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FILMED

REPORT ON THE
EXPO DRILLING AND GEOCHEM PROGRAM
RED DOG AREA
NORTH VANCOUVER ISLAND
BRITISH COLUMBIA, CANADA

NTS 92L/12

Latitude / 50° 43'N
Longitude / 127° 59'W

For

Moraga Resources Ltd.
1030 - 609 Granville Street
Vancouver, B.C.
V7Y 1G5

by

E. Harrington, B.Sc.

August 25, 1989

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SUMMARY

This report presents for assessment, fieldwork completed on the Red Dog group during 1989.

In January, 1989 893 soil pulps were reassayed for Au, As, Sb, Bi, Ge, Se, and Te. Results indicated coincident gold and arsenic anomalies in the southwest portion of the sampled area.

In February, 1989 a seven kilometre grid was established to cover this anomalous area and a soil sampling program consisting of 215 samples assayed for Au, Ag, As, Cu, Pb, and Zn was carried out. This program indicated two anomalous zones.

Between December and May 1989, regional mapping was carried out on the Red Dog group and on adjacent ground. The regional mapping program contributed to this assessment on a pro-rata basis.

Between May 13 and May 28, 1989 Tonto Drilling drilled seven NQ wireline Holes, EC-164-170, for a total of 764.4m (2,508 ft). In total, 170 split core samples were assayed by Acme Analytical Laboratories Ltd., Vancouver, B.C.

Drill indicated gold mineralization was sporadic, with a maximum value of 210 ppb Au returned in EC-164.

Copper mineralization was more widespread with EC-164 returning an average grade of 0.065% Cu over 48.6m. The maximum copper value encountered was 0.2% Cu (2,040 ppm) also in EC-164.

Soil sampling indicated an extension of the Red Dog copper mineralization to the southwest.

A further ground geophysical program (mag, VLF-EM, I.P.) is recommended.

A total of $113,328.64 was spent on the Red Dog claim group between November 1, 1988 and May 31, 1989.

INTRODUCTION

In January, 1989 Mr. Maurice Young, president of Moraga Resources Ltd. requested Daiwan Engineering Ltd. to conduct geochemical and drilling programs on the Expo property in the Red Dog area near Holberg, British Columbia.

The geochemical program was two-fold. The initial phase consisted of the reassaying of 893 soil pulps from a 1968 regional soil survey. Phase II consisted of the establishment of a grid to cover the anomalies indicated by Phase I results and to carry out more detailed soil sampling.

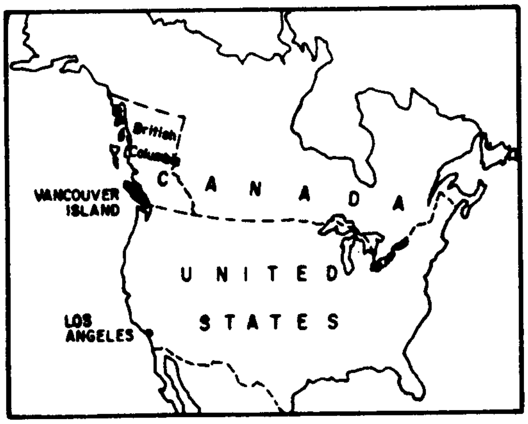
The drilling program was designed to investigate gold mineralization in a previously sampled silicified zone within the Red Dog road quarry, to test selected magnetic anomalies to the west of the Red Dog copper/gold deposit and ultimately to examine the possible extension of this deposit into the Expo property.

LOCATION AND ACCESS

The Expo property is located on northern Vancouver Island, approximately 360 km (225 miles) northwest of Vancouver, British Columbia, Canada (Figure 1). Locally this large claim group covers a 20 km (13 mile) stretch of ground immediately north, and parallel to the west end of Holberg Inlet on N.T.S. topographic map 92L/12. The Red Dog claim group consist of 87 contiguous 2-post claims in the centre of the Expo property (see Figure 2). Most areas of the property can be reached by well maintained logging roads and forest tracks. The main access to the claim block is by forest road "Wanokana Main" which commences on the outskirts of Coal Harbour.

Regular Boeing 737 or Dash 7 air service is provided by both Canadian Airlines and Time Air from Vancouver to Port Hardy, each on a twice daily schedule. Alternately, there is good highway access, with travel from Vancouver taking 7 hours.

Port Hardy is the local commercial centre, but there are forestry and fishing centres at Coal Harbour and Holberg.



MORAGA RESOURCES LTD.

EXPO PROJECT

NANAIMO MINING DIVISION, B.C.

LOCATION MAP

DAIWAN ENGINEERING LTD.

SCALE	1:8,000,000	DATE	SEPT., 1989	FIG.	1

TOPOGRAPHY AND VEGETATION

The property is characterized by many low, northwest to westerly trending hills and ridges bounded by narrow deeply incised valleys and steep slopes. Elevations range from sea level to over 600 metres (2,000 ft). Within the claim block ridge tops are commonly about 300 metres (1,000 ft) above valley bottom. The property is within N.T.S. topographic map 92L/12.

The claims are located within an active logging area, consequently forest cover varies from mature stands of fir, hemlock, spruce and cedar to dense second growth or to open clear-cut areas of recent logging. Some of the ridge tops are fairly open with only stunted evergreens. Low areas, especially along creeks have thick brush and berry bushes.

Rock exposure is well defined in the areas of high relief, and on the higher ridges. However, thick humus development on the forested slopes and scattered residual glacial gravels in the valley bottoms restrict geological mapping in these areas.

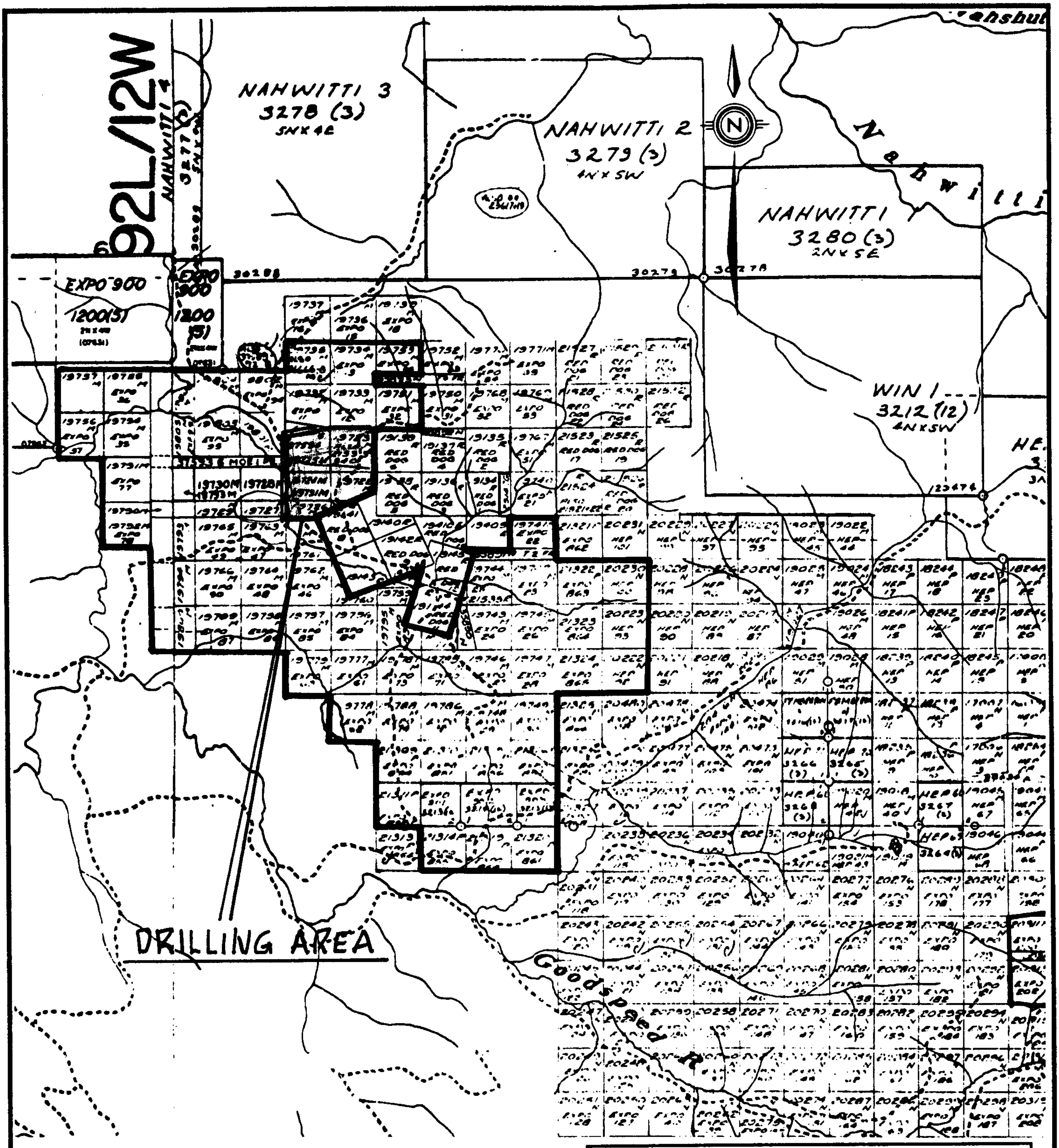
PROPERTY DESCRIPTION

The Red Dog group consists of 87 contiguous 2 post claims in the Nanaimo Mining Division. A complete list of the claims can be found in Appendix 1.

HISTORY

Northern Vancouver Island has been intermittently explored since the early 1800s. Between 1849 and 1920 several attempts were made at mining coal in the Port Hardy area. These operations failed due to the poor quality of coal. In the early 1900s, minor coal was mined at Coal Harbour, located on the north shore of Holberg Inlet.

Copper was discovered in 1911 at Benson Lake, 25 miles southeast of Port Hardy. This property, now known as Coast Copper Mine, was acquired by Cominco in 1916. They carried out considerable underground development work, but closed down in 1931, remaining idle until 1960. It was then actively mined between 1962-1972 producing copper and iron concentrates which were shipped to Japan.



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EXPO PROJECT

NANAIMO MINING DIVISION, B.C.

RED DOG AREA

CLAIM MAP

DAIWAN ENGINEERING LTD.

SCALE	DATE	FIG.
1 : 50,000	SEPT., 1989	2

Magnetite occurrences were located in the Benson Lake area in 1897, but were considered of interest only for their copper content until the early 1950s. They were explored for their iron content between 1950-56, then mined until 1967 when the operation ceased. Iron concentrates were also shipped to Japan.

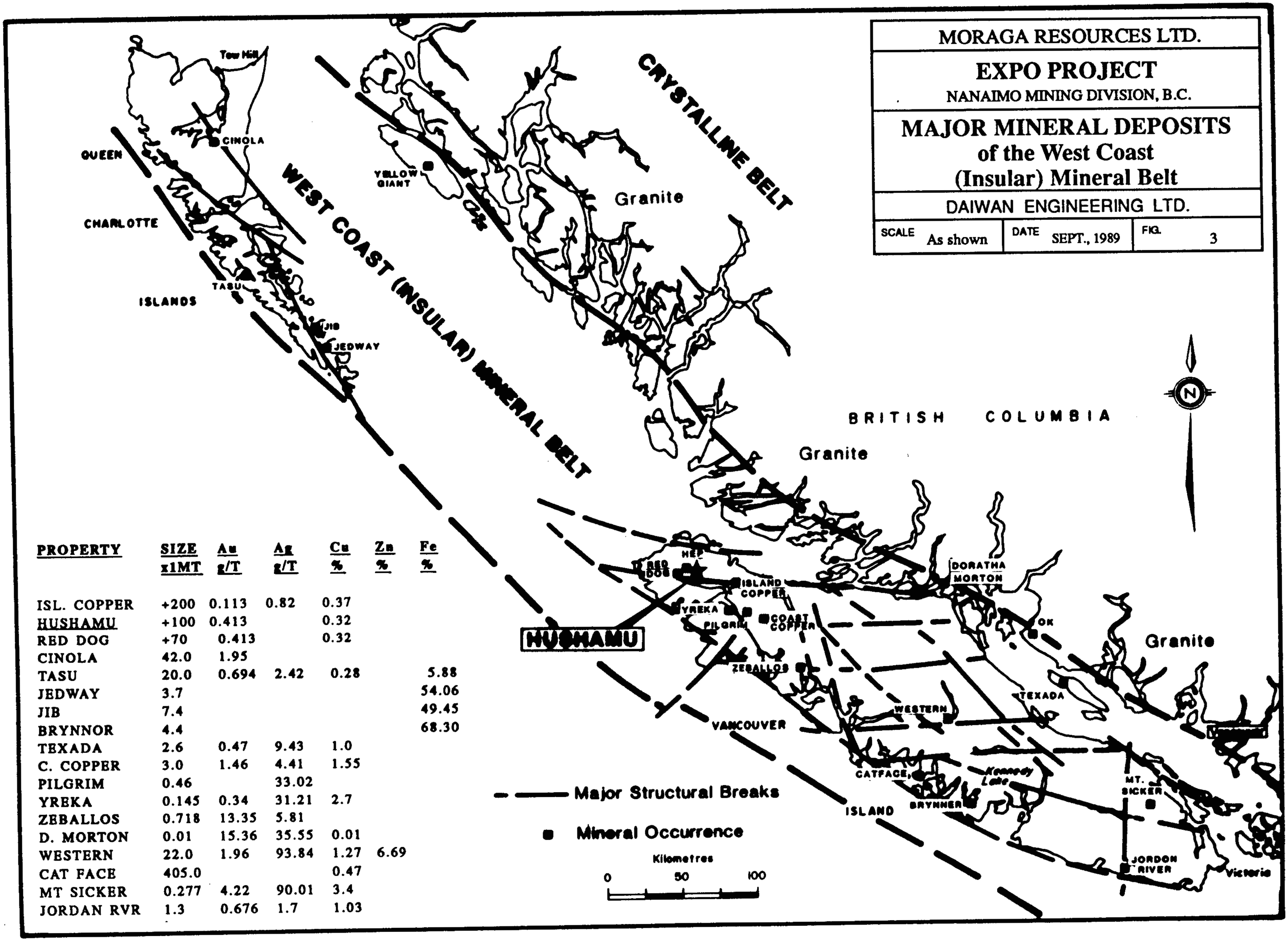
In 1963, the B.C. Department of Mines published the results of a recently completed aeromagnetic survey covering the northern end of Vancouver Island.[2] Since magnetite deposits were of interest at this time, considerable exploration activity was generated in the area examining all magnetic anomalies of interest.

One magnetic anomaly of fairly large areal extent was recorded on the eastern end of Rupert Inlet. Diligent prospecting in this area located a number of poorly exposed copper occurrences. A large number of claims were located in 1966 and subsequently the property was acquired by Utah Construction and Mining Company, now BHP-Utah Mines Ltd. Over the years, they added to the claim block and conducted extensive geological-geochemical-geophysical surveys and diamond drilling throughout the claim block. This work resulted in locating the large copper-molybdenum deposit which was developed into Island Copper Mine (Figure 3). The mine commenced production in October 1971. Production to 1987 has been in excess of 200 million tonnes milled, for concentrate sales of 753,000 tonnes of copper, 23.1 million grams gold, 168 million grams silver, and 15.3 tonnes molybdenum[14].

With the discovery of significant copper mineralization on the Utah property, a great deal of interest was generated in the area by individuals and companies searching for copper. Many copper occurrences were located but none were found to be economic.

During the height of the exploration activity, Utah Mines Ltd. controlled most of the ground extending from the east end of Rupert Inlet to the west end of Holberg Inlet. Their properties included the large block of claims covering the Island Copper deposit, as well as the favourable geology on trend to the northwest (most of the present Expo group). After exploring the area extensively to 1975, Utah dropped some of the claims but retained the Expo group. Exploration on these claims had located a large area of low grade copper-molybdenum mineralization (the Hushamu zone) estimated to contain 58,420,000 mineable tonnes grading 0.32% Cu, 0.008% Mo and 413 ppb gold with a stripping ratio of 2.21:1. The drill indicated reserve for the deposit is over 100 million tonnes at the same grade, but higher stripping ratio. [4]

A number of other alteration zones, similar to that at Island Copper Mine and the Hushamu zone, were investigated. While some were mineralized, they were not significant enough at the time to warrant further development.



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NANAIMO MINING DIVISION, B.C.

MAJOR MINERAL DEPOSITS
of the West Coast
(Insular) Mineral Belt

DAIWAN ENGINEERING LTD.

SCALE As shown | DATE SEPT., 1989 | FIG. 3

PROPERTY	SIZE x1MT	Au g/T	Ag g/T	Cu %	Zn %	Fe %
ISL. COPPER	+200	0.113	0.82	0.37		
HUSHAMU	+100	0.413		0.32		
RED DOG	+70	0.413		0.32		
CINOLA	42.0	1.95				
TASU	20.0	0.694	2.42	0.28		5.88
JEDWAY	3.7					54.06
JIB	7.4					49.45
BRYNNOR	4.4					68.30
TEXADA	2.6	0.47	9.43	1.0		
C. COPPER	3.0	1.46	4.41	1.55		
PILGRIM	0.46		33.02			
YREKA	0.145	0.34	31.21	2.7		
ZEBALLOS	0.718	13.35	5.81			
D. MORTON	0.01	15.36	35.55	0.01		
WESTERN	22.0	1.96	93.84	1.27	6.69	
CAT FACE	405.0			0.47		
MT SICKER	0.277	4.22	90.01	3.4		
JORDAN RVR	1.3	0.676	1.7	1.03		

The Hushamu deposit, and these other alteration zones, are the targets for Moraga's gold and copper exploration. The urgency for developing a further copper deposit in the area is prompted by the expected closure of the Island Copper Mine in 1996 due to the exhaustion of the pit reserves.

Moraga has completed two preliminary phases of exploration since obtaining the property option. The first groundwork was a Downhole Pulse Electromagnetic Survey of DDH EC-158 on Pemberton Hills. This survey indicated a sheet-like sulphide horizon with a significantly more responsive sulphide zone to the north-northwest of the present drillhole. This is awaiting further fieldwork.

The second programme commenced in late November of 1988, on the completion of the Company's public financing, and has included regional mapping with road cut sampling, computer modelling of the 1963 airborne geophysical data, and a 762 metre (2,500 feet) drill programme. In addition archived soil sample rejects were recovered from storage and analyzed for gold arsenic, selenium, tellurium, bismuth, and antimony mineralization. These samples had previously been analyzed for copper, lead and zinc.

REGIONAL GEOLOGY

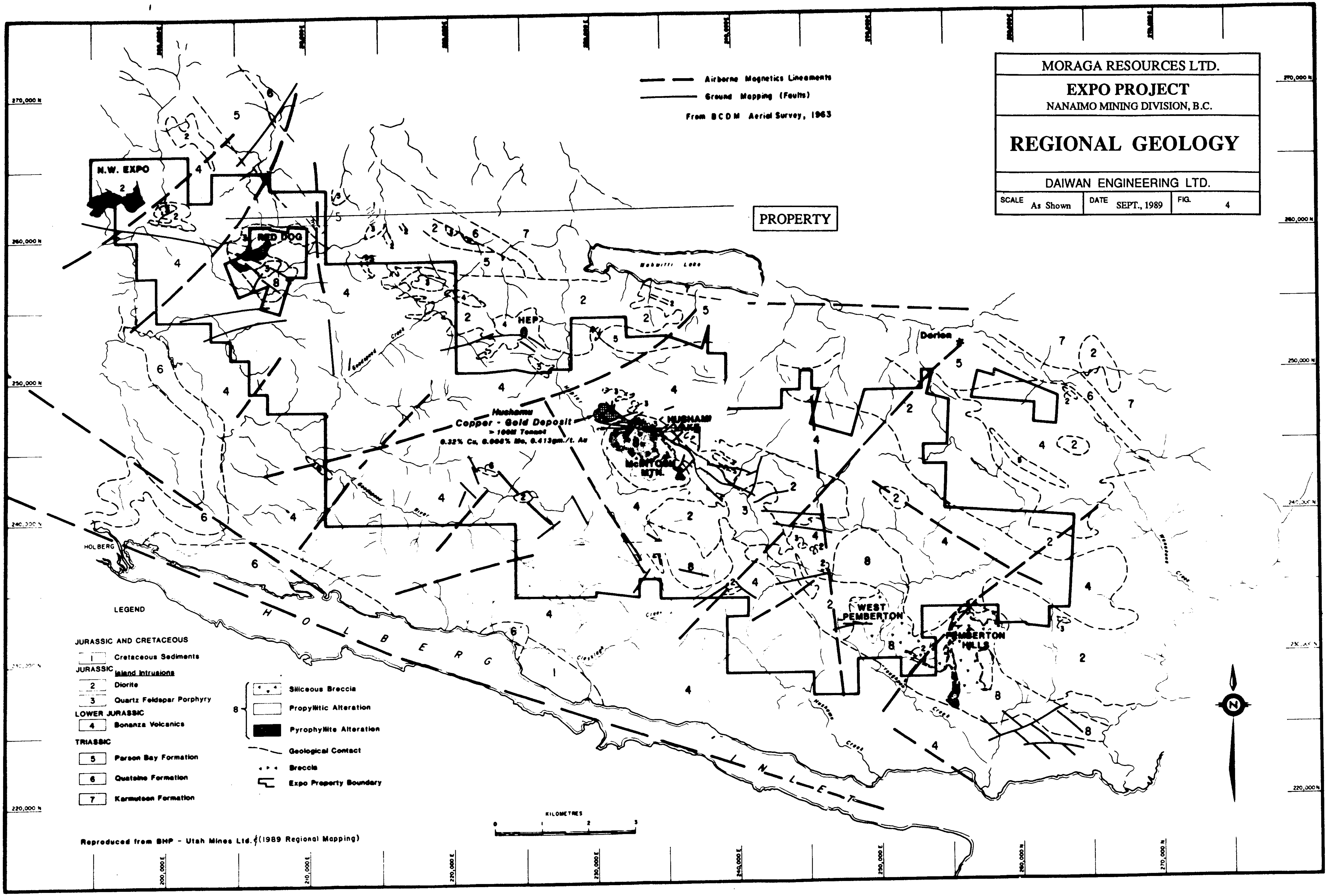
Vancouver Island, north of Holberg and Rupert Inlets, is underlain by rocks of the Vancouver Group. These rocks range in age from Upper Triassic to Lower Jurassic. They are intruded by rocks of Jurassic and Tertiary age and disconformably overlain by Cretaceous sedimentary rocks. The structural setting of Vancouver Island is shown in Figure 3. Figure 4 shows the geological mapping of the northern part of the Island.

Faulting is prevalent in the area. Large-scale block faults with hundreds to thousands of metres of displacement are offset by younger strike-slip faults with displacements up to 750 metres (2,500 feet).

The Vancouver Group is described as follows:[6]

(a) Basal Sediment - Sill Unit: Middle and Upper Triassic Age

The basal sediment-sill unit consists of laminated to graded-bedded black shales and siltstones, silicified and invaded by diabase sills. The entire unit is estimated as 750-900 metres (2,500-3,000 feet) with the sedimentary portion being about 180 metres (600 feet) thick.



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NANAIMO MINING DIVISION, B.C.

REGIONAL GEOLOGY

DAIWAN ENGINEERING LTD.

SCALE	DATE	FIG.
As Shown	SEPT., 1989	4

Reproduced from BHP - Utah Mines Ltd. (1989 Regional Mapping)

(b) Karmutsen Formation: Upper Triassic Age

Karmutsen Formation consists of 3,000-6,000 metres (10-20,000 feet) of volcanic flows, pyroclastics and minor sediments. It includes three distinct units: a lower pillow lava unit, a middle pillow breccia unit, and an upper lava flow unit. The latter consists of predominantly porphyritic and amygdaloidal basalt flows, individual flows of which range from 1-30 metres (to 100 feet) thick.

Two thin bands of limestone occur near the top of the Karmutsen Formation. The distribution of limestone outcrops is erratic and suggests a series of lenses at the same general stratigraphic horizon rather than one continuous bed.

The lower contact of the formation has not been observed on the northern part of Vancouver Island. The upper contact with limestone of the Quatsino Formation generally is sharp and easily recognized, although limestones and basalt locally are interbedded over a narrow stratigraphic interval at this contact.

Low-grade metamorphism of the Karmutsen Formation rocks has resulted in pervasive chloritization and amygdules filled with epidote, carbonate, zeolite, prehnite, chlorite, and quartz.

Basaltic rocks along contacts with intrusive stocks are in many places converted to dark-coloured hornblende hornfels. Skarn zones occur sporadically along these contacts, both in the inter-lava limestones and in the basalts.

(c) Quatsino Formation: Upper Triassic Age

The Quatsino Formation ranges from 60-1,000 metres (200-3,500 feet) in thickness and consists almost entirely of limestone with a few thin andesite or basalt flows. It has conformable contacts with both the overlying Parson's Bay sediments and the underlying Karmutsen volcanics. The upper contact with the Parson's Bay Formation is gradational with limestone grading upward into carbonaceous argillites.

Within the contact metamorphic/metasomatic aureoles adjacent to intrusive stocks, skarn development and silicification of limestone, accompanied by chalcopyrite-magnetite or galena, sphalerite and silver mineralization has been noted.

(d) Parson's Bay Formation: Upper Triassic Age

The Parson's Bay Formation consists of between 60-360 metres (200-1,200 feet) of argillite, minor limestone, agglomeratic and tuffaceous limestone, tuff, quartzite and minor conglomerate. At both its base and top, the unit exhibits gradational contacts with the Quatsino and Harbledown Formations.

On a regional scale, the rocks are unmetamorphosed. Locally, adjacent to intrusive contacts, pyrite-magnetite replacement bands up to one-half inch thick in banded tuffs have been observed.

(e) Harbledown Formation: Lower Jurassic Age

The Harbledown Formation consists of 485 metres (1,600 feet), a non-volcanic argillite-greywacke sequence separating the Parson's Bay from the Bonanza Formation.

(f) Bonanza Formation: Lower Jurassic Age

The Bonanza Formation is approximately 1,500 metres (8,500 feet) thick. The lower portion consists of bedded and massive tuffs, formational breccias and rare amygdaloidal and porphyritic flows, in the compositional range andesite to basalt. Porphyritic dykes and sills intrude the lower part of the unit. In the upper part of the Bonanza, rhyodacite flows and breccias become more numerous and are interbedded with andesite and basalt flows, tuffs and tuff breccias.

Regional metamorphism within the Bonanza Volcanics is very low grade, possibly zeolite facies. Plagioclase commonly is albitized and saussuritized. Chlorite, epidote and laumontite occur within the matrix of volcanic breccias, in veinlets, and in amygdules. Coarse intraformational breccias locally are hematized.

Biotite and amphibolite hornfelses occur adjacent to stocks which intrude the Bonanza Volcanics.

"Pyrobitumen", a black hydrocarbon erratically distributed within the Bonanza rocks, generally occurs as fracture fillings or in the centre of zeolite-carbonate veins. Its distribution is not related to the position of the intrusive stocks.

Cretaceous Sediments

The Vancouver Group is unconformably overlain by non-marine Cretaceous sediments of the Longarm Formation which are estimated to be about 300 metres (1,000 feet) thick in the Port Hardy area. These sediments, consisting of conglomerate, sandstone, greywacke, and siltstone and some carbonaceous and impure coal seams, occupy local basins. Early coal mining in the district was from several of these basins.

Intrusive Rocks

The Vancouver Group rocks are intruded by a number of Jurassic-aged stocks and batholiths. In the Holberg Inlet area a belt of northwest-trending stocks extend from the east end of Rupert Inlet to the mouth of Stranby River on the north coast of Vancouver Island[15].

Quartz-feldspar porphyry dikes and irregular bodies occur along the south edge of the belt of stocks. Dykes are characterized by coarse, subhedral quartz and plagioclase phenocrysts set in a pink, very fine grained, quartz and feldspar matrix. They are commonly extensively altered and pyritized. At Island Copper Mine, these porphyries are enveloped by altered, brecciated, mineralized Bonanza wallrocks. The porphyries, too, are cut by siliceous veins, pyritized, extensively altered, and are mineralized where they have been brecciated. The quartz-feldspar porphyries are thought to be differentiates of middle Jurassic, felsic, intrusive rocks.

Other intrusive rocks of lesser significance include felsic dykes and sills around the margins of some intrusive stocks; dykes of andesitic composition, which cut the Karmutsen, Quatsino and Parson's Bay Formation, and represent feeders for Bonanza volcanism; and Tertiary basalt-dacite dykes intruding Cretaceous sediments.

Structure

The structure of the rocks north of Holberg and Rupert Inlets is that of shallow synclinal folding along a northwesterly fold axis. The steeper southwesterly limbs of the folds have apparently been truncated by faults roughly parallel to the fold axis. Failure of limestone during folding may have influenced the location of some of the faulting as indicated by their proximity of the Dawson and Stranby River Faults to the Quatsino horizon. Transverse faulting is pronounced and manifested by numerous north and northeasterly trending faults and topographic lineaments.

The northern part of Vancouver Island lies in a block faulted structural setting with post Lower Cretaceous northwesterly trending faults apparently being the major system. This system causes both repetition and loss of parts of the stratigraphic section, with aggregate movement in a vertical sense in the order of tens to hundreds of metres. The most significant of these fault systems trends west to northwest following Rupert and Holberg Inlets. Near the west end of the Holberg Inlet it splits with the main branch following the Holberg Inlet, the other branch passing through the west side of the Stranby Valley. Another northwesterly to westerly system passes through William Lake and still another smaller system passes through Nahwitti Lake.[6]

Northeasterly trending faults comprise a subordinate fault system. In some cases, apparent lateral displacement, in the order of a several hundred metres, can be measured on certain horizons. Movement, however, could be entirely vertical with the apparent offset resulting from the regional dip of the beds.

Recent computer modelling of the airborne magnetometer data has provided a very clear understanding of the relationship of secondary conjugate sets of northeast and north westerly faults related to the major west-northwest trending breaks.[7] These conjugate fault sets appear to relate directly to the significant mineralization at the Island Copper, Hushamu, Hep and Red Dog copper/gold deposits.

Generally, regional dip of the bedding is gentle to moderate southwesterly. Locally, in the area west of Holberg, dips are much steeper, but these are in close proximity to major faults. There is little folding or flexuring of bedding visible, except along loci of major faults where it is particularly conspicuous in thinly bedded sediments of Lower Bonanza. Bedding is generally inconspicuous in massive beds of Karmutsen, Quatsino and Bonanza rocks, particularly inland where outcrops are widely scattered.

REGIONAL MINERALIZATION

A number of types of mineral occurrences are known on Northern Vancouver Island. These include:

1. Skarn deposits: copper-iron and lead-zinc skarns

2. Copper in basic volcanic rocks (Karmutsen): in amygdules, fractures, small shears and quartz-carbonate veins, with no apparent relationship to intrusive activity

3. Veins: with gold and/or base metal sulphides, related to intrusive rocks

4. Porphyry copper deposits: largely in the country rock surrounding or enveloping granitic rocks and their porphyritic phases.

Utah Mines Ltd., in their many years of exploration in the Holberg-Rupert Inlets area, focused their attention on the search for copper porphyry deposits. Their exploration resulted in locating and developing the Island Copper Mine. In addition, they located other areas of porphyry mineralization, as well as two areas anomalous in gold and one area with massive sulphide mineralization within the Expo group claim area. Moraga's efforts in the past 6 months have been directed at verifying the extent of the gold mineralization within the copper deposits; detailing and testing the presently identified adjacent epithermal gold mineralization; and relating the sedimentary sulphide horizons to similar style mineralization presently mined by Western Mines at Buttle Lake to the south.

GEOLOGY

The area is predominantly underlain by Bonanza volcanics (andesitic to rhyodacitic lava, tuff and breccia) intruded by Island Intrusions (quartz diorite, granodiorite, quartz monzonite and quartz feldspar porphyry) giving rise to areas of propyllitic and pyrophyllitic alteration. Areas of strong silicification are common and in the Red Dog road quarry carry gold to 2,540 ppb. Due east of the pit for 1,000m is evidence of a linear stock work carrying pyrite, chalcopyrite and molybdenite mineralization found within the Bonanza volcanics.

GEOCHEM PROGRAM

The soil pulps were analyzed by Acme Analytical Labs, Vancouver, B.C. A -80 mesh sample of .500 gm is digested in 3ml 3-1-2 HCL-HNO3-H20 at 95°C for one hour and is diluted to 10ml with water followed by analysis by Hydrick I.C.P. (Ge partial leached). Au was analysed by acid leach/AA finish from total sample.

The Phase I reassaying indicated coincident anomalous gold and arsenic immediately to the southwest of the Red Dog claim boundary (Figures 7 and 8). Arsenic values ranged up to 988 ppm while gold returned a high of 607 ppb at the same location.

Phase II commenced with a seven kilometre grid being established over this anomalous area. the grid was established in very thick second growth forest and no outcrop was encountered in the grid area. Overburden in the area was of moderate depth.

The results of the survey were plotted on a 1:2,500 plan (Figures 9, 10, and 11). The background values for gold appear to be in the range of 7 ppb and the background for copper in the area of 40 ppm and that of arsenic would be approximately 7 ppm. Geochemical plots of the results produced two areas of interest: the first in the northeast portion of the grid along the border with the red dog claims; and the second along the western portion of the grid remaining open to the west.

The first area of interest gave rise to the highest gold and copper values in the grid area with a gold value of 480 ppb and a copper value of 687 ppm. Arsenic in this area was at background levels.

In the second anomaly gold values are in the area of 20 ppb and arsenic values in the area of 20 ppm with the highest arsenic value on the grid in this anomaly (26 ppm). The copper values throughout the anomaly are in the 40 ppm range with the exception of one 342 ppm value.

The Red Dog pit lies within one kilometre to the north of the soil grid. The pit was mapped and sampled in detail. Assays showed a wide range of values from 2 ppb to 2,540 ppb gold. The best assays came from the highly silicified volcanic rocks near the centre of the pit. The lower values were from the diorites that show in the northern portion of the pit.

DRILL PROGRAM

The program using NQ wireline was carried out from May 13 to May 28, 1989 and consisted of 764.4m (2,508 feet) of drilling in seven holes. The drilling information is summarized in Table 1. The core is stored near the site of EC167 (Figure 5).

