

Draft

INTERIM REPORT

860852

FOR THE

PHASE I

1990 DIAMOND DRILLING

ON THE

KNUT PROJECT

KAMLOOPS MINING DIVISION

N.T.S. 92-I-9

LATITUDE  $50^{\circ} 36'$ , LONGITUDE  $120^{\circ} 20'$

OWNER: SALOR SCIENTIFIC INC.  
OPERATOR: PLACER DOME INC.

R. B. Pease  
R. W. Cannon, P. Eng.

July, 1990

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## SUMMARY

A total of 1204.9 metres of diamond drilling was carried out in nine holes. Drill holes were targeted to test generally coincident chargeability anomalies, copper and/or gold soil anomalies, and in one case a VLF-EM anomaly.

The drilling intersected rocks of diorite to syenite composition which generally displayed a potassic and/or propylitic alteration assemblage. Abundant fracture fillings and veins of quartz, pyrite, gypsum, and chlorite were intersected. Sufficient pyrite concentrations were found to explain the observed chargeability anomalies. The drill holes are generally indicative of rocks that could be expected proximal to a copper porphyry system.

Anomalous copper values over significant widths were determined in holes 90-1 and 90-4. This data combined with the observed alteration pattern, suggests better grade mineralization may be located further to the west. More drilling is recommended to test this hypothesis.

## INTRODUCTION

The target mineralization is a porphyry style copper-gold deposit. Several occurrences of this type of mineralization are hosted by the Iron Mask batholith which underlies most of the property. Examples of other deposits would include the Ajax, located 4.0 kilometres west of the property, which is currently in production. Another example is the now exhausted Afton deposit located 13 kilometres northwest of the property.

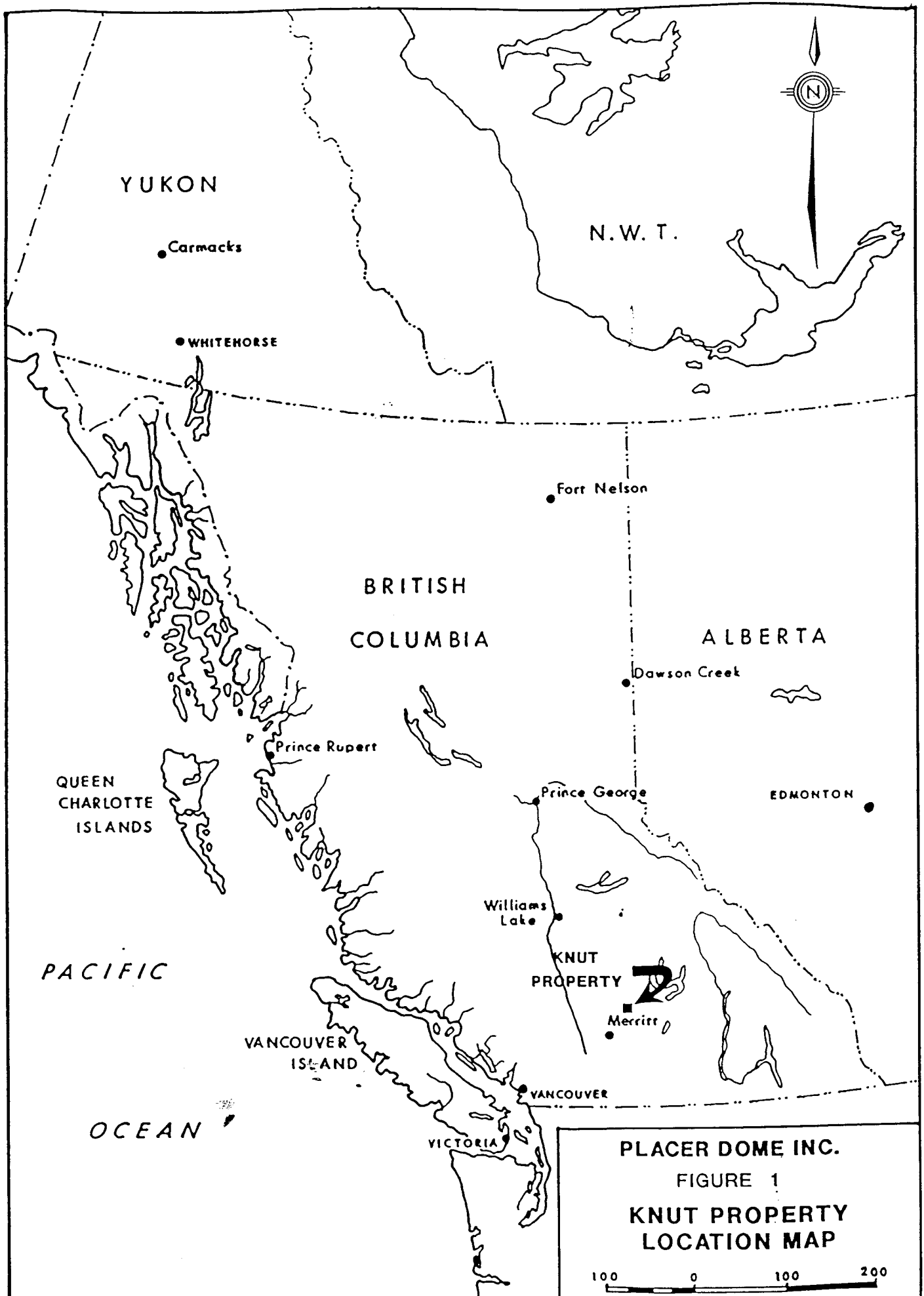
Previous exploration on the property has determined that porphyry style copper mineralization occurs. The objective of the 1990 diamond drilling program was to test areas of previously determined copper and gold soil geochemical anomalies which had coincident anomalous chargeability effects.

## LOCATION AND ACCESS

The Knut property is located approximately 300 kilometres northeast of Vancouver and 7.0 kilometres south of downtown Kamloops, in the rural area of Knutsford (see Figure 1). The claims are roughly centred at 50° 36' latitude and 120° 20' longitude on NTS map sheet 92I/9.

The old Kamloops/Merritt highway crosses the eastern margin of the property. Secondary roads provide easy access to most of the claim block (see Figure 2).





## CLAIM STATUS

The Knut property consists of six modified grid mineral claims, three fractional claims, and one reverted crown grant. A claim schedule is listed below and the claims are shown on Figure 2. Significant portions of the MD-1 and MD-8 claims are overstaked on pre-existing claims which are not part of the subject property. All of the claims are located on deeded land.

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry Date</u>	<u>Owner</u>
MD-1	10	6079	Feb. 22, 1998	M. McElgunn
MD-2	16	6080	Feb. 22, 1998	M. McElgunn
MD-3	8	6081	Feb. 22, 1998	M. McElgunn
MD-4 Fr.	1	6099	Mar. 29, 1999	M. McElgunn
MD-5 Fr.	1	6100	Mar. 29, 1999	M. McElgunn
MD-6 Fr.	1	6101	Mar. 29, 1999	M. McElgunn
MD-7	12	8913	Oct. 24, 1999	Placer Dome Inc.
MD-8	6	8927	Oct. 31, 1999	Placer Dome Inc.
Knut	4	8212	Dec. 20, 1999	Placer Dome Inc.
Dispatcher	1	7448	Dec. 24, 1999	M. McElgunn

## PHYSIOGRAPHY AND CLIMATE

The property covers gently rolling open grasslands of the interior plateau. Elevations range from 840 to 980 metres. Land use is agricultural, as most of the property is used for grazing cattle with some minor hay production.

Summer temperatures can exceed 30 degrees centigrade and will fall as low as -20 degrees in winter. Annual precipitation is generally under 25 centimetres. Reasonable weather conditions for exploration work can be expected from April to November.

## HISTORY

Exploration was conducted in the area of the current claims in the period from 1969 to 1973. This work consisted of soil sampling, magnetometer and VLF-EM, and induced polarization surveys, followed by percussion and diamond drilling. These surveys were conducted by Great Plains Development Ltd., Royal Canadian Ventures Ltd., and Craigmont Mines Ltd.

The results determined copper-in-soil, and IP metal factor anomalies. The known pre-1990 drill holes are plotted on Figure 4. Their locations are reproduced from Murphy (1988). Attempts to define their precise location in the field or from airphotos were unsuccessful. Porphyry

style copper mineralization was encountered in some of the drill holes clustered around 3250N/2200E. It is unknown if significant mineralization was intersected in any other holes. Most of the drill holes were vertical and likely less than 70 metres in length.

Placer Dome Inc. reviewed the available property data in mid-1989 and determined that significant favourable areas remained to be tested, and subsequently optioned the property. In the fall of 1989, Placer Dome conducted an integrated program of soil sampling, magnetometer and VLF-EM, and induced polarization surveys. These surveys defined three zones of anomalous chargeability effects, two of which had corresponding copper and/or gold soil geochemical anomalies.

## REGIONAL GEOLOGY

The following discussion has been largely extracted from Northcote (1976) and Kwong (1987).

The Knut property is situated within the southern portion of the Iron Mask batholith. This multiphase, alkaline batholith lies within the Nicola Belt portion of the Quesnel Trough in the Intermontane tectonic belt of the Canadian Cordillera. The Nicola Belt is characterized by Late Triassic volcanic and sedimentary rocks of the Nicola Group that have been intermittently intruded by coeval and comagmatic alkaline plutons, such as the Iron Mask batholith. Early Tertiary sedimentary and volcanic rocks of the Kamloops Group and Miocene-age basaltic flows and volcanoclastics unconformably overlie the Nicola strata and the various intrusive rocks, usually within graben structures.

The Iron Mask batholith is an Upper Triassic-Jurassic age intrusive complex, elongated in a northwest-southeast direction with an exposure length of 20 kilometres and an average width of 4.0 kilometres (see Figure 3). It is comprised of four major units; Iron Mask Hybrid, Pothook, Sugarloaf, and Cherry Creek. These units are generally fine grained and sometimes porphyritic. They range from gabbro to syenite composition with diorite predominating. Northwesterly, northerly, and northeasterly trending recurring fractures or faults controlled emplacement of the various Iron Mask units. The Iron Mask batholith hosts numerous "porphyry" type mineral occurrences.

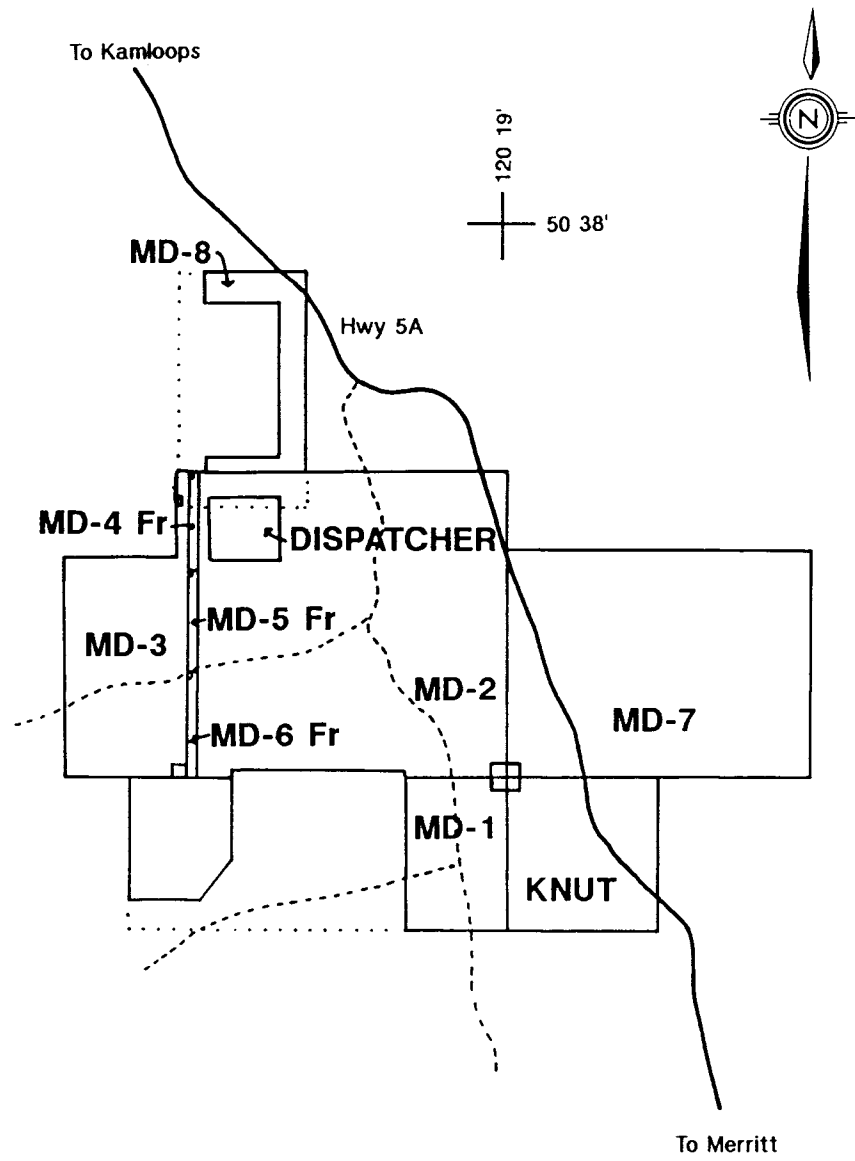
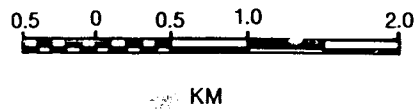


Figure 2



**PLACER DOME INC.**

**CLAIM MAP  
KNUT PROPERTY  
V250  
NTS 921/9**

Drawn: RBP

Date: 13/12/89

## PROPERTY GEOLOGY

The distribution and descriptions of the various rock types on the property have been compiled from Northcote (1977) and Kwong (1987). The major rock units are shown on Figure 4.

The oldest rock units in the map area are three phases of the Iron Mask batholith. The Iron Mask Hybrid (1) is exposed on the western flank and the northern tip of the property. It is generally described as a melange of intrusive rock, composed of rounded to angular fragments of various sizes, texture and composition in a dioritic matrix. The fragments, which can make up more than 80 per cent by volume of the rock, include mainly coarse and fine grained diorite and coarse grained gabbro with lesser amounts of medium to coarse grained hornblende and scattered xenoliths of Nicola Group volcanic rocks.

The Sugarloaf unit (4) is exposed as a small enclosed body in the southern portion of the map area. This unit is a porphyritic rock of diorite to andesite composition. A distinguishing feature is the presence of hornblende and/or augite phenocrysts.

The Cherry Creek unit (5) occupies a central belt of the map area. This unit is weakly to strongly porphyritic, fine grained, and ranges in composition from diorite to syenite. A speckled texture is characteristic which results from a clustering of fine grained mafic minerals.

Triassic Nicola Group volcanic rocks (7) dominate the eastern flank of the map area. They are mainly tuff and tuff breccia with multi-coloured fragments and are commonly very hematitic.

Tertiary Kamloops Group rocks (9) compose a prominent hill in the east-central portion of the map area. These rocks unconformably overlie the Iron Mask batholith and the Nicola Group rocks. They are mainly of basaltic composition and occur as vesicular flows and flow breccia.

## DIAMOND DRILLING PROGRAM

The program consisted of 1204.9 metres of NQ wireline diamond drilling spread over nine holes. The drilling contractor was Atlas Diamond Drilling of Kamloops. A skid-mounted Longyear Super-38 rig was utilized. Minimal access road and pad construction was required as the target area is open grassland. Drilling commenced 19 April and was completed 8 May, 1990.

The core was transported to Placer Dome's warehouse facility in Kamloops for logging and sampling. The core was logged by two geologist, Kelly Edwards and Marc Deschenes, under the direct daily supervision of R. Pease. The core was sampled continuously in geologically controlled intervals generally varying from 2.0 to 3.0 metres. Marked intervals were split by a technician using a hand operated core splitter, with one half placed in plastic sample bags and the other half returned to the core box. Samples were shipped to Placer Dome's Research facility in Vancouver for geochemical determination of gold, silver, copper, and molybdenum. The core is stored in Placer Dome's Kamloops warehouse.

The 1990 drill hole collar locations are plotted on Figure 4. The drill logs and assay results are recorded in Appendix I. Geologic cross-sections displaying the drill hole trace and target data are included as Plates I to VI.

## DISCUSSION OF RESULTS

The following discussion assesses the 1990 diamond drill program on a cross-section by cross-section basis. Determined metal values for selected intervals are listed in the following table.

<u>Hole</u>	<u>From</u>	<u>To</u>	<u>Length (m)</u>	<u>Cu (ppm)</u>	<u>Au (ppb)</u>
90-1	10.0	130.0	120.0	1677	9
90-2	46.6	47.3	0.7	8400	545
	83.3	83.9	0.6	2060	225
90-4	35.0	45.0	10.0	1499	131
	65.0	120.0	55.0	1259	54
90-5	111.7	112.6	0.9	250	100
90-7	78.1	80.5	2.4	344	370
	152.2	154.2	2.0	150	715

### Section 3900

Diamond drill holes 90-1, 90-2, and 90-3 were drilled in a fence pattern on line 3900 north to test copper and gold soil anomalies and a coincident greater than 20 millisecond chargeability (n=2) anomaly.

Hole 90-1 intersected mainly fine grained diorite. The rock is principally composed of plagioclase with lesser amounts hornblende, quartz, and biotite. It

displays a high density of medium to high angle cross-cutting fractures and veins. These structures contain quartz, pyrite, gypsum, epidote, and chlorite. They are sometimes enveloped by an alteration suite of sericite and potassium feldspar. Hole 90-1 averaged 1479 ppm copper over its entire length. Minor chalcopyrite and rare bornite were noted, but not in sufficient quantity to explain the determined copper values. Petrographic analysis determined that very fine grains of chalcopyrite occur as inclusions with pyrite grains. This type of occurrence is believed to account for the determined copper levels.

Holes 90-2 and 90-3 intersected mainly hybrid diorite. The rock is similar in composition to the diorite of hole 90-1, but displays a brecciated texture, with common inclusions of volcanic and rarer sedimentary rock types. Fracture fillings and veins of quartz, pyrite, gypsum, epidote, and chlorite are common as in hole 90-1. Alteration can be characterized as dominantly propylitic, as compared to a more potassic/propylitic suite in hole 90-1.

Two small zones of massive actinolite, pyrite, and magnetite skarn were intersected in hole 90-2. These zones returned values of 8400 and 2060 ppm copper, and 545 and 225 ppb gold, respectively. The significance of this mineralization is not understood.

There is a clear gradient in the average copper values across section 3900, as they increase from east to west. This factor, combined with the observed alteration sequence of propylitic to potassic in an east to west direction, indicates that better grade porphyry style mineralization may be located further to the west.

The pyrite content is sufficient to explain the observed chargeability anomaly. The copper values in 90-1 and the sporadic elevated gold values over the section could explain the observed soil anomalies.

#### Section 3700

Hole 90-4 was collared to test the western margin of a copper and gold soil anomaly with a coinciding greater than 15 millisecond chargeability (n=2) anomaly.

The hole intersected mainly hybrid diorite similar to holes 90-2 and 90-3. Abundant fracture fillings and veins of quartz, pyrite, gypsum, and chlorite were found. The hole generally displayed a suite of potassic/propylitic alteration. It also was

determined to contain an average high level of 731 ppm copper. This hole also contains the highest average gold values in the 1990 drilling. The hole also demonstrates that higher copper values are not restricted to a single rock type, but appear to be more related to potassic alteration.

Combining this information with the data from sections 3900 and 3600, it indicates better grade mineralization may be located further to the west. The pyrite content, and copper and gold values found could explain the observed surface anomaly.

### Section 3600

Hole 90-5 was collared to test the eastern margin of a greater than 20 millisecond chargeability ( $n=2$ ) anomaly which coincided with a few copper and gold soil anomalies.

The hole intersected mainly fine grained diorite. Abundant fracture fillings and veins of quartz, pyrite, gypsum, chlorite and epidote were found. Alteration is mainly propylitic, but some potassium feldspar flooding was found closer to the end of the hole.

The pyrite content would explain the observed chargeability anomaly, but the soil anomalies are not likely related to the rocks intersected by ~~hole~~ 90-5. R

hole

### Section 3400

Hole 90-6 was collared to test a greater than 15 millisecond chargeability ( $n=2$ ) anomaly and the interpreted extension of copper and gold soil anomalies into this area of much thicker overburden cover.

The hole initially intersected a more mafic monzonitic diorite than had been previously noted. It passed through syenite, dykes, and brecciated diorite, before returning to the monzonitic diorite at the end of the hole. Alteration in this hole is a potassic/propylitic suite. No significant metal values were detected. The pyrite content would explain the observed chargeability anomaly.

### Section 3265

Hole 90-7 was collared to intersect the body of copper mineralization which had been defined by mainly percussion drilling in the early 1970's. A greater



than 10 millisecond chargeability (n=2) anomaly and a weak gold soil anomaly also coincided with the zone.

The hole intersected mainly syenitic rocks. The classification as syenite was used as these rocks contain less mafics and more potassium feldspar than the previous diorites. Fracture fillings and veins of quartz, pyrite, and chlorite are common.

This hole did not intersect the copper mineralization as expected. There are no collar or drillsites distinguishable in the field, nor are the old grid stakes preserved. Therefore, the presumed location of the mineralized body must be slightly in error. More drilling would be required to pinpoint its location.

### Section 3300

Holes 90-8 and 90-8A were collared to test a VLF-EM anomaly which had a coincident copper, gold, and arsenic soil anomaly.

Hole 90-8 was abandoned in overburden due to caving, and 90-8A was collared a few metres to the east. It intersected monzonitic diorite after passing through 41 metres of overburden. The rock was extremely broken and the hole had to be abandoned at 111.6 metres due to squeezing.

The observed VLF-EM anomaly is believed to be caused by a major fault zone, as indicated from the very broken and clay-gouged core. The soil anomalies are un-explained.

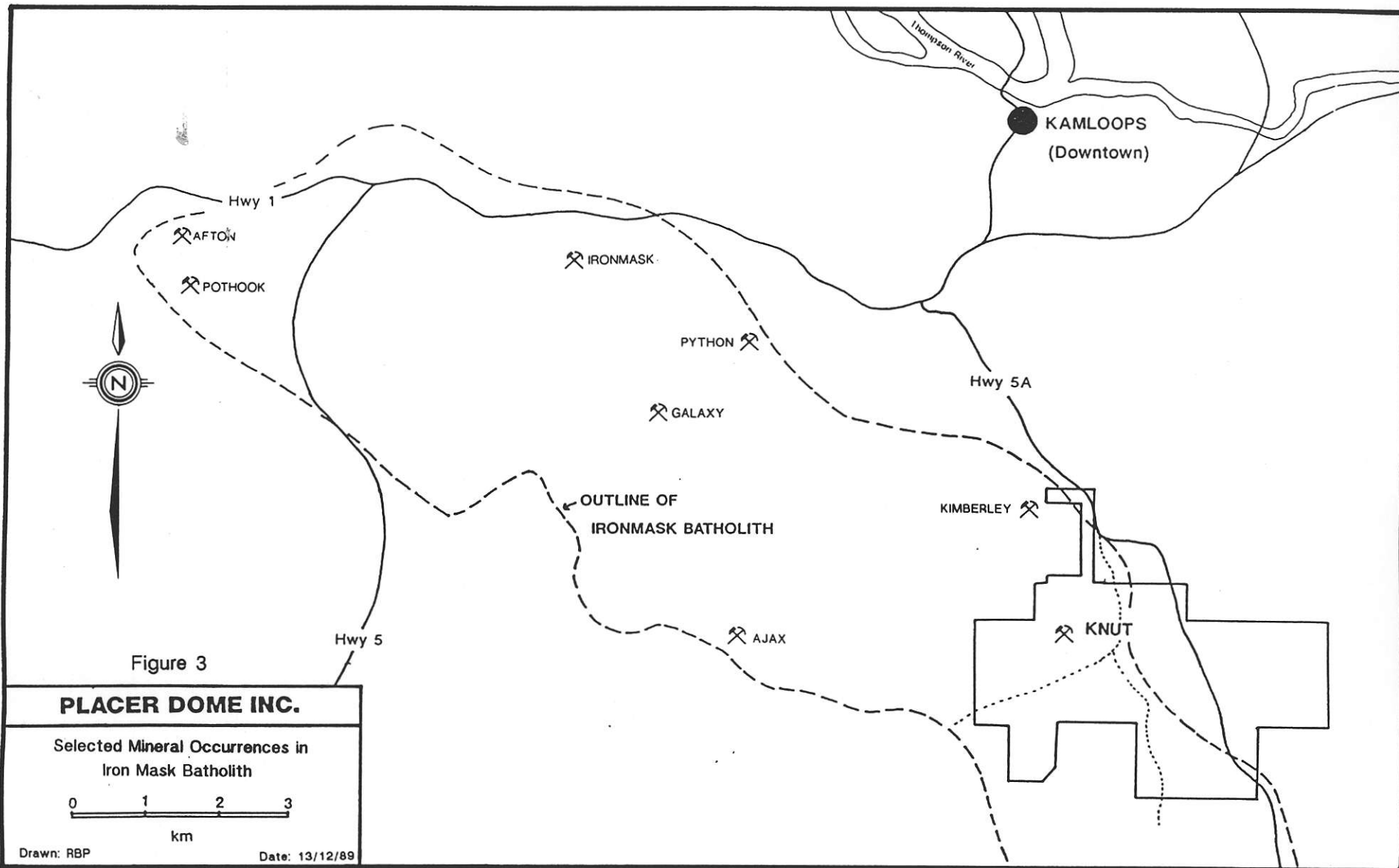
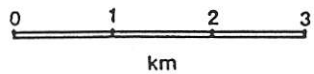


Figure 3

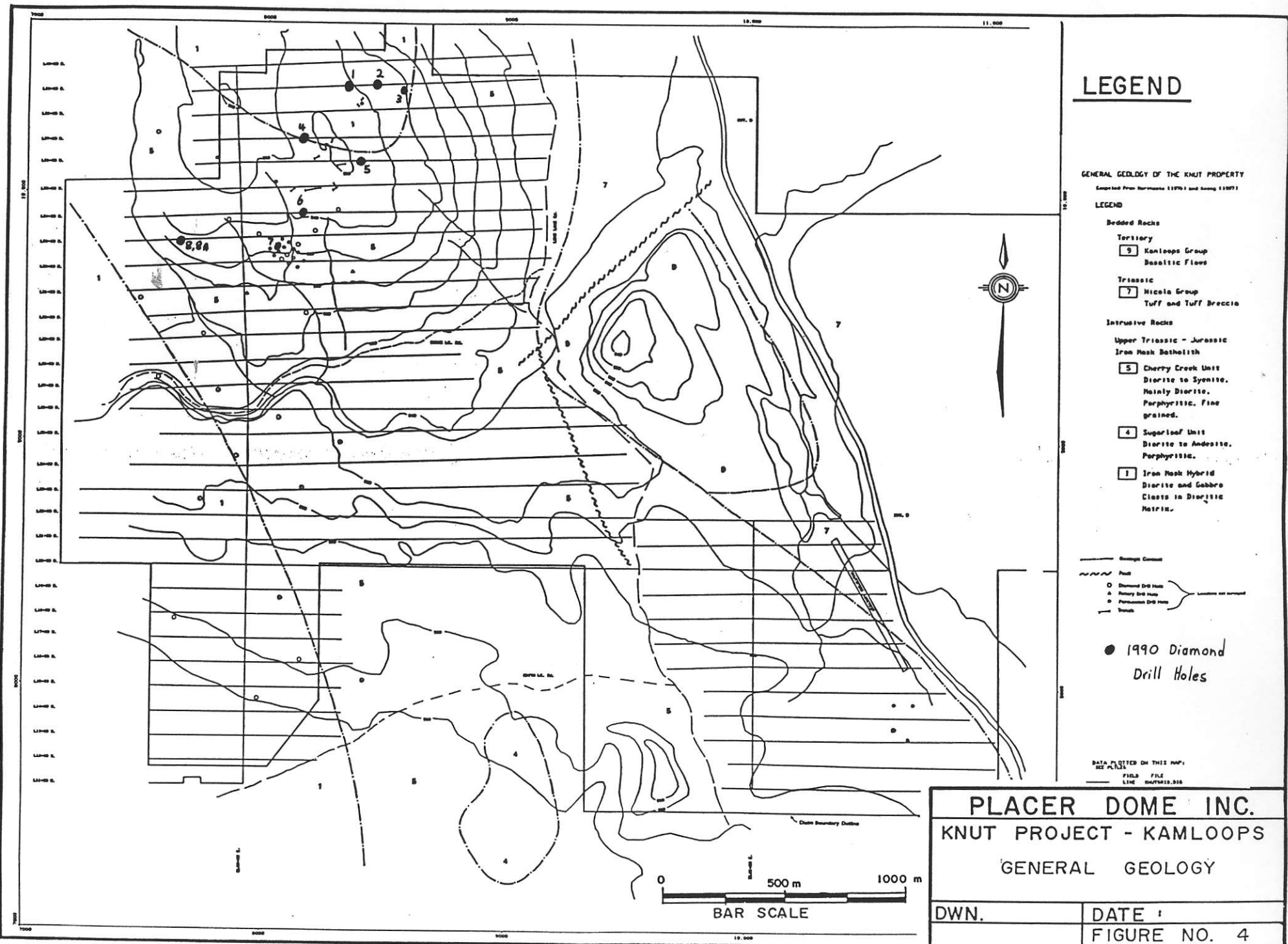
**PLACER DOME INC.**

Selected Mineral Occurrences in  
Iron Mask Batholith



Drawn: RBP

Date: 13/12/89



**CONCLUSIONS AND RECOMMENDATIONS**

It is concluded that the diamond drilling partially defined an alteration and geochemical pattern which could be proximal to porphyry style copper/gold mineralization.

It is recommended that diamond drilling continue. The next phase of drilling should be five or six holes totalling approximately 800 metres. Specifically, these holes should be collared on sections 3900 and 3700 north, further to the west of holes 90-1 and 90-4 respectively.

An estimated cost breakdown for the proposed work program is presented in the following table (page 14). This proposed program is the Phase II program as originally recommended by Pease, et.al. (1989).

Submitted by:

---

Rob Pease  
Geologist  
Placer Dome Inc.

Submitted by:

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R.W. Cannon  
Senior Geophysicist  
Placer Dome Inc.

## ESTIMATED COST OF PROPOSED WORK PROGRAM

Diamond Drilling 800 m @ \$55/m	\$	44,000
Labour		
Senior Geologist 10 days @ \$390	\$	3,900
Junior Geologist 20 days @ \$270	\$	5,400
Helper 15 days @ \$200	\$	3,000
Rock Analysis		
Geochem 260 @ \$15	\$	3,900
Assays 100 @ \$15	\$	1,500
Site Preparation and Reclamation	\$	2,000
Vehicle 15 days @ \$75	\$	1,125
Accommodation and Meals 45 man-days @ \$60	\$	<u>2,700</u>
	\$	67,525
Contingency @ 11%	\$	<u>7,475</u>
TOTAL ESTIMATED COST	\$	<u><u>75,000</u></u>

## REFERENCES

- Kwong, Y. T. J. (1987): Evolution of the Iron Mask Batholith and its Associated Copper Mineralization. British Columbia Geological Survey Branch, Bulletin 77, 55 pp.
- Murphy, J. D. (1988): Report on the MD and Knut Mineral Claims, Knutsford, B. C. Private report to Salor Scientific Inc.
- Northcote, K. E. (1976): Geology of the Southeast Half of the Iron Mask Batholith, in Geological Fieldwork, 1976, Paper 1977-1, B. C. Ministry of Energy, Mines, and Petroleum Resources, pp. 41-46.
- Pease, R. B.; Gareau, M. B.; Cannon, R. W. (1989) Geophysical and Geochemical Report on the Knut Project. Private Report to Placer Dome Inc. and Salor Scientific Inc.

