15	.04	1.46	1	216
D 43004	1	54	2	48	.2	9	18	728	5.82	20	5	ND	1	79	.2	2	2	51	1.70	.120	2	3	1.99	86	.18	2	2.50	.07	1.64	1	158
D 43005	1	80	4	22	.1	8	18	519	4.99	21	5	ND	1	111	.2	2	3	42	2.78	.143	3	5	.51	69	.16	3	1.05	.06	.48	1	302
D 43006	2	63	3	26	.2	9	17	432	5.81	27	5	ND	1	110	.2	2	3	50	2.12	.133	3	15	.64	63	.17	3	1.15	.06	.59	1	168
D 43007	2	76	4	30	.5	6	15	439	5.17	26	5	ND	1	73	.2	2	5	50	1.99	.105	6	2	.89	55	.13	2	1.15	.04	.70	1	442
D 43008	7	158	2	39	.6	9	15	451	5.63	21	5	ND	2	68	.2	2	5	57	1.74	.102	7	18	1.22	62	.13	2	1.44	.04	1.02	1	337
D 43009	4	103	2	43	.5	7	18	551	6.31	25	5	ND	1	76	.2	2	3	58	2.08	.111	6	3	1.33	84	.12	2	1.62	.04	1.14	2	1139
D 43010	1	124	2	63	.6	17	20	909	6.62	19	5	ND	1	90	.2	2	2	93	2.35	.121	3	17	2.26	114	.19	4	2.95	.03	1.96	2	315
D 43011	1	112	2	72	.2	22	23	1208	6.49	17	5	ND	1	85	.2	2	2	101	2.58	.119	2	27	2.28	96	.20	2	2.91	.03	1.93	1	279
D 43012	3	93	2	45	.2	11	17	673	3.97	11	5	ND	1	84	.2	2	2	36	1.76	.132	2	23	1.26	118	.13	3	1.68	.04	1.05	1	97
D 43013	1	69	4	24	.3	4	6	309	2.05	8	5	ND	2	69	.2	2	2	14	1.35	.047	4	4	.29	35	.06	4	.56	.05	.26	1	101
D 43014	2	68	3	26	.2	6	3	311	1.60	10	5	ND	2	78	.2	2	2	12	1.60	.046	6	7	.27	30	.04	5	.52	.04	.21	2	91
D 43015	3	53	6	38	.4	9	5	343	1.93	9	5	ND	2	80	.2	2	2	17	1.11	.048	6	10	.33	35	.07	4	.67	.06	.25	1	125
D 43016	2	32	6	38	.1	8	5	369	1.81	11	5	ND	1	87	.2	2	2	15	.85	.050	4	10	.40	25	.08	6	.72	.08	.12	4	34
D 43017	4	26	7	40	.1	8	4	368	1.78	9	5	ND	1	83	.2	2	2	15	.88	.045	4	29	.36	28	.07	6	.67	.08	.14	1	34
D 43018	2	22	8	25	.3	6	5	365	2.07	10	5	ND	2	107	.2	2	2	4	2.20	.044	6	4	.18	56	.01	5	.35	.04	.16	1	244
D 43019	2	10	6	27	.1	6	4	392	2.08	6	5	ND	1	105	.2	2	2	11	1.60	.044	5	7	.23	33	.03	4	.48	.04	.17	1	132
D 43020	2	35	5	35	.1	8	5	345	2.28	2	5	ND	1	72	.2	2	3	15	.80	.046	5	7	.34	32	.07	4	.64	.07	.23	1	97
D 43021	1	30	8	42	.1	5	4	473	1.96	7	5	ND	1	100	.2	2	2	15	1.18	.048	5	5	.40	31	.06	4	.73	.06	.13	1	42
D 43022	4	14	7	40	.1	8	4	426	1.84	7	5	ND	1	105	.2	2	2	16	1.01	.047	5	30	.36	44	.06	4	.68	.06	.14	1	47
D 43023	1	15	8	32	.2	4	5	378	2.55	10	5	ND	2	70	.2	2	2	15	1.03	.047	6	4	.32	28	.05	4	.58	.06	.18	1	105
D 43024	3	26	6	28	.3	8	4	338	2.51	13	5	ND	2	94	.2	2	2	13	1.39	.048	7	9	.25	38	.03	5	.51	.05	.20	2	165
D 43025	1	24	5	33	.1	6	4	362	1.91	8	5	ND	1	66	.2	2	2	15	.80	.047	4	7	.37	26	.08	4	.64	.06	.20	3	55
D 43026	3	30	7	31	.2	8	3	366	1.86	7	5	ND	1	71	.2	2	2	16	.89	.044	4	29	.34	28	.06	4	.62	.06	.17	1	45
D 43027	1	28	4	29	.2	3	4	391	2.10	8	5	ND	2	71	.2	3	2	17	1.07	.043	5	3	.33	31	.05	5	.60	.05	.18	1	58
D 43028	4	17	5	25	.2	9	6	338	1.85	4	5	ND	1	65	.2	2	2	18	.84	.043	4	32	.31	30	.07	6	.60	.09	.20	2	109
D 43029	1	24	3	22	.1	4	6	371	1.92	9	5	ND	1	71	.2	2	2	16	1.51	.045	8	5	.32	31	.03	4	.52	.05	.15	14	170
D 43030	3	812	2	47	2.2	20	71	761	8.17	37	5	ND	1	75	.4	2	2	81	1.82	.102	4	19	1.56	66	.13	2	1.76	.03	1.04	39	1944
D 43031	4	59	2	48	.4	30	31	996	6.64	17	5	ND	1	56	.2	2	2	88	1.88	.096	2	78	1.72	73	.17	2	1.97	.04	1.25	1	662
D 43032	1	34	2	48	.2	20	30	902	5.81	10	5	ND	1	64	.2	2	2	84	1.61	.105	2	16	1.42	77	.19	2	1.83	.03	1.14	2	224
D 43033	1	180	2	57	.4	18	29	864	5.72	13	5	ND	1	68	.2	2	2	113	1.18	.124	2	19	1.69	101	.22	2	2.26	.08	1.11	1	232
D 43034	1	118	3	52	.4	16	30	821	5.56	12	5	ND	1	63	.2	2	2	111	.79	.101	2	10	1.73	89	.22	2	2.38	.08	1.31	1	170
D 43035	1	190	2	54	.4	17	24	860	5.54	3	5	ND	1	86	.2	2	2	115	1.18	.106	2	40	1.88	173	.22	2	2.58	.07	1.47	8	355
D 43036	1	180	2	47	.4	19	19	782	5.01	8	5	ND	1	79	.2	2	2	97	1.40	.115	2	57	1.64	150	.21	2	2.26	.08	1.33	1	930
STANDARD C/AU-R	19	63	40	133	7.1	73	31	1052	3.96	39	17	7	38	53	19.8	15	18	60	.46	.096	41	60	.89	183	.08	35	1.89	.06	.13	11	509

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

DATE RECEIVED: OCT 25 1990 DATE REPORT MAILED: *Oct 31/90* SIGNED BY: *C. Chung* 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
D 43037	1	101	2	59	.6	13	28	988	6.00	26	5	ND	2	146	.2	6	8	96	2.03	.112	3	20	2.20	89	.17	3	2.78	.04	1.52	1	347
D 43038	1	60	2	58	.1	11	22	977	5.46	10	7	ND	1	92	.7	2	2	99	1.44	.119	2	14	2.18	221	.22	2	2.87	.09	1.77	1	142
D 43039	1	125	8	52	.6	11	28	865	5.55	13	5	ND	1	70	.2	2	2	97	1.35	.120	3	14	1.91	98	.20	2	2.26	.12	1.36	1	1306
D 43040	2	131	6	62	.4	17	15	942	5.11	12	6	ND	1	154	.8	2	2	101	1.64	.142	9	23	2.13	217	.22	2	2.74	.10	1.68	1	281
D 43041	1	116	2	51	.4	14	22	855	5.12	9	5	ND	1	132	.5	2	2	99	1.83	.127	5	14	1.91	155	.19	2	2.37	.07	1.42	1	544
D 43042	1	197	2	47	.7	12	26	873	5.08	14	6	ND	1	91	.7	2	2	91	1.96	.122	3	14	1.60	130	.19	2	2.03	.09	1.10	2	457
D 43043	1	105	2	52	.4	13	22	917	5.03	11	5	ND	1	122	.6	2	4	97	2.00	.115	3	13	1.78	180	.20	3	2.36	.09	1.40	1	246
D 43044	1	157	2	49	.6	14	21	904	5.08	9	5	ND	2	267	.7	2	2	110	2.75	.152	15	20	1.96	185	.17	3	2.48	.15	.97	1	120
D 43045	2	107	7	68	.2	36	19	890	5.96	7	13	ND	6	383	1.3	2	2	117	2.71	.385	68	58	2.49	243	.26	2	2.79	.22	1.08	1	120
D 43046	1	76	12	67	.5	53	25	878	5.41	10	5	ND	8	481	1.3	3	2	91	3.25	.513	97	62	2.76	164	.16	2	2.23	.13	.89	1	279
D 43047	1	198	4	46	.9	15	28	1011	6.78	20	7	3	2	142	.6	3	2	109	2.85	.112	5	14	1.90	58	.17	3	2.32	.10	.97	8	3351
D 43048	1	58	2	56	.1	31	19	989	5.89	12	5	ND	4	350	.5	2	2	124	3.75	.266	46	31	2.40	170	.21	2	2.85	.17	1.00	3	234
D 43049	1	64	2	72	.3	79	22	860	5.00	2	5	ND	10	599	.6	2	2	87	3.82	.497	136	56	3.29	779	.13	2	2.12	.20	.69	1	8
D 43050	2	44	2	57	.4	53	20	713	4.06	5	5	ND	8	504	.4	3	8	68	3.08	.417	90	46	2.57	322	.19	5	1.65	.16	.54	1	35
D 43051	1	2	3	32	.1	4	5	414	1.76	4	5	ND	1	88	.2	2	2	14	1.00	.048	5	4	.40	28	.06	3	.64	.06	.15	1	77
D 43052	3	7	2	40	.2	6	6	443	1.87	3	5	ND	1	92	.5	2	2	16	.75	.048	5	28	.43	28	.08	6	.80	.09	.21	1	41
D 43053	1	4	2	33	.1	2	5	410	1.63	3	5	ND	1	98	.4	2	2	13	.92	.045	5	3	.38	25	.06	3	.71	.06	.17	1	23
D 43054	1	4	2	35	.1	5	4	375	1.36	2	5	ND	1	100	.6	2	2	13	.88	.045	4	7	.40	46	.07	2	.71	.07	.16	2	23
D 43055	1	5	2	28	.1	6	3	386	1.48	2	5	ND	1	118	.4	3	2	14	1.11	.047	5	5	.38	34	.07	4	.74	.08	.15	1	56
D 43056	2	5	5	39	.1	6	5	362	1.62	2	5	ND	1	104	.2	2	4	14	.73	.047	3	8	.41	23	.08	3	.70	.08	.14	4	61
D 43057	1	3	2	29	.1	6	4	354	1.32	3	5	ND	1	123	.2	2	3	12	.75	.048	3	5	.39	26	.08	4	.72	.08	.14	1	23
D 43058	3	6	7	41	.1	6	3	391	1.42	2	5	ND	1	125	.5	2	7	14	.97	.046	5	25	.39	39	.07	5	.75	.07	.18	1	25
D 43059	1	6	2	31	.2	2	4	400	1.52	2	5	ND	1	111	.2	3	3	16	.85	.048	4	4	.43	30	.09	2	.73	.07	.25	1	28
D 43060	3	3	4	20	.1	7	5	266	2.53	3	5	ND	1	65	.2	3	2	14	.89	.045	5	27	.31	32	.08	2	.62	.08	.26	1	186
D 43061	1	5	2	35	.1	2	4	476	1.76	6	5	ND	1	138	.2	4	2	15	1.25	.047	5	3	.38	92	.07	4	.77	.07	.19	1	32
D 43062	2	6	3	43	.1	10	5	426	1.70	4	5	ND	1	90	.3	2	2	15	.82	.047	4	10	.41	28	.08	2	.73	.08	.20	4	38
D 43063	2	4	2	32	.1	6	5	412	2.03	3	5	ND	1	87	.2	2	8	14	.85	.047	4	7	.38	48	.07	2	.72	.07	.20	1	39
D 43064	3	3	2	29	.1	6	5	410	1.51	2	5	ND	1	110	.3	2	5	13	.99	.046	4	25	.37	30	.07	4	.72	.08	.15	1	28
STANDARD C/AU-R	18	60	37	129	6.8	72	32	1054	3.98	44	22	7	38	53	18.9	14	22	55	.46	.097	38	58	.92	183	.08	35	1.89	.06	.14	11	510

GEOCHEMICAL ANALYSIS CERTIFICATE

Noramco Exploration Inc. PROJECT 2012 (KENA) File # 90-5615 Page 1

900 - 999 W. Hasting St., Vancouver BC V6C 2W2 Submitted by: B. LEWIS

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
D 43065	1	5	2	28	.1	7	4	417	2.03	2	5	ND	2	110	.2	2	2	13	1.44	.045	7	8	.33	61	.04	2	.72	.10	.17	3	685
D 43066	1	5	3	28	1.6	5	7	448	2.72	2	5	13	3	135	.2	3	2	14	1.84	.045	9	5	.33	72	.02	2	.70	.07	.18	101	12700
D 43067	1	5	4	28	.1	5	2	428	1.73	7	5	ND	2	132	.2	2	2	16	1.62	.045	7	6	.34	121	.04	2	.78	.07	.22	1	157
D 43068	3	7	4	29	1.0	7	3	385	1.86	2	5	ND	2	121	.2	2	2	16	1.46	.050	8	26	.33	70	.03	2	.81	.08	.25	2	59
D 43069	1	5	4	28	.1	7	2	461	1.79	2	5	ND	3	177	.2	2	2	15	2.31	.047	11	8	.29	127	.03	3	.82	.06	.27	2	39
D 43070	1	11	2	47	.2	4	2	459	2.00	2	5	ND	2	125	.2	2	2	23	1.08	.050	4	5	.43	51	.09	3	.99	.08	.33	1	51
D 43071	1	10	5	31	.1	6	2	384	1.95	5	5	ND	2	132	.2	2	2	18	1.17	.049	8	6	.37	66	.04	4	.85	.07	.19	1	49
D 43072	3	6	4	26	.2	7	3	385	1.73	5	5	ND	2	139	.2	2	2	15	1.56	.049	7	26	.32	101	.04	2	.75	.07	.16	1	182
D 43073	1	5	3	18	.1	6	5	399	1.85	2	5	ND	4	170	.2	2	2	9	2.36	.048	10	6	.18	97	.01	3	.56	.05	.19	1	47
D 43074	1	6	4	17	.1	3	4	377	1.82	5	5	ND	3	171	.2	2	2	7	2.91	.045	8	2	.21	86	.01	2	.40	.05	.16	2	576
D 43075	1	5	5	20	.1	4	3	529	1.92	4	5	ND	2	199	.2	2	2	4	4.82	.043	6	3	.33	97	.01	3	.34	.05	.18	1	626
D 43076	2	12	3	19	.2	5	3	380	1.62	2	5	ND	3	136	.2	2	2	7	2.70	.047	8	19	.26	134	.01	3	.42	.06	.17	1	788
D 43077	1	17	4	18	.1	6	2	397	1.74	3	5	ND	4	133	.2	2	2	8	2.54	.050	11	6	.24	103	.01	4	.43	.05	.17	1	476
D 43078	1	16	4	17	.1	3	3	416	1.88	4	5	ND	4	178	.2	2	2	5	3.56	.048	8	2	.31	102	.01	3	.40	.05	.17	1	148
D 43079	2	7	5	20	.1	6	3	301	1.98	16	5	ND	4	201	.2	2	2	4	2.63	.047	6	4	.19	22	.01	3	.30	.05	.15	1	474
D 43080	5	24	5	20	.3	6	4	368	2.60	19	5	ND	4	270	.2	2	2	8	3.11	.047	6	21	.26	23	.01	5	.43	.05	.15	1	609
D 43081	1	12	6	31	.1	5	2	646	2.01	5	5	ND	3	376	.2	2	2	7	6.41	.040	8	5	.43	45	.01	4	.50	.04	.16	1	68
D 43082	1	27	5	18	.1	3	3	428	1.86	5	5	ND	4	195	.2	2	2	6	3.95	.046	11	2	.23	37	.01	3	.33	.05	.15	1	165
D 43083	1	20	3	15	.1	7	3	290	1.69	7	5	ND	3	101	.2	2	2	12	1.87	.045	10	7	.23	45	.03	3	.49	.07	.20	1	264
D 43084	2	24	2	22	.1	7	3	374	1.68	2	5	ND	3	73	.2	2	2	16	1.61	.048	6	24	.31	33	.07	2	.68	.09	.22	4	166
D 43085	2	26	4	21	.2	8	3	336	2.31	2	5	ND	3	67	.2	2	2	19	1.25	.049	7	9	.35	29	.07	2	.63	.08	.21	10	759
D 43086	1	42	3	21	.2	4	3	299	2.34	2	5	ND	3	74	.2	2	2	21	.97	.050	6	5	.37	31	.08	3	.75	.09	.21	12	190
D 43087	1	34	5	28	.1	5	1	402	1.94	3	5	ND	3	120	.2	2	2	19	1.85	.046	6	5	.31	37	.05	2	.75	.07	.22	1	232
D 43088	3	10	2	16	.1	6	5	408	2.09	5	5	ND	4	138	.2	2	2	6	2.32	.051	7	20	.22	35	.01	2	.42	.08	.14	1	68
D 43089	5	36	4	22	.4	6	4	349	3.36	10	5	ND	4	107	.2	2	2	11	1.72	.047	6	7	.21	36	.02	2	.50	.07	.20	51	672
D 43090	1	68	3	21	.4	4	3	411	1.79	4	5	ND	4	101	.2	2	2	12	1.77	.047	9	2	.26	26	.02	3	.45	.06	.17	1	401
D 43091	1	19	4	24	.1	6	2	397	1.65	2	5	ND	3	91	.2	2	2	18	1.32	.047	6	6	.34	32	.05	2	.69	.08	.21	1	139
D 43092	2	29	4	29	.1	7	2	537	1.63	6	5	ND	3	117	.2	2	2	16	2.04	.046	8	23	.32	42	.05	3	.74	.08	.21	1	119
D 43093	1	30	3	27	.1	5	2	444	1.56	3	5	ND	4	101	.2	2	2	15	1.81	.044	6	6	.27	36	.04	2	.67	.07	.25	1	125
D 43094	1	43	5	28	.1	3	3	440	2.08	5	5	ND	2	88	.2	2	2	18	1.32	.046	5	3	.33	35	.07	2	.75	.08	.30	1	153
D 43095	1	38	2	27	.2	6	3	413	1.70	3	5	ND	3	92	.2	2	2	17	1.72	.047	5	6	.32	30	.05	2	.65	.08	.20	2	483
D 43096	2	28	3	17	.3	5	2	440	1.55	2	5	ND	4	109	.2	2	2	10	2.32	.045	8	16	.21	39	.02	2	.57	.08	.21	1	163
D 43097	1	15	2	74	.1	6	12	835	4.20	7	5	ND	4	160	.3	2	2	94	3.56	.081	7	81	1.98	130	.16	2	2.70	.06	1.56	1	82
D 43098	1	18	2	35	.1	5	7	505	2.63	2	5	ND	4	136	.2	2	2	30	2.68	.058	7	23	.77	49	.03	2	1.05	.08	.35	1	725
D 43099	2	6	3	78	.1	6	10	789	3.77	9	5	ND	4	161	.3	2	2	68	3.18	.075	6	70	1.80	81	.13	2	2.25	.07	1.15	1	177
D 43100	3	6	5	30	.1	7	2	374	1.58	2	5	ND	3	96	.2	2	2	19	.95	.047	5	26	.38	34	.08	2	.82	.12	.20	3	110
STANDARD C/AU-R	18	57	39	130	6.9	73	31	1053	3.97	41	23	8	39	52	19.6	14	19	58	.46	.095	40	59	.90	183	.07	33	1.90	.06	.14	11	516

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

DATE RECEIVED: OCT 30 1990 DATE REPORT MAILED: Nov 2/90. 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	Tl %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
D 43101	2	38	4	33	.2	7	2	411	1.76	2	5	ND	2	103	.2	2	2	18	.98	.050	4	8	.40	35	.08	4	.85	.12	.20	3	81
D 43102	8	60	8	20	.4	3	5	378	3.09	6	5	ND	3	114	.2	2	2	12	1.65	.048	8	3	.24	42	.02	3	.49	.08	.20	12	361
D 43103	2	44	5	23	.3	5	4	395	2.04	5	5	ND	2	139	.2	2	2	14	1.78	.050	7	5	.27	39	.02	5	.54	.09	.21	1	214
D 43104	3	20	4	28	.3	7	3	385	2.03	2	5	ND	2	80	.2	2	2	19	1.09	.048	4	26	.36	34	.08	4	.69	.10	.23	2	91
D 43105	3	32	4	20	.3	7	6	323	3.11	2	5	ND	3	88	.2	2	2	12	1.43	.048	8	7	.23	38	.02	4	.47	.07	.23	24	407
D 43106	1	16	6	18	.2	3	6	316	2.57	5	5	ND	2	75	.2	2	2	15	1.27	.045	6	3	.25	33	.04	3	.48	.07	.19	5	425
D 43107	1	7	3	18	.3	5	3	291	1.73	2	5	ND	2	75	.2	2	2	14	1.60	.045	6	4	.25	33	.04	3	.49	.07	.21	7	126
D 43108	3	6	2	20	.2	6	3	472	1.63	5	5	ND	2	226	.2	2	2	9	1.96	.048	5	22	.25	48	.02	3	.50	.08	.21	1	81
D 43109	1	7	2	31	.1	6	3	528	1.50	2	5	ND	2	144	.2	2	2	11	2.25	.049	5	7	.25	62	.05	3	.69	.08	.30	4	15
D 43110	1	4	4	24	.1	3	4	402	1.74	7	5	ND	2	91	.2	2	2	10	1.79	.049	5	2	.22	45	.05	3	.57	.08	.22	8	46
D 43111	6	4	3	23	.3	6	4	304	2.37	2	5	ND	2	56	.2	2	2	13	.95	.048	5	5	.23	31	.07	3	.50	.07	.19	2	465
D 43112	3	19	5	26	.4	7	5	472	2.55	5	5	ND	3	125	.2	2	2	7	1.92	.049	11	22	.20	80	.01	4	.41	.06	.22	1	146
D 43113	2	6	2	44	.2	8	3	420	1.53	2	5	ND	2	170	.2	2	2	17	1.02	.050	5	8	.40	36	.08	3	.87	.08	.18	2	14
D 43114	1	7	4	43	.1	4	3	394	1.55	3	5	ND	2	164	.2	2	2	17	.86	.049	4	3	.38	34	.08	3	.85	.08	.19	1	13
D 43115	3	13	3	18	.1	5	3	397	1.09	2	5	ND	3	136	.2	2	2	8	1.90	.049	7	4	.19	128	.02	3	.49	.08	.19	1	72
D 43116	4	6	5	31	.1	7	3	362	1.65	2	5	ND	1	89	.2	2	2	17	1.21	.052	4	26	.35	36	.07	5	.67	.08	.21	3	53
D 43117	1	16	4	30	.2	6	4	540	1.88	2	5	ND	2	207	.2	2	2	11	2.35	.048	9	6	.27	94	.02	4	.48	.04	.23	1	105
D 43118	1	10	6	33	.2	4	4	487	1.91	7	5	ND	2	139	.2	2	2	11	1.82	.050	7	3	.23	50	.02	4	.50	.05	.22	1	48
D 43119	1	29	5	30	.1	6	3	448	1.83	2	5	ND	1	95	.2	2	2	13	1.64	.049	5	5	.27	45	.06	3	.67	.08	.31	1	98
D 43120	4	23	7	33	.1	9	4	417	2.06	4	5	ND	2	97	.2	2	2	19	1.15	.049	5	32	.35	45	.08	4	.80	.10	.32	1	98
D 43121	2	5	9	16	.4	6	5	341	1.71	2	5	ND	2	170	.2	2	2	4	2.09	.047	8	6	.15	86	.01	3	.30	.05	.17	1	244
D 43122	1	17	5	26	.3	2	5	431	1.97	12	5	ND	3	140	.2	2	2	10	2.27	.049	6	2	.22	52	.02	3	.43	.04	.22	1	133
D 43123	1	22	5	26	.3	6	5	417	2.02	3	5	ND	2	104	.2	2	2	15	1.78	.048	5	5	.28	42	.05	10	.66	.07	.30	1	147
D 43124	3	26	4	27	.2	7	4	441	1.74	4	5	ND	2	110	.2	2	2	15	1.80	.048	4	26	.28	47	.06	3	.67	.08	.27	1	190
D 43125	2	16	4	26	.2	6	8	414	2.00	6	5	ND	2	98	.2	2	2	14	1.50	.048	5	7	.27	44	.05	3	.64	.07	.28	7	111
D 43126	1	16	4	34	.1	3	4	542	1.83	7	5	ND	1	148	.2	2	2	12	2.08	.050	3	3	.27	47	.05	4	.69	.06	.29	1	189
D 43127	1	16	7	38	.1	6	4	488	1.79	3	5	ND	2	249	.2	2	2	11	1.91	.047	5	5	.26	98	.02	4	.62	.05	.20	1	55
D 43128	3	3	4	40	.2	7	4	472	1.80	3	5	ND	1	126	.2	2	2	15	1.24	.049	4	26	.34	43	.07	3	.80	.09	.23	1	28
D 43129	2	23	5	32	.1	7	3	541	1.87	7	5	ND	1	118	.2	2	2	11	1.98	.049	6	7	.27	51	.04	4	.62	.06	.28	1	58
STANDARD C/AU-R	19	57	39	133	6.7	73	31	1052	3.99	45	21	7	39	53	19.0	15	19	60	.46	.099	40	60	.89	188	.08	35	1.89	.06	.13	11	497