Drilling Summary

Table I

Hole#	Dip	Azimuth	Depth	Reason for Drilling	Location
EC-164	-45°	090°	141.m/ 463 ft.	To undercut silicified zone in pit returning 2,540 oz/ton Au.	258968N/204879E
EC-165	-90°	N/A	81.1m/ 266 ft.	To test for extension of pit mineralization.	258797N/204722E

Hole#	Dip	Azimuth	Depth	Reason for Drilling	Location
EC-166	-45°	075°	71.9m/ 236 ft.	To test for extension of pit mineralization.	258797N/204722E
EC-167	-45°	158°	70.7m/ 232 ft.	To test mag anomaly.	260984N/202115E
EC-168	-90°	N/A	148.8m/ 488 ft.	To test mag anomaly.	261837N/204902E
EC-169	-45°	225°	122.8m/ 403 ft.	To test mag anomaly.	261837N/204902E
EC-170	-45°	225°	128.0m/ 420 ft.	To test mag anomaly.	262049N/205161E
			764.4m 2,508 ft.		

Diamond Drill hole EC-164 was located within the Red Dog road quarry and was intended to undercut the silicified volcanics which had returned up to 2,540 ppb Au.

Anomalous copper values of 98-1391 ppm (average grade 0.065% Cu) extended from 2.44m to 51.0m with anomalous gold values of 18-210 ppb extending from 7.62m - 17.2m.

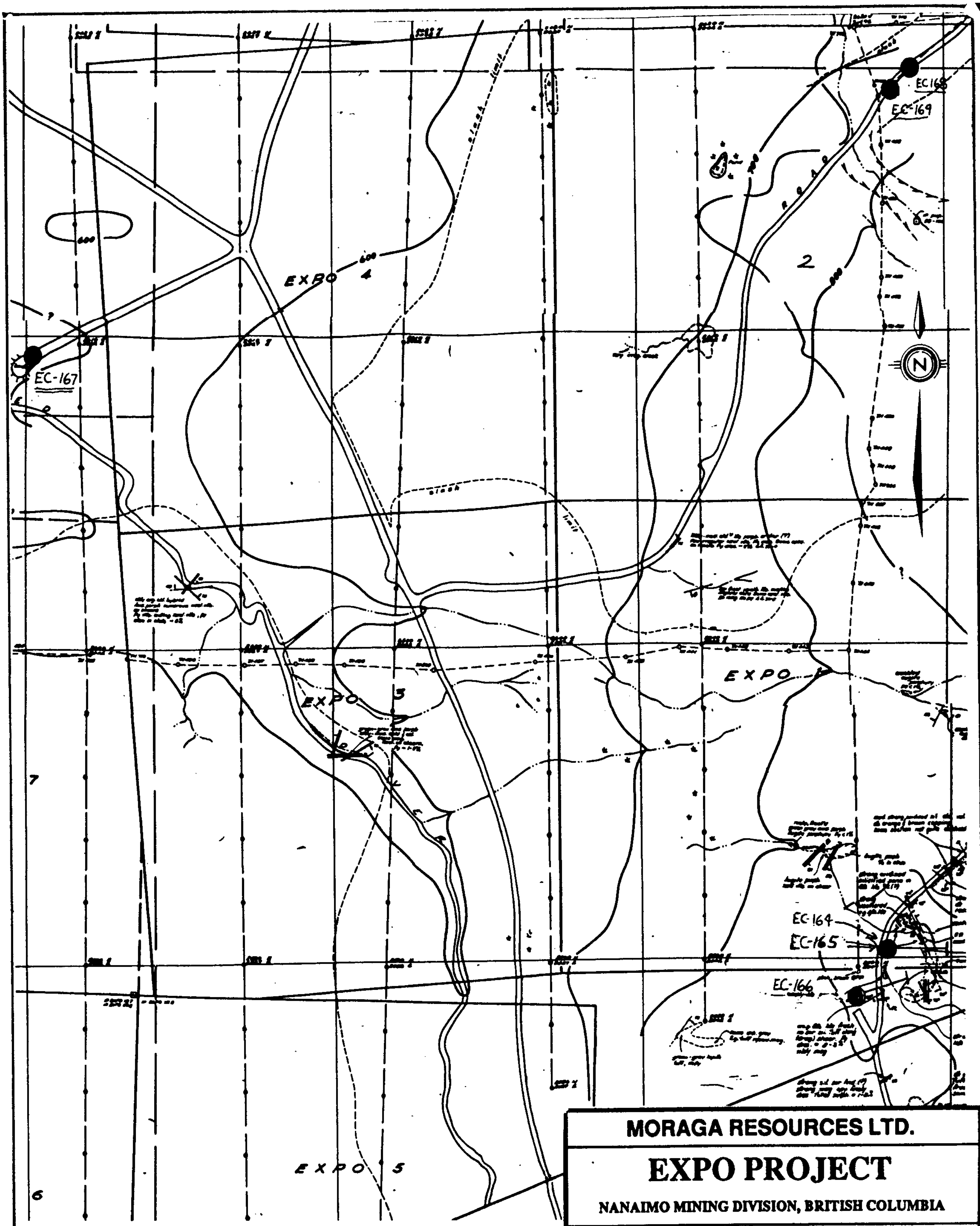
The best gold values are located at the base of an andesitic tuff with the remaining lower values within the underlying quartz monzonite.

A 3m fault was intersected from 59.0 - 72m with a strongly silicified upper breccia contact of 80° to the core axis. The best results were from a 1.25m interval from 68.75 - 70.0m which returned 2,040 ppm Cu and 93 ppb Au.

Drill holes EC-165 and EC-166 were located to check on the possible western extension of the quarry mineralization as well as the strong east-west trending magnetic anomaly extending through the quarry.

A mixture of quartz monzonite and feldspar porphyry were intersected in EC-165 with no significant mineralization.

Drill hole EC-166 also cut quartz monzonite and feldspar porphyry but was anomalous in copper for all samples, returning from 117 - 885 ppm Cu. The maximum gold value was 8 ppb.



● DDH COLLAR

MORAGA RESOURCES LTD.

EXPO PROJECT

NANAIMO MINING DIVISION, BRITISH COLUMBIA

DRILL LOCATIONS

DAIWAN ENGINEERING LTD.

SCALE:	DATE:	FIGURE NO.:
1: 5,000	May, 1989	5

Drill hole EC-167 was located to test an isolated magnetic high to the north west. The hole was abandoned after triconing 70.7m (232 feet) of overburden.

Drill holes EC-168-170 were located to test the broad north-west trending magnetic high in the valley north of the Red Dog pit.

Drill hole EC-168 collared in quartz monzonite then intersected approximately 53m of andesite and andesitic tuffs followed by 45m of quartz monzonite and feldspar porphyry. Two samples #109177 and #109182 returned 1.1 ppm and 1.4 ppm Ag respectively. Sample #109192 from a stock work extending from 72.0 - 75.8m returned 1,483 ppm Cu and 2.9 ppm Ag over 1.5m.

Drill hole EC-169 collared in 13m of intermediate tuff then intersected 72m of quartz monzonite and feldspar porphyry with minor amounts of andesite. Flakes of molybdenite were observed at 84m returning 234 ppm Mo in sample #109233. The highest gold value was 31 ppb over 2.7m in sample #109231.

Drill hole EC-170 was split almost equally between the overlying feldspar porphyry and quartz monzonite and the underlying andesite and tuff. The apparent dip of the volcanic/intrusive contact is 20-25° northeast. No significant sulphide mineralization was encountered.

Disseminated pyrite mineralization (<3%) was evident throughout the volcanics comprising EC-168-170 as well as scattered magnetite in both the volcanics and intrusives.

CONCLUSIONS

From the soil grid and samples from the Red Dog pit it appears that the Red Dog deposit extends onto the Expo property. The open ended gold-arsenic anomaly on the western portion of the soil grid may indicate an epithermal type deposit.

Drill indicated mineralization does not appear to be restricted to a particular rock type. Although the highest copper and gold values were found in the volcanics, the most consistent copper values (low) were found in the intrusives.

RECOMMENDATIONS

A program of Mag, VLF-EM and I.P. over the newly established grid would provide further information on the geochemical indicated extension of the Red Dog deposit onto the Expo Property. If suitable targets are forthcoming a drill program should be mounted.

STATEMENT OF COSTS - Red Dog

1.0	Personnel	Snr. Geologist - 3.25 days @ $380	$ 1,235.00	
		Prj. Geologist - 19.06 days @ $260	4,956.25	
		Prj. Geologist - 11.55 days @ $240	2,772.00	
		Field Assist. - 20.0 days @ $210	4,200.00	
		Field Assist. - 5 days @ $105	525.00	$ 13,688.25
2.0	Assays	215 soils (5 element ICP + Geochem Au)	$ 2,414.24	
		170 split core (5 element ICP + Geochem Au)	2,455.16	
		893 pulps (6 element ICP + Geochem Au)	9,753.70	$ 14,623.10
3.0	Food and Accommodation			$ 2,087.38
4.0	Transportation			$ 4,516.40
5.0	Field Supplies			$ 907.72
6.0	Drafting			$ 144.00
7.0	Office Costs			$ 426.83
8.0	Miscellaneous			$ 366.04
9.0	Drilling			$ 55,596.00
10.0	Share of Regional Exploration Costs (see attached)			20,972.92
TOTAL				**$113,328.64**

STATEMENT OF COSTS - Regional

1.0	Personnel	Snr. Geologist - 19 days @ $380	$ 7,220.00	
		Prj. Geologist - 49.3 days @ $360	17,760.00	
		Geologist - 2 days @ $260	520.00	
		Geologist - 20.1 days @ $240	4,824.00	
		Draftsperson - 4.4 days @ $200	880.00	$31,204.00
2.0	Assays	125 rock (30 element ICP)	$ 2,248.92	
		3 rock (Au F.A.)	30.60	
		7 rock (geochem Au)	69.00	
		4 rock (Au, Ag, F.A.)	2,421.48	$ 2,421.48
3.0	Food and Accommodation			$ 2,932.63
4.0	Transportation			$ 5,708.72
5.0	Field Supplies			$ 2,681.93
6.0	Maps			$ 1,792.94
7.0	Office Costs			$ 633.95
8.0	Miscellaneous			$ 833.16
9.0	Drafting			$14,709.96
TOTAL				**$62,918.77**

Apportioned Cost $62,918.77 ÷ 3 = $20,972.92

CERTIFICATE OF QUALIFICATIONS

I Edward D. Harrington of the City of Vancouver, British Columbia, do hereby certify that:

1. I am a geologist employed by Daiwan Engineering Ltd. with offices at 1030 - 609 Granville Street, Vancouver, British Columbia, V7Y 1G5.

2. I am a graduate of Acadia University, Wolfville, Nova Scotia, with a B.Sc. degree in Geology (1971).

3. I have practised my profession as a Geologist for over 13 years.

4. This report is based on my personal knowledge of the Expo Property, a review of geological and geochemical data from previous work and field work under my personal supervision.

5. The work program was carried out from May 13 to May 28, 1989.

6. I have no interest in the property or shares of Moraga Resources Ltd. or in any of the companies with contiguous property to their Expo claim blocks, nor do I expect to receive any.

Edward D. Harrington, B.Sc.
June 1, 1989

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17.	Dasler, P. G. (1989)	Report on the Expo Group Northern Vancouver Island for Moraga Resources Ltd.

APPENDIX 1

CLAIM DATA

Schedule - Claims of Red Dog Group, Nanaimo M.D., B.C.

Claim Name	**# of units**	**record #**
Expo 1	1	19722
Expo 2	1	19723
Expo 3	1	19724
Expo 4	1	19725
Expo 5	1	19726
Expo 6	1	19727
Expo 7	1	19728
Expo 8	1	19729
Expo 9	1	19730
Expo 10	1	19731
Expo 11	1	19732
Expo 12	1	19733
Expo 13	1	19734
Expo 14	1	19735
Expo 22	1	19741
Expo 23	1	19742
Expo 24	1	19743
Expo 25	1	19744
Expo 26	1	19745
Expo 27	1	19746
Expo 28	1	19747
Expo 29	1	19748
Expo 30	1	19749
Expo 32	1	19751
Expo 34	1	19753
Expo 35	1	19754
Expo 36	1	19755
Expo 37	1	19756
Expo 38	1	19757
Expo 41	1	19758
Expo 42	1	19759
Expo 44	1	19760
Expo 45	1	19761
Expo 46	1	19762
Expo 47	1	19763
Expo 48	1	19764
Expo 49	1	19765
Expo 50	1	19766
Expo 60	1	19776
Expo 61	1	19777
Expo 62	1	19778
Expo 63	1	19779
Expo 71	1	19785
Expo 72	1	19786
Expo 73	1	19787

Claim Name	**# of units**	**record #**
Expo 74	1	19788
Expo 75	1	19789
Expo 76	1	19790
Expo 77	1	19791
Expo 78	1	19792
Expo 81	1	19793
Expo 82	1	19794
Expo 83	1	19795
Expo 84	1	19796
Expo 85	1	19797
Expo 86	1	19798
Expo 87	1	19799
Expo 88	1	19800
Expo 93	1	19801
Expo 94	1	19802
Expo 95	1	19803
Expo 96	1	19804
Expo 97	1	19805
Expo 98	1	19806
Expo 107	1	20479
Expo 850	1	21309
Expo 851	1	21310
Expo 852	1	21311
Expo 855	1	21314
Expo 856	1	21315
Expo 857	1	21316
Expo 860	1	21319
Expo 861	1	21320
Expo 863	1	21322
Expo 864	1	21323
Expo 865	1	21324
Expo 867	1	21326
Expo 901	1	3540
Expo 902	1	3541
Expo 903	1	3542
Hep 92	1	20222
Hep 93	1	20223
Hep 100	1	20230
T1 Fr	1	35890
T2 Fr	1	35891
Moe 1 Fr	1	37593
Moe 2 Fr	1	37594
Total	**87 units**	

APPENDIX 2

SAMPLE DESCRIPTIONS

Sample#	Location	Type	Description	Results
33001	Pemberton Main	chip	xstal tuff w sk. hyd. alt.	327 Mn
33002	Pemberton Main	chip	xstal tuff w mo. hyd. alt.	19 ppb Au
33003	Pemberton Main	chip	heavily silic. w Fe stain	
33004	Pemberton Main same site as PED#6	chip	grey volcaniclastic 5-10% Py	
33005	Pemberton Main	chip	rhyolitic flow; breccia 2-3% Py	
33006	Pemberton Main	chip	rotten and.	
33007	Pemberton Main	chip	porph. and. breccia	
33008	Pemberton Main	chip	and. porph. wk. hydro alt.	449 Mn/12 ppb Au
33009	Pemberton Main	chip	and. w. wk. hydro alt.	713 Mn/18 ppb Au
33010	Pemberton Main	chip	bonanza volc. wk. hyd. alt.	1071 Mn.
33011	Pemberton Main	chip	bonanza volc. ≤ 1% Py	363 Mn
33012	WN 900 Quarry	chip		233 Mn
33013	WN 900	chip	diorite w feld alt.	394 Mn
33014	WN Main "F"	chip	B. volc. rotten wk. hyd. alt.	388 Mn/10 ppb Au
33015	Cleskagh Ck. @ Rd.	float	siliceous, angular bldr. grey Py patch	
33016	Cleskagh Ck. @ Rd.	float	chalcedonic frag. w Fe stain	
33017	Cleskagh Ck. @ Rd.	float	propyllitic bldr. slight kaolin	802 Mn
33018	Cleskagh Ck. @ Rd.	chip	Py breccia w qtz-carb vein	
33019	WN Main Quarry 300m W of WN 100	chip	B. volc w 1cm qtz. vein	1,246 Mn
33020	WN 101B	chip 5m	B. volc wk-mod hydro. alt.	446 Mn
33021	WN 101B	chip 3m	B. volc silic. wk pink alt. in veins	1,053 Mn
33022	Main Rd.	chip	B. volc we-mod alt.	578 Mn

Sample#	Location	Type	Description	Results
33023	Side Rd. off Holberg Connection	chip	B. volc breccia w wk-mod hydro alt.	442 Mn
33024	Side Rd. off Holberg Connection	chip	B. volc breccia w wk-mod hydro alt.	588 Mn
33025	Side Rd. off Holberg Connection	chip	B. volc w wk. hydro alt. 565 Sr/157V	1,262Mn/
33026	Side Rd. off Holberg Connection	chip	B. volc w hydro breccia 1m	342 Mn/104V
33027	Side Rd. off Holberg Connection	chip	B. volc w hydro breccia over 1m	550 Mn/126 Sr/ 119V
33028	Side Rd. off Holberg Connection	chip	B. volc w hydro breccia 3-4 m	816 Mn
33029	Side Rd. off Holberg Connection	chip	B. volc wk hydro alt.	352 Mn/120 Sr
33030	Side Rd. off Holberg Connection	chip	B. volc wk hydro alt	684 Mn/26 ppb Au
33031	Red Dog	chip 1.5 m	B. volc tuffaceous wk. hydro alt. w carb/zeol	898 Mn
33032	Red Dog	float	hydro breccia w carb/zeol	471 Mn
33033	Red Dog	chip 2m	B. volc tuffaceous wk hydro alt.	700 Mn
33034	Red Dog	chip 1m	B. volc tuff. hydro alt. fractures	1,044 Mn
33035	Red Dog (other claim)	chip	intrusive hydro alt.	856 Cu/320 ppb Au
33036	Red Dog (other claim)	chip	intrusive hydro alt.	290 Sr/12 ppb Au
33037	Red Dog (other claim)	chip	intrusive hydro alt.	149 Mn/41 ppb Au
34501	McIntosh Mtn. 20m N. 2440N, 2329E	grab 5m	heavily silicified	82 Mo/56 ppb Au
34502	McIntosh Mtn. NW of 34501	chip	heavily silicified	61 ppb Au
34503	McIntosh Mtn. 12m N. of 34554	grab	heavily silicified w 1/2" qtz. stringers	

Sample#	Location	Type	Description	Results
34504	McIntosh Mtn. 20m N. of 34503	grab	heavily silicified w 1/4" qtz. stringers	19 ppb Au
34505	McIntosh Mtn.	grab	heavily silicified w 1/4" qtz. stringers, minor limonite	70 Mo/113 ppb Au
34506	McIntosh Mtn.	grab	milky qtz. zone 1.5m	26 ppb Au
34507	H1000	grab 3m	massive py	17 ppb Au
34508	H1000	grab 3m	massive Py	429 Mn
34509	H1000	grab 2m	QFP w dissem. Py	475 Mn/11 ppb Au
34510	H1000	chip	QFP	
34511	H1000	grab	QFP w clay	
34512	H1000	grab 3m	QFP w dis. Py grey	
34513	H1000	grab	QFP w dis. Py grey	
34514	H1000	grab	QFP no Py	390 Mn
34515	H1020	grab	QFP w kaolin	
34516	H1020	grab	QFP(?) sil. kaolin Py	120 Mn
34517	H1020	grab		187 Mn
34518	H1020	grab 3m	QFP w Py grey	394 Mn
34519	H1020	grab 3m	QFP w Py grey	
34520	H1031	grab		156 Sr
34521	Quarry Between Pm 200 + PM 300	grab	QFP w Py clay alt.	162 Mn
34522	Pemberton 100		sinter cone kaolin andesite	
34523	Pemberton 100 pit 100m W of Sinter Cones		bedded Py	556 Mn/110V/ 16 ppb Au
34524	Pemberton 100 1100m W Sinter Cones	grab		797 Mn/147V

Sample#	Location	Type	Description	Results
34525	Pemberton 100	grab 3m	bedded py (across bedding)	460 Mn/122V
34526	Pemberton 100	grab 3m	bedded Py W of Sinter Cones (across bedding)	
34527	Pemberton 100	grab	andesite Bx. siliceous kaolin	
34528	Pemberton 100	grab	QFP	1,578 Mn
34529	Pemberton 100		andesite Bx. siliceous	
34530	Holberg Connection		qtz. vein	411 Mn/55 ppb Au
34531			fumarole Bx.	
34532	Rd. W of Hushamu Lake		B. volc dis. Py bleached	
34533	Rd. W of Hushamu Lake 25m E 34532		carb veinlets *limonite	139 Zn/1,060 Mn/ 9 ppb Au
34534	Rd. W of Hushamu Lake		bonanza carb veinlets	700 Mn/270 Sr
34535				15 ppb Au
34536	Rd. SSW of Hushamu Lake		volc grey siliceous Py	1,193 Mn
34537	Rd. SSW of Hushamu Lake			QFP w clay dis. Py
34538	Holberg Connection		Limestone (old sawmill site)	128 Mn/323 Sr
34539	Hushamu Main 250m S Jnct. w 1400		hydro alt. kaolinized intrusive	350 Mn
34540	Hushamu Main 250m S Jnct. w 1400		hydro alt. kaolinized intrusive	210 Mn
34541	H1500 Jnct. H1540		B. volc w carb stringers	463 Mn/117V
34542	WN Main	grab	B. volc kaolinized	373 Mn
34543	WN Main	grab	B. volc Py	

Sample#	Location	Type	Description	Results
34544	WN 1200 Pit SW of Rd.	grab	B. volc Py	
34545	Hushamu Rd. 2K N of Dump		rusty conglomerate	415 Mn/104 Sr
34546	Red Dog EC-1 Rd. cut E of Rd.		B. volc sil. bleached Py vein	1,509 Cu/290 ppb Au
34547	Red Dog EC-1 Rd.	grab 2.5m	B. volc limonite	1,374 Cu/134V/ 45 ppb Au
34548	Red Dog EC-1 Rd.	grab	surficial conglomerate	595 Cu/128V/ 13 ppb Au
34549	Red Dog EC-1 Rd. 20m S 34548	grab 1.5m	B. volc hydro alt.	581 Cu/440 ppb Au
34550	Red Dog EC-1 Rd.		surficial conglomerate	442 Mn/22 ppb Au
34551	McIntosh Mtn.	chip	heavily siliceous	19 ppb Au
34552	McIntosh Mtn.	chip	siliceous sinter	148 Mo/479 Cu/ 352 As/109 Au
34553	McIntosh Mtn.	chip	stockwork siliceous w qtz. veins ≤ 1/4"	85 ppb Au
34554	McIntosh Mtn.	chip	stockwork siliceous w qtz. veins ≤ 1/4"	
34555	McIntosh Mtn.	grab	wk. sinter w qtz. stringers	46 ppb Au
34556	McIntosh Mtn. SW DDH 154	chip 0.5m	heavily silicified w qtz. stringers ≤ 1 cm	1,205 ppb Au
41501	Red Dog Resample 34546	grab 2.5m	sil. Py vein	63 ppb Au
41502	Red Dog Resample 34547	grab	float selected from sil. Zn east wall of quarry	192 ppb Au
41503	Rd. W End of Nahwitti Lake	grab	float sil. skarn Py	13 ppb Au/206 Mn

Sample#	Location	Type	Description	Results
41504	Rd. W End of Nahwitti Lake	grab	float sil. skarn Py	575 Cu/101 As/ 65 ppb Au
41505	Rd. W End of Nahwitti Lake	grab	float sil. volc w ribbon qtz.	609 Mo/622 As/ 88 ppb Au
41506	Rd. W End of Nahwitti Lake 200m S	grab	float black bedded limestone w w calcsil. + Py	316 Mn/143 Sr
41507	Rd. W End of Nahwitti Lake 200m S	grab	float black bedded Lst without calcsil + Py	221 Mn/258 Sr
41508	Red Dog Pit L1 #1	chip		232 Cu/137 Mn/ 108V/10 ppb Au
41509	Red Dog Pit L1 #2	chip		386 Mo/666 Cu/ 75 ppb Au
41510	Red Dog Pit L1 #3	chip		166 Mo/1,947 Cu/ 28 ppb Au
41511	Red Dog Pit L2 #1	chip		364 Cu/459 Mn/ 17 ppb Au
41512	Red Dog Pit L2 #2	chip		367 Cu/352 Mn/ 19 ppb Au
41513	Red Dog Pit L2 #3	chip		140 Mo/32 ppb Au
41514	Red Dog Pit L2 #4	chip		121 Mo/141 ppb Au
41515	Red Dog Pit L3 #1	chip		83 Mo/43 ppb Au
41516	Red Dog Pit L3 #2	chip		207 Mo/200 ppb Au
41517	Red Dog Pit L3 #3	chip		175 Mo/55 ppb Au
41518	Red Dog Pit L4 #1	chip		471 Cu/256 Mn/ 36 ppb Au
41519	Red Dog Pit L4 #2	chip		164 Mo/4,811 Cu/ 550 ppb Au
41520	Red Dog Pit L4 #3	chip		89 Mo/1,900 Cu/ 290 ppb Au

Sample#	Location	Type	Description	Results
41521	Red Dog Pit L4 #4	chip		92 Mo/7,177 Cu/ 1,060 ppb Au
41522	Red Dog Pit L4 #5	chip		192 Mo/1,003 Cu/ 1,140 ppb Au
41523	Red Dog Pit L5 #1	chip		63 Mo/3,150 Cu/ 820 ppb Au
41524	Red Dog Pit L5 #2	chip		407 Cu/146 ppb Au
45125	Red Dog Pit L6 #1	chip		211 Mo/1,862 Cu/ 230 ppb Au
41526	Red Dog Pit L7 #1	chip		68 Mo/110 Cu/ 31 ppb Au
41527	Red Dog Pit L8 #1	chip		3,399 Cu/229 Mn/ 29 ppb Au
41528	Holberg Rd. Quarry 200m up Rd. to LCP WIN 1		epidote Py calc. skarn contact zone granite/Parson Bay	996 Zn/1,330 Mn/ 53 ppb Au/ 22.3 Ag
41529	Holberg Rd. Quarry 200m up Rd. to LCP WIN 1		chloritized carb. veins	422 Mn/135 Sr
41530	Rd. to LCP WIN 1		Parson Bay tuff w limonite siliceous next to granite contacts	816 Mn
41531	Holberg Rd.		B. volc hydro alt. limonite siliceous	40 ppb Au
41532	Holberg Rd.		B. volc hydro alt. clay gouge portion	315 Zn/221 Mn/ 330 ppb Au

APPENDIX 3

ASSAY CERTIFICATES

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

DATE RECEIVED: FEB 24 1989
DATE REPORT MAILED: Feb. 27/89.

GEOCHEMICAL ANALYSIS CERTIFICATE

- SAMPLE TYPE: ROCK
AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

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

DAIWAN ENGINEERING LTD. PROJECT EXPO FILE # 89-0429 Page 1

SAMPLE#	AU* ppb
D 32701	5
D 32702	1
D 32703	1
D 32704	1
D 32705	1
D 32706	2
D 32707	1
D 32708	1
D 32709	1
D 32710	1
D 32711	2
D 32712	1
D 32713	1
D 32714	1
D 32715	1
D 32716	1
D 32717	1
D 32718	1
D 32719	1
D 32720	1
D 32721	3
D 32722	2
D 32723	360
D 32724	950
D 32725	1130
D 32726	19
41621	5
41622	136
41623	112
41624	265
41625	980
41626	82
41627	32
41628	28
41629	154
41630	85

SAMPLE#	AU* ppb
41631	1645
41632	410
41633	119
41634	25
41635	17
41636	26
41637	3
41638	4
41639	1
41640	2
41641	1

SAMPLE#	AU* ppb
B 41558	2
B 41559	1
B 41560	3
B 41561	1
B 41562	1
B 41563	1
B 41564	1
B 41565	2
B 41566	1
B 41567	1
B 41568	1
B 41569	1
B 41570	3
B 41571	1
B 41572	6
B 41573	2
B 41574	1
B 41575	6
B 41576	1
B 41577	4
B 41578	1
B 41579	1
B 41580	1
B 41581	1
B 41582	4
B 41583	16
B 41584	2
B 41585	2
B 41586	3
B 41587	3
B 41588	1
B 41589	2
B 41590	9
B 41591	35
B 41592	7

SAMPLE#	AU* ppb
41593	5
41594	1
41595	1
41596	1
41597	1
41598	1
41599	1
41600	1
41601	1
41602	5
41603	25
41604	14
41605	1
41606	1
41607	1
41608	1
41609	1
41610	1
41611	1
41612	1
41613	1
41614	1
41615	1
41616	1
41617	8
41618	3
41619	2
41620	2

SAMPLE#	AU* ppb
D 32727	63
D 32728	167
D 32729	34
D 32730	83
D 32731	183
D 32732	149
D 32733	19
D 32734	29
D 32735	2
D 32736	26
D 32737	100
D 32738	640
D 32739	910
D 32740	2540
D 32741	1440
D 32742	1060
D 32743	590
D 32744	1840
D 32745	33
D 32746	26
D 32747	8
D 32748	91
D 32749	63

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
D 32727	61	307	5	12	.1	7	9	58	2.72	2	5	ND	1	2	1	2	2	7	.02	.004	2	3	.18	20	.01	2	.41	.01	.03	1
D 32736	69	231	2	9	.1	8	3	55	1.57	2	5	ND	1	5	1	2	2	7	.07	.005	2	7	.18	8	.01	2	.30	.01	.02	1
D 32743	322	6416	3	22	.2	3	16	38	3.82	2	5	ND	3	2	1	2	2	33	.01	.026	5	3	.11	15	.02	2	.80	.01	.10	1
D 32744	164	7291	8	46	.2	7	22	190	5.31	4	5	ND	1	1	1	2	2	18	.01	.011	2	3	.47	6	.01	2	1.39	.01	.03	1

ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED: MAY 21 1989
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716 DATE REPORT MAILED: May. 26/89.

GEOCHEMICAL ANALYSIS CERTIFICATE

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

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

DAIWAN ENGINEERING LTD. FILE # 89-1152 Page 1

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Au*
	PPM	PPM	PPM	PPM	PPM	PPB
C 109101	18	110	5	35	.2	9
C 109102	17	126	2	32	.3	8
C 109103	51	514	12	26	.2	16
C 109104	64	1076	6	70	.2	210
C 109105	42	1391	5	48	.4	79
C 109106	19	1106	4	38	.3	18
C 109107	22	561	11	64	.2	43
C 109108	5	589	7	45	.2	7
C 109109	4	1182	4	41	.1	3
C 109110	1	1258	10	76	.1	2
C 109111	8	1146	2	30	.1	3
C 109112	1	98	9	76	.3	2
C 109113	2	992	7	25	.1	5
C 109114	3	882	9	28	.1	4
C 109115	6	766	14	23	.1	1
C 109116	3	1036	5	24	.1	1
C 109117	2	650	4	29	.3	2
C 109118	4	640	9	38	.1	2
C 109119	5	1034	5	36	.3	1
C 109120	3	1334	5	46	.1	1
C 109121	1	32	5	33	.1	3
C 109122	1	29	6	29	.1	2
C 109123	1	23	3	31	.1	3
C 109124	1	19	7	27	.1	2
C 109125	1	42	5	71	.1	4
C 109126	11	209	3	60	.1	7
C 109127	99	2040	8	17	.7	93
C 109128	6	123	11	46	.1	3
C 109129	2	40	8	58	.1	3
C 109130	1	43	3	56	.1	1
C 109131	1	26	4	50	.1	1
C 109132	8	38	6	68	.1	6
C 109133	4	86	9	52	.1	4
C 109134	1	24	13	49	.2	4
C 109135	1	28	5	50	.1	1
C 109136	1	114	14	60	.1	2
STD C/AU-R	18	63	42	132	7.1	475

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Au* PPB
C 109137	1	10	2	19	.1	1
C 109138	1	24	2	26	.1	14
C 109139	1	27	3	25	.2	2
C 109140	1	13	9	27	.1	3
C 109141	1	19	18	30	.2	1
C 109142	1	23	3	40	.1	1
STD C/AU-R	18	62	45	132	7.1	520

ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED: MAY 25 1989
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716 DATE REPORT MAILED: May. 29./89

GEOCHEMICAL ANALYSIS CERTIFICATE

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

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

DAIWAN ENGINEERING LTD. PROJECT MORAGA RES. FILE # 89-1209 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Au* PPB
C 109143	1	42	11	41	.4	6
C 109144	1	13	7	17	.1	3
C 109145	1	24	7	25	.2	2
C 109146	1	292	12	28	.8	2
C 109147	1	29	8	30	.9	3
C 109148	1	21	5	35	.5	1
C 109149	1	27	9	43	.1	2
C 109150	1	27	8	41	.5	3
C 109151	1	25	25	40	.1	1
C 109152	1	9	9	17	.1	2
C 109153	1	20	12	44	.1	1
C 109154	1	14	8	24	.4	1
C 109155	1	31	35	100	.1	3
C 109156	2	406	9	58	.5	2
C 109157	2	677	9	61	.3	2
C 109158	3	692	10	76	.3	7
C 109159	6	606	9	70	.4	5
C 109160	3	515	8	58	.2	4
C 109161	2	342	7	30	.4	8
C 109162	1	117	9	26	.7	2
C 109163	1	885	12	42	.8	1
C 109164	1	750	7	34	.3	5
C 109165	2	492	8	26	.4	1
C 109166	2	649	6	19	.3	1
C 109167	2	550	8	33	.3	1
C 109168	3	707	6	15	.1	2
C 109169	1	14	8	27	.2	2
C 109170	2	31	8	27	.1	1
C 109171	1	71	3	67	.1	1
C 109172	4	166	7	51	.1	4
C 109173	1	110	11	64	.1	5
C 109174	1	29	10	61	.5	1
C 109175	2	64	11	67	.8	1
C 109176	1	22	16	79	.9	1
C 109177	4	93	29	94	1.1	1
C 109178	1	61	6	75	.1	1
STD C/AU-R	17	62	41	132	7.6	530

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Au* PPB
C 109179	1	94	12	145	.1	3
C 109180	2	21	10	111	.1	4
C 109181	8	36	15	70	.2	2
C 109182	12	22	16	69	1.4	1
C 109183	2	36	14	104	.1	2
C 109184	5	71	12	75	.1	1
C 109185	2	33	9	85	.3	3
C 109186	3	48	11	71	.2	3
C 109187	6	58	5	72	.1	2
C 109188	3	61	9	67	.1	4
C 109189	1	16	11	61	.1	3
C 109190	2	35	9	69	.2	4
C 109191	3	65	9	69	.3	6
C 109192	1	1483	37	75	2.9	9
C 109193	1	77	8	75	.1	5
C 109194	9	12	7	28	.3	1
C 109195	4	75	5	30	.2	4
C 109196	1	71	5	55	.2	1
C 109197	3	75	9	52	.1	4
C 109198	2	36	4	56	.2	1
C 109199	2	41	7	45	.1	2
C 109200	1	40	5	48	.1	2
C 109201	1	43	3	49	.1	1
C 109202	1	42	6	43	.1	1
C 109203	1	43	5	39	.1	1
C 109204	2	43	7	36	.1	1
C 109205	2	24	7	20	.3	1
C 109206	5	46	8	28	.1	1
C 109207	6	19	10	22	.3	1
C 109208	2	74	12	66	.1	1
C 109209	2	59	7	50	.1	2
C 109210	3	12	3	9	.1	1
C 109211	1	31	7	52	.1	3
C 109212	12	9	7	15	.1	2
C 109213	4	8	8	13	.1	1
C 109214	7	22	6	19	.1	1
C 109215	9	50	11	26	.1	2
STD C/AU-R	18	62	42	132	8.0	495

ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED: MAY 30 1989
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716 DATE REPORT MAILED: June 2/89

GEOCHEMICAL ANALYSIS CERTIFICATE

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

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

DAIWAN ENGINEERING LTD. PROJECT MORAGA RES-RED DOG FILE # 89-1265 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Au* PPB
C 109216	3	26	6	26	.2	1
C 109217	2	41	9	74	.3	3
C 109218	2	91	7	70	.1	2
C 109219	7	201	7	77	.1	2
C 109220	4	116	5	68	.3	2
C 109221	2	78	2	78	.1	3
C 109222	2	25	6	30	.2	2
C 109223	1	17	6	68	.1	3
C 109224	1	16	6	62	.1	1
C 109225	2	35	3	55	.2	1
C 109226	10	11	7	26	.1	1
C 109227	1	4	6	9	.1	3
C 109228	4	47	7	28	.1	3
C 109229	12	39	4	17	.1	3
C 109230	1	51	2	46	.1	4
C 109231	6	59	3	22	.1	31
C 109232	5	73	3	19	.1	3
C 109233	234	15	14	20	.2	1
C 109234	2	11	11	10	.1	3
C 109235	6	139	5	12	.1	1
C 109236	2	171	3	21	.2	2
C 109237	3	62	7	36	.2	17
C 109238	1	47	10	67	.3	12
C 109239	1	44	9	61	.4	9
C 109240	4	20	3	28	.1	12
C 109241	4	14	9	95	.1	19
C 109242	1	4	6	36	.1	16
C 109243	1	14	10	81	.1	7
C 109244	2	34	11	106	.2	4
C 109245	1	75	36	83	.2	4
C 109246	1	66	11	68	.3	5
C 109247	2	21	10	59	.2	1
C 109248	3	11	10	65	.1	2
C 109249	4	22	38	86	.4	4
C 109250	2	45	7	63	.3	3
C 109251	3	7	15	56	.1	5
STD C/AU-R	17	63	38	134	7.3	500

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Au* PPB
C 109252	1	58	8	52	.1	1
C 109253	4	147	19	89	.2	1
C 109254	5	67	9	83	.1	1
C 109255	3	95	14	88	.3	1
C 109256	1	77	14	83	.2	3
C 109257	5	53	15	91	.2	2
C 109258	3	20	11	101	.2	2
C 109259	23	32	10	44	.1	1
C 109260	2	50	6	69	.1	1
C 109261	5	19	11	64	.2	1
C 109262	3	62	5	50	.1	1
C 109263	3	22	10	57	.2	1
C 109264	2	17	7	33	.1	1
STD C/AU-R	18	60	36	131	6.6	510

ACME ANALYTICAL LABORATORIES DATE RECEIVED: MAY 31 1989
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011 DATE REPORT MAILED: June 5/89..