**STATEMENT OF EXPENDITURES  
KNUT PROJECT**

Diamond Drilling		
1204.9 m @ \$45/m		54,220.05
Labour		
R. Pease, Supervisor		
17 days @ 420/day		7,140.00
K. Edwards, Core Logger		
35 days @ 240/day		8,400.00
M. Deschenes, Core Logger		
23 days @ 250/day		5,750.00
D. Turner, Sampler		
24 days @ 160/day		3,840.00
Analytical		
Preparation		
500 @ \$3.25		1,625.00
Geochem (Cu,Ag,Au,Mo)		
500 @ \$9.00		4,500.00
Assays (Cu)		
8 @ \$6.50		52.00
Freight		789.50
Accommodation and Meals		
99 Man-days @ 60/day		5,940.00
Consumables		300.00
Petrographics Report		1,200.00
Vehicle		
30 days @ 75/day		2,250.00
Report Preparation and Drafting		<u>4,000.00</u>
	Total	\$ <u>100,006.55</u>

**STATEMENT OF QUALIFICATIONS**

I, Richard W. Cannon, of the City of Vancouver, Province of British Columbia, hereby certify as follows:

1. I am a graduate of the University of British Columbia where I received a B.A. Sc. in Geological Engineering (Geophysics Option) in May, 1966.
2. I am a member of the Association of Professional Engineers of British Columbia and have been so since 1968. Registration No. 6742.
3. I am a member of the Canadian Institute of Mining and Metallurgy, Society of Exploration Geophysicists, and the B. C. Geophysical Society.
4. I have practised my profession since 1966.
5. This report may be used for development of the property, provided that no portion will be used out of context in such a manner as to convey meanings from that set out in the whole.

Respectfully Submitted,

---

R. W. Cannon, P. Eng.



**STATEMENT OF QUALIFICATIONS**

I, Robert B. Pease, of 1872 Whistler Court, Kamloops B. C., do hereby certify that:

1. I graduated from the University of Waterloo, Waterloo Ontario, with an Honours B. Sc. Degree in Earth Sciences, in 1981.
2. From 1976 until the present, I have been engaged studying geology, or working in mineral exploration or mine geology, in various regions of Canada. I have been employed continuously by Placer Dome Inc., or subsidiaries, since 1982.
3. I am an Associate of the Geological Association of Canada, and a member of the Canadian Institute of Mining and Metallurgy.
4. I personally supervised the diamond drill program as described in this report, and have assessed the resulting data.
5. This report may be used for development of the property, provided that no portion will be used out of context in such a manner as to convey meanings from that set out in the whole.

Respectfully Submitted,

---

Robert B. Pease

**APPENDIX I**  
**Explanation**  
**of**  
**Drill Log Codes**

## LOGGING CODE EXPLANATION

Column 1 is a key which indicates the type of data or information on each line.

- I - Identity information/data
- S - Survey data
- / - Upper tier geologic data
- L - Lower tier geologic data
- R - Free form remarks
- A - Assay and analysis data

### I DATA

Each Drill Hole has two I lines at the start.

The first line indicates:

- Col. 11 to 16 - ID of Project
- Col. 17 to 24 - Drill Hole Name
- Col. 29 to 35 - Day/Month/Year Logged
- Col. 36 to 38 - Logger's Initials
- Col. 39 to 41 - Helper's Initials (if any)
- Col. 60 to 62 - Coordinate system
- Col. 63 to 68 - Grid Azimuth (0.0 if True North)

The second line indicates.

- Col. 5 to 45 - Company Name
- Col. 46 to 69 - Property or Project or Sub Project Name

### S DATA

The S000 line is the collar survey data. Subsequent S Lines (S001, S002, etc.) are down-the-hole surveys.

- Col. 5 to 10 - From (a decimal point is inferred between column 8 and 9)
- Col. 11 to 16 - To (a decimal point is inferred between column 14 and 15)
- Col. 17 to 18 - Units; MT (metres), FT (feet)
- Col. 20 to 26 - Total Length
- Col. 27 to 32 - Azimuth
- Col. 33 to 38 - Dip
- Col. 51 to 60 - Northing
- Col. 61 to 70 - Easting
- Col. 71 to 80 - Elevation

## Logging Code Explanation, continued

### / AND L DATA

Two lines are available to describe a geologic interval, the upper line (/) and the lower line (L). The /NAM line defines the mineral fields for the upper line.

#### ~~ST~~ Geocode - upper (/NAM) line

Col. 57, 58 QZ - Quartz  
Col. 59, 60 EP - Epidote  
Col. 61, 62 CL - Chlorite  
Col. 63, 64 CY - Clay - general  
Col. 65, 66 MS - Muscovite (*Sericite*)  
Col. 67, 68 KF - Potassium Feldspar  
Col. 69, 70 PY - Pyrite  
Col. 71, 72 CP - Chalcopyrite  
Col. 73, 74 MO - Molybdenite  
Col. 75, 76 SL - Sphalerite

#### ~~ST~~ Geocode - Lower (L) Line

Col. 57, 58 LI - Limonite  
Col. 59, 60 PL - Pyrolusite  
Col. 61, 62 MG - Magnetite  
Col. 63, 64 HE - Hematite  
Col. 65, 66 GY - Gypsum  
Col. 67, 68 MC - Malachite  
Col. 69, 70 CB - Carbonate  
Col. 75, 76 PO - Pyrrhotite

#### Upper (/) Geologic Data

Col. 5 to 10 - From (decimal inferred between 8 and 9)  
Col. 11 to 16 - To (decimal inferred between 14 and 15)  
Col. 24 to 27 - Rock Type Code - See Rock Type Chart  
Col. 28 to 29 - Typifying Mineral 1 - see Mineral Chart  
Col. 30 to 31 - Typifying Mineral 2 - see Mineral Chart  
Col. 32 to 33 - Main Rock Forming Mineral 1 - See Mineral Chart  
Col. 34 - Rock Forming Mineral Field, Amount of Occurrences, See G Scale Chart  
Col. 35 to 36 - Texture 1 - see Texture Chart  
Col. 37 to 38 - Texture 2 - see Texture Chart  
Col. 47 - Essentially always a "P" which stands for Principle Geologic Interval. If "N", it stands for Nested Interval which means all of the above interval description applies, except as noted.  
Col. 49 to 50 - Structure 1 - see Structure Chart  
Col. 51 to 53 - Azimuth of Structure 1.  
Col. 54 to 56 - Dip of Structure 1.

Logging Code Explanation, continued

- Col. 57 - Mineral Field, Mode of Occurrence - See H Scale Chart
- Col. 58 - Mineral Field, Amount of Occurrence - See G Scale Chart
- Col. 59 to 74 - Mineral Fields, sample pattern continues  
(ie. G. Scale How, Amount) as in columns 57, 58.

Lower (L) Geologic Data

- Col. 28 to 29 - Colour Code - See Colour Chart
- Col. 30 to 31 - Typifying Mineral 3 - See Mineral Chart
- Col. 32 to 33 - Main Rock Forming Mineral 2 - See Mineral Chart
- Col. 34 - Rock Forming Mineral Field - Amount of Occurrence - See G Scale Chart
- Col. 35 to 36 - Texture 3 - see Texture Chart
- Col. 43 - Count of Fractures at Steep Angle to Core Axis - See F Scale
- Col. 44 - Count of Fractures at Medium Angle to Core Axis - See F Scale
- Col. 45 - Count of Fracture at Low Angle to Core Axis - See F Scale
- Col. 49 to 50 - Structure 2 - See Structure Chart
- Col. 51 to 53 - Azimuth of Structure 2
- Col. 54 - Dip of Structure 2
- Col. 55 to 56 - Angle to Core Axis of Structure 2
- Col. 57 to 64 - Mineral Fields, as in upper (/) Data

Note: Columns 43 to 46 not always used

R DATA

These are free form remarks written by the logger to further describe the geologic interval. Note that Rock Type Codes (see Rock Type Charts) are often used.

A DATA

This last type of data lists the assay information for the trench.

Note that remarks are also used.

The first line, A001, defines original samples. A002 defines RQD and Recovery. A003 defines a standard composite set of assays. The following lines describe and list the assay data.

- ALAB Col. 17 to 80 - Define Laboratory
- ATYP Col. 17 to 30 - Define Type of Determination
- AUMM Col. 17 to 80 - Define Assay Fields

Logging Code Explanation, continued

A00? Col. 1 to 4 - Defines Sample Type  
A001 Col. 5 to 10 - From (decimal inferred between 8 and 9)  
Col. 11 to 16 - To (decimal inferred between 14 and 15)  
Col. 21 to 26 - Sample Number  
Col. 27 to 32 - Silver ppm  
Col. 33 to 38 - Gold ppb  
Col. 39 to 44 - Copper ppm  
Col. 45 to 50 - Molybdenum ppm

CHARTS

1. Rock Type Chart

A four letter code is used to describe rock types. The first four letters of a rock type name is its preferred code. If the fourth letter is a vowel, the vowel is replaced by the next consonant.

Letter Code

Lithology

OVBD	OVERBURDEN
BRXX	BRECCIA
FAUL	FAULT BRECCIA
VEIN	VEIN
DIOR	DIORITE
PPDI	PORPHYRITIC DIORITE
FGDI	FINE GRAINED DIORITE
HYDI	HYBRID DIORITE
MSSF	MASSIVE SULPHIDE
FGQM	FINE GRAINED QUARTZ MONZONITE
MZDI	MONZO DIORITE
FSDK	FELSIC DYKE
CGGB	COARSE GRAINED GABBRO
PPDK	PORPHYRITIC DYKE
BRDI	BRECCIATED DIORITE
FGMZ	FINE GRAINED MONZONITE
PPDI	PORPHYRITIC DIORITE
FGQD	FINE GRAINED QUARTZ DIORITE
MGQD	MEDIUM GRAINED QUARTZ DIORITE
SIBR	SILICA BRECCIA
MGMZ	MEDIUM GRAINED MONZONITE
SYDK	SYENITIC DYKE
RYDK	RHYOLITIC DYKE
SYMZ	SYENITIC MONZONITE
MGDI	MEDIUM GRAINED DIORITE
PPSY	PORPHYRITIC SYENITE
MONZ	MONZONITE
FGSY	FINE GRAINED SYENITE
PYSY	PYRITIC SYENITE

Logging Code Explanation, continued

2. Mineral Chart (ie. Mineral short-forms)

PY	PYRITE
SL	SPHALERITE
GL	GALENA
PO	PYRRHOTITE
CP	CHALCOPYRITE
CL	CHLORITE
EP	EPIDOTE
MG	MAGNETITE
BI	BIOTITE
MS	SERICITE
CB	CARBONATE
LI	LIMONITE
SI	SILICIFICATION
PL	PYROLUSITE
MN	MANGANESE
CY	CLAY
PF	PLAGIOCLASE
HE	HEMATITE
KA	KAOLINITE
QZ	QUARTZ
FX	FELDSPAR
KF	ORTHOCLASE FELDSPAR
HB	HORNBLLENDE
PH	PHLOGOPITE
MC	MALACHITE
GY	GYPSUM
CA	CALCITE
XE	XENOLITHS
BO	BORNITE
HS	SPECULAR HEMATITE
MO	MOLYBDENITE
AC	ACTINOLITE

3. Texture Chart (ie. Texture Short Forms)

SC	SCHIST
BN	BANDED
PH	PHYLLITE
MX	MASSIVE
WB	WAVEY BANDS
FZ	FAULT OR SHEAR ZONE
<<	MICROVEINS
>>	MACROVEINS
VG	VUGGY
LM	LAMINATED
BR	BRECCIATED
PP	PORPHYRITIC
EQ	EQUIGRANULAR
SH	SHEAR
R2	SLIGHTLY REWORKED

Logging Code Explanation, continued

R5	MOD. REWORKED
R7	STRONGLY REWORKED
RW	REWORKED
AG	AUGEN STRUCTURED
SW	STOCKWORKED
GT	GRANITIC
BK	BLOCKY
KR	CRACKLED
LN	LENTICULAR
UF	UNIFORM TEXTURED
<del>VG</del>	<del>VUGGY</del>
VV	VEINED
XE	XENOLITH
EM	EQUIGRANULAR MEDIUM
EC	EQUIGRANULAR COARSE
EF	EQUIGRANULAR FINE
PA	PATCHY
FG	FINE GRAINED



Logging Code Explanation, continued

4. Structure Chart (ie. Structure Short-Forms)

BN	BANDED
BD	BEDDED
BR	BRECCIATED
QV	QUARTZ VEINS
SH	SHEAR ZONE
MX	MASSIVE
<<	MICROVEINS
>>	MACROVEINS
FZ	FAULT
C/	CONTACT
D/	DYKE
FS	FRACTURE SET
LS	LENS
SH	SHEAR
V/	VEIN
VE	EPIDOTE VEIN
VC	CALCITE VEIN
VP	PYRITE VEIN
VQ	QUARTZ VEIN
VG	GYPSUM VEIN
XE	XENOLITHIC

Logging Code Explanation, continued

5. How Chart or H Scale

<u>Symbol</u>	<u>Most Dominant Mode of Occurrence</u>
A	Amygdaloids, cavity fillings
B	Blebs
#	Breccia Fillings
C	Coatings & Encrustations
*	Clasts
D	Disseminations & Scat.x'ls
E	Envelopes
F	Framework Crystals
G	Gouge
H	Halos
I	Eyes, Augen
J	Interstitial
K	Stockwork
L	Laminated/bedded
M	Massive
N	Nodules
O	Spots
Q	Patches, as in quilts'
R	Rosettes & x'tls clusters
S	Selvages
\$	Sheeting
T	Stainings, as in tarnish
U	Euhedral
V	Veins
>	Macroveins
<	Microveins
W	Boxwork
X	Massive and/or laminated/bedding
Y	Dalmationite
Z	Fresh, primary rock
+	Flooding

Logging Code Explanation, continued

6. G Scale or Amount Chart

<u>Code</u>	<u>Assigned Value</u>	<u>Range</u>
X	100	100 %
9	90	85 to 99
8	80	75 to <85
7	70	65 to <75
6	60	55 to <65
5	50	45 to <55
4	40	35 to <45
3	30	25 to <35
2	20	15 to <25
1	10	7 to <15
=	5	4 to < 7
+	3	2 to < 4
)	1	.5 to < 2
*	.3	.2 to <.5
(	.1	.05 to <.2
-	.03	.02 to <.05
.	.01	Trace = <.02
0	0	Nil, Absent
/	.07	Present: Estimate impossible
?	0	Possibly Present

## Logging Code Explanation, continued

### 7. Colour Chart

The colour chart can be used in two ways. A lightness can be combined with colour, or two colours can be combined.

eg. 3U - Dark Brown  
or  
RU - Reddish Brown

<u>Lightness</u>		<u>Colour</u>	
<u>Symbol</u>	<u>Value</u>	<u>Symbol</u>	<u>Colour</u>
	9	R	Red
	8	U	Brown (Umber)
	7	O	Orange
	6	T	Tan (khaki)
	5	Y	Yellow
	4	L	Lime (Y-G)
	3	G	Green
	2	Q	Aqua (B-P)
	1	B	Blue
		V	Violet (B-P)
		P	Purple
		M	Mauve
		W	White
		A	Grey
		N	Black (Noir)

### 8. F Scale or Fractures and Joints Intensity Chart

<u>Range</u>	<u>Assigned</u>	<u>Symbol</u>	<u>Description</u>
<u>Values</u>	<u>Values</u>		
	0	0	Unfractured
0 - 2	1	1	Extremely low intensity
2 - 4	3	2	Very low intensity
4 - 8	6	3	Low intensity
8 - 12	10	4	Moderately low intensity
12 - 18	15	5	Moderate
18 - 24	21	6	Fairly high intensity
24 - 32	28	7	High intensity
32 - 40	36	8	Very intense
40 - 50	45	9	Extremely intense
> 50	55	X	Shattered

**APPENDIX II**  
**Diamond Drill Logs**  
**and**  
**Assay Results**

IDEN680201 V250 DDH90-1 NQ 21APR90KMEMD ATLSAPR90S38 RBPUM 0.0  
 IPRJ PDI/Salor Scientific KNUZ PROPERTY  
 S000 00 7400MT 148.13270.0 -46.00 3892. 2475. 940.  
 S001 7400 14813 148.13270.0 -45.5  
 /SCL MT.2  
 LSCL LCTM  
 /NAM QZEPCLCYMSKFPYCPMOSL  
 LNAM LIPLMGHEGYMCCB PO  
 R THIS DDH COLLARED TO TEST CU-AU SOIL AND COINOIDENT IP ANOMALY  
 R 00 610 CASING TO 6.1 M  
 / 00 61 OVBD P  
 / 610 1372 FGDIPFHBXE(PP<< P << <=E2P3<1 Q(D-  
 L 5G QZ\*EQ 2314 C1C2  
 R HIGHLY OXIDIZED ZONE, CLAY DOMINANT 6.1 TO 7.6 M.  
 R PY IN SML TO MED FRACTURES WITH QZ AT END OF INTERVAL  
 R XENOLITHS .5 CM TO 2 CM, ANGULAR VOLCANIC AND RND INTRUSIVE  
 R FGDI: PLAG AS PHENOCRYSTS, 1MM - 5 MM  
 / 1372 1791 FGDIPFHBXE(PP<< P << 25E1D1P2<<(O1Q(<=<-  
 L AG QZ\*EQSW 1213 C1C2  
 R STILL IN UPPER OXIDIZED ZONE DISPLAYING INTENSE WEATHERING  
 R INSIDE SELECTIVE FRACTURES.  
 R XENOLITHS OF INTRUSIVE AND VOLCANIC ORIGIN OCCUR FROM 2 TO 10 MM  
 R ROCK DISPLAYS TWO EVENTS OF MICROVEINING; AN EARLIER STOCKWORK  
 R OF SILICA FLOODING FOLLOWED BY A PARALLEL SYSTEM OF PY FILLED  
 R MICROVEINS W ENVELOPES OF SILICA.  
 R NOTE: INTERVAL SHOWS HIGH CU VALUES, SEE A001. FURTHER EXAM-  
 R INATION SHOWS FINELY DISS'D BLACK TO DK BLUE XALS BTWN PY  
 R SHEETING (2-5%?). POSS TARNISHED CP OR CHALCOCITE WITHIN  
 R THE OXIDIZED ZONE. SLIGHT SUPERGENE ENRICHMENT.  
 / 1791 2012 FGDIPFHBQZ\*EQ<< P << 10E1D(P-<<(O1Q-<)  
 L 5A XE-PP 2113 C)C+  
 R SIMILAR TO PREVIOUS INTERVAL BUT W LESS MICROVEINING AND PY  
 R CONTENT.  
 R PY STILL DISPLAYING SILICA ENVELOPES.  
 R XENOLITHS ARE SMALLER 2 - 3 MM AND MUCH LESS COMMON.  
 / 2012 2235 FGDIPFHBQZ\*EQPP P << E+D(O\* O1Q-<<  
 L 5A XE- 1001 C)C+  
 R WEATHERING STILL OCCURRING IN SELECTED FRACTURES BUT PY ALSO  
 R OCCURS IN LESSER AMTS IN MICROVEINS BUT ALSO AS DISS XALS.  
 / 2235 3231 FGDIPFHBQZ\*PP<< P << E\* O\* O1<)<=  
 L 6A EQSW 1223 VG <1  
 R OXIDIZED ZONE NO LONGER PRESENT; NO XENOLITHS PRESENT; PYRITE  
 R OCCURS AS MICROVEINS AND DISS XALS W SOME SILICA ENVELOPES;  
 R MAJORITY OF MICROVEINS CONSIST OF LATER STAGE GYPSUM. A MILD  
 R ARGILLIC ALT IS PRESENT THROUGHOUT.  
 / 3231 5670 FGDIPF XE-UF<< P << <E\*D2 P3D\*B.  
 L 6A EQ 1223 VG <1  
 R FEW PF PHENO, PATCHY INTERMITTENT AREAS  
 R DIOR HARD W PERV KF THROUGHOUT  
 R 34.6 - 35.36 HIGH K CONTENT, FRACTURED, BLACK MICROVEINS  
 R 35.36 FAULT GOUGE, VERY BLACK, SOFT, LI STAINING.  
 R PY DISS <1%, ALSO IN VEINS 5%, CENTRALLY LOCATED IN GY VEINLETS  
 R COMMONLY WITHIN ZONES OF HIGH K CONTENT  
 R XE DOMINANTLY VOLCANIC  
 R 39.2 - 39.8 LITTLE KF, EP, CL DOMINANT  
 R 44.1 - 44.25 HIGH KF CONTENT, BLACK FAULT ZONE, PY IN SPOTS  
 R ASSOC W EP - GY VEINS, CROSSCUT IN ALL DIRECTIONS  
 / 5670 6584 FGDIPFHBQZ\*<<PP P << <(E+O(D2 E=D1  
 L 6A XE(EQ VE <2  
 R SIMILAR INTERVAL TO PREVIOUS ONE W MORE EP AS ENVELOPES AROUND

R GY AND KF VEINLETS (GY-KF-EP). EP ALSO OCCURS AS DISS AND PATCH  
 R PY OCCURS MAINLY DISS (1-2%) AND AS MICROVEINS(<1%)  
 R VEINLETS XCUT EACH OTHER THROUGHOUT; XENOLITHS APPEAR MAINLY AS  
 R VOLCANICS (2-3 MM).  
 R 62.0 - 62.5 NARROW FAULT GOUGE W GY-KF-CL ALTN.  
 / 6584 8332 FGDIPFHBQZ/SWPP P V/ E(Q(D2 E1<<.  
 L AG EQ 2324 <2  
 R THREE SETS OF VEINS:1. KF- PRODUCES STOCKWORK ASSOC W EP,QZ,PY,  
 R CP, RELATIVELY STRAIGHT.  
 R 2. GY- IRREGULAR VEINS, XCUT ALL OTHER VEINS, SOME PINKISH  
 R 3. QZ - ASSOC W KF VEINS. MINOR  
 R 65.84 - 70.7 HIGHLY ALTERED, BRECCIATED, KF PERVASIVE EXTENDS  
 R AWAY FROM MICROVEINS .5CM. CL, EP ABUNDANT CLOSE TO MICRO  
 R FRACTURES. KF ALSO IN INDIVIDUAL "CLASTS" IN BRECCIA  
 R SOME CY (LT GREEN) MINERALS ASSOC W FAULTED ZONES AND BLACK  
 R INTERSTITIAL MATERIAL.  
 R 68.0 - 70.0 RELATIVELY CLEAN, SIMILAR TO STOCKWORK DESCRIBED  
 R PF PHENOCRYSTS EXHIBIT ZONING  
 R 79.78 20 CM BRECCIA ZONE: RNDND AND ANG FRAGMENTS W INTERSTITIAL  
 R GY,CB,CL,SUB TO EUHEDRAL PY ASSOC W CL BTWN FRAGMENTS,  
 R SPOTTY KF, SPOTTY LT GRN CY W VEINS  
 / 8332 8779 HYDIPFHB EM<< P VQ V1E= O(6(O\*  
 L 4G 1111 VG B\* V1 B\*  
 R QZ VEINS CUT BY GY VEINS, QZ VEINS IRREG, GENERALLY PARALLEL/  
 R SUB PARALLEL TO AXIS. PY, EP COMMON IN AND ADJ TO QZ VEIN.  
 R MOST GY VEINS HAVE NO PY; XCUT CORE IN ALL DIRECTIONS.  
 R PY FOUND ALONE, OR ASSOC W EP - QZ.  
 R CP, PO, MG, PY OCCUR TOGETHER, SPOTTY(87.17M)  
 R MG AS SELVAGES PROXIMAL TO PY CONTAINING VEINS.  
 / 8779 11740 FGDIPFHBXE(PPEQ P << <=<=P1<\* <1<\*<.  
 L QZ1SW 1314 <( <1 Q(  
 R 89.22 SML BRECCIA W RND PINK FRAGMENTS, PY DISS INTERSTITIALLY  
 R BRECCIA BOUNDED ON EACH SIDE BY KF AND BLACK MATERIAL  
 R DIP 60 TO RT.  
 R 92.07 - 92.67 HIGH DEGREE OF KF, PERVASIVE, CHANGE IN ROCK TYPE?  
 R KF ALTN NOT CONTINUOUS THROUGHOUT ENTIRE INTERVAL 87.79 -END  
 R 93.57 BRECCIA, KF ALTN, EP,CB IN PATCHES, EUHEDRAL PY IN PATCHES  
 R DIP 40 TO RT  
 R 103.66 - 105.66 HYDI AS DESCRIBED; EP AS VEINS AND ENVELOPES  
 R ASSOC W PY. PATCHY MG AND CP. ABUNDANT GY VEINS, PATCHY KF  
 R ALTN  
 R SIMILAR ROCK TYPE FOUND IN SML SECTIONS OF ENTIRE INTERVAL.  
 R GENERAL FGDI:  
 R HAVE STOCKWORK W ABUN KF VEINS W ASSOC PY, QZ ENVELOPES AND EP  
 R SOME LT GRN CLAY ALSO AS ENVELOPES, MINOR.  
 R XENO MINOR AND SML  
 R SOME PATCHY AREAS W PERVASIVE KF, ABUN EP, CB, PY, SOME PO  
 R GENERALLY <10CM WIDE. SIMILAR TO AREA AT 93.57.  
 / 11740 14813 HYDIHBPFXE(SWEM P << <3S3D5O( O1<=</  
 L 3G <<BR VQ Q( <1 <( <( <(  
 R ROCK MG TO CGRAIN W ANGULAR FELSIC (FGDI) FRAGMENTS UP TO 4 CM  
 R INTENSE STOCKWORK QZ VEIN: TWO GENERATIONS  
 R 1. QZ-EP-PY VEINS, EP SELVEDGES W PY AND QZ IN CENTRE. EP  
 R PERVASIVE IN DI, MED ANGLE TO AXIS  
 R 2. XCUTTING VQ, GENERALLY BARREN. IRREGULAR SHAPE XCUTTING  
 R EACH OTHER AND QZ-EP-PY VEINS. MORE ABUNDANT  
 R GY VEINS XCUT EVERYTHING; LARGE VEINS ASSOC W PATCHY PO,MG; CB  
 R VEINS ASSOC W GY VEINS, MINOR.  
 R EP INCREASES AS PATCHES AND PERVASIVELY W DEPTH.  
 R CLAY ALTN IS PREDOMINANTLY KF ALTN TO LTGRN CLAY, SOME AREAS

R MORE AFFECTED  
 R 120.55 BRECCIA W GY, FINE DISS PY, EP AND ROCK FRAGMENTS  
 R 121.31 - 122.46 FELSIC BODY: 60%PF,QZ AND KF FLOODING.  
 R CONTAINS SIMILAR VEINS AS INTERVAL, SOME BRECCIATN W QZ FILL  
 R COARSE HYDI HAS LGE (.5CM) EUHDERAL PY, CONTAINS MG AND CL ALTN  
 R OF FSP.  
 R AREAS:123.59 - 124.24,129.54 - 130.34, 138.68 - 143.34 (INT-  
 R ERVAL CONTAINS ABUNDANT EP AS DISS AND VEINS(30%), MG IN  
 R PATCHES(20%), AND PATCHY PY.  
 R 130.34 - 130.64 BRECCIA: EP 40%, PERVASIVE;CL 50% PERVASIVE.  
 R 147.16 FAULT GOUGE: EP, DISS PY, CB, GY  
 R END OF HOLE.  
 R EOH  
 R SAMPLES

A001

AUMM SAMPLE Ag Au Cu Mo  
 R ppm ppb ppm ppm

ALAB PDI RESEARCH

ATYP SPLIT CORE

AMTH WET GEOCHEM A.A.

R 00 610 CASING - NO RECOVERY

A001	610	800	54001	.8	10	320	8
A001	800	1110	54002	.6	10	880	4
A001	1110	1372	54003	.7	15	1970	6
A001	1372	1612	54004	1.0	40	4400	10
A001	1612	1791	54005	.4	3	1740	8
A001	1791	2012	54006	.6	25	4200	10
A001	2012	2235	54007	.4	3	2830	6
A001	2235	2500	54008	.4	3	1500	12
A001	2500	2790	54009	.3	3	1000	12
A001	2790	2982	54010	.3	20	1360	16
A001	2982	3231	54011	.3	10	1160	6
A001	3231	3460	54012	.3	15	1340	54
A001	3460	3536	54013	.2	3	1050	24
A001	3536	3840	54014	.3	20	1360	20
A001	3840	4145	54015	.3	20	1080	10
A001	4145	4400	54016	.2	3	720	4
A001	4400	4426	54017	.3	10	1030	6
A001	4426	4855	54018	.3	15	1330	4
A001	4855	5250	54019	.4	3	1300	4
A001	5250	5590	54020	.4	3	1520	1
A001	5590	5670	54021	.3	3	1020	1
A001	5670	5974	54022	.3	3	940	1
A001	5974	6232	54023	.3	3	1040	2
A001	6232	6252	54024	.3	3	1020	2
A001	6252	6412	54025	.4	3	1600	6
A001	6412	6484	54026	.5	3	1080	1
A001	6484	6714	54027	.7	3	1530	24
A001	6714	6795	54028	1.2	3	1250	30
A001	6795	6930	54029	.4	3	1270	4
A001	6930	7070	54030	.4	3	900	1
A001	7070	7493	54031	.4	3	1220	1
A001	7493	7793	54032	.4	3	1150	2
A001	7793	7978	54033	.6	3	1270	1
A001	7978	8028	54034	.9	3	1400	56
A001	8028	8332	54035	.5	3	1860	4
A001	8332	8552	54036	.9	20	3600	8
A001	8552	8779	54037	.9	10	4200	1
A001	8779	9062	54038	.4	3	1580	1
A001	9062	9347	54039	.4	3	1000	1



A001	9347	9607	54040	.5	3	1330	2
A001	9607	9884	54041	.4	3	970	2
A001	9884	10179	54042	.4	3	1220	6
A001	10179	10366	54043	.3	3	970	1
A001	10366	10571	54044	.6	25	2660	1
A001	10571	10831	54045	.7	55	3100	4
A001	10831	11116	54046	.6	3	2760	10
A001	11116	11430	54047	.4	3	860	1
A001	11430	11740	54048	.4	3	1400	1
A001	11740	12050	54049	.5	3	1800	1
A001	12050	12131	54050	.6	3	1950	1
A001	12131	12246	54051	.6	3	2120	2
A001	12246	12314	54052	.6	3	1840	2
A001	12314	12619	54053	.7	3	2400	6
A001	12619	12940	54054	.5	3	1740	12
A001	12940	13072	54055	.5	3	1390	26
A001	13072	13259	54056	.6	3	800	4
A001	13259	13564	54057	.5	3	360	1
A001	13564	13843	54058	.5	3	317	1
A001	13843	14028	54059	.5	3	490	1
A001	14028	14369	54060	.6	3	328	1
A001	14369	14813	54061	.8	3	580	2

A002

AUMM			RECOVY	RQD
R	000	610	CASING - NO RECOVY	
A002	610	792	84.1	6.5
A002	792	1097	69.8	25.2
A002	1097	1372	83.6	13.1
A002	1372	1676	96.7	47.4
A002	1676	1829	100.0	48.5
A002	1829	2012	68.9	0.0
A002	2012	2225	39.9	0.0
A002	2225	2347	32.8	0.0
A002	2347	2408	29.5	0.0
A002	2408	2621	100.0	65.3
A002	2621	2926	92.5	81.0
A002	2926	3231	73.8	51.8
A002	3231	3536	84.3	42.6
A002	3536	3840	92.1	62.5
A002	3840	4145	92.8	52.1
A002	4145	4450	95.1	77.2
A002	4450	4755	91.1	57.7
A002	4755	5060	95.1	88.5
A002	5060	5364	94.4	69.7
A002	5364	5670	94.4	75.5
A002	5670	5974	88.5	79.6
A002	5974	6279	97.4	58.0
A002	6279	6584	86.9	35.1
A002	6584	6888	97.4	77.0
A002	6888	7193	91.8	69.2
A002	7193	7498	97.4	82.0
A002	7498	7803	88.5	80.0
A002	7803	8108	95.7	72.5
A002	8108	8412	91.5	86.5
A002	8412	8717	95.7	94.4
A002	8717	9022	89.2	55.7
A002	9022	9327	94.4	80.7
A002	9327	9632	86.2	37.4
A002	9632	9936	91.8	81.4
A002	9936	10241	79.3	55.7

A002	10241	10546	84.6	76.7
A002	10546	10841	94.1	79.6
A002	10841	11156	90.8	81.0
A002	11156	11460	91.1	75.0
A002	11460	11765	96.7	87.2
A002	11765	12070	89.2	72.8
A002	12070	12314	100.0	88.9
A002	12314	12619	90.8	65.9
A002	12619	12954	83.0	62.1
A002	12954	13259	87.9	66.2
A002	13259	13564	90.2	75.7
A002	13564	13868	93.8	75.3
A002	13868	14204	74.4	45.5
A002	14204	14508	85.5	70.4
A002	14508	14813	89.5	79.0