DRILL LOG

K90-2

DRILL LOG

HOLE NO. K 90-2

DRILLING CO. <u>LONE RANGER</u> <u>DIAMOND DRILLING CO.</u>	LOCATION SKETCH	DEPTH	ACID TESTS		DATE STARTED:	PROJECT:
		COLLAR	DIP ANGLE	AZIMUTH	<u>OCTOBER 22 1990</u>	<u>KENA</u>
		<u>64.61 m</u>	<u>-45</u>	<u>240°</u>	DATE COMPLETED: <u>OCTOBER 23 1990</u>	N.T.S.: <u>82F/6W</u>
			<u>-46</u>	<u>"</u>	COLLAR ELEV.: <u>~ 1505.0 METRES</u>	LOCATION: <u>GOLD CREEK ZONE</u>
					NORTHING: <u>3+00N</u> } SHAFT	
					EASTING: <u>1+41.5E</u> } GRID	
					AZIMUTH: <u>240°</u>	
					DEPTH: <u>64.63 METRES</u>	DATE LOGGED: <u>OCT 24-25 1990</u>
HOLE TYPE <u>CORE</u>					CORE SIZE: <u>NQ</u>	LOGGED BY: <u>W. J. LEWIS</u>

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
<u>0</u>	<u>3.66m</u>	<u>CASING</u>					<u>CASING - THROUGH OVERBURDEN</u>
<u>3.66m</u>	<u>3.76m</u>	<u>GRANITE</u>					<u>GRANITE - A SMALL PIECE OF FLINT FROM A BOUNDER RESTING DIRECTLY ON BEDROCK</u>
<u>3.76m</u>	<u>7.20m</u>	<u>DACITE TUFF?</u>	<u>LIGHT TO DARK GRAY MOTTLED</u>	<u>FINE TO MED GR.</u>	<u>SILICEOUS WITH REPLACEMENT BY CALCITE AND EPIPOTI</u>	<u>TR-3% PYRITE, LOCALLY AS HIGH AS 10%</u>	<u>DACITE TUFF - FINE TO MEDIUM GRAINED, SLIGHTLY SCHISTOSE (SHEARED). SILICIFICATION (FLOODING) APPEARS TO HAVE AN ANGLE OF 30° TO C.A., BUT IT IS NOT READILY APPARENT WHETHER THIS ANGLE IS THE SAME AS THE SCHISTOSITY OR NOT. THE SILICA IS IN PART REPLACED BY PERVASIVE CALCITE FLOODING. EPIPOTI LOCALLY REPLACES CALCITE. PYRITE IS PRIMARILY DISSEMINATED, BUT IT ALSO OCCURS LOCALLY IN CALCITE STRINGERS WHERE CONCENTRATIONS REACH UP TO 10%</u>
<u>7.20m</u>	<u>13.80m</u>	<u>SILVER KING PORPHYRY DYKE</u>	<u>LIGHT TO DARK GRAY MOTTLED</u>	<u>PORPHYRY & CLASTIC</u>	<u>SILICEOUS WITH CALCITE AND EPIPOTI REPLACEMENT</u>	<u>TR-3% PYRITE, LOCALLY UP TO 10% TRACE CHALCOPYRITE</u>	<u>AgK PORPHYRY DYKE - CONTACT AT 7.20m IS 45-50° TO C.A. PORPHYRITIC WITH A LOCAL BRECCIATED APPEARANCE DUE TO THE CONCENTRATION OF DACITE AND POSSIBLY DIORITE CLASTS WITHIN THE DYKE. THE CLASTS RANGE</u>

DRILL LOG

HOLE NO. K90-2

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							IN SIZE UP TO 12 cm. MODERATELY SILICEOUS WITH LATER PERVASIVE CALCITE REPLACEMENT, FOLLOWED BY EPIDOTE REPLACEMENT OF CALCITE LOCALLY. PYRITE IS PRIMARILY DISSEMINATED, BUT IT ALSO OCCURS WITHIN CALCITE STRINGERS AND SMALL MICROFRACTURES WHERE IT LOCALLY REACHES CONCENTRATIONS UP TO 10%.
13.80m	39.29m	DIORITE?	DARK GREY TO GREEN MOTTLED	MEDIUM GRAINED	SILICEOUS WITH PERVASIVE CALCITE REPLACEMENT, LOCAL EPIDOTE REPLACEMENT, PERVASIVE CHLORITE ALTERATION	TRACE-3% PYRITE LOCALLY TO 10% TRACE CHALCOPYRITE TRACE-1% PYRRHOTITE TRACE MAGNETITE	DIORITE - MEDIUM GRAINED WITH LOCAL PERVASIVE CHLORITE ALTERATION. MODERATELY SILICEOUS WITH PERVASIVE CALCITE REPLACEMENT AND ALTERATION ALONG MICROFRACTURES. CALCITE STRINGERS ARE ALSO LOCALLY PRESENT. LOCAL PATCHY REPLACEMENT OF CALCITE AND FELDSPAR XTALS BY EPIDOTE WITH GREATER REPLACEMENT EVIDENT AFTER 28.5m. PYRITE IS FINELY DISSEMINATED AS WELL AS OCCURRING WITHIN CALCITE STRINGERS WHERE IT REACHES CONCENTRATIONS UP TO 10%. PYRITE STRINGERS OCCUR ALONG MICROFRACTURES OCCASIONALLY BUT THIS IS RARE ~ 30.22m CALCITE VEIN ~ 1-1.5 cm WIDE AT 25-30° TO C.A. WITH SOME EPIDOTE REPLACEMENT OF THE CALCITE
39.29m	40.95m	SILVER KING PORPHYRY DYKE	MOTTLED WHITE TO GREEN	PORPHYRITIC	MINOR EPIDOTE	TRACE PYRITE TRACE CHALCOPYRITE	AGK PORPHYRY DYKE - CONTACT AT 39.29m ~ 60° TO C.A., PORPHYRY IS RELATIVELY UNALTERED WITH THE EXCEPTION OF MINOR FELDSPAR REPLACEMENT BY EPIDOTE. BOTH HORNBLENDE AND BIOTITE ARE PRESENT. ~ 40.20m A SMALL 1/4 cm PYRITE STRINGER IS PRESENT WITH A TRACE OF CHALCOPYRITE. THE LOWER CONTACT

DRILL LOG

HOLE NO. K 90-2

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							AT 40.95m IS AT ~ 25° TO C.A.
40.95m	42.65m	DIORITE ?	DARK GREEN MOTTLED	MEDIUM GRAINED	SILICEOUS WITH CALCITE REPLACEMENT, EPIDOTE	TRACE - 3% PYRITE	DIORITE - MEDIUM GRAINED, CONTACT AT 40.95m IS SILICA FLOODED. SILICA IS Pervasively replaced with calcite. MOTTLED COLOUR IS DUE PRIMARILY TO THE LOCALIZED REPLACEMENT OF FELDSPAR AND CALCITE BY EPIDOTE. PYRITE IS GENERALLY DISSEMINATED WITH THE RARE PYRITE STRINGER OCCURRING ALONG MICROFRACTURE PLAINS.
42.65m	43.08m	SILVER KING PORPHYRY DYKE	GREY	PORPHYRITIC	HIGHLY SILICEOUS CALCITE & EPIDOTE REPLACEMENT	TRACE - 2% PYRITE	AgK PORPHYRY DYKE - HIGHLY SILICIFIED WITH A PARTIAL OBSCUREMENT OF THE ORIGINAL PORPHYRITIC TEXTURE. THE SILICA IS PARTLY REPLACED BY CALCITE FLOODING ALONG MICROFRACTURES. EPIDOTE LOCALLY REPLACES CALCITE AND FELDSPAR XTALS. BOTH CONTACTS ARE AT 20° TO THE CORE AXIS BUT SITUATED IN SUCH A WAY WHICH SUGGESTS A THICKENING OR THINNING OF THE DYKE IN OPPOSING DIRECTIONS. PYRITE IS PRIMARILY DISSEMINATED
43.08m	46.65m	DIORITE ?	LIGHT DARK GREEN MOTTLED	MEDIUM GRAINED	SILICEOUS WITH CALCITE & MINOR EPIDOTE	TRACE - 5% PYRITE	DIORITE - SIMILAR TO THE DIORITE WITHIN INTERVAL 40.95 - 42.65 METRES EXCEPT THIS DIORITE IS SLIGHTLY SCHISTOSE. PYRITE IS DISSEMINATED AS WELL AS ALONG SOME FRACTURE) AT 30-45° TO C.A. WHICH IS PROBABLY THE DIRECTION OF THE SHEAR AS WELL. LOCAL SPOTTY AND STRINGER APPEARING PATCHES OF GREY QUARTZ MAY BE SMALL

DRILL LOG

HOLE NO. K 90-2

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							HIGHLY SILICIFIED STRINGERS OF AgK
46.65m	64.61m	SILVER KING PORPHYRY.	GREY TO MOTTLED	PORPHYRITIC	SILICEOUS WITH CALCITE AND EPIDOTE REPLACEMENT	TRACE - 3% PYRITE	AgK PORPHYRY - SLIGHTLY TO MODERATELY SHEARED (SCHISTOSE), THE CONTACT AT 46.65 IS VERY IRREGULAR WITH WHAT APPEARS TO BE A DIORITE CLAST AT 46.79. THIS CLAST APPEARS TO BE STREACHED. THE PORPHYRY IS LOCALLY SILICEOUS WITH SOME CALCITE AND EPIDOTE OF THE FELDSPAR XTALLS
					MINOR CLAY ALT.		~49.50-50.3m - SILICA FLOODED SHEAR ZONE WITH CALCITE REPLACEMENT OF THE SILICA LOCALLY AND EPIDOTE REPLACEMENT OF THE LOCALLY.
					MINOR CHLORITE ALT		~55.9-58.3m - SILICA AND CALCITE FLOODED SHEAR ZONE WITH MINOR REPLACEMENT OF FELDSPAR XTALLS AND CALCITE BY EPIDOTE.
							~58.2-60.5m - HIGHLY SHEARED ZONE, SILICA AND CALCITE FLOODED WITH MINOR CLAY ALTERATION ALONG THE SHEAR PLAINS. SCHISTOSITY AT ~35-40° TO C.A. DISSEMINATED PYRITE GENERALLY, BUT SOME SMALL STRINGERS OF PYRITE ARE ALONG THE SCHISTOSITY DIRECTION
							63.44 - 2-3cm WIDE QUARTZ STRINGERS WITH PATCHES OF CALCITE AND CHLORITE WITHIN IT, TRACE OF CLAY (TALC?) ALTERATION ALONG FRACTURE PLAINS AND A TRACE OF CUBIC PYRITE
							END OF THE HOLE AT 64.63 METRES

SAMPLE DATA DRILL LOG

K90-2

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME ANALYTICAL LAB

SAMPLE (METRES)				CORE		S.G.	VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS				
NUMBER	FROM	TO	LENGTH	% REC	RQD			Cu (PPM)	Pb (PPM)	Zn (PPM)	As (PPM)	Au** (PPB)
43130	3.66	4.50	0.84m	+100%	15-60cm Frag		75	4	39	26	426	
43131	4.50	6.0	1.5m	+100%	5-30cm Frag		25	9	20	22	228	
43132	6.0	7.5	1.5m	+100%	4-50cm Frag hard Frag		37	6	20	22	322	
43133	7.5	9.0	1.5m	99%	1-40cm Frag hard Frag		19	6	34	21	347	
43134	9.0	10.5	1.5m	99%	5-45cm Frag hard Frag		28	6	24	28	420	
43135	10.5	12.0	1.5m	100%	5-80cm Frag		11	5	32	23	187	
43136	12.0	13.5	1.5m	+100%	10-50cm Frag marble		13	4	31	27	427	
43137	13.5	15.0	1.5m	99%	1-30cm Frag hard Frag		43	2	31	22	444	
43138	15.0	16.5	1.5m	99%	10-55cm Frag		167	2	27	22	606	
43139	16.5	18.0	1.5m	99%	7-50cm Frag hard Frag	78ppm Cu over 24.84m	54	2	24	10	167	
43140	18.0	19.5	1.5m	99%	12-65cm Frag hard Frag		73	3	20	18	267	
43141	19.5	21.0	1.5m	+100%	2-40cm Frag hard Frag		121	2	32	15	168	
43142	21.0	22.5	1.5m	+100%	10-35cm Frag hard Frag		191	2	28	24	244	
43143	22.5	24.0	1.5m	+99%	31cm-1.0m Frag hard Frag		75	2	40	16	341	
43144	24.0	25.5	1.5m	+99%	28-80cm Frag		66	2	36	26	546	
43145	25.5	27.0	1.5m	100%	10-65cm Frag		137	3	28	27	905	
43146	27.0	28.5	1.5m	100%	20-90cm Frag		194	2	39	23	273	
43147	28.5	30.0	1.5m	100%	31-30cm Frag hard Frag		97	2	42	2	136	
43148	30.0	31.5	1.5m	75%	21-35cm Frag hard Frag		181	2	47	7	64	
43149	31.5	33.0	1.5m	75%	100cm-35cm Frag		117	3	34	2	102	
43150	33.0	34.5	1.5m	100%	2-40cm Frag		223	2	35	8	78	
43151	34.5	36.0	1.5m	+99%	10cm-35cm Frag		137	2	31	17	153	
43152	36.0	37.5	1.5m	99%	10cm-50cm Frag		93	3	28	16	105	
43153	37.5	39.0	1.5m	+99%	2cm-35cm Frag hard Frag		104	2	52	13	96	
43154	39.0	40.5	1.5m	100%	31-70cm Frag hard Frag		13	6	36	3	122	
43155	40.5	42.0	1.5m	+99%	4-50cm Frag hard Frag		33	3	44	15	60	
43156	42.0	43.5	1.5m	+99%	4cm-55cm Frag hard Frag		36	5	41	3	307	
43157	43.5	45.0	1.5m	100%	3-45cm Frag hard Frag		93	2	46	9	165	
43158	45.0	46.5	1.5m	100%	2-45cm Frag hard Frag		118	4	43	4	89	
43159	46.5	48.0	1.5m	+99%	2-35cm Frag hard Frag		9	6	38	2	104	
43160	48.0	49.5	1.5m	97%	5-45cm Frag		35	5	23	8	118	

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME ANALYTICAL LAB

SAMPLE (METRES)			CORE		VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS					
NUMBER	FROM	TO	LENGTH	% REC		RQD	S.G.	Cu (PPM)	Pb (PPM)	Zn (PPM)	As (PPM)
43161	49.5	51.0	1.5m	99%	21-35 cm Frag 4-5 13cm Frag		15	8	20	4	191
43162	51.0	52.5	1.5m	100%	21-25 cm Frag 4-5 13cm Frag		9	7	19	5	134
43163	52.5	54.0	1.5m	99%	10-30 cm Frag		10	5	23	4	89
43164	54.0	55.5	1.5m	99%	5-45 cm Frag		7	6	19	7	62
43165	55.5	57.0	1.5m	99%	2-40 cm Frag 4-5 13cm Frag		13	7	15	6	86
43166	57.0	58.5	1.5m	94%	10-65 cm Frag		37	10	10	10	133
43167	58.5	60.0	1.5m	99%	21-45 cm Frag 4-5 13cm Frag		20	13	9	11	114
43168	60.0	61.5	1.5m	99%	10-60 cm Frag		11	6	18	8	32
43169	61.5	63.0	1.5m	100%	10 cm-125 cm Frag		9	7	25	11	81
43170	63.0	64.63	1.63m	100%	20-30 cm Frag		10	10	31	10	89
END OF HOLE AT 64.63 METRES											

ANALYTICAL CERTIFICATES

K90-2

GEOCHEMICAL ANALYSIS CERTIFICATE

Noramco Exploration Inc. PROJECT 2012 (KENA) File # 90-5657 Page 1

900 - 999 W. Hasting St., Vancouver BC V6C 2W2 Submitted by: B. LEWIS

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
43130	1	75	4	39	.1	10	22	398	5.08	26	5	ND	1	91	.4	2	2	49	1.43	.117	3	4	1.08	117	.13	4	1.64	.08	.94	6	426
43131	2	25	9	20	.3	9	22	300	3.46	22	5	ND	2	56	.2	3	2	47	1.85	.136	3	3	.55	87	.13	2	.98	.06	.56	1	228
43132	2	37	6	20	.1	9	20	294	3.57	22	5	ND	1	64	.2	3	3	46	1.71	.117	3	4	.51	66	.11	2	.91	.06	.51	1	322
43133	2	19	6	34	.3	8	14	354	6.04	21	5	ND	1	52	.6	2	11	60	1.20	.086	3	7	1.11	77	.10	2	1.30	.05	.89	1	347
43134	1	28	6	24	.4	8	17	337	6.20	28	5	ND	2	68	.6	2	10	47	1.56	.085	3	4	.84	74	.10	2	1.07	.05	.72	1	420
43135	1	11	5	32	.1	8	15	371	4.63	23	5	ND	1	59	.3	2	2	60	1.35	.081	3	6	1.07	73	.11	3	1.23	.06	.88	3	187
43136	2	13	4	31	.4	9	18	350	6.00	27	5	ND	1	52	.7	2	5	60	1.36	.101	3	7	1.12	84	.12	3	1.27	.05	.90	8	427
43137	1	43	2	31	.3	7	17	431	5.91	22	5	ND	2	87	.6	2	9	44	1.97	.123	3	3	1.14	85	.12	2	1.50	.07	.87	6	444
43138	1	167	2	27	.5	7	20	367	5.45	22	5	ND	1	89	.6	2	11	35	1.52	.117	2	2	.97	79	.12	2	1.37	.09	.72	1	606
43139	1	54	2	24	.1	8	29	306	4.79	10	5	ND	1	82	.2	2	2	32	1.45	.115	2	2	.87	58	.12	2	1.22	.10	.60	1	167
43140	2	73	3	20	.1	9	31	266	4.50	18	5	ND	1	67	.2	2	2	27	1.00	.131	2	3	.87	65	.11	2	1.32	.07	.56	1	267
43141	4	121	2	32	.1	11	22	421	4.45	15	5	ND	1	65	.3	2	2	37	1.23	.134	2	6	1.40	97	.13	2	1.92	.08	.92	1	168
43142	1	191	2	28	.4	9	25	526	4.88	24	5	ND	1	62	.4	2	2	33	2.04	.123	2	4	.98	112	.12	2	1.38	.06	.80	1	244
43143	1	75	2	40	.2	12	17	825	5.37	16	5	ND	1	68	.4	2	2	54	2.50	.119	2	8	1.51	123	.14	2	1.87	.07	1.23	3	341
43144	2	66	2	36	.2	18	25	802	6.37	26	5	ND	2	69	.6	2	3	56	2.71	.117	2	13	1.43	100	.14	4	1.75	.05	1.14	23	546
43145	1	137	3	28	.4	19	24	660	6.29	27	5	ND	1	83	.4	2	2	53	2.55	.122	2	11	1.03	76	.14	2	1.37	.04	.75	1	905
43146	1	199	2	39	.6	20	24	917	5.00	23	5	ND	1	94	.6	2	2	61	2.48	.123	2	13	1.30	120	.17	2	1.85	.07	1.06	1	273
43147	1	97	2	42	.3	7	12	611	3.51	2	5	ND	2	55	.2	2	9	51	.89	.086	9	1	1.69	106	.12	2	2.08	.03	.95	1	136
43148	1	181	2	47	.3	6	12	624	3.88	7	5	ND	1	62	.2	2	2	37	1.52	.140	2	1	1.73	191	.14	2	2.45	.06	1.42	1	64
43149	1	117	3	39	.2	7	12	554	3.48	2	5	ND	1	70	.2	2	2	35	1.09	.134	2	2	1.54	213	.15	2	2.27	.08	1.35	1	102
43150	1	223	2	35	.4	7	28	666	4.58	8	5	ND	1	67	.2	2	2	49	1.69	.131	2	2	1.50	171	.15	2	2.17	.09	1.20	1	78
43151	1	137	2	31	.3	9	26	633	4.96	17	5	ND	1	59	.4	2	2	40	1.86	.137	2	4	1.31	115	.15	2	1.84	.07	1.06	1	153
43152	1	93	3	28	.1	8	20	633	4.71	16	5	ND	1	63	.3	2	3	40	2.25	.134	2	3	1.16	106	.14	2	1.58	.06	.83	1	105
43153	1	104	2	52	.1	8	20	911	5.16	13	5	ND	1	58	.3	2	2	50	1.58	.115	2	3	2.15	141	.15	2	2.59	.07	1.56	1	96
43154	1	13	6	36	.1	7	7	488	2.80	3	5	ND	1	83	.2	2	2	26	1.53	.065	3	5	.77	54	.09	2	1.11	.07	.43	1	122
43155	1	33	3	44	.1	6	14	822	4.41	15	5	ND	1	87	.2	2	2	36	2.86	.102	3	2	1.57	154	.13	2	1.93	.05	1.25	1	60
43156	1	36	5	41	.2	5	13	762	4.06	3	5	ND	2	80	.2	2	2	34	3.05	.092	3	2	1.43	146	.11	2	1.76	.04	1.13	1	307
43157	1	93	2	46	.2	7	19	691	4.73	9	5	ND	1	69	.2	2	2	42	1.62	.138	2	2	1.85	147	.15	3	2.39	.04	1.52	1	165
43158	1	118	4	43	.1	7	13	650	4.71	4	5	ND	1	77	.2	2	2	45	1.46	.117	2	2	1.86	141	.14	2	2.42	.05	1.39	1	89
43159	1	9	6	38	.1	6	5	379	2.10	2	5	ND	1	82	.2	2	2	18	.82	.051	3	5	.55	47	.08	2	.94	.08	.35	1	104
43160	1	35	5	23	.2	6	4	408	2.34	8	5	ND	2	96	.2	2	2	11	2.17	.045	6	4	.24	41	.04	3	.61	.07	.20	1	118
43161	1	15	8	20	.4	4	4	296	2.51	4	5	ND	2	94	.2	2	2	8	1.80	.042	7	3	.19	31	.02	3	.49	.05	.15	1	191
43162	1	9	7	19	.1	5	3	261	2.25	5	5	ND	2	92	.2	2	2	10	1.47	.044	5	4	.23	30	.04	2	.50	.05	.17	4	134
43163	1	10	5	23	.1	5	3	303	1.93	4	5	ND	2	74	.2	2	2	11	1.34	.043	4	4	.28	32	.06	4	.54	.06	.21	1	89
43164	1	7	6	19	.1	6	3	231	2.01	7	5	ND	1	61	.2	2	2	14	.92	.044	4	5	.31	29	.07	3	.58	.08	.20	1	62
43165	1	13	7	15	.1	4	3	260	1.70	6	5	ND	1	80	.2	2	2	9	1.73	.043	3	3	.19	39	.04	4	.46	.06	.20	1	86
STANDARD C/AU-R	18	57	39	131	7.0	72	31	1055	3.97	36	22	7	39	52	19.2	14	22	58	.46	.090	39	58	.90	183	.07	33	1.90	.06	.14	11	511

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 AU. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: CORE AU** ANALYSIS BY FA\ICP FROM 10 GM SAMPLE.