GEOCHEM PRECIOUS METALS ANALYSIS

AU** ANALYSIS BY FA+AA FROM 10 GM SAMPLE.
- SAMPLE TYPE: Core

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

DAIWAN ENGINEERING LTD. PROJECT MORAGA RES. FILE # 89-1270

SAMPLE#	Au** PPB
C 109265	21
C 109266	160
C 109267	107
C 109268	35
C 109269	39

ACME ANALYTICAL LABORATORIES DATE RECEIVED: MAY 31 1989
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011 DATE REPORT MAILED: June 5/89

GEOCHEM PRECIOUS METALS ANALYSIS

AU** ANALYSIS BY FA+AA FROM 10 GM SAMPLE.
- SAMPLE TYPE: Rock Chips

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

DAIWAN ENGINEERING LTD. PROJECT MORAGA FILE # 89-1284

SAMPLE#	Au** PPB
C 109270	1

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

DATE RECEIVED: DEC 12 1988
DATE REPORT MAILED: Dec. 13/88.

ASSAY CERTIFICATE

- SAMPLE TYPE: Pulp AU** BY FIRE ASSAY FROM 1/2 A.T.

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

DAIWAN ENGINEERING PROJECT EXPO FILE # 88-5978R

SAMPLE#	AU** oz/t
34505	.003
34552	.004
34556	.035

ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED: DEC 9 1988
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716 DATE REPORT MAILED: Dec. 13/88

ASSAY CERTIFICATE

- SAMPLE TYPE: ROCK AU** AND AG** BY FIRE ASSAY FROM 1 A.T.

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

DAIWAN ENGINEERING LTD. PROJECT HARRINGTON FILE # 88-6214

SAMPLE#	Ag** OZ/T	Au** OZ/T
A	.01	.001
B	.01	.009
C	.08	.017
D	.01	.001

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

GEOCHEMICAL ANALYSIS CERTIFICATE

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

DATE RECEIVED: DEC 21 1988 **DATE REPORT MAILED:** Dec 23/88. **SIGNED BY**..........D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT EXPO File # 88-6355 Page 1

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
C 33023	1	30	4	36	.1	3	11	442	4.59	2	5	ND	1	46	1	2	3	66	.32	.063	8	3	1.06	219	.01	2	2.70	.05	.06	1	1
C 33024	1	40	6	41	.1	7	10	508	3.54	16	5	ND	1	51	1	2	2	97	2.27	.045	5	11	.84	31	.11	2	4.35	.02	.08	1	2
C 33025	1	66	5	76	.1	2	11	1262	10.63	11	5	ND	1	565	2	2	2	157	1.28	.100	5	2	.95	78	.29	7	3.26	.07	.09	1	1
C 33026	1	32	17	39	.1	2	9	342	5.03	19	5	ND	1	92	2	2	2	104	4.34	.049	4	8	.64	14	.13	3	6.74	.02	.09	1	1
C 33027	1	27	15	43	.1	6	10	550	3.11	22	5	ND	1	126	1	2	3	119	4.95	.044	8	12	.77	26	.09	5	7.00	.02	.10	3	1
C 33028	1	27	5	58	.1	2	13	816	4.05	25	5	ND	1	72	1	2	2	92	2.84	.046	8	9	1.07	11	.10	5	4.61	.02	.05	1	1
C 33029	1	13	9	25	.1	3	5	352	1.61	3	5	ND	1	120	1	4	2	36	5.78	.038	5	4	.23	34	.05	4	7.05	.02	.12	1	1
C 33030	1	288	9	51	.5	4	13	684	3.59	30	5	ND	1	54	1	2	2	34	3.30	.050	5	8	1.19	8	.09	3	3.43	.01	.07	1	26
C 33031	1	28	7	58	.1	3	10	898	3.74	3	5	ND	1	33	1	2	2	79	1.40	.050	3	7	.99	72	.03	5	3.32	.06	.11	1	1
C 33032	1	10	38	38	.1	3	7	471	2.15	6	5	ND	1	74	1	4	3	41	3.90	.030	4	6	.50	45	.01	4	5.43	.03	.11	1	2
C 33033	1	42	29	62	.1	10	10	700	3.41	4	5	ND	1	96	1	2	2	53	2.43	.065	3	11	1.11	155	.10	3	4.77	.02	.12	1	1
C 33034	1	29	15	80	.1	7	13	1044	4.47	23	5	ND	1	59	2	2	2	87	1.72	.045	3	6	1.11	48	.05	3	4.49	.04	.09	1	1
C 33035	72	856	13	37	.3	5	5	58	9.90	3	5	ND	2	3	1	2	2	65	.03	.047	2	6	.43	27	.02	5	1.36	.01	.19	1	320
C 33036	5	403	5	23	.1	5	12	66	2.91	2	5	ND	1	290	1	4	2	61	.82	.089	2	3	.95	115	.02	2	2.37	.09	.07	1	12
C 33037	5	254	8	33	.3	8	11	149	4.66	2	5	ND	1	92	1	2	2	51	3.21	.058	3	8	.97	13	.05	2	5.51	.01	.11	1	41
B 41503	10	83	6	23	.2	26	26	206	5.55	41	5	ND	1	7	1	3	3	18	.10	.018	2	14	.49	15	.04	2	.71	.01	.01	1	73
B 41504	27	575	17	39	.1	13	17	77	13.74	101	5	ND	2	7	1	3	3	38	.04	.010	2	4	.10	9	.01	4	.54	.01	.01	2	65
B 41505	609	88	53	7	.1	6	1	16	2.76	622	5	ND	1	3	1	18	2	15	.03	.005	2	6	.01	2	.01	3	.15	.01	.01	1	88
B 41506	1	15	6	11	.3	3	3	316	1.68	17	6	ND	1	143	1	2	2	2	39.71	.050	2	1	.03	1	.01	2	.08	.01	.01	1	1
B 41507	1	8	2	3	.3	3	3	221	.53	9	7	ND	1	258	1	2	2	1	42.15	.012	2	2	.06	27	.01	2	.23	.02	.01	1	1
B 41508	5	232	11	29	.1	2	5	137	5.16	3	5	ND	17	21	1	2	2	108	.52	.033	4	7	.67	189	.16	2	2.49	.03	.10	1	10
B 41509	386	666	4	14	.1	2	8	15	14.24	12	5	ND	6	3	1	2	2	51	.01	.051	2	1	.01	540	.10	2	.31	.01	.09	1	75
B 41510	166	1947	13	30	.2	7	13	4	35.51	35	5	ND	5	5	2	2	2	68	.41	.059	2	1	.01	18	.01	2	.43	.01	.09	3	28
B 41511	5	364	11	72	.1	6	11	459	3.77	8	5	ND	4	37	1	2	2	69	.42	.038	6	5	1.58	43	.11	5	2.42	.03	.13	1	17
B 41512	3	367	13	49	.1	8	9	352	3.49	6	5	ND	5	11	1	2	2	78	.20	.054	7	6	1.71	39	.11	3	2.70	.03	.12	1	19
B 41513	140	138	2	3	.2	4	1	18	1.77	19	5	ND	1	2	1	2	2	11	.01	.015	2	5	.02	7	.01	2	.11	.01	.04	1	32
B 41514	121	238	2	3	.2	6	1	10	3.28	17	5	ND	2	7	1	2	2	16	.01	.021	2	4	.01	23	.01	2	.34	.02	.09	1	141
B 41515	83	194	2	14	.2	7	7	92	1.84	2	5	ND	1	1	1	2	2	10	.01	.005	2	6	.42	13	.01	4	.81	.01	.08	1	43
B 41516	207	218	4	1	.2	4	1	12	1.76	2	5	ND	2	2	1	2	2	7	.01	.004	3	4	.01	11	.01	2	.20	.01	.07	1	200
B 41517	175	45	2	1	.1	4	1	12	.75	3	5	ND	5	1	1	2	2	3	.01	.013	6	6	.01	4	.01	2	.19	.01	.06	1	55
B 41518	8	471	7	34	.2	8	23	256	5.15	11	6	ND	5	14	1	2	2	78	.28	.037	5	6	1.63	29	.11	4	2.26	.05	.15	1	36 0-3
B 41519	160	4911	5	11	.5	6	24	25	3.37	4	7	ND	4	2	1	2	2	19	.02	.024	5	2	.05	20	.01	3	.67	.01	.10	1	550 3-5
B 41520	89	1900	2	23	.3	6	11	51	5.45	2	5	ND	4	2	1	2	3	38	.02	.025	6	2	.12	27	.02	2	.83	.01	.15	1	290 5-8
B 41521	92	7177	5	34	.6	7	15	90	7.51	5	5	2	4	1	1	3	20	20	.01	.012	2	4	.24	11	.01	5	1.07	.01	.07	1	1060 8-11
B 41522	192	1003	2	20	.7	5	8	49	5.85	4	6	2	4	2	1	2	2	20	.01	.008	6	2	.13	16	.01	2	.65	.01	.12	1	1140 11-14
B 41523	63	3150	3	40	.4	8	16	76	8.13	2	5	ND	3	2	1	2	2	19	.01	.005	2	2	.18	16	.01	3	.75	.01	.12	1	820 0-3
STD C/AU-R	18	59	43	132	7.1	66	30	1048	4.25	43	21	8	40	49	20	16	25	61	.49	.098	41	55	.89	180	.07	38	1.95	.06	.14	11	480

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB	
B 41524	50	407	2	5	.1	4	9	17	3.43	2	5	ND	1	1	1	2	4	4	.01	.001	2	5	.01	4	.01	2	.15	.01	.08	1	146	3-6
B 41525	211	1862	2	2	.1	2	5	27	2.51	2	5	ND	1	2	1	2	4	6	.01	.004	2	5	.07	7	.01	2	.34	.01	.09	1	230	
B 41526	68	110	2	2	.1	4	2	19	1.23	3	5	ND	1	2	1	2	2	3	.01	.005	2	9	.03	5	.01	4	.17	.01	.05	1	31	
B 41527	32	3399	11	43	.1	51	14	229	3.98	12	5	ND	1	35	1	2	3	79	.49	.043	4	48	1.97	21	.04	2	3.72	.08	.02	1	29	
B 41528	2	237	42	996	22.3	3	58	1330	2.98	28	5	ND	1	73	8	2	23	41	4.10	.053	2	4	.95	1	.07	3	1.22	.01	.01	1	53	
B 41529	3	144	9	43	.5	49	21	422	2.80	16	5	ND	1	135	1	2	2	57	4.06	.052	3	85	1.33	48	.09	2	5.26	.04	.05	3	5	
B 41530	2	27	3	105	1.0	5	5	816	.87	3	5	ND	2	50	1	2	2	16	12.98	.029	4	9	.42	17	.04	2	.85	.02	.02	1	3	
B 41531	3	39	17	265	1.2	1	8	38	10.34	11	8	ND	2	7	3	2	4	51	.11	.196	2	6	.04	35	.15	2	.59	.01	.17	1	40	
B 41532	2	68	18	315	6.0	14	32	221	8.77	22	5	ND	1	4	3	2	3	32	.15	.041	2	6	.31	20	.18	2	.80	.01	.14	1	330	
STD C/AU-R	19	63	40	134	7.4	72	31	1059	3.99	43	21	8	39	51	19	18	24	60	.51	.092	40	59	.94	179	.07	38	1.95	.06	.14	13	470	

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

GEOCHEMICAL ANALYSIS CERTIFICATE

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

DATE RECEIVED: DEC 2 1988 DATE REPORT MAILED: Dec 7/88 SIGNED BY.......... .D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT MORAGA RES.-EXPO File # 88-6115

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
C 34515	3	24	12	6	.1	5	3	5	3.47	12	5	ND	1	23	1	2	2	20	.02	.017	2	8	.02	73	.01	2	.39	.01	.01	1	3
C 34516	1	29	6	13	.1	4	6	120	7.08	13	5	ND	1	14	1	2	2	74	.01	.138	3	7	.39	126	.01	2	1.95	.01	.07	1	1
C 34517	1	66	13	28	.1	11	22	187	7.44	9	5	ND	1	5	1	2	2	46	.03	.061	4	9	.59	13	.01	2	1.56	.01	.04	1	1
C 34518	2	84	15	93	.1	11	19	394	5.23	13	5	ND	1	18	1	2	2	23	.68	.050	7	4	.51	30	.01	3	1.24	.01	.06	1	1
C 34519	4	115	17	33	.1	13	19	38	6.37	13	5	ND	2	2	1	2	2	18	.02	.004	2	6	.10	16	.01	2	.70	.01	.02	1	1
C 34520	2	22	6	5	.1	1	3	71	3.81	19	5	ND	1	156	1	2	2	19	.02	.052	21	2	.19	133	.01	2	1.19	.01	.11	1	2
C 34521	1	53	8	25	.1	27	19	162	6.07	8	5	ND	1	5	1	2	2	18	.05	.031	8	12	.28	21	.01	2	.98	.01	.09	2	1
C 34522	1	13	4	3	.1	1	2	18	.29	2	5	ND	1	25	1	2	2	3	.02	.004	2	2	.02	420	.01	2	.47	.01	.01	1	1
C 34523	1	47	7	57	.1	7	9	556	6.22	8	5	ND	1	20	1	2	2	110	.24	.052	11	19	1.05	61	.05	2	2.45	.04	.05	1	16
C 34524	1	69	14	77	.1	13	13	797	6.15	9	5	ND	1	27	1	2	2	147	.30	.056	12	25	1.72	101	.02	2	3.89	.05	.04	1	1
C 34525	5	53	7	53	.1	16	17	460	5.99	4	5	ND	1	30	1	2	2	122	.46	.040	8	20	1.10	24	.08	3	1.97	.05	.07	1	1
C 34526	5	41	9	9	.1	8	7	13	2.80	77	5	ND	1	5	1	2	2	3	.01	.001	2	4	.01	41	.01	2	.32	.01	.01	2	1
C 34527	3	10	3	2	.1	2	1	12	1.42	23	5	ND	1	11	1	2	2	13	.03	.004	2	3	.02	173	.01	2	.32	.01	.01	1	1
C 34528	1	54	10	73	.1	4	15	1578	4.79	10	5	ND	1	38	1	2	2	61	6.47	.050	13	9	.50	60	.01	2	2.09	.01	.08	1	4
C 34529	6	8	2	1	.1	11	2	28	.83	12	5	ND	1	4	1	7	3	1	.04	.002	2	10	.01	14	.01	3	.02	.01	.01	2	1
C 34530	1	30	60	27	.7	3	1	411	.22	2	5	ND	1	3	1	2	2	2	.12	.020	2	20	.06	1	.01	2	.21	.01	.01	2	55
C 34531	4	156	14	19	.1	1	9	2	17.43	5	5	ND	1	7	1	2	2	91	.01	.061	2	3	.01	270	.01	2	.32	.01	.01	1	1
C 34532	1	70	26	109	.2	5	19	1012	6.09	26	5	ND	1	26	1	2	2	66	.63	.060	4	6	2.14	29	.08	2	2.18	.01	.12	1	2
C 34533	1	116	26	139	.2	12	15	1060	6.10	20	5	ND	1	55	1	2	2	70	1.05	.056	2	24	2.31	45	.14	2	3.46	.01	.05	1	9
C 34534	1	24	8	55	.1	3	13	700	4.85	5	5	ND	1	270	1	2	2	61	.78	.070	2	5	2.04	62	.06	2	2.93	.03	.09	1	1
C 34535	2	55	22	9	.1	3	8	14	5.33	6	5	ND	1	18	1	2	2	10	.02	.005	2	2	.03	26	.01	2	.20	.01	.01	1	15
C 34536	1	38	9	88	.1	5	11	1193	4.33	5	5	ND	1	43	1	2	2	78	.40	.073	4	8	1.96	56	.14	3	2.69	.05	.02	1	1
C 34537	4	26	8	5	.1	26	21	6	5.80	2	5	ND	2	16	1	2	2	6	.01	.003	2	3	.02	20	.01	2	.86	.01	.04	1	1
C 34538	1	5	2	3	.1	1	1	128	.10	5	6	ND	1	323	1	2	2	3	37.54	.008	2	1	.05	8	.01	3	.14	.01	.01	2	1
C 34539	1	29	6	40	.1	7	8	350	2.89	2	5	ND	1	58	1	2	2	54	1.66	.034	5	11	.61	11	.06	2	2.75	.01	.05	1	1
C 34540	1	16	8	24	.1	1	2	210	1.94	8	5	ND	2	40	1	2	2	22	1.04	.022	3	3	.37	13	.05	2	1.94	.01	.03	1	2
C 34541	1	49	8	174	.1	23	32	463	5.37	6	5	ND	1	160	2	2	2	117	3.30	.071	4	18	.71	14	.07	3	5.36	.07	.07	1	1
STD C/AU-R	17	60	38	132	6.6	67	31	1028	4.18	40	21	7	37	47	18	18	21	58	.48	.092	39	57	.91	173	.06	34	1.98	.06	.13	11	510

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

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

DATE RECEIVED: NOV 23 1988   DATE REPORT MAILED: Nov 29/88   SIGNED BY...........D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT EXPO   File # 88-5978

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
C 34501	82	61	8	5	.1	1	1	17	1.75	87	5	ND	1	7	1	2	2	2	.01	.007	2	7	.01	1	.01	2	.04	.01	.01	3	56
C 34502	17	18	8	5	.1	8	1	18	.58	2	5	ND	1	9	1	2	2	2	.01	.008	2	7	.01	1	.01	3	.04	.01	.01	1	61
C 34503	25	36	3	5	.1	3	1	33	.81	41	5	ND	1	3	1	2	4	3	.01	.003	2	8	.01	1	.01	3	.03	.01	.01	4	2
C 34504	18	20	5	4	.1	4	1	18	.44	17	5	ND	1	5	1	2	2	1	.01	.003	2	7	.01	1	.01	2	.02	.01	.01	1	19
C 34505	70	88	6	4	.1	1	1	11	1.99	198	5	ND	1	5	1	3	2	15	.01	.003	2	8	.01	1	.01	3	.11	.01	.01	2	113
C 34506	28	12	2	1	.1	1	1	36	.18	3	5	ND	1	1	1	2	2	1	.01	.001	2	2	.01	1	.01	2	.10	.01	.01	1	26
C 34507	4	81	12	5	.1	8	16	5	6.23	2	5	ND	1	11	1	2	2	12	.01	.003	2	2	.01	10	.01	6	.33	.01	.01	1	17
C 34508	2	45	21	30	.1	1	12	429	5.88	10	5	ND	2	3	1	2	2	22	.01	.086	5	1	.90	22	.01	7	2.06	.01	.10	1	2
C 34509	1	74	6	44	.1	8	14	475	6.38	7	5	ND	2	28	1	2	2	57	.97	.061	6	10	.92	18	.21	7	2.40	.02	.11	1	11
C 34510	4	68	2	49	.1	5	13	96	4.35	6	5	ND	2	13	1	2	2	14	.17	.064	11	3	.32	26	.01	5	1.47	.01	.10	1	1
C 34511	1	51	13	17	.1	1	6	77	4.54	4	5	ND	1	33	1	2	2	12	.54	.047	8	1	.14	72	.01	3	1.07	.01	.09	1	5
C 34512	1	91	3	56	.1	10	24	79	4.76	4	5	ND	2	22	1	2	2	18	.40	.051	16	1	.59	16	.01	3	1.71	.01	.09	1	1
C 34513	4	82	10	48	.1	7	16	61	5.18	19	5	ND	2	10	1	2	2	25	.35	.064	18	2	.48	10	.01	4	1.77	.01	.10	1	2
C 34514	16	86	4	36	.1	8	22	390	6.69	3	5	ND	3	2	1	2	2	25	.02	.086	4	4	.71	8	.01	2	1.70	.01	.08	1	1
C 34551	38	29	5	2	.2	1	1	12	.86	3	5	ND	2	10	1	2	2	3	.01	.006	2	2	.01	9	.01	2	.09	.01	.01	1	19
C 34552	148	479	5	16	.1	1	9	3	16.52	352	5	ND	4	2	1	2	2	49	.01	.011	2	4	.01	4	.01	3	.29	.01	.01	1	109
C 34553	90	26	5	4	.1	1	2	6	3.13	2	5	ND	3	3	1	2	2	9	.01	.005	2	2	.01	1	.01	2	.19	.01	.02	1	85
C 34554	10	51	2	4	.1	1	1	4	2.28	31	5	ND	3	5	1	2	2	16	.01	.003	2	2	.01	2	.01	2	.21	.01	.01	1	7
C 34555	5	14	2	1	.3	1	1	2	.22	2	5	ND	3	7	1	2	2	5	.01	.002	2	1	.01	1	.01	2	.20	.01	.01	1	46
C 34556	205	435	24	9	.1	2	5	7	7.56	529	5	ND	4	6	1	2	3	31	.01	.007	2	6	.01	1	.01	8	.18	.01	.01	2	1205
STD C/AU-R	19	62	40	132	6.7	70	31	1048	4.05	42	23	8	41	49	19	16	20	61	.47	.095	42	57	.93	176	.07	41	1.99	.06	.16	13	520

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

GEOCHEMICAL ANALYSIS CERTIFICATE

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

DATE RECEIVED: DEC 11 1988   DATE REPORT MAILED: Dec 15/88   SIGNED BY. . . . . . . .D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT EXPO   File # 88-6230

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
C 33001	1	133	15	92	.1	13	14	327	5.44	2	5	ND	1	63	1	2	2	166	.69	.057	10	18	1.88	104	.25	2	4.22	.07	.03	1	2
C 33002	3	52	11	7	.1	2	4	59	2.69	4	5	ND	2	11	1	2	2	21	.04	.032	11	4	.08	118	.06	5	1.04	.01	.15	1	19
C 33003	22	112	2	11	.1	1	4	28	6.49	98	5	ND	1	7	1	2	6	10	.02	.003	2	7	.04	445	.01	2	.17	.01	.01	3	8
C 33004	4	94	26	5	.2	1	4	9	4.69	14	5	ND	1	18	1	2	18	11	.14	.004	2	2	.01	10	.01	2	.29	.01	.04	1	2
C 33005	6	42	17	7	.5	3	11	9	5.00	10	5	ND	1	2	1	2	2	10	.01	.001	2	5	.01	12	.01	2	.29	.01	.01	1	1
C 33006	21	59	9	12	.1	4	6	12	8.87	13	5	ND	1	10	1	2	2	87	.01	.021	2	9	.04	92	.01	2	.30	.01	.01	2	1
C 33007	3	72	27	7	.1	3	8	2	8.00	25	5	ND	2	37	1	4	6	83	.01	.089	2	7	.01	185	.01	2	.56	.01	.05	1	3
C 33008	2	77	5	51	.1	8	8	449	3.74	11	5	ND	1	69	1	2	2	60	1.14	.036	3	10	1.21	68	.05	2	3.03	.03	.11	1	12
C 33009	1	59	38	114	.5	14	10	713	6.15	24	5	ND	1	86	1	3	2	65	1.74	.067	2	23	2.38	24	.21	3	5.21	.03	.06	5	18
C 33010	1	80	25	92	.3	94	44	1071	4.84	12	5	ND	1	69	2	2	2	98	.36	.051	4	65	2.36	104	.25	2	5.42	.04	.02	1	1
C 33011	3	27	13	30	.3	7	10	363	2.85	8	5	ND	1	52	1	3	2	30	1.44	.029	3	5	.79	29	.05	2	2.99	.01	.09	2	2
C 33012	1	18	4	21	.1	4	5	233	1.85	3	5	ND	6	33	1	2	2	31	.90	.025	6	4	.42	25	.05	2	1.44	.02	.07	1	1
C 33013	9	19	115	305	.9	1	7	394	1.91	19	5	ND	1	39	2	2	5	11	1.84	.042	6	3	.29	67	.05	2	2.01	.01	.13	1	6
C 33014	24	26	8	47	.6	8	14	388	4.28	46	5	ND	1	10	1	2	2	38	.39	.076	6	4	.38	26	.04	3	.93	.02	.11	1	10
C 33015	3	31	13	13	.3	3	3	36	2.64	3	5	ND	1	5	1	2	2	4	.05	.002	2	4	.03	192	.01	3	.36	.01	.01	1	1
C 33016	6	12	15	4	.1	3	1	20	.65	2	5	ND	1	4	1	2	2	3	.02	.005	2	5	.01	66	.01	2	.25	.01	.01	1	1
C 33017	1	30	12	51	.1	5	11	802	4.08	66	5	ND	2	92	1	2	2	72	4.75	.072	7	4	1.68	28	.11	6	4.21	.03	.08	2	5
C 33018	1	9	6	1	.1	1	1	24	.21	3	5	ND	1	12	1	2	2	3	.11	.002	2	2	.03	8	.01	3	.64	.01	.01	1	1
C 33019	2	47	10	60	.3	9	14	1246	4.50	3	5	ND	1	71	1	2	2	93	3.54	.055	7	4	.97	61	.18	2	2.59	.05	.06	1	6
C 33020	1	28	6	29	.1	1	8	446	7.81	7	5	ND	2	4	1	2	2	98	.10	.064	2	2	.55	44	.28	2	1.44	.02	.10	1	1
C 33021	1	40	11	67	.1	5	25	1053	5.84	2	5	ND	1	90	1	2	2	201	1.84	.071	11	7	1.80	107	.24	4	4.04	.10	.04	1	1
C 33022	3	51	10	68	.1	15	17	578	5.67	7	5	ND	2	66	1	3	2	99	3.49	.061	10	22	2.58	10	.01	2	3.44	.02	.05	1	1
C 34542	1	41	11	54	.1	39	12	373	6.17	18	5	ND	2	4	1	2	2	96	.06	.017	4	67	.81	72	.01	2	2.14	.01	.09	1	2
C 34543	8	34	2	7	.2	12	11	15	7.14	13	5	ND	1	2	1	2	2	32	.01	.001	2	23	.01	25	.01	2	.59	.01	.01	1	4
C 34544	3	42	9	47	.1	5	10	634	4.85	2	5	ND	1	5	1	2	2	43	.28	.078	8	12	1.01	56	.16	2	1.51	.01	.12	1	2
C 34545	2	60	10	40	.1	19	13	415	5.38	6	5	ND	2	24	1	2	2	104	.38	.055	7	39	.94	127	.19	4	2.38	.02	.06	1	1
C 34546	80	1509	2	11	.1	6	17	26	4.43	7	5	ND	1	1	1	2	2	9	.01	.001	2	8	.04	10	.01	3	.50	.01	.05	1	290
C 34547	44	1374	8	23	.1	2	11	7	26.54	17	5	ND	7	1	3	2	2	134	.01	.071	2	6	.01	50	.02	2	.47	.01	.06	1	45
C 34548	8	595	9	34	.1	3	10	157	19.88	31	5	ND	4	11	2	2	2	128	.05	.097	2	12	.31	41	.18	2	1.25	.02	.05	2	13
C 34549	117	581	2	4	.3	5	5	17	3.27	8	5	ND	1	6	1	2	2	12	.01	.006	2	4	.02	58	.01	3	.32	.01	.05	1	440
C 34550	15	157	6	40	.1	4	11	442	6.45	4	5	ND	1	65	2	2	2	94	.23	.035	4	9	.88	152	.16	2	2.46	.03	.04	1	22
B 41501	164	127	13	3	.1	3	3	23	2.28	8	5	ND	9	47	1	2	2	8	.01	.029	4	7	.09	83	.01	5	.46	.01	.10	1	63
B 41502	78	403	2	4	.1	5	2	18	1.31	2	5	ND	1	2	1	2	2	5	.01	.004	2	36	.02	8	.01	5	.15	.01	.04	1	182
STD C/AU-R	19	63	37	132	6.7	70	31	1040	4.14	42	18	8	38	48	19	16	22	61	.50	.094	40	55	.98	175	.07	32	2.05	.06	.13	12	510

ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED: JAN 16 1989
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716 DATE REPORT MAILED: Jan. 19/89.