A003

AUMM			AG	AU	CU	MO
R			ppm	ppb	ppm	ppm

R 5.0 metre Composite Geochem

R Casing to 6.1 m

A003	610	1000	.7	10	607	6
A003	1000	1500	.8	20	2352	7
A003	1500	2000	.6	20	3364	9
A003	2000	2500	.4	3	2158	9
A003	2500	3000	.3	9	1144	13
A003	3000	3500	.3	12	1234	29
A003	3500	4000	.3	19	1248	17
A003	4000	4500	.3	10	931	6
A003	4500	5000	.3	11	1321	4
A003	5000	5500	.4	3	1410	2
A003	5500	6000	.3	3	1062	1
A003	6000	6500	.4	3	1240	4
A003	6500	7000	.7	3	1326	16
A003	7000	7500	.4	3	1174	1
A003	7500	8000	.5	3	1205	4
A003	8000	8500	.7	8	2419	8
A003	8500	9000	.7	8	2980	2
A003	9000	9500	.4	3	1173	1
A003	9500	10000	.4	3	1105	3
A003	10000	10500	.4	9	1512	2
A003	10500	11000	.7	33	2923	6
A003	11000	11500	.4	3	1376	3
A003	11500	12000	.5	3	1608	1
A003	12000	12500	.6	3	2127	3
A003	12500	13000	.5	3	1855	12
A003	13000	13500	.5	3	673	6
A003	13500	14000	.5	3	377	1
A003	14000	14500	.6	3	403	1
A003	14500	14813	.8	3	580	2

/END

IDEN6B0201 V250 DDH90-2 NQ 22APR90KME ATLSAPR90S38 RBPUTM 0.0  
IPRJ PDI/Salor Scientific KNUT PROPERTY  
S000 00 12712MT 154.23270.0 -45.00 3900. 2585. 936.  
S001 12712 15423 154.23270.0 -45.5  
/SCL MT.2  
LSCL LCTM  
/NAM QZEPCLCYMSKFPYCPMOSL  
LNAM LIPLMGHEGYMCCB PO  
R THIS DDH COLLARED TO TEST CU-AU SOIL AND COINCIDENT IP ANOMALY  
R 00 305 CASING TO 3.05 M  
/ 00 305 OVBD P  
/ 305 1869 HYDIPFHB PAEC P << P1E=P3P/ 0=<1<\*  
L 4A << 0001 <1 Q1 AC </  
R HYDI: HYBRID DIORITE: GENERALLY MED - COARSE GRAINED BUT SOME  
R AREAS ARE DK FINE GRAINED W ABUND PY AND DISS MG. PY AND PO IN  
R MICROVEINS PRODUCE FINE MESH.  
R HYBRID AREAS POLYGONAL IN SHAPE BOUNDED BY PY VEINS, EP ALTN  
R ZONES CONTAIN PERV. QZ ALTN, BOUNDARIES VAGUE.  
R REPRESENT XENOLITHS PARTIALLY FUSED.  
R EP OCCURS +/- PY AS VEINS AND ENVELOPES ALSO OCCURS AS PERV.  
R ALTN IN BRECCIA ZONES AND AREAS OF LESS XENOLITHS.  
R PY VEINS PRODUCE FINE MESH THROUGHOUT, UP TO 10 - 20% PY  
R PY ALSO IN PATCHES, INCREASING AT BTM OF INTERVAL.  
R 1561 - 1581 BRECCIA: EP,CY ALTN, PERV AND VEIN CB.  
R FRIABLE. PERV QZ, LI ALTN IN PY VEINS.  
R GRADES INTO CG DIOR W SOME XENOLITHS.  
R 1859: MASSIVE PERV EP ALTN.  
R 1850: CP AND PO VEIN.  
R GY IN SOME LGE INFREQUENT VEINS  
R CY ALTN DOMINANT AS PF ALTN. KF ALTN PRESENT BUT UNKNOWN.  
R CONTACT W FG UNIT W ABUNDANT MG AT 4.57M AT 45.  
R CONTACT CONTAINS EP AND PY VEIN.  
/ 1869 2027 MSSF MXPA P D=O2P2 Q4  
L 3U Q4 D1  
R ZONE OF MASSIVE SULFIDE, ORIGINAL ROCK NOT IDENTIFIED.  
R INTENSE CL-EP ALTN W SOME QZ.  
R CARB PRESENT AS VEINS AT 50 DEGREES AND IN AREAS INSTEAD OF QZ  
R MG ACCURS NEAR TOP OF INTERVAL AS PATCHES W SOME XCUTTING EP  
R AND CB VEINS. PY OCCURS AS PATCHES IN MG AND AS IRREG VEINS  
R PY DOMINANT NEAR BTM OF INTERVAL W CB-CL ALTN. MG AS SML DISS  
R XALS IN PY MATRIX.  
R GRADES INTO PF RICH ROCK W HB, COARSE GR. SOME KF ALTN.  
/ 2027 4659 HYDIPFHBQZ1PAEC P << P1<2P4 O2<1  
L 5AXE D= <= <+  
R SIMILAR TO FIRST UNIT EXCEPT COARSER GRAINED.  
R HAS AREAS OF XENO OF OTHER MATERIAL. XENO COMMONLY FG W DISS  
R MG(5-10%).  
R HAVE NETWORK OF PY VEINS. EP DOMINANT IN HOST ROCK RATHER  
R THAN XENO. ROCK CHANGES COARSENESS.  
R EP AS VEINS AND EVELOPES MED TO HIGH ANGLE TO AXIS. MAY CROSS  
R PY VEINS  
R PY VEINS IRREG AND DISCONT +/- EP, CB, MG.  
R GY VEINS COMMON AT 31.0 TO 32.0.  
R SOME DISS PY BUT MAY BE LINKED TO MICROVEINS.  
R 3229 - 33.24 XENO OF FELSIC MATERIAL - QZ MONZ?  
R CONTACT IRREG W CONC'N OF PY, GY, CB, AND CL AT 70 DEG.  
R ROCK IS COMPETENT W LITTLE MINERALIZATION OR EP.  
R 3511 - 38.2 FAULT GOUGE. ABUN EP, CL, GY.  
R SOME KF ALTN, GY VEINS THROUGHOUT.  
R PY MAINLY CLOSE TO PERV AND VEIN EP.

R MG IS MINOR ALONG SML SHEARS.  
R GRADES INTO EP RICH, KF RICH ALTERED ZONE.  
R SML GOUGE AT 39.2M  
R ROCK BECOMES COARSER GRAINED AT BTM W PY INCREASING IN IRREG  
R MICROVEIN SYSTEM. ALTN OF FSP T CY EXTENSIVE.  
/ 4659 4732 MSSF AC2 P Q1Q2 P1 M6<1  
L M6<= <1  
R MASSIVE SULFIDE GRADING FROM PY AT TOP TO MX MG AT BTM.  
R INTERMED TO PY AND MG IS LESS ALTERED DI W FAULT GOUGE +EP,CL,QZ  
R W MG IS PY MICROVEINS ABOUT 10 - 20%  
R CB AS VEINS IN MG  
R LGE ACTINOLITE XALS(AC) THROUGHOUT, DISS IN PY ANF MG MASS.  
R CLAY ALTN EXTENSIVE, SOME POWDERY SECTIONS.  
/ 4732 7910 HYDIPFHBXE2 P P1P2P3O2 <=<.  
L 5A <+ <= P1  
R RELATIVELY FRESH, PF ALTERED TO CLAY.  
R 49.7 CRUMBLED CY-CB RICH ZONE.  
R MG DISS IN VEINS W PY  
R XENO COMMON AT END.  
R 50.25 SML GOUGE W BLACK MATERIAL W DISS PY.  
R 51.35 - 53.79 BRECCIA: GRN COLOUR, HIGH EP , CL CONTENT.  
R EP AS VEINS AND PERV.  
R CB PERV AT TOP, BECOMES SML VEINS AT BTM.  
R PY PATCHY AND IN VEINS AT BTM (5%), MINOR VEINS AT TOP  
R PF ALTERED TO LT GRN CLAY  
R PY AND EP VEINS OFFSET BY SML FRACTURES  
R BLACK GOUGE AT 5379 AT 55 - 60 DEG. EXTENSIVE QZ-CB VEINS  
R CB VEINS PRODUCING STOCKWORK, BECOMES PROMINENT AFTER BRECCIA  
R 67.44 - 71.6 FELSIC XENO  
R 73.3 - 77.8 PATCHY KSP ALTN, DISTINCT PINK FSP IN DI, NOT XENO  
/ 7910 8327 HYDIPFHB EC<< P << V+P3P3P2 P\*=<=  
L 4G 0101 <= P1  
R FEW XENO, VERY COARSE  
R EP IS PERV, REPLACING PF, ALSO AS MICROVEINS W ASSOC PY  
R SOMETIMES QZ  
R CY ALTN OF FSP DOMINANT WHERE EP IN VEINS  
R PY DISS 2.5 - 5%, PATCHY AT BTM OF INTERVAL  
R CB GENERALLY FOUND IN CRUMBLES AREAS (79.25 - 79.8)  
R SAMPLES 54100 - 54101  
/ 8327 8387 MSSFPYMGAC2 P D=P2P2 Q3  
L 3G Q1 <= D= Q2  
R SOME VEINING OF MG AND PY, EP VEINS X CUT SOME PY-MG-PO PATCHES  
R MG INCREASES TOWARD BTM  
R PO? PROXIMAL TO PY W ADUN MG DISS'N  
R 30% ORIGINAL ROCK REMAINS, DESCR IN CODES AS CL-CY ALTN.  
/ 8387 8750 HYDIPFHBXE4EQ<< P << P+P3P3P3 <=  
L 5G D2 <+  
R COARSE GRAIN TIL 84.55 THEN HYBRID UNIT, CARB NO LONGER PRESENT  
R EP PERV IN AREAS OR PRODUCING LGE ENVELOPES  
R PY VEINS ASSOC W EP AND SOME PF ALTN TO CY  
R DK FINE GRAIN XENO USUALLY NO EP, LITTLE PY BUT DISS MG  
R PRODUCES POLYGONAL EFFECT W PY-EP CIRCLING FG AREAS  
/ 8750 9996 HYDIPFHBXE2EC<< P << P1E1P1P3 Q1<1  
L 6A 1111 D(  
R SLIGHTLY MORE FELSIC, SOME DK FG AREAS INTERMITTENT  
R RELATIVELY CG, PF APPROX 50-60%  
R PF ALTERED TO LT GRN, KF ALTN PATCHY AT 88.2,93.7  
R PY IN IRREG X CUTTING VEINS AND IN SUBHEDRAL CONC'N UP TO 1BY5CM  
R GY VEINS ANG, X CUTTING, OFTEN AT LGE ANGLE TO AXIS  
R EP AS ENV AROUND VEINS ASSOC W PY, NOT EXTENSIVE

R PY CONC'N AT 96.6,93.2,88.9M  
R FELSIC QZ MONZ XENO AT 92.62, APPROX 20CM  
/ 9996 10588 HYDIPFHBXE=EM<< P << <=<2P3P4 01<1  
L 5A 0001 D\* <1  
R MORE EP RICH  
R MED TO CORSE GRAIN, XENO RARE, SOME AT 103 TO 103.3  
R EP AS VEINS, IRREG AND DISCOUNT. AND AS ENVEL AROUND QZ-PY AND  
R GY-PY VEINS  
R 101.74 - 102.76 PY VEINS W QZ AT 30 DEG TO RT. SOME REMOB PY IN  
R XCUT GY VEIN. EP AS ENV TO QZ-PY VEINS.  
R PERV EP AT 101.7. ASSOC W KF ALTN W MORE DISS PY (10%)  
R 103.7 - END COARSER, SOME PY VEINS ALSO DISS AND AS BLEBS W MG  
R 105.45 SML QZ MONZ XENO  
/ 10588 10731 FGQMPFBI EQVV P V/ Q=P3 Q=  
L 6A V3  
R UNUSUAL ROCK FRAGMENT. CONTACTS SHARP W EP ALTN, VEINING  
R GY VEIN UP TO 4CM WIDE, CONTAINS ANG FRAGS OF FGMZ, CLEAR GY  
R PY IRREG IN GY VEIN AND IN MICROVEIN FOR LAST 30CM OF INTERVAL  
R 107.0 LGE BLEB OF PY, LITTLE EP, SOME CY ALTN OF PF, LITTLE GY  
/ 10731 10963 HYDIPFHBXE1EC<< P << E=<+P3P3 <1  
L 5G <1  
R COARSE GRAIN, FEW XENO  
R IRREG PY VEINS ASSOC W QZ AND EP  
R SILICIFIED AREA W PATCHY PY AT 108.13M  
R DISS PY, 2.5 TO 5%  
R EP ASSOC W SILICIFICATION BUT XCUT BY SOME PY VEINS  
/ 10963 11236 HYDIPFHBXE4VG P << E1Q2P3P3 Q+<1  
L AG<< V2  
R SIMILAR TO ABOVE BUT W MORE XENO, PY EP AND GY VEINS  
R MORE FRACTURES, COMPOSITION VARIES EXTENSIVELY  
R 111.6 SML GOUGE W BLACK MATERIAL  
R GY DECREASES THROUGH INTERVAL, QZ ENV INCREASE  
R PY IN TOP OF INTERVAL, PATCHY; BTM IS VEINS W QZ AND GY  
/ 11236 12055 HYDIPFHBXE3EQ<< P << E2<1P3P3 <1  
L 4A 0102 <1  
R COMPOSITION VARIES, MANY XENO  
R EP MOST EXTENSIVE AND PERV IN MAFIC AREAS ASSOC W PY  
R CY ALTN OF PF MORE DOMINANT THEN EP  
R PY MICROVEINS IRREG, SOME BLEBS AND IN GY VEINS  
R GY VEINS LESS EXTENSIVE  
R 113.56 - 114.4 QZ RICH AREA, PY-QZ ASSOC, CY-KF ALTN  
R 115.9 SML FAULT GOUGE  
R 11710 SML FAULT GOUGE W GY VEIN PERPENDICULAR TO AXIS  
R CY ALTN EXTENSIVE AT BTM OF CORE. HAS BLUE-GRN TINGE  
R 117.2 - END EQ, IRREG PY VEIN, LGE ANGLE GY VEIN, ONE KF VEIN  
/ 12055 12507 HYDIPFHBXE4<< P << E(P4P4 V=D=  
L 3G 0101 D1 <=  
R MORE MAFIC UNIT, MORE XENO  
R EP AS ENV AROUND VEINS AND NEAR KF ZONES  
R PY DISS BUT IN MICROVEINS AND SOME PATCHY AREAS  
R ROCK BLUE-GRN TINGE, EXT. CY ALTN AROUND KF ZONES  
R 123.9 - 124.05 FAULT GOUGE AND ZONE OF KF ANF CY ALTN  
R KF ALTN AT 123.34, 123.0, 122.7  
R ASSOC W ALTN UNKNOWN SAND- BRONZE MICA-SERICITE?  
/ 12507 14342 FGQMPFBIXE1EQ<< P << E=P1P2 E1D+D.  
L 6T SWPP 1212 <= 0\*  
R BECOMES PINKER W DEPTH, MORE VEINING AND SW, PHENO(PF) SPORADIC  
R XENO ARE ANG TO RND, MOSTLY VOLCANIC OR HYDI. SOME XENO HAVE  
R ALTN HALOES W PY IN CENTRE  
R EP VERY MINOR EXC. IN BRECCIA ZONES, INTERSTITIAL BTWN CLASTS

R PY DISS 5%, VEINS 5%, INCREASIN W DEPTH. ASSOC BTWN CLASTS IN  
 R BRECCIA W EP  
 R KF AS HALOES IN PY-SW VEINS AND IN BRECCIA ZONES  
 R PY VEINS ALSO W CY ALTN  
 R GY VEINS ANGULAR AT ALL ANGLES THROUGHOUT INTERVAL  
 R BRECCIA AT: 131.04, 133.19, 137.84, 139.69 - 140.34(CONTAINS CB)  
 R 142.04(CONTAINS CB)  
 R BRECCIA ZONES CONTAIN MANY ROCK FRAGS, DIOR,GRAN,FGQM,  
 / 14342 15423 HYDIPFHBXE4<<EQ P << <=<1P3P3 <=  
 L 4G D+ <1  
 R NETWORK OF SML EP-PY VEINS THROUGHOUT  
 R PY DISS IN ROCK 2.5%; LESS IN FG XENO W MG ASSOC  
 R MG DISS IN FNE GRAIN XENO PROMINANT AT:  
 R 145 - 146, 148.8 - 150, APPROX 150M  
 R QZ AS MINOR ENV AND VEINS ASSOC W PY, EP. DICONINUOUS  
 R GY VEINS XCUT ALL ROCK, SOME PY  
 R MINOR SHEETING OF PY VEIN AT 147.7, SOME SI FLOODING  
 R MED TO COARSE GRAIN ROCK SUSCEPTIBLE TO EP-PY ALTN RATHER THAN  
 R FINE GRAIN CLASTS  
 R END OF HOLE!  
 R SAMPLES

A001

AUMM	SAMPLE	Ag	Au	Cu	Mo
R		ppm	ppb	ppm	ppm

ALAB PDI RESEARCH

ATYP SPLIT CORE

AMTH WET GEOCHEM A.A.

R	00	305	CASING - NO RECOVERY				
A001	305	560	54062	6.0	3	212	1.0
A001	560	800	54063	.4	3	101	1.0
A001	800	1100	54064	.1	3	159	1.0
A001	1100	1400	54065	.1	3	16	.5
A001	1400	1492	54066	.1	3	17	1.0
A001	1492	1630	54067	.2	3	34	2.0
A001	1630	1807	54068	.2	3	69	2.0
A001	1807	1826	54069	.3	3	850	.5
A001	1826	1869	54070	.3	3	246	3.0
A001	1869	1942	54071	.7	15	1490	.5
A001	1942	2027	54072	1.0	15	1530	2.0
A001	2027	2251	54073	.1	3	180	3.0
A001	2251	2560	54074	.2	3	116	2.0
A001	2560	2768	54075	.1	3	72	1.0
A001	2768	3052	54076	.1	3	42	1.0
A001	3052	3229	54077	.1	3	24	3.0
A001	3229	3324	54078	.8	3	7	1.0
A001	3324	3511	54079	.2	3	1	2.0
A001	3511	3820	54080	.4	3	53	3.0
A001	3820	3962	54081	.2	3	48	4.0
A001	3962	4289	54082	.3	3	38	1.0
A001	4289	4470	54083	.2	3	253	1.0
A001	4470	4659	54084	.3	3	410	3.0
A001	4659	4732	54085	2.1	545	8400	4.0
A001	4732	4954	54086	.8	30	980	4.0
A001	4954	5135	54087	.3	5	278	5.0
A001	5135	5379	54088	.3	3	126	2.0
A001	5379	5614	54089	.9	3	375	1.0
A001	5614	5825	54090	.2	3	152	1.0
A001	5825	6159	54091	.1	10	133	.5
A001	6159	6382	54092	.2	3	225	2.0
A001	6382	6625	54093	.2	3	325	20.0

A001	6625	6734	54094	.2	10	386	2.0
A001	6734	7183	54095	.3	3	207	1.0
A001	7183	7330	54096	.2	3	136	.5
A001	7330	7495	54097	.2	3	232	2.0
A001	7495	7781	54098	.3	5	136	.5
A001	7781	7910	54099	.3	30	215	.5
A001	7910	8138	54100	.1	25	128	1.0
A001	8138	8327	54101	1.2	40	265	1.0
A001	8327	8387	54102	.1	225	2060	6.0
A001	8387	8455	54103	.1	30	350	2.0
A001	8455	8675	54104	.1	55	200	3.0
A001	8675	8750	54105	.1	25	119	.5
A001	8750	9010	54106	.1	10	199	6.0
A001	9010	9280	54107	.2	3	310	.5
A001	9280	9440	54108	.1	3	236	7.0
A001	9440	9571	54109	.2	10	229	2.0
A001	9571	9666	54110	1.1	20	320	4.0
A001	9666	9798	54111	.1	3	260	4.0
A001	9798	9996	54112	.2	3	270	9.0
A001	9996	10174	54113	.2	30	370	2.0
A001	10174	10276	54114	.2	5	345	8.0
A001	10276	10369	54115	.1	3	195	3.0
A001	10369	10588	54116	.1	3	277	6.0
A001	10588	10678	54117	.2	5	233	3.0
A001	10678	10731	54118	.1	3	184	10.0
A001	10731	10823	54119	.1	3	290	7.0
A001	10823	10963	54120	.1	10	256	3.0
A001	10963	11100	54121	.3	3	320	4.0
A001	11100	11236	54122	.2	10	580	13.0
A001	11236	11356	54123	.1	15	660	7.0
A001	11356	11589	54124	.4	10	650	7.0
A001	11589	11720	54125	.1	15	300	2.0
A001	11720	11920	54126	.1	20	288	4.0
A001	11920	12055	54127	.4	30	290	5.0
A001	12055	12365	54128	.2	20	370	4.0
A001	12365	12507	54129	.1	20	350	5.0
A001	12507	12706	54130	.2	15	320	6.0
A001	12706	12969	54131	.3	10	325	5.0
A001	12969	13289	54132	.1	10	340	7.0
A001	13289	13548	54133	.2	25	480	9.0
A001	13548	13658	54134	.2	3	430	8.0
A001	13658	13959	54135	.1	3	320	14.0
A001	13959	14037	54136	.2	3	280	3.0
A001	14037	14279	54137	.1	10	420	1.0
A001	14279	14342	54138	.1	3	285	5.0
A001	14342	14598	54139	.2	3	320	8.0
A001	14598	14813	54140	.2	3	340	6.0
A001	14813	15078	54141	.3	5	440	5.0
A001	15078	15150	54142	.1	10	210	3.0
A001	15150	15305	54143	.2	3	620	3.0
A001	15305	15423	54144	.1	3	162	5.0

A002

R 000 305 CASING - NO RECOVERY

AUMM RECOVY RQD

A002	305	427	32.8	9.0
A002	427	747	82.8	65.3
A002	747	975	43.9	12.3
A002	975	1097	68.0	15.6
A002	1097	1128	25.8	0.0
A002	1128	1250	32.0	0.0

A002	1250	1402	87.5	34.3
A002	1402	1676	85.8	34.3
A002	1676	1859	81.4	23.5
A002	1859	2012	100.0	32.7
A002	2012	2103	93.4	17.6
A002	2103	2316	90.6	49.3
A002	2316	2560	80.7	26.1
A002	2560	2713	87.6	26.1
A002	2713	2926	89.2	30.0
A002	2926	3109	85.2	5.5
A002	3109	3413	95.7	66.2
A002	3413	3719	78.4	37.8
A002	3719	3810	60.0	0.0
A002	3810	4115	82.0	42.3
A002	4115	4328	82.2	42.3
A002	4328	4450	73.8	54.9
A002	4450	4724	62.8	12.0
A002	4724	4999	44.4	15.3
A002	4999	5121	42.6	0.0
A002	5121	5364	67.9	27.2
A002	5364	5578	77.6	20.1
A002	5578	5669	86.8	11.0
A002	5669	5974	88.5	32.1
A002	5974	6279	95.7	42.0
A002	6279	6584	73.8	43.8
A002	6584	6888	56.6	10.1
A002	6888	7132	7.4	0.0
A002	7132	7163	64.5	0.0
A002	7163	7315	95.4	17.8
A002	7315	7498	59.2	9.2
A002	7498	7742	8.2	0.0
A002	7742	7925	62.8	7.1
A002	7925	8108	35.5	0.0
A002	8108	8382	62.0	15.3
A002	8382	8687	37.7	49.5
A002	8687	8992	87.2	53.4
A002	8992	9296	41.1	38.5
A002	9296	9601	91.1	75.1
A002	9601	9921	80.3	30.9
A002	9921	10226	82.8	62.8
A002	10226	10546	53.4	88.2
A002	10546	10851	92.4	83.8
A002	10851	11156	43.3	59.0
A002	11156	11460	95.4	70.4
A002	11460	11720	76.2	34.8
A002	11720	12040	83.8	64.7
A002	12040	12360	81.3	52.8
A002	12360	12664	96.7	74.8
A002	12664	12969	91.8	53.8
A002	12969	13289	73.7	59.7
A002	13289	13594	91.1	53.4
A002	13594	13899	93.4	90.1
A002	13899	14204	93.4	59.0
A002	14204	14508	82.6	51.0
A002	14508	14813	94.1	73.8
A002	14813	15118	95.1	59.7
A002	15118	15423	94.7	52.5

A003

AUMM

R

AG	AU	CU	MO
ppm	ppb	ppm	ppm



R	5.0 metre Composite Geochem					
R	Casing to 3.05 m					
A003	305	500	6.0	3	212	1.0
A003	500	1000	1.0	3	138	1.0
A003	1000	1500	.1	3	45	.7
A003	1500	2000	.4	6	482	1.8
A003	2000	2500	.2	4	221	2.4
A003	2500	3000	.1	3	63	1.1
A003	3000	3500	.3	3	14	2.1
A003	3500	4000	.3	3	49	3.1
A003	4000	4500	.3	3	138	1.1
A003	4500	5000	.8	94	1818	3.8
A003	5000	5500	.4	4	227	2.6
A003	5500	6000	.3	5	196	.8
A003	6000	6500	.2	5	219	5.8
A003	6500	7000	.3	5	276	6.0
A003	7000	7500	.2	3	194	1.2
A003	7500	8000	.3	15	155	.6
A003	8000	8500	.5	58	448	1.9
A003	8500	9000	.1	28	187	4.1
A003	9000	9500	.2	4	274	2.9
A003	9500	10000	.3	7	272	5.7
A003	10000	10500	.2	13	308	4.5
A003	10500	11000	.1	5	259	5.1
A003	11000	11500	.3	10	567	8.0
A003	11500	12000	.2	19	356	4.2
A003	12000	12500	.2	21	356	4.4
A003	12500	13000	.2	12	324	5.5
A003	13000	13500	.1	16	399	7.8
A003	13500	14000	.1	5	356	11.3
A003	14000	14500	.1	6	361	3.9
A003	14500	15000	.2	4	373	6.0
A003	15000	15423	.2	5	390	3.9

/END

IDEN680201 V250 DDH90-3 NQ 21APR90 MDKMEATLSAPR90S38 RBPUTM 0.0  
IPRJ PDI/Salor Scientific KNUT PROPERTY  
S000 00 8168MT 163.37266.00-45.00 3874. 2703. 920.  
S001 8168 16337 163.37266.00-45.00  
/SCL MT.2  
LSCL LCTM  
/NAM QZEPCLCYMSKFPYCPMOSL  
LNAM LIPLMGHEGYMCCB PO  
R THIS DDH COLLARED TO TEST A WEAK CU-AU SOIL AND COINCIDENT  
R IP CHARGEABILITY HIGH.  
R 00 1372 CASING TO 13.72  
/ 00 1372 OVBD P  
/ 1372 1676 HYDIPFHBXE7XESW P << <<+E3P2P20)D\*<<  
L YGKFQZ)KR 2314 C4 D)T) << <.  
R HIGHLY OXYDIZED ZONE-CLAY ALT. IS ABUNDANT  
R PY OCCURS MAINLY AS VEINLETS AND LESSER DISS X-TALS  
R XENO'S RANGE FROM 0.5-5.0CM AND CONSIST OF VOLCANICS(ANGULAR) &  
R INTRUSIVE(ROUNDED)  
R PROPYLITIC ALT. IS ABUNDANT W. EPIDOTE (ENV. & PATCHES) & CHLOR  
R (PERVASIVE).  
/ 1676 4450 HYDIPFHBXE7XESW P << <<+E3P2P)0\*  
L 6GKFQZ)BRKR 2222 FZ D= < )  
R ROCK CONSISTS OF 50-75% XENO'S: ANGUL. VOLCS & ROUNDED INTRUS.  
R FROM 0.5-5.0CM  
R CONTACTS ARE MORE GRADATIONAL (PART.DIGESTED FRAGS);TEXT.SHOWS  
R FINE-MED GRAIN W.HIGHLY FRACTURED SECTIONS IN CORE  
R ALT. IS PREDOM. PROPYLITIC AND SHOW PERV. CHLOR. ALT.W.PATCHES  
R & ENV. OF EPIDOTE  
R ROCK DISPLAYS A STOCKWK.OF MICROVEINS INFILLED W. SI (<5%),GYPS  
R W.ASSOC QZ & EP (UP TO 1%),EP (<30%) & PY (UP TO 1%) AS VEINLET  
R & DISS). PY APPEARS ASSOC W.EP & ALT'D MAFIC XENO'S. VEINLETS  
R SOMETIMES SHOW VUGGY SPACES. MG IS PRESENT AS DISS X-TAL MASSES  
R 21.24-21.44 SHOWS A MORE FELSIC SEGMENT OF THE HYBRID DIOR W.UP  
R TO 20% KF-RICH FRAGS. SOME PY SHOWS DISTINCT CUBIC X-TAL SHAPES  
R 32.51-32.61 IS A NARROW FAULT ZONE CHARACT. BY A MORE BRECCIATE  
R TEXT W.FELSIC & MAFIC CLASTS,UP TO 0.5CM VEINLETS OF SI & GY  
R PY OCCURS INTERSTITIALY TO CLASTS  
/ 4450 4838 HYDIPFKFXE7XESW P << Q1Q4P2 Q1D(  
L 7GHBQZ1EF 1122 D\* < ) <.  
R ROCK DISPLAYS A FINER-GRAIN TEXT W.ABUNDANT EP-CHLOR ALT.  
R KF ALT INCREASED, OCCURING AS PATCHES & ENV.WITHIN THE MATRIX  
R & XENO'S. MG IS LESS FREQUENT & PY OCCURS AS SMALL DISS X-TALS  
R 48.00-48.20 DISPLAYS A MUCH COARSER GRAIN FELSIC XENO'S OF KF-  
R SI INTERMIXED W. MAFICS  
/ 4838 6260 HYDIPFHBXE8XESW P << <<+Q4P3<\* < )  
L 6G QZ+EM 1122 VG D=C(< ) <.  
R ROCK DISPLAYS A LIGHT-GREEN TO GREYISH-BLACK COLOUR DUE TO STRG  
R PROPYLITIC ALT IN THE FORM OF 40% EP (PATCHES,ENV,MICROVEINS) &  
R PERV CHLOR 30%  
R XENO'S AGAIN ARE DOMINANT THROUGHOUT W.MOSTLY ANGULAR TO ROUNDE  
R FRAG OF VARIOUS SIZES (UP TO8CM), TEXT & COMP IN A DIORITIC MTX  
R ROUNDED INTR.XENO'S ARE MOST ABUNDANT CONSIST. OF FINE-MED GRAI  
R DIOR & COARSE-GRAIN GABBRO. ANGULAR VOLC.XENO'S APPEAR SCATTE'D  
R THROUGHOUT ROCK.  
R STOCKWK OF VEINLETS CROSSCUT THE ROCK & CONSIST OF SOME QZ,ENV  
R OF EP,GY W. ASSOC. PY (PY ALSO AS SINGLE VEINLETS)  
R PY OCCURS AS FRACT FILLING & VEINLETS UP TO 1%  
R MG APPEARS DISS UP TO 20% IN SOME INTERVALS WHERE MAFIC XENO'S  
R ARE ABUNDANT. FRACT INTENSITY IS LOW  
R 57.31 M :A 1-2CM VEIN OF WHITISH TO TRANSPARENT GYPSUM W.HEM STG