DATE RECEIVED: NOV 1 1990 DATE REPORT MAILED: Nov 6/90. SIGNED BY: [Signature] 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
43166	1	37	10	10	.4	5	5	267	1.98	10	5	ND	1	104	.2	2	2	5	2.49	.048	6	2	.13	42	.02	2	.34	.04	.20	1	133
43167	1	20	13	9	.4	5	5	335	2.21	11	5	ND	1	118	.3	2	2	2	2.99	.045	8	1	.06	52	.01	2	.25	.03	.16	1	114
43168	1	11	6	18	.1	4	4	456	1.72	8	5	ND	1	102	.2	2	2	9	2.66	.049	7	2	.18	54	.03	2	.47	.04	.24	1	32
43169	2	9	7	25	.1	5	5	402	2.04	11	5	ND	1	71	.2	2	2	12	1.24	.050	3	7	.31	27	.06	2	.58	.04	.25	2	81
43170	2	10	10	31	.2	7	5	368	2.20	10	5	ND	1	71	.2	2	2	14	.93	.047	3	8	.39	26	.07	5	.73	.08	.14	1	89

DRILL LOG

K90-3

DRILL LOG

HOLE NO. K-90-3

DRILLING CO. LONE RANGER DIAMOND DRILLING LTD.	LOCATION SKETCH	Acid TESTS			DATE STARTED: <u>Oct 24/90</u>	PROJECT:
		DEPTH	DIP ANGLE	AZIMUTH		<u>KENA-2012</u>
		COLLAR	<u>-60°</u>	<u>060°</u>	DATE COMPLETED: <u>Oct 27/90</u>	N.T.S.: <u>82 F/6</u>
		<u>81.7m</u>	<u>-61°</u>	"	COLLAR ELEV.: <u>1525 metres</u>	LOCATION: <u>KENA COPPER</u>
		<u>207.2</u>	<u>-58°</u>	"	NORTHING: <u>LINE 9500N</u> } <u>KENA COPPER</u>	ZONE
		<u>270.0</u>	<u>-57°</u>	"	EASTING: <u>STN. 1+75W</u> } <u>GMD</u>	
	<u>355.0</u>	<u>-55°</u>	"	AZIMUTH: <u>060°</u>		
				DEPTH: <u>355.07</u>	DATE LOGGED: <u>Oct. 26-28/90</u>	
HOLE TYPE <u>CORE</u>				CORE SIZE: <u>NQ</u>	LOGGED BY: <u>D.G. Silversides</u>	

INTERVAL metres		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
<u>0</u>	<u>6.10</u>	<u>CASING</u>					<u>- casing through road fill/overburden.</u>
<u>6.10</u>	<u>18.30</u>	<u>ANDESITE TUFF</u>	<u>Dark green/mottled light green</u>	<u>fine to med. gr. fragments</u>	<u>strong/pervasive chlorite/epidote in clots and stringers</u>	<u>2-3% fine-grained pyrite. trace chalcopyrite.</u>	<u>ANDESITE TUFF - fine to medium grained fragmental, moderate to strongly schistose (sheared). Schistosity @ 40° to C.A. Contains 2-3% fine-grained pyrite as dissemination, along fractures, and in thin quartz stringers. Good amounts of chalcopyrite with pyrite. Pyrite generally concentrated along foliation planes. Strongly oxidized to 15.5 metres, fades to fresh (unoxidized) rock by 18.25 metres.</u>
<u>18.30</u>	<u>40.98</u>	<u>DACITE TUFF</u>	<u>Med. grey</u>	<u>fine grained to aphanitic to thinly banded</u>	<u>strong sericite moderate carbonate (calcite).</u>	<u>2-3% pyrite trace chalcopyrite trace specular hematite.</u>	<u>DACITE TUFF - medium grey, fine-grained fragmental to aphanitic. To thinly banded (lighter grey siliceous layers probably mixture of flow banded/ash falls). Contains 2-3% disseminated pyrite and occasional pyrite stringers to 2 cm thickness. Moderately schistose @ 50° to core axis, parallel to banding.</u>

DRILL LOG

HOLE NO. K-90-3

INTERVAL metres		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS (lithology, alteration, mineralization, structure, age relations, etc.)
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			
40.98	59.10	ANDESITE TUFF	Dark green to pale green	medium grained, fragmental	strong chlorite/ weak carbonate/ epidote	2-3% pyrite as disseminations and thin stringers trace chalcopyrite	ANDESITE TUFF - same as interval 6.10 - 18.30 metres. Foliation/schistosity at 60° to C.A. Appears to be flows in some sections - andesite porphyry with 1-2 mm plagioclase-epidote altered phenocrysts in dark chloritic matrix. 40.98 - 42.80 ^m - thin bedded dacite and andesite tuffs, bedding @ 60° to C.A. 51.05 - 51.75 m - fine grained lapilli tuff, light cream color - deuteric - sharp contrast with underlying andesite @ 60° to C.A. Pyrite content increases to 3-4% by 59.10 metres.
59.10	65.18	DACITE TUFF	medium grey	fine grained to aphanitic	strong sericite moderate carbonate (calcite)	4-5% pyrite trace chalcopyrite	DACITE TUFF - same as section 18.30 - 40.98 metres. Contains 4-5% disseminated pyrite, minor bands of andesite tuff, and is occasionally strongly sheared at 60° to C.A.
65.18	68.50	ANDESITE TUFF	Dark to pale green	medium grained, fragmental	strong chlorite/ epidote/carbonate	4-5% pyrite trace chalcopyrite	ANDESITE TUFF - same as interval 40.98 to 59.10 metres. Dark green chloritic, strongly schistose with foliation @ 60° to C.A. in several sections. Very fine-grained disseminated chalcopyrite more evident in strongly chloritic zones.
68.50	74.90	DACITE TUFF	dark grey	fine grained	strong sericite moderate carbonate (calcite)	4-6% pyrite trace chalcopyrite	DACITE TUFF - medium to dark grey color, strongly schistose @ 60° to C.A., contains wispy chlorite seams. Rock cut by

DRILL LOG

HOLE NO. K-90-3

INTERVAL <i>metres</i>		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS <small>(lithology, alteration, mineralization, structure, age relations, etc.)</small>
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			
							<i>late diffuse 0.1 cm quartz-calcite veinlets. Rock is more altered than previous dacite tuff interval.</i>
74.90	82.50	ANDESITE TUFF	dark green	fine grained	strong chlorite	4-6% pyrite trace chalcopyrite	ANDESITE TUFF - same as interval 65.18 - 68.50 metres.
82.50	105.00	DACITE TUFF	medium grey	fine grained	weak sericite	2-3% pyrite trace chalcopyrite	DACITE TUFF - weakly schistose with foliation @ 60° to C.A. Pyrite content is only 2-3% and only very trace amounts of chalcopyrite evident. Rock cut by abundant hairline quartz-calcite stringers.
105.00	125.10	DIORITE	dark green	fine grained, porphyritic	strong chlorite/ epidote	2-3% pyrite trace chalcopyrite	DIORITE - dark green, fine-grained, porphyritic white to green plagioclase epidote altered phenocrysts set in dark green aphanitic matrix. Generally massive with moderate schistosity on upper and lower contacts @ 60° to C.A. Cut by network of bright green hairline epidote coated fractures. May be andesite flow.
125.10	149.30	DACITE/ ANDESITE TUFFS	dark green to grey bands	fine to medium grained fragmental	moderate chlorite/ epidote/carbonate/ sericite.	2-3% pyrite trace chalcopyrite	ANDESITE/DACITE TUFFS - thin-bedded (5-10 cm bands), intercalated. Bedding @ 60° to C.A. Andesite and dacite occur in equal quantities. Rock is weakly schistose in comparison to other intervals.

DRILL LOG

HOLE NO. K-90-3

INTERVAL metres		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS (lithology, alteration, mineralization, structure, age relations, etc.)
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			
140.30	158.65	DIORITE	dark green	fine to medium grained, porphyritic	moderate chlorite/epidote/carbonate	2-3% pyrite trace chalcopyrite	DIORITE - same as interval 105.00 to 125.10 metres. May be andesite flow? Appears to be flow banded, fine grained in interval 140.30 to 150.70 metres, @ 50° to C.A.
158.65	211.30	ANDESITE TUFS/FLOWS	dark green to pale green	fine grained/fragmental to porphyritic	strong chlorite, patchy epidote/carbonate, Bleached siliceous clay rich pyritic sections.	4-8% pyrite minor chalcopyrite	ANDESITE TUFS/FLOWS - strongly altered chloritic and pyritic tufs and flows. More intensely quartz-pyrite sheared areas show bleaching to clay-carbonate-sericite. Schistosity @ 60° to C.A. 158.65-159.30 - silicified, 10% pyrite in veinlets up to 3 cm. thick @ 60° to core axis. 161.65-169.09 - strongly bleached, very broken core. 10 cm pyrite strand @ 60° to C.A. at 163.10 metres. This interval is the probable cause of the characteristic IP anomaly detected on line 95+00N. Chalcopyrite is much more visible in this section, but is still minor in amount.
211.30	345.30	DAECITE TUFF	Medium grey to light green	fine grained/fragmental	moderate sericite	3-4% pyrite, decreasing to 1-2% by 240.5 metres.	DAECITE TUFF - fine grained, minor andesite flow bands up to 0.5 metres thick. Weak schistosity @ 60° to C.A. Rock is relatively unaltered and is sampled for assay in 1.5 metre intervals.

DRILL LOG

HOLE NO. K-90-3

INTERVAL <i>metres</i>		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS <small>(lithology, alteration, mineralization, structure, age relations, etc.)</small>	
FROM	TO	ROCK TYPE	COLOUR	TEXTURE				
							only up to 240.5 metre mark.	
							254.70 - 254.90 metres - pyrite-quartz chlorite stringer zone	
							291.95 - 292.90 - dark green andesite flow or dyke, contains augite phenocrysts	
							296.90 - 299.0 - augite crystal tuff dacite shows increasing augite porphyry crystal tuff sections generally less than 1 metre thick	
345.30	355.07	ANDESITE TUFF	dark green	fine to coarse fragmented and porphyritic	moderate-strong chlorite/cpidote.	1-2% pyrite	ANDESITE TUFF - dark green, transitional to porphyritic (flows?). Small (≈ 0.5 metres) sections of augite crystal tuffs 345.30 - 348.30 - coarse tuff with clasts up to 10 cm. 353.07 - 10 cm quartz-chlorite vein, no pyrite	
		END OF HOLE AT 355.07 METRES.						

SAMPLE DATA DRILL LOG

K90-3

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME

NUMBER	SAMPLE			CORE			VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS					
	FROM	TO	LENGTH	% REC	ROD	S.G.		Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Au (ppb)	
43171	6.10	8.0	1.9m	75%	4-10 cm			272	2	20	2	34	
172	8.0	9.5	1.5m	75%	"			414	10	18	2	51	
173	9.5	11.0	"	60%	3-5cm			378	8	18	2	51	
174	11.0	12.5	"	60%	"			1770	9	24	2	213	
175	12.5	14.0	"	40%	"		2797 ppm Cu over 7.5 m	2745	2	28	2	276	201 ppb Au
176	14.0	15.5	"	30%	"			3030	8	27	2	150	over 7.5 m
177	15.5	17.0	"	90%	"			1850	3	22	3	42	
178	17.0	18.5	"	50%	2-10cm			3593	4	17	2	324	
179	18.5	20.0	"	75%	5-15cm			583	2	20	2	229	
180	20.0	21.5	"	90%	"			573	2	19	2	97	
181	21.5	23.0	"	100%	"			454	8	28	2	370	
182	23.0	24.5	"	"	"			1111	2	23	2	99	
183	24.5	26.0	"	"	"			833	6	29	2	47	
184	26.0	27.5	"	"	"			591	2	25	7	39	
185	27.5	29.0	"	"	10-50 cm			554	9	19	4	62	
186	29.0	30.5	"	"	"			886	6	13	2	17	
187	30.5	32.0	"	"	"			1555	2	10	2	84	
188	32.0	33.5	"	"	"			1322	7	16	5	102	
189	33.5	35.0	"	"	"		1290 ppm Cu over 10.5 m	952	5	14	2	69	105 ppb
190	35.0	36.5	"	"	"			947	3	13	2	62	over 10.5 m
191	36.5	38.0	"	"	"			1030	6	9	3	66	
192	38.0	39.5	"	"	5-30cm			2061	8	13	5	149	
193	39.5	41.0	"	"	"			1161	4	31	3	204	
194	41.0	42.5	"	"	"			547	8	27	4	195	
195	42.5	44.0	"	"	"			993	13	17	6	59	
196	44.0	45.5	"	"	"			576	10	24	2	37	
197	45.5	47.0	"	"	"			963	10	12	2	95	
198	47.0	48.5	"	"	"			428	20	41	2	72	
199	48.5	50.0	"	"	"			883	12	22	2	70	
200	50.0	51.5	"	"	"			677	7	17	4	40	
43201	51.5	53.0	"	"	"			1087	8	14	5	104	

* * ANALYSIS BY FA/ICP
FROM 10 gm. SAMPLE

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME

NUMBER	SAMPLE			CORE			VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS					
	FROM	TO	LENGTH	% REC	RQD	S.G.		Cu(ppm)	Pb(ppm)	Zn(ppm)	As(ppm)	Au(ppb)	
43 202	53.0	54.5	1.5m	100%	5-30cm			1338	9	18	2	103	
203	54.5	56.0	"	"	"			1493	8	17	6	154	
204	56.0	57.5	"	"	"			1041	8	20	6	142	
205	57.5	59.0	"	"	20-50cm		1581 ppm Cu over 16.5m	1152	4	19	6	93	117 ppb Au over 16.5m
206	59.0	60.5	"	"	10-20cm			594	6	8	3	58	
207	60.5	62.0	"	"	"			2567	8	15	2	160	
208	62.0	63.5	"	"	"			2971	4	20	2	164	
209	63.5	65.0	"	"	20-50cm			1999	3	14	2	120	
210	65.0	66.5	"	90%	5-10cm			1915	14	24	2	100	
211	66.5	68.0	"	100%	10-20cm			1231	2	17	3	95	
212	68.0	69.5	"	"	"			455	2	15	3	73	
213	69.5	71.0	"	"	"			77	2	8	3	43	
214	71.0	72.5	"	"	"			199	2	9	3	45	
215	72.5	74.0	"	"	20-50cm			113	5	9	4	42	
216	74.0	75.5	"	"	"			793	2	30	9	113	
217	75.5	77.0	"	95%	"			1757	2	16	4	120	
218	77.0	78.5	"	95%	10-20cm			459	7	22	3	110	
219	78.5	80.0	"	80%	2-5cm			311	5	17	2	82	
220	80.0	81.5	"	80%	"			1286	2	14	5	112	
221	81.5	83.0	"	100%	10-10cm			162	4	10	2	57	
222	83.0	84.5	"	"	"			16	6	4	2	32	
223	84.5	86.0	"	"	"			459	2	5	2	37	
224	86.0	87.5	"	"	"			1516	2	8	4	92	
225	87.5	89.0	"	"	"			243	3	4	3	46	
226	89.0	90.5	"	"	"			107	2	5	7	60	
227	90.5	92.0	"	"	"			32	4	17	4	8	
228	92.0	93.5	"	"	"			190	2	11	5	48	
229	93.5	95.0	"	"	"			66	5	14	2	30	
230	95.0	96.5	"	"	"			49	5	15	9	43	
231	96.5	98.0	"	"	"			80	4	18	12	32	
43 232	98.0	99.5	"	"	"			84	2	15	17	29	

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME

SAMPLE				CORE			VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS				
NUMBER	FROM	TO	LENGTH	% REC	RQD	S.G.		Cu(ppm)	Pb(ppm)	Zn(ppm)	As(ppm)	Au(ppb)
43233	99.5	101.0	1.5m	100%	5-30cm		9	2	5	24	34	
234	101.0	102.5	"	"	"		38	2	14	20	22	
235	102.5	104.0	"	95%	5-10cm		295	2	17	8	20	
236	104.0	105.5	"	100%	10-30cm		197	7	17	4	44	
237	105.5	107.0	"	"	"		348	4	15	6	42	
238	107.0	108.5	"	"	"		153	4	17	9	22	
239	108.5	110.0	"	"	"		222	2	16	9	30	
240	110.0	111.5	"	"	"		251	6	15	13	81	
241	111.5	113.0	"	"	"		69	5	18	12	43	
242	113.0	114.5	"	"	"		38	4	20	8	7	
243	114.5	116.0	"	25%	2-5cm		49	2	24	6	18	
244	116.0	117.5	"	100%	5-15cm		129	4	25	4	23	
245	117.5	119.0	"	95%	2-5cm		155	2	26	7	26	
246	119.0	120.5	"	90%	"		118	5	32	5	24	
247	120.5	122.0	"	90%	"		119	4	35	8	42	
248	122.0	123.5	"	90%	"		79	2	34	4	24	
249	123.5	125.0	"	95%	"		163	2	36	6	17	
250	125.0	126.5	"	100%	25-40cm		406	5	38	4	51	
251	126.5	128.0	"	"	"		371	2	31	2	59	
252	128.0	129.5	"	"	"		287	3	31	4	143	
253	129.5	131.0	"	"	"		171	2	25	13	105	
254	131.0	132.5	"	"	"		123	2	40	3	18	
255	132.5	137.0	"	"	"		374	2	36	6	79	
256	137.0	138.5	"	"	"		68	4	23	2	14	
257	138.5	140.0	"	"	"		24	2	19	4	15	
258	140.0	141.5	"	"	"		73	2	23	2	9	
259	141.5	143.0	"	"	"		41	6	20	2	9	
260	143.0	144.5	"	"	"		45	4	23	2	14	
261	144.5	146.0	"	"	"		45	2	21	5	5	
262	146.0	147.5	"	"	"		40	3	22	3	2	
43263	147.5	149.0	"	"	"		39	4	33	2	1	

* ANALYSIS BY FA/ICP FROM 10 gm. SAMPLE

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME

NUMBER	SAMPLE			CORE			VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS						
	FROM	TO	LENGTH	% REC	RQD	S.G.		Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Au (ppb)		
43264	149.0	150.5	1.5m	100%	25-40cm			40	2	26	3	3		
265	150.5	152.0	"	"	"			140	2	42	3	21		
266	152.0	153.5	"	"	"			138	3	44	6	13		
267	153.5	155.0	"	"	"			104	2	39	2	6		
268	155.0	156.5	"	"	"			118	5	45	3	41		
269	156.5	158.0	"	"	"			150	2	44	4	14		
270	158.0	159.5	"	"	"			355	2	34	6	112		
271	159.5	161.0	"	95%	2-10cm			384	5	21	3	47		
272	161.0	162.5	"	50%	2-5cm			528	5	20	4	256		
273	162.5	164.0	"	60%	"		163.72-164.02 - no core	444	4	21	7	228		
274	164.0	165.5	"	20%	"			1380	2	24	5	97		
275	165.5	167.0	"	50%	"			833	4	22	3	74		
276	167.0	168.5	"	80%	"			552	2	34	5	126		
277	168.5	170.0	"	80%	"			656	2	41	6	202		
278	170.0	171.5	"	100%	10-15cm			635	2	26	2	53		
279	171.5	173.0	"	80%	2-5cm			367	5	22	2	84		
280	173.0	174.5	"	100%	20-40cm			486	5	19	2	56		
281	174.5	176.0	"	"	"			691	6	15	8	364		
282	176.0	177.5	"	"	"			1009	2	19	3	177		
283	177.5	179.0	"	"	"			674	5	25	8	163		
284	179.0	180.5	"	"	"			1103	3	28	5	79		
285	180.5	182.0	"	"	"			1887	2	23	4	126		
286	182.0	183.5	"	"	"			924	4	25	4	94		
287	183.5	185.0	"	80%	5-10cm			826	8	23	6	101		
288	185.0	186.5	"	100%	10-20cm			937	8	19	2	95		
289	186.5	188.0	"	90%	2-5cm			763	4	20	2	61		
290	188.0	189.5	"	90%	"			1062	2	23	6	152		
291	189.5	191.0	"	100%	10-30cm			1249 ppm Cu over 13.5m	1258	4	31	8	269	133 ppb Au over 13.5m
292	191.0	192.5	"	"	"			1474	4	22	6	100	over 13.5m	
293	192.5	194.0	"	70%	2-8cm			1711	2	28	2	130		
43294	194.0	195.5	"	"	"			1629	3	43	5	136		

** ANALYSIS BY FA/ICP
FROM 10 gm. SAMPLE

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME

SAMPLE				CORE			VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS				
NUMBER	FROM	TO	LENGTH	% REC	RQD	S.G.		Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Au (ppb)
43295	195.5	197.0	1.5m	100%	20-60m		1209	8	21	5	108	
296	197.0	198.5	"	"	"		939	6	30	2	95	
297	198.5	200.0	"	"	"		915	12	53	5	121	
298	200.0	201.5	"	"	"		1046	4	28	3	86	
299	201.5	203.0	"	"	"		821	7	24	4	78	
300	203.0	204.5	"	"	"		703	2	25	5	50	
301	204.5	206.0	"	"	"		805	4	27	5	55	
302	206.0	207.5	"	"	"		686	4	26	4	53	
303	207.5	209.0	"	"	"		428	3	29	6	62	
304	209.0	210.5	"	"	"		402	3	19	2	40	
305	210.5	212.0	"	"	"		477	2	19	2	34	
306	212.0	213.5	"	"	"		336	5	18	3	22	
307	213.5	215.0	"	"	"		329	2	31	2	34	
308	215.0	216.5	"	"	"		228	3	24	3	38	
309	237.5	239.0	"	"	"		819	2	21	2	55	
310	248.0	249.5	"	"	"		35	3	16	3	35	
311	254.0	255.5	"	"	"		63	5	23	5	26	
312	264.5	266.0	"	"	"		96	7	20	5	17	
313	279.5	281.0	"	"	"		206	2	19	2	15	
314	284.0	285.5	"	"	"		613	3	21	3	24	
315	288.5	289.5	1.0m	"	"		152	2	11	6	14	
316	306.5	308.0	1.5m	"	"		373	2	18	2	24	
317	320.0	321.5	"	"	"		342	5	16	6	23	
318	323.0	324.5	"	"	"		141	4	33	7	27	
319	324.5	326.0	"	"	"		74	2	34	6	31	
	END of Samples											

ANALYTICAL CERTIFICATES

K90-3

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	Tl %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
D 43207	4 2567	8 15	1.1	22 24	343 4.58	2	5 ND	1 84	1.4	2 3	119 2.33	.106	6 38	1.46	54	.15	3 1.65	.21	1.16	2 160											
D 43208	3 2971	4 20	1.4	27 32	393 6.53	2	5 ND	1 98	1.0	2 2	150 3.10	.126	7 61	2.05	59	.17	6 2.16	.20	1.36	1 164											
D 43209	5 1999	3 14	1.0	20 25	370 4.82	2	5 ND	1 98	.8	2 2	118 3.64	.122	7 37	1.42	80	.16	5 1.63	.19	1.10	1 120											
D 43210	3 1915	14 24	1.1	43 24	532 7.93	2	5 ND	1 60	.5	2 2	165 2.02	.111	3 128	2.72	168	.22	6 3.41	.15	2.80	1 100											
D 43211	2 1231	2 17	.8	29 17	514 7.18	3	5 ND	1 73	.3	2 2	159 2.51	.133	4 121	2.27	160	.19	6 2.74	.11	2.22	1 95											
D 43212	2 455	2 15	.3	12 10	423 4.25	3	5 ND	1 145	.5	2 2	71 3.67	.105	6 52	1.50	102	.12	3 1.79	.12	1.35	1 73											
D 43213	2 77	2 8	.1	6 8	286 3.15	3	5 ND	1 138	1.0	2 2	33 2.65	.104	6 12	.83	94	.10	4 1.30	.13	.98	1 43											
D 43214	4 199	2 9	.1	6 7	349 3.36	3	5 ND	1 173	.7	2 2	38 3.40	.108	7 13	.92	78	.09	4 1.25	.10	.97	1 45											
D 43215	2 113	5 9	.1	5 8	368 2.83	4	5 ND	1 170	.9	2 2	34 3.32	.106	8 14	.91	80	.09	3 1.24	.11	.96	1 42											
D 43216	10 793	2 30	.6	13 14	418 5.06	9	5 ND	1 133	.7	2 2	72 3.35	.133	5 27	1.22	65	.10	5 1.30	.10	1.07	1 113											
D 43217	2 1757	2 16	.9	19 14	408 5.26	4	5 ND	1 105	1.1	2 2	101 2.36	.130	7 41	1.39	92	.18	5 1.71	.13	1.56	1 120											
D 43218	2 459	7 22	.4	10 13	533 4.50	3	5 ND	1 199	1.0	2 2	89 4.26	.158	6 25	1.46	88	.16	4 1.65	.11	1.38	1 110											
D 43219	1 311	5 17	.3	5 18	419 5.54	2	5 ND	1 117	.9	2 2	126 2.71	.198	5 14	1.81	97	.17	3 1.95	.13	1.57	1 82											
D 43220	2 1286	2 14	.9	10 13	382 5.22	5	5 ND	1 138	.6	2 2	97 2.93	.155	9 28	1.28	96	.12	5 1.58	.13	1.26	1 112											
D 43221	1 162	4 10	.1	6 10	385 3.46	2	5 ND	1 190	.8	2 2	48 3.72	.133	6 14	1.02	89	.09	3 1.26	.14	.87	1 57											
D 43222	1 16	6 4	.1	6 11	291 3.30	2	5 ND	1 166	.8	2 2	34 3.37	.108	8 14	.65	83	.07	4 .99	.15	.53	1 32											
D 43223	1 459	2 5	.2	2 12	256 3.30	2	5 ND	1 130	.5	2 2	36 2.85	.112	6 10	.73	67	.04	3 .88	.13	.49	1 37											
D 43224	1 1516	2 8	.8	3 8	295 3.15	4	5 ND	1 136	1.2	2 2	37 3.27	.112	7 13	.77	72	.09	2 .95	.10	.55	1 92											
D 43225	1 243	3 4	.1	3 6	378 2.96	3	5 ND	1 138	1.2	2 2	32 3.53	.109	7 9	.54	81	.09	2 .91	.13	.50	2 46											
D 43226	1 107	2 5	.1	5 9	384 3.35	7	5 ND	1 122	1.0	2 2	44 3.14	.129	7 10	.87	70	.09	2 1.11	.13	.51	1 60											
D 43227	1 32	4 17	.1	7 11	672 3.73	4	5 ND	1 164	.8	3 2	55 4.00	.164	6 13	1.45	116	.12	4 1.77	.09	.75	1 8											
D 43228	2 190	2 11	.1	5 10	593 3.19	5	5 ND	1 209	.8	2 2	36 4.37	.144	6 17	1.24	62	.06	2 1.49	.12	.44	1 48											
D 43229	1 66	5 14	.1	3 9	680 3.30	2	5 ND	1 229	.5	2 2	40 4.79	.153	8 11	1.28	80	.04	6 1.33	.10	.46	1 30											
D 43230	1 49	5 15	.1	3 12	701 3.52	9	5 ND	1 290	.8	3 2	50 4.63	.174	7 12	1.25	94	.06	2 1.53	.12	.49	1 43											
D 43231	1 80	4 18	.1	3 10	737 3.49	12	5 ND	1 298	1.0	3 2	46 4.90	.183	8 12	1.26	67	.05	4 1.51	.10	.49	1 32											
D 43232	1 84	2 15	.1	5 12	624 3.31	17	5 ND	1 257	.9	2 2	43 4.13	.174	8 14	1.16	76	.05	2 1.42	.10	.47	1 29											
D 43233	1 9	2 5	.1	3 14	989 2.63	24	5 ND	1 572	.7	2 2	21 8.42	.171	6 9	.63	60	.02	4 .88	.08	.32	1 34											
D 43234	1 38	2 14	.1	3 13	746 3.19	20	5 ND	1 330	.6	2 2	31 4.99	.140	7 10	1.15	57	.03	4 1.26	.07	.36	1 22											
D 43235	1 245	2 17	.1	3 9	734 3.03	8	5 ND	1 300	1.1	3 2	42 4.75	.166	10 10	1.06	81	.04	3 1.29	.09	.40	1 20											
D 43236	1 197	7 17	.1	3 10	544 3.18	4	5 ND	1 185	.8	3 2	49 4.18	.169	8 17	1.04	87	.06	4 1.11	.09	.57	1 44											
D 43237	3 348	4 15	.3	3 9	506 2.89	6	5 ND	1 156	1.2	4 2	54 3.07	.170	7 14	1.14	91	.13	2 1.65	.14	.88	1 42											
D 43238	3 153	4 17	.2	5 13	511 3.25	9	5 ND	1 128	.8	2 2	56 2.72	.182	7 11	1.23	85	.13	2 1.61	.07	.98	1 22											
D 43239	1 222	2 16	.1	3 10	504 3.05	9	5 ND	1 128	.8	5 2	61 2.56	.164	6 11	1.22	108	.13	2 1.64	.12	.95	1 30											
D 43240	2 251	6 15	.3	5 9	542 3.22	13	5 ND	1 148	1.6	4 2	54 2.97	.180	6 20	1.15	88	.13	2 1.61	.12	.95	1 81											
D 43241	1 69	5 18	.1	4 10	575 2.98	12	5 ND	1 136	1.0	5 2	59 2.89	.190	6 14	1.33	102	.14	2 1.75	.14	1.02	1 43											
D 43242	1 38	4 20	.1	5 9	524 2.86	8	5 ND	1 142	.8	5 2	73 1.84	.196	7 12	1.41	128	.16	2 1.87	.12	1.29	1 7											
STANDARD C/AU-R	19 63	41 131	7.4	73 32	1058 3.99	43	21 8	37 53	18.5	15 22	56 .46	.095	38 60	.89	181	.07	36 1.90	.07	.14	13 504											