GEOCHEMICAL ANALYSIS CERTIFICATE

- SAMPLE TYPE: ROCK
AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

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

DAIWAN ENGINEERING LTD. PROJECT EXPO FILE # 89-0098

SAMPLE#	AU* ppb
B 41551	3
B 41552	1
B 41553	2
B 41554	45
B 41555	1
B 41556	2
B 41557	5

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

DATE RECEIVED: FEB 15 1989
DATE REPORT MAILED: Feb. 23, 1989

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H20 AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Soil -80 Mesh AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

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

DAIWAN ENGINEERING LTD. PROJECT RED DOG FILE # 89-0335 Page 1

SAMPLE#	Cu	Pb	Zn	Ag	As	Au*
	PPM	PPM	PPM	PPM	PPM	PPB
1000W 175N	45	29	69	.4	7	6
1000W 150N	33	13	41	.3	10	5
1000W 125N	49	22	40	.4	2	12
1000W 50N	34	14	50	.2	8	7
1000W 00N	53	31	36	.4	26	16
1000W 25S	30	13	15	.4	25	11
1000W 50S	34	14	21	.6	23	6
1000W 75S	67	20	50	.4	11	18
1000W 100S	50	14	39	.3	11	14
1000W 125S	49	10	18	.2	20	9
1000W 150S	52	20	25	.4	11	14
1000W 175S	58	28	36	.2	10	22
1000W 200S	50	19	26	.2	4	13
1000W 225S	32	18	17	.6	3	7
1000W 250S	51	18	38	.7	13	3
1000W 275S	29	19	28	.4	12	4
1000W 300S	51	18	42	.6	14	3
1000W 325S	40	15	38	.2	11	2
1000W 350S	50	12	43	.3	4	6
1000W 375S	53	19	52	.2	11	5
1000W 400S	61	18	86	.3	2	4
1000W 425S	37	21	121	.2	2	23
1000W 450S	48	18	108	.4	2	5
1000W 475S	41	9	56	.3	2	3
1000W 500S	47	16	59	.3	5	5
900W 175N	49	27	49	.3	11	9
900W 150N	54	18	50	.4	6	11
900W 125N	29	12	28	.3	2	4
900W 100N	43	21	52	.3	2	7
900W 75N	39	14	39	.1	5	16
900W 50N	42	17	35	.2	2	9
900W 25N	39	17	28	.1	10	9
900W 00S	81	17	45	.7	14	12
900W 25S	68	21	47	.4	10	21
900W 50S	67	23	48	.2	9	14

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
900W 100S	41	23	40	.2	6	7
900W 125S	34	24	43	.4	12	9
900W 150S	36	24	27	.3	12	10
900W 175S	60	26	53	.4	6	17
900W 200S	50	17	51	.2	7	5
900W 225S	40	25	46	.3	10	2
900W 250S	41	15	44	.4	8	3
900W 275S	44	13	39	.4	8	9
900W 300S	28	15	21	.2	14	5
900W 325S	54	22	30	.5	13	4
900W 350S	62	23	71	.3	9	4
900W 375S	55	14	71	.3	11	3
900W 400S	79	19	53	.2	8	4
900W 425S	44	21	74	.3	10	1
900W 450S	37	11	44	.4	6	1
900W 475S	51	12	49	.2	7	5
900W 500S	40	20	46	.3	7	1
800W 250N	73	14	38	.4	2	6
800W 225N	87	19	50	.7	9	5
800W 175N	34	28	31	.1	12	7
800W 150N	42	18	41	.2	9	1
800W 100N	41	12	47	.3	5	10
800W 75N	42	19	53	.1	6	4
800W 50N	46	19	56	.1	9	15
800W 25N	28	12	39	.1	6	2
800W 00S	54	21	56	.1	15	10
800W 25S	26	26	45	.1	9	12
800W 50S	33	15	38	.3	9	5
800W 75S	41	18	50	.3	10	12
800W 100S	32	16	33	.1	11	20
800W 125S	36	17	73	.2	5	5
800W 150S	28	18	44	.2	3	9
800W 175S	40	34	54	.3	7	24
800W 200S	48	23	41	.1	7	9
800W 225S	58	21	57	.2	11	24
800W 250S	73	32	52	.4	9	16
STD C/AU-S	63	37	133	7.3	42	47

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
800W 275S	342	18	251	.2	4	42
800W 300S	113	23	192	.2	9	7
800W 325S	65	10	100	.6	2	1
800W 350S	34	22	37	.1	12	3
800W 375S	44	14	29	.1	2	3
800W 400S	39	17	49	.1	3	4
800W 425S	52	25	46	.1	2	5
800W 450S	21	13	33	.1	2	1
800W 475S	32	25	41	.1	7	58
800W 500S	24	21	33	.1	7	3
700W 250N	127	16	53	.1	9	24
700W 225N	69	18	53	.1	5	10
700W 200N	20	13	38	.1	4	5
700W 175N	51	14	48	.1	9	8
700W 150N	44	16	23	.1	16	4
700W 125N	37	19	65	.1	17	5
700W 100N	23	4	44	.1	7	5
700W 75N	37	17	41	.1	8	5
700W 25N	22	8	23	.1	4	5
700W 00S	19	15	43	.1	12	2
700W 25S	34	18	32	.1	7	7
700W 50S	28	25	58	.1	7	7
700W 75S	30	27	50	.2	2	3
700W 100S	35	33	43	.2	3	9
700W 125S	31	32	40	.1	5	9
700W 150S	27	19	35	.1	6	6
700W 175S	35	26	61	.1	8	4
700W 200S	59	40	62	.4	3	13
700W 225S	39	53	42	.1	7	21
700W 250S	30	29	31	.2	2	16
700W 275S	114	40	57	.9	2	15
700W 300S	51	16	43	.1	2	5
700W 325S	30	9	52	.3	3	1
700W 350S	29	19	47	.1	3	1
700W 375S	36	16	58	.1	2	4
700W 400S	62	20	80	.1	5	5
STD C/AU-S	62	37	132	7.0	40	53

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
700W 425S	19	14	29	.3	2	5
700W 450S	57	15	42	.7	5	2
700W 475S	22	12	19	.3	3	1
700W 500S	25	16	31	.5	16	3
600W 400N	208	13	21	.2	4	56
600W 375N	54	10	8	.1	5	480
600W 300N	122	14	35	.1	8	79
600W 275N	165	20	76	.3	11	33
600W 250N	158	14	55	.3	9	17
600W 225N	122	19	60	.1	9	30
600W 200N	138	21	56	.2	12	26
600W 125N	50	23	41	.3	6	4
600W 75N	50	28	53	.5	9	17
600W 50N	37	14	41	.1	9	13
600W 25N	39	26	36	.5	5	8
600W 00S	36	19	35	.6	6	18
600W 25S	31	23	43	.1	4	3
600W 50S	55	24	45	.2	6	7
600W 75S	34	30	46	.2	7	8
600W 100S	29	18	51	.1	9	3
600W 125S	44	19	39	.3	2	7
600W 150S	28	21	42	.2	12	7
600W 175S	52	34	36	1.0	19	29
600W 200S	48	20	50	.1	8	5
600W 225S	25	17	35	.1	8	14
600W 250S	73	27	25	.5	8	21
600W 275S	32	22	26	.4	11	6
600W 300S	33	15	44	.3	8	8
600W 325S	47	21	52	.2	13	3
600W 350S	22	19	28	.1	6	3
600W 375S	24	16	38	.1	6	4
600W 400S	37	22	62	.1	7	3
600W 425S	11	22	18	.1	4	5
600W 450S	37	17	52	.1	4	4
600W 475S	17	22	47	.1	4	11
600W 500S	32	18	48	.1	11	4
STD C/AU-S	62	43	132	7.0	39	53

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
500W 400N	209	18	38	.1	7	73
500W 350N	170	14	33	.2	9	70
500W 325N	172	16	34	.3	6	64
500W 300N	110	17	49	.3	7	13
500W 275N	69	21	34	.3	8	15
500W 250N	108	22	47	.1	7	16
500W 225N	186	24	60	.1	13	11
500W 200N	136	19	56	.3	7	12
500W 175N	68	8	39	.3	6	9
500W 150N	99	15	40	.1	2	13
500W 125N	162	14	35	.4	4	31
500W 50N	45	32	54	.1	5	3
500W 25N	28	16	34	.6	3	2
500W 00S	33	13	47	.3	4	2
500W 25S	52	28	55	.1	13	4
500W 50S	48	25	50	.1	2	3
500W 75S	9	12	18	.1	2	3
500W 100S	31	13	88	.1	2	36
500W 125S	42	31	172	.1	7	3
500W 150S	54	22	53	.2	9	3
500W 175S	34	15	45	.2	7	3
500W 200S	25	17	42	.4	2	5
500W 225S	44	18	41	.4	5	8
500W 250S	34	16	110	.3	2	4
500W 275S	7	13	12	.2	4	6
500W 300S	11	3	13	.2	2	2
500W 350S	12	12	9	.1	2	4
500W 375S	7	15	14	.1	2	5
500W 400S	29	10	50	.1	6	3
500W 425S	17	20	34	.1	6	1
500W 450S	45	16	46	.2	2	2
500W 475S	17	5	25	.1	2	2
500W 500S	17	18	26	.1	4	3
400W 275N	687	10	39	.2	7	51
400W 250N	345	18	48	.2	9	22
400W 225N	45	11	25	.3	4	6
STD C/AU-S	62	39	133	7.2	41	49

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
400W 200N	111	17	35	.1	5	26
400W 175N	150	15	49	.2	12	19
400W 150N	190	18	58	.1	9	23
400W 125N	162	8	54	.2	9	27
400W 100N	41	14	54	.1	9	2
400W 75N	33	4	10	.7	8	1
400W 00S	16	4	26	.2	2	2
400W 50S	39	13	45	.3	6	1
400W 75S	47	12	43	.2	12	2
400W 100S	33	25	71	.1	2	19
400W 125S	44	41	96	.1	8	28
400W 150S	31	13	45	.1	12	24
400W 175S	28	19	29	.2	5	15
400W 200S	48	16	44	.3	2	6
400W 225S	65	16	56	.1	5	5
400W 250S	59	14	60	.1	12	4
400W 275S	61	11	123	.1	14	5
400W 300S	21	10	50	.1	9	1
400W 325S	60	29	48	.1	8	11
400W 350S	13	3	22	.5	2	1
400W 375S	33	5	38	.1	12	2
400W 400S	16	7	11	.1	2	2
400W 425S	8	9	13	.3	2	2
400W 450S	23	7	41	.2	2	2
400W 475S	34	13	55	.1	7	2
400W 500S	45	8	66	.1	5	2
300W 275N	112	14	51	.1	10	7
300W 250N	28	15	28	.2	8	9
300W 225N	58	3	30	.2	4	22
300W 200N	90	7	49	.1	11	14
300W 150N	148	13	56	.1	10	16
300W 100N	99	10	59	.1	16	78
300W 75N	39	10	51	.1	13	6
300W 50N	44	6	50	.1	14	3
300W 25N	32	10	38	.1	9	2
STD C/AU-S	59	37	132	6.9	43	53

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

DATE RECEIVED: JAN 6 1989
DATE REPORT MAILED: Jan. 16/89.

GEOCHEMICAL ICP ANALYSIS

.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.
ANALYSIS BY HYDRIDE ICP. Ge PARTIAL LEACHED.
- SAMPLE TYPE: SOIL PULP AU* ANALYSIS BY ACID LEACH/AA FROM TOTAL SAMPLE.

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

DAIWAN ENGINEERING LTD. PROJECT MRAGA RES. EXPO FILE # 89-0048 Page 1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPM	SAMPLE WT GM (for Au)
L125E 30S	5.4	.8	1.5	.2	1.0	.3	1	6.07
L125E 32S	3.2	1.0	.7	.2	.4	.3	2	8.23
L125E 34S	2.8	1.0	1.1	.2	.6	.3	1	3.48
L125E 36S	4.5	.9	.8	.2	.4	.3	3	5.93
L125E 38S	9.3	.6	.5	.2	1.1	.3	1	6.09
L125E 40S	2.8	.9	1.3	.2	.4	.3	1	7.79
L125E 42S	1.6	1.1	1.7	.2	.3	.3	1	3.85
L125E 44S	3.0	.9	1.6	.2	1.4	.3	1	6.63
L125E 46S	2.8	.5	.9	.2	.9	.3	1	3.76
L125E 50S	2.4	.2	.2	.2	.7	.3	4	6.83
L125E 52S	2.7	.5	.8	.2	.8	.3	1	2.34
L125E 54S	5.0	.2	.6	.2	1.6	.5	9	4.89
L125E 56S	3.6	.9	.7	.2	.4	.3	1	3.30
L125E 58S	4.4	.8	.7	.2	1.2	.3	9	3.51
L125E 60S	2.3	1.2	.2	.2	.8	.4	10	3.75
L125E 62S	2.5	.6	.5	.2	1.2	.3	4	4.05
L125E 64S	1.6	.3	1.0	.2	2.1	.3	1	3.23
L125E 66S	1.5	.9	.8	.2	6.6	.3	3	1.80
L125E 68S	7.1	.9	.7	.3	4.0	.7	14	4.40
L125E 70S	3.8	.7	.5	.2	1.0	.5	1	4.91
L125E 72S	5.3	.6	.5	.2	1.3	.5	60	10.74
L125E 74S	3.8	.3	.4	.2	1.0	.3	42	5.69
L125E 76S	6.3	.5	.7	.2	3.0	.7	52	8.89
L125E 78S	3.3	.1	.4	.2	.2	.3	3	4.26
L125E 80S	3.7	.6	.9	.2	2.5	.5	64	8.18
L125E 82S	8.2	.8	1.0	.2	5.7	.9	90	5.32
L125E 84S	8.0	1.1	.6	.2	4.9	.8	99	9.49
L125E 86S	4.6	.2	.3	.2	1.9	.5	115	7.68
L125E 88S	.6	.1	.8	.3	2.2	.3	4	9.06
L125E 90S	2.4	.1	.5	.2	1.2	.5	10	23.49
L125E 92S	.4	.1	.4	.2	.4	.3	10	10.73
L125E 100S	92.9	1.1	.3	.2	1.5	.3	1	5.72
L125E 102S	84.6	1.7	.5	.2	1.2	.3	1	5.08
L125E 104S	3.6	.1	.4	.2	.2	.3	1	3.84
L125E 106S	16.3	.6	.3	.2	.2	.3	2	12.13
L125E 108S	18.7	1.1	.2	.2	.2	.3	1	3.65

DAIWAN ENGINEERING LTD. PROJECT MRAGA RES. EXPO FILE # 89-0048 Page 2

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L125E 110S	34.2	1.2	.5	.2	.6	.4	1	3.85
L125E 112S	41.9	1.0	.3	.2	1.1	.3	3	5.41
L125E 114S	20.6	.9	.2	.2	1.2	.3	1	6.23
L125E 116S	8.4	1.0	.2	.2	.2	.3	1	5.06
L125E 118S	52.2	5.3	.2	.2	1.1	.3	4	4.04
L125E 120S	9.1	1.4	.2	.2	.3	.3	1	2.96
L125E 122S	2.3	.5	.2	.2	.2	.3	1	2.17
L125E 124S	460.5	2.7	.1	.2	.3	.3	1	3.12
L125E 126S	263.2	2.1	.2	.2	.9	.3	4	3.29
L125E 128S	26.0	.6	.2	.2	.7	.3	1	4.37
L125E 130S	2.9	.5	.2	.2	.3	.3	1	1.98
L125E 132S	5.7	.2	.1	.2	.5	.3	2	3.62
L125E 134S	9.2	.7	.2	.2	.9	.3	1	1.97
L125E 136S	.2	.1	.1	.2	.2	.3	38	4.95
L125E 138S	44.1	.7	.3	.2	.7	.3	188	3.84
L125E 140S	55.1	.8	.2	.2	.7	.3	4	2.91
L125E 142S	14.8	.1	.2	.2	1.0	.3	1	2.40
L125E 144S	17.8	.9	.2	.2	.9	.3	1	4.55
L125E 146S	.3	.1	.1	.2	.2	.3	2	2.01
L125E 148S	28.3	.4	.2	.2	1.5	.4	1	2.39
L125E 150S	-	-	-	-	-	-	19	1.49
L130E 30S	4.7	.3	.3	.2	2.0	.3	2	10.12
L130E 32S	4.4	.1	.2	.2	1.2	.5	1	7.03
L130E 34S	8.0	.3	.3	.2	2.7	.5	1	8.39
L130E 36S	13.6	.4	.2	.2	.9	.3	33	8.77
L130E 38S	2.4	.4	.1	.2	1.4	.3	7	3.24
L130E 40S	1.6	.3	.1	.2	.5	.3	36	12.50
L130E 42S	3.1	.4	.1	.2	1.0	.4	40	4.25
L130E 44S	4.5	.3	.1	.2	.5	.4	18	8.13
L130E 46S	3.4	.2	.2	.3	1.1	.9	20	9.37
L130E 48S	1.8	.3	.1	.2	2.1	.3	63	5.59
L130E 50S	5.1	.2	.3	.2	1.4	.6	64	7.52
L130E 52S	5.1	.4	.3	.2	2.6	.5	68	7.64
L130E 54S	3.3	.6	.4	.2	.6	.6	48	12.23
L130E 56S	6.1	1.3	.4	.2	2.6	.6	33	9.69
L130E 58S	4.7	.2	.5	.2	3.9	.6	43	6.77

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L130E 60S	5.2	.3	.8	.2	2.6	1.1	56	16.68
L130E 62S	5.6	.8	1.9	.2	2.5	1.3	59	9.59
L130E 64S	5.5	.5	.6	.2	4.6	1.0	83	5.30
L130E 66S	10.1	1.0	.7	.2	4.8	.5	61	15.88
L130E 68S	7.0	.5	.6	.2	5.2	1.0	79	19.47
L130E 70S	6.7	.2	.4	.2	4.0	.5	88	13.68
L130E 72S	3.2	.3	.5	.2	.4	1.3	95	10.92
L130E 74S	6.3	.5	.7	.2	3.4	.7	88	8.26
L130E 76S	7.3	.8	.6	.2	1.8	1.3	94	8.11
L130E 78S	6.3	.5	.6	.2	3.9	1.5	106	15.04
L130E 80S	4.4	.2	.1	.2	17.7	.3	11	5.01
L130E 82S	.3	.1	.1	.2	.4	.4	254	4.76
L130E 84S	2.9	.3	.8	.2	.9	.3	125	8.86
L130E 86S	.2	.1	.1	.2	.4	.3	178	12.39
L130E 88S	3.8	.3	1.0	.2	1.3	.3	6	7.50
L130E 90S	3.2	.3	.7	.2	1.6	.3	3	6.29
L130E 100S	37.4	1.7	.5	.2	.4	.3	4	6.67
L130E 102S	15.1	1.0	.3	.2	.7	.3	1	2.19
L130E 104S	3.1	.3	.1	.2	.5	.3	1	3.11
L130E 106S	20.3	1.1	.3	.2	.8	.6	2	3.39
L130E 108S	86.5	1.2	.3	.2	.7	.7	1	4.13
L130E 110S	36.6	1.1	.2	.2	1.1	.3	1	3.07
L130E 112S	42.2	1.3	.6	.2	1.2	.5	3	6.48
L130E 114S	31.8	1.0	.2	.2	1.8	.3	1	3.32
L130E 116S	28.1	.8	.2	.2	1.3	.3	2	4.79
L130E 118S	13.7	.7	.1	.2	1.4	.3	1	3.62
L130E 120S	8.4	.4	.1	.2	1.0	.3	1	3.88
L130E 122S	1.2	.1	.1	.2	.3	.3	1	3.81
L130E 124S	8.1	1.3	.7	.2	1.1	.3	1	1.76
L130E 126S	.1	.1	.1	.2	.2	.3	1	4.90
L130E 128S	127.9	1.1	.1	.2	.8	.3	1	3.17
L130E 130S	24.4	.5	.1	.2	.4	.3	1	1.28
L130E 132S	14.7	.7	1.0	.2	1.2	.6	1	1.89
L130E 134S	29.0	1.0	.1	.2	.9	.3	1	2.41
L130E 136S	43.2	2.1	.2	.2	2.1	.5	1	2.25
L130E 138S	27.5	.4	.2	.2	1.0	.3	1	3.48

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L130E 140S	23.5	.6	.7	.2	.5	.3	4	1.70
L130E 142S	4.6	.6	.5	.2	.2	.3	1	1.43
L130E 144S	3.9	.5	.8	.2	1.0	.3	1	3.78
L130E 146S	.7	.1	.3	.2	.2	.3	-	-
L130E 148S	2.3	.4	.2	.2	.2	.3	2	3.16
L130E 150S	.3	.3	.2	.3	.3	.5	1	1.10
L135E 30S	3.7	1.0	.1	.2	1.4	.4	9	5.12
L135E 32S	5.0	.3	.3	.2	2.0	.4	26	6.82
L135E 34S	3.7	.1	.3	.2	1.7	.3	33	10.21
L135E 36S	1.2	.3	.2	.2	.8	.3	13	4.95
L135E 38S	4.5	.6	.4	.3	.9	.6	23	7.89
L135E 39+60S	2.7	.4	.2	.2	1.4	.3	13	3.81
L135E 42S	1.9	.4	.2	.2	1.3	.3	-	-
L135E 44S	.8	.1	.1	.2	.4	.3	1	5.76
L135E 46S	.2	.2	.3	.2	11.8	.3	1	.23
L135E 48S	4.7	.3	.2	.2	1.6	.3	1	5.78
L135E 50S	.7	.1	.1	.2	.6	.4	48	9.58
L135E 52S	2.6	.6	.3	.2	3.3	.3	2	4.16
L135E 54S	3.9	.4	.3	.2	1.3	.6	56	6.42
L135E 56S	5.5	.8	.3	.2	.6	.3	61	11.71
L135E 58S	5.8	.4	.6	.2	2.0	.9	60	17.30
L135E 60S	3.5	.1	.3	.2	1.1	.4	11	7.16
L135E 100S	53.4	.9	.2	.2	1.0	.3	1	3.83
L135E 102S	47.1	.6	.2	.2	1.3	.3	2	3.33
L135E 104S	85.2	1.5	.2	.2	.6	.3	8	8.30
L135E 106S	35.3	.6	.1	.2	.7	.3	4	3.05
L135E 108S	73.3	2.0	.1	.2	.3	.3	6	11.05
L135E 110S	60.0	1.6	.2	.2	.8	.3	2	9.96
L135E 112S	277.1	5.9	.5	.2	.9	.3	115	2.43
L135E 114S	279.8	4.5	.4	.2	.8	.3	66	2.43
L135E 116S	183.8	2.0	.1	.2	.2	.3	12	1.35
L135E 118S	55.4	1.1	.1	.2	.2	.3	5	1.96
L135E 120S	.8	.3	.1	.2	.2	.3	1	1.53
L135E 122S	3.7	.3	.3	.2	.5	.3	1	6.56
L135E 124S	11.9	.7	.2	.2	.2	.3	1	5.87
L135E 126S	2.6	.6	.3	.2	.2	.3	2	1.84

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L135E 128S	41.7	1.0	.7	.2	1.4	.4	1	2.34
L135E 130S	164.6	1.5	.2	.2	.9	.4	1	4.51
L135E 134S	100.6	.4	.2	.2	.2	.3	1	4.26
L135E 136S	73.2	1.7	.1	.2	.2	.4	1	5.18
L135E 138S	25.7	.7	.1	.2	.8	.3	2	5.06
L135E 140S	8.0	1.8	.3	.2	1.2	.3	1	3.15
L135E 142S	6.3	.2	.1	.2	.4	.3	1	5.91
L135E 144S	4.2	.1	.1	.2	.7	.3	1	4.13
L135E 150S	9.9	.5	.2	.2	.2	.3	1	6.11
L137+50E 100S	41.7	1.6	.2	.2	.3	.3	1	4.70
L137+50E 102S	60.2	1.2	.1	.2	.6	.3	1	7.26
L137+50E 104S	25.8	.9	.1	.2	.5	.3	1	2.17
L137+50E 106S	19.2	.1	.1	.2	.3	.3	2	5.51
L137+50E 108S	9.1	.1	.1	.2	.2	.3	1	2.43
L137+50E 110S	17.0	.2	.1	.2	.4	.3	2	4.48
L137+50E 112S	9.8	.1	.1	.2	.2	.3	1	.94
L137+50E 114S	80.7	1.3	.1	.2	.5	.3	1	3.18
L137+50E 116S	.4	.1	.1	.2	.2	.3	1	1.18
L137+50E 118S	249.7	4.5	.4	.3	.2	.3	38	8.06
L137+50E 120S	59.6	2.4	.2	.2	.2	.3	2	1.69
L137+50E 122S	87.1	3.7	.2	.3	.3	.3	1	1.86
L137+50E 124S	9.1	.7	.1	.2	.6	.3	3	2.55
L137+50E 126S	14.8	2.1	.2	.2	.2	.3	1	1.55
L137+50E 128S	22.5	6.5	.1	.3	.2	.3	76	6.43
L137+50E 130S	8.4	4.6	.1	.2	.3	.3	2	1.46
L137+50E 132S	5.4	1.0	.1	.2	.4	.3	2	1.77
L137+50E 134S	16.8	1.2	.1	.2	.2	.3	1	3.49
L137+50E 136S	24.8	1.5	.2	.2	1.0	.3	2	4.61
L137+50E 138S	6.9	.8	.1	.2	.2	.3	1	1.97
L137+50E 144S	8.5	.7	.2	.3	.2	.3	1	3.30
L137+50E 146S	4.7	.2	.1	.2	.5	.3	1	1.93
L137+50E 148S	.4	.1	.1	.2	.2	.3	1	1.23
L137+50E 150S	43.8	.2	.1	.6	.3	.5	1	2.05
L140E 30S	3.7	.1	.1	.2	.2	.3	2	6.87
L140E 32S	.9	.1	.1	.2	.3	.3	3	4.05
L140E 34S	1.0	.1	.1	.2	.4	.4	4	9.69

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L140E 36S	5.4	4.2	1.5	.2	.2	.3	24	7.76
L140E 38S	8.0	1.1	1.3	.2	2.1	.7	26	20.64
L140E 40S	6.5	.4	.7	.2	1.7	.3	19	10.50
L140E 42S	7.4	.5	1.1	.2	2.1	.3	2	2.58
L140E 44S	5.9	.5	1.0	.2	2.9	.3	19	2.10
L140E 46S	6.7	.5	1.5	.2	2.0	.6	12	1.38
L140E 48S	6.0	.5	.8	.2	.2	.7	52	3.28
L140E 50S	6.2	.5	.6	.2	3.2	.3	59	3.03
L140E 52S	3.5	.5	1.2	.3	.4	.6	91	3.73
L140E 54S	7.2	.5	.9	.2	3.5	.5	27	2.77
L140E 56S	5.9	.2	.7	.2	2.3	.4	66	2.88
L140E 58S	7.0	.4	.7	.2	2.5	.3	10	2.93
L140E 60S	8.2	.4	.8	.2	3.5	.3	28	2.51
L140E 100S	24.7	.9	.6	.2	1.0	.3	1	2.70
L140E 102S	3.3	.5	.6	.2	.7	.5	1	1.77
L140E 104S	5.8	.7	.7	.2	1.0	.3	1	2.67
L140E 106S	11.0	1.8	.3	.2	.2	.3	1	5.41
L140E 108S	96.4	1.1	.3	.2	.4	.3	7	6.99
L140E 110S	32.8	.8	.6	.2	.6	.3	1	2.47
L140E 112S	5.7	.4	.3	.2	.3	.4	1	1.25
L140E 114S	137.8	3.8	3.1	.4	.3	.7	20	7.33
L140E 116S	98.7	1.7	1.0	.2	.8	.4	1	4.81
L140E 118S	71.6	2.1	.6	.2	.4	.3	111	2.89
L140E 120S	51.4	1.6	.7	.2	.9	.4	4	2.86
L140E 122S	39.8	2.3	.5	.2	1.5	.3	22	3.79
L140E 124S	22.1	2.2	.4	.2	.5	.3	3	2.65
L140E 126S	17.2	2.4	.4	.2	.9	.3	2	3.07
L140E 128S	55.5	3.8	.1	.2	.2	.3	5	2.66
L140E 130S	44.2	2.9	.2	.2	.2	.3	9	2.36
L140E 132S	21.9	1.3	.4	.2	.7	.3	1	3.15
L140E 134S	.9	.4	.2	.2	.2	.3	1	6.89
L140E 136S	3.9	.7	.3	.2	.2	.6	11	7.86
L140E 140S	2.6	.7	.3	.2	.4	.3	1	1.17
L140E 142S	3.9	.3	.5	.2	.6	.3	1	2.73
L140E 144S	79.7	2.0	.6	.2	.5	.4	2	3.67
L140E 146S	95.5	1.2	.4	.2	.2	.3	1	4.65

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L140E 148S	26.4	2.1	1.1	.2	.2	.5	1	3.81
L140E 150S	4.8	.8	.7	.2	.2	.7	1	3.22
L145E 30S	5.3	.5	.8	.2	.5	.5	2	5.27
L145E 32S	5.8	.5	.4	.2	.9	.6	6	7.58
L145E 38S	8.0	.6	.5	.2	1.5	.9	16	17.19
L145E 40S	6.6	.1	.5	.2	1.6	.9	24	24.16
L145E 42S	5.4	.5	.7	.2	1.9	.7	2	3.70
L145E 44S	4.6	.3	.8	.2	1.0	.9	21	10.08
L145E 46S	3.5	.3	.6	.2	.8	.5	1	4.34
L145E 48S	5.6	.3	.7	.2	1.2	.7	4	6.33
L145E 50S	6.7	.3	.5	.2	3.3	.9	31	4.87
L145E 52S	3.8	.2	.5	.2	1.4	.9	1	2.90
L145E 54S	3.4	.2	.5	.2	.7	.5	2	6.47
L145E 56S	4.3	.2	.4	.2	1.2	.5	6	4.10
L145E 58S	6.0	.2	.5	.2	2.0	.6	49	6.30
L145E 60S	8.6	1.3	.7	.2	2.2	.9	189	6.29
L145E 100S	7.3	.6	.2	.2	.6	.3	2	3.22
L145E 104S	6.9	.4	.2	.2	.2	.3	3	5.41
L145E 106S	1.6	.6	.3	.2	.2	.4	1	6.75
L145E 108S	1.7	.3	.3	.2	.2	.7	1	1.48
L145E 110S	11.6	1.3	.3	.2	.7	.5	2	7.80
L145E 110+90S	5.3	.2	.5	.2	1.9	.5	1	2.19
L145E 112S	14.5	.5	.3	.2	.6	.3	2	3.69
L145E 114S A	3.9	.1	.3	.2	1.3	.3	4	4.24
L145E 114S B	.3	.3	.2	.2	.2	.5	1	1.24
L145E 116S A	4.8	.1	.2	.2	.8	.3	3	3.37
L145E 116S B	2.6	.9	.1	.2	1.3	.3	1	1.14
L145E 118S A	2.6	.2	.3	.2	2.1	.8	4	12.84
L145E 118S B	.8	.6	.1	.2	.3	.3	1	1.56
L145E 120S A	1.0	.1	.1	.2	.2	.3	9	7.02
L145E 120S B	39.5	.2	.1	.2	.2	.3	22	6.97
L145E 122S A	2.5	.3	.3	.2	.4	.3	1	3.22
L145E 122S B	2.2	.1	.1	.2	.2	.5	1	4.18
L145E 124S A	4.4	.4	.3	.2	.9	.3	2	3.72
L145E 124S B	10.6	1.0	.2	.2	.7	.3	1	2.74
L145E 126S A	5.0	.5	.3	.2	.8	.3	8	4.46
L145E 126S B	16.8	1.3	.1	.2	.8	.5	1	3.60

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L145E 128S A	3.8	.2	.7	.2	1.7	.4	2	2.56
L145E 128S B	75.9	1.5	.6	.4	.5	.6	5	.87
L145E 130S A	4.1	.6	.4	.2	1.4	.5	1	2.77
L145E 130S B	49.7	2.1	.7	.3	.6	.3	1	.30
L145E 132S A	2.5	.3	.2	.2	.2	.3	1	6.19
L145E 132S B	2.9	.9	.5	.2	.4	.4	1	4.01
L145E 134S A	2.0	.1	.2	.2	.2	.3	2	4.56
L145E 134S B	.7	.2	.3	.2	1.9	.3	1	.34
L145E 136S A	4.9	1.0	.4	.2	.4	.3	1	3.27
L145E 136S B	2.7	.6	.4	.2	2.2	.3	3	7.07
L145E 138S A	1.0	.5	.4	.2	2.8	.4	1	.22
L145E 138S B	2.1	2.4	.1	.2	.2	.3	1	2.06
L145E 140S A	.5	.1	.1	.2	.8	.3	1	4.51
L145E 140S B	2.3	.4	.3	.2	.2	.3	1	3.48
L145E 142S A	2.2	.1	.2	.2	.2	.3	3	8.49
L145E 142S B	2.9	.1	.1	.2	.3	.3	2	5.07
L145E 144S A	4.7	.2	.2	.2	.7	.3	1	3.56
L145E 144S B	1.9	.1	.3	.2	.2	.3	2	7.97
L145E 146S A	37.8	.8	.1	.2	.2	.3	1	5.30
L145E 146S B	5.9	1.2	.3	.3	2.1	.6	1	.33
L145E 148S A	3.6	.2	.2	.2	1.6	.4	1	4.29
L145E 148S B	31.6	.9	.2	.3	.2	.3	2	5.03
L145E 150S A	5.7	.3	.1	.2	.2	.3	1	5.53
L145E 150S B	2.2	.3	.5	.2	.7	.4	2	.93
L147+50E 100S	141.6	3.3	.4	.2	2.1	.3	3	7.86
L147+50E 102S	5.6	.3	.2	.2	.3	.3	1	4.49
L147+50E 104S	5.7	.5	.3	.2	.9	.3	2	6.39
L147+50E 106S	9.1	.6	.2	.2	1.5	.4	2	5.24
L147+50E 108S	10.1	.6	.3	.3	1.5	.3	1	4.70
L147+50E 110S	9.8	1.7	.1	.6	1.2	.6	3	6.13
L147+50E 112S	17.8	1.3	.2	.5	.2	.4	1	3.59
L147+50E 116S	23.7	2.0	.2	.2	.8	.3	1	4.75
L147+50E 118S	32.9	1.4	.2	.2	1.4	.4	1	3.74
L147+50E 120S	104.2	1.8	.2	.3	1.4	.4	1	3.09
L147+50E 122S	28.7	.9	.1	.2	.4	.5	3	8.10
L147+50E 124S	20.5	.8	.2	.6	.8	.5	105	5.54

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L147+50E 126S	25.8	.5	.3	.3	.2	.3	10	12.11
L147+50E 128S	11.5	.5	.1	.2	.5	.3	3	6.73
L147+50E 130S	68.5	1.9	.2	.2	.2	.3	29	10.74
L147+50E 132S	28.4	.7	.1	.2	1.5	.3	8	5.74
L147+50E 134S	16.3	.1	.1	.2	2.5	.3	1	2.71
L147+50E 136S	10.8	.4	.2	.3	2.5	.3	1	3.30
L147+50E 138S	.9	.7	.1	.3	.2	.3	1	5.20
L147+50E 140S	6.4	.7	.5	.4	1.8	.3	2	3.71
L147+50E 142S	6.2	.5	.4	.4	.5	.3	1	2.91
L147+50E 144S	3.9	.1	.3	.2	.7	.3	1	7.48
L147+50E 146S	3.5	.2	.4	.2	.2	.3	1	9.76
L147+50E 148S	2.5	.5	.3	.3	.2	.3	1	8.73
L147+50E 150S	1.4	.1	.2	.2	.2	.3	1	3.92
L150E 30S	11.2	.6	.7	.3	1.1	.8	4	10.23
L150E 32S	10.7	.2	.9	.3	1.5	.4	2	5.43
L150E 34S	11.7	.2	.9	.2	1.0	.3	1	4.89
L150E 36S	10.6	.7	.9	.2	1.5	.6	4	4.91
L150E 38S	11.3	.2	.6	.2	.6	.3	1	6.23
L150E 40S	4.2	.1	.7	.3	1.7	.5	1	10.53
L150E 42S	.8	1.0	.5	.3	1.0	.4	2	2.26
L150E 44S	6.9	.5	.8	.3	7.1	.5	1	3.79
L150E 46S	6.5	.7	.5	.2	3.8	.3	1	6.18
L150E 48S	5.1	.5	.6	.5	4.8	.7	1	6.30
L150E 50S	4.6	.1	.6	.3	1.4	.3	2	3.74
L150E 52S	7.9	.2	.3	.3	2.1	.6	1	12.34
L150E 54S	2.7	.4	.4	.2	.7	.3	1	5.79
L150E 56S	3.9	.5	.5	.4	.8	.3	3	4.48
L150E 58S	3.0	.1	.5	.2	1.0	.3	1	4.52
L150E 60S	3.8	.1	.3	.2	2.0	.3	1	7.08
L150E 100S	10.6	1.0	.3	.2	.4	.3	1	8.31
L150E 102S	6.7	.8	.4	.3	1.1	.3	5	7.70
L150E 104S	7.0	.2	.1	.2	1.3	.3	3	4.36
L150E 106S	7.5	.8	.1	.2	1.2	.3	1	3.60
L150E 108S	7.9	.2	.3	.3	.5	.3	3	5.64
L150E 110S A	5.6	.5	.6	.2	3.6	.3	-	-
L150E 110S B	20.1	.4	.3	.3	1.1	.3	2	8.88