/ 6260 7347 HYDIPFHBXE8XESW P << #= P)P1 D1D-  
 L 5G QZ+BREM 2222 FZ C\* D+C(<= <+  
 R THIS INTERV IS SIMILAR TO PREVIOUS BUT DISPLAYS A MORE INTENSE  
 R PROPYLITIC ALT, POSS DUE TO A FAULT ZONE? TEXT SHOWS A MORE  
 R BRECCIATED NATURE & FRACTURING IS MORE INTENSE  
 R COLOUR IS DARKER GREEN, WEATHERING IS EVIDENT FROM LIMONITE STG  
 R PY VEINLETS W. ENV OF GY & SI ARE MORE ABUNDANT (UP TO 2%)  
 R CARB ALT IS ALSO INCREASED IN THIS INTERV AS STOCKWK  
 R 62.60-64.39 IS POSSIBLY A FAULT ZONE EVIDENT FROM THE BRECCIA-  
 R TION & INTENSE ALT W. GY VEINLETS UP TO 1.5 CM WIDE  
 R 73.15-73.47 SHOWS A DARKER, FRESHER ROCK W. A GY STOCKWK & ELEV-  
 R ATED MAGN CONTENT  
 / 7347 7625 SIBRPFQZXE5RWBR P << #= P)P1 D1D-  
 L GTHBQZ2XE 1111 FZ T) D-C)<1 Q=  
 R THIS INTERV DISPLAYS A MORE PROMINENT FELSIC COMP & MUCH LOWER  
 R LEVEL OF PROPYLITIC ALT  
 R EP & CHLOR OCCUR SCATTERED, TRACES OF PY, CARB ALT IS MORE FRE-  
 R QUENT AS PATCHES & VEINLETS  
 R ROCK APPEARS TO HAVE BEEN REWORKED POSS ALONG A FAULT ZONE, W.  
 R SI INJECTIONS (PATCHES)  
 R SOME SCATTERED XENO'S OF MAFIC VOLC (UP TO 3 CM) OCCUR IN A FI-  
 R NE-GRAIN DIORITIC MATRIX  
 R 73.47-73.90 SHOWS A HIGHLY CLAY ALT'D BRECC'D, LIM ST'D FAULT Z  
 R A NARROW 4 CM FAULT ZONE OCCURS FROM 76.21-76.25  
 / 7625 7766 HYDIPFHBXE2SWEM P << P\*D1P5<)  
 L 4G QZ\*XE 3346 T) D=C(<= K1  
 R THIS INTERV GRADES BACK INTO A PROPYLITIC ALT'D FINER-GR'D DIOR  
 R W. LESSER XENO'S BUT DISPLAYING A PROMINENT CARB STOCKWK  
 R CHLOR ALT IS PREDOMINANT, TRACES OF PY, MG IS FINELY DISS  
 / 7766 8266 HYDIPFFXE5RWBR P << #+ P3G1<+#3Q\*  
 L AGHBQZ+SWXE 2335 FZ T- <+ K)  
 R THIS INTERV GRADES BACK INTO A MORE FELSIC HYDI W.A GREYISH-  
 R GREEN COLOUR; CHLOR ALT IS LESS ABUNDANT; XENO'S ARE MORE COM-  
 R MONLY INTR IN A FINE-GRAIN DIORITIC MATRIX  
 R CARB STOCKWK IS AGAIN PRESENT ALONG W.GY VEINLETS, TRACES OF PY  
 R 80.66-80.86 & 81.29-82.66: CLAY-ALT'D BRECC'D FAULT ZONES, THE  
 R LATTER INTERV BEING MORE OF A SILICA BRECCIA W.A MORE DEVELOPED  
 R STOCKWK & ANGULAR FRAGS, POSS A REWORKED FAULT ZONE?  
 / 8266 8530 HYDIPFHBXE6XESW P << <+P)P4G) #\*D(  
 L RU QZ+RWEM 3346 D\*P2<= K1  
 R SIMILAR INTERV TO 76.25-77.66 BUT DISPLAYING A MORE REDDISH  
 R BROWN COLOUR DUE TO HEM STAIN'G  
 R STOCKWK OF CARB & GYPSUM  
 R REWORKED SECTIONS SHOW A BRECCIATED TEXT W. PATCHES, LENSES &  
 R FRAGS OF SILICA/FELDSPAR? TRACES OF PY.  
 / 8530 9929 HYDIPFHBXE7XESW P << <)Q3P4 <\*  
 L 5G QZ)EMBR 2425 FZ T- D+C)<1  
 R INTERV CHARACT'D BY STRONG PROPYLITIC ALT GIVING ROCK A MORE  
 R DARKISH-GREEN COLOUR; CHLOR IS PERV & EP IS PATCHY & ENV.  
 R GY VEINLETS OCCUR RANDOMLY W. SOME ASSOC HEM STAIN'G  
 R XENO'S ARE INTRUS (ROUNDED) W. LESSER SCATTERED VOLC (ANGULAR)  
 R PY OCCURS SCATTERED AS MICROVEINS & DISS; INTERV 97.22-98.24 IS  
 R SLIGHTLY MORE MINERALIZED  
 R 91.54-91.66 & 92.64-92.96: NARROW BRECCIATED FAULT ZONES  
 / 9929 10213 SIBRPFQZXE3BRWS P FZ #3 P1#= D)Q)  
 L TA QZ3RWEF 3336 << D(C(<1 <(  
 R INTERV OF ROCK WHICH HAS BEEN REWORKED & BRECCIATED W.SI & FX  
 R INJECTIONS; GY VEINLETS ARE AGAIN COMMON  
 R ALT OCCURS AS MINOR PERV CHLOR & LESSER CLAY  
 R PY OCCURS AS PATCHES (UP TO 2 CM), MICROVEINS & DISS

R COLOUR IS PINKISH-GREY  
/ 10213 11400 HYDIPFHBXE6XESW P FZ Q+Q2P4#1 D)Q+  
L GAQZ BREF 2334 << D)C\*K1 <\*<  
R GREENISH-GREY INTERV OF MOD PROPYLITIC ALT'D ROCK CHARACT'D BY  
R GY STOCKWK & VEINS UP TO 10 CM WIDE  
R XENOLITHIC TEXT ALSO DISPLAYS NUMEROUS CLAY-ALT'D FAULT ZONES  
R W. REMNANT FRAGS OF SI/FX  
R PY OCCURS MAINLY AS PATCHES, MICROVEINS & DISS, UP TO 2%  
R 105.21-105.61 SHOWS A POSS FAULT ZONE, REWORKED INTO A SILICIF'D  
R BRECCIA W. 2-3% PATCHES OF PY  
R 107.68-109.11 & 111.15-113.10 SHOW STRONG CLAY-ALT'D FAULT ZONE  
R BRECCIATED & WEAKLY MINERALIZED  
/ 11400 12100 HYDIPFHBXE7XEBR P << <\*<Q4P3G= D\*(<)<  
L 6GQZKF RWEM 2223 FZ D+ <)< <\*<  
R STRONG PROPYLITIC ALT'D INTERV OF THE HYBRID DIOR  
R TEXT OF MATRIX & XENO'S IS MORE GRAINIER (EM). FRAGS ARE MOSTLY  
R FINE-MED GRAIN DIOR & GABBRO W. LESSER FELSIC & SILIC'D XENO'S  
R EPIDOTE ALT IS PATCHY & VEINY; CLAY ALT OCCURS IN NARROW FAULT  
R ZONES. 114.40-114.80, 117.56-118.21 & 120.08-121.00 SHOW INCR'D  
R EP & CLAY ALT AS WELL AS A BRECCIATED TEXT.  
R PY IS ALSO MORE ABUNDANT, OCCUR'G AS PATCHES (UP TO 2 CM) & VLTS  
R 117.16-117.56 DISPLAYS A CONCENTRATION OF FELSIC & SILIC'D FRAG  
R MAGN SOMETIMES OCCURS AS ENV. AROUND THE PY  
/ 12100 12715 HYDIPFHBXE7XEEM P << Q+Q2O2G= Q+(<)<  
L GAQZKF+BRSW 2324 FZ D) <=<  
R THIS INTERV IS OF A SIMILAR ROCK TYPE BUT W. LESSER PROPYLITIC  
R ALT, A SLIGHTLY COARSER-GRAIN MATRIX & MORE FINE-GRAIN FELSIC  
R & SILIC'D FRAGS (UP TO 5 CM LONG)  
R PY OCCURS AS PATCHES W. LESSER VEINLETS & DISS  
R 124.26-124.66 & 126.25-126.65 DISPLAY CLAY-ALT'D, BRECC'D FAULTS  
/ 12715 14610 HYDIPFHBXE7XESW P << <)<Q3P5G+ D\*(<)<  
L 5GQZKF EMBR 2224 FZ D+ <+<  
R HIGHLY PROPYL ALT'D HYBRID DIOR W. UP TO 80% OF XENO'S, MAINLY  
R INTRUS IN COMP (MED-GRAIN DIOR?) & SCATTERED MAFIC VOLC (BASALT  
R OR ANDESITE?)  
R TEXT IS FINE-MED GRAIN, EP, GY & LESSER QZ STOCKWK  
R 128.33-128.63, 129.33-129.43, 136.50-137.10, 141.20-141.83 ALL  
R SHOW NARROW CLAY-ALT'D, BRECC'D FAULT ZONES  
R SOME INTERV SHOW EVIDENCE OF REACTIVATION W. INCREASES IN FRAC-  
R TURING, EP ALT & PY CONTENT  
R MOST OF THE FRACTURING HAS BEEN INFILLED W. GY OFTEN ALONG W. PY  
R & LESSER AMOUNTS OF SI. EP OFTEN ENV THESE GY-PY VEINLETS BUT  
R MOST OFTEN OCCURS AS PATCHES  
R PY OCCURS MOSTLY AS VEINLETS W. LESSER PATCHES & DISS  
R 133.45-138.93: INCREASED PY CONTENT ASSOC W. STRONGER ALT &  
R FRACTURING (0.5 CM WIDE VEIN)  
R MG OCCURS AS VEINLETS ENV'G THE GY ALONG FRACT ZONES & DISS IN  
R THE MAFIC XENO'S  
/ 14610 15017 MGMZPFKFXE2XERW P << D+E+E)G1 P4<\*<  
L GTQZ BR 3334 FZ D\* <1<  
R INTERV IS MARKED AT BEGIN'G BY CLAY-ALT'D FAULT GOUGE & IS  
R CHARACT'D BY A GREYISH-TAN, MED-COARSE GRAIN INTRUS POSS MONZON.  
R ROCK DISPLAYS AREAS OF LATE STAGE ACTIVITY WHERE TENSION FRACT.  
R & VEINLETS HAVE BEEN FILLED UP BY GY W. ENV OF EP  
R PY OCCURS IN LESSER AMOUNTS W. THE GYPSUM  
R 149.57-150.17: CLAY ALT IS INTENSIVE IN NARROW BRECC'D FAULT ZO  
R 149.00-149.57 SHOWS A SECTION OF PROPYLITIC ALT'D HYBRID DIOR  
R W. NARROW FAULT GOUGING & TRACES OF PY, CONTACTS W. HOST ROCK  
R ARE QUITE SHARP  
/ 15017 15410 SYDKKFPFXE1FGXE P D/ D+E+Q\*G+ P7D\*

L RSQZ << 2345 << Q\* <=  
R DYKE ROCK OF SYENITIC COMP CHARACT'D BY SEMI-ROUNDED MAFIC INTR  
R XENO'S (HYDI OR GABBRO?), SIZES VARY FROM 1-10 CM W. DISS MG  
R STOCKWK OF GY W. ENV OF EPIDOTE  
R 151.87-154.02 SHOWS A 1-2 CM WIDE FAULT GOUGE WHERE GY,EP & MG  
R HAVE FILLED IN. PY IS DISS IN THE MAFIC XENO'S  
/ 15410 15610 HYDIPFHBXE4XESW P FZ D+Q3P4G2 \*\*<+  
L GAQZKF1BREM 3215 << D) <+  
R INTERV OF TYPICAL GREENISH-GREY,STRONGLY PROPYLITIC ALT'D HYDI  
R W. VARIABLE XENO'S OF DIOR,GABBRO & VOLC  
R FRACT'G IS HIGH & INFILLED W.GY & LESSER PY, ENV & PATCHES OF EP  
R CHLOR ALT IS PERV. PY CONTENT CAN BE UP TO 2.5% OCCURING AS  
R VEINLETS,DISS & PATCHES  
R 155.60-156.10: STRONGLY CLAY-ALT'D FAULT ZONE W. SOME BRECCIAT  
/ 15610 16262 SYMZKFPFXE1PABR P FZ D=Q=E+G1 P3<+  
L RAQZ <<XE 2325 << C\*<=  
R ROCK OF REDDISH-GRAY COLOUR,POSS A SYENITIC MONZ W. A PATCHY &  
R BRECCIATED TEXT. DIFFICULT TO TELL IF LIGHT/DARK PATCHES ARE  
R FRAGS OR ALT PATTERN. SOME MED-GRAIN DIOR XENO'S UP TO 5 CM  
R WIDE OCCUR RANDOMLY  
R GY VEINLETS OCCUR THROUGHOUT & SOMETIMES CARRY MINOR PY. EP ENV  
R OCCUR W. THE GY & ALSO AS PATCHES  
R 15610-15681 DISPLAY A CLAY-ALT'D,BRECC'D FAULT ZONE W.MINOR PY  
/ 16262 16337 RYDKQZKFHB EFMX P D/ P3<+ P3  
L 5TPF << 1324 << <1  
R TAN-PINK, FINE-GRAIN MASSIVE ROCK OF RHYOLITIC COMP, POSS A DYKE  
R VERY WEAKLY ALT'D. GY OCCURS THROUGHOUT AS VEINLETS. CONTACTS  
R ARE SHARP W. HOST ROCK. NO VISIBLE PY.  
R SAMPLES

A001

AUMM SAMPLE Ag Au Cu Mo  
R ppm ppb ppm ppm  
ALAB PDI RESEARCH  
ATYP SPLIT CORE  
AMTH WET GEOCHEM A.A.

R	00	1372	CASING - NO RECOVERY	Ag	Au	Cu	Mo
				ppm	ppb	ppm	ppm
A001	1372	1676	54145	.2	3	64	1
A001	1676	2124	54146	.1	3	16	2
A001	2124	2144	54147	.1	10	2	1
A001	2144	2430	54148	.1	10	20	1
A001	2430	2713	54149	1.4	5	2	4
A001	2713	2990	54150	.1	3	1	1
A001	2990	3251	54151	.2	3	36	2
A001	3251	3261	54152	1.1	20	353	1
A001	3261	3536	54153	.5	3	117	1
A001	3536	3734	54154	.1	3	26	1
A001	3734	4450	54155	.2	3	23	1
A001	4450	4663	54156	.3	3	4	3
A001	4663	4838	54157	.1	3	2	2
A001	4838	5120	54158	.2	3	3	3
A001	5120	5410	54159	.2	3	5	1
A001	5410	5665	54160	.1	3	1	3
A001	5665	5924	54161	.3	3	16	2
A001	5924	6106	54162	.1	3	32	2
A001	6106	6260	54163	.3	3	19	3
A001	6260	6460	54164	.4	3	220	1
A001	6460	6660	54165	.4	3	197	3
A001	6660	6857	54166	.4	3	156	5
A001	6857	7025	54167	.4	3	225	1
A001	7025	7347	54168	.2	3	131	1

A001	7347	7390	54169	.1	3	20	3
A001	7390	7625	54170	.2	20	7	5
A001	7625	7766	54171	.3	3	7	1
A001	7766	7986	54172	.1	15	14	2
A001	7986	8266	54173	.1	3	46	1
A001	8266	8530	54174	.5	3	32	2
A001	8530	8798	54175	.2	3	71	2
A001	8798	9090	54176	.3	5	28	3
A001	9090	9264	54177	.3	3	8	3
A001	9264	9296	54178	.5	3	49	2
A001	9296	9587	54179	.3	3	28	2
A001	9587	9722	54180	.3	3	195	2
A001	9722	9929	54181	.1	3	22	1
A001	9929	10213	54182	.1	3	7	2
A001	10213	10521	54183	.1	5	18	1
A001	10521	10561	54184	.1	3	9	3
A001	10561	10768	54185	.1	3	12	1
A001	10768	10911	54186	.1	3	28	1
A001	10911	11115	54187	.4	3	53	1
A001	11115	11310	54188	.2	3	14	2
A001	11310	11400	54189	.1	3	2	1
A001	11400	11440	54190	.2	3	47	1
A001	11440	11480	54191	.1	3	7	1
A001	11480	11756	54192	.1	3	33	1
A001	11756	11821	54193	.2	3	81	5
A001	11821	12008	54194	.1	3	152	2
A001	12008	12100	54195	.2	3	107	1
A001	12100	12426	54196	.1	3	21	2
A001	12426	12466	54197	.1	3	2	5
A001	12466	12715	54198	.1	3	57	2
A001	12715	12833	54199	.1	3	123	3
A001	12833	12863	54200	.2	15	13	2
A001	12863	13135	54201	.2	3	66	2
A001	13135	13345	54202	.2	3	46	1
A001	13345	13548	54203	.2	3	76	4
A001	13548	13650	54204	.2	3	244	1
A001	13650	13710	54205	.1	3	4	5
A001	13710	13873	54206	.2	10	17	6
A001	13873	14120	54207	.2	3	190	4
A001	14120	14183	54208	.1	3	4	3
A001	14183	14483	54209	.2	3	89	1
A001	14483	14610	54210	.1	3	131	1
A001	14610	14957	54211	.1	3	118	2
A001	14957	15017	54212	.1	3	10	2
A001	15017	15242	54213	.1	3	24	3
A001	15242	15410	54214	.1	3	33	2
A001	15410	15560	54215	.1	15	181	2
A001	15560	15610	54216	.3	25	168	3
A001	15610	15681	54217	.1	3	63	3
A001	15681	15970	54218	.1	3	56	3
A001	15970	16262	54219	.1	3	20	3
A001	16262	16337	54220	.1	3	4	4

A002

AUMM

R	000	1372	RECOVY	RQD
			CASING	NO RECOVY
A002	1372	1701	31.9	0.0
A002	1701	1829	35.2	0.0
A002	1829	2012	44.7	5.5
A002	2012	2134	31.1	0.0
A002	2134	2345	42.7	4.7

A002	2345	2621	64.5	24.3
A002	2621	2652	67.7	0.0
A002	2652	2713	42.6	0.0
A002	2713	2865	52.6	7.2
A002	2865	2987	65.6	9.0
A002	2987	3139	75.0	0.0
A002	3139	3185	87.0	0.0
A002	3185	3261	34.2	0.0
A002	3261	3444	72.1	19.7
A002	3444	3536	76.1	0.0
A002	3536	3719	73.8	15.0
A002	3719	3840	28.9	0.0
A002	3840	3978	32.6	0.0
A002	3978	4145	7.2	0.0
A002	4145	4237	13.0	0.0
A002	4237	4450	16.5	0.0
A002	4450	4511	49.2	0.0
A002	4511	4541	83.3	0.0
A002	4541	4602	32.8	0.0
A002	4602	4663	50.8	0.0
A002	4663	4755	41.3	0.0
A002	4755	4923	68.9	18.0
A002	4923	5060	73.0	54.0
A002	5060	5105	66.7	26.7
A002	5105	5365	82.7	48.9
A002	5365	5639	24.1	24.7
A002	5639	5761	86.1	27.9
A002	5761	5974	72.8	27.2
A002	5974	6096	57.4	12.3
A002	6096	6218	26.2	0.0
A002	6218	6309	76.9	11.0
A002	6309	6492	66.7	15.3
A002	6492	6797	89.2	54.1
A002	6797	6980	68.3	29.5
A002	6980	7163	46.4	15.7
A002	7163	7315	55.9	20.4
A002	7315	7498	82.0	45.9
A002	7498	7681	98.4	67.8
A002	7681	7986	94.1	44.6
A002	7986	8169	96.7	62.3
A002	8169	8291	42.6	0.0
A002	8291	8595	84.2	58.9
A002	8595	8778	79.2	30.1
A002	8778	8900	57.4	13.9
A002	8900	9144	79.9	28.7
A002	9144	9296	73.7	13.8
A002	9296	9632	80.4	51.5
A002	9632	9784	80.3	15.1
A002	9784	10058	96.7	45.6
A002	10058	10363	95.4	71.1
A002	10363	10668	93.1	72.6
A002	10668	10851	78.7	42.6
A002	10851	10973	67.2	0.0
A002	10973	11125	71.1	25.0
A002	11125	11217	59.8	0.0
A002	11217	11460	81.1	33.3
A002	11460	11613	92.8	28.3
A002	11613	11811	85.9	19.7
A002	11811	12070	86.1	45.2
A002	12070	12375	95.1	56.1

A002	12375	12466	82.4	12.1
A002	12466	12680	34.6	0.0
A002	12680	12863	82.0	29.5
A002	12863	13015	98.7	25.7
A002	13015	13289	89.4	54.7
A002	13289	13533	86.1	28.3
A002	13533	13838	95.1	48.2
A002	13838	14158	91.3	33.4
A002	14158	14478	91.3	35.9
A002	14478	14630	93.4	37.5
A002	14630	14813	83.1	48.9
A002	14813	15027	93.5	35.5
A002	15027	15347	91.3	42.5
A002	15347	15575	88.6	46.1
A002	15575	15636	62.3	0.0
A002	15636	15834	78.3	28.3
A002	15834	16032	90.9	19.2
A002	16032	16337	95.1	39.0

A003

AUMM	AG	AU	CU	MO
R	ppm	ppb	ppm	ppm

R 5.0 metre Composite Geochem

R Casing to 13.72 m

A003	1372	1500	.2	3	64	1
A003	1500	2000	.1	3	33	2
A003	2000	2500	.3	8	16	7
A003	2500	3000	.7	4	2	2
A003	3000	3500	.4	3	81	2
A003	3500	4000	.2	3	31	1
A003	4000	4500	.2	3	21	1
A003	4500	5000	.2	3	3	3
A003	5000	5500	.2	3	4	2
A003	5500	6000	.2	3	13	2
A003	6000	6500	.3	3	116	2
A003	6500	7000	.4	3	189	3
A003	7000	7500	.2	7	99	2
A003	7500	8000	.2	13	11	2
A003	8000	8500	.3	3	39	2
A003	8500	9000	.3	4	51	2
A003	9000	9500	.3	3	22	3
A003	9500	10000	.2	3	68	2
A003	10000	10500	.1	4	13	1
A003	10500	11000	.2	3	24	1
A003	11000	11500	.2	3	24	1
A003	11500	12000	.1	3	82	2
A003	12000	12500	.1	3	40	2
A003	12500	13000	.1	4	72	2
A003	13000	13500	.2	3	61	2
A003	13500	14000	.2	5	111	4
A003	14000	14500	.2	3	104	2
A003	14500	15000	.1	3	112	2
A003	15000	15500	.1	5	55	2
A003	15500	16000	.1	7	81	3
A003	16000	16337	.1	3	16	3

/END



IDEN6B0201 V250 DDH90-4 NQ 28APR90KME ATLSAPR90S38 RBPUM 0.0  
IPRJ PDI/Salor Scientific KNUT PROPERTY  
S000 00 7361MT 147.22088.0 -45.00 3697. 2263. 952.  
S001 7361 14722 147.22088.0 -46.0  
/SCL MT.2  
LSCL LCTM  
/NAM QZEPCLCYMSKFPYCPMOSL  
LNAM LIPLMGHEGYMCCB PO  
R THIS DDH COLLARED TO TEST CU-AU SOIL AND COINCIDENT IP ANOMALY  
R 00 366 CASING TO 3.66M  
/ 00 366 OVBD P  
/ 366 1199 HYDIPFHBXE3EQBR P << Q/Q2P2P1 \*=Q1  
L 5G PA C( D=C(<1  
R HIGHLY MIXED UNIT; DK GRN, MED GRAIN HOST  
R XENO INCLUDE GRANITE, VOLC, FG MAGNETIC UNIT (DACITE?)  
R EP ALTN RESTRICTED TO PATCHES IN MAFIC HOST ROCK, SURROUNDING  
R ROCK FRAGMENTS OR INTERSTITIALLY IN BRECCIA  
R PY ASSOC W EP. DISS UP TO 10%, LITTLE VEINING  
R IN AREAS, FELSIC UNITS (DACITE) DOMINATE OVER DIOR  
R 4.06 - 5.49 INTENSE EP AND PATCHY PY ALTN  
R REPLACEMENT OF SOME XENO , SURROUNDING OTHERS  
R 10.67 - 11.99 ABUM FELSIC CLASTS - BRECCIA?  
R EP IN DIOR HOST, ASSOC W PY BLEBS, ENVELOPED BY MG.  
/ 1199 2466 HYDIPFBIXE4EFPP P << Q=<=P1P= P1D1Q-  
L 4U B) <1 </  
R SIMILAR TO ABOVE BUT FINER GRAINED UNIT, HARDER, MORE FELSIC?  
R DOMINANT - MONZO DIORITE  
R INTERVAL VARIES A LOT  
R EP CONC'N DECREASES, FOUND DOMINANTLY AS MICROVEINS OR ENVELOPES  
R 18.29 - 20.8 EP AS PATCHES AND VEINS, MORE MAFIC AREA  
R 12.2 - 13.8 BRECCIA W HOST MZDI, PY-EP IN PATCHES BTWN CLASTS  
R SOME DISS PY  
R 14.34 - 14.77 SILICIFIED AREA, HIGH DISS AND PATCHY PY CONTENT  
R 10CM QZ VEIN AT 70 DEG TO RT, CY ALTN INTERSTITIAL TO QZ  
R FLOODING. ROCK LITTLE EP  
R GY - CB VEINS XCUT ALL ANGLES  
R 23.1 PY - MG CONC'N IN MAFIC UNIT  
R 23.1 - 24.66 VARIABLE UNIT. PORPH TO MED GRAIN DIOR W KF CLASTS  
R MINIMAL PATCHY EP AND PY <2.5%  
R GY IN ANG IRREG VEINS  
/ 2466 3840 MZDIPFBIXE=EF<< P << P+P2G= V+P)  
L 4T KF=PP BR 60 P( <1  
R MZDI: MONZO DIORITE, BI PHENO 20%, KF5 - 10%, TAN TO GREY GRN  
R EP AS MINOR PATCHES AND MICROVEINS  
R SOME PY AS MICROVEINS AND ASSOC W EP AND MG IN FRESH ROCK  
R PY ASSOC W GY AND CY IN GOUGED AREAS  
R GOUGES AT: 26.0 - 27.5 CY 30%, DISS PY, CB  
R 35.0 - 35.3 AT 40 DEG, DISS PY, GY. PY-QZ VEIN AT 40 - 50DEG  
R 35.7 - 36.0 AT 60 DEG, DISS PY, GY VEIN, CB  
R PY BORDERING PINK GY-CB VEIN, CY 70%, SOME QZ  
R 29.7 - 30.0 SILICIFIED W DISS PY, LGE IRREG GY VEIN W ASSOC  
R PY PATCH, CY GOUGE AT END AT 45 DEG  
/ 3840 5308 HYDIPFHBXE3EQ<< P << <=P3G3 \*=Q(Q  
L 5G BR 0001 <)C+<2 G/  
R CONTAINS MANY XENOLITHS AND CY RICH GOUGED AREAS  
R XENO INCLUDE KF, FGDI, MZDI, GRANITE; ANG TO RND  
R GENERAL ROCK HAS PATCHY AND MICROVEIN EP W CL ENVELOPES  
R AND ASSOC VEIN TO PATCHY PY AND MG UP TO 10%, SOME CP  
R MAFIC XENO SELECTIVELY REPLACED BY EP  
R IN XENO RICH AREAS, EP AND PY INTERSTITIAL, SOME MG

R 44.5 - 47.5 LITTLE EP, PY IN MICROVEINS AND DISS 10%  
R FAULT GOUGES AND BRECCIAS:  
R 38.4 - 39.76 CY 40%, LGE FSP CLASTS, CL ALTN EXTENSIVE, CB  
R 40.95 - 41.75 CY 10%, CL ALTN EXTENSIVE. CB AND GY VEIN  
R HE COATING ON GY VEIN AND FRACTURES  
R PY AND MG PATCHY AND MICROVEINS UP TO 10%  
R 44.5 - 45.56 NOT CONTINUOUS, CY-CL ALTN, PINK GY VEINS  
R SILICIFICATION AND HIGH DISS PY AT END  
R 48.02 - 49.9 CL-CY ALTN W HIGH XENO CONTENT, DISS PY 5%  
R 51.68 - 52.72 CY 70%, INTERSTITIAL EP-PY  
/ 5308 6553 MZDIPFBIKF=EF<< P << <+ P3 P1D\*  
L 4U XE( 0001 VG 35 Q) <1 <(
R VERY BORING, COMPETENT ROCK, SLIGHTLY PORPHYRITIC  
R GY VEINS SOMETIMES ACCOMPANIED BY KF AND CY ALTN  
R 54.21 - 55.25 HIGHLY SILICIFIED AND KF ALTN  
R GRADES QUICKLY IN AND OUT TO MZDI  
R RELIC OF PF PHENO SOFT, POSS GY?  
R IN CENTRE OF ZONE HAVE GY-CB VEIN AT 35 DEG, CY ALTN ENV  
R SUBPARALLEL QZ VEINS AT 60 DEG  
R 63.09 - END PATCHY MG 20%, POSS KF ALTN  
/ 6553 6792 PYSYQZKFXE\*EF<< P << V+ G1 <)D=  
R 6TB1 BR 1111 <1 G/  
R PINKISH, POSS KF AND SI ALTERED MZDI  
R COMPETENT, GY VEINS, MINOR PY AND MG VEIN AT 35 DEG, SOME CY  
R 67.27 - END ALTERED BRECCIA, SOME QZ VEIN  
R MADE OF FSDK CLASTS, SOME CY BTWN CLASTS W CB  
R MINOR KF VEIN, DISS PY  
R 15/05: EXAMINATION SHOWS THAT ROCK IS SIMILAR TO PYSY FROM  
R 90-7. THIS INTERVAL LESS PINK WITH LESS DISS PY BUT  
R SIMILAR TEXTURE AND COMPOSITION. FORMER NAME WAS FSDK.  
/ 6792 7780 HYDIPFHBXE5BR<< P << E(Q(P3G+ O=Q1  
L 4G EF 0101 BR D= V2 G/  
R BRECCIA ZONES COMMON, LOCALIZED XENO CONC'N UP TO 70%  
R XENO INCLUDE ANG TO RND VOLC, GRANITE, FGDI, MZDI  
R HOST ROCK COMP'N VARIES, DIFFICULT TO IDENTIFY  
R GY VEINS CLEAR AND PINK  
R PY DISS IN ROCK 5 - 10%, INTERSTITIAL IN BRECCIAS 15 - 20%  
R SPOTTY IN MAFIC UNITS 15 - 20%, DISS AND MICROVEINS THRUOUT  
R PY ASSOC W CY IN GOUGED AREAS W GY VEIN  
R LITTLE EP, CL IN GOUGED AREAS, PERVASIVE AND INTERSTITIAL IN BRECC  
R XENO CONC'N AT : 67.92 - 70.27, 73.25 - 73.55  
R 77.11 - END LGE FELSIK XENO  
R CY RICH GOUGES AT 70.27 AT 75 DEG, 74.48, 77.0 - 77.31 AT 70 DEG  
/ 7780 8870 HYDIPFHBXE4EMBR P << E(Q(P3G2 E(D2<)  
R 4G << 0101 BR J) <2 </  
R SIMILAR TO ABOVE, MORE MAFIC  
R SOME EP IN SML PATCHES AND INTERSTITIAL  
R BRECCIA AT: 77.8 - 78.7 PINK AND CLR GY, KF ENV W CY AND PY  
R MG INTERSTITIAL, CP BLEB AT 78.7  
R SOME FELSIK XENO FROM PREVIOUS INTERVAL  
R 80.16 - 85.42 MOSTLY MAFIC DIOR FRAGMENTS, ANGULAR  
R INTERSTITIAL MG UP TO 30%, CP 1%, PY 20%, CL 20%  
R ANG GY VEINS THRUOUT, SOME KF OR QZ ENV ASSOC W GY  
R CY ALTN 70% AT 81.6 AND 84.38  
R 85.42 - 85.82 GREY ZONE, EUHEDRAL PY 20%, SILICIFIED  
R 86.76 PY VEIN AT 50 DEG, 3CM WIDE, 70% PY, 1% CP, SILICIFIED ,CY  
R 86.76 - END EF DIOR, PY PATCHES 5-10%, SOME CP, FRESH  
/ 8870 10126 HYDIPFHBXE2<<BR P << Q1Q)P3G) Q+Q1Q)  
L 5G 0101 J) V1 G-  
R FEWER BRECCIA AREAS, LESS XENO, HOST MED TO COARSE GRAIN