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
D 43315	4	152	2	11	.2	29	29	191	4.89	6	5	ND	1	58	.2	2	2	37	1.11	.111	2	23	.80	35	.14	2	.87	.04	.19	1	14
D 43316	6	373	2	18	.3	23	26	259	3.99	2	5	ND	1	49	.2	2	2	34	1.25	.100	2	13	1.03	38	.13	2	1.01	.03	.20	1	24
D 43317	4	342	5	16	.3	25	28	315	5.14	6	5	ND	1	63	.2	2	2	36	2.01	.095	2	21	.82	30	.13	2	.86	.03	.24	1	23
D 43318	5	161	4	33	.2	27	23	642	5.29	7	5	ND	1	90	.2	2	2	81	4.99	.100	3	40	1.99	44	.13	3	1.85	.02	.56	2	27
D 43319	3	74	2	34	.2	26	24	717	5.24	6	5	ND	1	93	.2	2	2	71	5.66	.101	3	29	2.13	45	.12	2	2.06	.02	.58	1	34

DRILL LOG

K90-4

DRILL LOG

HOLE NO. K90-4

DRILLING CO. <u>LOUIE RANGER DIAMOND DRILLING COMPANY</u>	LOCATION SKETCH	ACID TESTS		DATE STARTED:	PROJECT:	
		DEPTH	DIP ANGLE	AZIMUTH	<u>OCTOBER 28 1990</u>	<u>KENA</u>
		COLLAR	<u>-60°</u>	<u>040°</u>	DATE COMPLETED: <u>OCTOBER 31 1990</u>	N.T.S.: <u>82F/6W</u>
		<u>96.31m</u>	<u>-61°</u>		COLLAR ELEV.: <u>~1580.0 METRES</u>	LOCATION: <u>KENA COPPER</u>
		<u>190.80m</u>	<u>-58°</u>		NORTHING: <u>88+97N</u> } <u>KENA</u>	<u>ZONE</u>
				EASTING: <u>3+09W</u> } <u>COPPER GRID</u>		
				AZIMUTH: <u>040°</u>		
				DEPTH: <u>391.95m</u>	DATE LOGGED: <u>OCT 30 - NOV 5 1990</u>	
HOLE TYPE <u>CORE</u>				CORE SIZE: <u>NQ</u>	LOGGED BY: <u>W.J. LEWIS</u>	

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
0	3.35m	CASING					CASING THROUGH OVERBURDEN
3.35m	27.44m	DIORITE ?	DARK GREEN LOCALLY LIGHT GREY MOTTLED	MEDIUM GRAINED	HIGH CALCITE HIGH CHLORITE MODERATE EPIDOTE MINOR CLAY MINOR LIMONITE SILICEOUS	TRACE-3% PYRITE TRACE-1% CHALCOPYRITE TRACE PYRRHOTITE TRACE MAGNETITE	DIORITE - DARK GREEN, LOCALLY LIGHT GREY IN SILICEOUS SECTIONS. LOCAL STRONGLY SCHISTOSE (SHEARED) INTERVALS. SCHISTOSITY AT 50-55° TO C.A. HIGH CHLORITE, PERVASIVE CALCITE WITH A STOCKWORK OF CALCITE STRINGERS GENERALLY AT 70°-90° TO C.A. OCCASIONALLY THE CALCITE STRINGERS ARE VUGGY. LOCALLY CLAY ALTERATION AND LIMONITE IS FOUND ON FRACTURE PLANES. EPIDOTE REPLACES CALCITE IN SOME AREAS. SMALL QUARTZ STRINGERS UP TO 4cm WIDE X-CUT THE CORE AT RANDOM ANGLES AND IN SOME AREAS APPEAR TO BE POST CALCITE. PYRITE OCCURS PRIMARILY WITHIN CALCITE STRINGERS, OCCASIONALLY THE CALCITE HAS WEATHERED OUT AND ONLY THE PYRITE REMAINS. OCCASIONALLY THE PYRITE APPEARS TO BE BANDED IN APPEARANCE HOWEVER THE PYRITE ALONG WITH CALCITE OCCURS ALONG MICROFRACTURES USUALLY IN THE DIRECTION OF SHEAR. ~ 14.4 - 14.65m - VUGGY AND LIMONITIC INTERVAL

D R I L L L O G

HOLE NO. K 90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							~ 18.2 - 18.5 m - VUGGY AND LIMONITIC INTERVAL
							~ 19.25 m - CALCITE STRINGER WITH PYRITE TO 10% LOCALLY AND CHALCOPYRITE TO 1% LOCALLY
24.44 m	38.82 m	ANDESITE TUFF	DARK GRAY TO DARK GREEN	FINE TO MEDIUM GRAINED	CALCITE, CHLORITE HIGH CLAY MINOR SILICIFICATION MINOR EPIDOTE LIMONITE	TRACE - 2% LOCALLY UP TO 8% PYRITE TRACE CHALCOPYRITE TRACE PYRRHOTITE TRACE - 1% MAGNETITE	ANDESITE TUFF - CONTACT AT 60° TO C.A. LOCAL SCHISTOSE INTERVALS SOME HAVING A HIGH CLAY ALTERATION OR LIMONITE ALONG THE FRACTURE PLAINS. MINOR EPIDOTE USUALLY REPLACING CALCITE AND MINOR SILICIFICATION LOCALLY PRESENT. PYRITE USUALLY OCCURS WITH THE CALCITE EITHER DISSEMINATED OR WITHIN THE CALCITE STRINGERS. FINE GRAINED MAGNETITE AND PYRRHOTITE ARE OCCASIONALLY PRESENT MOSTLY DISSEMINATED IN NATURE. ~ 33.0 - 33.5 m - HIGH CLAY ALTERATION ALONG FRACTURE PLAINS ~ 34.5 m - IRREGULAR QUARTZ-CALCITE STRINGER ~ 7cm WIDE AT 50° TO C.A. STRINGER CONTAINS PYRITE UP TO 8% LOCALLY AND A TRACE OF CHALCOPYRITE. ~ 35.0 - 35.4 m - SLIGHTLY SCHISTOSE OR BEDDED? AT 55° TO C.A. DISSIMINATED PYRITE IS PRESENT ~ 35.6 - 36.0 m - HIGHLY SCHISTOSE WITH PYRITE ALONG THE DIRECTION OF THE SCHISTOSITY WHICH GIVES A BANNED APPEARANCE TO THE PYRITE. PYRITE UP TO 8%

DRILL LOG

HOLE NO. K90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
38.82m	41.45m	DAKITE TUFF	LIGHT TO DARK GRAY	FINE GR.	CALCITE CLAY MINOR LIMONITE	TRACE - 1% PYRITE TRACE MAGNETITE TRACE PYRRHOTITE	DAKITE TUFF - CONTACT IS AT 75° TO C.A. MODERATE SCHISTOSITY AT 60° TO C.A. BOTH THE CLAY ALTERATIONS AND LIMONITE ARE NOTED WITHIN THE SHEAR PLAINS AND FRACTURES OCCASIONALY. CALCITE STRINGERS RUN AT VARIOUS ANGLES TO THE C.A. THE DAKITE TUFF APPEARS TO HAVE A GRADATIONAL CONTACT WITH THE UNDERLYING ANDESITES ~ 39.05m - PYRITE STRINGER WITH CALCITE.
41.45m	59.84m	ANDESITE CRYSTAL TUFF / FLOW?	LIGHT TO DARK GREEN	FINE TO MEDIUM GRAINED	CALCITE, EPIDOTE MINOR CLAY MINOR LIMONITE	TRACE - 1% PYRITE TRACE - 1% CHALCOPYRITE TRACE PYRRHOTITE TRACE MAGNETITE	ANDESITE XTAL TUFF / FLOW? - MODERATELY SCHISTOSE, SCHISTOSITY (SHEARED) AT 60° TO C.A. HORNBLENDE AND ANGITE CRYSTALS PRESENT WITHIN THE TUFF OR FLOW. EPIDOTE WHERE PRESENT TENDS TO REPLACE CALCITE. LOCAL SMALL QUARTZ-CALCITE STRINGERS RUN AT VARIOUS ANGLES TO THE C.A. LIMONITE AND CLAY ALTERATIONS OCCUR OCCASIONALY ALONG SHEAR PLAINS AND FRACTURE PLAINS.
59.84m	71.65m	DIORITE / ANDESITE TUFF?	LIGHT TO DARK GREEN	MEDIUM GRAINED	PERVASIVE CALCITE AND CHLORITE MODERATE EPIDOTE (SILICEOUS)	TRACE - 2% PYRITE TRACE CHALCOPYRITE TRACE - 1% MAGNETITE TRACE PYRRHOTITE?	DIORITE / ANDESITE TUFF? - SLIGHTLY SCHISTOSE, LIGHT TO DARK GREEN, MEDIUM GRAINED PERVASIVE CALCITE AND CHLORITE ALTERATION. MODERATE EPIDOTE ALTERATION USUALLY REPLACING CALCITE. QUARTZ-CALCITE AND CALCITE STRINGERS UP TO 1 1/2 cm WIDE AND AT ~ 45° TO C.A. FINE GRAINED DISSEMINATED MAGNETITE AND POSSIBLY PYRRHOTITE IS PRESENT. PYRITE AND CHALCOPYRITE ARE PRIMARILY LOCATED IN THE QUARTZ-CALCITE AND CALCITE STRINGERS WITH THE OCCASIONAL DISSEMINATED PYRITE OR CHALCOPYRITE

DRILL LOG

HOLE NO. K90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							- 67.98m - 4cm wide QUARTZ - CALCITE STRINGER AT 43° TO C.A. BLEBS OF PYRITE AND TRACES OF CHALCOPYRITE IS PRESENT
71.65m	85.95m	MONZODIORITE?	LIGHT GREEN TO DARK GREY	MEDIUM TO COARSE GRAINED	PERVASIVE CALCITE CHLORITE LOCALLY SILICEOUS MINOR CLAY MINOR EPIDOTE	TRACE - 2% PYRITE TRACE - 1% CHALCOPYRITE TRACE MAGNETITE	MONZODIORITE - CONTACT AT 71.65m IS AT ~45° TO C.A. HIGHLY SCHISTOSE (SHEARED), AT 60° TO C.A. LOCALLY. THE CLAY ALTERATION IS USUALLY LOCATED WITHIN THE AREAS OF HIGH SCHISTOSITY OR OCCASIONALLY ALONG SOME FRACTURES. PERVASIVE CALCITE WITH MODERATE TO LOCALLY HIGH CHLORITE. MINOR EPIDOTE REPLACEMENT OF CALCITE AND FELDSPAR. AUGITE AND HORNBLENDIC XTALS. PRESENT. DUE TO SILICIFICATION IN SOME AREAS THIS UNIT LOOKS SIMILAR TO THE DACIC TUFF. PYRITE IS DISSEMINATED PRIMARILY, WITH THE OCCASIONAL BLEBS WITHIN CALCITE STRINGERS
85.95m	104.90m	ANDESITE TUFF (DIORITE?)	DARK GREEN	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE PERVASIVE CHLORITE MINOR EPIDOTE LOCALLY SILICEOUS	TRACE - 1% PYRITE TRACE - 1% CHALCOPYRITE TRACE MAGNETITE TRACE PYRRHOTITE	ANDESITE TUFF (DIORITE?) - TUFFACEOUS IN APPEARANCE LOCALLY. PERVASIVE CALCITE AND CHLORITE, WITH THE CHLORITE MASKING THE ORIGINAL NATURE OF THE UNIT. PYRITE OCCURS WITHIN SMALL CALCITE STRINGERS ALONG MICROFRACTURES WHERE LOCALLY IT COMPRISES UP TO 6%. DISSEMINATED PYRITE ALSO OCCASIONALLY OCCURS. PYRRHOTITE AND MAGNETITE ARE FINE GRAINED AND ARE PRIMARILY DISSEMINATED. EPIDOTE LOCALLY REPLACES CALCITE AND FELDSPAR!

DRILL LOG

HOLE NO. K90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							- 88.5m - HIGHLY SILICIFIED ZONE WITH NO APPARENT CHANGE IN THE SULFIDE CONCENTRATION
							- 99.4-99.90 - ZONE OF HIGH CALCITE CONCENTRATION
104.90m	126.40m	MONZODIORITE?	DARK GREY TO GREEN MOTTLED	MEDIUM TO COARSE GRAINED XTALLINE	PERVASIVE CALCITE MODERATE EPIDOTE LOCALIZED SILICIFICATION MINOR CHLORITE	TRACE-5% PYRITE TRACE-2% CHALCOPYRITE TRACE MAGNETITE TRACE PYRRHOTITE	MONZODIORITE - MEDIUM TO COARSE GRAINED XTALLINE IN NATURE. PERVASIVE CALCITE WITH MINOR CHLORITE, LOCALLY SILICEOUS, OCCASIONALLY EPIDOTE REPLACES CALCITE AND FALDSPAR. BISTITE, HORN BLÉNDE, AND AUGITE? CRYSTALS ARE PRESENT IN AREAS WHICH HAVE NOT BEEN SUBJECT TO SILICIFICATION AND SUBSEQUENT CALCITE ALTERATION, IN THESE AREAS THE UNIT TAKES ON THE APPEARANCE OF A DACITIC TUFF. BOTH THE PYRITE AND CHALCOPYRITE ARE DISSEMINATED, WITH HIGHER CONCENTRATIONS LOCATED WITHIN QUARTZ-CALCITE CALCITE STRINGERS. OCCASIONALLY THE PYRITE HAS A BANDED APPEARANCE WHICH IS DUE TO HIGHER CONCENTRATIONS OF PYRITE ALONG PARALLEL MICROFRACTURES. SLIGHTLY SHISTOSE AT 60° TO C.A. - 120.0-122.5m ZONE OF PERVASIVE CALCITE ALTERATION, MINOR SILICIFICATION APPEARS TO BE DACITIC TUFF

DRILL LOG

HOLE NO. K 90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
126.40 m	139.95 m	ANDESITE TUFF (PORPHYRY)?	LIGHT TO DARK GREEN, GREY, MOTTLED	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE PERVASIVE CHLORITE MINOR EPIDOTE MINOR SILICIFICATION	TRACE - 3% PYRITE TRACE - 1% CHALCOPYRITE TRACE MAGNETITE TRACE PYRRHOTITE	ANDESITE TUFF (PORPHYRY?) - FINE TO MEDIUM GRAINED, PERVASIVE CALCITE AND CHLORITE ALTERATIONS WITH MINOR SILICIFICATION AND EPIDOTE. SLIGHTLY SHISTOSE ~ 60° TO C.A. LOCALLY THERE APPEAR TO BE FELDSPAR CRYSTALS, SO THIS INTERVAL MAY BE A HIGHLY ALTERED VERSION OF THE ANDESITE PORPHYRY. THE PYRITE AND CHALCOPYRITE ARE MAINLY DISSEMINATED, BUT BOTH SULFIDES ALSO APPEAR WITHIN THE QUARTZ-CALCITE AND CALCITE STRINGERS. THE STRINGERS ARE OCCASIONALLY VUGGY AT WHICH TIME BOTH QUARTZ AND CALCITE CRYSTALS ARE EVIDENT. LOCALLY EPIDOTE REPLACES THE CALCITE OR FELDSPAR CRYSTALS
139.95 m	148.96 m	DIORITE	LIGHT TO DARK GREEN MOTTLED	FINE TO GRAINED	CALCITE CHLORITE MINOR EPIDOTE PARTL SILICEOUS	TRACE - 2% PYRITE TRACE - 2% CHALCOPYRITE TRACE MAGNETITE TRACE PYRRHOTITE	DIORITE - FINE GRAINED, LIGHT TO DARK GREEN WITH A MOTTLED APPEARANCE. QUARTZ-CALCITE AND CALCITE STRINGERS AT RANDOM ANGLES TO C.A. THE STRINGERS ARE USUALLY VERY VUGGY, CONTAINING BOTH QUARTZ AND CALCITE CRYSTALS. DISSEMINATED PYRITE AND CHALCOPYRITE PRESENT WITH HIGHER CONCENTRATIONS OF BOTH SULFIDES UP TO 2% OCCURRING IN THE STRINGERS. MAGNETITE AND PYRRHOTITE ARE FINELY DISSEMINATED THROUGHOUT THE INTERVAL. - 140.0 m - QTZ-CALCITE STRINGER CONTAINING BOTH PYRITE AND CPY - 141.5 m - SAME AS 140.0 m

D R I L L L O G

HOLE NO. K 90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
148.96m	150.14m	ANDESITE TUFF (PORPHYRY?)	LIGHT GREEN TO DARK GREY	FINE GRAINED	PERVASIVE CALCITE MODERATE CHLORITE	TRACE - 3% PYRITE TRACE - 1% CHALCOPYRITE TRACE - MAGNETITE TRACE - PYRRHOTITE	ANDESITE TUFF (PORPHYRY?) - LIGHT GREEN TO DARK GREY, PERVASIVE CALCITE WITH MODERATE CHLORITE ALTERATION. FELDSPAR CRYSTALS AND OCCASIONALLY MAFIC CRYSTALS? ARE FOUND WITHIN THE FINE GRAINED GROUNDMASS. CALCITE STRINGERS OCCASIONALLY WITH PYRITE AND CHALCOPYRITE BLEBS CROSSCUT THE CORE SLIGHTLY SHISTOSE AT ~ 50-60° TO C.A.
150.14m	157.75	DIORITE	LIGHT TO DARK GREEN MOTTLED	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE CHLORITE, EPIDOTE MINOR SILICIFICATION	TRACE - 2% PYRITE TRACE - 2% CHALCOPYRITE TRACE MAGNETITE	DIORITE - LIGHT TO DARK GREEN WITH MOTTLED, FINE-MEDIUM GRAINED. PERVASIVE CALCITE WITH SOME CHLORITE ALTERATION. EPIDOTE PRIMARILY REPLACES CALCITE AND FELDSPAR HELPING TO GIVE THE INTERVAL A MOTTLED APPEARANCE. SLIGHTLY SHISTOSE (SHEARED) AT 50° TO C.A. DISSEMINATED SULPHIDES WITH OCCASIONAL BUBBLES OF PYRITE AND CHALCOPYRITE WITHIN QUARTZ-CALCITE STRINGERS - 151.5-151.80m CHALCOPYRITE APPEARS TO INCREASE IN CONCENTRATION UP TO 3% LOCALLY - 157.33-157.75m BOTH CHALCOPYRITE AND PYRITE APPEAR IN ELEVATED CONCENTRATIONS OF UP TO 3% POSSIBLY HIGHER.
157.75m	166.90m	ANDESITE TUFF	LIGHT TO DARK GREEN	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE MODERATE SILICIFICATION MINOR CHLORITE MINOR EPIDOTE	TRACE - 3% PYRITE TRACE - 3% CHALCOPYRITE	ANDESITE TUFF - FINE TO MEDIUM GRAINED SLIGHTLY SHISTOSE (SHEARED) AT 50° TO C.A. SILICIFICATION HAS INCREASED SOMEWHAT OVER THE ABOVE INTERVAL AT APPROX. 163.0m. THERE APPEARS TO BE A CORRESPONDING INCREASE IN BOTH PYRITE AND CHALCOPYRITE UP TO AS

DRILL LOG

HOLE NO. K-90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							MUCH AS 3% IN BOTH CASES. THE INCREASE OCCURS NOT ONLY IN THE DISSEMINATED SULPHIDES BUT, ALSO IN THE SULPHIDE CONTENT OF QUARTZ AND QUARTZ-CALCITE STRINGERS. OCCASIONALLY SOME OF THE SMALLER QUARTZ STRINGERS ARE OFFSET BY MICROFRACTURES.
							- 163.6m - QUARTZ STRINGER, AT 8° TO C.A., IRREGULAR WIDTH FROM 1/2 - 1 1/2 CM WIDE. BLUE-GREY QUARTZ CUT BY SMALL STRINGERS OF CALCITE
							- 164.75 - 165.0m - QUARTZ-CALCITE STRINGER AT 10° TO C.A. CONTAINING SMALL ALLEYS OF PYRITE AND CHALCOPYRITE
							~ 166.5m THE PYRITE CONCENTRATION INCREASES TO ~ 5%, AND BECOMES MORE SHEAR AND FRACTURE CONTROLLED. SHISTOSITY (SHEAR) AT ~ 70-75° TO C.A.
166.90m	173.69	DIORITE	LIGHT TO DARK GREEN	FINE GRAINED	CALCITE CHLORITE SILICEOUS MINOR EPIDOTE	1-2% PYRITE TRACE CHALCOPYRITE TRACE MAGNETITE	DIORITE - LIGHT TO DARK GREEN, MOTTLED. FINE GRAINED. CONTACT AT 166.90m IS AT 60° TO C.A. SIMILAR TO THE INTERVAL AT 150.14-157.85m - 166.90 - 169.5m - HIGHLY SILICIFIED WITH SULPHIDE CONTENT INCREASING IN THE VARIOUS STRINGERS AS WELL AS IN THE AMOUNT OF DISSEMINATED SULFIDES. THE STRINGERS, QUARTZ-CALCITE AND CALCITE, ARE AT ~ 85° TO C.A. - 174.5m - SMALL PYRITE STRINGERS WITH A TRACE OF CHALCOPYRITE AT 50° TO C.A.