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L150E 112S A	7.5	.1	.8	.3	.5	.3	1	6.18
L150E 112S B	7.1	.2	1.2	.3	3.7	.5	1	3.54
L150E 114S A	36.6	1.0	.7	.4	.4	.3	1	7.42
L150E 114S B	5.8	.3	1.1	.4	9.8	.5	18	1.71
L150E 116S A	10.4	.8	.5	.2	.2	.3	1	16.37
L150E 116S B	5.8	.7	1.2	.4	3.2	.9	10	8.72
L150E 118S A	5.8	.3	1.0	.2	2.8	.7	1	2.80
L150E 118S B	27.5	1.0	.4	.6	.2	.3	5	13.08
L150E 120S A	73.6	3.8	.5	.7	.2	.3	5	6.40
L150E 120S B	4.5	.1	.6	.2	2.0	.4	36	2.16
L150E 120S C	1.7	.1	.7	.4	4.8	.3	1	2.65
L150E 120S D	5.7	.4	.8	.4	2.0	.7	10	18.63
L150E 122S A	988.8	3.8	.6	.2	.6	.3	607	4.28
L150E 122S B	4.2	.2	.5	.4	1.9	.4	-	-
L150E 124S A	57.6	1.4	.5	.6	.3	.4	1	5.21
L150E 124S B	4.7	.1	.6	.4	2.1	.5	1	6.55
L150E 126S A	53.5	1.1	.5	.3	.5	.3	13	8.31
L150E 126S B	4.3	.3	.6	.4	1.4	.5	1	3.57
L150E 128S A	105.1	.1	.3	.2	.7	.3	1	8.88
L150E 128S B	2.5	.2	.5	.2	4.6	.3	25	7.96
L150E 130S A	8.1	.6	.4	.4	1.0	.3	4	8.99
L150E 130S B	5.4	.3	.4	.2	2.2	.3	1	8.84
L150E 132S	5.0	.2	.4	.5	1.2	.3	1	4.66
L150E 134S	.6	.3	.3	.2	.3	.3	1	1.67
L150E 136S	.7	.4	.4	.4	2.1	.3	1	3.38
L150E 138S	2.0	.2	.4	.2	.5	.3	1	2.55
L150E 140S	11.5	1.0	.1	.2	1.6	.3	3	3.10
L150E 142S	1.2	.4	.3	.2	.2	.3	1	4.81
L150E 144S	2.9	.9	.4	.6	.9	.3	1	3.76
L150E 146S	3.8	.4	.4	.2	.9	.3	3	7.96
L150E 148S	3.5	.5	.3	.6	.8	.3	1	4.96
L150E 150S	2.3	.1	.4	.2	2.1	.3	1	5.46
L152+50E 102S	39.1	1.1	.3	.2	.2	.3	5	10.54
L152+50E 104S	31.8	1.4	.2	.2	.2	.3	21	17.25
L152+50E 106S	36.4	.7	.3	.4	.8	.3	3	5.94
L152+50E 108S	18.1	.9	.5	.2	.7	.3	1	6.19

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L152+50E 110S	15.9	1.6	.7	.2	.6	.3	3	6.37
L152+50E 112S	9.2	1.3	.5	.2	.6	.5	1	3.76
L152+50E 114S	11.2	.5	.5	.4	.5	.3	1	8.68
L152+50E 116S	13.1	1.5	.3	.2	1.3	.3	1	2.72
L152+50E 118S	6.7	1.6	.4	.3	.2	.5	2	3.95
L152+50E 120S	75.3	1.4	.2	.2	.4	.3	1	7.33
L152+50E 122S	84.1	7.7	.2	.2	.8	.3	2	6.34
L152+50E 124S	322.3	1.7	.2	.2	.8	.3	38	18.58
L152+50E 126S	182.1	1.5	.4	.2	1.4	.5	69	5.96
L152+50E 128S	69.7	1.5	.3	.2	1.9	.3	41	7.74
L152+50E 132S	13.6	.9	.2	.2	.3	.3	1	3.64
L152+50E 134S	10.2	1.9	.4	.2	.6	.5	1	2.73
L152+50E 138S	5.5	.9	.4	.2	.2	.3	1	7.19
L152+50E 142S	2.3	.4	.1	.2	.4	.3	2	2.47
L152+50E 144S	3.1	.4	.1	.2	.2	.3	1	13.48
L152+50E 146S	32.6	1.1	.2	.2	.4	.3	1	6.21
L152+50E 148S	3.7	.1	.3	.2	.2	.3	1	11.86
L152+50E 150S	1.6	.4	.2	.2	.2	.3	1	4.58
L155E 30S	9.7	.2	.2	.2	2.1	.4	3	5.30
L155E 32S	14.4	.5	.4	.2	1.7	.3	31	7.37
L155E 34S	13.5	1.0	.8	.2	2.2	.4	22	5.26
L155E 36S	9.9	.3	.7	.2	4.2	.5	47	7.87
L155E 38S	15.3	.5	.8	.2	.5	.4	15	12.25
L155E 40S	8.2	.4	.9	.2	2.1	.3	2	7.42
L155E 42S	3.4	.3	.8	.2	.9	.4	7	3.92
L155E 44S	4.8	.1	.6	.2	1.8	.3	2	6.76
L155E 46S	5.3	.5	.7	.2	1.5	.3	1	4.00
L155E 48S	5.8	.3	.6	.2	1.9	.3	3	6.98
L155E 50S	13.4	.6	.9	.2	1.0	.3	1	3.93
L155E 52S	10.9	.5	1.0	.2	2.0	.3	6	4.62
L155E 54S	7.4	.7	.7	.2	2.3	.8	7	5.61
L155E 56S	10.5	.8	.9	.2	1.6	.5	1	3.05
L155E 58S	8.0	.4	.7	.2	3.4	.8	6	3.42
L155E 60S	6.8	.7	.7	.2	2.8	.7	2	5.72
L155E 102S	5.9	1.8	.2	.2	.2	.3	1	4.26
L155E 104S	14.8	2.0	.4	.2	.2	.3	7	5.18

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L155E 106S	8.8	.4	.3	.2	.9	.3	2	3.87
L155E 108S	8.0	.6	.4	.2	.2	.3	1	6.29
L155E 110S	5.2	1.0	.4	.2	4.6	.3	2	3.02
L155E 112S	5.0	.5	.6	.2	1.7	.3	1	2.74
L155E 114S	5.1	2.6	.8	.2	.2	.3	2	7.76
L155E 116S	34.6	.3	.4	.2	1.5	.3	19	2.12
L155E 118S	19.2	3.1	.5	.2	.4	.3	2	5.18
L155E 120S	4.3	.3	.4	.3	2.0	.4	3	7.99
L155E 122S	5.6	.3	.4	.2	1.8	.6	5	11.55
L155E 124S	6.3	.1	.5	.2	2.0	.3	1	2.92
L155E 126S	9.6	.1	.6	.4	3.7	.6	2	4.65
L155E 128S	5.7	.1	.3	.2	2.0	.3	2	5.82
L155E 130S	3.0	.3	.4	.2	.2	.3	1	2.62
L155E 134S	2.4	.1	.3	.2	.8	.3	1	3.74
L155E 136S	4.0	.1	.5	.5	1.3	.4	2	11.02
L155E 138S	3.5	.2	.1	.2	1.3	.3	1	3.21
L155E 140S	3.4	.1	.3	.5	.5	.3	3	7.91
L155E 142S	1.6	.1	.2	.2	.3	.3	1	2.47
L155E 144S	2.5	.1	.3	.2	.5	.3	2	4.51
L155E 146S	4.6	.1	.2	.2	.7	.3	1	4.68
L155E 148S	2.6	.1	.1	.3	.5	.3	1	3.52
L155E 150S	2.3	.3	.3	.2	.6	.3	3	4.22
L160E 30S	5.6	.2	.4	.2	2.2	.4	15	16.18
L160E 32S	6.1	.6	.6	.6	1.2	.8	24	7.46
L160E 34S	3.4	.4	.2	.3	.3	.3	2	6.55
L160E 36S	1.8	.1	.3	.3	.7	.3	1	3.23
L160E 38S	3.8	.3	.5	.2	10.6	.3	1	5.94
L160E 40S	5.1	.7	.5	.5	3.3	.5	3	3.16
L160E 42S	4.6	.4	.3	.4	1.8	.5	52	5.22
L160E 44S	12.2	.2	.7	.4	2.5	.6	2	4.24
L160E 46S	11.9	.1	.6	.4	1.5	.3	92	3.38
L160E 48S	10.8	.1	.6	.2	1.4	.3	2	3.39
L160E 50S	8.3	.1	.8	.2	1.5	.4	1	5.32
L160E 52S	21.5	.1	1.0	.3	1.6	.9	1	4.22
L160E 54S	7.5	.3	.6	.7	1.5	.7	1	8.22
L160E 56S	8.0	.1	.5	.2	2.9	.4	12	9.82

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L160E 58S	5.4	.3	.8	.3	1.6	.4	2	3.51
L160E 60S	7.6	.4	.5	.4	.6	.3	3	9.69
L160E 96S	4.5	.9	.6	.3	1.7	.5	430	3.35
L160E 98S	3.8	1.2	.5	.2	.5	.3	1	.53
L160E 106S	57.5	1.3	.4	.2	1.5	.3	1	5.15
L160E 108S	215.3	1.1	.5	.5	1.2	.3	281	2.56
L160E 110S	268.8	1.6	.4	.3	2.5	.3	1	.90
L160E 112S	85.5	1.9	.8	.2	.7	.3	1	3.49
L160E 114S	297.1	1.5	.5	.2	1.8	.3	1	4.72
L160E 116S	316.5	2.7	.4	.2	1.8	.3	62	1.81
L160E 118S	22.5	1.6	.4	.4	.2	.3	1	6.48
L160E 120S	19.4	.6	.4	.2	1.2	.3	1	4.44
L160E 122S	4.7	1.2	.1	.4	.2	.3	1	2.16
L160E 124S	5.0	.2	.3	.4	.5	.3	4	8.08
L160E 126S	6.2	.2	.2	.2	1.7	.3	33	4.58
L160E 128S	4.6	1.0	.3	.2	.4	.3	1	1.20
L160E 130S	8.5	.9	.4	.2	.5	.5	1	4.60
L160E 132S	.3	.4	.2	.2	.2	.3	1	6.48
L160E 134S	1.5	.1	.2	.2	1.0	.3	1	1.77
L160E 136S	.5	.1	.1	.2	.2	.3	1	3.60
L160E 138S	.3	.2	.1	.2	.2	.3	3	10.14
L160E 140S	1.1	.1	.4	.3	.2	.3	1	3.21
L160E 142S	2.3	.2	.3	.2	.3	.3	9	3.34
L160E 144S	2.3	.4	.3	.2	1.2	.3	1	10.66
L160E 146S	4.9	.4	.1	.2	.9	.3	8	2.06
L160E 148S	11.9	.2	.2	.2	.9	.3	1	7.50
L160E 150S	2.3	.2	.2	.2	.2	.3	2	4.00

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L165E 30S	4.8	.8	.6	.2	1.3	.4	1	7.51
L165E 32S	3.8	.3	.1	.2	.4	.3	2	13.67
L165E 34S	4.6	.7	.2	.2	.5	.3	1	15.96
L165E 36S	3.9	.7	.3	.2	.4	.3	1	9.59
L165E 38S	9.5	.7	.7	.2	2.1	.5	2	8.81
L165E 40S	11.4	.9	.8	.2	3.3	.4	17	5.33
L165E 42S	7.2	.6	.7	.2	1.7	.5	2	5.06
L165E 44S	6.9	.8	.4	.2	2.0	.4	1	2.17
L165E 46S	10.5	.7	.5	.3	2.2	.7	2	3.65
L165E 48S	12.2	1.2	.8	.2	2.5	.5	1	7.92
L165E 50S	7.8	.5	.6	.2	1.7	.4	1	7.53
L165E 52S	11.0	.5	.6	.2	1.7	.3	6	3.85
L165E 54S	10.3	.2	.6	.2	2.1	.4	1	2.04
L165E 56S	7.9	.6	.5	.2	1.2	.3	1	4.68
L165E 58S	8.5	1.1	.6	.2	1.3	.4	1	1.47
L165E 60S	12.2	.5	.6	.6	1.0	.8	1	4.47
L165E 110S	51.4	1.0	.2	.4	1.3	.3	2	4.56
L165E 112S	11.3	.8	.2	.2	.3	.3	1	4.71
L165E 114S	12.7	.2	.1	.2	1.4	.3	1	2.75
L165E 116S	15.7	1.2	.2	.2	.7	.3	7	2.87
L165E 118S	92.3	1.3	.6	.2	.7	.3	2	3.35
L165E 120S	16.3	.8	.1	.2	1.4	.3	1	1.08
L165E 122S	7.7	1.0	.1	.2	.2	.3	1	.99
L165E 124S	4.0	1.6	.3	.2	.2	.3	34	5.60
L165E 126S	8.0	1.2	.3	.3	1.3	.3	1	2.44
L165E 128S	14.3	1.4	.3	.2	.6	.3	2	3.83
L165E 130S	3.9	1.1	.1	.3	.9	.4	1	2.37
L165E 132S	1.0	.1	.2	.2	.2	.3	1	2.19
L165E 134S	.7	.1	.2	.2	.2	.3	1	6.56
L165E 136S	.8	.5	.1	.2	.4	.3	1	1.12
L165E 138S	8.5	3.8	.5	.2	.3	.4	2	5.28
L165E 140S	1.8	.7	.1	.2	.4	.3	1	5.05
L165E 142S	2.6	.5	.2	.3	1.8	.4	1	3.40
L165E 144S	5.5	.9	.1	.3	.8	.3	1	4.51
L165E 146S	5.8	.1	.2	.2	.9	.3	2	3.79
L165E 148S	7.9	.5	.1	.2	1.2	.3	1	8.76
L165E 150S	3.7	.3	.1	.2	1.0	.3	1	11.92

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPM	SAMPLE WT GM
L170E 30S	5.2	.5	.6	.3	2.3	.3	22	6.78
L170E 32S	3.3	1.0	.8	.2	.6	.3	5	4.70
L170E 34S	3.9	.9	.5	.3	1.6	.3	3	7.89
L170E 36S	3.2	.8	.7	.4	.7	.3	31	2.15
L170E 38S	4.5	.4	.7	.4	1.2	.3	2	7.16
L170E 40S	4.1	.5	.6	.2	1.7	.3	2	3.33
L170E 42S	8.1	.1	.6	.2	1.9	.3	50	6.41
L170E 44S	7.9	1.1	.2	.4	1.6	.3	73	2.45
L170E 46S	37.9	.7	.8	.2	1.7	.3	62	4.19
L170E 48S	28.0	.2	.8	.3	3.3	.3	1	2.12
L170E 50S	9.4	.3	.8	.4	1.6	.3	1	5.53
L170E 52S	38.6	.6	1.0	.2	2.5	.3	2	4.68
L170E 54S	20.2	.5	1.0	.2	1.8	.3	1	3.31
L170E 56S	17.3	.2	1.8	.2	2.1	.3	1	4.64
L170E 58S	9.6	.7	1.6	.2	2.5	.3	4	5.51
L170E 60S	14.1	.5	2.2	.6	1.9	.6	1	1.74
L170E 122S	2.5	.2	.3	.2	1.1	.3	1	4.80
L170E 124S	1.9	.2	.4	.2	.8	.3	1	5.89
L170E 126S	5.5	.4	.4	.7	.8	.4	2	12.57
L170E 128S	2.6	.2	.4	.2	.4	.3	1	2.40
L170E 130S	4.1	.5	.3	.2	1.5	.3	1	6.52
L170E 132S	4.9	.1	.4	.2	3.5	.3	2	8.92
L170E 134S	2.1	.3	.2	.2	.2	.3	1	7.63
L170E 136S	3.9	.4	.4	.3	2.0	.3	1	4.98
L170E 138S	4.3	.2	.3	.2	.9	.3	1	9.29
L170E 140S	2.4	.1	.4	.6	.9	.3	3	7.55
L170E 142S	3.2	.1	.3	.2	1.7	.3	1	6.44
L170E 144S	4.0	.1	.4	.5	3.0	.3	1	2.43
L170E 146S	2.8	.7	.3	.3	.5	.3	1	6.21
L170E 148S	1.1	.1	.2	.2	.4	.3	1	3.93
L170E 150S	3.1	.3	.3	.2	1.2	.3	2	5.61
L175E 30S	4.8	.3	.7	.5	2.7	.5	4	6.26
L175E 32S	5.9	.7	.7	.3	3.4	.4	1	7.13
L175E 34S	2.8	.2	.5	.2	.8	.3	1	7.36
L175E 36S	7.6	.2	.7	.5	3.0	.5	2	7.68

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPM	SAMPLE WT GM
L175E 38S	4.1	.1	.7	.2	1.2	.3	4	4.57
L175E 40S	7.5	.1	.5	.2	3.2	.4	7	3.59
L175E 42S	5.0	.2	.5	.2	1.5	.3	4	6.63
L175E 44S	4.4	.2	.8	.2	2.5	.6	28	6.10
L175E 46S	5.1	.1	.6	.3	4.2	.6	24	4.13
L175E 48S	6.2	.4	.7	.5	5.2	.5	2	4.99
L175E 50S	7.2	.2	.4	.4	2.1	.3	24	6.64
L175E 52S	6.3	.1	1.0	.4	2.0	.8	24	3.90
L175E 54S	9.0	.2	.6	.2	2.3	.3	1	2.52
L175E 56S	12.7	.1	.7	.5	3.2	.3	11	3.37
L175E 58S	8.2	.4	2.4	.6	2.6	.8	1	.89
L175E 60S	5.8	.2	1.0	.4	1.8	.4	10	2.61
L175E 112S	3.3	.6	.3	.4	.7	.3	5	12.46
L175E 114S	3.6	.3	.5	.4	3.0	.3	17	11.05
L175E 116S	2.8	.3	.4	.2	1.2	.3	3	16.40
L175E 118S	4.5	.5	.3	.3	2.6	.3	7	11.03
L175E 120S	7.4	.2	.4	.2	1.0	.3	3	8.63
L175E 122S	3.7	.3	.4	.2	.9	.3	2	18.58
L175E 124S	.7	.1	.3	.3	1.3	.3	2	5.31
L175E 126S	2.9	.5	.5	.2	1.9	.4	4	18.74
L175E 128S	2.0	.3	.3	.2	.7	.3	1	13.74
L175E 130S	3.1	.1	.3	.4	.6	.4	7	22.72
L175E 132S	2.1	.6	.2	.2	.3	.3	5	12.15
L175E 134S	2.8	.4	.3	.2	1.1	.3	4	22.77
L175E 136S	3.6	.4	.2	.3	1.4	.4	9	12.81
L175E 138S	4.8	.9	.5	.2	.9	.3	4	11.29
L175E 140S	2.5	1.0	.1	.3	.2	.3	2	22.63
L175E 142S	2.0	.4	.1	.2	.9	.3	5	17.17
L175E 144S	3.4	.3	.4	.5	.9	.4	3	20.65
L175E 146S	2.2	.6	.4	.2	.5	.3	5	10.97
L175E 148S	2.5	.5	.2	.2	.3	.3	3	13.46
L180E 114S	4.8	.3	.6	.2	2.0	.4	10	17.56
L180E 116S	2.5	.7	1.4	.3	2.2	.6	8	13.11
L180E 118S	35.1	1.1	.5	.4	2.9	.3	3	1.52
L180E 120S	3.6	.3	.5	.3	.7	.3	1	6.09
L180E 122S	3.8	.5	.5	.2	.5	.4	14	23.53

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPM	SAMPLE WT GM
L180E 124S	4.1	.4	.6	.3	1.2	.4	5	12.46
L180E 126S	3.1	.4	.3	.2	1.2	.3	3	13.06
L180E 128S	3.3	.1	.5	.3	1.1	.3	1	9.40
L180E 130S	3.0	.4	.2	.2	1.4	.3	5	6.12
L180E 132S	2.5	.1	.4	.3	2.0	.3	2	10.58
L180E 134S	6.0	.3	2.3	.2	1.5	.9	2	11.44
L180E 136S	2.1	.3	.2	.5	1.2	.3	1	5.71
L180E 138S	2.4	.1	.3	.2	1.6	.3	3	15.67
L180E 140S	1.4	.2	.2	.2	.8	.3	2	10.96
L180E 142S	.1	.3	.1	.3	1.2	.3	1	7.34
L180E 144S	2.1	.2	.2	.2	1.2	.3	3	9.14
L180E 146S	3.2	.1	.2	.3	1.4	.3	1	8.23
L180E 148S	2.6	.8	.4	.2	1.4	.3	1	3.19
L180E 150S	2.6	.2	.3	.2	.4	.3	6	8.93
L185E 90S	4.2	.2	.7	.2	2.7	.4	2	4.12
L185E 92S	4.4	.3	.7	.2	3.5	.5	3	6.48
L185E 94S	4.6	.3	.6	.2	1.7	.3	12	7.01
L185E 96S	4.3	.2	.8	.5	2.6	.5	14	3.28
L185E 98S	4.0	.8	.7	.3	3.3	.5	7	5.29
L185E 100S	2.0	.7	.7	.3	6.6	.3	2	1.37
L185E 102S	4.2	.5	1.1	.2	2.0	.7	3	2.24
L185E 104S	4.7	.4	.5	.2	2.8	.3	5	8.29
L185E 106S	5.0	.4	.7	.2	1.7	.4	3	7.00
L185E 108S	1.7	.6	.5	.2	.8	.3	3	3.12
L185E 108S A	4.1	.6	.4	.2	1.9	.3	6	19.13
L185E 110S	6.7	.7	.5	.3	3.2	.3	1	2.66
L185E 110S A	4.9	.7	.6	.2	2.1	.3	2	7.65
L185E 112S	3.6	.3	.4	.2	2.3	.3	7	5.58
L185E 114S	1.3	.5	.6	.2	1.4	.3	2	4.27
L185E 116S	1.7	.8	.3	.2	.5	.3	1	1.67
L185E 118S	2.0	.9	.2	.4	2.0	.3	2	.61
L185E 120S	2.5	.9	.3	.2	1.8	.3	4	7.66
L185E 122S	1.4	.8	.1	.2	.7	.3	1	1.40
L185E 124S	1.5	.5	.3	.3	.5	.3	2	2.89
L185E 126S	1.7	.3	.1	.2	1.1	.3	2	13.58
L185E 128S	3.3	.7	.1	.2	1.7	.3	2	4.08

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L185E 130S	4.0	.6	.4	.4	1.7	.6	2	1.84
L185E 132S	2.1	.3	.4	.3	1.0	.6	1	3.25
L185E 134S	2.8	.6	.4	.2	1.4	.3	1	5.68
L185E 136S	3.2	.3	.4	.2	1.2	.4	1	5.78
L185E 138S	2.7	.3	.2	.2	.7	.3	2	3.52
L185E 140S	2.0	.3	.2	.3	.9	.3	1	1.07
L185E 142S	2.5	1.2	.4	.5	.7	.4	1	3.25
L185E 144S	2.0	.1	.1	.2	1.8	.3	2	2.91
L185E 146S	1.4	.7	.2	.2	.4	.3	1	.76
L185E 148S	4.0	.2	.4	.4	1.1	.3	1	4.36
L185E 150S	3.3	.2	.5	.2	1.5	.3	2	2.18
L190E 30S	3.4	.3	.5	.2	1.0	.3	1	3.11
L190E 32S	5.9	.3	.6	.2	2.9	.3	1	3.07
L190E 34S	6.7	.1	.5	.3	2.1	.5	7	10.87
L190E 36S	6.7	.1	.7	.4	2.3	.6	9	9.65
L190E 38S	6.4	.2	.5	.2	2.8	.3	2	4.83
L190E 40S	7.7	.8	.7	.2	3.6	.5	1	4.02
L190E 42S	5.1	.2	.3	.2	2.0	.3	1	5.81
L190E 44S	5.1	.1	.4	.3	1.8	.5	5	4.95
L190E 46S	6.0	.4	.4	.2	2.2	.4	2	8.57
L190E 48S	7.0	.7	.4	.4	2.4	.8	3	5.98
L190E 50S	4.1	.9	.7	.2	1.2	.3	6	6.27
L190E 52S	4.7	.8	.6	.3	2.7	.8	11	7.06
L190E 54S	6.8	.2	.6	.2	1.8	.3	1	4.22
L190E 56S	1.8	.3	.4	.2	1.6	.3	2	2.16
L190E 58S	5.1	.5	.5	.2	2.4	.3	1	1.22
L190E 60S	4.9	.1	.5	.4	1.8	.3	2	3.25
L190E 62S	5.7	.8	.3	.2	1.4	.4	1	2.37
L190E 64S	6.6	.2	.5	.2	1.8	.4	1	2.45
L190E 66S	4.8	.2	.5	.2	2.4	.4	1	2.48
L190E 68S	3.7	.6	.7	.2	3.0	.7	5	3.58
L190E 70S	5.2	.3	.6	.3	2.2	.5	1	1.06
L190E 72S	6.2	.8	.6	.2	2.6	.3	33	7.55
L190E 74S	1.9	.2	.4	.2	2.5	.3	1	.69
L190E 76S	3.0	.3	.9	.6	1.9	.7	1	2.87
L190E 78S	1.0	.1	.5	.2	.3	.3	2	5.45

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPM	SAMPLE WT GM
L190E 80S	1.9	.5	1.0	.2	2.1	.7	1	1.60
L190E 82S	3.4	1.4	1.0	.2	1.9	.5	1	3.95
L190E 84S	2.3	.9	.5	.2	.6	.3	-	-
L190E 86S	4.8	.9	1.0	.2	1.3	.5	1	1.79
L190E 88S	7.5	.8	.5	.4	1.7	.7	2	5.03
L190E 90S	7.2	1.0	.5	.2	2.1	.3	1	1.76
L190E 92S	4.4	1.2	.9	.2	2.9	.6	3	2.97
L190E 94S	10.9	1.3	.9	.2	3.4	.8	1	2.75
L190E 96S	7.3	.6	1.1	.2	2.8	.9	1	1.19
L190E 98S	2.6	.7	.7	.2	3.7	.3	2	3.32
L190E 100S	3.5	.7	.8	.3	1.0	.6	1	5.45
L190E 102S	5.0	.2	.8	.2	4.9	.4	8	4.34
L190E 104S	2.9	.5	.6	.2	.8	.3	1	3.87
L190E 106S	1.6	.8	.6	.4	.8	.3	1	4.36
L190E 108S	3.7	.5	.6	.2	1.3	.3	1	3.41
L190E 110S	3.8	.5	.5	.3	1.0	.3	2	3.49
L190E 114S	3.4	.9	.6	.2	2.7	.5	1	3.90
L190E 116S	4.9	.6	.6	.3	1.4	.6	5	3.55
L190E 118S	4.1	.6	.2	.2	2.6	.4	1	2.70
L190E 120S	4.9	.5	.5	.2	3.8	.3	1	2.61
L190E 122S	4.2	.7	.4	.2	.9	.4	3	8.21
L190E 124S	.8	.7	.4	.2	.5	.3	-	-
L190E 126S	6.3	.5	.6	.2	1.2	.8	2	7.03
L190E 128S	4.9	.7	.5	.2	3.5	.3	1	1.96
L190E 130S	3.9	.7	.2	.2	2.4	.4	2	3.01
L190E 132S	6.6	.6	.3	.2	1.8	.3	1	.42
L190E 134S	6.4	3.1	.1	.3	2.0	.3	2	2.21
L190E 136S	2.9	.5	.2	.3	2.3	.3	1	.83
L190E 138S	4.1	.3	.3	.3	1.2	.3	-	-
L190E 140S	3.8	.4	.1	.2	1.3	.3	2	10.89
L190E 142S	3.3	.1	.1	.2	.7	.3	3	1.55
L190E 144S	1.9	.2	.1	.4	2.1	.6	1	1.22
L190E 148S	3.3	.5	.1	.2	.5	.3	1	1.15
L190E 150S	3.3	.4	.1	.2	1.0	.3	1	3.88
L195E 30S	7.3	.1	.5	.4	2.6	.8	2	8.60
L195E 32S	5.8	.6	.6	.2	1.9	.5	5	7.81

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L195E 34S	5.7	.1	1.0	.2	2.0	.3	5	7.15
L195E 36S	5.5	.2	.6	.2	1.7	.3	1	4.71
L195E 38S	6.0	.1	.6	.3	2.4	.6	1	4.60
L195E 40S	4.4	.4	.9	.3	2.0	.3	1	1.29
L195E 42S	5.2	.1	.9	.3	1.8	.3	1	5.74
L195E 44S	5.3	.5	.8	.2	1.6	.3	1	5.89
L195E 46S	6.1	.1	.6	.2	1.1	.3	1	3.88
L195E 48S	5.5	.1	.4	.3	2.3	.4	2	8.69
L195E 50S	6.2	.1	.7	.2	1.3	.3	3	2.73
L195E 52S	4.7	.5	.4	.3	1.1	.3	1	2.22
L195E 54S	4.3	.4	.5	.2	2.0	.5	11	9.83
L195E 56S	1.3	.2	.2	.2	1.4	.3	4	9.39
L195E 58S	4.0	.6	.5	.2	2.2	.3	2	5.11
L195E 60S	4.1	.5	.6	.3	2.5	.4	3	11.92
L195E 62S	3.5	.2	.8	.3	1.6	.3	2	4.87
L195E 64S	4.1	.5	.5	.5	2.2	.3	11	10.70
L195E 66S	15.2	.8	.8	.3	1.4	.6	3	9.64
L195E 68S	3.4	.1	.7	.5	2.0	.4	1	4.73
L195E 70S	.5	.3	.1	.3	2.0	.3	-	-
L195E 72S	1.0	.4	.7	.3	.5	.3	2	5.20
L195E 74S	5.8	.2	1.0	.2	3.4	.3	4	5.18
L195E 76S	6.4	.7	.5	.5	2.1	.3	1	5.02
L195E 78S	14.1	.5	1.0	.2	2.5	.4	1	2.45
L195E 80S	3.8	.4	.3	.2	4.9	.3	1	1.89
L195E 82S	5.8	.2	.8	.4	4.7	.3	2	6.43
L195E 84S	2.5	.1	.6	.3	2.3	.3	1	1.94
L195E 86S	3.3	.6	.8	.2	.6	.3	3	6.18
L195E 88S	6.6	.5	1.0	.3	2.5	.8	4	6.74
L195E 90S	3.1	.2	1.0	.4	.3	.5	5	3.58
L195E 92S	4.6	.1	.8	.5	2.8	.4	3	5.22
L195E 94S	5.8	.2	1.0	.2	7.9	.5	3	5.52
L195E 96S	4.6	.3	.7	.3	1.6	.4	1	1.40
L195E 98S	5.5	.1	.6	.2	3.3	.4	1	5.66
L195E 100S	2.5	.1	.1	.2	2.8	.3	2	3.31
L195E 102S	3.1	.2	1.0	.2	2.1	.7	1	2.50
L195E 104S	3.4	.1	1.3	.2	1.7	.3	1	2.20

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L195E 106S	4.7	.3	1.5	.2	2.8	.8	2	3.02
L195E 108S	8.0	.4	1.5	.2	.7	.4	1	2.66
L195E 110S	4.5	.2	.5	.3	1.6	.3	1	3.31
L195E 114S	5.0	.4	.5	.2	1.5	.3	2	6.56
L195E 116S	5.0	.1	.2	.2	1.1	.3	1	8.82
L195E 118S	4.4	.1	.8	.2	1.8	.3	1	6.89
L195E 120S	3.1	.1	.6	.2	2.6	.3	1	1.79
L195E 122S	4.4	.8	.6	.2	4.1	.3	2	2.19
L195E 124S	2.5	.2	1.0	.2	5.4	.3	-	-
L195E 126S	4.2	.7	.5	.2	1.4	.5	3	15.77
L195E 130S	4.3	.1	.3	.2	1.3	.3	1	4.16
L195E 132S	5.2	.3	.2	.2	2.2	.3	1	2.64
L195E 134S	6.2	.1	.5	.2	3.2	.4	2	3.35
L195E 136S	5.5	.1	.1	.2	2.6	.3	1	7.46
L195E 138S	2.0	.1	.2	.3	1.5	.3	1	1.24
L195E 140S	1.0	.1	.3	.3	1.5	.3	2	1.50
L195E 142S	3.8	.3	.1	.2	6.8	.3	2	5.36
L195E 144S	2.3	.4	.1	.2	.9	.3	1	4.53
L195E 146S	3.1	.1	.1	.2	.4	.3	3	7.32
L195E 148S	3.6	.1	.1	.2	1.4	.3	1	5.05
L195E 150S	3.3	.1	.1	.5	1.4	.3	1	6.24
L197E 84S	3.7	.2	.4	.2	2.2	.3	2	6.27
L197E 86S	1.3	.3	.4	.2	.3	.3	1	1.04
L197E 88S	1.2	.1	.5	.4	1.3	.3	-	-
L197E 90S	4.3	.1	.8	.2	3.0	.4	3	3.92
L197E 92S	7.7	.2	2.1	.3	9.0	1.3	26	21.26
L197E 94S	6.5	.1	.9	.2	4.9	.3	8	7.13
L197E 96S	6.5	.4	.9	.2	5.5	.3	1	1.38
L197E 98S	7.4	.1	.8	.3	3.5	.8	15	16.15
L197E 100S	8.1	1.0	1.1	.2	3.6	.5	1	3.87
L197E 102S	6.5	.1	1.4	.2	3.4	.6	17	13.22
L197E 104S	6.1	.1	.6	.2	2.4	.3	1	6.53
L197E 106S	5.3	.1	.9	.3	3.3	.3	2	2.56
L197E 108S	4.2	.1	.8	.2	.8	.5	1	3.93
L197E 110S	5.1	.1	1.9	.4	3.3	1.0	7	5.68
L197E 112S	2.0	.1	.5	.2	1.0	.3	22	8.63