R EXTENSIVE CL ALTN, LITTLE EP  
R HIGH PY CONC'N INTERSTITIAL IN BRECCIA ZONE IN MAFIC ROCKS  
R OTHERWISE DISS IN ROCK 5% OR IN MICROVEINS W QZ OR KF  
R ENV IN COMPETENT ROCK  
R HIGH KF ALTN, PERV AND ENV AT 97.0 - 99.0  
R ASSOC CY ALTN, GY AND QZ VEIN  
R KF ALTN INTERMITTENT 99.0 - END  
R BRECCIA AT:  
R 91.88 - 94.04 15 - 20% INTERSTITIAL PY, 5 - 10% MG  
R 93.06 - 93.36 CY GOUGE, DISS PY 10%  
R 94.84 - 96.0 LITTLE XENO, PY (5 - 10%) PATCHY W CP, EP  
R 99.0 - END COARSE GRAIN, PY VEINS, KF ENVELOPES.  
/ 10126 11630 HYDIPFHBXE2EQ<< P << E(Q=P3 E+Q1Q(  
L 5G D2 V1  
R GRN, MED GRAIN, ABUNDANT XENO, ANGULAR, MOSTLY MZDI .5 - 40CM  
R EP AND PY CONC'N AROUND XENO AND KF ALTN, EP ENV 1%  
R SOME PY ALONG SIDES AND IN CENTRE OF GY VEINS  
R DISS PY 2.5%, CP ASSOC W PY EVERYWHERE, MG DISS EVENLY  
R MZDI: PY MICROVEINS (1-2%) W EP ENV AND OR CL ENV OR PINK QZ ENV  
R GY XCUT AND PARALLEL PY VEINS. GY VEINS PRODUCE STOCKWORK  
N 10446 10564 )CGGBPFHBKF+EC<< N XE 70 Q(P4 Q+<(B)  
L 7G 0000 D1 <=  
R ODD ROCK, SEVERAL PHASES OF CL ALTN???  
R HIGH CONC'N OF PY IN VEIN IN KF ALTN W SOME CY  
R SML SIMILAR XENO THRUOUT INTERVAL  
R MZDI XENO AT: 105.64 - 106.68, 101.26 - 103.11, 107.81 - 108.39  
R FGDI(PORPH) AT: 112.66 - 113.39, CL ALTN, NO MINERALIZATION  
R 103.11 GOUGE, CY, DISS PY 20%  
R 115.0 - 115.5 SILICIFIED ZONE, EUHEDRAL PY UP TO 30%  
R GY EXTENSIVE, SOME CY  
R CP AND PY IN VEINS AND DISS (CP 2.5%)  
/ 11630 13164 MZDIPFBIKF=EF<< P << 65P=Q)P2G2 Q=<1<)  
L 5T XE1SW 1335 FZ Q) <2 G/  
R EXTENSIVE STOCKWORK W GY VEINS, GENERALLY MED TO LGE ANGLE VEINS  
R ROCK FG TO MED GRAIN W SML PHENOS OF BI (CL) AND OCCASIONAL PF  
R KF IN GROUND MASS W PF  
R AND XENO OF HYDI UP TO 40CM  
R LITTLE DISS PY IN IRREG VEINS W QZ ENV AND PATCHY EP  
R PY UP TP 10% OF ROCK IN MICROVEINS; SOME CB ASSOC W PY  
R EP ISOLATED IN PATCHES IN HYDI, W PY IN MICROVEINS AND IN  
R SML XENO (FELSIC TO MAFIC)  
R HAVE AREAS OF PERV TO ENV PINK ALTN - QZ OR KF?  
R AREAS HAVE HIGHER PY CONTENT IN FINE NET OF VEINS  
R CONTAIN MG AND CP ALTHOUGH MG DOMINANT IN XENO  
R COMMON 125.0 - END  
R 117.7 - 118.25 HYDI XENO, BTM CONTACT AT 25 DEG W GY VEIN  
R 122.2 - 122.6 GOUGE AT 65 DEG, CY 30 %, CB 10%, DISS PY 10%,  
R CB, MG. INTERMITTENT GY VEINS, SOME INTERSTITIAL PY IN  
R BRECCIA ZONES. ODD PURPLE MINERAL, POSS QZ  
R 130.69 - 131.69 QZ - KF ALTERED ZONE, FRACTURED W CY ALTN  
R DISS TO MICROVEIN PY, 10-15%, ODD GRN CY MINERAL COMMON  
/ 13164 13544 HYDIPFHBXE4EM<< P << E+Q+P4G1 <2<<  
L 4G 0001 D= <2G-  
R TYPICAL HYDI, SLIGHTLY MORE FELSIC AND FG AT END  
R PY IN EXTENSIVE NET OF MICROVEINS THROUGHOUT  
R SOME PY MICROVEINS W QZ ENV, REMOB PY IN GY VEINS  
R PY CONC'N AT : 133.69 SML GOUGE W CY ALTN AND KF?? ALTN  
R PY AS ENV AROUND GY-QZ VEIN AT 35 DEG  
R 134.39 GOUGE W GY-CB-CY ALTN, SOME QZ  
R 134.64 PY W GY BLOB

/ 13544 14722 MZDIPFBIXE(EFSW P << P1Q(P=G+ P2<2<<  
 L 5T << 0101 <) <1 G=  
 R MORE FELSIC TO BTM OF INTERVAL, KF- QZ FLOODING  
 R KF AREAS COARSER, RANGE ENV TO PERV, MAY BE DIFFERENT ROCK  
 R KF ENV AROUND QZ-PY VEINS  
 R PY IN FINE NETWORK OF MICROVEINS W ASSOC CP , MINOR MG  
 R PY-MG-CP IN MAFIC XENO, PATCHY  
 R GOUGES AT:  
 R 137.27 AT 65 DEG, EUHEDRAL PY, CALCITE AND GRN MINERAL  
 R MG AND CP IN MICROVEINS, ASSOC W PY  
 R 138.07 SOME EP, GY VEIN. HIGH DISS PY CONTENT  
 R 143.22 MINOR CY ALTN  
 R 144.72 GY VEIN, MG-PY-CP VEINS, INTERSTITIAL PY, CY ALTN  
 R 144.72 - END INTERMITTENT ROCK W GRN MINERAL SPOTTED THROUGHOUT  
 R HIGH KF OR PINK QZ CONTENT  
 R CONTAINS MICROVEINS W MG SELVEDGES/ENVELOPES  
 R FRACTURES THROUGHOUT ROCK, BUT NOT CONTINUOUS THEREFORE  
 R FRACTURE COUNT LOW.  
 R EOH  
 R SAMPLES

A001

AUMM	SAMPLE	Ag	Au	Cu	Mo
R		ppm	ppb	ppm	ppm

ALAB PDI RESEARCH

ATYP SPLIT CORE

AMTH WET GEOCHEM A.A.

R	00	366	CASING - NO RECOVERY				
A001	366	549	54221	1.9	35	331	6.0
A001	549	780	54222	.6	70	335	4.0
A001	780	1017	54223	.3	3	335	4.0
A001	1017	1199	54224	.4	3	480	5.0
A001	1199	1479	54225	.5	20	323	6.0
A001	1479	1840	54226	.2	3	164	4.0
A001	1840	2155	54227	.2	3	280	4.0
A001	2155	2306	54228	.3	3	147	3.0
A001	2306	2466	54229	.2	3	72	4.0
A001	2466	2621	54230	.2	3	37	7.0
A001	2621	2760	54231	.1	3	23	6.0
A001	2760	2975	54232	.1	3	61	6.0
A001	2975	3094	54233	.4	3	50	4.0
A001	3094	3251	54234	.2	3	100	6.0
A001	3251	3496	54235	.2	3	72	3.0
A001	3496	3604	54236	1.1	280	100	3.0
A001	3604	3844	54237	.5	3	620	3.0
A001	3844	3976	54238	1.5	160	3400	4.0
A001	3976	4095	54239	.7	65	2160	2.0
A001	4095	4175	54240	.4	20	570	2.0
A001	4175	4450	54241	2.1	250	2030	2.0
A001	4450	4556	54242	.6	40	600	2.0
A001	4556	4802	54243	.2	20	257	.5
A001	4802	4990	54244	.2	5	156	.5
A001	4990	5168	54245	.2	3	176	.5
A001	5168	5308	54246	.2	3	164	.5
A001	5308	5421	54247	.1	3	83	1.0
A001	5421	5525	54248	.3	3	295	1.0
A001	5525	5734	54249	.2	3	218	2.0
A001	5734	5970	54250	.2	3	117	3.0
A001	5970	6309	54251	.1	3	113	1.0
A001	6309	6553	54252	.3	3	110	2.0
A001	6553	6727	54253	.6	240	770	.5

A001	6727	6792	54254	.4	30	980	1.0
A001	6792	7027	54255	.5	3	1200	.5
A001	7027	7198	54256	.9	20	2300	1.0
A001	7198	7325	54257	1.1	45	2420	2.0
A001	7325	7448	54258	.8	120	850	3.0
A001	7448	7731	54259	.6	50	680	1.0
A001	7731	7780	54260	.2	3	320	4.0
A001	7780	7870	54261	1.0	80	2530	4.0
A001	7870	8016	54262	1.1	80	2340	4.0
A001	8016	8190	54263	.7	40	1400	3.0
A001	8190	8355	54264	.9	50	1800	3.0
A001	8355	8438	54265	.7	115	1080	3.0
A001	8438	8671	54266	1.1	110	1720	4.0
A001	8671	8827	54267	.6	55	800	4.0
A001	8827	9110	54268	.7	3	1380	4.0
A001	9110	9188	54269	2.1	170	1510	5.0
A001	9188	9300	54270	.9	20	1540	4.0
A001	9300	9484	54271	.5	30	1000	4.0
A001	9484	9598	54272	.7	20	1360	5.0
A001	9598	9700	54273	.3	8	540	2.0
A001	9700	9896	54274	.4	20	600	5.0
A001	9896	10039	54275	.7	70	1450	5.0
A001	10039	10126	54276	.8	80	1520	6.0
A001	10126	10311	54277	.7	40	740	4.0
A001	10311	10446	54278	.5	45	1560	6.0
A001	10446	10564	54279	1.3	260	670	4.0
A001	10564	10668	54280	.6	35	780	4.0
A001	10668	10781	54281	.2	3	266	5.0
A001	10781	10951	54282	.8	25	790	5.0
A001	10951	11156	54283	.6	35	1200	3.0
A001	11156	11344	54284	.5	3	1020	2.0
A001	11344	11500	54285	.6	30	1350	4.0
A001	11500	11630	54286	1.4	125	3200	6.0
A001	11630	11775	54287	.6	30	1000	6.0
A001	11775	11855	54288	.5	25	1170	4.0
A001	11855	12115	54289	.7	40	1360	3.0
A001	12115	12220	54290	.3	3	710	4.0
A001	12220	12270	54291	.7	3	700	10.0
A001	12270	12389	54292	.4	3	570	6.0
A001	12389	12545	54293	.5	3	570	5.0
A001	12545	12774	54294	.3	3	520	4.0
A001	12774	12929	54295	.6	10	366	6.0
A001	12929	13069	54296	.3	3	530	4.0
A001	13069	13164	54297	.5	70	48	4.0
A001	13164	13344	54298	.3	3	470	3.0
A001	13344	13544	54299	.4	3	670	3.0
A001	13544	13699	54300	.6	3	1240	3.0
A001	13699	13810	54301	.2	3	195	2.0
A001	13810	14112	54302	.2	3	338	3.0
A001	14112	14322	54303	.1	3	182	3.0
A001	14322	14475	54304	.3	15	480	3.0
A001	14475	14585	54305	.1	3	105	3.0
A001	14585	14722	54306	.2	10	276	3.0

R EOH

A002

AUMM			RECOVY	RQD
R	000	366	CASING - NO RECOVY	
A002	366	549	56.3	0.0
A002	549	762	62.4	20.2
A002	762	914	78.9	9.2

A002	914	1067	92.8	43.1
A002	1067	1219	78.9	36.2
A002	1219	1372	69.9	26.7
A002	1372	1707	46.6	9.5
A002	1707	1829	57.4	9.8
A002	1829	2012	71.0	21.3
A002	2012	2149	73.0	38.0
A002	2149	2316	92.8	79.6
A002	2316	2621	83.6	38.4
A002	2621	2743	27.9	0.0
A002	2743	2804	85.2	0.0
A002	2804	2926	27.9	0.0
A002	2926	2972	50.0	0.0
A002	2972	3094	73.8	43.4
A002	3094	3231	54.7	35.0
A002	3231	3414	65.6	18.0
A002	3414	3551	67.2	23.4
A002	3551	3719	64.9	36.9
A002	3719	3840	33.9	0.0
A002	3840	4145	96.1	77.4
A002	4145	4450	91.8	62.3
A002	4450	4755	90.8	75.1
A002	4755	5060	87.5	57.7
A002	5060	5273	73.2	40.4
A002	5273	5395	72.0	28.8
A002	5395	5669	85.0	34.3
A002	5669	5822	96.7	42.5
A002	5822	5974	92.1	55.9
A002	5974	6187	77.5	49.8
A002	6187	6309	70.5	75.4
A002	6309	6553	82.0	51.6
A002	6553	6675	75.4	38.5
A002	6675	6888	92.0	68.1
A002	6888	7193	95.1	72.8
A002	7193	7498	96.1	86.6
A002	7498	7711	51.6	36.6
A002	7711	8016	96.7	68.5
A002	8016	8321	97.7	73.4
A002	8321	8626	98.4	55.4
A002	8626	8960	86.8	47.0
A002	8960	9266	91.8	54.8
A002	9266	9601	89.3	72.5
A002	9601	9906	91.8	63.6
A002	9906	10241	91.0	75.2
A002	10241	10546	100.0	90.8
A002	10546	10851	93.8	86.6
A002	10851	11156	97.0	86.8
A002	11156	11460	98.0	86.5
A002	11460	11765	97.7	75.7
A002	11765	12070	63.9	43.0
A002	12070	12283	100.0	100.0
R	BLOCKS IN WRONG PLACE			
A002	12283	12588	97.7	91.1
A002	12588	12741	85.0	64.7
A002	12741	12984	92.6	70.4
A002	12984	13289	94.8	65.2
A002	13289	13594	79.7	56.4
A002	13594	13807	96.2	57.3
A002	13807	14112	95.4	85.2
A002	14112	14432	93.7	55.6

A002	14432	14722	100.0	69.3		
A003						
AUMM			Ag	Au	Cu	Mo
R			ppm	ppb	ppm	ppm
R			5.0 metre Composite Geochem			
R			Casing to 3.66 m			
A003	366	500	1.9	35	331	6
A003	500	1000	.6	37	334	4
A003	1000	1500	.4	12	373	5
A003	1500	2000	.2	3	201	4
A003	2000	2500	.2	3	156	3
A003	2500	3000	.1	3	44	6
A003	3000	3500	.2	5	76	4
A003	3500	4000	.9	105	1319	3
A003	4000	4500	1.4	157	1678	2
A003	4500	5000	.2	16	255	1
A003	5000	5500	.2	3	170	1
A003	5500	6000	.2	3	167	2
A003	6000	6500	.2	3	111	1
A003	6500	7000	.5	58	906	1
A003	7000	7500	.9	53	1745	1
A003	7500	8000	.8	58	1409	2
A003	8000	8500	.8	65	1548	3
A003	8500	9000	.8	58	1315	4
A003	9000	9500	.9	43	1295	4
A003	9500	10000	.5	26	913	4
A003	10000	10500	.7	74	1144	4
A003	10500	11000	.7	53	694	4
A003	11000	11500	.6	21	1179	2
A003	11500	12000	.8	56	1703	4
A003	12000	12500	.5	11	794	5
A003	12500	13000	.4	5	478	4
A003	13000	13500	.4	15	460	3
A003	13500	14000	.3	3	615	2
A003	14000	14500	.2	6	304	3
A003	14500	14722	.2	7	210	3
/END						

IDEN680201 V250 DDH90-5 NQ 29APR90MD ATLSAPR90S38 RBPUM 0.0  
 IPRJ PDI/Salor Scientific KNUT PROPERTY  
 S000 00 6721MT 134.42270.0 -45.00 3598. 2503. 964.  
 S001 6721 13442 134.42270.0 -44.5  
 /SCL MT.2  
 LSCL LCTM  
 /NAM QZEPCLCYMSKFPYCPMOSL  
 LNAM LIPLMGHEGYMCCB PO  
 R THIS DDH COLLARED TO TEST A WEAK CU-AU SOIL AND COINCIDENT HIGH  
 R IP CHARGEABILITY HIGH.  
 R 00 366 CASING TO 3.66M  
 / 00 366 OVBD P  
 / 366 1697 MZDIPFKFXE1PASW P << D+Q+P+G2 Q2D+  
 L TAHBQZ+BRXE 3437 FZ T1C) <1  
 R OXYDIZED ZONE CHARACTERIZED BY STRONG WEATHERING & ALT & BROKEN  
 R CORE PIECES  
 R ROCK APPEARS TAN-GREY COLOUR W.PATCHY OR XENOLITHIC TEXT SOME  
 R FRAGS ARE OBVIOUS FINE-MED GRAIN INTRUSIVES (ROUNDED) WHILE  
 R OTHERS APPEAR SMALLER,ANGULAR & VOLC,BUT MOST OFTEN FRAG CON-  
 R TACTS ARE DIFFICULT TO RECOGNIZE  
 R MATRIX APPEARS MADE OF MED-GR'D INTERM COMP (MONZO-DIORITE?)  
 R EP ALT IS PATCHY W.LESSER ENV,WHILE CLAY ALT IS DOMINANT IN  
 R BRECCIATED FAULT ZONES  
 R GY OCCURS AS FRACT FILLING UP TO 0.5 CM WIDE (10%)  
 R PY OCCURS MOSTLY DISS (2-3%) W.LESSER MICROVEINS & PATCHES  
 R FRACT IS MOD AS SHOWN BY STOCKWK OF MICROVEINS  
 R 14.02-14.63: HIGHLY CLAY ALT'D FAULT ZONE W. 3-5% DISS PY  
 R 15.47-16.79: FRESHER,WEAKLY ALT'D INTERV OF SIMILAR COMP  
 / 1697 2773 HYDIPFHBXE3XEBR P << D+Q)P+G1 Q1D=  
 L TAKFQZ+EMSW 3224 FZ D( <=  
 R MED-GRAIN INTERM OF TAN-GREY COLOUR W.XENOS OF MED-GRAIN INTRU  
 R (DIOR?) & FINE-GRAIN INTRUS (MONZO,PINKISH?) AS SCATTERED ANGUL  
 R (2 CM) FRAGS OF VOLC. MATRIX APPEARS MED-GRAIN OF INTERM COMP  
 R STOCKWK OF GY VEINLETS OCCURS IRREGUR; LARGE VEINS (1 CM) OCCUR  
 R IN AREAS OF FAULTING/BRECCIATION  
 R PY OCCURS MOSTLY AS DISS VEINLETS & PATCHES. ZONES OF INCREASED  
 R FRACT'G,ALT & BRECC. SHOW INCREASES IN PY CONTENT (5%)  
 R 16.97-17.22, 21.47, 24.39-25.86, 26.71-27.73 ALL SHOW AREAS OF  
 R FAULTING W. INCREASED FRACT'G,ALT (CLAY,EP,CHLOR,GY) & BRECC  
 R W. MORE PY  
 R 17.22-18.57: MED-COARSE GRAIN, GREYISH-GREEN INTERV OF HYBRID  
 R DIOR W. HIGHER LEVEL OF EP-CHLOR ALT  
 / 2773 3423 MGMZPFKFXE1EMXE P << D+ D) <+ Q1D+  
 L TUHBQZ+SW 1335 FZ O( <1  
 R MED-GRAIN,LIGHT TAN-BROWN,WEAKLY ALT'D INTRUS OF POSS MONZ COMP  
 R LARGE XENOS OF ROUNDED DIOR OCCUR IRREG (5%) & ANGUL,UP TO 3 CM  
 R XENOS OF VOLCS OCCUR SCATTERED (3%)  
 R STOCKWK OF GY VEINLETS OCCURS THROUGHOUT  
 R PY OCCURS MAINLY AS DISS W.LESSER MICROVEINS, OFTEN ASSOC W.GY  
 R VEINLETS OR THE MAFIC PHASE OF THE ROCK (5%)  
 R 21.18-28.48: FRACT'D BRECCIA ZONE W. ABUNDANT GY  
 R 29.66-30.16, 33.83-34.23: INCREASE IN FRACT'G  
 / 3423 4146 FGDIPFHBXE1EF<< P << P+ \*)G) < \*D+  
 L 7A QZ+XEBR 1345 FZ <1  
 R FINE-GRAIN,LIGHT GREY,WEAKLY ALT'D DIORITE?  
 R STOCKWK OF GY VEINLETS,OFTEN ASSOC W. PY ON OUTER EDGES (1%)  
 R XENOS OCCUR IN LESSER AMOUNTS,IRREG AS ROUNDED MED-GRAIN DIOR  
 R (UP TO 5 CM) & ANGUL VOLCS (UP TO 3 CM)  
 R PY OCCURS MOSTLY DISS & AS MICROVEINS (2-3%),ASSOC W.GY &  
 R MAFIC PHASES



R 34.23-34.63, 36.70-36.85: HIGHLY FRACT'D,PART'LY CLAY ALT'D  
R FAULT ZONES  
R 38.94-41.46: LARGE PORPH. XENOS + FAULT ZONE W. CLAY ALT/BRECC  
/ 4146 4450 MGMZPFKFXE=EMXE P << D+ <) Q+D)<+  
L TUHBQZ+SW 1324 FZ <=  
R SIMILAR TO INTERV 27.73-34.23  
R TAN-BROWN,MED-GRAIN,WEAKLY ALT'D INTRUS OF MONZ COMP  
R GY OCCURS AS STOCKWK W.VEINLETS UP TO 1 CM, LESSER PATCHES  
R ANGULAR VOLC XENOS OCCUR SCATTERED (UP TO 2 CM)  
R PY OCCURS MOSTLY AS DISS W. LESSER MICROVEINS  
/ 4450 5429 FGDIPFHBXE=SWEF P << D+E(O)G+ Q)<+  
L 5AQZ XE 2325 FZ D. <1  
R FINE-GRAIN,MED-GREY INTRUS (POSS DIOR); SIMILAR TO 34.23-41.46  
R FRACT'G IS A LITTLE MORE DEVELOPED,MOSTLY FILLED BY GY VEINLETS  
R & PY (2%)  
R XENOS OCCUR SCATTERED IRREG & CONSIST MAINLY OF ANGULAR FRAGS  
R OF VOLC UP TO 2 CM WIDE  
R ALT IS WEAK & OCCURS MAINLY IN INTENSE FRACT ZONES  
R PY OCCURS AS MICROVEINS & DISS W.LESSER PATCHES (2-3%)  
R 44.85-44.45, 50.15, 51.10: ALL SHOW ZONES OF FAULTING W.INCREAS  
R IN FRAT'G & ALT (GY,CLAY,KF,CHLOR)  
/ 5429 6998 FGDIPFHBKF)EFPA P << P2Q)P1G) Q=<=  
L 4AQZXE=SWXE 2223 D( <2  
R VERY FINE-GRAIN,MED DARK-GREY,PATCHY & FRACT'D INTRUS (POSS  
R DIOR?), SILICA FLOODING OCCURS THROUGHOUT UP TO 20%  
R FRACT INTENSITY INCREASES AS WELL AS PY CONTENT  
R XENOS ARE LESS OBVIOUS (MORE OF A PATCHY TEXT) BUT STILL APPEAR  
R INTRUS & VOLC IN NATURE  
R ALT APPEARS MAINLY CHLORITIC W.LESSER EP (PATCHES) W.SOME KF  
R ALT OCCURING AS FRACT & PATCHES  
R PY IS ABUNDANT IN MICROVEINS & PATCHES W.LESSER DISS (5%)  
R 54.29-56.69: FRACT & BRECC ZONE W. LESSER CLAY ALT IN GOUGE  
R 59.64-61.38: SLIGHTLY MORE MAFIC PHASE OF A FINE-GRAIN DIOR  
R 63.03-65.83: INCREASE IN FRACT'G W.SOME PINKISH ANGUL CLASTS  
R (SYENITIC COMP?) UP TO 5 CM; ABUNDANT GY VEINLETS W.ASSOC PY  
R OCCURING AS DISS & PATCHES  
/ 6998 7308 FGDIPFHBXE1EFXE P << P+E\*P3G= Q\*<)  
L GA QZ+SWPA 2345 FZ D) <=  
R DARKER GREENISH-GREY,FINE-GRAIN INTRUS (POSS DIOR COMP) W.STOCK  
R TEXT OF GY-EP-PY VEINLETS  
R XENOS OCCUR SCATTERED & CONSIST OF ANGUL VOLCS UP TO 3 CM, MAFIC  
R MINERALS 2-3 MM ALSO OCCUR SCATTERED GIVING ROCK A PORPH TEXT  
R ALT IS PREDOMINANTLY CHLOR (30% PERV); EP OCCURS AS ENV IN FRACT  
R CLAY OCCURS MAINLY IN FAULT GOUGES  
R PY OCCURS AS VEINLETS (OFTEN ASSOC W.GY) & LESSER AS DISS,PATCH  
R 69.98-70.18: HIGHLY CLAY-ALT'D FAULT ZONE (LIGHT GREEN COLOUR)  
/ 7308 7483 FGDIPFHBQZ1EFSW P << P1 <)G1 <)Q-  
L 7A XE=PABR 2335 FZ <=  
R LIGHTER GREY,FINE-GRAIN INTRUS (DIOR?) W.PATCHY & XENOLITH TEXT  
R GY OCCURS AS STOCKWK W.LESSER AMOUNTS OF ASSOC PY VEINLETS  
R ALT IS GENERALLY WEAK W. UP TO 10% SILICA FLOODING? LESSER CHLOR  
R AS FRCT FILLING & CLAY ALT IS ABUNDANT IN FAULT GOUGES  
R 73.58-73.70: HIGHLY CLAY ALT'D FRACT'D FAULT ZONE & ALSO AT 75.6  
R PY OCCURS MAINLY AS MICROVEINS (1%)W. LESSER DISS & PATCHES  
/ 7483 9265 HYDIPFHBXE1EMXE P << P\*Q=P4G+ Q+D+Q(  
L AG KF SW 1324 D+ <+  
R MED-GRAIN,DARK GREYISH-GREEN INTRUS OF DIORITIC COMP?  
R ALT IS MOSTLY PERV CHLOR (40%) W.LESSER PATCHES,ENV OF EP (WELL  
R DEVELOPED FROM 81.08) 7 MINOR SILICA FLOODING  
R XENOS OCCUR SCATTERED IRREG & CONSIST MAINLY OF ANGUL VOLC UP TO

R 5 CM W.LESSER MED-GRAIN INTRUS,PART'LY ROUNDED & STRONGLY ALT'D  
 R TO EP 7 CHLOR  
 R STOCKWK OF GY W.LESSER PY OCCUR IRREG, GY VEINS UP TO 1CM W.  
 R LESSER PATCHES UP TO 3 CM  
 R PY OCCURS MOSTLY AS DISS (2-3%) W.LESSER MICROVEINS  
 R CP OCCURS IN MINOR AMOUNTS AS 3-4 MM PATCHES AT 75.68M  
 R MAFIC MINERALS (HB?) 2-3 MM, OCCUR SCATTERED UP TO 15%  
 R 76.66-77.26: SHOWS A GRAINIER TEXT & MORE ABUNDANT K-SPAR ALT  
 R IN SMALL INTERSTITIAL PATCHES  
 R 90.53-90.63: HIGH PERV K-SPAR ALT GIVING ROCK A REDDISH COLOUR  
 / 9265 9580 FGDIPFHBKF+PASW P << P)E)P2G+ Q4<)  
 L RA XE)XE 3537 FZ \$= <)  
 R FINE-MED GRAIN,REDDISH-GREY INTRUS (DIOR?) CHARACT'D BY KF-ALT  
 R FLOODING AS PATCHES (POSS FRACT CONTROLLED)  
 R ALT ALSO DISPLAYED BY EP ENV AROUND GY & MG VEINLETS,CHLOR ALT  
 R IS PERV (20%); STOCKWK OF GY W.ASSOC MINOR PY MICROVEINS  
 R 93.10-95.80: ABUNDANT MG VEINLETS IN SHEETING TEXT W.ASSOC PY  
 R 92.65-93.05: CLAY-ALT'D FAULT GOUGE W.UP TO 5% PY VEINLETS &  
 R LESSER DISS  
 R 95.60-95.80: HEAVIER FRACT'G W. INCREASED PY CONTENT  
 / 9580 10043 PPDIPFHBXE+PPEF P << P)O=O<)< Q1D+  
 L AUKF SWXE 1335 FZ <=  
 R LIGHT GREYISH-BROWN UNIT OF FINE-GRAIN,MICRO-PORPH DIOR W.PHENOS  
 R OF PLAG/K-SPAR, SOME PART'LY EPIDOTIZED  
 R XENOS ARE SCARCE BUT DO RANDOMLY OCCUR AS MED-GRAIN DIOR,LARGELY  
 R EPIDOTIZED,W.LESSER SMALLER SCATTERED ANGUL VOLC FRAGS (1.5 CM)  
 R ALT IS WEAK & FRACT'G IS LOW, MOST FRACT ARE FILLED W. GY & PY  
 R PY OCCURS MAINLY AS FINELY DISS X-TALS  
 R 99.73-100.43: SECTION OF COARSER GRAIN W. PORPH TEXT  
 R 100.33-100.43: HIGHLY CLAY-ALT'D FAULT GOUGE  
 / 10043 10424 FGDIPFHBXE=EFSW P << <=E+P+<) Q+<=  
 L 4AQZKF)XE 2346 <= <=  
 R GREY-BROWN TO DARK GREY, FINE-GRAIN EQUIV OF DIOR?  
 R HEAVILY FRACT'D & MINERALIZED W.PY MICROVEINS & DISS & LESSER  
 R LOCALIZED MG ASSOC W.PY (OCCURING AS VEINLETS & PATCHES)  
 R FEW SCATTERED XENOS OF MED-GRAIN INTRUS & ANGUL VOLC,OFTEN  
 R EPIDOTIZED. EP ALSO OCCURS AS ENV IN FRACT ZONES  
 R GY SHEETING OCCURS THROUGHOUT W.LESSER QZ VEINLETS (ASSOC PY)  
 R K-SPAR OCCURS AS PERV FLOODING IN SOME FRACT ZONES  
 / 10424 10888 MGDIPFHBXE)EMSW P << P)E)Q+<<+ Q3<<+  
 L RAQZ XEPA 1435 FZ <=  
 R SIMILAR TO INTERV 92.65-95.80  
 R MED-GRAIN,REDDISH BROWN-GREY INTRUS OF DIORITIC COMP, CHARACT'D  
 R BY ABUNDANT PATCHY KF-ALT FLOODING, POSS FRACT CONTROLLED  
 R ALT ALSO DISPLAYED BY EP ENV & PATCHES (MINOR) W.SOME CHLOR ALT  
 R OF MAFIC MINERALS THROUGHOUT  
 R STOCKWK OF GY VEINLETS, TRANSPARENT,WHITISH TO PINK  
 R CLAY ALT OCCURS IN NARROW FRACT ZONES (FAULT GOUGE) AT BEGINING  
 R AND END OF INTERVAL  
 R PY OCCURS AS MICROVEINS ALONG W.GY VEINLETS,& LESSER AS DISS(EF)  
 R A FEW SCATTERED ANGULAR VOLC XENOS  
 / 10888 11256 MGDIPFHBKF=KRSW P << P) <\*G1 Q+<=  
 L 5AQZXE+XEPA 2435 FZ <=  
 R FINE-MED GRAIN,GREYISH INTRUS OF DIOR COMP CHARACT'D BY INTENSE  
 R FRACT'G & FAULT GOUGING  
 R A PATCHY TEXT APPEARS IN AREAS WHERE IT IS DIFFICULT TO DIFFER-  
 R ENTIATE W. XENOS  
 R ALT IS MAINLY CLAY IN FRACT ZONES W.MINOR CHLOR ALT IN FRACT  
 R K-SPAR OCCURS LOCALIZED  
 R PY IS ABUNDANT AS VEINLETS W.LESSER DISS (4-5%)