DRILL LOG

HOLE NO. K 90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							- 176.8 - 177.2 m HIGH CHALCOPYRITE UP TO 2%, BOTH AS DISSEMINATED SULFIDES AND WITHIN SMALL CALCITE STRANGERS
183.69m	187.40m	MONZODIORITE?	LIGHT GREEN	MEDIUM GRAINED XTALLINE	PERVASIVE CALCITE PERVASIVE CHLORITE MINOR EPIDOTE	TRACE PYRITE TRACE CHALCOPYRITE	MONZODIORITE - BOTH THE CONTACTS AT 183.69m AND 187.40m ARE AT ~ 55° TO C.A. PERVASIVE CALCITE AND CHLORITE ALTERATION WHICH OBSCURES MOST OF THE DETAILS OF THIS INTERVAL AND POSSIBLY THIS A VARIATION OF THE ANDESITIC PORPHYRY. DISSEMINATED PYRITE AND CHALCOPYRITE OCCUR IN TRACE AMOUNTS.
187.40m	191.5m	DIORITE	LIGHT TO DARK GREEN MOTTLED	FINE GRAINED	PERVASIVE CALCITE PERVASIVE CHLORITE LOCALLY SILICEOUS	TRACE - 4% PYRITE TRACE CHALCOPYRITE	DIORITE - SIMILAR TO INTERVALS 150.14 - 157.75m AND 166.90 - 183.69m. FINE GRAINED, LIGHT TO DARK GREEN. UPPER CONTACT AT 166.90m AT 50° TO C.A. ~ 187.79m 15cm WIDE ZONE WITH A HIGH CONCENTRATION OF PYRITE, UP TO 4%, AND A TRACE OF CHALCOPYRITE. THE PYRITE IS CONCENTRATED IN SMALL STRANGERS WITH CALCITE AT 60° TO C.A.
191.5m	231.0m	ANDESITE TUFF	LIGHT GREEN TO DARK GREY MOTTLED	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE CHLORITE SILICEOUS MINOR SERICITE	TRACE - 3% PYRITE TRACE - 1% CHALCOPYRITE	ANDESITE TUFF - SLIGHTLY SCHISTOSE (SHEARED) AT ~ 60° TO C.A. PERVASIVE CALCITE AND CHLORITE ALTERATION. THIS INTERVAL IS POSSIBLY A HIGHLY CHLORITIZED DACITE TUFF. MODERATELY SILICEOUS, MINOR SERICITE ALONG THE SCHISTOSITY (SHEAR) PLAINS. QUARTZ-CALCITE AND CALCITE STRANGERS CROSS-CUT THE C.A. AND FOR THE MOST PART CROSS-CUT THE SHEAR PLAINS. THE MAJOR

DRILL LOG

HOLE NO. K 90-4

INTERVAL <i>METRES</i>		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							STRINGERS VARY IN SIZE FROM $\frac{1}{2}$ - 9cm IN WIDTH. THE PYRITE AND CHALCOPYRITE ARE USUALLY HIGHER IN CONCENTRATION WITHIN THE STRINGERS THAN IN THE SURROUNDING ROCK. THESE STRINGERS MAY CONTAIN EITHER BOTH THE SULFIDES OR ONE OR THE OTHER.
							~ 193.5-193.6m - QUARTZ STRINGER WITH ABUNDANT CHALCOPYRITE
							- 195.9-193.6m - SMALL QUARTZ STRINGERS AT 0°-15° TO C.A., IRREGULAR, $\frac{1}{2}$ -1 $\frac{1}{4}$ cm, IN WIDTH. SOME OFFSET ALONG MICROFRACTURES IS EVIDENT IN THE STRINGERS. CHALCOPYRITE LOCATED WITHIN THE STRINGERS WHILE THE SURROUNDING ROCK HAS BOTH CHALCOPYRITE AND PYRITE.
							- 200.2m - 10cm WIDE PYRITE STRINGER ~50°-55° TO C.A.
							- 203.0-204.0m - HIGHLY SCHISTOSE (SHEARED) WITH HIGH CALCITE AND CHLORITE ALTERATION. SOME SILICIFICATION. THIS SECTION HAS A SLIGHTLY BRECCIATED APPEARANCE.
							- 204.8-205.2m - BANDED IN APPEARANCE (ALTERATION BANDS?) AT 70° TO C.A., TRACES CHALCOPYRITE. PYRITE UP TO 3%.
							- 206.1-207.5m - HIGHLY SILICIFIED AND CALCITE

DRILL LOG

HOLE NO. K 90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							ALTERED. BRILLIANT IN APPEARANCE WITH A MOTTLED COLOURATION DUE TO THE ALTERATION. PYRITE TRACE - 1% W
							- 210.2 - 210.53m - ZONE OF HIGH SERICITE BELOW WHICH THERE IS A 15cm SECTION OF ELEVATED SULPHIDE CONTENT USUALLY DISSEMINATED. PYRITE TRACE - 2% AND CHALCOPYRITE TRACE - 1%.
							- 213.0m - SILICIFICATION APPEARS TO INCREASE GRADUALLY DOWNWARD, FOR ~ 10- METRES
							- 213.8 - 214.4m - IRREGULAR QUARTZ STRIPES AT 12° TO C.A. WITH SOME CHLORITE AND A TRACE OF CHALCOPYRITE.
							- 223.31-224.1m - QUARTZ VEIN, APPROX. 9cm WIDE (NOT TRUE THICKNESS), AT 2°-5° TO C.A. TRACE - 1% PYRITE AND TRACE CHALCOPYRITE. BLENDS OF PYRITE AND CHALCOPYRITE WITHIN THE VEIN AND DISSEMINATED IN THE SURROUNDING WALL ROCK
231.0m	246.84m	DACITE TUFF (INTRUSIVE?)	DARK GRY	FINE TO MEDIUM GRAINED.	PERVASIVE CALCITE SILICEOUS MINOR CHLORITE	TRACE PYRITE TRACE - 1% CHALCOPYRITE	DACITE TUFF (INTRUSIVE?) - DARK GRAY, FINE TO MEDIUM GRAINED. LOCALLY THERE APPEARS TO BE AN INTRUSIVE TEXTURE TO THE INTERVAL WITH SMALL FELDSPAR CRYSTALS WHICH FOR THE MOST PART HAVE BEEN REPLACED BY CALCITE. CHALCOPYRITE TENDS TO INCREASE DOWNWARD BOTH AS DISSEMINATED AND FRACTURE CONTROLLED MATERIAL. THIS INCREASE

DRILL LOG

HOLE NO. K 90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							CONTINUOUS TO APPROX. 249.0m WHERE IT DROPS BACK TO TRACE - 1% AMOUNTS
							- 239.0 - 241.5 m - ZONE OF HIGH CHALCOPYRITE UP TO AS MUCH AS 6%. THE CHALCOPYRITE OCCURS AS LARGE PATCHES, BLEBS, WITH SOME FRACTURE CONTROL
							- 243.30 - 243.40 m - QUARTZ STRINGER AT APPROX. 90° TO C.A., CHALCOPYRITE BLEBS AND MINOR CHALCOPRITE OCCURS WITHIN THE STRINGER. ALONG THE LOWER EDGE OF THE STRINGER PYRITE AND CHALCOPYRITE OCCUR IN AMOUNTS OF UP TO 1%
246.89m	248.50	ANDESITE TUFF	LIGHT TO DARK GREEN	MEDIUM GRAINED	PERVASIVE CALCITE SILICEOUS	TRACE - 1% PYRITE TRACE CHALCOPYRITE	ANDESITE TUFF - SIMILAR IN MOST RESPECTS TO THE INTERVAL FROM 191.5m TO 231.0m LIGHT TO DARK GREEN, MEDIUM GRAINED, MODERATELY SILICEOUS WITH PERVASIVE CALCITE ALTERATION. MODERATELY TO LOCAL HIGH SCHISTOSITY (SHEARED) AT 60° TO C.A.
248.50m	257.42m	DACITE TUFF (INTRUSIVE?)	DARK GREY	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE MINOR CHALCOPRITE MINOR SILICIFICATION MINOR CLAY	TRACE - 1% PYRITE TRACE CHALCOPYRITE	DACITE TUFF (INTRUSIVE?) - SIMILAR TO THE INTERVAL AT 231.0 - 246.89m. DARK GREY, FINE TO MEDIUM GRAINED, SLIGHTLY SCHISTOSE (SHEARED) AT 60° TO C.A. SOME FRACTURES AND SHEAR PLAINS CONTAIN A SLIGHT CLAY ALTERATION. - 249.3 - 249.6m - 10cm WIDE ZONE WITH DISSIPATED AND FRACTURE CONTROLLED CHALCOPYRITE TRACE - 2%, PYRITE TRACE - 1%.

DRILL LOG

HOLE NO. K90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							- 248.80 - 249.05m - CHALCOPYRITE RICH ZONE, CHALCOPYRITE UP TO 2%, PYRITE TRACE - 1%
257.42m	258.9m	THINLY BANDED TUFFS (ANDÉSITIC DACITE)	LIGHT TO DARK GREEN, DARK GREY	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE MINOR SILICIFICATION	TRACE - 1% PYRITE TRACE CHALCOPYRITE	THINLY BANDED TUFFS - ALTERNATING BANDS OF DACITE AND ANDÉSITIC AT 70° - 80° TO C.A. SLIGHT SCHISTOSITY (SHEAR) SUPERIMPOSED OVER THE BANING AT APPROX 60° TO C.A. FINELY DISSEMINATED PYRITE AND CHALCOPYRITE.
258.90m	282.23m	ANDÉSITIC TUFF	DARK GREY TO LIGHT GREEN	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE CHLORITE SILICEOUS MINOR CLAY	TRACE - 1% PYRITE TRACE CHALCOPYRITE	ANDÉSITIC TUFF - SIMILAR TO THE INTERVAL FROM 246.89 - 248.50m. PERVASIVE CALCITE, MODERATE CHLORITE AND SILICIFICATION. MINOR CLAY WITHIN SOME FRACTURES AND SHEAR PLAINS. - 265.9 - 276.0m - INCREASINGLY SCHISTOSE (SHEARED) CHLORITE, CALCITE AND CLAY ALTERATION HAS ALSO INCREASED. OCCASIONAL SILICEOUS SECTIONS - 267.4m - SMALL QUARTZ STRINGERS AT 60° TO C.A. PYRITE TO 4%, TRACE CHALCOPYRITE - 267.57 - 267.75m - IRREGULAR QUARTZ - CALCITE VEIN CONTAINING MASSIVE CHLORITE WITHIN THE VEIN IS APPROX. 3% PYRITE AND A TRACE - 1% CHALCOPYRITE.
282.23m	284.5m	BANDED TUFFS	LIGHT GREY TO LIGHT GREEN	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE CHLORITE SLIGHT SILICIFICATION	TRACE - 4% PYRITE TRACE - 1% CHALCOPYRITE	BANDED TUFFS - SIMILAR TO THE INTERVAL FROM 257.42 - 258.9m. ALTERNATING LIGHT GREY DACITE AND LIGHT GREEN ANDÉSITIC TUFFS AT 50° - 70° TO C.A. SLIGHT SCHISTOSITY AT 55° - 60° TO C.A. PYRITE APPEARS TO BE BANDED, BUT THIS IS BECAUSE THE PYRITE IS PRIMARILY LOCATED ALONG MICROFRACTURES

DRILL LOG

HOLE NO. K 90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							PLAINS, AT 60° TO C.A., WITH CALCITE AND CHALCOPYRITE.
284.5 m.	291.37 m.	ANDESITE TUFF	GREY → LIGHT AND DARK GREEN MOTTLED	FINE- MEDIUM GRAINED	PERVASIVE CALCITE CHLORITE	TRACE-1% PYRITE TRACE CHALCOPYRITE TRACE MAGNETITE	ANDESITE TUFF - SIMILAR TO PREVIOUSLY DESCRIBED ANDESITE TUFFS. PERVASIVE CALCITE. SLIGHT HORIZONTAL (SHEAR) A 45°-60° TO C.A. GENERALLY THE PYRITE, CHALCOPYRITE, AND MAGNETITE ARE FINELY DISSEMINATED. - 288.10 - 291.37 m DIORITE IN APPEARANCE, POSSIBLE ALTERED MONZODIORITE / DIORITE STRINGERS - 290.33 m CALCITE VEIN, 1cm WIDE, WITH CHALCOPYRITE UP TO 5% AND PYRITE UP TO 1%
291.37 m	301.86 m	MONZODIORITE	LIGHT TO DARK GREEN	MEDIUM TO COARSE GRAINED XTALINE	PERVASIVE CALCITE CHLORITE EPIDOTE	TRACE-1% PYRITE TRACE CHALCOPYRITE TRACE MAGNETITE	MONZODIORITE SIMILAR TO THE INTERVAL AT 183.69-187.40 m. SCHISTOSITY (SHEAR) AT 60° TO C.A. PERVASIVE CALCITE WITH CALCITE STRINGERS FOLLOWING THE SCHISTOSITY DIRECTION AS WELL AS CROSS-CUTTING IT. LOCALLY THE CALCITE STRINGERS ARE AT 5°-12° TO C.A. AND UP TO 1/2 cm WIDE. THE CALCITE STRINGERS ARE OCCASIONALLY CHLORITIC AND EPIDOTE ALTERED. PYRITE, CHALCOPYRITE, MAGNETITE IS FINELY DISSEMINATED AS WELL AS PARTLY CONCENTRATED ALONG SCHISTOSITY PLAINS. - 295.90 m - SMALL DARK GREEN, MASSIVE STRINGER, POSSIBLY A SMALL LAMPROPHIRE DYKE.

DRILL LOG

HOLE NO. K90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
301.86 m	305.20 m	DAKITE TUFF (INTRUSIVE?)	LIGHT TO DARK GREY (MOTTLED)	FINE GRAINED	PERVASIVE CALCITE SILICEOUS MINOR CHLORITE	TRACE - 2% PYRITE TRACE CHALCOPYRITE	DAKITE TUFF (INTRUSIVE?) - SIMILAR THE INTERVALS AT 231.0 m - 246.89 m AND 248.50 - 257.42 m. FINE GRAINED, LIGHT TO DARK GREY WITH MOTTLED APPEARANCE DUE TO THE SILICIFICATION AND CHLORITE ALTERATION. FINELY DISSEMINATED PYRITE AND CHALCOPYRITE
305.20 m	307.14 m	DIORITE ?	DARK- LIGHT GREEN	FINE GRAINED	PERVASIVE CALCITE CHLORITE SILICEOUS	TRACE - 3% PYRITE TRACE CHALCOPYRITE	DIORITE? - SIMILAR TO PREVIOUSLY DESCRIBED DIORITE UNITS. SLIGHTLY SCHISTOSE (SHEARED) QUARTZ-CALCITE STRINGERS RANDOMLY CROSS-CUTTING THE CORE. CALCITE STRINGERS WITH PYRITE ALSO RANDOMLY CROSS CUT THE CORE AND ARE POST QUARTZ-CALCITE PHASE. THE SULPHIDES ARE PRIMARILY FRACTURE CONTROLLED WITH SOME DISSEMINATED PYRITE AND CHALCOPYRITE PRESENT.
307.14 m	308.02 m	MONZODIORITE (ANDESITE TUFF?)	LIGHT GREEN	FINE GRAINED WITH SOME MAFIC CRYSTALS	PERVASIVE CALCITE CHLORITE EPIDOTE	1-2% PYRITE	MONZODIORITE (ANDESITE TUFF?) - UPPER CONTACT IS AT 60° TO C.A. FINE GRAINED MATRIX WITH SOME AUGITE AND HORNBLÉNDE CRYSTALS PRESENT. EPIDOTE LOCALLY REPLACES CALCITE AND FELDSPAR. PERVASIVE CALCITE WITH SOME CHLORITE ALTERATION. LOWER CONTACT AT 308.02 m IS 40° TO C.A.
308.02 m	310.60 m	DIORITE ?	LIGHT TO DARK GREEN	FINE GRAINED	PERVASIVE CALCITE SOME CHLORITE SILICEOUS	TRACE - 6% PYRITE TRACE - 1% CHALCOPYRITE	DIORITE? - SAME AS THE INTERVAL ABOVE FROM 305.20 - 307.14 m. THE CHALCOPYRITE AND PYRITE IS PRIMARILY LOCATED WITHIN THE CALCITE STRINGERS

DRILL LOG

HOLE NO. K 90-4

INTERVAL METERS		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
310.60 m	312.10	DACITE TUFF (INTRUSIVE?)	DARK GREY	FINE GRAINED	CALCITE SILICEOUS	TRACE-1% PYRITE TRACE CHALCOPYRITE	DACITE TUFF (INTRUSIVE?) - SIMILAR TO THE PREVIOUSLY DESCRIBED DACITE TUFF (INTRUSIVE?) INTERVALS. CALCITE STRINGERS ARE VUGGY AND CROSS CUT THE C.A. RANDOMLY. CALCITE REPLACES FELDSPAR. -311.6-311.75 m APPROX. 15cm WIDE ZONE OF UP TO 2% CHALCOPYRITE, PRIMARILY FRACTURE CONTROLLED BUT ALSO OCCASIONALLY DISSEMINATED.
312.10 m	312.90 m	DIORITE	LIGHT TO DARK GREEN MOTTLED	MEDIUM GRAINED	HIGH CALCITE SILICEOUS MINOR CHLORITE	1-3% PYRITE TRACE-2% CHALCOPYRITE	DIORITE - THE CONTACT AT 312.10 m IS AT 45° TO C.A. SCHISTOSITY (SHEAR) AT 50° TO C.A. LIGHT TO DARK GREEN, MOTTLED APPEARANCE, MEDIUM GRAINED. QUARTZ OCCURS AS IRREGULAR DARK GREY STRINGERS ALONG THE SHEAR DISTRIBUTION. THE STRINGERS APPEAR TO BE LOCALLY BRECCIATED AND CROSS CUT BY CALCITE STRINGERS. CHLORITE IS OCCASIONALLY PRESENT. PYRITE IS FINELY DISSEMINATED AS WELL AS CONCENTRATED ALONG THE SHEAR PLAINS. CHALCOPYRITE IS OCCASIONALLY DISSEMINATED, BUT PRIMARILY CONCENTRATED ALONG THE SHEAR PLAINS AND FRACTURES. THE LOWER CONTACT AT 312.90 IS AT 45° TO C.A.
312.90 m	316.4 m	ANDESITE TUFF	LIGHT GREEN TO DARK GREY	FINE GRAINED	PERVASIVE CALCITE PARTLY SILICEOUS MINOR CHLORITE	TRACE-2% PYRITE TRACE-1% CHALCOPYRITE	ANDESITE TUFF - LIGHT GREEN TO DARK GREY, FINE GRAINED, LOCALLY DACITIC LOOKING BECAUSE OF THE BLEACHED NATURE LOCALLY DUE TO THE CALCITE ALTERATION AND SILICIFICATION. SOME CHLORITE OCCASIONALLY. PYRITE AND CHALCOPYRITE ARE FINELY DISSEMINATED.

D R I L L L O G

HOLE NO. K 90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
316.4m	321.18m	DACITE TUFF	LIGHT TO DARK GREEN	FINE - MEDIUM GRAINED	HIGH CALCITE SILICEOUS CHLORITE	TRACE - 1% PYRITE TRACE CHALCOPYRITE	DACITE TUFF - LIGHT TO DARK GREEN, FINE GRAINED. PERVASIVE CALCITE WITH SOME CHLORITE ALTERATION. OCCASIONAL AREAS OF SILICIFICATION. PYRITE AND CHALCOPYRITE ARE OCCASIONALLY DISSEMINATED, BUT PRIMARILY WITHIN THE VARIOUS STRINGERS WHICH CROSS CUT THE CORE.
							- 320.55 - 320.65m - QUARTZ VEIN, WITH CALCITE AND OCCASIONALLY CHLORITE. PYRITE UP TO 2% AND CHALCOPYRITE UP TO 1% PRIMARILY LOCATED ALONG THE VEIN-WALL ROCK CONTACT AT 320.65m.
							- 320.80 - 321.0m - QUARTZ-CALCITE STRINGERS AT RANDOM ANGLES TO C.A. WITH A HIGH CHLORITE CONTENT WITHIN THE STRINGERS.
321.18m	322.5m	DIORITE	LIGHT TO DARK GREEN MOTTLED	MEDIUM GRAINED	PERVASIVE CALCITE SILICEOUS MINOR CHLORITE	TRACE - 5% PYRITE TRACE - 4% CHALCOPYRITE	DIORITE - SIMILAR IN NATURE TO 312.1-312.9m LIGHT TO DARK GREEN, MOTTLED, MEDIUM GRAINED, SCHISTOSITY AT 50° TO C.A. PYRITE FINELY DISSEMINATED AS WELL AS LOCATED ALONG SHEAR PLANES. CHALCOPYRITE IS PRIMARILY FRACTURE CONTROLLED.
							- 321.80 - 322.10m - SOME OF DISSEMINATED AND FRACTURE CONTROLLED CHALCOPYRITE UP TO 4% LOCALLY. WELL SILICIFIED WITH QUARTZ STRINGERS APPARENTLY BROKEN AND PARTLY BRECCIATED BY LATER CALCITE.
322.5m	324.32m	ANDESITE TUFF (MONZODIORITE?)	DARK GREEN	MEDIUM GRAINED WITH SOME XTALS	PERVASIVE CALCITE HIGH CHLORITE MINOR SILICIFICATION	TRACE - 2% PYRITE TRACE CHALCOPYRITE	ANDESITE TUFF (MONZODIORITE?) - SLIGHTLY SCHISTOSE (SHEARED) AT 68° TO C.A. LOCALLY SMALL HORNBLAND AND ANCITE XTALS APPEAR TO HAVE BEEN STRETCHED IN THE DIRECTION OF SHEAR.