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L200E 76S	3.4	.2	1.1	.2	2.2	.9	10	6.27
L200E 78S	7.9	.2	1.1	.2	4.7	1.2	22	12.64
L200E 80S	3.9	.5	1.6	.2	1.7	1.0	1	7.10
L200E 82S	5.8	.5	.9	.5	5.7	1.3	20	14.27
L200E 84S	4.3	.2	.4	.2	2.1	.3	-	-
L200E 86S	3.7	.5	1.0	.4	2.0	1.1	12	10.04
L200E 88S	4.1	.5	.7	.2	.7	.4	2	6.86
L200E 90S	6.7	.3	1.1	.2	3.4	.9	4	6.66
L200E 94S A	5.7	.5	1.1	.2	2.5	1.1	1	3.60
L200E 94S B	2.3	.1	.5	.2	1.5	.5	6	7.32
L200E 96S	1.5	.5	.9	.5	2.8	.5	1	.73
L200E 98S	4.5	.1	.8	.2	2.7	.5	1	1.55
L200E 100S	5.7	.5	1.3	.4	3.7	1.1	2	7.68
L200E 102S	6.3	.3	3.6	.3	4.8	2.2	3	11.08
L200E 104S	5.3	1.6	1.4	.2	2.2	.6	1	2.45
L200E 106S	9.7	.3	3.5	.4	2.8	1.9	2	3.88
L200E 108S	4.5	.3	2.6	.5	.9	1.3	1	.84
L200E 110S	6.5	.3	1.3	.2	3.4	.7	1	9.22
L200E 112S	1.1	.3	.5	.2	.4	.3	1	4.31
L200E 114S	4.5	.3	.8	.2	3.0	.4	1	9.73
L200E 116S	3.1	1.0	.9	.3	.9	.5	1	7.51
L200E 118S	4.5	.1	.6	.2	2.4	.3	2	6.41
L200E 120S	8.2	.4	1.4	.2	2.2	.8	2	7.53
L200E 122S	3.9	.4	.5	.2	1.2	.3	1	17.54
L200E 124S	1.6	.4	.5	.2	4.0	.3	-	-
L200E 128S	3.6	.8	.5	.2	1.5	.3	2	13.54
L200E 130S	4.6	.1	.4	.2	1.6	.3	1	15.32
L200E 132S	5.0	.1	.4	.4	1.2	.4	1	9.22
L200E 134S	3.2	.3	.2	.2	2.2	.3	1	5.84
L200E 136S	2.2	.2	.2	.3	2.1	.3	1	6.93
L200E 138S	2.1	.1	.3	.3	2.0	.5	3	10.58
L200E 140S	3.7	.7	.4	.2	2.0	.4	1	22.95
L200E 142S	3.1	.2	.2	.2	2.1	.3	1	14.01
L200E 144S	1.9	.4	.3	.4	3.5	.3	1	7.30
L200E 146S	4.4	.8	.2	.2	3.0	.3	2	12.22
L200E 148S	3.6	.3	.3	.2	3.3	.3	1	2.61
L200E 150S	3.4	.4	.3	.2	4.2	.3	1	16.53

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	SAMPLE WT GM
L205E 76S	6.5	.7	.7	.2	3.2	.3	2	4.92
L205E 80S	.8	.3	.7	.2	.5	.3	-	-
L205E 82S	8.3	.4	.7	.4	2.8	.3	43	14.99
L205E 84S	11.7	.3	1.6	.3	9.9	1.5	72	5.73
L205E 86S	2.9	.5	.7	.2	1.3	.3	14	9.08
L205E 88S	5.7	.8	1.0	.7	3.3	1.0	11	6.77
L205E 90S	2.9	.7	.3	.3	.2	.3	-	-
L205E 92S	7.0	.5	.8	.4	3.2	.6	22	15.71
L205E 94S	3.9	.1	.7	.2	1.3	.3	1	.83
L205E 96S	5.0	.7	1.1	.4	3.8	.4	17	12.53
L205E 98S	8.0	.3	1.0	.2	2.6	.6	11	10.73
L205E 100S	6.6	.7	.9	.2	2.2	.6	142	13.92
L205E 102S	3.9	.2	.7	.3	.4	.3	4	9.68
L205E 104S	3.2	.7	.9	.2	.8	.3	2	3.05
L205E 106S	9.3	.7	2.2	.2	10.2	2.2	22	13.26
L205E 108S	5.0	.7	2.4	.2	1.6	1.2	4	9.10
L205E 110S	7.7	.1	.6	.2	1.6	.6	9	10.54
L205E 112S	2.2	.7	1.0	.3	1.4	.3	10	12.58
L205E 114S	5.0	.6	.7	.3	1.7	.3	3	7.31
L205E 116S	7.1	.2	.8	.2	3.7	.6	12	20.59
L205E 118S	5.3	1.3	1.2	.5	2.1	.7	2	19.27
L205E 120S	3.9	.4	.6	.2	.2	.3	1	6.58
L205E 122S	5.8	.5	.8	.4	2.4	.4	4	21.52
L205E 124S	6.4	.4	.7	.2	1.7	.7	2	12.86
L205E 126S	4.8	.5	1.1	.4	2.4	.5	13	14.71
L205E 128S	2.9	.1	.4	.5	1.1	.3	1	8.20
L205E 130S	1.9	.1	.4	.4	1.6	.3	2	6.81
L205E 132S	3.6	.3	.4	.4	1.1	.3	1	3.70
L205E 134S	2.2	.4	.3	.2	.7	.3	2	13.53
L205E 136S	3.4	.7	.2	.2	1.4	.3	2	7.79
L205E 138S	3.9	.4	.5	.2	1.7	.3	1	5.62
L205E 140S	4.3	.9	.3	.2	1.6	.4	1	6.32
L205E 142S	4.2	.7	.4	.3	1.9	.3	1	4.27
L205E 144S	3.2	.1	.2	.2	2.2	.3	1	2.07
L205E 146S	4.7	.6	.4	.5	2.1	.3	2	3.51
L205E 148S	7.8	.8	.2	.2	2.5	.4	1	8.56
L205E 150S	2.9	.7	.2	.5	.9	.3	2	10.18

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPM	SAMPLE WT GM
L210E 76S	4.6	.5	.7	.2	2.6	.3	1	3.65
L210E 78S	7.6	.1	.6	.2	3.6	.4	2	4.06
L210E 80S	5.0	.3	.8	.2	.5	.5	1	2.09
L210E 82S	4.3	.3	.8	.2	.6	.6	1	4.32
L210E 84S	4.3	.4	.7	.2	.9	.3	1	4.34
L210E 86S	7.5	.6	.5	.2	1.9	.3	1	9.91
L210E 88S	8.3	.7	.6	.3	3.4	.3	5	7.10
L210E 90S	5.6	.2	.7	.2	1.7	.4	2	5.69
L210E 92S	13.3	.8	.8	.2	.6	.3	1	2.01
L210E 94S	2.2	.2	1.2	.3	1.6	.5	8	6.24
L210E 96S	1.3	.4	1.0	.2	.2	.3	1	3.42
L210E 98S	.6	.2	.5	.4	.2	.3	1	3.88
L210E 100S	4.0	.2	1.1	.2	1.4	.3	24	8.64
L210E 102S	5.4	.5	1.0	.2	.7	.5	4	2.82
L210E 104S	2.4	.4	.7	.3	.2	.3	5	6.75
L210E 106S	3.9	.3	1.0	.2	.2	.5	1	2.38
L210E 108S	3.7	.5	.7	.2	.2	.4	2	8.08
L210E 110S	6.3	.4	.7	.2	3.2	.6	1	10.61
L210E 112S	4.8	.2	.5	.2	2.4	.3	2	8.31
L210E 114S	5.2	.6	1.0	.2	.9	.3	1	6.44
L210E 116S	4.1	.2	.7	.2	.7	.3	3	10.40
L210E 118S	2.2	.3	.6	.2	.6	.3	2	3.65
L210E 120S	1.2	.2	.3	.2	.2	.3	1	5.28
L210E 122S	7.9	.6	2.5	.2	4.5	.5	521	11.89
L210E 124S	4.3	.1	.4	.2	2.2	.4	4	14.66
L210E 126S	3.6	.5	.7	.3	2.4	.3	1	10.64
L210E 128S	3.1	.7	.4	.2	1.4	.3	1	8.24
L210E 130S	3.5	.5	.2	.2	1.3	.6	3	11.54
L210E 132S	4.0	.8	.5	.3	1.5	.3	1	10.75
L210E 134S	5.5	.4	.7	.2	1.9	1.0	1	11.79
L210E 136S	.9	.6	.1	.2	.4	.3	1	15.17
L210E 138S	2.4	.3	.5	.2	1.7	.3	3	5.35
L210E 140S	2.5	.2	.2	.2	1.7	.3	1	11.70
L210E 142S	1.8	.7	.2	.2	.6	.3	1	9.20
L210E 144S	1.8	.5	.4	.2	.7	.3	1	18.69
L210E 146S	3.9	.6	.5	.2	1.6	.3	2	10.01

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPM	SAMPLE WT GM
L210E 148S	2.1	.8	.3	.3	.5	.3	2	18.07
L210E 150S	3.9	.5	.3	.2	.6	.3	2	5.59
L215E 76S	7.4	.1	.4	.2	2.7	.3	4	7.65
L215E 78S	4.4	.3	.9	.2	1.7	.3	3	9.77
L215E 80S	8.2	.2	2.2	.2	2.3	.4	1	5.84
L215E 82S	3.8	.2	1.0	.2	2.4	.6	1	4.62
L215E 84S	2.9	.5	.7	.2	1.0	.4	5	9.59
L215E 86S	4.6	.1	.3	.4	1.9	.3	3	6.91
L215E 88S	9.1	.1	.4	.2	2.9	.6	1	9.52
L215E 90S	10.4	.7	.4	.2	2.7	.3	1	12.09
L215E 92S	7.7	.7	.6	.3	2.8	.4	3	10.90
L215E 94S	6.2	.3	.9	.3	5.6	.8	25	6.34
L215E 96S	6.7	.7	.7	.2	3.1	.3	7	5.72
L215E 98S	8.1	.1	1.2	.2	4.4	.3	56	11.73
L215E 100S	6.4	.7	.8	.2	2.6	.6	1	7.33
L215E 102S	7.3	.1	.6	.2	2.3	.3	26	7.00
L215E 104S	8.8	.7	1.0	.2	3.1	.7	70	13.06
L215E 106S	7.4	.9	.9	.2	1.8	.5	1	5.45
L215E 108S	7.3	.1	.7	.2	6.0	.4	20	8.98
L215E 110S	6.5	.5	.9	.2	4.2	.7	20	11.31
L215E 112S	3.2	1.1	.6	.2	.6	.3	1	.85
L215E 114S	1.3	.3	.5	.2	.3	.3	1	5.01
L215E 116S	5.3	.4	1.0	.3	3.1	.5	4	11.27
L215E 118S	5.2	.6	.8	.2	3.5	.7	3	12.66
L215E 120S	5.9	.3	.7	.2	1.5	.7	1	6.25
L215E 122S	3.6	.4	.6	.2	.7	.6	1	14.86
L215E 124S	3.7	.2	.1	.2	.9	.6	1	19.38
L215E 126S	3.4	.9	.4	.2	.2	.3	1	3.53
L215E 128S	4.4	.5	.3	.2	2.7	.3	1	7.02
L215E 130S	1.1	.4	.1	.3	.3	.3	1	3.51
L215E 132S	1.6	.4	.3	.2	.9	.4	1	13.98
L215E 134S	2.3	.6	.1	.2	.4	.6	1	10.71
L215E 136S	.9	.2	.2	.2	.5	.3	1	5.78
L215E 138S	2.9	.5	.3	.2	1.5	.3	1	9.47
L215E 140S	2.4	.6	.2	.2	1.4	.4	1	7.56
L205E 78S	4.3	.6	.4	.2	1.3	.5	2	4.25

APPENDIX 4

DRILL LOGS

COMPOSITE DRILL LOG

CORE SIZE : NQ.
CASING COLLAR ELEV. :
COORDINATES : 258968 N. 204879 E.
INCLINATION : -45°
SCALE :
GROUND ELEV. :
AZIMUTH : 090
PROJECT : MORAGA RES - RED DOG
DATE STARTED : MAY. 15/89
DATE FINISHED : MAY. 17/89.
TOTAL DEPTH : 141.1 m (463.0 FT).
HOLE No. 89-1 : EC 164
PAGE No. 1 OF 1
REF. TO CLAIM CORNER :
LOGGED BY EDH :

DEPTH (M)

ALTERATION: SILICA · FRACTURING · MINERALS · GEOLOGY

COMMENTS :

AVG. CORE REC'Y/HOLE

DESCRIPTIVE GEOLOGY

Depth: 3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 · 11 · 12 · 13 · 14 · 15

Silica: EXTREME (to ~7.6 m) · STRONG
Fracturing: MOD. · MOD - STRONG

OVERBURDEN 2.44 M

LIMONITIC FRACTURES @ 40-90°

2.44 - 14.7 L-mg andesite tuff ≤2mm strongly silicified. 20-25% FELD. ALTERED TO SOFT LT-MED GREEN "SOAPY" MATERIAL Diss Py ≤ 1%. CASSIONAL FRACTURE COATINGS. Cpy ≤ [illegible]. WEAKLY MAGNETIC (PYRRHOTITE?)

2.44 - 7.62 - EXTREAM SILICIFRATION w RUSTY FRACTURES. QTZ 80-90%.

CORE WELL BROKEN BUT NOT GOUGED

14.7 - 16.15 - Mg. QTZ. MONZ[illegible] PINKISH-GRAY. POORLY TO WELL FRACTURED. 10-15% MAFICS (AMPH.?) ≤0.5% DIS. Py.

DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES
1.52	53	
3.66	95	
2.44	82	
1.22	61	
1.83	99	
0.76	79	
2.28	100	

ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
18	109101	78	2.56	110	5	35	.2	9
17	109102	84	2.62	126	2	32	.3	8
51	109103	60	2.44	514	12	26	.2	16
64	109104 109 76[illegible]	75	2.94	1076	6	70	.2	210 (160)
40	[illegible]	80	1.7	1391	5	48	.4	79 (107)

COMPOSITE DRILL LOG

CORE SIZE :
CASING COLLAR ELEV. :
COORDINATES : N. E.
INCLINATION :

SCALE :
GROUND ELEV. :
AZIMUTH :

PROJECT :
DATE STARTED :
DATE FINISHED :
TOTAL DEPTH : m

HOLE No. 89-1 : CC 164
PAGE No. 2 OF 17
REF. TO CLAIM CORNER :
LOGGED BY EDII :

DEPTH (M): 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30

ALTERATION: EPIDOTE: MOD 10-15%
ALTERATION: SILICA: WK - MOD. / Ø / WK-MOD. / MOD. / WK.
FRACTURING: MOD - STRONG. / WK. / WK.
MINERALS
GEOLOGY

COMMENTS:

QTZ MONZ. CONT @ 20°

SOFT PINK STRINGER ≤3mm CARB ? (111 FIZ) @ 55° OFFSET BY HAIRLINE FRACT. @ 40° NO ASSOC. SULP. DIS.

WELL FRACT NO GOUGE
WK. CLAY ALT.
OCCASSIONAL RUSTY FRACT.

CROSSHATCH HAIRLINE WHITE ZEOLITE STRINGERS

(CONTACTS NOT OBSERVED)

WEAKLY LIMONITIC FRACT @ 10-20°.

VERY WK HAIRLINE ZEOLITE STRINGERS @ 20-30°

CONTACT @ 35°

AVG. CORE REC'Y/HOLE

DESCRIPTIVE GEOLOGY

17.2 - 23.6 - QTZ. MONZ.
MED. GRAINED GREENISH-GREY
CHLORITE ALT. 5-10%. DISS Py ≤ 2%.
QTZ - 15-20% with MINOR LOCAL
SILICIFICATION. FELD 40-60%
MAFICS 20-30% LOCAL CHLORITE ≤ 10%.
SCATTERED MAGNETITE ≪ 0.5%.

23.6 - 24.4 - DK GREEN - BLACK. Fg.
LAMPROPHYRE (MAFIC TUFF ?) CLASTIC APPEARANCE
VESICULAR W SCATTERED QTZ/CARB
FILLING ≤ 1MM. WK - MOD FIZ THROUGHOUT
WK MAGNETIC THROUGHOUT. SOFT.

24.4 - 27.4 - QTZ. MONZ. (AS ABOVE)
BECOMES MORE SILICEOUS IN DEPTH.
27.4 - 29.4 - LAMPROPHYRE (AS ABOVE)
QTZ/CARB VESICLES ≤ 5 mm.
TR. DIS. Py (EUHEDRAL). GREEN
CARB FRACTURE COATING. AT BASE
VESICLES ORIENTED // CONTACT.

DRILLING INTERVAL	% CORE RECOVERED
2.92	60
1.83	82
1.22	82
2.13	69
1.35	59
1.7	91
2.94	88
3.35	95

% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
	19	109106	72	1.45	1106	4	38	.3	35 18
	22	109107	74	1.05	561	11	64	.2	43 39
	5	109108	63	2.8	557	7	45	.2	7
	4	109109	58	3.6	1182	4	41	.1	3
	1	109110	100	0.8	1258	10	76	.1	2
	8	109111	80	3.0	1140	2	30	.1	3
	1	109112	100	2.0	98	9	76	.3	2

COMPOSITE DRILL LOG

CORE SIZE :
CASING COLLAR ELEV. :
COORDINATES : N. E.
INCLINATION :

SCALE :
GROUND ELEV. :
AZIMUTH :

PROJECT :
DATE STARTED :
DATE FINISHED :
TOTAL DEPTH : m

HOLE No. 88-1 : EC 164
PAGE No. 3 OF 1)
REF. TO CLAIM CORNER :
LOGGED BY :

COMMENTS :

AVG. CORE REC'Y/HOLE

DEPTH (M)	ALTERATION SILICA	GEOLOGY	DESCRIPTIVE GEOLOGY
30–31	WK-MOD	SILICEOUS STRINGERS @20° OFFSET BY LIMONITIC FRACT @50°	25.4 - 48.4 QTZ. MONZ. (AS ABOVE) OCCASSIONAL "PORPHYRITIC" APPEARANCE.
31–32		WK. PORPHYRITIC AND ≤3MM	WEAKLY LIMONITIC FRACTURES. SERICITE VARIES LOCALLY 2-5%
33		VUGGY SILICEOUS [illegible] @30° MINOR LIMONITE	
35–38	WK - MOD		
37		WELL FRACTURED.	
38		PORPHYRITIC ≤4MM	
39		LIMONITIC FRACTURES	
40	MOD.	COLOUR CHANGE TO RED. Feld 50-65% QTZ 15-20% MAFIC ≤20%	
41		CROSSHATCHING OF ZEOLITE STRINGERS.	
44–45	MOD		

DRILLING INTERVAL	% CORE RECOVERED
1.68	95
0.45	100
1.22	90
2.75	58
0.61	46
0.9	100
1.8	72
3.1	84
1.4	79

% SULPHIDES ESTIMATED	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	Au ppb
2	109113	100	3.0	992	7	25	.1	5
3	109114	81	2.6	882	9	28	.1	4
6	109115	57	3.0	766	14	23	.1	1
3	109116	93	3.0	1036	5	24	.1	1
2	109117	90	3.0	650	4	29	.3	2

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. 89-1 : EC 164
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 4 OF 17
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

DEPTH (M) | ALTERATION: SILICA | FRACTURING | MINERALS | GEOLOGY | COMMENTS : | AVG. CORE REC'Y/HOLE

DESCRIPTIVE GEOLOGY

Depth (M): 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60

SILICA: WK - MOD (48.4–52.25); MOD (52.25–)

FRACTURING: MODERATE

COMMENTS:

HAIRLINE QTZ/ZEOL STRINGERS.

CONTACT @ 20°

PINK ZEOL. STRINGER @ 60°

CALCITE STRINGERS

CONTACT @ 40°

CORE WELL BROKEN W MINOR GOUGE.

5MM QTZ/CARB VEIN @ 70°

SLICKENSIDES AND WEAK GOUGE @ 20°

48.4 - 52.25 INT TUFF (ANDESITIC) F-Mg. FELD 50-60% (≤3mm) WK-MOD SILICEOUS. MINOR LIMONITE OF FRACT. DS Py ≤ 0.5% TRACE MAGNETITE.

52.25 - 63.4. MONZONITE. PINK TO GREENISH GREY. CUT BY NUMEROUS THIN ERRATICALLY ORIENTED QTZ/CARB STRINGERS. SERICITE 2-3%. Cpy 1-2% Py ≤1%. LOCALLY MAGNETIC (PYRRHOTITE?) PATCHES GREEN "WAXY" MATERIAL (PYROPH?)

DRILLING INTERVAL	% CORE RECOVERED
1.6	94
2.47	81
3.1	69
2.44	98
1.22	87
152	56
1.5	93
1.55	90

% SULPHIDES	ESTIMATED % Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
	4	109118	100	3.0	640	9	38	.1	2
	5	109119	86	1.4	1034	5	36	.3	1
	3	109120	87	2.6	1334	5	46	.1	1
	1	109121	93	3.0	32	5	33	.1	3
	1	109122	97	3.0	29	6	29	.1	2
	1	109123	100	3.0	23	3	31	.1	3

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. 89-1 : EC164
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 5 OF 17
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

ALTERATION: SILICA — WEAK (61–62 m); STRONG (69 m)

FRACTURING | MINERALS | GEOLOGY

COMMENTS : | AVG. CORE REC'Y/HOLE

DESCRIPTIVE GEOLOGY

DEPTH (m): 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75

5 QTZ/CARB STRINGERS
5@40°

FRACTURED CONTACT

63.4 - 76.8 - INT - MAFIC TUFF
63.4 - 64.6 - FG PALE GREEN MATRIX W 15-20% FELD + MAFIC FRAGMENTS ≤ 3 MM (GENERALLY 1-2 mm) FRAG ANGULAR TO SUBROUNDED. QUITE SOFT. GRADATIONAL INTO DARKER GREEN MORE "GRANULAR" TUFF. TUFF WEAKLY CALCAREOUS. EUHEDRAL Py ON FRACT.

QTZ/CARB STRINGERS
@25°

68.0 - 68.75 COARSER TUFF GRADES INTO FG PALE MATRIX (AS ABOVE).

CONTACT @ 80°

68.75 - 71.93 FAULT W STRONGLY SILICIFIED BRECCIA AS WELL AS SOFT CLAY GOUGE SECTION. APPEARS TO BE COMPOSED OF BOTH INTRUSIVE AND TUFFACEOUS MATERIAL.

STRONG GOUGE

MOD TO STRONG BRECCIA
W 10-20% GOUGE

50% GOUGE

5MM QTZ/CARB @ 15°
CUTS AND OFFSETS HAIRLINE
QTZ/CARB STRINGERS. NO
PREFERRED ORIENTATION.

≤1% SULPHIDES (Cpy, Py, Po)
ASS. W STRINGERS

5mm QTZ/CARB @25°

DRILLING INTERVAL	% CORE RECOVERED
1.9	92
1.53	85
1.52	86
2.59	100
3.2	94
1.22	98
2.13	89

% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
	1	109124	88	3.4	19	7	27	.1	2
	1	109125	92	3.6	42	5	71	.1	4
	11	109126	97	1.75	209	3	60	.1	7
	99	109127	88	1.25	2040	8	17	.7	93
	6	109128	98	1.93	123	11	46	.1	3
	2	109129	88	3.07	41	8	58	.1	3

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. 89-1 : CC 164
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 6 . OF 17
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

DEPTH (m)	ALTERATION: SILICA	FRACTURING	DESCRIPTIVE GEOLOGY
76	WK-MOD		1CM QTZ/CARB @ 70° CPy/Py ≤ 2% + MAGNETITE
77	STRNG		76.8 - 103.4 – QTZ. MONZONITE
78			QTZ 5-15% PINK Mg. IRREGULARLY CUT BY QTZ/CARB STRINGERS
79		WEAK	WK BRECCIA AND MINOR GOUGE. 2-3% CPy SCATTERED TR. MAGNETITE. DIS Py ≤ 1% Pale green PATCHY MATERIAL (EPIDOTE?) ≤ 3%.
80			
81			QTZ/CARB STRINGERS
82			
83			2MM VUGGY FRACT @ 20° EUHEDRAL CALCITE ≤ 3MM.
84			
85			
86			
87			Mg PORPHYRY (PHENO ≥ 20%)
88			
89			

COMMENTS :

AVG. CORE REC'Y/HOLE

DRILLING INTERVAL	% CORE RECOVERED
3.05	95
3.05	98
2.75	95
3.04	95
2.14	89
1.22	100

% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb Au
	1	109130	94	1.8	43	3	56	.1	1
	1	109131	100	0.8	26	4	50	.1	1
	8	109132	90	1.0	38	6	68	.1	6
	4	109133	100	2.4	86	9	52	.1	4
	1	109134	93	3.0	24	13	49	.2	4

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. 8901 : EC 164
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 7 OF 10
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

COMMENTS :

AVG. CORE REC'Y/HOLE

DEPTH (M)	ALTERATION: SILICA	DESCRIPTIVE GEOLOGY	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED No	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb Au
91	MODERATE		3.04	98		1	109135	100	3.0	88	5	50	.1	1
92														
93														
94			3.05	82										
95		SAME REDDISH COULOUR IN WALL RX FOUND IN QTZ/CARB STRINGERS												
96		STRINGERS ≤1mm. w̄ NO PREFERRED ORIENTATION												
97		98.8 - 100.0 - Py ≤5%.	3.05	98										
98		15cm GOUGE												
99														
100														
101		101.55 - 102.6 FINER GRAINED DARKER GREY. SERICITE BANDS @ 70°. UPPER CONTACT @ 70 LOWER @ 90°	6.1	67		1	109136	100	3.2	114	14	60	.1	2
102														
103		103.4 - 118.0 Rx WEAKLY PORPHYRITIC (PHENO 10-15%). COMPOSITION QTZ MONZ - GRANITE MG												
104														
105														

FRACTURING

MINERALS

GEOLOGY

ASSAYS

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. 89-1 : EC 164
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 8 OF 17
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

COMMENTS :

AVG. CORE REC'Y/HOLE

DEPTH (M)	ALTERATION SILICA	FRACTURING	MINERALS	GEOLOGY	DESCRIPTIVE GEOLOGY	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb Au
106	MOD				ZENOLITHS OF FG GREY DIORITIC RX 106.8 - 107.8 - SILICEOUS. DIS PY ≤1% UPPER CONTACT @ 40° CA NOT PORPHYRITIC GRANITIC COMPOSITION.	3.04	98										
107	STRNG				107.7 - 6CM BRECCIA c̄ WK GOUGE @ 50°. STRONGLY SILICEOUS. TR. PY												
108					ZENOLITHS WEAK TRACERY OF PINK QTZ/CARB STRINGERS	3.05	95										
109	MOD								1	109137	93	3.0	10	2	19	.1	1
110																	
111	STRNG				111.4 - 112.3 GRANITIC UPPER CONTACT @ 50° LOWER GRADATIONAL. CG. RED. SILICEOUS DIS. PY ≤1% LOCALLY MAG (PYARINSTITE?)	3.05	89										
112					QTZ/CARB STRINGER (2MM) @ 20° OFFSET 1CM BY FRACT @ 50° FRACT HAS CALCITE COATINGS.												
113																	
114						1.83	55										
115																	
116						3.08	94										
117																	
118									1	109138	83	3.0	24	2	26	.1	14
119					1CM PINK QTZ/CARB @ 45° WALL RX WEAKLY BRECCIATED.	1.2	91										
120																	

COMPOSITE DRILL LOG

CORE SIZE :	**SCALE** :	**PROJECT** :	**HOLE No.** 88-1 : EC 164
CASING COLLAR ELEV. :	**GROUND ELEV.** :	**DATE STARTED** :	**PAGE No.** 9 **OF** 11
COORDINATES : N. E.		**DATE FINISHED** :	**REF. TO CLAIM CORNER** :
INCLINATION :	**AZIMUTH** :	**TOTAL DEPTH** : m	**LOGGED BY** :

DEPTH (M)	ALTERATION	FRACTURING	COMMENTS: / DESCRIPTIVE GEOLOGY	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES ESTIMATED No	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	Au ppb
			1.5 cm QTZ/CARB @ 30°											
121			≤ ECLOLITHS	3.0	97									
122														
			122.7 - 126.3 - WEAKLY BRECCIATED PALE-GREEN BLOCKS + STRINGERS EPIDOTE/SERICITE 10%. GREEN "WAXY" BLEBS (PYROPHYLLITE?) ≤1%											
123	WEAK-MOD		CUT BY VERY IRREGULAR QTZ/CARB STRINGERS.											
124			LOCAL DIS Py (EUHEDRAL) ≤2%.			1	109139	100	1.6	27	3	25	.2	2
125				3.1	94									
			LOWER CONTACT @ 75° (BRICK-RED HEMATITE SKIN			1	109140	90	2.0	13	9	27	.1	3
126														
127	STRONG	WEAK	PINK GRANITIC RX Mg											
128			CONTACT @ 35°.	3.0	90									
129			WEAK BRECCIA											
130			CONTACT @ 45°											
131	WK - MODERATE		1CM "JASPER" BAND @ 40°	3.1	94									
132														
133			EPIDOTE/SERICITE FRACTURES											
134			@ 50-60° DIS Py 2-3%.	3.0	97	1	109141	100	3.0	19	18	30	.2	1
135														

AVG. CORE REC'Y/HOLE

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. 88-01 : EC 164
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 10 OF 1)
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

COMMENTS :

AVG. CORE REC'Y/HOLE

DEPTH (M)	ALTERATION	FRACTURING	MINERALS	GEOLOGY	DESCRIPTIVE GEOLOGY	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
136						3.1	94										
137		WEAK - MOD	WEAK														
138																	
139					CALCITE ON FRACTURE SURFACES	3.0	100										
140					WEAK BRECCIA W APPLE GREEN EPIDOTE/SERRAR STRINGERS 60-80°				1	109142	100	1.8	23	3	40	.1	1
141					EOH 141.1 m (463')												

COMPOSITE DRILL LOG

CORE SIZE : NQ
SCALE :
PROJECT : MORAGA RES. - RED DOG
HOLE No. (89 - 2) : EC 165
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED : MAY 17/89
PAGE No. 1 OF 5
COORDINATES : 258 797 N. 204722 E.
DATE FINISHED : MAY 18/89.
REF. TO CLAIM CORNER :
INCLINATION : -90°
AZIMUTH :
TOTAL DEPTH : 81.1 m (266 FT)
LOGGED BY EDH :

AVG. CORE REC'Y/HOLE 93

DEPTH (M)	ALTERATION: SILICA	FRACTURING	COMMENTS	DESCRIPTIVE GEOLOGY	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb Au
7				OVERBURDEN TO 7.3m	0.3	50										
8		STRONG.		7.3 - 81.1 - Mg PINK - GREY MONZONITE FELD 60-75% (PLAG 30-35%) MAFIC 15-20% QTZ ≤ 5%	1.2	67										
9	WEAK - MODERATE															
10		MODERATE	ZENOLITH	CHLORITE ALT ≤ 7% CONTAINS OCCASSIONAL DK GREY DIORITIC ZENOLITES ≤ 2CM. LOCALLY PORPHYRITIC FELD. ≤ 3MM.	2.2	77										
11																
12				LIMONITIC FRACTURES. PINKISH QTZ/CARB STRINGERS 30-40°. DIS Py ≤ 1%	2.7	100		1	10914/3	100	3.0	42	11	41	.4	6
13																
14																
15		WEAK	PINK QTZ/CARB @ 25°		3.2	97										
16			PINK ZEOLITE PATCH 7CM. LEACHING OF WALL RX.													
17																
18					3.2	97										
19			2mm QTZ/CARB @ 25°													
20					0.2	22			10914							
21																

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. (84-2) : EC 165
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 2. OF 5
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

COMMENTS :

AVG. CORE REC'Y/HOLE

DEPTH (M)	ALTERATION SILICA	FRACTURING	MINERALS	GEOLOGY	DESCRIPTIVE GEOLOGY	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
22	STRONG	WEAK			21.0-23.2 RED COLOURED. M-Cg GRANITIC.	2.9	93		1	109144	93	3.0	13	7	17	.1	3
23																	
24	WK-MOD)					3.0	63										
25	STRON.	MOD - STRONG			25.0-26.4 RED M-Cg GRANITIC												
26																	
27						3.1	81										
28																	
29																	
30	WK-MID.																
31						2.4	88		1	109145	90	3.0	24	7	25	.2	2
32	STRONG				31.8-33.2. RED SILICEOUS												
33						3.0	100										
34																	
35				0													

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. (89-2) : EC 165
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 3 OF 5
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH m
LOGGED BY :

ALTERATION: SILICA — WK - MOD
FRACTURING: STRONG
MINERALS
GEOLOGY
COMMENTS :
AVG. CORE REC'Y/HOLE

DEPTH (m)	DESCRIPTIVE GEOLOGY
37	35.7 - 36.4 APPLE GREEN EPIDOTE/SERICITE 10-15%. W IRREGULAR QTZ/CARB PATCHES.
38	38.6 - 38.8 - WK GOUGE
39	FAULT. @50-60° ? DIS Py (CUBEDRAL) ≤2% 39.5 - 39.7 - CLAY GOUGE
40	
41	FINE BRECCIA @30° NOTE: FROM 41.3 QTZ/CARB STRINGERS BECOME MORE NUMEROUS. (WHITE CARB / PINK SILICA)
42–44	
45	IRREGULAR QTZ/CARB VEINLETS ≤ 1CM @ 45°
46	
47	LOCAL DIS SULPHIDES ≤4%. (Py 2-3% Cpy 1-2%) EPIDOTE 5-10%.
48	QTZ/CARB VEINLETS W WK BRECCIA 2-3% EPIDOTE
49	
50	[illegible] PORPHYRITIC
51	

DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo
3.4	74		
2.1	90		
1.3	62		
3.0	100		
3.0	100		
3.1	97		

ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb. Au
1	109146	80	30	292	12	28	.8	2
1	109147	100	3.0	29	8	30	.9	3
1	109148	100	3.0	21	5	35	.5	1
1	109149	100	3.0	27	9	43	.1	2
	10915							

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. (89-2) : EC 165
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 4 OF 5
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

DEPTH (M)	ALTERATION: SILICA	FRACTURING	COMMENTS / DESCRIPTIVE GEOLOGY
52			NOTE: QTZ/CARB VEINLETS GENERALLY DO NOT EXHIBIT SULPHIDE MINERALIZATION.
52–53	MODERATE	WEAK - MOD	IRREGULAR PATCHY QTZ/CARB @ 10-15° W 1-2% DIS PY. IN WALL RX 3-4% EPIDOTE/SERICITE
55–56			QTZ/CARB @ 30° WK. BRECCIATION AT WALL RX CONTACTS.
61		MOD - STRONG	QTZ/CARB TRACERY BECOMES LESS DEFINITE
63			1CM QTZ CARB @ 40°
63.0–81.1			63.0 - 81.1 CHLORITE CONTENT INCREASES TO ≈ 10% GIVING CORE A MORE GREENISH APPEARANCE
65			1CM QTZ/CARB @ 45° CUT AND SLIGHTLY DISPLACED BY CARB STRINGER (≤2mm)

DRILLING INTERVAL	% CORE RECOVERED
3.0	100
3.1	97
2.4	95
3.1	94
1.8	89
1.8	100

% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb. Au
	1	109150	100	3.0	27	8	41	.5	3
	1	109151	100	3.0	25	25	40	.1	1
	1	109152	97	2.9	9	9	17	.1	2
		09153							

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. (89-2) : EC 165
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 5 OF 5
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

DEPTH (M)	ALTERATION: SILICA	FRACTURING	MINERALS	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	AVG. CORE REC'Y/HOLE	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
67					63.5-81.1 - APPLE GREEN (EPIDOTE/SERICITE) ALT. IN		3.1	94		1	109153	93	3.0	20	12	44	.1	1
68					PATCHES AND SURROUNDING QTZ/CARB STRINGERS. LOCALLY CAN REACH 10-15%													
69					BUT OVERALL ≈ 1-2%. TRACERY STILL EVIDENT BUT MORE VEINING ORIENTED													
70					30-45°. SIZE VARYING 1-5mm		1.8	100										
71																		
72	MODERATE	WEAK - MODERATE																
73							4.3	91										
74										1	109154	93	3.0	14	8	24	.4	1
75																		
76																		
77					1cm QTZ/CARB @ 35° 77.2-78.2 - BELOW VEIN DIS Py ≤ 5%. BLEBS ≤3mm.		3.0	100										
78										1	109155	100	1.5	31	35	100	.1	3
79																		
80					XENOLITH ≈ 5cm		3.1	97		1	109164	100	2.6	14	8	27	.2	2
81					END OF HOLE 81.1 m													

COMPOSITE DRILL LOG

CORE SIZE N Q:
SCALE :
PROJECT : MORAGA - RED DOG
HOLE No. (89 - 3) : EC166
CASING COLLAR ELEV.:
GROUND ELEV.:
DATE STARTED : MAY 18/88
PAGE No. 1 OF 5
COORDINATES : 258 797 N. 204722 E.
DATE FINISHED : MAY 19/88
REF. TO CLAIM CORNER :
INCLINATION : -45°
AZIMUTH : 075°
TOTAL DEPTH : 71.9 m (236').
LOGGED BY EDH :

COMMENTS :

AVG. CORE REC'Y/HOLE 81

ALTERATION: SILICA — STRONG

FRACTURING: STRONG (11–12); MODERATE (14.5–17)

DESCRIPTIVE GEOLOGY

OVERBURDEN TO 11.0 M

11.0 - 24.8 Mg GREY FELD PORPHYRY (≤ 4 mm). STRONGLY SILICEOUS. TRACE PALE GREEN EPIDOTE. DIS Py ≤ 1%. MAFICS 10-15%. (INCLUDING CHLORITE 2-5%.) MODERATELY BROKEN w RUSTY FRACTURE COATINGS. OCCASIONAL QTZ/CARB STRINGER. 20-40°

WELL BROKEN 19.6-19.8.