R STOCKWK OF GY VEINLETS OCCURS IRREG W.MINOR ASSOC PY  
R 111.71-112.56: HIGHLY FRACT'D,REWORKED,CLAY-ALT'D ZONE  
/ 11256 11836 FGDIPFHBXE)EFSW P << P)Q)P3<+ <)<1  
L GAQZ PA 3447 FZ Q) <1  
R FINE-GRAIN, GREENISH-GREY INTRUS CHARACT'D BY WELL DEVELOPED  
R STOCKWK OF GY & LESSER PY MICROVEINS W. LOCALIZED ENV & PATCHES  
R OF EPIDOTE. CHLOR ALT IS MORE PERV THROUGHOUT & STRONGER IN SOME  
R FRACT ZONES WHERE CLAY ALT IS DOMINANT  
R PY OCCURS ABUNDANTLY AS VEINLETS, PATCHES & DISS (UP TO 10%)  
R 112.56-113.76: LIGHTER GREEN COLOUR W. HEAVIER FRACT'G & REWORK  
R ING W.LOCALIZED PATCHES & ENV OF K-SPAR, LOCALIZED MG PATCHES  
R 116.75-118.11: MORE INTENSE FRACT'G & ALT  
/ 11836 12049 MGDIPFHBXE+EMSW P << P)Q\* G+ Q4<+  
L RAQZ PABR 3335 FZ <1  
R SIMILAR TO INTERV 104.24-108.88  
R MED-GRAIN, REDDISH-GREY INTRUS OF DIORITIC COMP CHARACT'D BY  
R K-SPAR ALT FLOODING W.HIGHLY CLAY ALT'D FAULT & BRECCIA ZONES  
R STOCKWK OF GY VEINLETS W.LESSER ASSOC PY  
R FEW SCATTERED ANGULAR VOLC XENOS UP TO 2 CM WIDE  
R PREDOMINANT K-SPAR ALT AS PATCHES (UP TO 10 CM), APPEAR TO BE  
R FRACT CONTROLLED  
R PY OCCURS AS MICROVEINS, OFTEN W. GY, & LESSER AS PATCHES & DISS  
R 118.36-118.46, 119.26: HIGHLY CLAY-ALT'D FAULT GOUGES  
R 118.86-118.96: HIGHLY CLAY-ALT'D BRECCIA ZONE W.K-SPAR FRAGS UP  
R TO 3 CM WIDE  
/ 12049 12543 FGDIPFHB BREF P << P) <=G3 \*1Q1  
L GAQZ PASW FZ <1  
R FINE-GRAIN, LIGHT GREENISH-GREY INTRUS CHARACT'D BY INTENSE FRACT  
R FAULTING & BRECCIATION ACCROSS NUMEROUS SECTIONS  
R ALT IS PREDOMINANTLY CLAY IN FAULT/BRECCIA ZONES  
R STOCKWK OF GY VEINLETS (UP TO 1 CM) W.LESSER ASSOC PY  
R PY IS MOST ABUNDANT AS PATCHES IN ZONES OF INTENSE FRACT'G & ALT  
R (UP TO 3 CM) W.LESSER OCCURENCES OF VEINLETS & DISS  
R K-SPAR OCCURS AS CLASTS IN ALT ZONES  
/ 12543 13442 PPDIPFFXE)PPSW P << P2E=P1G1<=E)<)  
L 7GHB BREF 2436 FZ D+ <)<<  
R SIMILAR TO 95.80-100.43  
R FINE-GRAIN, LIGHT GREEN, MICRO-PORPH DIOR CHARACT'D BY 2-3 MM  
R PHENOS OF FELDSPARS & MICROVEINS OF PINKISH SERICITE?  
R ROCK SEEMS PART'LY SILICIFIED (UP TO 20%)  
R PY OCCURS IN MINOR AMOUNTS AS MICROVEINS & DISS  
R MG OCCURS AS SMALL DISS X-TALS (2-3%)  
R 125.43-125.83, 126.43-126.68: CLAY-ALT'D, BRECCIATED FAULT ZONES  
R 125.98-126.13: CLAY-ALT'D FAULT GOUGE  
R 126.43-127.81: INTERV OF FINE-GRAIN, PATCHY, BRECCIATED INTRUS  
R (FINE-GRAIN DIOR?) W.1% PY VEINLETS. K-SPAR ALT OCCURS AS LOCA-  
R LIZED PATCHES

A001

AUMM

R

ALAB

ATYP

AMTH

R

SAMPLE	Ag	Au	Cu	Mo
	ppm	ppb	ppm	ppm
PDI RESEARCH				
SPLIT CORE				
WET GEOCHEM A.A.				
00 366 CASING - NO RECOVERY				
A001 366 1036 54307	.4	3	500	1.0
A001 1036 1547 54308	.2	3	316	.5
A001 1547 1697 54309	.4	15	96	1.0
A001 1697 1857 54310	.4	5	330	.5
A001 1857 2157 54311	.2	3	126	1.0
A001 2157 2439 54312	.2	3	100	1.0

A001	2439	2586	54313	.3	3	87	2.0
A001	2586	2671	54314	.2	3	72	.5
A001	2671	2773	54315	.2	3	56	1.0
A001	2773	3091	54316	.3	3	57	1.0
A001	3091	3423	54317	.2	3	33	1.0
A001	3423	3725	54318	.2	5	21	3.0
A001	3725	3894	54319	.2	3	56	2.0
A001	3894	4146	54320	.1	3	60	3.0
A001	4146	4450	54321	.2	3	43	.5
A001	4450	4755	54322	.2	3	22	3.0
A001	4755	5055	54323	.1	3	26	3.0
A001	5055	5244	54324	.2	5	132	1.0
A001	5244	5429	54325	.2	3	96	2.0
A001	5429	5669	54326	.3	3	560	1.0
A001	5669	5964	54327	.2	3	193	1.0
A001	5964	6300	54328	.2	3	275	1.0
A001	6300	6583	54329	.3	3	332	1.0
A001	6583	6826	54330	.2	3	82	.5
A001	6826	6998	54331	.1	3	87	2.0
A001	6998	7308	54332	.2	3	23	2.0
A001	7308	7483	54333	.5	3	85	3.0
A001	7483	7766	54334	.1	3	96	2.0
A001	7766	8050	54335	.1	3	35	1.0
A001	8050	8350	54336	.2	3	28	3.0
A001	8350	8626	54337	.2	3	81	3.0
A001	8626	8921	54338	.2	3	267	2.0
A001	8921	9022	54339	.3	3	370	1.0
A001	9022	9265	54340	.3	3	176	1.0
A001	9265	9310	54341	.3	3	103	2.0
A001	9310	9580	54342	.3	3	55	.5
A001	9580	9795	54343	.1	3	157	.5
A001	9795	9973	54344	.2	3	142	1.0
A001	9973	10043	54345	.1	3	90	1.0
A001	10043	10228	54346	.3	15	360	1.0
A001	10228	10424	54347	.1	15	247	.5
A001	10424	10678	54348	.2	5	118	.5
A001	10678	10888	54349	.1	15	85	.5
A001	10888	11171	54350	.1	5	151	.5
A001	11171	11256	54351	.8	100	250	9.0
A001	11256	11555	54352	.4	3	460	1.0
A001	11555	11836	54353	.3	10	500	1.0
A001	11836	12050	54354	.1	15	237	2.0
A001	12050	12326	54355	.1	10	86	1.0
A001	12326	12543	54356	.1	10	65	2.0
A001	12543	12643	54357	.1	10	62	3.0
A001	12643	12781	54358	.2	3	37	2.0
A001	12781	13034	54359	.2	3	28	2.0
A001	13034	13238	54360	.2	3	16	2.0
A001	13238	13442	54361	.1	3	24	2.0

R                          END OF HOLE

A002

AUMM			RECOVY	RQD
R	000	366	CASING - NO RECOVY	
A002	366	488	32.8	0.0
A002	488	579	38.5	0.0
A002	579	732	10.0	0.0
A002	732	792	36.7	0.0
A002	792	884	21.7	0.0
A002	884	1036	19.7	0.0
A002	1036	1265	5.2	0.0

A002	1265	1402	25.5	0.0
A002	1402	1463	32.8	0.0
A002	1463	1707	86.1	50.0
A002	1707	2012	96.7	48.2
A002	2012	2286	93.1	56.9
A002	2286	2499	100.0	47.4
A002	2499	2621	91.8	59.0
A002	2621	2743	91.8	43.4
A002	2743	2896	77.8	23.5
A002	2896	3016	60.8	31.7
A002	3016	3231	86.0	44.2
A002	3231	3383	97.4	38.2
A002	3383	3536	73.2	49.7
A002	3536	3749	90.6	42.3
A002	3749	3993	82.0	35.2
A002	3993	4176	83.1	6.0
A002	4176	4450	97.8	76.3
A002	4450	4755	70.5	29.8
A002	4755	5060	97.7	23.4
A002	5060	5364	91.4	42.1
A002	5364	5669	85.2	35.7
A002	5669	5974	91.1	50.2
A002	5974	6248	98.5	40.9
A002	6248	6553	52.5	72.1
A002	6553	6706	78.4	51.0
A002	6706	6888	100.0	61.5
A002	6888	7193	99.0	48.5
A002	7193	7498	91.8	55.4
A002	7498	7681	83.1	33.3
A002	7681	7986	96.1	61.0
A002	7986	8108	94.3	73.8
A002	8108	8412	96.4	69.4
A002	8412	8717	91.8	59.3
A002	8717	9022	96.7	55.4
A002	9022	9083	65.6	0.0
A002	9083	9174	68.1	27.5
A002	9174	9235	78.7	36.1
A002	9235	9555	88.1	54.7
A002	9555	9632	71.4	28.6
A002	9632	9935	97.4	50.5
A002	9935	10196	77.4	41.8
A002	10196	10424	74.6	24.7
A002	10424	10698	82.1	28.8
A002	10698	11034	89.3	46.1
A002	11034	11156	96.7	34.4
A002	11156	11460	95.7	72.4
A002	11460	11826	73.8	43.2
A002	11826	11979	100.0	37.3
A002	11979	12283	96.4	39.5
A002	12283	12558	78.2	56.0
A002	12558	12771	82.2	36.6
A002	12771	12954	79.2	32.2
A002	12954	13228	76.6	24.1
A002	13228	13442	79.4	10.3

R                    END OF HOLE

A003

AUMM

R

R

R

Ag	Au	Cu	Mo
ppm	ppb	ppm	ppm

5.0 metre Composite Geochem

Casing to 3.66 m

A003	366	500	.4	3	500	1.0
A003	500	1000	.4	3	500	1.0
A003	1000	1500	.2	3	329	.5
A003	1500	2000	.3	7	200	.8
A003	2000	2500	.2	3	107	1.1
A003	2500	3000	.3	3	64	1.1
A003	3000	3500	.2	3	35	1.3
A003	3500	4000	.2	4	41	2.7
A003	4000	4500	.2	3	46	1.5
A003	4500	5000	.2	3	24	3.0
A003	5000	5500	.2	4	168	1.6
A003	5500	6000	.2	3	323	1.0
A003	6000	6500	.2	3	298	1.0
A003	6500	7000	.2	3	125	1.1
A003	7000	7500	.3	3	47	2.4
A003	7500	8000	.1	3	67	1.5
A003	8000	8500	.2	3	45	2.8
A003	8500	9000	.2	3	236	2.1
A003	9000	9500	.3	3	132	.9
A003	9500	10000	.2	3	132	.7
A003	10000	10500	.2	12	256	.7
A003	10500	11000	.1	9	112	.5
A003	11000	11500	.4	20	319	2.2
A003	11500	12000	.2	11	409	1.3
A003	12000	12500	.1	11	94	1.4
A003	12500	13000	.2	5	40	2.2
A003	13000	13442	.2	3	20	2.0

/END

IDEN680201 V250 DDH90-6 NQ 03MAY90KME ATLSMAY90S38 RBPUTM 0.0  
 IPRJ PDI/Salor Scientific KNUIT PROPERTY  
 S000 00 12711MT 154.23090.0 -45.50 3400. 2250. 954.  
 S001 12711 15423 154.23090.0 -45.00  
 /SCL MT.2  
 LSCL LCTM  
 /NAM QZEPCLCYMSKFPYCPMOSL  
 LNAM LIPLMGHEGYMCCB PO  
 R THIS DDH COLLARED TO TEST CU-AU SOIL AND COINCIDENT IP ANOMALY  
 R AND POSSIBLE NORTHERN EXTENSION OF KNOWN CU MINERALIZATION  
 R 00 2621 CASING TO 26.21 M  
 / 00 2621 OVBD P  
 / 2621 3871 MZDIBIPKF=EF P << E(E+P1G+ P=D)  
 L 5A XE= <>P=  
 R HIGHLY JUMBLED ROCK, RQD LOW, FRACTURE COUNT IMPOSSIBLE  
 R GENERALLY VERY FINE GRAINED W VARYING BI 5 - 10%, SOME PHENOS  
 R 32.0 - 33.5 PHENOCRYSTS BI OR PF REPLACED BY GY?  
 R 35.31 - END MORE MAFIC, FINE GRAINED, ANG XENO W QZ-EP-CL HALOES  
 R W CENTRALIZED PY  
 R XENO UP TO 3CM, MAFIC W EP-PY-PINK MINERAL ALTN, SOME CB  
 R MINOR PY AND GY VEINS  
 R CB IN MORE JUMBLED AREAS, SOME MICROVEINS. SEE 34.75, 36.16,  
 R 36.58M  
 / 3871 5359 MZDIPF XE+EM P << E+\*)P1G+Q(E)D)  
 L AT 1113 <1 E)  
 R SERICITE: EMERALD GRN, SOFT, SURROUNDED BY CB. SEE 48.4 M  
 R PY VEINS (<1%) 60 - 70 DEG, STRAIGHT, PURE, MOST PY DISS;D  
 R ROCK MORE PINK W SML ANG MAFIC XENO UP TO 3CM  
 R SOME PF PHENO, SML ERRATIC  
 R EP AND PY ASSOC W XENO  
 R GY VEINS CLR AND CLOUDY, SOME PY REMOBILIZED  
 R SML FRACTURES AND GOUGES W CY, CB, GY, BLACK MINERAL COATING,  
 R DISS PY (2%)  
 R HAVE KF? ALTN ASSOC W SUCH BLACK FRACTURES  
 R SEE 48.4 TO 49.0 M, 45.78, 42.60 M  
 R ROCK MAY BE MORE FELSIC THAN MZDI, POSS GRANODI OR TL?  
 R 42.36 PY MICROVEINS 10 - 20%, CY, CB, HIGHLY FRACTURED  
 / 5359 6400 MZDIPFBI EM<< P << E) P1 Q2D1  
 L 5A PPSW 1103 V= <=  
 R MORE MAFIC, GRADING TO MORE FELSIC AT END, PF AND BI PHENO  
 R INTERMITTENT  
 R EXTENSIVE STOCKWORK OF CB, SML IRREG VEINS, LITTLE ASSOC PY  
 R CB ALSO IN GOUGED AREAS (10%) W GY, CY, BLACK MINERAL  
 R 53.59 - 53.69 XENO? AT 40 DEG CB - GRN CY- GY ZONE W 40 % PY  
 R SOME BLACK MINERAL AND POSS KF  
 R 57.38 - 58.10 COARSER GRAINED, PERV TO PATCHY KF ALTN IN  
 R GROUND MASS  
 R PY IN MICROVEINS W QZ ENV, SOMEWHAT PATCHY  
 R BOUNDED BY CB-CY-GY-PY VEINS  
 R 59.05 - 59.35 CY ALTN ZONE, GY-CB-PY (SELVEDGES) PARALLEL TO  
 R AXIS. ROCK QUITE FELSIC W PF PHENOCRYSTS  
 R SOME QZ FLOODED FRACTURES W PY LAYER W IN ENV 62.0M  
 / 6400 7769 PYSYPFBI EFUF P << P/ G+Q( <)  
 L 6T 0112 < <1  
 R FRESH, FEW MAFIC MINERALS, LITTLE DISS PY(1%?)  
 R PY IN MICROVEINS W MAFIC SELVEDGES, QZ, SOMETIMES CB AND GY  
 R PY ALSO IN GOUGES W CY-CB-GY-BLACK MINERAL  
 R EMERALD GRN SERICITE IN SML PATCHES, SOMETIMES W PY  
 R GOUGES/BRECCIAS AT:  
 R 66.1 BLACK ROCK FRAGMENTS W LOOSE PY XALS, CY,CB ALTN

R 69.2 - 70.8 FSDK GROUND UP. CY-CB ALTN EXTENSIVE, NO CHANGE  
 R IN PY CONTENT FROM NORMAL ROCK  
 R 73.86 QZ FLOODED FRACTURE W PY AND KF SPOTS IN ENV  
 R 74.26 SMALL GOUGE  
 R 16/05: NAME CHANGED TO PYSY. CORRESPONDS TO PYSY IN 90-7 AND  
 R 90-4. MORE SIMILAR TO 90-4, LESS PINK THAN 90-7. ALMOST  
 R ALL PHENO ARE PY WITH LITTLE ELSE.  
 / 7769 8331 PYSYPFBI EM<< P << E)G= P+<<  
 L 6T 1334 <) P1  
 R SIMILAR TO ABOVE, MORE BI AND STOCKWORK VEINING  
 R FRACTURING AND GOUGES MORE COMMON  
 R PY DOMINANT IN MICROVEINS UP TO 3%, ASSOC W CY ENV AND  
 R PROMINANT BLACK MICROVEINS AND STRINGERS  
 R MINIMAL GY AND EP, MOSTLY CB AS PERV AND UP TO 15% IN GOUGES  
 R CB MICROVEINS ACCOUNT FOR MOST OF STOCKWORK EXCEPT WHERE  
 R BLACK MINRAL DOMINATES AND DYKE MORE MAFIC  
 R SEE 79.53 - 80.63  
 R GOUGES:  
 R 78.15 - 78.38 QZ VEIN W KF-PY ENV AND CENTRAL CY-CB-PY VEIN  
 R 78.70 - 79.13 QZ VEIN W LARGE CY PEBBLY ZONE, DISS PY AND MICROV  
 R 79.63 CY - BLACK MINERAL  
 R TO END VARIOUS CY RICH ZONES, SML, LITTLE MINERALIZATION  
 R GY USUALLY PINK  
 R 16/05: SIMILAR TO PYSY IN 90-4, POSS SOME BI BUT MOST PY.  
 / 8331 8590 PPDKPFKFMSTPEF P << 60<\* P+D1E)D(  
 L 6G << 1314 <= <\*<  
 R UNUSUAL DK GRN MINERAL, DISS REPLACING BI PHENO?  
 R ALSO IN MINOR MICROVEINS WHICH XCUT PINK GYVEINS  
 R HAVE SML PF PHENO ALTERED TO CY, VERY CLOUDY  
 R KF? VERY PINK ALTN AROUND FRACTURES BUT ALSO FINELY DISS'D  
 R MOST VEINS AT APPROX 60 DEG TO AXIS ALTHOUGH SOME PARALLEL  
 R ( GRN VEINS)  
 R ZONE BOUNDED BY FAULT GOUGES W ABUNDANT BLACK MINERAL, UP TO  
 R 40% CY  
 / 8590 8997 FSDKPFBIXE1EM<< P << <=P= P1<)<  
 L 6TKF 1113 <(<  
 R VERY JUMBLED AND ALTERED, BI 1 - 10%, COMPOSITION VARIES  
 R CHANGES AT 88.77 TO MORE FELSIC ROCK SIMILAR TO PREVIOUS  
 R FSDK. QZ RICH  
 R ROCK GENERALLY MED GRAINED W 1% DISS PY  
 R OCCASIONALLY PY IN IRREG VEINS AND PATCHES , REMOB IN GY VEINS  
 R 87.78 - 88.77 BI (CL) PRODUCES SHEETING W INCREASED DISS PY  
 R 5 - 7% . POSS CP ALSO, KF ALTN  
 R SHEETING AT 25 - 30 DEG, XCUT BY 50 - 70DEG GY-PY VEIN,  
 R AND BLACK MINERAL VEINS  
 R CB EXTENSIVE THROUGHOUT, PERV AND IN GOUGES  
 R GY VEINS IRREG , ANG, AND PINK  
 / 8997 9906 BRDIPFHBXE7BR<< P << P)G) \*1J1  
 L 5A PA BR <1 P=  
 R BRECCIATED DIORITE: ANG FELSIC XENO UP TO 80% W BLACK  
 R DIORITIC? MATERIAL INTERSTITIAL. VERY FINELY CRYSTALLINE  
 R BOUNDARIES W XENO SHARP TO HAZY  
 R XENO UP TO 50CM, SOME W DISS PY 5 - 10%  
 R MOST CB PERV AND IN MICROVEINS BTWN 92.6 - 93.7  
 R XENO? QZ FLOODED, PATCHY KF ALTN, GREY GRN COLOUR  
 R PY UP TO 10% INTERSTITIAL, SOME MICROVEINS W BLACK ENV (1-2%)  
 R VEINS XCUT AND CONTAINED W IN XENO  
 R PATCHY KF ALTN AT END SELECTIVELY REPLACING XENO  
 R 96.60 LAGE KF-QZ-GY VEIN  
 / 9906 1113 BRDIPF XE7BR<< P << E(Q\*P+G+ Q=J=



L 4AHB EF 1113 BR <1  
 R VARIOUS COMPOSITION, POSS MIXTURE OF VARIOUS XENOS  
 R BRECCIA UNITS AT: 105.76 - 108.98, 104.24  
 R BTWN BRDI ARE XENOS? OR OTHER SML UNITS  
 N 9906 10514 =FGQDPFQZXE1<< N << E(C\* G+ E+<=<  
 L 6T 1111 <)  
 R QUITE FRACTURED W PY IN MICROVEINS AND PATCHES ASSOC W BLACK  
 R MINERAL  
 R SOME CY GOUGES W DISS PY 5%, SOME CB  
 N 10514 10576 \*MGQDPFQZ EM N << <)  
 L 5TKF  
 N 10898 11113 )MGQD N <1 <1  
 L <+<  
 R MAY POSS BE BRDI W XENO MUCH MORE CONSUMED  
 R SOME EP, GRADATIONAL W LOWER INTERVAL  
 R CY RICH GOUGE AT END OF INTERVAL, COARSER  
 / 11113 12493 MZDIPFBIXE+EM<< P << P)E+P1P+ Q1<+<  
 L 4TKF UF 1224 <=< <1  
 R MED GRAINED DIOR 15-20% BI, 70-75% PF, SOME KF ORIGINAL  
 R OR REPLACING. DIFFICULT TO DISTINGUISH  
 R CONSTANT TEXTURE, ALTHOUGH SOME KF AND QZ OVERPRINTING  
 R FROM 120.0 - END  
 R PERV TO ENV KF, PERV TO ENV CB, ENV TO PATCHY EP ALL INCREASES  
 R W DEPTH  
 R SELECTIVE BLUE CY ALTN APPROX 2-5%, BI TO CL 10%  
 R 111.6 SML BRDI, MINOR ASSOC W GOUGE  
 R 112.46 - 114.40 FG QZ RICH XENO  
 R IRREG PY MICROVEINS AND PATCHES W BLACK ENV. PY 5-7%, LITTLE  
 R ALTERATION  
 R 120.0 - END QZ, KF, EP ALTN INCREASED, SOME ORIGINAL TEXTURE LOST  
 R PY IN FINE MESH THROUGHOUT ROCK 5% AND IN MICROVEINS 2%  
 R MICROVEINS TEND TO HAVE LGE 1CM KF ENV W INNER EP ENV  
 R W CENTRAL PY ALTHOUGH PY FOUND ALONE, GY VEINS SHOW SAME ENV  
 R POSS SOME CP AT 121.5, SLIGHTLY TARNISHED  
 / 12493 12893 FGMZPFKFXE2EFUF P << <)J1G( <=<  
 L 5T << 1213 <+ J+<  
 R VERY COMPETENT, SOME BRECCIA W INTERSTIAL CL-EP-CB-PY(2.5%)  
 R PY ALSO IN MICROVEINS W BLACK MINERAL, EP ENV. UP TO 5%? PY  
 R PATCHES 1CM BY 1CM  
 / 12893 13426 MZDIPFKFXE3<<EM P << P=Q2P1G( P2<=<  
 L 5TBI PASW 1234 <1 <1  
 R EXTENSIVE STOCKWORK OF ANG CLEAR GY AND PY +/- CB MICROVEINS  
 R EP ENV TO PATCHY, ASSOC CLOSELY W PY AND KF ENV TO PERV ALTN  
 R KF PATCHY TO PERV ASSOC W EP OFTEN AS OUTER HALO AROUND EP ENV  
 R AROUND IRREG PY MICROVEIN  
 R SOME XENO - SEE 128.93, 131.90  
 R W EP ENV, KF PERV IN XENOS (FELSIC)  
 R KF THROUGHOUT EXCEPT WHEN BLuish CY MINERAL W PERV CB DOMINATES  
 R SEE 130.0, 133.76 - END  
 R EP AS ENV ALONG FRACTURES  
 R PY IN MICROVEINS W SOME CP? ASSOC W EP AND KF IN KF ALTERED  
 R PATCHES, BUT ALONE IN LESS ALTERED ROCK  
 R SOME PATCHY PY  
 R BLACK MINERAL - CL? ALSO INTERSTIAL OR IN MICROVEINS  
 R TRUNCATED BY EP ENV ALONG LATER FRACTURES  
 R GY VEINS X CUT ALL, CONTAINS SOME PY  
 / 13426 13911 PPDIPFKF PPUF P << D1D+ D1  
 L 4A SW 0224 <(< <2  
 R PORPHYRITIC DIORITE, COMPETENT, GOOD RECOVERY  
 R PF PHENOCRYSTS, EUHEDRAL, SELECTIVELY ALTERED TO EP OR KF

R GIVING MULTICOLOURED ROCK. TWO TYPES OF PHENOS?  
 R BI ALTERED TO CL. MICA 5-7% OF ROCK  
 R PHENOS 15-20% OF ROCK, REST VERY FINE GRAINED  
 R STOCKWORK TO MICROVEINS OF CB, NO MINERALIZATION  
 R SOME PINK GY VEINS  
 / 13911 15423 MZDIPFBIXE=EMUJ P << <=Q1P2G) Q2<)  
 L 6A PP 1334 Q( <+ P1  
 R SIMILAR TO MZDI ABOVE, SLIGHTLY LESS KF ALTN, MORE MAFIC  
 R NUMEROUS MICROFRACTURES, IRREG, DISCONTINUOUS, FILLED W  
 R PY, CB  
 R EP AS ENV ALONG SOME FRACTURES, PATCHY ALONG LARGER FRACTURES  
 R OFTEN ASSOC W GY VEINS, THERFORE MAY BE LATER  
 R ALWAYS ASSOC W KF PERV TO ENV ALTN  
 R SOME QZ VEIN AND LARGER PY VEINS W AREAS OF PATCHY EP-KF ALTN  
 R CB MORE PERV IN AREAS OF INTENSE KF-EP ALTN, PINK CB  
 R PY VEINS AND EP-KF AREAS XCUT BY BLACK MINERAL -CL? VEINS  
 R 139.11 - 140.25 MORE MAFIC, EM, LITTLE KF-EP ALTN  
 R LARGE PATCH OF MG W CL ALTN HALO  
 R PY FINELY DISPERSED IN MG, MG UP TO 20-30%  
 R 144.48 - 146.58 BRECCIATED ZONE W CY, AT 25 DEG  
 R INTERSTITIAL CB-CL-PY, EP-KF ALTN OF CLASTS  
 R CLOSE TO END,SELECTIVE ALTN OF PF XALS TO KF  
 R KF ALTN NOT SO PERV AND DOMINANT 148.0 - END, MORE SELECTIVE  
 R END OF HOLE!  
 R EOH  
 R SAMPLES

A001

AUMM	SAMPLE		Ag	Au	Cu	Mo
R			ppm	ppb	ppm	ppm
ALAB	PDI RESEARCH					
ATYP	SPLIT CORE					
AMTH	WET GEOCHEM A.A.					
R	00	2621	CASING - NO RECOVERY			
A001	2621	2946	54362	.1	3	20 2.0
A001	2946	3353	54363	.1	3	16 2.0
A001	3353	3556	54364	.1	3	4 .5
A001	3556	3736	54365	.1	3	17 2.0
A001	3736	3870	54366	.1	3	81 2.0
A001	3870	4100	54367	.1	3	37 1.0
A001	4100	4267	54368	.1	3	33 2.0
A001	4267	4508	54369	.1	3	185 1.0
A001	4508	4830	54370	.1	3	17 1.0
A001	4830	4907	54371	.1	3	16 1.0
A001	4907	5184	54372	.1	3	15 1.0
A001	5184	5359	54373	.1	3	4 1.0
A001	5359	5738	54374	.1	3	114 1.0
A001	5738	5810	54375	.1	3	60 2.0
A001	5810	5905	54376	.1	3	5 1.0
A001	5905	6120	54377	.1	3	14 .5
A001	6120	6400	54378	.1	3	14 1.0
A001	6400	6610	54379	.1	3	3 1.0
A001	6610	6920	54380	.1	3	3 1.0
A001	6920	7090	54381	.1	3	5 1.0
A001	7090	7193	54382	.1	3	3 1.0
A001	7193	7446	54383	.1	3	8 1.0
A001	7446	7769	54384	.1	3	3 1.0
A001	7769	7870	54385	.1	3	5 2.0
A001	7870	7973	54386	.5	3	7 2.0
A001	7973	8100	54387	.3	3	3 2.0
A001	8100	8331	54388	.3	3	4 2.0



A002	4907	4990	90.0	14.9
A002	4990	5075	92.9	58.8
A002	5075	5227	53.3	6.6
A002	5227	5349	59.8	0.0
A002	5349	5578	13.1	0.0
A002	5578	5700	73.0	20.5
A002	5700	5883	85.2	21.9
A002	5883	6005	100.0	16.4
A002	6005	6126	46.7	8.3
A002	6126	6187	54.1	0.0
A002	6187	6279	73.9	13.8
A002	6279	6401	11.5	0.0
A002	6401	6584	62.8	20.8
A002	6584	6645	78.7	16.4
A002	6645	7010	36.7	9.0
A002	7010	7193	83.6	30.6
A002	7193	7376	95.6	39.3
A002	7376	7513	89.1	26.3
A002	7513	7803	90.0	45.3
A002	7803	8108	87.9	53.4
A002	8108	8291	95.6	37.0
A002	8291	8565	80.3	50.0
A002	8565	8778	86.9	60.1
A002	8778	9022	95.1	62.7
A002	9022	9266	93.4	53.3
A002	9266	9449	93.4	53.6
A002	9449	9754	98.4	74.4
A002	9754	9906	95.4	50.7
A002	9906	10058	73.7	9.9
A002	10058	10241	82.0	38.8
A002	10241	10424	65.0	38.8
A002	10424	10576	83.0	37.5
A002	10576	10790	59.8	20.1
A002	10790	11064	100.0	69.3
A002	11064	11156	88.0	23.9
A002	11156	11460	52.6	30.9
A002	11460	11613	78.4	34.9
A002	11613	11918	91.8	27.5
A002	11918	12070	100.0	17.8
A002	12070	12375	91.5	63.9
A002	12375	12588	77.9	33.8
A002	12588	12878	95.0	71.1
A002	12878	13183	99.7	69.5
A002	13183	13472	100.0	83.0
A002	13472	13594	76.2	56.6
A002	13594	13655	83.6	0.0
A002	13655	13807	71.1	36.2
A002	13807	14021	86.4	24.3
A002	14021	14219	89.9	50.0
A002	14219	14508	95.5	86.2
A002	14508	14813	93.4	61.6
A002	14813	15118	92.5	73.8
A002	15118	15423	93.4	75.1

A003

AUMM			Ag	Au	Cu	Mo
R			ppm	ppb	ppm	ppm
R	5.0 metre Composite Geochem					
R	Casing to 26.21 m					
A003	2621	3000	.1	3	19	2.0
A003	3000	3500	.1	3	12	1.6

A003	3500	4000	.1	3	38	1.6
A003	4000	4500	.1	3	105	1.3
A003	4500	5000	.1	3	19	1.0
A003	5000	5500	.1	3	39	1.0
A003	5500	6000	.1	3	67	1.0
A003	6000	6500	.1	3	12	.9
A003	6500	7000	.1	3	3	1.0
A003	7000	7500	.1	3	6	1.0
A003	7500	8000	.2	3	4	1.5
A003	8000	8500	.4	19	20	2.1
A003	8500	9000	.2	30	17	2.4
A003	9000	9500	.2	3	132	2.6
A003	9500	10000	.2	3	183	2.0
A003	10000	10500	.1	4	22	2.0
A003	10500	11000	.1	5	116	1.8
A003	11000	11500	.1	9	69	1.9
A003	11500	12000	.1	3	154	2.5
A003	12000	12500	.4	12	1150	2.9
A003	12500	13000	.2	3	572	1.7
A003	13000	13500	.1	3	55	2.0
A003	13500	14000	.1	3	25	2.9
A003	14000	14500	.1	3	229	3.2
A003	14500	15000	.1	8	222	4.3
A003	15000	15423	.2	4	248	4.6
/END						