DRILL LOG

HOLE NO. K90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							THIS INTERVAL MAY BE A HIGHLY CHLORITIZED MONZONIORITE. FINE GRAINED DISSEMINATED PYRITE, APPROX. 1-2%, WITH CHALCOPYRITE PRESENT IN TRACE AMOUNTS.
324.32m	327.63m	DACITE TUFF	LIGHT TO DARK GREEN	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE SILICEOUS MINOR CHLORITE	TRACE - 2% PYRITE TRACE CHALCOPYRITE	DACITE TUFF - SIMILAR TO EARLIER DESCRIBED DACITE TUFFS, POST SILICIFICATION FLOODING BY CALCITE AND SOME MINOR CHLORITE. THE PYRITE AND CHALCOPYRITE FOR THE MOST PART IS FINE GRAINED AND DISSEMINATED. - 325.4 - 325.5m QUARTZ-CALCITE VEIN WITH CHLORITE FILLING THE VUGS AND SOME FRACTURES. THE VEIN IS 3cm WIDE AND AT 30cm TO C.A. WITH UP TO 1% PY AND A TRACE OF CHALCOPYRITE.
327.63m	328.20m	ANDISITE TUFF	DARK GREEN	FINE TO MEDIUM GRAINED SOME XTALS	PERVASIVE CALCITE HIGH CHLORITE MINOR SILICIFICATION	TRACE - 1% PYRITE TRACE CHALCOPYRITE	ANDISITE TUFF - SIMILAR TO THE INTERVAL AT 322.5 - 324.32m. FINELY DISSEMINATED CUBIC PYRITE AND CHALCOPYRITE PRESENT
328.20m	341.23	DACITE TUFF	LIGHT TO DARK GREEN, LIGHT GREEN LOCALLY	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE SILICEOUS MINOR CHLORITE	TRACE - 1% PYRITE TRACE CHALCOPYRITE	DACITE TUFF - CONTACT APPEARS TO BE GRADATIONAL WITH THE OVERLYING ANDISITE OVER APPROX. 30cm. SCHISTOSITY AT 48° TO C.A. OCCASIONALLY HORNBLENDE AND AUGITE CRYSTALS PRESENT, BUT USUALLY THEY HAVE BEEN DESTROYED BY LATER PHASES OF ALTERATION. A STOCKWORK OF CALCITE STAMMERS WITH PYRITE AND CHALCOPYRITE CROSS-CUT THE CORN AT RANDOM ANGLES. SOME OF THE SILICEOUS MATERIAL AND STAMMERS APPEAR TO HAVE BEEN FRACTURED AND BRECCIATED BY LATER CALCITE. PYRITE IS

DRILL LOG

HOLE NO. K90-4

INTERVAL MÈTRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							USUALLY CUBIC IN NATURE.
							- 332.25 - 332.42m - SMALL GRADATIONAL ZONE. MEDIUM GRAINED TUFFS APPEAR TO GRADE TO FINER GRAINED TUFFS DOWN SECTION. VERY FINE GRAINED PYRITE? PRESENT.
							- 333.58 - 334.5m - ZONE OF HIGH SILICIFICATION, WITH CALCITE AND CHLORITE. PYRITE, 1-3%, PRIMARILY FOUND IN SMALL STRINGERS AT 60° TO C.A. LOCAL CALCITE AND CHLORITE STRINGERS WITH MINOR QUARTZ, PYRITE, AND A TRACE OF CHALCOPYRITE. THE LARGEST STRINGER IS 2cm WIDE AT 70° TO C.A., VUGGY, WITH GOOD CALCITE CRYSTAL GROWTH AND SOME CHLORITE. THIS STRINGER ALSO CONTAINS A TRACE OF CHALCOPYRITE AND PYRITE TO 10%.
							- 334.37 - 334.32m - SMALL CALCITE - PYRITE STRINGER AT 70° - 80° TO C.A.
							- 336.41m - PYRITE - CALCITE STRINGER AT 60° TO C.A.
							- 341.0m - CALCITE STRINGER AT 50° TO C.A. WITH CHALCOPYRITE UP TO 1%.
341.23m	342.60m	ANDESITE TUFF	LIGHT TO DARK GREEN	FINE GRAINED	HIGH CALCITE CHLORITE. SILICIOUS	TRACE - 2% PYRITE TRACE CHALCOPYRITE	ANDESITE TUFF - SIMILAR TO PREVIOUSLY DESCRIBED ANDESITE TUFF INTERVALS. SLIGHT SCHISTOSITY AT 50° TO C.A. THE PYRITE AND CHALCOPYRITE ARE PRIMARILY WITHIN FINE CALCITE STRINGERS USUALLY ALONG THE SHEAR

DRILL LOG

HOLE NO. K90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							DIRECTION - - 342.0m - 3cm BARRIEN QUARTZ STRINGER WITH CALCITE - CHLORITE FILLED MICROFRACTURES CROSS-CUTTING IT.
342.60m	343.70m	DACITE TUFF	LIGHT TO DARK GRISY	FINE GRAINED	PERVASIVE CALCITE CHLORITE SILICEOUS	TRACE - 2% PYRITE TRACE CHALCOPYRITE	DACITE TUFF - SIMILAR TO THE PREVIOUSLY DESCRIBED TUFFS FROM 328.2 - 341.23m. - 343.60m - 1cm QUARTZ-CALCITE STRINGER, UGGY, WITH PYRITE AND CHALCOPYRITE BLENDS WITHIN THE UGGS.
343.70m	346.23m	ANDRESITE TUFF	LIGHT TO DARK GREEN	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE CHLORITE SILICEOUS MINOR EPIDOTE	TRACE - 1% PYRITE TRACE CHALCOPYRITE	ANDRESITE TUFF - SIMILAR IN NATURE TO THE INTERVAL AT 341.23m - 342.60m. SLIGHT SCHISTOSITY AT 50° TO C.A. SULPHIDES ARE PRIMARILY DISSEMINATED BUT OCCASIONALLY THEY ARE LOCATED IN SMALL BANDS WITH CALCITE ALONG FRACTURE AND SCHISTOSITY PLANE. OCCASIONALLY EPIDOTE REPLACES CALCITE
346.23m	346.76m	DACITE TUFF	LIGHT TO DARK GREY	FINE GRAINED	PERVASIVE CALCITE SILICEOUS MINOR EPIDOTE MINOR CLAY	TRACE - 4% PYRITE TRACE CHALCOPYRITE	DACITE TUFF - LIGHT TO DARK GRISY, FINE GRAINED, MODERATELY SCHISTOSE (SHEARED) WITH MINOR CLAY ALONG THE SCHISTOSITY PLANE. SCHISTOSITY AT 50° TO C.A. QUARTZ-CALCITE STRINGERS AT 45° - 50° TO C.A., SOME CONTAIN PYRITE BANDS WITH UP TO 10% PYRITE LOCALLY AND A TRACE OF CHALCOPYRITE. THE LARGEST BAND IS IRREGULAR UP TO 2cm WIDE WITH ASSOCIATED CALCITE.
346.76m	349.36m	ANDRESITE TUFF	LIGHT TO DARK GREEN	MEDIUM GRAINED	PERVASIVE CALCITE, CHLORITE, SILICEOUS, MINOR EPIDOTE	TRACE - 1% PYRITE TRACE CHALCOPYRITE	ANDRESITE TUFF - SIMILAR TO THE INTERVALS AT 343.70 - 346.23m AND 348.70 - 349.12m. POSSIBLY THIS INTERVAL IS A HIGHLY ALTERED DIORITE DYKE

DRILL LOG

HOLE NO. K90-4

INTERVAL		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
METRES		ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
FROM	TO						
349.38 m	350.81 m	DACITE TUFF	LIGHT TO DARK GRAY	FINE TO GRAINED	PERVASIVE CALCITE MINOR SILICIFICATION MINOR EPIDOTE	TRACE PYRITE	DACITE TUFF - SIMILAR TO THE PREVIOUS INTERVALS OF DACITE TUFF. FINE GRAINED, LIGHT TO DARK GRAY, PERVASIVE CALCITE WITH MINOR SILICIFICATION, AND EPIDOTE REPLACEMENT OF CALCITE. - 350.25m - SMALL CALCITE AND PYRITE BANDS ALONG MICROFRACTURES -
350.81 m	351.92 m	ANDESITE TUFF	LIGHT TO DARK GREEN	FINE TO GRAINED	PERVASIVE CALCITE CHLORITE SILICEOUS	TRACE 2% PYRITE	ANDESITE TUFF. SIMILAR TO OTHER PREVIOUS ANDESITE TUFF INTERVALS. SLIGHT SCHISTOSITY AT 60° TO C.A. FINE GRAINED, LIGHT TO DARK GRAY. PYRITE IS PRIMARILY DISSEMINATED BUT OCCASIONALLY IT OCCURS WITHIN CALCITE STRINGERS. THE CALCITE STRINGERS ARE AT 10° TO C.A.
351.92 m	354.75 m	DACITE TUFF	LIGHT TO DARK GRAY	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE SILICEOUS MINOR CHLORITE MINOR CLAY	TRACE - 1% PYRITE TRACE CHALCOPYRITE	DACITE TUFF - LIGHT TO DARK GRAY, FINE TO MEDIUM GRAINED. PERVASIVE CALCITE WITH MODERATE SILICIFICATION. SCHISTOSITY AT 60° TO C.A. AT 353.65m CHLORITIC ALTERATION INCREASES, AND CLAY ALTERED MATERIAL IS FOUND ALONG SCHISTOSITY PLAINS. BANDS OF CALCITE OCCASIONALLY WITH CHLORITE OCCUR AT APPROX. 55° - 60° TO C.A. APPARENTLY WITH OR SLIGHTLY CROSS CUTTING THE SCHISTOSITY. PYRITE UP TO 4% WITH TRACES OF CHALCOPYRITE OCCUR IN SOME OF THE BANDS. PYRITE IS LOCALLY CHALC. - 354.46 - 354.75m - POSSIBLE ZONE OF ALTERNATING BANDS OF ANDESITE AND DACITE TUFF.

DRILL LOG

HOLE NO. K 90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
354.75 m	356.55 m	ANDÉSITIC TUFF (DIORITE?)	LIGHT TO DARK GREEN	FINE GRAINED	PERVASIVE CALCITE CHLORITE SILICIFIED MINOR EPIDOTE	TRACE-4% PYRITE TRACE-1% CHALCOPYRITE	ANDÉSITIC TUFF (DIORITE?) - HIGHLY SCHISTOSE AT 60° TO C.A., SLIGHT BANNED APPEARANCE. POSSIBLY DUE TO THE SHEARED NATURE OF THE INTERVAL. QUARTZ-CALCITE STRINGERS AT 50° TO C.A., QUARTZ HAS A SLIGHT BULBULATED APPEARANCE. LOCALLY DUE TO THE LATER CALCITE, PYRITE IS DISSEMINATED OCCASIONALLY, BUT PRIMARILY FRACTURE CONTROLLED. THE PYRITE AND CHALCOPYRITE IS ALSO LOCATED WITHIN THE QUARTZ-CALCITE STRINGERS.
356.55 m	361.50 m	BANNED TUFFS	LIGHT GREY TO LIGHT AND DARK GREEN	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE CHLORITE SILICIFICATION MINOR CLAY	TRACE-4% PYRITE TRACE CHALCOPYRITE	BANNED TUFFS - ALTERNATING BANDS OF LIGHT GREY DACITE AND LIGHT-DARK GREEN ANDÉSITIC. HIGHLY SCHISTOSE AT 65° TO C.A., STRINGERS OF CALCITE PRIMARILY FOLLOW THE SHEAR DIRECTION, AND OCCASIONALLY CROSSCUT THE SHEAR DIRECTION. CLAY ALTERATION OCCURS ALONG THE SHEAR PLAINS LOCALLY. PYRITE IS MAINLY FRACTURE CONTROLLED OR WITHIN THE CALCITE STRINGERS AND OCCASIONALLY THE PYRITE IS DISSEMINATED.
361.50 m	379.71 m	ANDÉSITIC TUFF	LIGHT TO DARK GREEN	FINE GRAINED	PERVASIVE CALCITE CHLORITE MINOR SILICIFICATION MINOR CLAY	TRACE-1% PYRITE TRACE CHALCOPYRITE	ANDÉSITIC TUFF - LIGHT-DARK GREEN, FINE GRAINED, SLIGHTLY SCHISTOSE (SHEARED) TO HIGHLY SCHISTOSE LOCALLY. PERVASIVE CALCITE WITH CALCITE OCCASIONALLY REPLACED BY EPIDOTE. MINOR CLAY ALTERATION ALONG THE FRACTURES IN THE DIRECTION OF SCHISTOSITY. UGGY CALCITE STRINGERS USUALLY IN THE SHEAR DIRECTION BUT OCCASIONALLY CROSSCUT THE CORE AT 0-10° TO C.A. PYRITE AND CHALCOPYRITE USUALLY WITHIN THE UGGY SECTIONS OF THE CALCITE STRINGERS.

DRILL LOG

HOLE NO. K 90-4

INTERVAL METRES		LITHOLOGY			ALTERATION	MINERALIZATION	REMARKS
FROM	TO	ROCK TYPE	COLOUR	TEXTURE			(lithology, alteration, mineralization, structure, age relations, etc.)
							- 368.3 - 369.10m - LARGE IRREGULAR QUARTZ-CALCITE AND CHLORITE VEIN, PYRITE 1-3% ALONG WALL ROCK CONTACT WITH A TRACE OF CHALCOPYRITE. THERE ARE LOCAL BLEDs OF PYRITE AND CHALCOPYRITE WITHIN THE VEIN ITSELF.
							- 369.40 - 365.55m - SMALL QUARTZ, CALCITE, AND CHLORITE STRINGER ABOUT 1cm WIDE IN THE DIRECTION OF THE CORE AXIS. PYRITE, 1-2%, PRIMARILY WITHIN THE HOST ROCK WITH A TRACE OF CHALCOPYRITE.
379.71m	388.42m	BANDED TUFFS.	LIGHT TO DARK GREEN, LIGHT GREY.	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE CHLORITE MINOR SILICIFICATION MINOR EPIDOTE	TRACE - 6% PYRITE TRACE CHALCOPYRITE	BANDED TUFFS - SIMILAR TO THE INTERVAL FROM 356.55m - 361.50m. SLIGHTLY SCHISTOSE AT APPROX. 65° TO C.A. CALCITE STRINGERS USUALLY WITH THE SHEAR DIRECTION BUT OCCASIONALLY CROSS CUTTING IT. PYRITE PRIMARILY IN BANDS AT 70° TO C.A. MOST LIKELY IN MICROFRACTURES, AND SOMETIMES WITH CALCITE-CHLORITE STRINGERS. EPIDOTE REPLACES CALCITE LOCALLY. THE INTERVAL BECOMES INCREASINGLY DACITIC DOWNWARDS.
388.42m	391.95	DACITE TUFF	LIGHT TO DARK GREY, LIGHT GREEN	FINE TO MEDIUM GRAINED	PERVASIVE CALCITE CHLORITE MINOR SILICIFICATION MINOR CLAY	TRACE - 5% PYRITE TRACE CHALCOPYRITE	DACITE TUFF - LIGHT TO DARK GREY, LIGHT GREEN LOCALLY. SLIGHTLY SCHISTOSE AT 65° TO C.A. SLIGHT BANDING (BEDDING?) NEAR THE CONTACT AT 388.42m. PYRITE IS PRIMARILY LOCATED IN MICRO FRACTURES WITH CALCITE ALONG THE SHEAR DIRECTION. CALCITE STRINGERS OCCASIONALLY CROSS CUT THE SHEAR. THERE IS OCCASIONALLY

SAMPLE DATA DRILL LOG

K90-4

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME ANALYTICAL LAB

SAMPLE (METERS)				CORE			VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS				
NUMBER	FROM	TO	LENGTH	% REC	RQD	S.G.		Cu (PPM)	Pb (PPM)	Zn (PPM)	As (PPM)	Au ^{ppb} (PPM)
43320	3.35	4.50	1.15m	95%	21-15cm FAL FAL & BKN		486	2	21	6	62	
43321	4.50	6.0	1.5m	98%	21-35cm FAL FAL & BKN		1154	2	11	2	116	
43322	6.0	7.5	1.5m	99%	21-30cm FAL FAL & BKN		151	2	22	2	41	
43323	7.5	9.0	1.5m	99%	21-35cm FAL FAL & BKN		592	2	17	2	58	
43324	9.0	10.5	1.5m	99%	21-30cm FAL FAL & BKN		570	2	15	4	50	
43325	10.5	12.0	1.5m	95%	21-30cm FAL FAL & BKN		649	2	14	4	119	
43326	12.0	13.5	1.5m	99%	21-45cm FAL FAL & BKN		529	2	18	2	112	
43327	13.5	15.0	1.5m	96%	21-35cm FAL FAL & BKN		1505	2	11	2	94	
43328	15.0	16.5	1.5m	99%	21-30cm FAL FAL & BKN		328	2	22	2	19	
43329	16.5	18.0	1.5m	100%	5-30cm FAL		307	2	18	22	223	
43330	18.0	19.5	1.5m	95%	21-35cm FAL FAL & BKN		513	2	29	2	110	
43331	19.5	21.0	1.5m	100%	5-50cm FAL		289	2	27	2	15	
43332	21.0	22.5	1.5m	100%	10-30cm FAL		249	2	29	2	15	
43333	22.5	24.0	1.5m	100%	10cm - 1m FAL FAL & BKN		722	2	19	2	55	
43334	24.0	25.5	1.5m	100%	4-65cm FAL		377	2	24	2	31	
43335	25.5	27.0	1.5m	98%	21-35cm FAL FAL & BKN		1304	2	15	4	151	
43336	27.0	28.5	1.5m	100%	5-30cm FAL		299	2	17	2	41	
43337	28.5	30.0	1.5m	100%	4-45cm FAL FAL & BKN		247	4	13	8	142	
43338	30.0	31.5	1.5m	100%	10-35cm FAL		769	7	7	23	629	
43339	31.5	33.0	1.5m	100%	10-75cm FAL		457	4	23	13	175	
43340	33.0	34.5	1.5m	98%	21-40cm FAL FAL & BKN		433	5	17	7	1572	
43341	34.5	36.0	1.5m	99%	22-25cm FAL FAL & BKN		1280	25	38	68	1098	
43342	36.0	37.5	1.5m	100%	5-55cm FAL	967ppm Cu OVER 10.5m	1973	5	41	2	227	
43343	37.5	39.0	1.5m	100%	10-45cm FAL		898	2	26	2	155	
43344	39.0	40.5	1.5m	100%	5-40cm FAL		957	7	18	9	511	
43345	40.5	42.0	1.5m	99%	2-30cm FAL FAL & BKN		329	3	12	2	18	
43346	42.0	43.5	1.5m	100%	10-35cm FAL FAL & BKN		184	2	16	2	36	
43347	43.5	45.0	1.5m	98%	4-35cm FAL		208	3	14	2	35	
43348	45.0	46.5	1.5m	99%	2-40cm FAL FAL & BKN		63	2	16	2	24	
43349	46.5	48.0	1.5m	100%	5-25cm FAL		129	3	15	2	61	
43350	48.0	49.5	1.5m	100%	10-55cm FAL FAL & BKN		287	2	14	2	57	

Au^{ppb} ANALYSIS BY FAJEP
FROM 10.5m SAMPLE

DRILL HOLE NO. K 90-4

SAMPLE DATA DRILL LOG

ASSAY LAB: Acme Analytical Lab

SAMPLE (MISTAKES)			CORE			VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS					
NUMBER	FROM	TO	LENGTH	% REC	RQD		S.G.	Cu (PPM)	Pb (PPM)	Zn (PPM)	As (PPM)	Au ^{ppb} (PPM)
43351	49.5	51.0	1.5m	100%	1-40cm FAL 60cm FAX		288	3	13	10	64	
43352	51.0	52.5	1.5m	100%	2-55cm FAL 60cm FAX		202	2	14	42	90	
43353	52.5	54.0	1.5m	100%	10-35cm FAL		164	2	15	4	39	
43354	54.0	55.5	1.5m	100%	15-45cm FAL		172	2	14	6	76	
43355	55.5	57.0	1.5m	100%	20-45cm FAL		134	2	15	2	31	
43356	57.0	58.5	1.5m	100%	10-35cm FAL		94	2	13	5	18	
43357	58.5	60.0	1.5m	100%	5-45cm FAL 60cm FAX		156	3	13	2	19	
43358	60.0	61.5	1.5m	99%	10-45cm FAL		883	2	10	2	67	
43359	61.5	63.0	1.5m	98%	2-30cm FAL 60cm FAX & 10cm		943	2	12	2	215	
43360	63.0	64.5	1.5m	100%	10-45cm FAL		864	2	16	2	46	
43361	64.5	66.0	1.5m	100%	15-35cm FAL 60cm FAX		731	2	15	2	54	
43362	66.0	67.5	1.5m	98%	21-40cm FAL 60cm FAX & 10cm		1033	2	15	4	58	
43363	67.5	69.0	1.5m	98%	21-35cm FAL 60cm FAX & 10cm		772	2	18	2	47	
43364	69.0	70.5	1.5m	99%	2-55cm FAL 60cm FAX & 10cm		1560	2	10	2	87	
43365	70.5	72.0	1.5m	100%	10-40cm FAL	1281ppm Cu OVER 13.5m	1811	2	8	6	78	85ppb Au
43366	72.0	73.5	1.5m	100%	5-40cm FAL		785	3	8	5	39	OVER 13.5m
43367	73.5	75.0	1.5m	100%	10-40cm FAL		1079	3	5	4	58	
43368	75.0	76.5	1.5m	100%	10-50cm FAL		1372	5	2	3	128	
43369	76.5	78.0	1.5m	98%	2-25cm FAL 60cm FAX		1616	3	1	3	143	
43370	78.0	79.5	1.5m	100%	20-45cm FAL		1502	4	1	4	124	
43371	79.5	81.0	1.5m	100%	10-55cm FAL		776	6	13	13	145	
43372	81.0	82.5	1.5m	100%	25-60cm FAL		229	5	24	2	83	
43373	82.5	84.0	1.5m	100%	10-45cm FAL		446	2	13	2	78	
43374	84.0	85.5	1.5m	100%	10-50cm FAL		243	4	16	3	62	
43375	85.5	87.0	1.5m	90%	21-35cm FAL 60cm FAX & 10cm		174	2	15	2	35	
43376	87.0	88.5	1.5m	98%	10-75cm FAL		248	3	17	2	46	
43377	88.5	90.0	1.5m	100%	10-65cm FAL		266	2	15	5	42	
43378	90.0	91.5	1.5m	100%	10-80cm FAL		268	2	14	2	41	
43379	91.5	93.0	1.5m	100%	25-50cm FAL		1205	3	6	2	89	
43380	93.0	94.5	1.5m	100%	10-55cm FAL	2180ppm Cu OVER 6.0m	1954	2	9	3	102	141ppb Au
43381	94.5	96.0	1.5m	100%	10-50cm FAL		3348	2	1	4	218	OVER 6.0m

Au^{ppb} - ANALYSIS BY FA/ICP
FROM 106m SAMPLE

DRILL HOLE NO. K 90-4

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME ANALYTICAL LABS

SAMPLE (METRES)				CORE			VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS				
NUMBER	FROM	TO	LENGTH	% REC	RQD	S.G.		Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Au** (ppb)
43382	96.0	97.5	1.5m	100%	10-80cm F&B		2214	2	7	2	153	
43383	97.5	99.0	1.5m	100%	10-45cm F&B		601	2	18	2	69	
43384	99.0	100.5	1.5m	99%	5-40cm F&B 100cm F&B 10-65cm F&B		473	5	8	3	77	
43385	100.5	102.0	1.5m	100%	10-85cm F&B		627	3	17	2	40	
43386	102.0	103.5	1.5m	100%	10-40cm F&B		1778	2	21	4	478	
43387	103.5	105.0	1.5m	100%	25cm-1m F&B	1633ppm Cu ↑	1487	4	12	2	111	
43388	105.0	106.5	1.5m	100%	2-35cm F&B 100cm F&B & 100cm 10-45cm F&B	OVER 3.0m ↓	354	3	13	2	44	
43389	106.5	108.0	1.5m	100%	10-45cm F&B		393	3	12	2	60	
43390	108.0	109.5	1.5m	99%	2-35cm F&B 100cm F&B & 100cm		483	3	11	2	33	
43391	109.5	111.0	1.5m	99%	2-35cm F&B 100cm F&B & 100cm		1216	2	2	3	188	
43392	111.0	112.5	1.5m	100%	10-90cm F&B		289	4	14	2	37	
43393	112.5	114.0	1.5m	100%	15-40cm F&B		269	6	9	3	30	
43394	114.0	115.5	1.5m	100%	10-90cm F&B		369	7	12	2	36	
43395	115.5	117.0	1.5m	100%	25-75cm F&B		457	6	13	2	46	
43396	117.0	118.5	1.5m	100%	30-80cm F&B		480	5	13	2	72	
43397	118.5	120.0	1.5m	100%	10cm-1m F&B F&B		449	4	13	2	45	
43398	120.0	121.5	1.5m	100%	15-65cm F&B		314	2	11	2	81	
43399	121.5	123.0	1.5m	100%	7-65cm F&B		306	6	15	2	78	
43400	123.0	124.5	1.5m	99%	7-40cm F&B		426	2	14	2	80	
43401	124.5	126.0	1.5m	100%	5-40cm F&B		651	2	13	5	55	
43402	126.0	127.5	1.5m	100%	75-35cm F&B		2216	2	28	9	93	
43403	127.5	129.0	1.5m	98%	1-65cm F&B 100cm F&B	2321ppm Cu ↑	2952	2	25	7	135	
43404	129.0	130.5	1.5m	98%	1-35cm F&B 100cm F&B & 100cm	OVER 6.0m ↓	2353	2	26	7	118	
43405	130.5	132.0	1.5m	99%	2-40cm F&B 100cm F&B		1764	2	27	4	109	
43406	132.0	133.5	1.5m	98%	1-30cm F&B F&B & 100cm		315	2	19	3	31	
43407	133.5	135.0	1.5m	98%	1-35cm F&B 100cm F&B & 100cm		349	2	23	3	24	
43408	135.0	136.5	1.5m	100%	1-30cm F&B 100cm F&B & 100cm		354	4	18	4	35	
43409	136.5	138.0	1.5m	100%	15-50cm F&B		605	2	24	7	35	
43410	138.0	139.5	1.5m	100%	20-90cm F&B		320	2	18	7	22	
43411	139.5	141.0	1.5m	100%	20-55cm F&B		1605	2	30	2	68	
43412	141.0	142.5	1.5m	100%	5-40cm F&B		1435	2	29	10	72	

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME ANALYTICAL LAB

SAMPLE (METERS)				CORE			VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS				
NUMBER	FROM	TO	LENGTH	% REC	RQD	S.G.		Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au ^{ppb} (ppb)
43413	142.5	144.0	1.5m	98%	1-30cm Frag 60% Frag & Blk		1377	2	31	8	69	
43414	144.0	145.5	1.5m	100%	4-65cm Frag		2620	7	30	8	108	
43415	145.5	147.0	1.5m	100%	10-50cm Frag		2508	2	32	11	122	
43416	147.0	148.5	1.5m	98%	1-35cm Frag 60% Frag & Blk		2987	3	41	6	144	
43417	148.5	150.0	1.5m	98%	1-40cm Frag 60% Frag & Blk		2095	2	19	5	131	
43418	150.0	151.5	1.5m	99%	1-30cm Frag 60% Frag & Blk		2621	2	30	5	145	
43419	151.5	153.0	1.5m	99%	1-35cm Frag		2694	2	31	3	120	
43420	153.0	154.5	1.5m	99%	1-35cm Frag 60% Frag & Blk		1459	2	32	8	83	
43421	154.5	156.0	1.5m	99%	1-45cm Frag 60% Frag & Blk	2739 ppm Cu	2351	2	32	5	117	165 ppb Au
43422	156.0	157.5	1.5m	99%	1-70cm Frag 60% Frag & Blk	OVER 57.0m	3159	2	32	6	152	OVER 57.0m
43423	157.5	159.0	1.5m	100%	10-50cm Frag		2544	2	18	5	127	
43424	159.0	160.5	1.5m	99%	1-50cm Frag 60% Frag & Blk		1536	2	19	2	82	
43425	160.5	162.0	1.5m	100%	5-70cm Frag		1110	2	18	8	61	
43426	162.0	163.5	1.5m	99%	1-45cm Frag 60% Frag & Blk		2001	2	19	8	106	
43427	163.5	165.0	1.5m	99%	1-30cm Frag 60% Frag & Blk		2399	4	16	8	116	
43428	165.0	166.5	1.5m	99%	2-30cm Frag 60% Frag & Blk		1701	2	19	2	99	
43429	166.5	168.0	1.5m	100%	10-70cm Frag		3405	4	25	5	244	
43430	168.0	169.5	1.5m	100%	15cm-55cm Frag		4418	2	28	7	460	
43431	169.5	171.0	1.5m	100%	10cm-1m Frag		4299	2	30	2	192	
43432	171.0	172.5	1.5m	99%	1-60cm Frag 60% Frag & Blk		4584	2	28	5	264	
43433	172.5	174.0	1.5m	100%	4-45cm Frag		3795	2	25	2	211	
43434	174.0	175.5	1.5m	100%	10-40cm Frag	4134 ppm Cu	3096	2	21	7	187	257 ppb Au
43435	175.5	177.0	1.5m	100%	15-45cm Frag	OVER 18.0m	6019	2	26	4	342	OVER 18.0m
43436	177.0	178.5	1.5m	100%	15-60cm Frag		3904	2	30	7	264	
43437	178.5	180.0	1.5m	99%	2-65cm Frag 60% Frag & Blk		5509	2	27	2	314	
43438	180.0	181.5	1.5m	100%	25-90cm Frag		4658	2	28	4	237	
43439	181.5	183.0	1.5m	100%	15-60cm Frag		3712	2	28	3	187	
43440	183.0	184.5	1.5m	100%	20-70cm Frag		2213	2	38	8	128	
43441	184.5	186.0	1.5m	100%	25-60cm Frag		1348	2	32	3	109	
43442	186.0	187.5	1.5m	100%	25-55cm Frag		1123	2	24	3	94	
43443	187.5	189.0	1.5m	100%	10-85cm Frag		982	2	33	9	172	