PINK QTZ/CARB STRINGERS @ 40-50°

~ XENOLITH 2CM.

21.5 - 21.7 ROCK PINKISH w GENERALLY GRANITIC APPEARANCE.

DEPTH (M)	DRILLING INTERVAL	% CORE RECOVERED
11	0.6	33
12	1.5	47
13	0.5	100
14–15	2.6	92
16–17	0.9	67
18	2.0	100
19	0.7	100
21	2.5	42
23	1.2	92

% SULPHIDES ESTIMATED No	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb Au
2	109156	100	3.0	406	9	58	.5	2
2	109157	97	3.0	617	9	61	.3	2

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. (89-3): EC 166
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 2 OF 5
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

AVG. CORE REC'Y/HOLE

DEPTH (M)	ALTERATION: SILICA	FRACTURING	MINERALS	GEOLOGY	COMMENTS	DESCRIPTIVE GEOLOGY	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED No	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
						24.8 - 37.0 PINKISH GREY	1.6	100			10957							
25		STRONG				MONZONITE. FELD 60-75%. MAFICS 5-20%	0.5	80										
						(INCLUDING CHLORITE 5-10%).												
26						QTZ - ≤5%.												
27		MOD				26.8 - 32.0 - EPIDOTE/SERICITE ALT	2.7	96										
					IRREGULAR QTZ/CARB STRINGERS	5-10%.												
28																		
29		MOD TO STRONG		△△△	29.1-29.6 - CORE "GROUND" RATHER THAN BRECCIATED. ≤15-20% GRAIN SUPPORTED.		1.9	95										
30		STRONG																
31	WEAK - MOD						1.0	100										
32		MOD			32.0-32.5 CORE APPEARS CLASTIC (M-CG TUFF). FG GREEN MATRIX TO ANGULAR-SURROUNDED FRAG. ≤10mm POSSIBLE GROUND BRECCIA? WEAKLY MAGNETIC DIS SULPHIDES VERY FINE ≤1%. LOWER CONTACT @ 40°		1.4	86		3	109158	90	1.0	692	10	76	.3	7
										6	109159	90	0.5	606	9	70	.4	5
33							1.4	64		3	109160	71	1.0	515	8	58	.2	4
34		STRONG																
35							1.8	89										
36					CONTACT APPEARS GRADATIONAL													
37	MOD - STRONG	MODERATE				37.0 - 39.7 - WEAKLY PORPHYRITIC ≤4mm TO OCCASIONAL XENOLITH	1.7	88										
38						QUITE SILICEOUS. VERY MINOR	0.9	89		2	109161	100	3.0	342	7	30	.4	8
					XENOLITH ≤ 20MM	QTZ/CARB STRINGER ≤1mm												
39						@ 40-50°	0.6	83										

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. (89 - 3) : EC16C
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 3 . OF 5
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

COMMENTS :

AVG. CORE REC'Y/HOLE

DEPTH (M)	ALTERATION: SILICA	FRACTURING	MINERALS	GEOLOGY	DESCRIPTIVE GEOLOGY	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb Au
40					39.7 - 46.6 PINKISH FELDSPAR 30-40% PREDOMINATES. CPy ≤ 1% Py ≤ 0.5%. SPOTTY MAGNETIC (MAGNETITE) CHLORITE 5-10%	0.9	89			109161							
41						1.6	63										
42						1.0	100										
43		STRONG			WEAK TRACES OF QTZ/CARB STRINGERS	1.1	91										
44																	
45	WEAK - MOD.				XENOLITH	3.0	63										
46																	
47					48.1 - 48.3 - SULPHIDES DIS 2-3%. CPy 1-2% Py ≤ 1%. TRACE MAGNETITE				1	109162	60	2.0	117	9	26	.7	2
48					48.7 - SLICKENSIDED FRACTURE @ 10°. SLICKENSIDES @ 50° ⊥ CORE AXIS	2.2	55		1	109163	75	0.4	885	12	42	.8	1
49		STRONG							1	109164	60	2.0	750	7	34	.3	5
50						1.9	63										
51																	
52					MINOR LIMONITIC FRACTURES // CORE AXIS.	1.7	71										
53					53.5 - 55.0 - [illegible] EPIDOTE/SERICITE 10-15%	1.2	42										
54																	

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No (89-3) : EC 166
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 4 OF 5
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH
TOTAL DEPTH m
LOGGED BY :

ALTERATION — SILICA: STRONG (55–58); WEAK - MOD (61–64); WEAK (68–69)

FRACTURING | MINERALS | GEOLOGY

COMMENTS :

AVG. CORE REC'Y/HOLE

DESCRIPTIVE GEOLOGY

DEPTH (M): 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69

58.0-59.2 - WEAKLY PORPHYRITIC, CONTACTS BROKEN BUT APPEAR GRADATIONAL.

XENOLITH — 59.2-59.8 - PINK FELD 50-60% QTZ/CARB STRINGERS @ 20-30°

59.8-60.6 WEAKLY PORPHYRITIC.

FRACTURE @ 35° w EPIDOTE COATING

CONTACT ?

63.1-68.2 - PINK FELD 55-65% lower contact @ 40°

WEAK BRECCIA CHLORITE 20-25%. MINOR LIMONITE ON FRACTURES

68.2 - 70.5 - CHLORITE 15-20%. Soft

DISS. Cpy 1% Py ≤ 0.5%

DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES
2.2	68	
1.8	44	
1.2	50	
0.5	60	
2.0	50	
0.9	44	
0.9	44	
1.2	17	
3.7	81	

ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	Au ppb
2	109165	53	3.0	492	8	26	.4	1
2	109166	75	2.2	649	6	19	.3	1

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. (89-3) : EC 166
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 5 OF 5
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

COMMENTS :

AVG. CORE REC'Y/HOLE

DEPTH (M)	ALTERATION SILICA	FRACTURING	MINERALS	GEOLOGY	DESCRIPTIVE GEOLOGY	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
70	WEAK				70.5 - 71.9 - PINK FELD - 60-65%. QTZ/CARB STRINGERS.	2.4	83		2	109167	70	2.3	550	8	33	.3	1
71	MODERT				71.8 - SLICKENSIDE FRACTURE @ 5-10° SLICKENSIDES @ 20°	0.6 0.9	100 67		3	109168	79	1.4	707	6	15	.1	2
					EOH 71.9 m												

COMPOSITE DRILL LOG

CORE SIZE : NQ.
SCALE :
PROJECT : MORABA RES. RED DOG.
HOLE No. EC 167.
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED : MAY 19/88.
PAGE No. 1 OF 1
COORDINATES : 260984 N. 202115 E.
DATE FINISHED : May 20/88
REF. TO CLAIM CORNER :
INCLINATION : -45°
AZIMUTH : 158°
TOTAL DEPTH : 70.7 m (232 ft).
LOGGED BY CDW :

DEPTH (M)	ALTERATION	FRACTURING	MINERALS	GEOLOGY	COMMENTS : / DESCRIPTIVE GEOLOGY	AVG. CORE REC'Y/HOLE	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS
					0 - 70.7 m OVERBURDEN									
					HOLE ABANDONED.									

COMPOSITE DRILL LOG

CORE S : NQ
SCALE :
PROJECT : MORAGA - RED DOG
HOLE No (89-5) : EC 168
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED : MAY 20/89.
PAGE No. 1 OF 9
COORDINATES : 261837 N 204[illegible] E
DATE FINISHED : MAY 22/89.
REF. TO CLAIM CORNER :
INCLINATION : VERT.
AZIMUTH : -0-
TOTAL DEPTH : 148.8 m (488.0')
LOGGED BY : DH :

DEPTH (M) | ALTERATION | SILICA | FRACTURING | MINERALS | GEOLOGY

COMMENTS :

AVG. CORE REC'Y/HOLE 88

DESCRIPTIVE GEOLOGY

OVERBURDEN TO 20.1 M.

20.

21

22

23

24

25

26

27

28

29

30

31

32

33

POSSIBLY STILL OVERBURDEN.

VERY POOR CORE RECOVERY

SILICA: VERY STRONG / MODERATE

FRACTURING: STRONG

20.1 - 29.3 - XSTAL TUFF. HIGHLY SILICIFIED BUT GRADUALLY LESSENS TOWARDS LOWER CONTACT. GENERALLY CONSISTS OF PLAG. XSTALS (1-4MM) SET IN EQ. CREAM COLOURED MATRIX TUFF BECOMES MORE LITHIC W DEPTH AND GRAIN SIZE DECREASES (≤2MM) SULPHIDES LOCALLY TO 10% BUT OVERALL 3-5% (COMPOSED OF CPY, BORNITE, SCATTERED PY) LOCALLY MAGNETIC.

OCCASIONAL LIMONITIC FRACTURES.

26.5 - 29.3 - FAULT.
CORE BRECCIATED AND GOUGED. BOTH MATRIX AND FRAG. SUPPORTED

CONTACT NOT OBSERVED

29.3 - 38.1 QTZ MONZONITE
FELD. 60-75% QTZ 10-15%
MAFICS 10-15% (CHLORITE ≤ 5%)
EPIDOTE LOCAL ≤ 1%.
PINK M-CG. DIS PY 1%
(LOCAL PATCHES 2-3%)

DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
2.1	20		2	109170	19	2.1	31	8	27	.1	1
1.0	30		1	109171	30	1.0	71	3	67	.1	1
3.0	10		4	109172	10	3.0	166	7	51	.1	4
3.1	26		1	109173	26	3.1	110	11	64	.1	5
0.9	28		1	109174	25	0.9	29	10	61	.5	1
1.2 1.3	58 54		2	109175	56	2.8	64	11	67	.8	1

COMPOSITE DRILL LOG

CORE SIZE :
CASING COLLAR ELEV. :
COORDINATES : N. E.
INCLINATION :
SCALE :
GROUND ELEV. :
AZIMUTH :
PROJECT :
DATE STARTED :
DATE FINISHED :
TOTAL DEPTH : m
HOLE No. EC 168
PAGE No. 2 OF 9
REF. TO CLAIM CORNER :
LOGGED BY :

DEPTH (m)	ALTERATION: SILICA	FRACTURING	COMMENTS	DESCRIPTIVE GEOLOGY
34				
35	MOD.	WEAK		
36				
37			37.6-38.1 WEAK BRECCIA	
38	WEAK	MOD.	CONTACT @ 60° 2cm GOUGE @ 60° 2mm PINK QTZ/CARB @ 60°	38.1-40.1. ANDESITE. F-mg. DK GREEN. WEAK CLASTIC APPEARANCE (TUFF?)
39			2mm QTZ/CARB 1cm BRECCIA CONTACT @ 45°.	DIS. Py ≤2% (EUHEDRAL) SOFT.
40	STRONG	STRONG	QTZ/EPIDOTE STRINGERS @ 35-50°. WEAKLY CALCAREOUS.	40.1-42.6 - INT - MAFIC TUFF VERY SILICIFIED. HIGHLY FRACTURED DIS Py 5% (EUHEDRAL)
41				
42				
43				42.6-50.1 QTZ MONZ M-Cg. CREAM COLOURED FELD - 60-70% QTZ 15-20% CHLORITE 5-10.%. DIS SULPHIDES -2-% Py (POS Cpy). PORPHYRITIC ≤ 4mm
44	STRONG			
45				
46				
47				
48				

AVG. CORE REC'Y/HOLE

DRILLING INTERVAL	% CORE RECOVERED
1.7	100
2.8	87
2.4	88
1.2	83
0.7	71
0.1	100
0.3	83
0.6	25
2.0	45
0.3	100
2.7	86

% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb Au
	1	109176	95	3.0	22	16	79	.9	1
	4	109177	85	21	93	29	94	1.1	1
	1	109178	85	20	61	6	75	.1	1
	1	109179	70	2.5	94	12	145	.1	3
	2	109180	63	2.4	21	10	111	.1	4
	8	109181	84	2.5	36	15	70	.2	2

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. EC168
CASING COLLAR ELEV.:
GROUND ELEV.:
DATE STARTED :
PAGE No. 3 OF 9
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

AVG. CORE REC'Y/HOLE

DEPTH (M)	ALTERATION SILICA	FRACTURING	MINERALS	GEOLOGY	COMMENTS	DESCRIPTIVE GEOLOGY	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED No	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb Au
49							3.1	94		12	109182	96	2.6	22	16	69	1.4	1
50		WEAK.			CONTACT @ 40° 2mm WHITE QTZ/CARB STRINGER @ CONTACT	50.1-65.0 - FELSIC TUFF STRONGLY SILICIFIED W GENERALLY POOR CLASTIC DEFINITION												
51						DIS SULPHIDES 5% (Cpy/Py)	2.1	100		2	109183	93	2.9	36	14	104	.1	2
52		STRONG				CHLORITE 3-8% VERY OCCASSIONAL WHITE QTZ/CARB STRINGERS.												
53					1-4mm WHITE QTZ/CARB @ 40°		1.6	88										
54		MOD					0.6	83										
55	STRONG.						1.2	92		5	109184	90	3.0	71	12	75	.1	1
56																		
57					1mm Q/C		3.0	97		2	109185	100	3.0	33	9	85	.3	3
58		WEAK																
59					5mm Q/C													
60					2mm SULFIDE BAND (Py 80%/Po 20%) @ 60° CUT AND DISPLACED BY 1mm Q/C @ 15° 10mm Q/C					3	109186	100	3.0	48	11	71	.2	3
61					61.6-62.5 - SILICIFIED BRECCIA.	NOTE - 57.3 - 65.0 CORE HAS WEAK "INTRUSIVE" APPEARANCE. POSSIBLY SILICIFIED MONZONITE.	3.1	97										
62																		

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. EC168
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 4 OF 9
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH m
LOGGED BY :

ALTERATION: SILICA — STRONG
FRACTURING — MODERATE

COMMENTS :

AVG. CORE REC'Y/HOLE

DESCRIPTIVE GEOLOGY

DEPTH (M)	DESCRIPTIVE GEOLOGY
64	~ 1CM QTZ/CARB BANDED w DIFFERENT GENERATIONS OF QTZ. TRACE CPY AT CENTRE. @ 45°
65	~ IRREGULAR QTZ/CARB
	65.0 - 75.8 - Int Tuff
66	
67	
68	
69	69.3 - 70.7 - SILICIFIED BRECCIA QTZ/CARB BLEBS w HALO OF EPIDOTE CPY 1% Py 1% MO SMEARS.
70	
71	71.3 - 72.0 - SILICIFIED INTRUSIVE. PINK mg. w TRACE QTZ/CARB. <1% Py
72	72.0 - 75.8 - SILICIFIED BRECCIA
73	72.0 - 73.7 - QTZ/CARB FILLED BRECCIA w EPIDOTE HALO. (5% QTZ/CARB). TALCY GREEN CLAY INFILLING. SULPHIDES ≤ 5% (CPY 2-3%, Py 1-2 %). ✳
74	
75	
76	~ CONTACT @ 35° 75.8 - 79.3 M-cg QTZ Monz PINK. QTZ - 5-10% CHLORITE 5% Dis Py ≤1%.
	76.1 - 76.4 SILICIFIED BRECCIA.
77	
78	

DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb Au
3.0	97		6	109187	104	3.0	58	5	72	.1	2
2.0	100		3	109188	92	2.5	61	9	67	.1	4
1.1	82		1	109189	94	1.8	16	11	61	.1	3
0.9	100										
2.7	96		2	109190	95	2.0	35	9	69	.2	4
			3	109191	100	0.7	6[illegible]	9	69	.3	6
3.1	94		1	109192	100	1.5	1483	37	75	2.9	9.
			1	109193	91	2.3	77	8	75	.1	5
3.0	97		9	109194	100	1.7	12	7	28	.3	1

COMPOSITE DRILL LOG

CORE SIZE :
CASING COLLAR ELEV. :
COORDINATES : N. E.
INCLINATION :
SCALE :
GROUND ELEV. :
AZIMUTH :
PROJECT :
DATE STARTED :
DATE FINISHED :
TOTAL DEPTH m
HOLE No. EC168
PAGE No. 5 OF 9
REF. TO CLAIM CORNER :
LOGGED BY :

COMMENTS :

AVG. CORE REC'Y/HOLE

DEPTH (M) | ALTERATION: SILICA | FRACTURING | MINERALS | GEOLOGY

79
80 — SILICA: STRONG — FRACTURING: MOD
81
82
83
84 — FRACTURING: STRONG
85
86
87
88
89
90
91
92
93

DESCRIPTIVE GEOLOGY

QTZ/CARB STRINGERS.

CONTACT @ 50°

79.3 86.5 - INT TUFF. STRONGLY SILICIFIED. MG. ≤3MM. DARK GREY
DIS PY 1-2%

#109265 Au ch
84.2-84 1m

QTZ/CARB.

82.0-82.3 - SILICIFIED INTRUSIVE

83.1 - 85.2 INTERMIXED INTRUSIVE AND TUFF (INTRUSIVE 60-70%)
CALCITE ON FRACTURE SURFACES

84.3 3CM QTZ VEIN @ 30°
w AMETHYST. PY ≤1% TRACE CPY

QTZ/CARB

86.5 - 89.6 - XSTAL TUFF
FELD PHENOS ≤4mm (LOOKS "PORPHYRITIC") OCCASSIONAL BLEBS OF EPIDOTE. PY ≤0.5%. CHLORITE 5%.
VERY SILICIOUS

89.6 - 92.7 INT MAFIC TUFF
F-mg. FRAG ≤2mm SET IN FG GREEN SILICEOUS MATRIX. DOTTED w PYROXENE XSTALS 5% (≤3mm)
DIS PY ≤0.5%

WEAK QTZ/CARB TRACERY.

DRILLING INTERVAL	% CORE RECOVERED
2.2	91
1.2	92
1.3	80
1.8	78
1.3	85
0.6	100
1.4	93
1.6	83
0.3	50
1.2	75
2.2	91

% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
	4	109195	94	1.8	75	5	30	.2	4
	1	109196	93	2.7	71	5	55	.2	1
	3	109197	84	3.2	75	9	52	.1	4
	2	100198	95	2.8	36	4	56	.2	1
	2	109199	77	3.0	41	7	45	.1	2
	1	109200	100	1.7	40	5	48	.1	2

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. EC 168.
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 6 OF 9
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

ALTERATION: SILICA — STRONG
FRACTURING: MODERATE
MINERALS
GEOLOGY

COMMENTS :

AVG. CORE REC'Y/HOLE

DESCRIPTIVE GEOLOGY

DEPTH (M): 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108

92.7 - 98.2 - ANDESITE.
PORPHYRITIC ~~w~~ PYROXENE / CHLORITE
10-15%. DIS PY ≤ 1%.
CUT BY WEAK TRACERY OF
QTZ/CARB. MINOR EPIDOTE.

100.1 - 1CM QTZ/CARB @ 30°
BOUNDED BY 2CM EACH
SIDE MG TUFF.
3-4% PY

98.2 - 102.4 TUFF(?) AS
WITH 89.6 - 92.7.
DIS PY < 2%

102.4 - 104.0 TUFF. STRONGLY
SILICIFIED. POSSIBLY INTRUSIVE
DIS PY 1-2%.

CONTACT APPEARS GRADATIONAL.

104.0 - 111.1 QTZ-MONZ.
PINK TO GRY. STRONGLY SILICIFIED
4mm QTZ/CARB @ 50°
DIS PY 1%

DRILLING INTERVAL	% CORE RECOVERED
3.0	100
1.2	75
1.6	100
2.4	88
1.5	100
2.5	80
3.0	97

% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
	1	109201	97	3.3	43	3	49	.1	1
	1	109202	91	2.7	42	6	43	.1	1
	1	109203	88	2.8	43	5	39	.1	1
	2	109204	95	3.0	43	7	36	.1	1
	2	109205	96	2.5	24	7	20	.3	1
	5	9206	96	2.5	46	8	22	.1	1

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. EC 168 :
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 7 OF 7
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

COMMENTS :

AVG. CORE REC'Y/HOLE

DEPTH (M)	ALTERATION: SILICA	FRACTURING	MINERALS	GEOLOGY	DESCRIPTIVE GEOLOGY	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS: Cu	Pb	Zn	Ag	ppb Au
109																	
110	STRONG	WEAK				3.1	97		6	109207	90	2.1	19	10	22	.3	1
111					CONTACT GRADATIONAL 111.1 - 115.0 - INTERMIXED SILICEOUS TUFF AND PINK QTZ MONZ. (TUFF 70%.) OCCASIONAL EPIDOTE												
112					AROUND QTZ/CARB STRINGERS ≤1%. DIS Py ≤1%. LOCALLY MAGNETIC.				2	109208	95	1.9	74	12	66	.1	1
113					QTZ/CARB STRINGERS @ 40°	3.0	100										
114									2	109209	100	2.0	59	7	50	.1	2
115					CONTACT @ 40° 115.0 - 117.0 - QTZ FLOODED INTRUSIVE. PINK QTZ 70-80%.	1.2	92										
116					FELD 15-20%. MINOR CHLORITE NO. SULPHIDES.				3	109210	90	2.0	12	3	9	.1	1
117					CONTACT @ 15° TO [illegible] 117.0 - 118.0 POORLY SILICIFIED INT/MAFIC TUFF CHLORITE 10-15%, MINOR EPIDOTE. VERY IRREGULAR QTZ/CARB STRINGERS. DIS Py 1%. LOWER CONTACT @ 80°	1.9	89										
118	MOD WEAK								1	109211	100	1.0	31	7	52	.1	3
119	VERY STRONG			QTZ FLOODED INTRUSIVE	118.0 - 122.9 PINK Mg QTZ MONZ QTZ FLOODED. NO SULPHIDES.	2.7	100										
120									12	109212	98	3.0	9	7	15	.1	2
121																	
122						3.0	100		1	109227	100	2.0	4	6	9	.1	3
123																	

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. EC 168 :
CASING COLLAR ELEV.:
GROUND ELEV.:
DATE STARTED :
PAGE No. 8 **OF** 9
COORDINATES : **N.** **E.**
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

DEPTH (M) | **ALTERATION** | SILICA | **FRACTURING** | **MINERALS** | **GEOLOGY** | **COMMENTS :** | **AVG. CORE REC'Y/HOLE** | **DESCRIPTIVE GEOLOGY**

Depth: 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138

SILICA: WEAK (124–127); WEAK (128–130); MODERATE (131–133); WEAK (133–135); MODERATE (135–138)

Comments:

QTZ/CARB 1-5MM
@ 10-60°

QTZ/CARB @ 20°

Descriptive geology:

122.9-148.7Mg Pink to grey QTZ MONZONITE. QTZ VARIES 5-15% W POSSIBLE SYENITIC SECTIONS. OCCASIONAL FG DK grey XENOLITHS. MAFICS (INCLUDING CHLORITE 10%. OCCASIONAL CALCITE FRACTURE COATING CUT WEAKLY THROUGHOUT BY PINK QTZ/CARB STRINGERS. @ 40-50°. GENERALLY POORLY SILICIFIED

131.0-133.0 - PORPHYRITIC
FELD PHENO 40-50% (≤3mm)

135.1-139.0 PORPHYRITIC.
INTERMIXED W SECTIONS
OF QTZ MONZ @ 40-50°

DRILLING INTERVAL	% CORE RECOVERED
3.1	97
3.2	94
1.4	93
1.5	100
2.1	95
1.2	92
3.1	97

% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
	4	109213	95	3.0	8	8	13	.1	1

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. EC 168.
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 9 OF 9
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

COMMENTS :

AVG. CORE REC'Y/HOLE

DEPTH (M)	ALTERATION	FRACTURING	MINERALS	GEOLOGY	DESCRIPTIVE GEOLOGY	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES ESTIMATED	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS				
139	MOD - STRONG	WEAK			CONTACT @ 35° 139.0 - 141.4 - DK GREY STRONGLY SILICEOUS.											
140					10% WHITE FELD BLEBS. BIOTITE 15-20% CHLORITE 2-5%. WEAKLY MAGNETIC. DIS Py ≤1%.	1.4	100	7	109214	96	2 4	22	6	19	.1	1
141					POSSIBLY SILICIFIED TUFF BUT DOES NOT APPEAR PARTICULARLY CLASTIC.	1.6	94									
142					QTZ/CARB TRACERY											
143	STRONG															
144						3.1	97									
145																
146					2CM BRECCIA 2CM GOUGE @ 45°.	1.5	93									
147								9	109215.	89	3.0	50	11	26	.1	2
148						2.1	86									
					EOH 148.7 M.											

COMPOSITE DRILL LOG

CORE SIZE : NQ
CASING COLLAR ELEV.:
COORDINATES : 261837 N. 204902 E.
INCLINATION : -45°
SCALE :
GROUND ELEV.:
AZIMUTH : 225°
PROJECT : MORAGA - RED DOG
DATE STARTED : MAY 22/89
DATE FINISHED : MAY 24/89
TOTAL DEPTH : 122.8 m 403 FT.
HOLE No. EC169
PAGE No. 1 OF 6
REF. TO CLAIM CORNER :
LOGGED BY EDH :

AVG. CORE REC'Y/HOLE 97

DEPTH (M) | ALTERATION: SILICA | FRACTURING | MINERALS | GEOLOGY | COMMENTS : | DESCRIPTIVE GEOLOGY

DEPTH (M)	SILICA	FRACTURING	COMMENTS	DESCRIPTIVE GEOLOGY
36				OVERBURDEN TO 36.6M.
37	STRONG	VERY STRONG	37.1 - 37.4 - SILICA FLOODING. QTZ 70-80%	36.6 - 37.4 - SILICIFIED INTRUSIVE QTZ MONZ. DIS PY 1%. MG WHITE. FELD 50-60% chlorite 5%
38			38.0 - 38.7 - CORE SHATTERED	
39		MODERATE	PINK QTZ STRINGER @ 40°	37.4 - 50.9 - PALE GREEN TO GREENISH GRY F.MG. TUFF STRONGLY SILICIFIED W POORLY DEFINED CLASTIC TEXTURE (SILICIFIED INTRUSIVE?) GENERALLY WELL FRACTURED. DIS PY 1-2%. SCATTERED MAGNETITE EPIDOTE ≤0.5%.
40			40.0 - 40.7 - PINK MG INTRUSIVE W WHITE ZEOLITE PATCH 40.6 - MANGANESE FRACTURE @ 20°	
41				
42			1CM PINK QTZ @ 35°	
43				
44				
45			45.3 - 46.5 - PINK. INTRUSIVE LOOKING. 1CM QTZ VEIN @ 20° 2-3% SULPHIDES (CPY 1-2% PY ≤1%)	
46		WEAK		
47				
48				
49				
50			49.4 - 50.9. - SILICIFIED BRECCIA MINOR WHITE ZEOLITE MATERIAL ON YOUNGER FRACTURES @ 40°	

DRILLING INTERVAL	% CORE RECOVERED
0.3	67
1.8	100
1.8	83
1.0	70
3.5	97
1.3	85
1.2	92
1.3	85
1.2	100

% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
	3	109216	75	0.8	26	6	26	.2	1
	2	109217	88	2.6	41	9	74	.3	3
	2	109218	97	3.0	91	7	70	.1	2
	7	109219	97	3.0	201	7	77	.1	2
	4	109220	90	3.0	116	5	68	.3	2

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. CC169 :
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 2 OF 6
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

DEPTH (M): 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65

ALTERATION — SILICA: STRONG (51–53.5); MODERATE (54–59); STRONG (60.5–64)

FRACTURING: WEAK (54–59); MODERATE (60.5–64)

MINERALS

GEOLOGY

AVG. CORE REC'Y/HOLE

COMMENTS:

Broken core. Rusty

CONTACT @ 70°

CONTACT @ 45°

Diorite Porphyry

CONTACT @ 40°

59.1-59.6-SILICIFIED INTRUSIVE

contact @ 90°

63.8-63.9 – QTZ FLOODING @ 50°

DESCRIPTIVE GEOLOGY

50.9 - 51.8 · QTZ FLOODED INTRUSIVE. 65-75% QTZ. MINOR WHITE "TALCY" MATERIAL OF FRACTURES. PINK.

51.8 - ~~53.8~~ - M-Cg FELD. PORPHYRY MODERATELY SILICIOUS

53.7 – 59.1 - ~~XSTAL TUFF (?)~~ ANGULAR WHITE FELD (≤3mm) 20% ACICULAR AMPHIBOLE (≤3mm) 10-15% SET IN A PALE GREEN MOD. SILICEOUS MATRIX. OCCASIONAL CALCITE BLEBS. DIS Py 1%. (WEATHERED) DARK BROWN AROUND FRACTURES AND CONTACTS. NO VEINING

59.1 - 60.3 - DK GREEN -GREY INTERMEDIATE TUFF. MAFIC BLEBS CHLORITE ≤5%.

60.3-75.4 – M-Cg FELD. PORPHYRY. FELD PHENO (≤4mm) 30-40% STRONGLY SILICIFIED. CHLORITE BLEBS 5-10%. DIS Py AND FLEKS OF FRACTURE SURFACES ≤1%.

DRILLING INTERVAL	% CORE RECOVERED
0.9	78
3.7	95
3.0	100
3.1	100
2.9	98
2.5	98

% SULPHIDES ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
2	10922	89	1.9	78	2	78	.1	3
2	109222	96	2.8	25	6	30	.2	2
1	109223	93	2.8	17	6	68	.1	3
1	109224	92	2.6	16	6	62	.1	1
2	109225	97	2.9	35	3	55	.2	1
10	109226	100	3.0	11	7	26	.1	1

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. EC 162 :
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 3 OF 6
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

COMMENTS :

AVG. CORE REC'Y/HOLE

DEPTH (M)	ALTERATION: SILICA	FRACTURING	MINERALS	GEOLOGY	DESCRIPTIVE GEOLOGY	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb Au
66					66.8-67.0 QTZ FLOODING @ 50°-60°												
67	MODERATE				67.0 - 75.3 - INTRUSIVE GRADUALLY BECOMES LESS PORPHYRITIC AND HAS A MORE "GRANITIC" APPEARANCE.				4	109228	100	3.0	47	7	28	.1	3
68						3.1	94										
69																	
70		MODERATE			70.9-71.5 DK GREY VERY SILICEOUS. FELD PHENO 5% FG MATRIX. POS TUFF. DIS PY 1%.	1.1	82										
71	ST.					1.6	100										
72					MISLATCH												
73	MOD.					1.3	15										
74	STRONG				73.8-75.3 AS ABOVE	0.6	100										
75					CONTACT NO OBSERVED	1.5	47		12	109229	67	1.5	39	4	17	.1	3
76	MOD				75.3 - 78.2 - DK GREEN ANDESITE. FG MATRIX w 10-15% AMPHIBOLE/CHLORITE PHENO ≤ 3MM. DARKER FINEGRAINED CHILL MARGINS AT EITHER CONTACT ARE MORE HEAVILY SILICIFIED. WEAKLY MAGNETIC. IRREGULAR QTZ STRINGER	0.6	100										
77									1	109230	100	2.8	51	2	46	.1	4
78					CONTACT @ 40°	6.1	92										
79					78.2 - 82.5 - FELD PORPHYRY GREY SILICEOUS. PHENO 5-10%. DIS PY 1%. LOWER CONTACT GRADATIONAL												
80									6	09231	85	2.7	59	3	22	.1	31

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. EC 169 :
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 4 OF 6
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

DEPTH (M)	ALTERATION: SILICA	FRACTURING	MINERALS	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY
81	STRONG				
82					
83					82.5 - ~~88~~.7 - WHITE M-Cg GRANITE. VERY SILICEOUS
84		MODERATE			— Mo. FLAKES
85					
86				△△	86.2 - 86.6 - GREY Fg EXTREMELY SILICEOUS BRECCIA EPIDOTE 2-3%
87					
88					
89				△	88.7 - 90.8 GREY Fg SILICEOUS BRECCIA DIS Py 1% / 88.7 - 97.1 - PREDOMINANTLY PINKISH QTZ MONZ. WITH SECTIONS OF SILICIFIED BRECCIA SILICIOUSNESS VARIES FROM VERY STRONG TO WEAK. GENERALLY DIS Py < 1%.
90				△ △	
91				△	
92	MOD.				
93					
94				△ △ △	93.7 - ~~94~~.5 - SHEAR/BRECCIA @ 40°. WEAKLY SILICIFIED
9.5					

DRILLING INTERVAL	% CORE RECOVERED
4.9	89
2.4	83
1.8	94
2.8	93
3.0	100

% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb Au
	5	109232	91	3.0	73	3	19	.1	3
	2~~3~~	109233	89	2.0	15	14	20	.2	1
	2	109234	100	2.0	11	11	10	.1	3
	6	109235	96	3.0	139	5	12	.1	1
	2	109236	97	3.0	171	3	21	.2	2

AVG. CORE REC'Y/HOLE

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. EC 169 :
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 5 OF 6
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH m
LOGGED BY :

ALTERATION: SILICA — 96–97: MOD; 98–100: WK - MOD; 101: MOD.