IDEN680201 V250 DDH90-7 NQ 03MAY90 MD ATLSMAY90S38 RBPUM 0.0  
IPRJ PDI/Salor Scientific KNUT PROPERTY  
S000 00 7800MT 156.36 86.0 -46.5 3264. 2147. 945.  
S001 7800 15636 156.36 86.0 -44.5  
/SCL MT.2  
LSCL LCTM  
/NAM QZEPCLCYMSKFPYCPMOSL  
LNAM LIPLMGHEGYMCCB PO  
R THIS DDH COLLARED TO TEST THE PERIPHERY OF AN IP ANOMALY AND  
R PREVIOUSLY INTERSECTED MINERALIZATION IN OLDER DDH'S  
R 000 4145 CASING TO 4145 M (BOX 1 BEGINS AT 35.36M BUT CONSISTS OF OVBD  
R UP TO 41.45M)  
/ 000 4145 OVBD P  
/ 4145 5060 FGSYKFPFQZ=PAEF P << <)01 B+  
L RUHB PP 1313 <\*<  
R FINE-GRAIN,REDDISH-BROWN INTRUS OF SYENITIC COMP CHARACT'D BY A  
R SPOTTY TEXT OF EP UP TO 1 CM IN DIAM  
R SMALL 2-3 MM MAFIC MINERALS OCCUR SCATTERED (UP TO 5%)  
R FRACTURING IS LOW & COMMONLY INFILLED BY QZ & CARB MICROVEINS  
R PY OCCURS AS BLEBS (UP TO 0.5 CM WIDE) SCATTERED THROUGHOUT  
R (2-3%) & COMMONLY ASSOC W. THE EP SPOTS  
R MOST OF THE CORE IS VERY BROKEN UP  
/ 5060 5364 FSDKFXPFQZ+PAEF P FZ 0)< G3 Q)  
L 8AHB UF<< << <\*<  
R FINE-GRAIN,PALE GRAY (W. GREENISH TONE) INTRUS OF FELSIC COMP  
R (POSS A DYKE) W. A HIGH LEVEL OF FRACT'G & CLAY ALT  
R ALT IS DOMINATED BY CLAY ALT IN FAULT GOUGES GIVING ROCK A  
R FRAGMENTED TEXT  
R PY OCCURS MAINLY AS PATCHES UP TO 3 CM WIDE & LESSER AS VEINLETS  
R (W. OCCASIONAL ASSOC MAGN)& DISS  
R 51.71-53.64: HIGHLY CLAY-ALTD FAULT GOUGE  
R ROCK TO ALT'D TO MEASURE FRACT INTENSITY,CRUMBLES IN HAND  
/ 5364 7437 PPSYKFQZXE+PPEF P << <1 G= D+  
L RUHB << 1334 <+<  
R FINE-GRAIN,REDDISH-BROWN INTRUS OF SYENITIC COMP CHARACT'D BY  
R A MICRO-PORPH TEXT OF 2-3 MM ROUNDED FELSIC X-TALS IN A FINE  
R GRAIN SYENITIC MATRIX  
R ALT IS WEAK & OCCURS AS VEINLETS OF QZ-CARB THROUGHOUT;CLAY ALT  
R IS MORE INTENSE IN AREAS OF FAULT GOUGING  
R PY OCCURS IN MINOR AMOUNTS AS FINELY DISS X-TALS & AS MICROVEINS  
R A FEW SCATTERED ANGULAR VOLC XENOS (UP TO 1 CM) OCCUR IRREG  
R 54.44-55.00: SECTION OF MED TAN,BROKEN UP ROCK W. PATCHES OF  
R DARK-GREEN MIN & UP TO 5% DISS PY,CHLOR ALT IN FRACT  
R 57.00-61.87: INTERV OF FINE-GRAIN,TAN COLOURED SYENITE,LESS  
R PORPH & HIGHER CONTENT OF QZ VEINLETS & PATCHES  
R 60.71-60.96: HIGHLY CLAY-ALT'D FAULT GOUGE  
R 63.20-64.20: HIGHLY FRACT'D,BROKEN UP,CLAY-ALT'D FAULT ZONE  
R 69.19-72.62: INTERV OF SAME ROCK BUT W.HIGHER % OF MAFIC MINER  
R (UP TO 25%),SLIGHT INCREASE IN QZ-CARB VEINLETS  
R 71.52: 3 CM WIDE FAULT GOUGE  
R 72.27-72.62: HIGHLY CLAY-ALT'D FAULT GOUGE  
R 73.00: 3 CM WIDE SILICIFIED FAULT ZONE  
R 74.32: 3 CM WIDE,HIGHLY CLAY-ALT'D FAULT GOUGE,BRECCIATED  
/ 7437 7772 MONZKFHBQZ+EFUF P FZ <+ <)G2 D\*  
L 5TPFXE)<<PP << G\*  
R FINE-GRAIN,MED TAN INTRUS OF MONZONITIC COMP CHARACT'D BY UNI-  
R FORM TEXT,SPECKLED BLACK W.1-2 MM MAFIC MIN (HORN?) TEXT ALSO  
R APPEARS LOCALLY PORPH  
R ALT MAINLY CLAY IN FAULT GOUGES,QZ MICROVEINS OCCUR IREG,A FEW  
R SCATTERED ROUNDED GREEN ALT MINERALS

R PY OCCURS FINELY DISS IN SMALL AMOUNTS  
 R 74.88-75.95: HIGHLY CLAY-ALT'D FAULT GOUGE  
 R 76.50-76.70: VERY FRACT'D & MIDLY CLAY ALT'D FAULT ZONE? SOME  
 R MINOR CHLOR ALT IN FRACT  
 R 77.00-77.20: HIGHLY CLAY-ALT'D FAULT GOUGE  
 R 77.42: LARGE 8 CM ROUNDED VOLC XENO  
 R 77.20-77.72: INTERV OF REDDISH-TAN,MICRO-PORPH SYENITE W.GRA-  
 R TIONAL CONTACTS  
 R ROCK TO BROKEN UP TO MEASURE FRACT INTENSITY BUT APPEARS WEAK  
 / 7772 8535 FGSYKFQZHB+EF<< P FZ <+ <\*G4 #(<+  
 L TAPFXE)KRPP 3346 << P) <+  
 R FINE-GRAIN,LIGHT TAN-GRAY INTRUS OF SYENITIC COMP W.VERY LITTLE  
 R MAFIC MIN,CHARACT'D BY WIDE ZONES OF ALT'D & BRECC FAULT ZONES  
 R & A HIGH FRACT INTENSITY  
 R ALT PREDOMINANTLY CLAY IN HIGHLY FRACT ZONES & FAULT GOUGES,QZ-  
 R CARB MICROVEINS SCATTERED THROUGHOUT  
 R PY OCCURS MOSTLY AS MICROVEINS & IS ASSOC W.QZ-CLAY (GRAY)  
 R A FEW SCATTERED MED-GRAIN ANGULAR X-TALS OF ALT MIN?  
 R 77.72-78.12: FINE-GRAIN,GRAYISH,FELSIC INTRUS (LOTS OF PLAG?) W.  
 R PATCHES & MICROVEINS OF MAGN W.ASSOC PY IN VEINLETS  
 R 78.12-80.47: HIGHLY FRACT'D,CLAY-ALT'D,BRECC'D FAULT ZONE W.  
 R SOME SILICEOUS FRAGS  
 R 81.90: 4 CM WIDE,CLAY-ALT'D FAULT GOUGE  
 R 83.25-83.55: CLAY-ALT'D FAULT GOUGE  
 R 85.00: 5 CM WIDE CLAY-ALT'D FAULT GOUGE  
 / 8535 8800 MONZFXPFHB)PAEF P FZ <= <)G2 V+D)  
 L 8AKFQZ+<< 3214 << <)  
 R FINE-GRAIN,PALE GRAY (W.TAN PATCHES) INTRUS OF MONZONITIC COMP  
 R CHARACT'D BY MOD FRACT'G,STRONG CLAY ALT AS WELL AS QZ-KF ALT  
 R OCCURING AS VEINS & PATCHES. TEXT PATCHY FROM FRACT'G & ALT  
 R QZ ALT OCCURS AS VEINLETS UP TO 0.5 CM AS WELL AS KF ALT WHICH  
 R OCCURS AS PATCHES & VEINLETS, MINOR CARB ALT  
 R CLAY ALT IS PERV IN FRACT ZONES (WHITE TO DARK GRAY COLOURED)  
 R PY OCCURS AS FINELY DISS X-TALS & LESSER AS MICROVEINS  
 R 85.35-86.25: MORE TAN COLOURED ROCK  
 R 85.95-88.00: INCREASE IN FRACT'G,QZ-KF ALT & HIGHLY CLAY-ALT'D  
 R LAST 10 CM SHOWS CLAY ALT'D FAULT GOUGE  
 R ROCK MAY POSS REPRESENT A MORE FELSIC PHASE OF SYENITE OR AN  
 R ALT'D FELSIC DYKE?  
 / 8800 9205 SYMZKFPFQZ+EMUF P FZ <) <)G1 Q\*<+  
 L RUH BXE(<< 2314 << Q\* <+  
 R MED-GRAIN,REDDISH-BROWN INTRUS OF SYENITIC MONZ COMP CHARACT'D  
 R BY ZONES OF HIGH FRACT'G & CLAY ALT,STOCKWK OF QZ-CARB MICROVEIN  
 R & LOCAL CHANGES IN GRAIN SIZE & COLOUR (FINER GRAIN,TAN-BROWN)  
 R ALT PATCHES OF KF & HEM OCCUR IRREG (UP TO 2 CM WIDE)  
 R PY OCCURS MAINLY AS MICROVEINS & FRACT FILLS & LESSER AS DISS  
 R 88.00-88.90: HIGHLY FRACT'D & CLAY-ALT'D FAULT ZONE?  
 R 89.87-90.93: INTERV OF FINER-GRAIN,TAN-BROWN,PARTLY SILICIFIED  
 R INTRUS W.FEW SCATTERED XENOS OF HEMAT'D VOLC  
 / 9205 9495 FGSYKFPFHB+EF SW P << <= <+<+ D)  
 L TUQZ UF 3405 <+  
 R FINE-GRAIN,TAN-BROWN INTRUS OF SYENITIC COMP CHARACT'D BY HIGH  
 R FRACT'G FILLED W.QZ-CARB MICROVEINS  
 R ALT ALSO DISPLAYED BY MINOR CHLOR,SERICITE & CLAY IN FRACT FILLS  
 R PY OCCURS FINELY DISS & LESSER AS MICROVEINS W.ASSOC CLAY  
 R 92.60-92.90: HIGHLY FRACT'D & SILICIFIED FAULT ZONE?  
 R 93.20-94.49: INCREASE IN FRACT'G & ALT (VERY BROKEN UP CORE)  
 / 9495 9988 FAULCYQZ BRRW P FZ P1 P5 D+  
 L WAFX EF <+  
 R FINE-MED GRAIN,WHITE-GRAY,INTENSELY CLAY-ALT'D INTRUS (ORIGIN-

R ALY A SYEN-MONZ?) PROB REPRESENT A FAULT ZONE W.LOCALIZED ZONES  
 R OF WEAKER ALT & SOME HIGHLY SILICEOUS ZONES  
 R TEXT APPEARS BRECCIATED & REWORKED,PATCHES & FRAG OF QZ REMAIN  
 R W. CLAY ALT OCCURING INTERSTITIALY  
 R PY OCCURS FINELY DISS UP TO 3%  
 R ALT ALSO DISPLAYED BY MINOR QZ-CARB MICROVEINS  
 R 95.25-95.40: WEAKER ALT'D ZONE  
 R 96.05-96.65: INTERV OF LIGHT RED-BROWN,LESS CLAY-ALT'D SYENITE?  
 R 99.05: 10 CM INTERV OF VERY SILICEOUS,PATCHY,FRACT'D ROCK (REWK)  
 R 99.48: 12 CM INTERV OF REWORKED,SILICEOUS,FRACT'D ROCK  
 R ROCK TO FRACT'D TO MEASURE FRACT INTENSITY  
 / 9988 10992 MZDIKFH BXE)EMUF P << <)E+<)<+ D+  
 L RUPF << D+<) <)  
 R FINE-MED GRAIN,DARK REDDISH-BROWN,WEAKLY ALT'D INTRUS OF MONZ-  
 R DIORITIC COMP CHARACT'D BY COLOUR & HIGH % OF 2-3 MM MAFIC MIN  
 R SPECKLED THROUGHOUT & ALSO MOD FRACT INTENSITY  
 R A FEW SCATTERED MAFIC XENOS (VOLC/HORNB/FINE GRAIN GABBRO?),AN-  
 R GULAR & MOD MAGNETIC (1-2%)  
 R STOCKWK OF QZ-CARB MICROVEINS OCCURING MORE OFTEN AS SHEETING W.  
 R LESSER CLAY-ALT'D FRACT  
 R ALT OCCURS ALSO AS ENV OF EP AROUND FRACT,CHLOR & HEM OCCUR AS  
 R FRACT FILLS  
 R PY OCCURS AS FINELY DISS (2%) & LESSER AS MICROVEINS W.SOME EP E  
 R MG OCCURS FINELY DISS (2-3%)  
 R 103.53-103.63: CLAY-ALT'D FAULT GOUGE,BROKEN UP CORE PIECES  
 / 10992 12450 PYSYKFFXQZ)EFUF P FZ <) G2 Q)O1  
 L 5TPFXE)BR 3214 << <<  
 R FINE GRAIN,LIGHT-MED TAN INTRUS OF SYENITIC COMP CHARACT'D BY  
 R SPOTTY & BLEBBY PY (2-4 MM) & A FEW SCATTERED,FINE GR'D,FELSIC,  
 R ROUNDED INTRUS XENOS W.PY HALOS  
 R ALT IS DOMINATED BY HIGH CLAY ALT IN FAULT GOUGE ZONES WHICH  
 R ALSO DISPLAY HIGHER FRACT INTENSITY & BRECCIATION  
 R KF ALT OCCURS AS IRREG PATCHES IN HIGH FRACT ZONES  
 R PY OCCURS UP TO 10% AS SPOTS & BLEBS (LESSER AS PATCHES) THROUGH  
 R SOMETIMES AS HALOS AROUND FELSIC XENOS  
 R 115.46-116.54: HIGHLY CLAY-ALT'D,FRACT'D & BRECC'D FAULT ZONE  
 R 118.25-118.95: BROKEN UP,CLAY ALT'D & FRACT'D FAULT ZONE?  
 R 121.11-121.31: SAME AS ABOVE  
 R 122.37-124.50: HIGHLY FRACT'D W.LOCALIZED AREAS OF INTENSE CLAY  
 R ALT & SOME BRECCIATION  
 R 124.05-124.50: HIGH % OF PY MICROVEINS,BLEBS & DISS ASSOC W.INTE  
 R 109.92-111.77: MORE MINERALIZED SYENITE  
 / 12450 13838 MZDIKFPFQZ+EMSW P FZ <+Q\*<(G2 Q)<+  
 L RUH BXE+XEPA 2356 << D+ <)  
 R MED-GRAIN,DARK REDDISH-BROWN (W.LOCALIZED ZONES OF LIGHTER TAN-  
 R BROWN) INTRUS OF MONZ-DIOR COMP CHARACT'D BY MOD FRACT'G,STOCKWK  
 R OF QZ-CARB VEINLETS,LOCALIZED AREAS OF INTENSE FRACT'G/CLAY ALT  
 R ALT DISPLAYED BY INTENSE CLAY ALT IN FAULT ZONES (GOUGES?),VERY  
 R BROKEN UP CORE PIECES  
 R QZ-CARB VEINLETS OCCUR THROUGHOUT,KF ALT OCCURS AS LOCALIZED  
 R PATCHES IN MORE FRACT'D AREAS  
 R PATCHY TEXT DISPLAYED BY LOCALIZED CONCENTRATION OF MAFIC MIN  
 R ANGULAR XENOS OF FINE-MED GRAIN INTRUS (DIOR?) 0.25-2.0 CM WIDE  
 R OCCUR SCATTERED  
 R PY OCCURS AS MICROVEINS ASSOC W.QZ & LESSER AS DISS & PATCHES  
 R (0.5 CM WIDE) 2-3%, MG OCCURS FINELY DISS  
 R 126.63-127.48: INCREASED FRACT'G,QZ CONTENT W.LOCALIZED FAULT ZN  
 R 127.67-128.32: " " & FAULT GOUGE IN FIRST 10 CM  
 R 131.43-134.05 : MORE FELSIC INTERV,HIGHER FRACT'G W. HIGHLY CLAY  
 R ALT'D FAULT GOUGE FROM 132.13-133.09



R 135.23-138.38: VERY BROKEN UP CORE,HIGHER CHLOR ALT,HIGHER  
R FRACT'G,PATCHY TEXT  
R 136.00-136.45: HIGHLY CLAY ALT'D FAULT GOUGE  
R 137.26-137.66: HIGHLY FRACT'D & MOD CLAY-ALT'D FAULT ZONE?  
/ 13838 15636 PYSYKFFXQZ)EFUF P FZ <+ <2 Q=01  
L 5TPFXE)BRPA 3446 << <1  
R SIMILAR TO INTERV 109.92-124.50  
R FINE-GR'D,LIGHT GRAY-MED TAN INTRUS OF SYENITIC COMP CHARACT'D  
R BY SPOTTY & BLEBBY PY (2-5 MM),HIGH FRACT INTENSITY,CLAY-ALT'D  
R FAULT ZONES & LOCALIZED SILICIFIED BRECCIA ZONES  
R A FEW SCATTERED ROUNDED XENOS OF DIORITIC COMP OCCUR IRREG UP TO  
R 3 CM WIDE  
R FRACT FILLED BY QZ-CLAY & CARB; CLAY IS PERV IN FAULT GOUGES  
R KF ALT OCCURS AS PATCHES IN LOCALIZED AREAS OF HIGH FRACT'G  
R PY OCCURS UP TO 10% MOSTLY AS FINELY X-TALIZED SPOTS,BLEBS,DISS  
R & LESSER AS PATCHES & FRACT FILLS,ALSO AS HALOS AROUND XENOS  
R PY CONTENT MORE ABUNDANT IN BRECCIA & KF-ALT'D ZONES,OCcurring  
R AS FRACT FILLS & PATCHES UP TO 20%  
R 139.08-141.68: HIGHLY FRACT'D & CLAY ALT'D FAULT ZONE  
R 145.18-145.68: SAME AS ABOVE  
R 148.68-150.57: MORE ABUNDANT PY AS SPOTS & FRACT FILLS (UP TO  
R 20%) AS WELL AS ABUNDANT KF-ALT PATCHES,LAST 10 CM IS FAULT GOUG  
R 150.57-152.40: HIGHLY FRACT'D,KF-ALT'D.FRACT FILLED W.WHITE/BLAC  
R QZ W.ASSOC PY (ALSO OCCUR AS BRECC'D PATCHES)  
R 152.24-152.40: BRECCIA ZONE  
R 154.47-156.36: HIGHLY FRACT'D,FINE GRAIN,KF-ALT'D,QZ-CARB STCKWK  
R GREENISH CLAY MIN OCCURING AS SPOTS & FRACT FILLS,MINOR DISS PY  
R END OF HOLE  
R SAMPLES

A001

AUMM SAMPLE Ag Au Cu Mo  
R ppm ppb ppm ppm  
ALAB PDI RESEARCH  
ATYP SPLIT CORE  
AMTH WET GEOCHEM A.A.

R	00	4145	CASING - NO RECOVERY	Ag	Au	Cu	Mo
				ppm	ppb	ppm	ppm
A001	4145	4826	54429	.5	5	186	1.0
A001	4826	5060	54430	.2	15	22	1.0
A001	5060	5171	54431	.3	15	47	.5
A001	5171	5364	54432	.5	120	34	3.0
A001	5364	5444	54433	.1	15	22	1.0
A001	5444	5500	54434	.1	5	4	1.0
A001	5500	5700	54435	.1	10	42	1.0
A001	5700	6187	54436	.1	15	46	.5
A001	6187	6320	54437	.1	10	16	.5
A001	6320	6420	54438	.1	3	27	1.0
A001	6420	6767	54439	.1	10	11	.5
A001	6767	6919	54440	.1	5	55	.5
A001	6919	7262	54441	.1	3	33	1.0
A001	7262	7437	54442	.1	15	35	1.0
A001	7437	7720	54443	.1	3	4	2.0
A001	7720	7772	54444	.1	3	10	1.0
A001	7772	7812	54445	1.1	290	13	90.0
A001	7812	8047	54446	1.1	370	344	51.0
A001	8047	8321	54447	.1	3	60	1.0
A001	8321	8535	54448	.1	3	35	1.0
A001	8535	8800	54449	.1	3	25	1.0
A001	8800	8890	54450	.1	3	66	1.0
A001	8890	8987	54451	.1	3	21	1.0
A001	8987	9093	54452	.1	3	7	1.0

A001	9093	9205	54453	.1	5	18	1.0
A001	9205	9312	54454	.1	3	10	1.0
A001	9312	9495	54455	.1	5	5	1.0
A001	9495	9740	54456	.3	20	289	3.0
A001	9740	9988	54457	.8	65	98	4.0
A001	9988	10282	54458	.1	3	39	2.0
A001	10282	10526	54459	.1	5	44	2.0
A001	10526	10750	54460	.1	5	36	1.0
A001	10750	10992	54461	.1	10	66	1.0
A001	10992	11177	54462	.1	10	8	.5
A001	11177	11546	54463	.1	3	2	1.0
A001	11546	11654	54464	.1	3	2	2.0
A001	11654	11938	54465	.1	5	3	1.0
A001	11938	12237	54466	.1	10	16	1.0
A001	12237	12450	54467	.2	5	15	.5
A001	12450	12748	54468	.1	5	24	1.0
A001	12748	13045	54469	.1	3	64	2.0
A001	13045	13143	54470	.1	3	33	1.0
A001	13143	13405	54471	.1	5	25	2.0
A001	13405	13600	54472	.1	15	22	.5
A001	13600	13838	54473	.1	3	44	1.0
A001	13838	13980	54474	.2	10	21	3.0
A001	13980	14168	54475	.1	10	14	1.0
A001	14168	14518	54476	.1	15	24	3.0
A001	14518	14568	54477	.1	5	6	2.0
A001	14568	14868	54478	.1	5	8	3.0
A001	14868	15057	54479	.1	15	21	4.0
A001	15057	15224	54480	.2	75	20	4.0
A001	15224	15240	54481	2.4	715	150	10.0
A001	15240	15447	54482	.1	30	39	2.0
A001	15447	15636	54483	.1	3	255	3.0

R                    END OF HOLE

A002

AUMM			RECOVY	RQD
R	000	4145	CASING - NO RECOVY	
A002	4145	4267	2.5	0.0
A002	4267	4359	21.7	0.0
A002	4359	4481	20.5	0.0
A002	4481	4542	32.8	0.0
A002	4542	4755	20.2	0.0
A002	4755	4816	41.0	0.0
A002	4816	4846	83.3	46.7
A002	4846	4938	86.9	0.0
A002	4938	5060	20.5	0.0
A002	5060	5121	32.8	0.0
A002	5121	5212	71.4	22.0
A002	5212	5364	38.2	11.8
A002	5364	5517	65.4	7.8
A002	5517	5639	49.2	0.0
A002	5639	5700	45.9	0.0
A002	5700	5913	7.0	0.0
A002	5913	6096	97.3	0.0
A002	6096	6187	18.7	0.0
A002	6187	6248	41.0	0.0
A002	6248	6370	52.5	0.0
A002	6370	6523	62.1	0.0
A002	6523	6706	19.1	0.0
A002	6706	6767	62.3	16.4
A002	6767	6919	72.4	9.2
A002	6919	7010	65.9	29.7

A002	7010	7102	89.1	22.8
A002	7102	7315	93.9	38.8
A002	7315	7437	83.6	8.2
A002	7437	7498	62.3	0.0
A002	7498	7620	47.5	0.0
A002	7620	7742	72.1	0.0
A002	7742	7894	71.1	14.5
A002	7894	8047	85.0	51.0
A002	8047	8230	88.5	6.6
A002	8230	8321	69.2	14.3
A002	8321	8504	77.6	41.0
A002	8504	8595	76.9	0.0
A002	8595	8809	71.0	48.6
A002	8809	8900	93.4	34.1
A002	8900	9007	41.0	0.0
A002	9007	9083	72.4	0.0
A002	9083	9205	73.8	0.0
A002	9205	9327	86.1	0.0
A002	9327	9449	36.9	0.0
A002	9449	9510	82.0	37.7
A002	9510	9815	88.5	60.0
A002	9815	10058	95.5	60.6
A002	10058	10119	100.0	18.0
A002	10119	10272	85.6	6.5
A002	10272	10363	82.4	47.3
A002	10363	10516	88.2	32.7
A002	10516	10790	81.4	52.9
A002	10790	10912	77.9	38.5
A002	10912	11064	100.0	47.4
A002	11064	11125	47.5	0.0
A002	11125	11217	82.6	0.0
A002	11217	11262	62.2	0.0
A002	11262	11308	90.0	0.0
A002	11308	11415	58.9	0.0
A002	11415	11521	55.7	0.0
A002	11521	11674	100.0	57.5
A002	11674	11735	49.2	0.0
A002	11735	11918	60.1	0.0
A002	11918	12070	78.3	13.2
A002	12070	12131	95.1	36.1
A002	12131	12177	32.6	0.0
A002	12177	12314	67.9	0.0
A002	12314	12405	45.1	15.4
A002	12405	12603	80.3	17.7
A002	12603	12832	69.9	19.7
A002	12832	13045	94.4	55.4
A002	13045	13198	72.5	34.6
A002	13198	13259	27.9	0.0
A002	13259	13533	30.3	0.0
A002	13533	13625	52.2	0.0
A002	13625	13746	76.9	8.3
A002	13746	13868	77.9	8.2
A002	13868	14188	52.8	39.7
A002	14188	14508	89.1	48.1
A002	14508	14569	42.6	0.0
A002	14569	14630	65.6	0.0
A002	14630	14691	59.0	0.0
A002	14691	14737	87.0	0.0
A002	14737	14813	92.1	0.0
A002	14813	14966	75.8	10.6

A002	14966	15057	22.0	0.0
A002	15057	15194	65.7	23.4
A002	15194	15240	97.8	0.0
A002	15240	15286	39.1	0.0
A002	15286	15362	55.3	0.0
A002	15362	15444	100.0	58.5
A002	15444	15636	60.4	8.9

R                   END OF HOLE

A003

AUMM			Ag	Au	Cu	Mo
R			ppm	ppb	ppm	ppm

R                   5.0 metre Composite Geochem

R                   Casing to 41.45 m

A003	4145	4500	.5	5	186	1.0
A003	4500	5000	.4	8	129	1.0
A003	5000	5500	.3	54	30	1.7
A003	5500	6000	.1	13	44	.7
A003	6000	6500	.1	10	29	.6
A003	6500	7000	.1	7	28	.6
A003	7000	7500	.1	7	30	1.1
A003	7500	8000	.6	164	133	27.4
A003	8000	8500	.2	38	78	5.7
A003	8500	9000	.1	3	32	1.0
A003	9000	9500	.1	4	12	1.0
A003	9500	10000	.5	42	188	3.5
A003	10000	10500	.1	4	41	2.0
A003	10500	11000	.1	8	50	1.0
A003	11000	11500	.1	5	4	.8
A003	11500	12000	.1	5	4	1.2
A003	12000	12500	.1	7	16	.8
A003	12500	13000	.1	4	44	1.5
A003	13000	13500	.1	6	29	1.5
A003	13500	14000	.1	8	32	1.5
A003	14000	14500	.1	13	21	2.3
A003	14500	15000	.1	7	12	3.2
A003	15000	15500	.2	62	57	3.3
A003	15500	15636	.1	3	255	3.0

/END

IDEN680201 V250 DDH90-8 NQ 07MAY90 MD ATLSMAY90S38 RBPUTM 0.0  
 IPRJ PDI/Salor Scientific KNUT PROPERTY  
 S000 00 3536MT 35.36271.0 -45.00 3300. 1758. 955.  
 /SCL MT.2  
 LSCL LCTM  
 /NAM QZEPCLCYMSKFPYCPMOSL  
 LNAM LIPLMGHEGYMCCB PO

R THIS DDH COLLARED TO TEST THE PERIPHERY OF AN IP ANOMALY & PRE-  
 R VIOUSLY INTERSECTED MINERALIZATION IN OLDER DDH'S

R 00 2743 CASING TO 2743 M

/ 00 2743 OVBD P

/ 2743 3536 OVBD P

R OVERBURDEN COMPOSED OF GLACIAL TILL (BASAL TILL?) & ASSORTED BLD  
 R CASING WAS PUT DOWN TO APPROX 2743 M THEN DRILLED BUT BEDROCK  
 R BEGAN ACTUALLY AT 44.5 M. CONSEQUENTLY,CASING GOT STUCK DUE TO  
 R HOLE COLLAPSING; UNABLE TO CONTINUE,THEREFORE HAD TO PULL OUT  
 R AND COLLAR DDH90-8A, 30 CM WEST OF DDH90-8

R  
 R NO SAMPLES TAKEN, ALL OVERBURDEN

A001

AUMM SAMPLE Ag Au Cu Mo  
 R ppm ppb ppm ppm

ALAB PDI RESEARCH  
 ATYP SPLIT CORE  
 AMTH WET GEOCHEM A.A.