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME ANALYTICAL LAB

SAMPLE (METERS)				CORE		S.G.	VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS				
NUMBER	FROM	TO	LENGTH	% REC	ROD			Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Au** (ppb)
43444	189.0	190.5	1.5m	100%	10-70cm F40		2318	2	31	2	147	
43445	190.5	192.0	1.5m	100%	20-40cm F40		3176	2	19	2	209	
43446	192.0	193.5	1.5m	100%	10-55cm F40		1355	2	18	2	154	
43447	193.5	195.0	1.5m	100%	15cm-1m F40		3673	2	28	2	221	
43448	195.0	196.5	1.5m	100%	10cm-60cm F40		2301	2	23	6	159	
43449	196.5	198.0	1.5m	99%	1-40cm F40 60cm F40 10-60cm F40		237	2	37	2	39	
43450	198.0	199.5	1.5m	100%	10cm-55cm F40		868	4	51	3	67	
43451	199.5	201.0	1.5m	100%	5-65cm F40 20cm F40		273	2	35	6	467	
43452	201.0	202.5	1.5m	99%	15-60cm F40		223	5	33	2	47	
43453	202.5	204.0	1.5m	100%	15-45cm F40		441	6	45	2	44	
43454	204.0	205.5	1.5m	100%	15-45cm F40 60cm F40 2-30cm F40		1309	2	26	2	270	
43455	205.5	207.0	1.5m	98%	5-30cm F40		876	2	28	4	51	
43456	207.0	208.5	1.5m	98%	2-40cm F40 60cm F40 10-35cm F40		699	3	26	4	68	
43457	208.5	210.0	1.5m	99%	10-60cm F40 F40 OF 55cm F40		478	4	18	5	45	
43458	210.0	211.5	1.5m	98%	10-40cm F40 60cm F40 10-35cm F40		957	2	17	8	138	
43459	211.5	213.0	1.5m	100%	10-60cm F40 F40 OF 55cm F40		768	4	18	3	46	
43460	213.0	214.5	1.5m	99%	15-35cm F40		575	3	12	4	14	
43461	214.5	216.0	1.5m	100%	1-35cm F40 60cm F40		1195	2	14	2	79	
43462	216.0	217.5	1.5m	100%	15-45cm F40		1721	4	18	7	148	
43463	217.5	219.0	1.5m	100%	10-40cm F40		856	2	16	2	43	
43464	219.0	220.5	1.5m	100%	15-50cm F40		1384	2	16	2	81	
43465	220.5	222.0	1.5m	100%	15-35cm F40 60cm F40 10-35cm F40		746	2	21	6	60	
43466	222.0	223.5	1.5m	98%	10-35cm F40 60cm F40 10-35cm F40		1681	2	17	2	98	
43467	223.5	225.0	1.5m	99%	10-35cm F40 60cm F40 10-35cm F40	1289ppm Cu OVER 16.5m	1904	2	16	2	119	
43468	225.0	226.5	1.5m	100%	25-40cm F40		239	3	15	2	40	
43469	226.5	228.0	1.5m	98%	5-30cm F40 60cm F40 10-35cm F40		819	3	15	2	34	
43470	228.0	229.5	1.5m	85%	1-35cm F40 10-35cm F40		1898	2	21	9	79	
43471	229.5	231.0	1.5m	98%	10-50cm F40 60cm F40 10-50cm F40		1739	3	22	9	99	
43472	231.0	232.5	1.5m	100%	10-50cm F40		772	2	15	2	56	
43473	232.5	234.0	1.5m	100%	10-25cm F40		306	2	10	2	10	
43474	234.0	235.5	1.5m	100%	15-40cm F40		604	4	10	2	40	

Au** ANALYSIS BY FAIRFAX
FROM 10 CM SAMPLE DRILL HOLE NO. K 90-4

SAMPLE DATA DRILL LOG

ASSAY LAB: ALCANTARA ANALYTICAL LAB

SAMPLE (METERS)				CORE		VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS				
NUMBER	FROM	TO	LENGTH	% REC	RQD		Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Au ^{ppb} (ppb)
43475	235.5	237.0	1.5m	100%	5-30cm F&G		576	3	11	3	28
43476	237.0	238.5	1.5m	100%	20-55cm F&G		489	2	15	4	30
43477	238.5	240.0	1.5m	99%	1-40cm F&G 60cm F&G		2304	2	18	3	157
43478	240.0	241.5	1.5m	99%	5-60cm F&G 60cm F&G		4052	3	17	4	186
43479	241.5	243.0	1.5m	99%	0-30cm F&G 60cm F&G		3949	2	18	2	191
43480	243.0	244.5	1.5m	100%	10cm - 1m F&G 10cm - 1m F&G	3530 ppm Cu OVER 12.0m	3172	4	17	2	180
43481	244.5	246.0	1.5m	100%	10cm - 1m F&G		5181	3	19	2	367
43482	246.0	247.5	1.5m	100%	10-75cm F&G		3862	2	19	2	141
43483	247.5	249.0	1.5m	100%	15-45cm F&G		2019	3	18	2	109
43484	249.0	250.5	1.5m	100%	10-50cm F&G		3704	3	14	2	141
43485	250.5	252.0	1.5m	100%	8cm - 1.2m F&G		184	4	20	2	25
43486	252.0	253.5	1.5m	100%	5-30cm F&G		369	2	20	2	28
43487	253.5	255.0	1.5m	99%	1-40cm F&G 60cm F&G		596	2	18	3	87
43488	255.0	256.5	1.5m	99%	2-40cm F&G 60cm F&G		181	2	21	2	33
43489	256.5	258.0	1.5m	100%	10-70cm F&G		555	5	19	4	64
43490	258.0	259.5	1.5m	100%	8-40cm F&G		256	2	22	2	51
43491	259.5	261.0	1.5m	98%	21-25cm F&G 60cm F&G		557	2	16	2	22
43492	261.0	262.5	1.5m	98%	21-30cm F&G 60cm F&G		1080	3	26	2	63
43493	262.5	264.0	1.5m	99%	10-50cm F&G		1066	5	18	2	38
43494	264.0	265.5	1.5m	99%	2-50cm F&G 60cm F&G	1062 ppm Cu OVER 4.5m	1034	5	22	3	43
43495	265.5	267.0	1.5m	98%	21-50cm F&G 60cm F&G		146	2	41	12	26
43496	267.0	268.5	1.5m	99%	2-30cm F&G 60cm F&G		491	3	30	10	89
43497	268.5	270.0	1.5m	99%	15-40cm F&G 60cm F&G		360	2	37	6	61
43498	270.0	271.5	1.5m	98%	21-35cm F&G 60cm F&G		537	4	38	2	94
43499	271.5	273.0	1.5m	99%	21-45cm F&G 60cm F&G		2345	2	43	3	204
43500	273.0	274.5	1.5m	99%	4-60cm F&G 60cm F&G	1556 ppm Cu OVER 4.5m	831	2	42	3	67
43501	274.5	276.0	1.5m	99%	1-30cm F&G 60cm F&G		1492	3	38	2	147
43502	276.0	277.5	1.5m	97%	21-30cm F&G 60cm F&G		471	2	47	7	46
43503	277.5	279.0	1.5m	98%	21-25cm F&G 60cm F&G		451	2	42	2	64
43504	279.0	280.5	1.5m	99%	1-40cm F&G 60cm F&G		226	2	31	11	39
43505	280.5	282.0	1.5m	100%	20-30cm F&G		337	2	30	2	155

Au^{ppb} ANALYSIS BY FAJCO
FROM 10 CM SAMPLE

DRILL HOLE NO. K 90-4

SAMPLE DATA DRILL LOG

ASSAY LAB: ARME ANALYTICAL CO.

SAMPLE (METERS)			CORE			VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS				
NUMBER	FROM	TO	LENGTH	% REC	RQD		S.G.	Cu (PPM)	Pb (PPM)	Zn (PPM)	As (PPM)
43506	282.0	283.5	1.5m	99%	1-35cm FAL		473	2	27	10	104
43507	283.5	285.0	1.5m	100%	15-60cm FAL		690	2	16	5	98
43508	285.0	286.5	1.5m	100%	7-40cm FAL		224	2	14	5	27
43509	286.5	288.0	1.5m	100%	5-60cm FAL		243	2	12	2	40
43510	288.0	289.5	1.5m	100%	10-40cm FAL		382	2	21	3	43
43511	289.5	291.0	1.5m	100%	20-60cm FAL		457	3	25	2	83
43512	291.0	292.5	1.5m	100%	4-45cm FAL		261	2	19	2	41
43513	292.5	294.0	1.5m	100%	2-45cm FAL		401	2	17	4	45
43514	294.0	295.5	1.5m	100%	10-50cm FAL		264	2	17	6	31
43515	295.5	297.0	1.5m	100%	50cm-1m FAL		321	2	18	3	31
43516	297.0	298.5	1.5m	100%	10-35cm FAL		177	2	17	2	11
43517	298.5	300.0	1.5m	100%	25-50cm FAL		476	2	19	3	253
43518	300.0	301.5	1.5m	100%	25cm-1m FAL		344	2	21	2	39
43519	301.5	303.0	1.5m	100%	15-50cm FAL		1471	2	18	4	91
43520	303.0	304.5	1.5m	98%	1-50cm FAL		1356	2	18	2	70
43521	304.5	306.0	1.5m	99%	1-60cm FAL		3553	2	21	5	191
43522	306.0	307.5	1.5m	99%	1-60cm FAL		2956	2	25	8	161
43523	307.5	309.0	1.5m	99%	5-70cm FAL		2345	2	26	2	109
43524	309.0	310.5	1.5m	99%	2-35cm FAL		2468	3	24	3	158
43525	310.5	312.0	1.5m	100%	2-45cm FAL		2294	2	12	2	115
43526	312.0	313.5	1.5m	100%	40-95cm FAL	1769 ppm Cu OVER 22.5m	2408	2	17	2	104
43527	313.5	315.0	1.5m	100%	30cm-1m FAL		1056	4	17	2	83
43528	315.0	316.5	1.5m	99%	15-50cm FAL		1064	2	20	2	208
43529	316.5	318.0	1.5m	100%	2-70cm FAL		517	9	30	3	62
43530	318.0	319.5	1.5m	100%	100-130cm FAL		1211	3	27	7	113
43531	319.5	321.0	1.5m	100%	10-50cm FAL		689	3	15	2	69
43532	321.0	322.5	1.5m	100%	40-70cm FAL		1380	2	24	2	93
43533	322.5	324.0	1.5m	100%	2-95cm FAL		340	4	24	2	60
43534	324.0	325.5	1.5m	100%	100-130cm FAL		610	3	21	5	70
43535	325.5	327.0	1.5m	100%	2-60cm FAL		857	2	13	3	89
43536	327.0	328.5	1.5m	100%	100cm FAL		885	3	20	4	97

Au** ANALYSIS BY IONIC
FROM 10 Gm SAMPLE

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME ANALYTICAL LAB

SAMPLE (METERS)			CORE			VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS					
NUMBER	FROM	TO	LENGTH	% REC	RQD		S.G.	Cu (PPM)	Pb (PPM)	Zn (PPM)	Ag (PPM)	Au** (PPB)
43537	328.5	330.0	1.5m	100%	10-80cm Frag		968	2	14	3	65	
43538	330.0	331.5	1.5m	100%	5-35cm Frag		794	2	14	2	53	
43539	331.5	333.0	1.5m	100%	3-50cm Frag low Ag		875	2	12	4	73	
43540	333.0	334.5	1.5m	99%	1-50cm Frag low Ag		785	2	16	16	71	
43541	334.5	336.0	1.5m	100%	2-35cm Frag low Ag		416	2	20	7	125	
43542	336.0	337.5	1.5m	100%	2-45cm Frag low Ag		369	2	21	2	74	
43543	337.5	339.0	1.5m	100%	10-60cm Frag		343	3	13	2	53	
43544	339.0	340.5	1.5m	100%	2-80cm Frag low Ag		1184	3	15	2	216	
43545	340.5	342.0	1.5m	100%	20-80cm Frag		1155	2	18	2	76	
43546	342.0	343.5	1.5m	99%	21-40cm Frag low Ag		835	2	17	2	100	
43547	343.5	345.0	1.5m	100%	2-75cm Frag low Ag		339	2	20	2	57	
43548	345.0	346.5	1.5m	100%	1-50cm Frag		289	2	21	2	91	
43549	346.5	348.0	1.5m	100%	10-90cm Frag		471	2	19	2	46	
43550	348.0	349.5	1.5m	100%	20-60cm Frag		263	3	23	2	40	
43551	349.5	351.0	1.5m	99%	10-90cm Frag low Ag		120	4	18	2	70	
43552	351.0	352.5	1.5m	100%	20-80cm Frag		33	2	17	2	32	
43553	352.5	354.0	1.5m	99%	21-55cm Frag low Ag		648	4	29	2	80	
43554	354.0	355.5	1.5m	99%	21-60cm Frag low Ag		2743	2	26	2	265	
43555	355.5	357.0	1.5m	99%	1.5m - 30cm Frag low Ag		2047	2	25	2	106	
43556	357.0	358.5	1.5m	100%	1-50cm Frag low Ag		2038	3	26	2	124	
43557	358.5	360.0	1.5m	98%	21-25cm Frag low Ag		1395	2	37	2	104	
43558	360.0	361.5	1.5m	100%	2-50cm Frag low Ag		890	5	22	4	60	
43559	361.5	363.0	1.5m	100%	2-40cm Frag low Ag		1173	3	71	2	101	108 ppb Au
43560	363.0	364.5	1.5m	100%	3-70cm Frag low Ag		1469	2	36	7	93	OVER 1500
43561	364.5	366.0	1.5m	99%	21-40cm Frag low Ag		1288	2	40	2	94	
43562	366.0	367.5	1.5m	99%	21-35cm Frag low Ag		935	5	31	2	70	
43563	367.5	369.0	1.5m	99%	21-40cm Frag low Ag		1421	4	42	4	61	
43564	369.0	370.5	1.5m	98%	1.2-30cm Frag low Ag		228	8	32	2	21	
43565	370.5	372.0	1.5m	100%	2-30cm Frag low Ag		456	2	29	3	60	
43566	372.0	373.5	1.5m	99%	21-25cm Frag low Ag		614	3	39	2	50	
43567	373.5	375.0	1.5m	100%	10-25cm Frag low Ag		240	2	35	4	40	

1540 ppm Cu
OVER 15.0m

Au** ANALYSIS BY FAJCP
From 10 Gm SAMPLE

SAMPLE DATA DRILL LOG

ASSAY LAB: ACME ANALYTICAL LAB

SAMPLE (METERS)				CORE			VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS				
NUMBER	FROM	TO	LENGTH	% REC	RQD	S.G.		Cu (PPM)	Pb (PPM)	Zn (PPM)	As (PPM)	Au ^{GRA} (PPM)
43568	375.0	376.5	1.5m	99%	1-10 cm Frag with B&W		594	2	41	8	44	
43569	376.5	378.0	1.5m	100%	1-40 cm Frag with B&W		947	11	45	3	46	
43570	378.0	379.5	1.5m	100%	1-20 cm Frag with B&W		652	6	50	6	38	
43571	379.5	381.0	1.5m	100%	2-60 cm Frag with B&W		478	4	45	6	56	
43572	381.0	382.5	1.5m	100%	2-30 cm Frag with B&W		473	4	41	7	67	
43573	382.5	384.0	1.5m	100%	5-70 cm Frag with B&W		345	12	40	3	63	
43574	384.0	385.5	1.5m	100%	1-40 cm Frag with B&W		272	2	37	4	105	
43575	385.5	387.0	1.5m	100%	2-45 cm Frag with B&W		253	3	70	6	96	
43576	387.0	388.5	1.5m	99%	2-100 cm Frag with B&W		274	15	47	4	52	
43577	388.5	390.0	1.5m	100%	2-70 cm Frag with B&W		136	9	38	2	61	
43578	390.0	391.95	1.95m	99%	1-60 cm Frag with B&W		139	2	21	2	62	
	END OF	HOLE	AT	391.95m								

**ANALYTICAL CERTIFICATES
ACME ANALYTICAL LABORATORIES**

K90-4

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
D 43392	20	289	4	14	.1	3	13	416	2.51	2	5	ND	1	250	.2	2	2	32	2.44	.096	5	3	.86	53	.06	3	1.00	.03	.46	2	37
D 43393	20	269	6	9	.2	3	20	429	3.35	3	5	ND	1	326	.2	2	2	43	3.21	.134	6	11	1.14	64	.08	3	1.30	.04	.62	1	30
D 43394	63	369	7	12	.4	5	20	462	3.26	2	5	ND	1	303	.2	4	5	42	3.19	.134	6	11	1.08	61	.08	2	1.33	.03	.63	2	36
D 43395	23	457	6	13	.3	4	16	449	3.34	2	5	ND	1	247	.3	2	7	35	2.87	.124	5	8	1.02	63	.05	3	1.12	.04	.51	5	46
D 43396	25	480	5	13	.3	3	14	470	3.24	2	5	ND	1	256	.2	2	6	34	2.99	.114	6	6	.96	63	.05	4	1.14	.03	.53	5	72
D 43397	25	449	4	13	.4	3	18	492	3.38	2	5	ND	1	350	.2	2	7	46	3.31	.131	6	12	1.11	91	.08	2	1.44	.05	.69	3	45
D 43398	10	314	2	11	.3	4	20	505	4.77	2	5	ND	1	204	.2	2	2	34	3.35	.142	4	12	1.10	52	.01	2	.82	.03	.30	1	81
D 43399	16	306	6	15	.5	4	19	446	3.84	2	5	ND	1	220	.2	2	5	42	3.11	.130	4	9	1.03	52	.05	3	1.09	.03	.49	1	78
D 43400	16	426	2	14	.4	5	14	421	3.61	2	5	ND	1	190	.2	2	2	38	2.73	.121	6	9	1.08	55	.11	2	1.34	.02	.88	1	80
D 43401	12	651	2	13	.4	3	14	528	3.74	5	5	ND	1	246	.2	4	3	45	3.25	.144	6	9	1.22	88	.13	2	1.59	.04	1.08	1	55
D 43402	1	2216	2	28	1.3	9	17	601	5.85	9	5	ND	1	221	.2	14	2	110	3.53	.171	6	16	1.97	145	.19	4	2.40	.04	1.59	1	93
D 43403	7	2952	2	25	1.4	11	21	621	6.97	7	5	ND	1	190	1.0	16	2	138	3.46	.188	5	21	2.28	122	.21	4	2.75	.04	1.70	1	135
D 43404	1	2353	2	26	1.0	11	20	622	7.11	7	5	ND	1	324	.8	18	2	151	3.02	.183	4	20	2.39	112	.19	2	2.80	.04	1.46	1	118
D 43405	2	1764	2	27	.9	10	15	555	5.21	4	5	ND	1	215	.4	10	2	119	3.13	.139	4	15	1.96	139	.19	2	2.39	.04	1.56	1	109
D 43406	2	315	2	19	.3	4	10	617	3.70	3	5	ND	1	197	.2	6	2	55	3.62	.162	6	10	1.33	59	.12	5	1.66	.04	.83	1	31
D 43407	1	349	2	23	.3	4	12	654	4.22	3	5	ND	1	375	.2	6	2	65	3.31	.160	7	11	1.47	67	.09	3	1.84	.05	.70	1	24
D 43408	3	354	4	18	.3	4	15	665	4.00	4	5	ND	1	204	.2	7	2	65	3.35	.173	7	13	1.48	68	.09	2	1.78	.05	.58	1	35
D 43409	1	605	2	24	.4	4	13	641	4.03	7	5	ND	1	207	.2	11	2	69	2.55	.189	7	15	1.62	106	.14	2	1.99	.04	1.03	1	35
D 43410	1	320	2	18	.3	5	13	691	3.95	7	5	ND	1	209	.5	8	2	58	3.98	.181	7	13	1.38	89	.11	2	1.71	.04	.68	1	22
D 43411	9	1605	2	30	.6	10	16	712	5.95	2	5	ND	1	200	.4	13	2	143	3.40	.194	5	17	2.38	178	.21	2	2.87	.05	1.55	1	68
D 43412	9	1435	2	29	.5	8	16	614	6.00	10	5	ND	1	303	.2	14	2	148	3.11	.172	5	16	2.31	181	.19	2	2.73	.04	1.47	1	72
D 43413	1	1377	2	31	.5	11	19	644	6.54	8	5	ND	1	399	.2	15	2	162	3.37	.192	7	16	2.46	192	.18	2	2.75	.04	1.53	1	69
D 43414	3	2620	7	30	.8	11	19	646	6.50	8	5	ND	1	157	.2	18	4	183	3.37	.202	6	20	2.51	200	.21	2	3.04	.04	1.84	1	108
D 43415	1	2508	2	32	1.0	13	18	641	6.47	11	5	ND	1	286	.4	16	2	178	2.62	.209	5	17	2.63	210	.24	2	3.25	.04	2.13	1	122
D 43416	1	2987	3	41	1.2	11	19	665	6.95	6	5	ND	1	565	.8	15	2	187	2.57	.207	5	19	2.55	220	.25	2	3.14	.04	2.20	1	144
D 43417	1	2095	2	19	.8	9	12	464	3.67	5	5	ND	1	286	.2	7	2	88	2.59	.133	5	13	1.51	95	.16	2	1.81	.05	1.25	1	131
D 43418	1	2621	2	30	1.2	12	18	635	5.79	5	5	ND	1	762	.2	12	2	139	3.47	.191	5	20	2.25	153	.22	3	2.74	.04	1.95	1	145
D 43419	1	2694	2	31	1.1	13	18	582	6.26	3	5	ND	1	325	.2	14	2	185	2.97	.210	5	20	2.51	217	.25	2	3.03	.05	1.99	1	120
STANDARD C/AU-R	18	61	41	131	7.5	72	31	1058	3.96	41	18	8	36	53	17.8	14	23	56	.46	.096	36	60	.90	180	.08	34	1.91	.06	.13	13	512

GEOCHEMICAL ANALYSIS CERTIFICATE

Noramco Exploration Inc. PROJECT 2012 (KENA) File # 90-6033 Page 1

900 - 999 W. Hasting St., Vancouver BC V6C 2W2 Submitted by: B. LEWIS

Table with columns for SAMPLE#, Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe, As, U, Au, Th, Sr, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Ti, B, Al, Na, K, W, Au**. Rows include sample IDs like D 43420 to D 43455 and a STANDARD C/AU-R row.