FRACTURING: WEAK

AVG. CORE REC'Y/HOLE

COMMENTS :

97.1 - 98.3 - SHEAR/BRECCIA @ 40°. 3CM GOUGE @ 97.3.

CONTACT @ 45°

CONTACT @ 40°

101.9 - 102.5 - ANDESITE DK GREEN - BLACK AMPHIBOLE/CHLORITE BLEBS. XENOLITHS OF INTRUSIVE WALL RC. QTZ/CARB STRINGERS

99.6 - 107.5 - ROCK IS PINK IN COLOUR ALTERATION.

106.8 - 107.6 SHEAR/BRECCIA @ 45°. CARBONACEOUS

DESCRIPTIVE GEOLOGY

97.1 - 99.8 ANDESITE AMPHIBOLE/CHLORITE BLEBS 10-15% WEAKLY CALCAREOUS. CUT BY IRREGULAR PINKISH QTZ STRINGERS EPIDOTE 2-4%.

99.8 - 122.8 - MG QTZ MONZ. MAFIC 20% MODERATELY SILICEOUS. EPIDOTE 1-2% VERY WEAK QTZ. STRINGERS @ 25-50° MINOR WHITE "TALCY" MATERIAL ON FRACTURES.

DEPTH (m)	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED % Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb Au
96				3	105237	84	3.1	62	7	36	.2	17
97												
98	1.5	100										
99				1	105228	95	2.9	47	10	67	.3	12
100	3.1	100										
101												
102												
103	3.0	100										
104												
105												
106	6.1	100										
107				1	105235	100	1.0	44	9	61	.4	9
108												
109												
110												

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. CC169 :
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 6 OF 6
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

DEPTH (M)	ALTERATION: SILICA	FRACTURING	MINERALS	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	AVG. CORE REC'Y/HOLE	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
111																		
112							3.1	100										
113																		
114																		
115					115.0 - 122.8 - QTZ CONTENT BEGINS TO DECREASE AND EVENTUALLY REACHES ≤3% WITH MAFICS (AMPHIBOLE/CHLORITE INCREASING TO 25%.					4	109240	100	3.0	20	3	28	.1	12
116							6.2	100										
117	MODERATE	WEAK			5MM QTZ VEINS @ 40°													
118																		
119																		
120																		
121							3.0	100										
122																		
					EOH 122.8 m (403')													

COMPOSITE DRILL LOG

CORE SIZE : NQ
CASING COLLAR ELEV :
COORDINATES : 262049 N. 805161 E.
INCLINATION : -45.
SCALE :
GROUND ELEV. :
AZIMUTH : 225°
PROJECT : MORAGA - RED DOG
DATE STARTED : MAY 24/88
DATE FINISHED : MAY 25/88
TOTAL DEPTH : 128.0 m (420'.).
HOLE No. EC 170 :
PAGE No. 1 OF 6
REF. TO CLAIM CORNER :
LOGGED BY EDH :

COMMENTS : ACID TEST (420') 128m - 40°

AVG. CORE REC'Y/HOLE 96.

DEPTH (M) | ALTERATION: SILICA | FRACTURING | MINERALS | GEOLOGY | DESCRIPTIVE GEOLOGY

DEPTH (M): 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56

SILICA: STRONG

FRACTURING: STRONG

DESCRIPTIVE GEOLOGY

OVERBURDEN TO 43.6.

43.6 - 56.0 M-G [illegible]
GREY TO PINK CORE WELL [illegible].
GENERALLY MINOR LIMONITE ON
FRACTURE SURFACES. OCCASIONAL
AMPHIBOLE LATHS ≤5MM TO [illegible]
APPARENT PREFERRED ORIENTATION.
OCCASIONAL EPIDOTE PATCHES
AND STRINGERS. SCATTERED
MAGNETITE GRAINS.

50.2 - 52.9 - STRONG
BRECCIA. BROKEN FRAGMENTS
SET IN SILICIFIED GOUGE
[illegible] LIKE CEMENT.

56.0 - 82.5 - FELD PORPHYRY
STILL MONZONITE TO MORE PROMINENT
FELD GRAINS.

DRILLING INTERVAL	% CORE RECOVERED
1.2	75
1.5	60
2.8	79
0.6	100
3.0	90
3.1	100
3.0	110

% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
	4	109241	87	3.0	14	9	95	.1	19

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. EC 170:
CASING COLLAR ELEV.:
GROUND ELEV.:
DATE STARTED :
PAGE No. 2 OF 6
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

COMMENTS :

AVG. CORE REC'Y/HOLE

DEPTH (M)	ALTERATION SILICA	FRACTURING	MINERALS	GEOLOGY	DESCRIPTIVE GEOLOGY	DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
58					58.4-58.6 - FG INT TUFF. VERY SILICEOUS CONTACTS @ 40°. WEAKLY EPIDOTIC 5-10% EPIDOTE IN WALL RX AT EITHER CONTACT												
59																	
60	STRONG				60.0 - 53.0 - PINK FELD. [illegible]	1.9	89										
61						1.2	92		1	109212	93	3.9	4	6	36	.1	16
62		MODERATE															
63																	
64						3.0	90										
65					5mm QTZ/CARB. @ 40° CARBONATE CONCENTRATED AT CENTRE OF STRINGER.												
66					2mm QTZ/CARB @ 25°												
67						3.1	97										
68																	
69					1CM QTZ/CARB @ 45° 10-15% EPIDOTE @ WALL AT CONTACT												
70						3.0	150		1	109213	100	3.0	14	10	71	.1	7
71																	
72																	

COMPOSITE DRILL LOG

CORE SIZE :	SCALE :	PROJECT :	HOLE No. EC 170 :
CASING COLLAR ELEV. :	GROUND ELEV. :	DATE STARTED :	PAGE No. 3 OF 6
COORDINATES : N. E.		DATE FINISHED :	REF. TO CLAIM CORNER :
INCLINATION :	AZIMUTH :	TOTAL DEPTH m	LOGGED BY :

DEPTH (m) | ALTERATION: SILICA | FRACTURING | MINERALS | GEOLOGY | COMMENTS: | AVG. CORE REC'Y/HOLE | DESCRIPTIVE GEOLOGY | DRILLING INTERVAL | % CORE RECOVERED | % SULPHIDES | ESTIMATED Mo | SAMPLE No. | % SAMPLE RECOVERED | SAMPLE INTERVAL (M) | ASSAYS: Cu, Pb, Zn, Ag, ppb Au

Depth marks: 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87

SILICA: STRONG

FRACTURING: MODERATE

72.2-82.5 - [illegible]

COLORATION:

1cm VUGGY QTZ/CARB @ 40°

79.4-82.5 - DIS Py ≤2%

EPIDOTE 1-2%.

5MM QTZ/CARB @ 70° OFFSET BY HAIRLINE FRACTURE @ 45°

CONTACT @ 45°

82.5-86.4 - ANDESITE

& SILICEOUS DK GREY

CHLORITE 3-4%. DIS Py 1%.

83.4-83.5 - mg GRAPHITIC BAND w 5% Py

QTZ/CARB STRINGERS 05-70°

86.4-90.7 - BRECCIA (EX ANDE)

CUT BY WEAK QTZ/CARB STRINGERS

AT ALL ANGLES

DRILLING INTERVAL	% CORE RECOVERED
3.1	94
3.0	93
3.1	97
3.0	100
3.1	97

ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb Au
2	109244	97	3.0	34	11	106	.2	4
1	109245	90	2.0	75	36	83	.2	4
1	109246	39	1.9	66	11	68	.3	5

COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. EC 170
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 4 OF 6
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

DEPTH (M)	ALTERATION: SILICA	FRACTURING
88		
89	STRONG	WEAK
90		
91		
92	MODERATE	MODERATE
93		
94	WEAK	WEAK
95		
96		
97	STRONG	
98		
99		
100		
101		
102		

MINERALS

GEOLOGY

COMMENTS :

AVG. CORE REC'Y/HOLE

DESCRIPTIVE GEOLOGY

87.1 - 10CM PINK QTZ VEIN @ 60°
TRACE Py @ UPPER CONTACT

88.0 - 15CM PINK QTZ VEIN @ 60°

89.7 - 10CM PINK QTZ VEIN @ 50°

15CM SILICEOUS SAND ABOVE CONTACT

10CM GOUGE @ CONTACT

90.7 - 93.0 LITHIC TUFF
F-MG. SILICEOUS. FRAGMENTS ≤5MM
30-40% OF RX. DIS Py 1-2%
PALE GREEN.

GOUGE 92.5-93 @

93.6-94.7 - SHEAR/BRECCIA @ 35-50° SOFT

93.0-97.9. TUFF(?) MIXTURE OF FRAGMENTAL TUFF AND INTRUSIVE MATERIAL GENERALLY APPEARS CLASTIC AND/OR BRECCIATED. EPIDOTE 10-15%.
DIS Py ≤2%

97.9- 100.0 - FG ANDESITE (POSSIBLY TUFFACEOUS) WEAK CLASTIC TEXTURE W SCATTERED QTZ BLEBS GENERALLY ROUNDED TO SUBROUNDED MODERATELY SILICEOUS. CHLORITE 15%.
DIS Py 1-2%

CONTACT @ 80°

WEAKLY CALCAREOUS QTZ STRINGERS & EPIDOTE.

1cm GOUGE @ 80°

100.0 - 101.0 - PREDOMINANTLY INTRUSIVE FRAGMENTS.

100.0 - 103.4 TUFF. VERY SILICEOUS. APPEARS VAGUELY CLASTIC BUT TEXTURE DESTROYED BY SILICA OVERPRINT
DIS Py 2-3% EPIDOTE 5%

DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED % Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
3.0	100		2	109247	100	3.0	21	10	59	.2	1
2.7	96		3	109248	85	1.3	11	10	65	.1	2
			4	109249	91	2.3	22	38	86	.4	4
3.1	97		2	109250	100	2.5	45	7	63	.3	3
3.0	100		3	109251	92	2.4	7	15	50	.1	5
3.1	97		1	109252	80	2.1	58	8	52	.1	1
			4	109253	100	2.3	147	19	59	.2	1

COMPOSITE DRILL LOG

CORE SIZE :
CASING COLLAR ELEV. :
COORDINATES : N. E.
INCLINATION :
SCALE :
GROUND ELEV. :
AZIMUTH :
PROJECT :
DATE STARTED :
DATE FINISHED :
TOTAL DEPTH : m
HOLE No. EC170 :
PAGE No. 5 OF 6
REF. TO CLAIM CORNER :
LOGGED BY :

ALTERATION — SILICA: STRONG (102.3–103.4); VERY STRONG (103.4–114.6); VERY STRONG (below)
FRACTURING: WEAK

COMMENTS :

AVG. CORE REC'Y/HOLE

DESCRIPTIVE GEOLOGY

102.3 - 103.4 - INTENSIVE · SILICEOUS. HAIRLINE QTZ/CARB EPIDOTE 2-3%

103.4 - 114.6 - VERY STRONGLY SILICIFIED ANDESITE (TUFF?) BRECCIA DIS Py 2-3% EPIDOTE ≤ 1%.

105.6 - BLEBS OF CALCITE ≤ 5mm SURROUNDED BY 2-3mm HALO OF EPIDOTE

1cm QTZ VEIN @ 20°

108.6 - CALCITE BLEBS W EPIDOTE HALOS.

contact @ 50°

114.6 - 115.4 - SILICEOUS MONZONITE EPIDOTE ON ~~FRACTURES~~

CONTACT @ 45°

114.6 - 128.0 ANDESITE Fg GREY-GREEN VERY STRONG SILICIFICATION. St. AMPHIBOLE

DEPTH (M)	DRILLING INTERVAL	% CORE RECOVERED
102–105	3.0	100
105–108	3.1	97
108–111	3.0	100
111–114	3.1	97
114–117	3.0	100

% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	Cu	Pb	Zn	Ag	ppb Au
	5	109254	91	1.1	67	9	83	.1	1
	3	109255	100	3.0	95	14	88	.3	1
	1	109256	77	3.0	77	14	83	.2	3
	5	109257	100	3.0	53	15	91	.2	2
	3	109258	95	2.2	20	11	101	.2	2
	23	109259	90	0.8	32	10	44	.1	1
	2	109260	100	3.0	30	6	69	.1	1

DEPTH (M): 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117

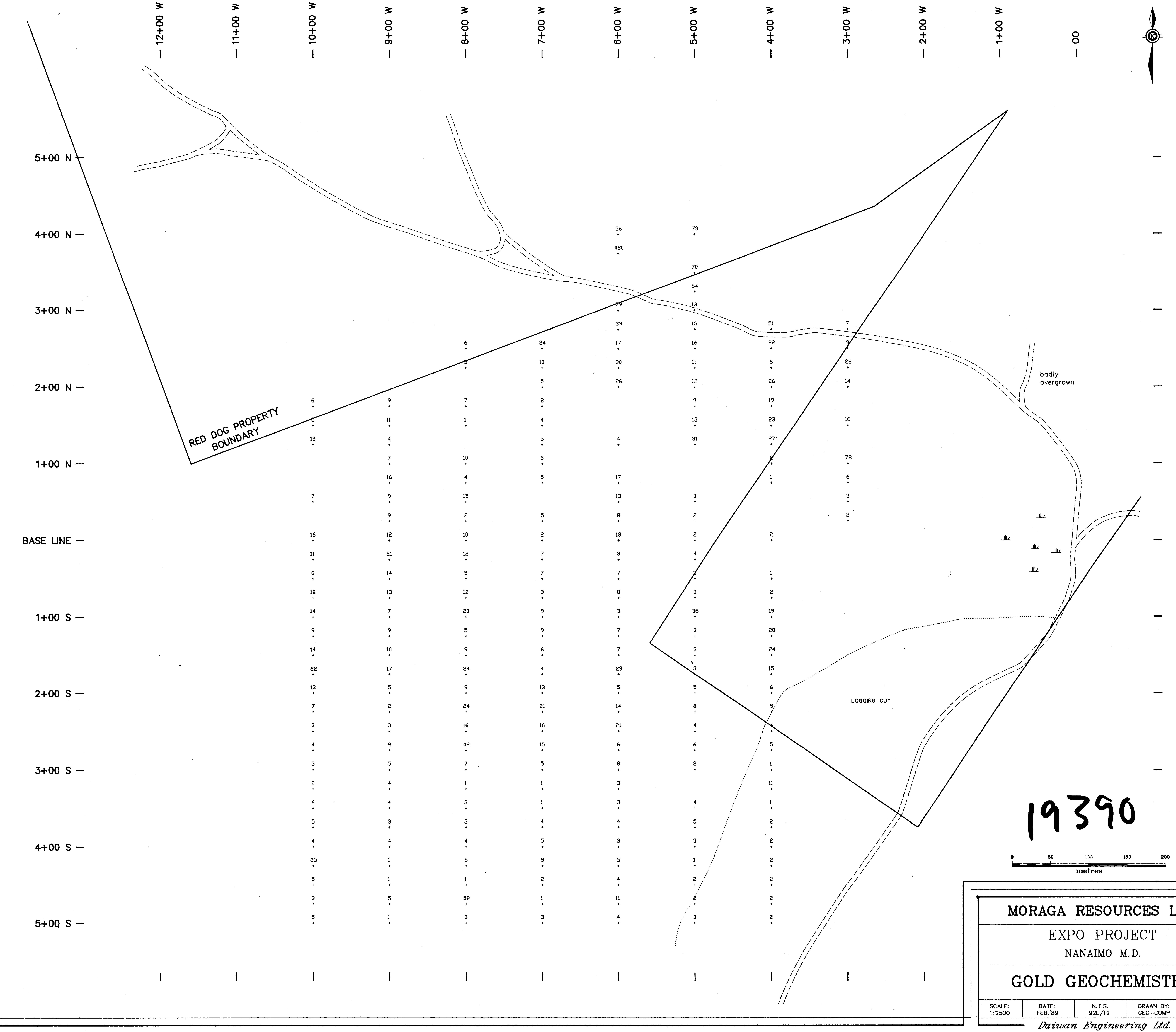
COMPOSITE DRILL LOG

CORE SIZE :
SCALE :
PROJECT :
HOLE No. EC 170 :
CASING COLLAR ELEV. :
GROUND ELEV. :
DATE STARTED :
PAGE No. 6 OF 6
COORDINATES : N. E.
DATE FINISHED :
REF. TO CLAIM CORNER :
INCLINATION :
AZIMUTH :
TOTAL DEPTH : m
LOGGED BY :

ALTERATION: STRONG
FRACTURING: WEAK

DEPTH (M)	COMMENTS: / DESCRIPTIVE GEOLOGY
118	
119	
120	120-121 - QTZ/CARB STRINGERS
121	
122	
123	
124	
125	123.8 - 124.4 - SILICIFIED BRECCIA
126	
127	127.1 - 4CM QTZ/CARB VEIN @ 50° IRREGULAR QTZ CARB STRINGERS
128	EOH 128M (420')

DRILLING INTERVAL	% CORE RECOVERED	% SULPHIDES	ESTIMATED Mo	SAMPLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)	ASSAYS Cu	Pb	Zn	Ag	ppb Au
3.1	100										
3.0	100		5	109261	100	3.0	19	11	64	.2	1
			3	109262	88	1.6	62	5	50	.1	1
2.6	92		3	109263	100	3.0	22	10	57	.2	1
2.5	100		2	109264	95	2.0	17	7	33	.1	1



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MORAGA RESOURCES LTD.

EXPO PROJECT
NANAIMO M.D.

GOLD GEOCHEMISTRY

SCALE:	DATE:	N.T.S.	DRAWN BY:	FIGURE:
1:2500	FEB.'89	92L/12	GEO-COMP	9

Daiwan Engineering Ltd.

"RE-ASSAY OF SAMPLES COLLECTED BY BHP-UTAH MINES LTD. IN 1968"

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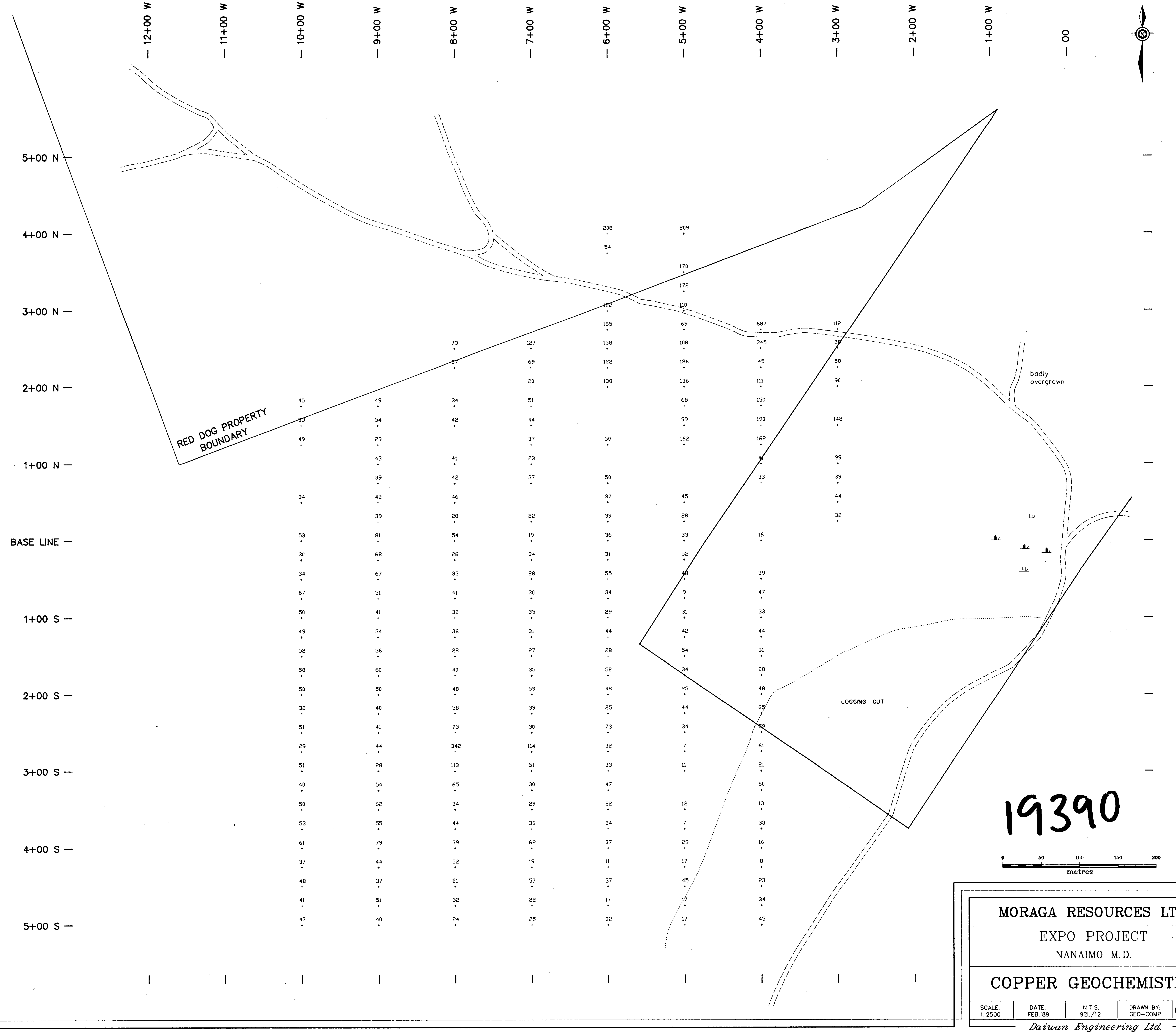
EXPO PROJECT
NANAIMO MINING DIVISION, B.C.

REGIONAL SAMPLE LOCATIONS
&
GRID LOCATION MAP

DAIWAN ENGINEERING LTD.

SCALE	DATE	NTS.	FIG.
1: 30,000	SEPT., 1989	92L/12	6



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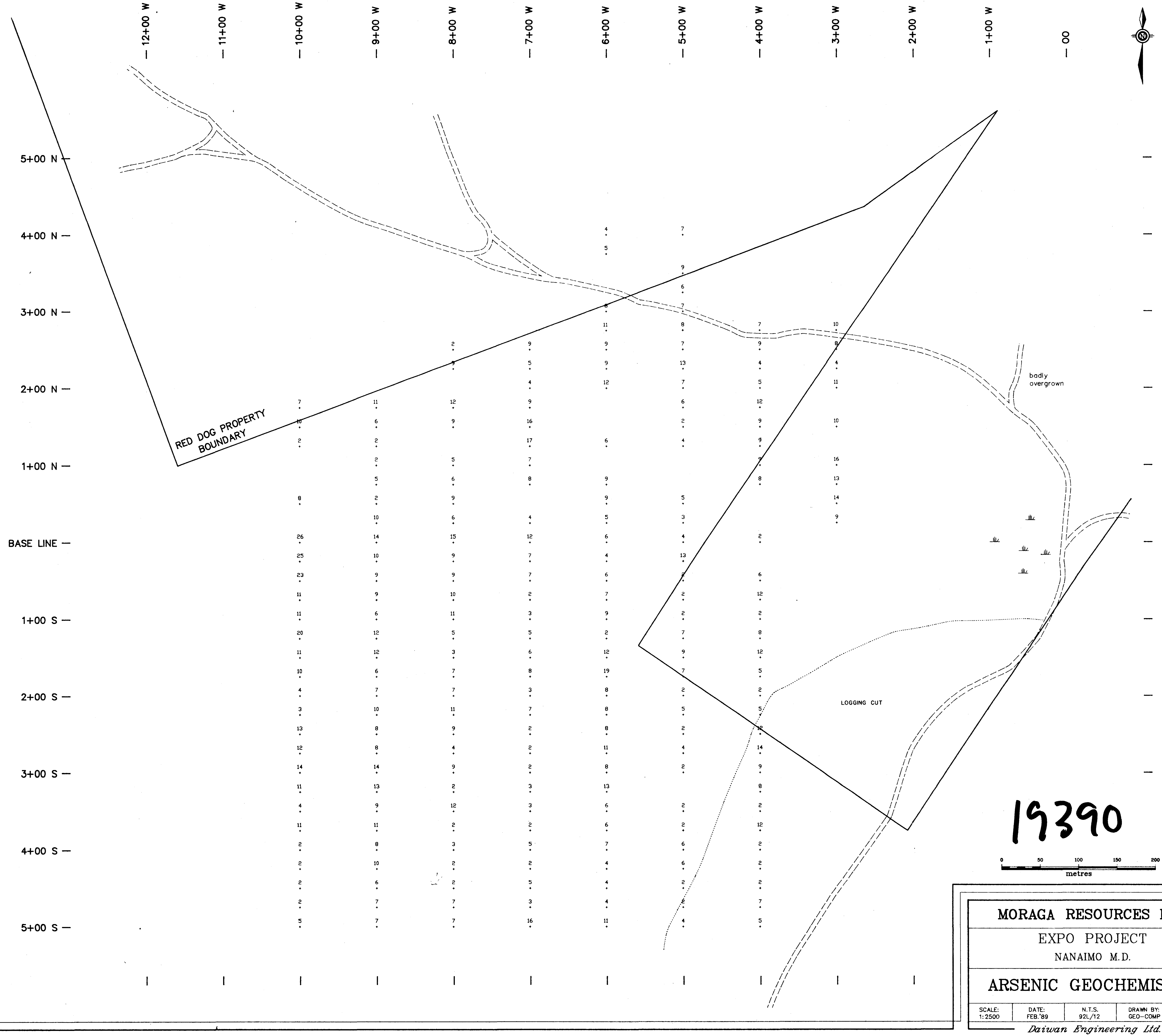
MORAGA RESOURCES LTD.

EXPO PROJECT
NANAIMO M.D.

COPPER GEOCHEMISTRY

SCALE:	DATE:	N.T.S.	DRAWN BY:	FIGURE:
1:2500	FEB.'89	92L/12	GEO-COMP	11

Daiwan Engineering Ltd.



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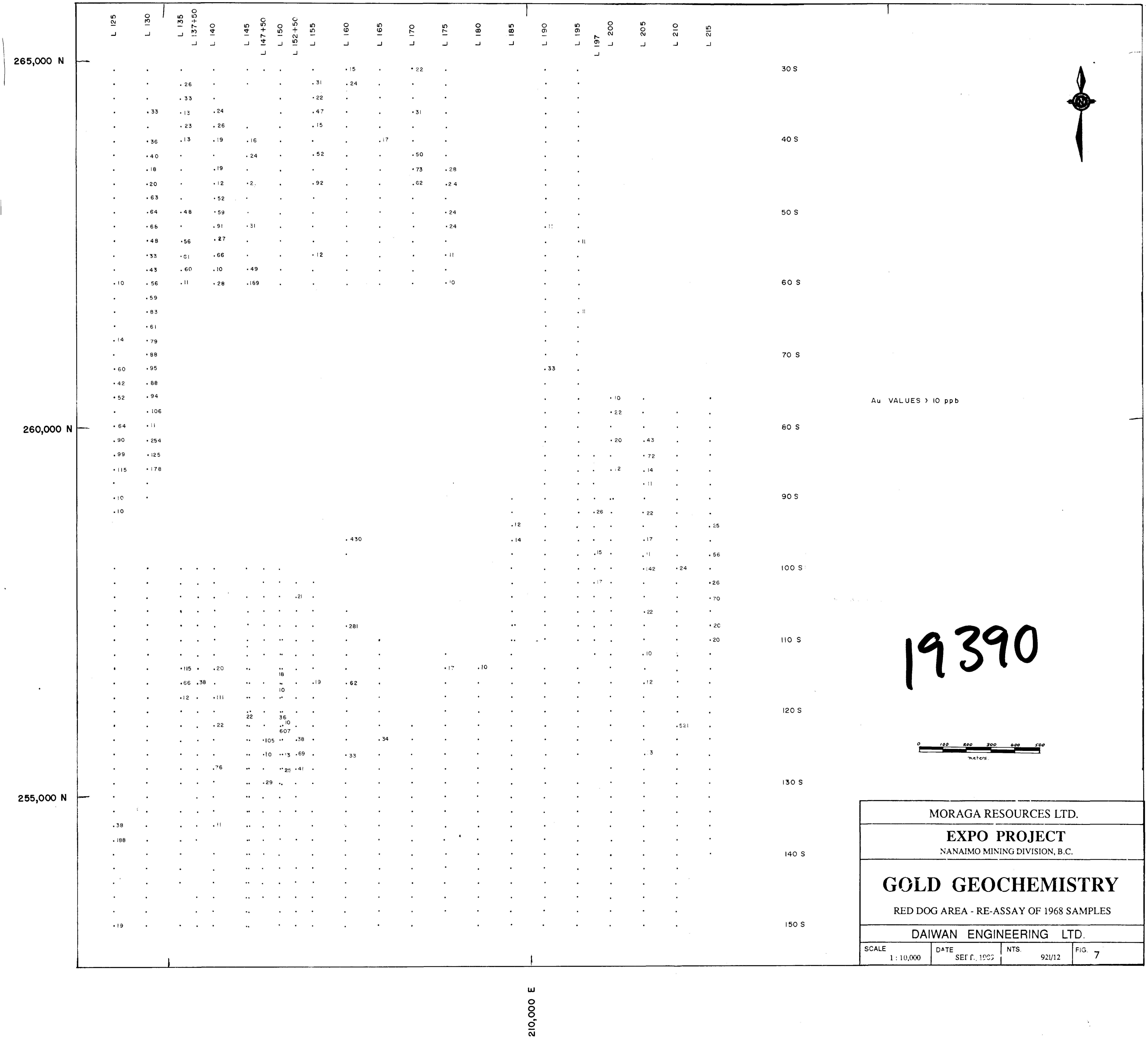
EXPO PROJECT

NANAIMO M.D.

ARSENIC GEOCHEMISTRY

SCALE:	DATE:	N.T.S.	DRAWN BY:	FIGURE:
1:2500	FEB.'89	92L/12	GEO-COMP	10

Daiwan Engineering Ltd.



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EXPO PROJECT

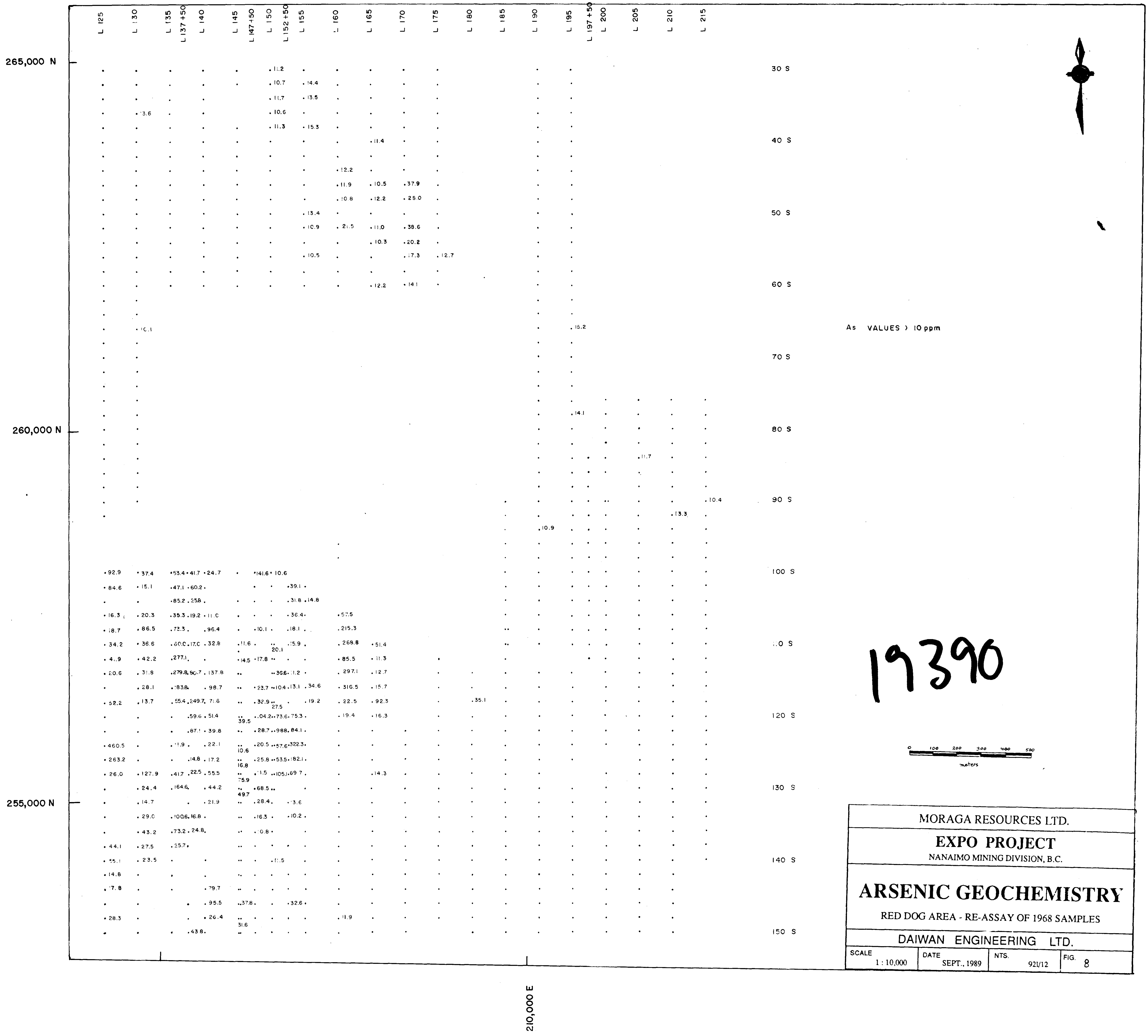
NANAIMO MINING DIVISION, B.C.

GOLD GEOCHEMISTRY

RED DOG AREA - RE-ASSAY OF 1968 SAMPLES

DAIWAN ENGINEERING LTD.

SCALE	DATE	NTS.	FIG.
1 : 10,000	SEPT., 1989	92I/12	7



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EXPO PROJECT

NANAIMO MINING DIVISION, B.C.

ARSENIC GEOCHEMISTRY

RED DOG AREA - RE-ASSAY OF 1968 SAMPLES

DAIWAN ENGINEERING LTD.

SCALE	DATE	NTS.	FIG.
1 : 10,000	SEPT., 1989	92I/12	8