R  
 R No Samples

A002

AUMM RECOVY RQD  
 R 000 2743 CASING - NO RECOVY  
 A002 3231 3383 16.4 0.0  
 A002 3383 3536 54.2 15.0

R END OF HOLE  
 R ALL OVERBURDEN,CASING WAS STUCK AT APPROX 27.43 M, HAD TO PULL  
 R OUT AND COLLAR DDH90-8A,30 CM WEST OF DDH90-8

A003

AUMM Ag Au Cu Mo  
 R ppm ppb ppm ppm

R 5.0 metre Composite Geochem  
 R All Overburden , no samples

/END

IDEN680201 V250 DDH90-8A NQ 07MAY90KME ATLSMAY90S38 RBPUTM 0.0  
 IPRJ PDI/Salor Scientific KNUT PROPERTY  
 S000 00 5578MT 111.56270.0 -45.00 3300. 1758. 955.  
 S001 5578 11156 111.56270.0 -44.50  
 /SCL MT.2  
 LSCL LCTM  
 /NAM QZEPCLCYMSKFPYCPMOSL  
 LNAM LIPLMGHEGYMCCB PO  
 R THIS DDH COLLARED TO TEST CU-AU SOIL ANOMALY AND VLF ANOMALY  
 R 00 4572 CASING TO 45.72 M  
 / 00 4572 OVBD P  
 / 4572 6825 MZDIPFQZKF+EMMX P E\*E\*D= E)D\*  
 L RA XE)UFPP D1 <)  
 R VERY UNIFORM ROCK W FEW TEXTURAL CHANGES. OCCASIONAL MAFIC XENO  
 R APPROX 2-5% QZ, 15% MAFICS(CL AND MG), 75% ANG PF PHENOS  
 R SOME OR ALL OF KF MAY BE SECONDARY. IT OCCURS AS ENVELOPES,  
 R ALONG FRACTURES W CL INFILL, SOME ASSOC W QZ ENVELOPES  
 R CB OCCURS AS SMALL FRACTURE FILLINGS AND POSS DISS'D THROUGHOUT  
 R ROCK, AMOUNT UNKNOWN  
 R NO GY, LITTLE CLAY ALTN, EP ALTN MINIMAL ALONG REHEALED FRACTURE  
 R CL ALTN OF MAFIC MINERALS, ASSOC W MG, AND AS FRACTURE FILLINGS  
 R PY DISS'S UNIFORMLY THROUGHOUT ROCK, <1%  
 R MG MORE DOMINANT AS DISS'NS AND OCCASIONAL FRACTURE FILL W CL  
 R ALSO CONCENTRATED IN XENOLITHS  
 R ROCK VERY FRACTURED, VERY LOW RQD, FRACURE COUNT IMPOSSIBLE.  
 R NEAR END ROCK LOSES SOME TEXTURE, CL, PERV KF, SOME EP ALTN  
 R DOMINATE AND INCREASES W DEPTH  
 / 6825 7498 FAULCYCL FZBR P FZ \*\* P3P3  
 L 5G C= P2  
 R FAULT ZONE: BOUNDED AT EACH END W 10 -12 CM ALTERED ZONE  
 R ALTERED ZONE CONSISTS OF CB (20%), CY, HE, ROUND QZ CLASTS  
 R AND OTHER FRAGMENTS  
 R CL - CY ALTN INCREASES CENTRALLY, TO 80% CL - CY RICH FAULT ZONE  
 R NO ORIGINAL ROCK REMAINING  
 R NO MINERALIZATION  
 / 7498 8910 MZDIPFQZXE+PPEM P E+P=G) E=D\*  
 L RA D1 <+  
 R SAME AS FIRST INTERVAL, UP TO 20% MAFIC MINERALS  
 R ANG XENO MORE COMMON, UP TO 5CM  
 R EP AND KF ENVELOPES INCREASE UP TO 5%, PROMINANT AT END  
 R CB MICROVEINS MORE COMMON AT END  
 R END OF INTERVAL TRANSITIONAL W NEXT INTERVAL  
 R MINERALIZATION SIMILAR TO 45.72 M- 68.25 M  
 / 8910 9226 MZDIPFQZ SWEM P P+<1P1P+ E=D)  
 L 6A D+C+ <1  
 R ROCK TRANSITIONAL W UPPER AND LOWER MZDI.  
 R CHARACTERIZED BY A LOSS OF MG AND INCREASES IN EP, KF, QZ  
 R CB STOCKWORK AND PY INCREASES AS WELL  
 R ORIGINAL TEXTURE OVERPRINTED BY ALTN  
 R EP GENERALLY IN HBALED FRACTURES, IRREG AND ANASTOMIZING,  
 R OFTEN ASSOC W CB VEINS, SOME HE STAINING  
 R QZ AND CB ALTN INCREASES TO CENTRE AT 90.26 TO 90.76M  
 R DISS'D PY UP TO 2 - 4% ASSOC W QZ RICH ZONE  
 R ROCK MOST COMPETENT HERE  
 / 9226 11156 MZDIPF KF)EM P E+P1 E+D\*  
 L 4A XE) D1 <)  
 R  
 R SIMILAR ROCK AS BEGINNING OF HOLE  
 R SLIGHT INCREASE IN EP - KF ALONG FRACTURES UP TO 5% OF ROCK  
 R CB OCCURS AS MINOR ANGULAR STOCKWORK ASSOC W EP AND PY

R PY UP TO 2%  
R ALTN DECREASES AWAY FROM UPPER CONTACT  
R MG RETURNS LARGELY AS DISS'NS, ALTHOUGH SOME IN MICROFRACTURES  
R AND XENOS  
N 10698 10851 1FAULCYCLXE5FZ N P2P2 \*\*D)  
L AGCB P2  
R LESS INTENSE THAN PREVIOUS FAULT.  
R MAINLY MZDI CLASTS IN CL - CY MATRIX W CB  
R DISS PY 2%, SOME KF ALTN  
R IRREG CB VEINS AT 30 DEG  
R EOH  
R SAMPLES

A001

AUMM SAMPLE Ag Au Cu Mo  
R ppm ppb ppm ppm

ALAB PDI RESEARCH

ATYP SPLIT CORE

AMTH WET GEOCHEM A.A.

R 00 4572 CASING - NO RECOVERY

A001	4572	5060	54484	.1	3	18	4.0
A001	5060	5517	54485	.1	3	10	4.0
A001	5517	5700	54486	.1	3	11	3.0
A001	5700	6279	54487	.1	3	16	4.0
A001	6279	6825	54488	.1	5	7	2.0
A001	6825	7498	54489	.1	5	14	3.0
A001	7498	8169	54490	.1	3	16	1.0
A001	8169	8707	54491	.1	3	31	3.0
A001	8707	8910	54492	.1	3	15	2.0
A001	8910	9026	54493	.1	5	16	3.0
A001	9026	9226	54494	.1	40	36	3.0
A001	9226	9367	54495	.4	15	10	3.0
A001	9367	9632	54496	.1	5	9	4.0
A001	9632	9876	54497	.1	3	7	3.0
A001	9876	10241	54498	.1	50	5	2.0
A001	10241	10698	54499	.1	3	17	3.0
A001	10698	11156	54500	.1	25	6	3.0

R POOR RECOVERY FOR MANY OF THE INTERVALS, THEREFORE,  
R SAMPLE INTERVALS MAY BE LONG

A002

AUMM RECOVY RQD

R 000 4572 CASING - NO RECOVY

A002	4572	4755	26.3	0.0
A002	4755	5060	16.4	0.0
A002	5060	5182	34.4	0.0
A002	5182	5273	19.8	0.0
A002	5273	5364	11.0	0.0
A002	5364	5517	10.5	0.0
A002	5517	5547	33.3	0.0
A002	5547	5578	64.5	0.0
A002	5578	5639	49.2	0.0
A002	5639	5700	44.3	0.0
A002	5700	5745	22.2	0.0
A002	5745	5974	10.9	0.0
A002	5974	6187	14.1	0.0
A002	6187	6279	23.9	0.0
A002	6279	6584	11.5	0.0
A002	6584	6675	19.8	0.0
A002	6675	6767	43.5	0.0
A002	6767	6828	45.9	0.0
A002	6828	6949	8.3	0.0

A002	6949	7193	15.6	5.3
A002	7193	7498	6.6	0.0
A002	7498	7803	5.9	0.0
A002	7803	7879	19.7	0.0
A002	7879	8169	9.7	0.0
A002	8169	8260	14.3	0.0
A002	8260	8321	44.3	0.0
A002	8321	8382	21.3	0.0
A002	8382	8717	6.0	0.0
A002	8717	8839	16.4	0.0
A002	8839	8900	55.7	0.0
A002	8900	8976	96.1	15.8
A002	8976	9174	66.7	33.3
A002	9174	9266	56.5	14.1
A002	9266	9327	63.9	0.0
A002	9327	9479	64.5	6.6
A002	9479	9571	13.0	0.0
A002	9571	9632	95.1	36.1
A002	9632	9754	12.3	0.0
A002	9754	9815	54.1	0.0
A002	9815	9876	16.4	0.0
A002	9876	9936	30.0	0.0
A002	9936	9967	54.8	0.0
A002	9967	10028	29.5	0.0
A002	10028	10241	8.5	0.0
A002	10241	10455	9.3	0.0
A002	10455	10546	18.7	0.0
A002	10546	10698	9.7	0.0
A002	10698	10851	38.2	6.5
A002	10851	11034	9.8	0.0
A002	11034	11156	17.2	0.0

R END OF HOLE

A003

AUMM

R

R

R

A003

A003

A003

A003

A003

A003

A003

A003

A003

/END

Ag	Au	Cu	Mo
ppm	ppb	ppm	ppm
10.0 metre Composite Geochem			
Casing to 45.72 m			
.1	3	18	4.0
.1	3	12	3.8
.1	4	11	2.7
.1	4	15	2.0
.1	3	24	2.4
.1	19	14	3.1
.1	21	11	2.7
.1	25	6	3.0



**APPENDIX III**

**Petrographic Report**

KNUT PROPERTY '90

Character Rock Samples Sent to Vancouver Petrographics

- 43334 - FGDI: Fine-Grained Diorite  
Location: DDH90-1, Box 8, @ 110.0 metres (Sample #54046)  
Remarks: Stockwork of potassium feldspar veins with associated pyrite, quartz envelopes. Contains 2760 ppm copper.
- 43335 - HYDI: Hybrid Diorite  
Location: DDH90-1, Box 23 @ 136.48 metres (Sample #54058)  
Remarks: Fragments of intrusive and volcanic nature in a dioritic matrix, epidote, chlorite alteration, disseminated pyrite. contains 317 ppm copper.
- 43336 - MSSF: Massive Sulphide  
Location: DDH90-2, Box 8 @ 47.0 metres (Sample #54085)  
Remarks: Contains pyrite and magnetite patches within a hybrid diorite. Contains 0.85% copper, 545 ppb gold.
- 43337 - RYDK: Rhyolitic Dyke  
Location: DDH90-3, Box 2, @ 163.27 metres (Sample #54220)  
Remarks: Moderately fractured, tan coloured felsic dyke? with minor disseminated pyrite and some patchy chloritic alteration. No values.
- 43338 - MGMZ: Medium-Grained Monzonite  
Location: DDH90-5, Box 4, @ 32.0 metres (Sample #54317)  
Remarks: Contains disseminated pyrite in a massive, greyish-tan monzonite, some gypsum fracture filling. No values.
- 43339 - BRDI: Brecciated Diorite  
Location: DDH90-6, Box 12, @ 94.1 metres (Sample #54396)  
Remarks: Contains rounded and angular felsic fragments in a dioritic matrix. Some disseminated and patchy pyrite. Contains 214 ppm copper.

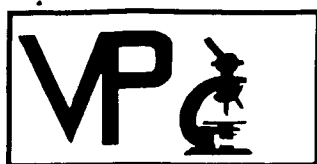
43340 -

PYSY: Pyritic Syenite

Location: DDH90-7, Box 14, @ 120.90 metres (Sample #54466)

Remarks: Contains spotty blebs, 2 - 4 millimetres wide, of pyrite scattered in a fine-grained syenitic matrix. No values.

BB-77D



# Vancouver Petrographics Ltd.

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

P.O. BOX 39  
8080 GLOVER ROAD,  
FORT LANGLEY, B.C.  
VOX 1J0  
PHONE (604) 888-1323  
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Report for: **Marc Deschenes,**  
**Placer Dome Inc.,**  
**401 - 1450 Pearson Place**  
**KAMLOOPS, B.C., V1S 1J9**

Invoice 97  
June 1990

Samples: 43334 - 43340

### Summary:

Samples 43334, 43337, 43338, 43339 and 43340 are of porphyritic, hypabyssal, plagioclase-rich rocks, herein designated hypabyssal diorite to granodiorite. Sample 43339 is strongly brecciated and altered.

Sample 43335 is of an altered gabbro, which was partly replaced by epidote-pyrite-(chalcopyrite) skarn.

Sample 4336 is a skarn dominated by pyrite-actinolite.

Sample 43334 is a hypabyssal porphyritic quartz diorite containing strongly zoned plagioclase phenocrysts and less hornblende phenocrysts in a groundmass dominated by plagioclase and quartz, with less biotite and magnetite, and minor epidote. Early veins of quartz-gypsum-pyrite-epidote-chlorite have halos of sericite/K-feldspar. Later veins are of quartz-gypsum with minor pyrite and chalcopyrite.

Sample 43335 is a medium to coarse grained gabbro which was altered and replaced strongly, probably in a skarn environment. It contains three main zones.

- 1) dominated by actinolite with less epidote and ilmenite/Ti-oxide.
- 2) dominated by plagioclase.
- 3) dominated by epidote and actinolite, with less pyrite, and minor chalcopyrite-(bornite).

Gypsum forms irregular replacement patches and veinlets. The epidote-rich replacement patch and gypsum veinlets are cut by a late breccia zone in which the rock was granulated strongly.

Sample 43336 is a medium to coarse grained, patchy skarn dominated by pyrite and actinolite, with less apatite, magnetite, epidote, and ankerite. Magnetite is earlier than pyrite and chalcopyrite, and actinolite and apatite are earlier than epidote.


(continued)

Sample 43337 is a **hypabyssal quartz diorite** containing a few phenocrysts of plagioclase and abundant finer plagioclase grains in a sparse groundmass dominated by quartz and biotite/chlorite, with minor epidote, ankerite, apatite, and sphene/Ti-oxide/ilmenite. Veinlets are of a few types, dominated by one or more of chlorite/serpentine, quartz, and epidote.

Sample 43338 is a **hypabyssal pyritic quartz diorite** dominated by fine grained plagioclase with much less biotite and interstitial quartz. Pyrite forms ragged, disseminated grains and skeletal clusters. The hand sample contains a parallel set of fractures; these were not obvious in the thin section.

Sample 43339 is a brecciated and altered **hypabyssal diorite(?)** containing ragged relic plagioclase phenocrysts in an extremely fine grained plagioclase altered strongly to sericite and ankerite. Pyrite and tourmaline are disseminated replacement minerals. The rock was brecciated coarsely, with the matrix being dominated by quartz, with veinlets of ankerite and minor pyrite.

Sample 43340 is a **porphyritic hypabyssal granodiorite** containing phenocrysts of plagioclase in a finer grained groundmass dominated by plagioclase and K-feldspar with minor biotite, ankerite, quartz, and pyrite.

  
John G. Payne  
604-986-2928

Sample 43334

**Hypabyssal Porphyritic Quartz Diorite; Early Veins of Quartz-Pyrite-Gypsum-Chlorite-Epidote, and Later Vein of Quartz-Gypsum-(Pyrite-Chalcopyrite)**

The rock contains strongly zoned plagioclase phenocrysts and less hornblende phenocrysts in a groundmass dominated by plagioclase and quartz, with less biotite and magnetite, and minor epidote. Early veins of quartz-gypsum-pyrite-epidote-chlorite have halos of sericite/K-feldspar. Later veins are of quartz-gypsum with minor pyrite and chalcopyrite.

phenocrysts	
plagioclase	35-40%
hornblende	4- 5
quartz	minor
groundmass	
plagioclase (coarser)	3- 4
quartz (coarser)	1- 2
plagioclase/quartz (finer)	30-35
biotite	2- 3
magnetite	1- 2
pyrite	1
chlorite	0.3
epidote	0.3
chalcopyrite	minor
apatite	trace
veins	
quartz-pyrite-epidote-chlorite-gypsum(?)	3- 4
quartz-gypsum-(pyrite-chalcopyrite)	7- 8

Plagioclase forms subhedral, equant to prismatic phenocrysts averaging 0.3-0.7 mm in size. Zonation is strong from more-calcic cores (andesine) to more-sodic rims (oligoclase/andesine). Alteration is slight to locally moderate to patches of sericite and lesser ones of epidote, and is concentrated in calcic cores.

Hornblende forms subhedral to anhedral prismatic phenocrysts up to 1.7 mm long. Some grains are altered to pale to medium green, pseudomorphic actinolite, which in places is replaced by extremely fine grained aggregates of chlorite, quartz, and Ti-oxide. Other grains are altered completely to aggregates of chlorite and less epidote, quartz, and Ti-oxide.

Quartz forms a few irregular phenocrysts up to 1 mm in size.

Interstitial to plagioclase phenocrysts are minor anhedral plagioclase and quartz grains averaging 0.07-0.2 mm in size. These are intergrown with interstitial patches of intimate intergrowths of plagioclase and quartz averaging 0.015-0.025 mm in grain size.

Biotite forms ragged, equant flakes averaging 0.2-0.3 mm in size, with a few up to 1.2 mm long. Alteration generally is complete to pseudomorphic chlorite and minor Ti-oxide. A few elongate biotite flakes up to 1.2 mm long are replaced by patches of epidote and less chlorite.

Magnetite forms equant grains averaging 0.05-0.15 mm in size, with a few up to 0.3 mm across. A few are altered slightly to moderately to patches of hematite. A few are replaced partly by pyrite and less chalcopyrite.

Pyrite forms anhedral grains averaging 0.05-0.15 mm in size. Some contain minor to abundant blebby inclusions of chalcopyrite and/or pyrrhotite averaging 0.01-0.02 mm in size.

(continued)

Chlorite forms a few irregular interstitial patches up to 0.3 mm in size.

Epidote forms anhedral patches averaging 0.1-0.2 mm in size.

Apatite forms a grain 0.2 mm long associated with the hornblende phenocryst.

A set of subparallel, early veinlets averaging 0.1-0.3 mm wide are dominated by very fine grained quartz and gypsum, with less pyrite, epidote, and chlorite, and minor chalcopyrite. Gypsum commonly is concentrated in cores of veins, and was removed partly from the section during weathering and/or sample preparation. Veinlets are rimmed by halos up to 2 mm wide in which plagioclase and chlorite are altered to sericite and probably K-feldspar, which give these parts of the stained offcut block a light yellow color. These are offset by the main vein.

The main late vein up to 2 mm wide is dominated by patches of anhedral, slightly interlocking quartz grains averaging 0.2-0.5 mm in grain size, and others of anhedral gypsum aggregates ranging from patches of 0.01-0.02 mm grain size up to others of 0.05-0.1 mm in grain size. Pyrite forms a few anhedral, equant grains up to 0.3 mm across and moderately abundant anhedral grains averaging 0.01-0.03 mm in size, mainly in the gypsum-rich part of the vein. Chalcopyrite forms scattered anhedral grains averaging 0.03-0.5 mm in size in the quartz-rich part of the vein. Molybdenite forms a cluster of ragged flakes averaging 0.01-0.03 mm in length associated with quartz-gypsum. Epidote forms a few anhedral grains up to 0.1 mm in size.

Wispy gypsum veinlets average 0.01-0.02 mm in width; some are associated with the other veins, and some are late.

**Sample 43335      Gabbro/Skarn(?): Actinolite-Epidote-plagioclase-  
Ilmenite-pyrite-Gypsum; Gypsum Veinlets; Late Breccia Seam**

The sample is a medium to coarse grained gabbro which was altered and replaced strongly, probably in a skarn environment. It contains three main zones. The first (at one end of the section) is dominated by actinolite with less epidote and ilmenite/Ti-oxide. The second (in the center) is dominated by plagioclase. The third (at the other end) is dominated by epidote and actinolite, with less pyrite, and minor chalcopyrite-(bornite). The medium to coarse texture and the presence of abundant ilmenite suggests that the original rock was a gabbro. Gypsum forms irregular replacement patches and veinlets. The epidote-rich replacement patch and gypsum veinlets are cut by a late breccia zone in which the rock was granulated strongly.

actinolite	35-40%	ankerite	1%
epidote	30-35	chlorite	0.5
plagioclase	17-20	gypsum	0.2
pyrite	3- 4	chalcopyrite	0.1
ilmenite/Ti-oxide	2- 3	bornite	trace
veinlets, replacement patches			
gypsum	1		
breccia zone	1- 2		

Actinolite forms ragged prismatic grains averaging 0.3-1 mm in size, with a few up to 2.5 mm long. Pleochroism is from pale to light green. Some grains are replaced partly by irregular patches of epidote in the epidote-rich replacement zone.

Epidote forms patches up to 1.5 mm in size with a variety of replacement textures. Grain size ranges from extremely fine to fine.

Plagioclase forms grains up to 2.5 mm in size. Alteration in the plagioclase-rich zone is moderate to sericite and less epidote. Elsewhere, irregular patches of extremely fine to fine grained epidote probably represent completely altered plagioclase.

Ilmenite forms irregular patches with subrounded borders averaging 0.2-0.5 mm in size. Alteration is variable. At one end of the section, grains are relatively fresh, with minor to moderately abundant plates of Ti-oxide along a few crystallographic directions. With increasing alteration, Ti-oxide ribs are preserved, and ilmenite is replaced by cryptocrystalline silicates. Ilmenite patches may be loci for pyrite replacement in the epidote-pyrite replacement zone.

Pyrite is concentrated at one end of the section, where it forms anhedral grains averaging 0.1-0.5 mm in size. In some patches, pyrite grains are skeletal and intergrown intimately with epidote. Elsewhere it forms discontinuous, wispy veinlets averaging 0.02-0.03 mm wide. A few grains contain blebby inclusions of chalcopyrite or pyrrotite averaging 0.01-0.02 mm in size; a few chalcopyrite inclusions are from 0.05-0.1 mm long.

Ankerite forms anhedral grains averaging 0.2-0.4 mm in size.

Gypsum forms patches of very fine grains interstitial to epidote.

Chlorite forms a few interstitial patches up to 0.2 mm in size and wispy veinlets up to 0.02 mm wide.

Chalcopyrite forms irregular patches averaging 0.03-0.15 mm in size. Bornite occurs with chalcopyrite as grains averaging 0.02-0.03 mm in size.

Gypsum forms replacement patches and veinlets of grains averaging 0.05-0.1 mm in size. One replacement patch up to 1.5 mm across contains grains up to 0.5 mm in size.

At one end of the sample is an irregular breccia zone up to 0.4 mm wide in which the rock was granulated strongly. This zone cuts the gypsum veinlets.



The rock is a medium to coarse grained, patchy skarn dominated by pyrite and actinolite, with less apatite, magnetite, epidote, and ankerite. Magnetite is earlier than pyrite and chalcopyrite, and actinolite and apatite are earlier than epidote.

pyrite	30-35%
actinolite	25-30
magnetite	10-12
apatite	10-12
epidote	8-10
ankerite	5- 7
chalcopyrite	0.1
sphene	*
pyrrhotite	*

Actinolite forms anhedral, commonly ragged, prismatic grains averaging 0.5-1.5 mm in size, with a few up to 3.5 mm long. Color in thin section is pale green. In some patches, actinolite grains appear to be granulated slightly, and in others they appear to be replaced by epidote.

Magnetite forms anhedral grains up to a few mm across. It is strongly granulated, and fragments are enclosed in a matrix of pyrite and less chalcopyrite, and locally of calcite. Locally, magnetite grains are altered in small patches along their margins to hematite.

Pyrite forms patches up to a few mm across. Pyrite/magnetite textures range from pure pyrite grains through pyrite grains with moderately abundant inclusions of magnetite, to magnetite grains with fractures filled by pyrite. Some pyrite grains are intergrown intimately with silicates and some contain moderately abundant inclusions of silicates.

Apatite forms patches up to 2 mm across of aggregates of anhedral to prismatic grains averaging 0.05-0.15 mm in size. Interstitial to apatite in some patches is minor to moderately abundant ankerite, and in a few other patches is minor epidote.

Ankerite forms interstitial grains averaging 0.5-1 mm in size intergrown with actinolite. It forms skeletal grains up to 2 mm across interstitial to and in fractures in sulfide patches and in apatite aggregates.

Epidote forms patches up to a few mm across of anhedral grains averaging 0.05-0.15 mm in size. Commonly it is intergrown with, and may be a replacement of actinolite. In a few patches it is intergrown intimately with apatite. Epidote forms a few discontinuous veinlets up to 0.05 mm wide.

Chalcopyrite forms interstitial patches up to 0.2 mm in size, in part alone and in part associated with pyrite in fractures in magnetite. A few irregular inclusions up to 0.06 mm in size occur in large pyrite grains.

Sphene forms anhedral grains averaging 0.1 mm in size.

Pyrrhotite forms blebby to cusped inclusions averaging 0.01-0.02 mm in size in pyrite.

Sample 43337

**Hypabyssal Quartz Diorite; Veins of  
Chlorite-Epidote-Ankerite-(Sphene); Quartz**

A few phenocrysts of plagioclase and abundant finer plagioclase grains are set in a sparse groundmass dominated by quartz, and biotite/chlorite, with minor epidote, ankerite, apatite, and sphene/Ti-oxide/ilmenite. Veinlets are of a few types, dominated by one or more of chlorite/serpentine, quartz, and epidote.

plagioclase	82-85%	veins, veinlets	
quartz	7- 8	1) chlorite	1- 2%
biotite/chlorite	4- 5	epidote	1
ankerite	1	ankerite	0.5
epidote	1	sphene	0.2
apatite	0.5	Ti-oxide	minor
sphene	0.3	2) quartz	0.3
Ti-oxide/ilmenite	0.3	epidote	0.1
zircon	*	opaque (pyrite?)	minor

Plagioclase forms a few subhedral, stubby prismatic phenocrysts averaging 1-1.5 mm in size. Alteration is strong to patches of epidote and flakes of sericite. Plagioclase also forms anhedral to subhedral, stubby prismatic to slightly interlocking grains averaging 0.3-0.6 mm in length. Alteration is slight to moderate to disseminated sericite and patches of calcite and of epidote. Plagioclase contains abundant dusty inclusions, giving it a pale brown color in plane light.

Quartz forms anhedral grains averaging 0.1-0.4 mm in size, interstitial to plagioclase.

Biotite forms flakes averaging 0.5-0.8 mm long. Alteration is complete to pseudomorphic chlorite with minor patches of Ti-oxide along cleavage, and minor patches of ankerite and/or epidote disseminated in chlorite.

Ankerite forms interstitial patches up to 1.2 mm in size, generally of single grains or fine grained aggregates.

Sphene forms anhedral to euhedral grains averaging 0.05-0.2 mm in size. Ti-oxide forms clusters of anhedral grains averaging 0.03-0.05 mm in size. Many patches have ragged cores of ilmenite up to 0.05 mm in size.

Apatite forms patches up to 1 mm in size of aggregates of anhedral to subhedral prismatic grains averaging 0.05-0.1 mm in size.

Zircon forms a few subhedral, stubby prismatic grains averaging 0.05-0.07 mm long.

A lensy vein up to 0.7 mm wide is dominated by very fine to fine grained intergrown with patches of subhedral to anhedral epidote, lesser anhedral ankerite, and minor very fine to extremely fine grained sphene and Ti-oxide. Two veinlets up to 0.2 mm wide are of very fine grained chlorite; these are preserved poorly in the section.

A vein up to 0.3 mm wide is dominated by quartz with minor epidote; associated with the vein is a patch of anhedral opaque (pyrite?) grains averaging 0.1-0.4 mm in size.

A few veinlets up to 0.1 mm wide are of one or more of ankerite, chlorite, and epidote.

Sample 43338

## Hypabyssal Pyritic Quartz Diorite

The rock is dominated by fine grained plagioclase with much less biotite and interstitial quartz. Pyrite forms ragged, disseminated grains and skeletal clusters. The hand sample contains a parallel set of fractures; these were not obvious in the thin section.

phenocrysts	
plagioclase	3- 4%
groundmass	
plagioclase	82-85
biotite	4- 5
quartz	3- 4
pyrite	3- 4
apatite	0.3
epidote	0.2
pyrrhotite	trace
Ti-oxide/sphene	trace
zircon	*
veinlets	
calcite	trace

Plagioclase forms a few subhedral to anhedral phenocrysts averaging ranging from 0.5-1.4 mm in size. These are surrounded by anhedral plagioclase grains averaging 0.1-0.5 mm in size. Alteration generally is slight to disseminated flakes of sericite. Less common alteration minerals include patches of calcite and of epidote averaging 0.03-0.07 mm in size.

Biotite forms disseminated, stubby to locally slender flakes averaging 0.1-0.5 mm in size, and one patch 1.5 mm across of a few grains. Alteration is complete, generally to pseudomorphic chlorite with minor to abundant patches of epidote, and less commonly and in smaller flakes to pseudomorphic muscovite. In both alteration types, irregular patches of calcite are common. A few grains are replaced completely by patches of calcite and epidote.

Quartz forms anhedral, interstitial grains and clusters of grains averaging 0.05-0.08 mm in grain size.

Apatite forms a few unusual, subhedral prismatic grains up to 1 mm in length. Some grains appear to be aggregates of grains averaging 0.03-0.05 mm in size in subparallel orientation. Other grains are replaced slightly by very irregular to skeletal patches of calcite.

Epidote forms a few replacement patches up to 0.4 mm in size.

Pyrite forms skeletal clusters up to 1 mm across of very irregular grains averaging 0.05-0.15 mm in size, intergrown with and interstitial to silicates. A few grains are up to 0.5 mm across. Several pyrite grains contain one to a few blebby inclusions of pyrrhotite averaging 0.01-0.02 mm in size.

Ti-oxide forms disseminated grains averaging 0.02-0.05 mm in size. Some are associated with similar grains of sphene.

Zircon forms subhedral, prismatic grains averaging 0.03-0.05 mm long.

Calcite forms a few discontinuous veinlets up to 0.05 mm wide.

Sample 43339Brecciated and Altered Hypabyssal Diorite(?);  
Matrix of Quartz; Veinlets of Ankerite-(Pyrite)

Ragged relic plagioclase phenocrysts are set in an extremely fine grained plagioclase altered strongly to sericite and ankerite. Pyrite and tourmaline are disseminated replacement minerals. The rock was brecciated coarsely, with the matrix being dominated by quartz, with veinlets of ankerite and minor pyrite.

phenocrysts			
plagioclase	8-10%		
hornblende	minor		
groundmass			
plagioclase	30-35	chlorite	1%
sericite	25-30	Ti-oxide	0.5
ankerite	10-12	chalcopyrite	trace
pyrite	2- 3	tetrahedrite	*
tourmaline	1	magnetite	*
matrix		pyrrhotite	*
quartz	10-12		
ankerite	2- 3		
pyrite	1- 2		
sericite	0.3		

Plagioclase forms anhedral, ragged phenocrysts averaging 0.5-1.5 mm in size. Alteration is moderate to strong to sericite.

Hornblende(?) forms a subhedral phenocryst 0.6 mm long; it is altered completely to ankerite and sericite.

The groundmass is dominated by plagioclase, which is altered strongly to extremely fine grained sericite with ragged patches of extremely fine grained ankerite. Ti-oxide forms disseminated grains averaging 0.005-0.01 mm in size and is concentrated locally in ragged patches up to 0.2 mm in size of similar grains.

Pyrite forms disseminated subrounded to irregular grains and clusters of grains averaging 0.05-0.2 mm in size, with a few up to 0.7 mm across. A small percentage of these contain one or several blebby inclusions of pyrrhotite averaging 0.007-0.015 mm in size. A moderate percentage contain abundant tiny inclusions of silicates.

Tourmaline forms disseminated prismatic grains and clusters, in part radiating, of a few grains averaging 0.1-0.2 mm in length. A few dense patches consist of unoriented, stubby prismatic grains averaging 0.03-0.07 mm in length. Most single tourmaline grains and those in radiating clusters and dense patches are colorless; in most subradiating clusters tourmaline grains are pleochroic from pale to medium green.

Chlorite forms a few irregular replacement(?) patches up to 2 mm in size, which contain minor disseminated Ti-oxide.

Chalcopyrite forms an anhedral patch 0.2 mm across. Tetrahedrite occurs on the borders of this patch as several anhedral grains averaging 0.01-0.03 mm in size.

Magnetite forms a few ragged relic grains averaging 0.05-0.08 mm in size.

Quartz occurs mainly in irregular replacement patches with diffuse borders against the host rock. Grain size averages 0.03-0.1 mm, and varies moderately between patches. In a few patches, grains are strongly interlocking and average 0.01-0.015 mm in size. Sericite forms extremely fine grained seams and patches. Ankerite is most common in irregular veins averaging 0.2-0.4 mm wide; locally these veins contain pyrite grains up to 0.5 mm long.

Sample 43340

**Porphyritic Hypabyssal Granodiorite;  
Ankerite Veinlets**

Phenocrysts of plagioclase are set in a finer grained groundmass dominated by plagioclase and K-feldspar with minor biotite, ankerite, quartz, and pyrite.

phenocrysts	
plagioclase	40-45%
groundmass	
plagioclase	25-30
K-feldspar	15-17
ankerite	3- 4
biotite	3- 4
quartz	2- 3
pyrite	1- 2
pyrrhotite	*
veinlets	
ankerite	minor

Plagioclase forms subhedral, prismatic phenocrysts averaging 0.3-0.8 mm in size, with a few up to 1.7 mm long. Alteration is moderate to disseminated and patchy sericite and ragged patches of ankerite.

Interstitial to coarser grained plagioclase are extremely fine grained intergrowths of plagioclase and K-feldspar and ragged patches of ankerite. Plagioclase is altered slightly to sericite.

Biotite forms ragged flakes averaging 0.15-0.5 mm in size, with a few up to 1.8 mm long. Alteration is complete to carbonate (ankerite and or calcite) with minor to moderately abundant chlorite or muscovite and minor Ti-oxide. Most large grains are replaced by single grains or a few grains of calcite whose texture reflects some of that of the original biotite grains.

Quartz forms interstitial grains averaging 0.05-0.2 mm in size, and locally up to 0.7 mm long. A few interstitial patches up to 0.2 mm in size are of extremely fine grained, slightly interlocking aggregates of quartz.

Pyrite forms anhedral grains averaging 0.05-0.2 mm in size. It is concentrated moderately in patches surrounding coarser biotite grains. A few pyrite grains contain one or two blebby inclusions of pyrrhotite averaging 0.01 mm in size.

Veinlets averaging 0.05-0.07 mm in width are dominated by ankerite grains averaging 0.03-0.07 mm in size.