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

DATE RECEIVED: NOV 22 1990 DATE REPORT MAILED: Nov 27/90 SIGNED BY: [Signature] 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
D 43528	2 1064	2	20	.6	8	8	593	2.60	2	5	ND	2 416	.2	2	2	49 3.79	.090	7	7 1.03	99	.04	9 1.00	.13	.52	1	208					
D 43529	2 517	9	30	.8	7	8	556	2.45	3	5	ND	2 182	.3	2	2	29 4.85	.093	6	5 .93	120	.02	9 .53	.11	.39	1	62					
D 43530	3 1211	3	27	.9	7	9	502	2.27	7	5	ND	3 229	.4	2	2	27 5.02	.091	5	11 .88	104	.02	9 .57	.12	.38	1	113					
D 43531	2 689	3	15	.8	7	10	563	2.11	2	10	ND	3 333	.3	2	2	25 6.39	.092	5	4 .53	82	.02	9 .55	.12	.40	1	69					
D 43532	2 1380	2	24	1.0	9	11	569	3.06	2	5	ND	4 256	.4	2	2	74 4.70	.105	7	10 1.20	79	.08	8 1.12	.12	.87	1	93					
D 43533	6 340	4	24	.3	7	9	567	3.45	2	5	ND	2 240	.2	2	2	72 4.34	.123	8	13 1.19	85	.13	5 1.43	.11	1.16	1	60					
D 43534	4 610	3	21	.6	7	8	591	2.98	5	6	ND	3 267	.3	2	2	52 5.10	.098	7	11 1.00	63	.05	7 .86	.12	.58	1	70					
D 43535	1 857	2	13	.6	7	9	579	2.51	3	5	ND	3 280	.2	2	2	30 6.68	.097	5	4 .68	43	.01	6 .48	.10	.28	1	89					
D 43536	1 885	3	20	.3	8	9	684	3.07	4	5	ND	2 281	.4	2	2	47 6.84	.102	5	5 1.02	93	.05	5 .89	.06	.55	1	97					
D 43537	2 968	2	14	.6	7	7	519	2.17	3	6	ND	3 254	.2	2	2	32 5.09	.071	6	8 .70	77	.02	8 .61	.09	.39	1	65					
D 43538	3 794	2	14	.6	7	7	402	2.02	2	5	ND	3 187	.3	2	2	40 3.55	.063	7	17 .68	64	.04	5 .75	.12	.53	1	53					
D 43539	2 875	2	12	.7	6	6	421	1.78	4	5	ND	3 155	.4	2	2	30 3.51	.066	8	5 .64	67	.03	5 .65	.10	.43	1	73					
D 43540	2 785	2	16	.8	9	10	523	2.90	16	5	ND	3 159	.2	2	2	30 3.94	.089	7	6 .69	71	.02	12 .64	.06	.40	1	71					
D 43541	3 416	2	20	.7	7	9	651	2.61	7	6	ND	2 147	.2	2	2	20 4.11	.079	6	4 .72	85	.01	7 .51	.06	.36	1	125					
D 43542	2 369	2	21	.7	6	7	536	2.25	2	7	ND	3 99	.2	2	2	14 3.36	.060	7	13 .50	80	.01	6 .38	.05	.28	1	74					
D 43543	2 343	3	13	.5	6	6	555	1.83	2	5	ND	3 118	.2	2	2	17 4.01	.059	8	4 .53	107	.01	6 .46	.07	.35	1	53					
D 43544	3 1184	3	15	1.1	10	9	760	2.95	2	5	ND	3 257	.2	2	2	26 3.74	.086	6	18 .80	81	.01	6 .53	.08	.40	1	216					
D 43545	2 1155	2	18	.9	10	7	516	2.33	2	5	ND	3 221	.2	2	2	43 3.28	.083	7	9 .99	72	.04	7 .88	.08	.53	1	76					
D 43546	2 835	2	17	.9	11	9	610	2.43	2	5	ND	3 109	.2	2	2	36 3.56	.090	9	12 .94	65	.03	6 .71	.06	.41	1	100					
D 43547	1 339	2	20	.4	9	8	618	2.75	2	5	ND	3 389	.2	2	2	55 3.21	.104	7	10 1.17	68	.07	6 1.09	.06	.66	1	57					
D 43548	1 289	2	21	.4	9	9	725	3.00	2	5	ND	2 105	.2	2	2	44 3.33	.098	7	7 1.09	48	.06	5 .96	.04	.58	1	91					
D 43549	2 471	2	19	.5	9	10	713	3.28	2	6	ND	3 138	.2	2	2	43 4.76	.110	7	6 1.08	70	.03	5 .83	.05	.45	1	46					
D 43550	2 263	3	23	.4	11	9	643	2.81	2	5	ND	3 160	.2	2	2	63 4.03	.102	6	10 1.24	69	.10	4 1.28	.07	.74	1	40					
D 43551	2 120	4	18	.4	6	8	651	2.36	2	7	ND	3 164	.2	2	2	22 4.31	.083	5	4 .91	83	.02	6 .68	.06	.45	1	70					
D 43552	1 33	2	17	.3	4	8	654	2.14	2	7	ND	3 152	.2	2	2	19 3.66	.084	6	3 .76	112	.02	6 .76	.08	.53	1	32					
D 43553	3 648	4	29	.6	10	10	691	2.76	2	5	ND	3 135	.2	4	2	26 4.13	.091	7	5 1.09	112	.01	12 .60	.05	.43	1	80					
D 43554	3 2743	2	26	1.2	17	23	867	4.16	2	5	ND	2 128	.2	2	2	61 4.90	.084	5	8 1.62	66	.09	5 1.30	.03	.95	1	265					
D 43555	2 2047	2	25	.9	13	17	542	3.59	2	5	ND	2 114	.2	2	2	68 3.60	.086	6	6 1.40	96	.10	4 1.51	.05	1.11	1	106					
D 43556	4 2038	3	26	1.1	17	22	729	4.00	2	5	ND	2 362	.2	2	2	63 4.04	.090	6	8 1.47	91	.08	4 1.32	.04	.97	1	124					
D 43557	6 1395	2	37	1.2	15	19	781	3.56	2	5	ND	3 108	.3	2	2	60 4.05	.088	6	8 1.39	90	.07	4 1.37	.03	.87	1	104					
D 43558	4 890	5	22	.8	11	14	853	3.25	4	7	ND	3 128	.3	2	2	45 6.11	.089	6	7 1.29	114	.03	6 .96	.03	.50	1	60					
D 43559	5 1173	3	71	1.3	13	21	1746	6.06	2	10	ND	2 158	.2	2	2	104 4.53	.114	5	10 2.52	103	.16	2 2.89	.04	1.21	1	101					
D 43560	2 1469	2	36	1.3	21	27	774	4.84	7	5	ND	3 162	.2	2	2	95 3.59	.129	5	19 2.05	64	.14	3 2.32	.04	.73	1	93					
D 43561	1 1288	2	40	1.3	13	24	880	4.88	2	10	ND	2 134	.2	2	2	101 5.37	.111	5	9 2.01	108	.12	2 2.20	.03	.90	1	94					
D 43562	4 935	5	31	1.1	13	21	660	4.67	2	5	ND	2 142	.2	2	2	91 4.08	.141	5	12 1.89	91	.11	2 2.19	.08	.70	1	70					
D 43563	2 1421	4	42	1.3	13	17	1257	4.63	4	9	ND	2 1390	.6	2	2	87 9.63	.132	4	8 2.03	107	.07	4 2.36	.05	.76	1	61					
STANDARD C/AU-R	20 63	44 137	7.4	75	32 1044	3.97	43	21	8	40 49	21.0	14	22	61 .51	.087	40	61 .92	194	.08	38 1.96	.07	.15	12	493							

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
D 43564	9	228	8	32	.4	11	31	717	4.68	2	5	ND	2	209	.2	7	2	88	4.62	.146	3	21	1.86	65	.13	6	2.29	.02	.40	1	21
D 43565	13	456	2	29	.6	14	41	693	5.14	3	5	ND	2	188	.2	4	2	100	3.79	.132	2	16	2.11	55	.16	5	2.27	.02	.39	3	60
D 43566	10	614	3	39	.7	17	37	1002	5.29	2	5	ND	2	184	1.1	6	2	97	3.03	.123	2	21	2.04	80	.21	6	2.43	.02	.72	1	50
D 43567	4	240	2	35	.5	17	25	1043	5.70	4	5	ND	2	270	.2	7	2	87	5.50	.116	2	15	1.89	79	.17	7	2.39	.01	.62	1	40
D 43568	1	594	2	41	.7	18	19	778	5.74	8	5	ND	2	199	.2	8	2	115	3.73	.130	2	26	2.15	123	.22	4	3.03	.02	1.08	1	44
D 43569	5	947	11	45	1.2	16	16	810	7.25	3	5	ND	2	193	1.1	8	2	95	3.93	.127	3	22	1.96	107	.19	5	2.89	.01	1.01	1	46
D 43570	1	652	6	50	.9	20	14	839	7.36	6	5	ND	2	298	.2	6	2	109	4.85	.142	3	34	2.01	111	.20	7	2.90	.01	.97	1	38
D 43571	3	478	4	45	.6	15	22	1053	5.88	6	5	ND	2	263	.4	6	2	78	6.20	.133	3	15	1.94	78	.15	7	2.50	.01	.77	1	56
D 43572	1	473	4	41	.8	18	24	881	5.77	7	5	ND	2	268	.2	4	2	76	5.85	.146	3	13	1.83	65	.15	4	2.43	.01	.77	1	67
D 43573	3	345	12	40	.5	17	35	958	6.00	3	5	ND	2	266	.7	8	2	80	5.91	.114	2	20	1.76	71	.14	7	2.10	.01	.82	1	63
D 43574	2	272	2	37	.7	15	46	1031	6.20	4	5	ND	2	358	.2	2	2	72	7.84	.109	2	11	1.58	69	.13	8	1.90	.01	.72	1	105
D 43575	2	253	3	70	.8	19	25	1344	6.84	6	5	ND	2	317	.2	8	2	102	6.74	.104	2	17	2.27	83	.17	6	2.79	.01	1.04	1	96
D 43576	4	274	15	47	.4	25	27	1682	6.11	4	5	ND	2	285	.6	6	2	73	7.26	.086	2	31	2.35	60	.13	5	2.64	.01	.84	1	52
D 43577	2	136	9	38	.1	22	18	1227	4.72	2	5	ND	2	300	.2	5	2	28	5.77	.086	2	8	1.62	38	.03	4	1.21	.01	.33	1	61
D 43578	2	139	2	21	.2	13	18	1029	3.82	2	5	ND	2	173	.2	2	2	16	5.45	.098	3	6	1.22	50	.02	8	.78	.01	.25	1	62
STANDARD C/AU-R	20	63	37	134	7.5	74	32	1089	4.03	43	16	8	38	52	18.5	15	19	60	.51	.093	40	59	.91	183	.08	39	2.07	.06	.13	11	492

**ANALYTICAL CERTIFICATES
CHEMEX LABS LTD.**

K90-4



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: NORAMCO EXPLORATION INC.

900-999 W. HASTINGS ST.
VANCOUVER, BC
V6C 2W2

A9027950

Comments:

CERTIFICATE

A9027950

NORAMCO EXPLORATION INC.

Project: KENA (2012)
P.O. #:

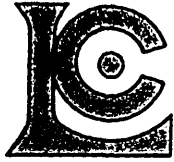
Samples submitted to our lab in Vancouver, BC.
This report was printed on 20-DEC-90.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	38	Geochem ring to approx 150 mesh
294	38	Crush and split (0-10 pounds)
238	38	NITRIC-AQUA REGIA DIGESTION
287	38	Special dig'n with organic ext'n

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	38	Au ppb: Fuse 10 g sample	FA-AAS	5	10000
6	38	Ag ppm: HNO3-aqua regia digest	AAS-BKGD CORR	0.2	100.0
13	38	As ppm: HNO3-aqua regia digest	AAS-HYDRIDE/EDL	1	10000
2	38	Cu ppm: HNO3-aqua regia digest	AAS	1	10000
3	38	Mo ppm: HNO3-aqua regia digest	AAS	1	1000
4	38	Pb ppm: HNO3-aqua regia digest	AAS-BKGD CORR	1	10000
22	38	Sb ppm: HCl-KClO3 digest, extrac	AAS-BKGD CORR	0.2	1000
5	38	Zn ppm: HNO3-aqua regia digest	AAS	1	10000
301	12	Cu %: HClO4-HNO3 digestion	AAS	0.01	100.0



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave., North Vancouver
 British Columbia, Canada V7J 2C1
 PHONE: 604-984-0221

To: NORAMCO EXPLORATION INC.

900-999 W. HASTINGS ST.
 VANCOUVER, BC
 V6C 2W2

Project : KENA (2012)
 Comments:

Page Number : 1
 Total Pages : 1
 Invoice Date : 20-DEC-90
 Invoice No. : I-9027950
 P.O. Number :

CERTIFICATE OF ANALYSIS A9027950

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm Aqua R	As ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Cu %	
43411	205	294	75	< 0.2	3	1700	21	< 1	0.4	38	-----	
43412	205	294	65	< 0.2	2	1400	14	< 1	0.8	34	-----	
43413	205	294	80	< 0.2	2	1400	5	< 1	< 0.2	36	-----	
43414	205	294	120	< 0.2	2	2300	5	< 1	0.2	38	-----	
43415	205	294	115	0.5	1	2500	5	< 1	0.2	38	-----	
43416	205	294	120	0.8	1	3000	4	< 1	0.2	40	-----	
43417	205	294	100	0.5	2	1900	4	< 1	< 0.2	26	-----	
43418	205	294	150	0.8	2	2600	3	< 1	< 0.2	34	-----	
43419	205	294	105	0.3	2	2100	4	< 1	0.2	48	-----	
43420	205	294	85	0.2	2	1700	4	< 1	< 0.2	34	-----	
43421	205	294	90	< 0.2	2	1900	3	< 1	< 0.2	38	-----	
43422	205	294	215	0.7	2	4200	3	< 1	0.4	38	-----	
43423	205	294	135	0.6	1	2600	4	< 1	< 0.2	24	-----	
43424	205	294	115	0.6	1	1700	4	< 1	< 0.2	22	-----	
43425	205	294	70	0.4	3	1000	4	< 1	< 0.2	22	-----	
43426	205	294	125	0.7	2	2000	4	< 1	< 0.2	22	-----	
43427	205	294	135	0.9	2	2200	4	< 1	< 0.2	18	-----	
43428	205	294	115	0.7	1	1600	3	< 1	< 0.2	20	-----	
43429	205	294	315	1.5	2	3500	5	< 1	< 0.2	30	0.35	
43430	205	294	380	1.9	2	4600	4	< 1	< 0.2	32	0.44	
43431	205	294	270	1.5	1	4000	3	< 1	< 0.2	32	0.41	
43432	205	294	295	1.4	2	4200	3	< 1	0.4	30	0.42	
43433	205	294	235	1.2	2	3200	10	< 1	< 0.2	26	0.31	
43434	205	294	240	1.2	1	3500	5	< 1	< 0.2	26	0.33	
43435	205	294	350	1.6	1	5200	21	< 1	0.2	34	0.50	
43436	205	294	290	1.4	2	4200	3	< 1	< 0.2	34	0.42	
43437	205	294	575	1.0	1	4700	6	< 1	< 0.2	34	0.43	
43438	205	294	260	1.0	1	4700	3	< 1	0.2	36	0.44	
43439	205	294	230	1.0	1	3600	3	< 1	< 0.2	34	0.37	
43440	205	294	85	0.3	5	1300	3	< 1	< 0.2	40	0.13	
43441	205	294	105	0.4	2	1200	5	< 1	< 0.2	38	-----	
43442	205	294	95	0.5	2	1200	3	< 1	0.2	28	-----	
43443	205	294	265	0.3	2	1000	3	< 1	0.2	36	-----	
43444	205	294	250	1.0	1	3300	4	< 1	0.4	36	-----	
43445	205	294	245	0.9	1	3100	4	< 1	< 0.2	24	-----	
43446	205	294	200	0.7	2	2100	2	< 1	< 0.2	20	-----	
43447	205	294	265	1.1	3	3900	3	< 1	< 0.2	30	-----	
43448	205	294	130	0.4	3	2000	3	< 1	< 0.2	28	-----	

CERTIFICATION:

Hart Buchler

APPENDIX IV

DRILL PROGRAM INVOICES

LONE RANGER DIAMOND DRILLING

CLIENT
 Noramco Explorations Inc.
 900-999 W. Hastings Street.
 Vancouver B.C.
 V6C 2W2

2160 VERNON ST., LUMBY, B.C. V0E 2G0
 BOX 441, LUMBY, B.C. V0E 2G0
 TELEPHONE: (604) 547-6839

November 5, 1990

INVOICE DATE

INVOICE FOR WORK DONE ON Kena Property, Nelson B.C. DURING PERIOD FROM Oct. 16 TO Nov. 1, 1990												
T.S. NO.	MOB OR	CASING AT	CORING AT			ACID TESTS AT	TRACTOR TIME AT	RIG TIME AT	EXTRA LABOUR	MATERIAL AT COST+	WATER SUPPLY LABOUR	TRAVEL TIME
	DEMOB	\$15.50	14.50	15.50	17.00	\$60.00	\$75.00	\$90.00	\$27.50	12 %	\$27.50	\$27.50
1	1,000.											
2							2		4		3	
3							3					
4		20	27								22	2
5			120								1	
6			131			1					12	2
7			133									
8			106								12	2
9			63	77								
10				128		2					12	2
11		12	89								2	
12			111			1					13.5	1.5
13							4				12	
14		22	136			1					12	2
15			138								6	
16			145								12	2
17			59	86		1						
18				200		1					12	2
19				114	41							
20					124	1					12	2
21						1		0.5		\$ 624.47	7	
22									12			
23		10									10	
24			306			1					12	2
25			284	26		1						
26				130							12	2
27				200		1						
28				44	62						12	2
29					172	1						
30					52							
31	1,000.									\$ 483.19	20.5	2
											2	
TOTAL	2,000.	64	1748	1005	451	12	10	0.5	16	\$1107.66	219	25.5
TOTAL	\$2,000.	\$992.00	\$48,590.50			\$720.00	\$750.00	\$45.00	\$440.00	\$1107.66	\$6,022.50	\$701.25
		INVOICE TOTAL	\$61,368.91									

APPROVED
 INITIAL: *[Signature]*
 CODE: 2012/38

LEBER MINES LTD.
UNDERGROUND MINE DEVELOPMENT
DIAMOND DRILLING - SURFACE & UNDERGROUND

(604) 352-3064

Box 674 Nelson, V1L 5R4

Fax (604) 352-3013

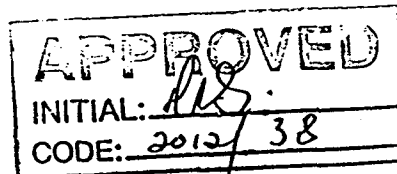
November 9, 1990

Noramco Mining Corp.
Suite 900 - 999 West Hastings Street
Vancouver, B.C.
V6C 2W2

STATEMENT

October 22 - 9 hours
October 23 - 9 hours
October 28 - 5 hours
October 30 - 7 hours
November 1 - 4 hours
November 7 - 4 hours

Lowbed Invoice #13428	\$135.00
Lowbed Invoice #13039	\$135.00
D7 @ \$97.50	\$3,705.00
TOTAL	<u>\$3,975.00</u>



- Preparation / drill moves /
snow removal



— WATER HAULING —

INVOICE

No 088

NAME Noramco

ADDRESS 900 - 999 W. Hastings Street

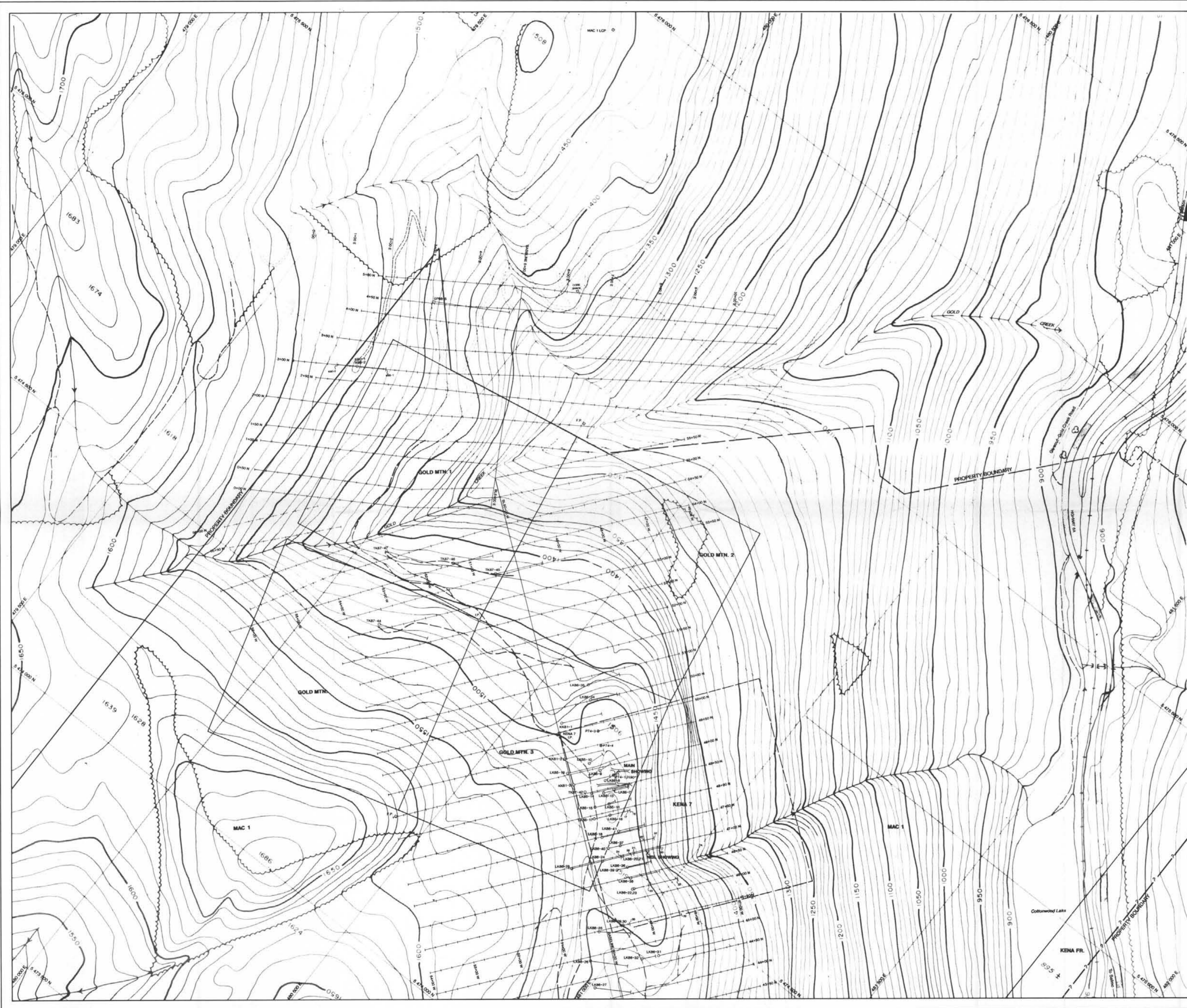
CITY Vancouver, B.C. POSTAL CODE V6C 2W2

ATTN: Dave Silversides DATE November 1, 1990

Supplied 6x6 water truck and storage tank for drilling rig in Nelson Area from October 27 to Nov. 1/90

October 27/90	Mobe from Kamloops to Nelson	\$ 600.00
" 28	7 Hrs.	
" 29	13 "	
" 30	13 "	
" 31	<u>13 "</u>	
	46 Hrs. @ \$48.00/Hr.	2,208.00
	==	
November 1/90	Demobe from Nelson to Kamloops	<u>600.00</u>
		\$3,408.00
		=====

APPROVED
 INITIAL: DS
 CODE: 2012/38

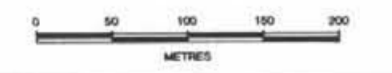
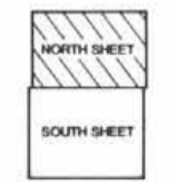


**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

20,894

LEGEND

- P74-5 PERCUSSION DRILL COLLAR, TRACE & NUMBER
- TRENCH
- LK90-5 DIAMOND DRILL COLLAR, TRACE & NUMBER
- 900 ELEVATION CONTOUR IN METRES
- CREEK
- ROAD, MAINLY 4-WHEEL DRIVE
- TRAIL
- LOCATED CLAIM POST & BOUNDARY
- 45+00 N CUT & PICKETED GRID LINE
- FLAGGED GRID LINE
- 5 474 500 N UTM COORDINATES
















NORAMCO MINING CORPORATION	
KENA PROJECT	
K GROUP	
LOCATION OF DRILL HOLES	
K90-1 & K90-2	
DATE: DECEMBER 1990	DRAWN BY: T. E. LISLE/W. J. LEWIS
SCALE: 1:5000	REVISION: 4

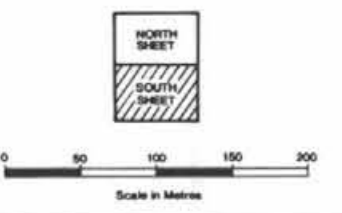


**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

20,894

LEGEND

-  ADT
-  SHAFT
-  PROSPECT PIT
-  DIAMOND DRILL COLLAR TRACE & NUMBER
-  ELEVATION MARKER
-  ELEVATION CONTOUR IN METRES
-  CREEK
-  ROAD, MAINLY 4-WHEEL DRIVE
-  RAILROAD
-  LOCATED CLAIM POST & BOUNDARY
-  CUT & PICKETED GRID LINE
-  FLAGGED GRID LINE
-  UTM COORDINATES



NORAMCO MINING CORPORATION	
KENA PROJECT	
K GROUP	
LOCATION OF DRILL HOLES	
K90-3 & K90-4	
DATE: DECEMBER, 1990	SCALE: 1:5000
BY: [Signature]	CHECKED: [Signature]
APPROVED: [Signature]	DATE: 1990