

6452

DRILLING REPORT

on the

Ingenika Range Property

NIK Minerals Claims

NIK #1 of 12 units (Record #139(9))

NIK #2 of 18 units (Record #140(9))

Omineca Mining Division

(NTS 94D9)

Located 6.67 km N 30° E Johanson Lake

Owned and Operated by

BP MINERALS LIMITED

MINERAL RESOURCES BRANCH

ASSESSMENT REPORT

NO. _____



G.D.S. Bates
October 25, 1977

TABLE OF CONTENTS

SUMMARY

STATEMENT OF COSTS

LOCATION MAP-Ingenika Range Property-NIK Claims

ITEMIZED DRILLING COSTS

STATEMENT OF QUALIFICATIONS

PERCUSSION DRILLING CONTRACT

PERCUSSION DRILL LOCATION MAP

in pocket

NIK CLAIMS LOCATION MAP

in pocket

S U M M A R Y

NIK Claims #2

Percussion Drilling

<u>NIK Percussion Drill Hole</u>	<u>Grid Location</u>	<u>Casing</u> (feet)	<u>Sampling Length</u> (feet)	<u>Total</u> (feet)	(metres)
NPD # 1	489.7N/493.4E	0-2	2-129	129	39
NPD # 2	491N/495.5E	0-17	17-57	57	17
NPD # 3	491N/496E	0-8	8-58	58	18
NPD # 4	491.3N/496.25E	0-8	8-78	78	24
NPD # 5	491N/496.5E	0-18	18-98	98	30
NPD # 6	491N/498E	0-40	40-80	80	24
NPD # 7	491N/497.5E	0-50	50-100	100	30
NPD # 8	491N/497E	0-40	40-100	100	30
NPD # 9	491N/496.75E	0-40	40-58	58	18
NPD #13	490.25N/493.8E		0-26	26	8
NPD #14	490.25N/493.8E		0-14	14	4
NPD #15	490.15N/494.35E	0-20	20-108	108	33
NPD #16	489.65N/495.45E	0-18	18-106	106	32
NPD #19	488N/496E	0-20	20-73	73	22
NPD #20	488N/496.5E	0-20	20-58	58	18
NPD #21	488N/497E	0-30	30-108	108	33
NPD #22	488N/497.5E	0-30	30-78	78	24
NPD #23	488N/498E	0-40	40-158	158	48
NPD #24	488N/498.5E	0-40	40-138	138	42
NPD #32	488N/497.75E	0-20	20-78	78	24
NPD #33	488N/496.25E	0-20	20-78	78	24
NPD #34	488N/495.75E	0-20	20-98	98	30
NPD #40	489.2N/495.5E	0-20	20-48	48	15
NPD #41	489.5N/496E	0-20	20-118	118	36
NPD #42	489.5N/496.5E	0-20	20-128	128	39
NPD #43	489.5N/497E	0-15	15-53	53	16

...

<u>NIK Percussion Drill Hole</u>	<u>Grid Location</u>	<u>Casing</u> (feet)	<u>Sampling Length</u> (feet)	<u>Total</u> (feet)	(metres)
NPD #44	489.5N/497.5E	0-30	30-93	93	28
NPD #46	491N/493E	0-15	15-138	138	42
NPD #47	491N/492.5E	0-20	20-118	118	36
NPD #53	491.5N/492.4E	0-10	10-158	158	48
NPD #54	492.5N/492.6E	0-20	20-168	168	51
				<u>2,901</u>	<u>883</u>

The locations of these percussion drill holes are plotted on the enclosed 1:5000 percussion drill location map.

The locations of these percussion drill holes are wholly within NIK #2 claim.

All percussion drill holes were drilled vertically.

The drill hole elevations all lie between the 1780 metre and 1880 metre contour intervals.

The percussion drill samples are stored with BP Minerals Limited, 1199 West Pender Street, Vancouver, B.C. V6E 2R1.

Sampling consisted of a one-eighth split for analysis and, from the seven-eighths reject, a +10 mesh sample and a "fines" sample; both of these samples for each 10 foot (3.3m) interval are stored in clear plastic vials.

Sample logging of each 10 foot (3.3m) interval was undertaken with a binocular microscope.

Total costs applied \$30,391.

Claim credit apportionment -

- 5 years to NIK #1 of 12 units(60 certificates of work)
- 5 years to NIK #2 of 18 units(90 certificates of work)

STATEMENT OF COSTS

Ingenika Range Property-NIK Claims-Omineca Mining Division

SUMMARY

- Percussion Drilling Programme -
 - Atlas Copco "ROC 601" - crawler drill-2½" diam.hole
 - Atlas Copco portable screw compressor(750)
 - Contractor - Northward Mining Contractors Ltd.
- July 14 - August 18, 1977
- Costs Applied - \$30,391
- Drilling Programme conducted within NIK #2 of the NIK Group I consisting of NIK #1 of 12 units and NIK #2 of 18 units.
- Claim Credit Apportionment - \$30,000 for FIVE YEARS on each of 30 units at \$200.00 per unit per year (150 certificates of work).

DETAIL

A) Period July 14-July 31(see invoice #111-Northward Mining Contractors Ltd.)

NIK Percussion Drilling Hole(NPD) #1-#8(July 24-July 31)

Drilling	footage total-700 ft at \$4.50/ft	\$ 3,150.00
Transportation		3,996.47
Moving between holes		574.00
Sampling		246.00
Reaming casing		102.00
Water supply		1,205.55
Tractor rental		2,000.00
Mud and additives		516.35
Other charges		2,550.41
		<u>\$14,341.73</u>

B) Period August 1-August 15(see invoice #112-Northward Mining Contractors Ltd.)

Drilling NPD #9,13-16,19-24,32-34,40-44,46

Drilling	footage total-1737 ft at \$4.50/ft	\$ 7,816.50
Moving between holes	for above drill holes 14hrs @ \$41/hr	574.00
Rentals		1,100.00
Mud, additives and fuel		754.68
Transportation		3,185.13
Stanby		164.00
Water supply		225.00
		<u>\$13,819.29</u>

...

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C) Period August 16-August 18 (see invoice #114-Northward Mining Contractors Ltd.)

Drilling NPD #46,47,53 and 54

Drilling - footage total-464 ft at \$4.50/ft \$2,088

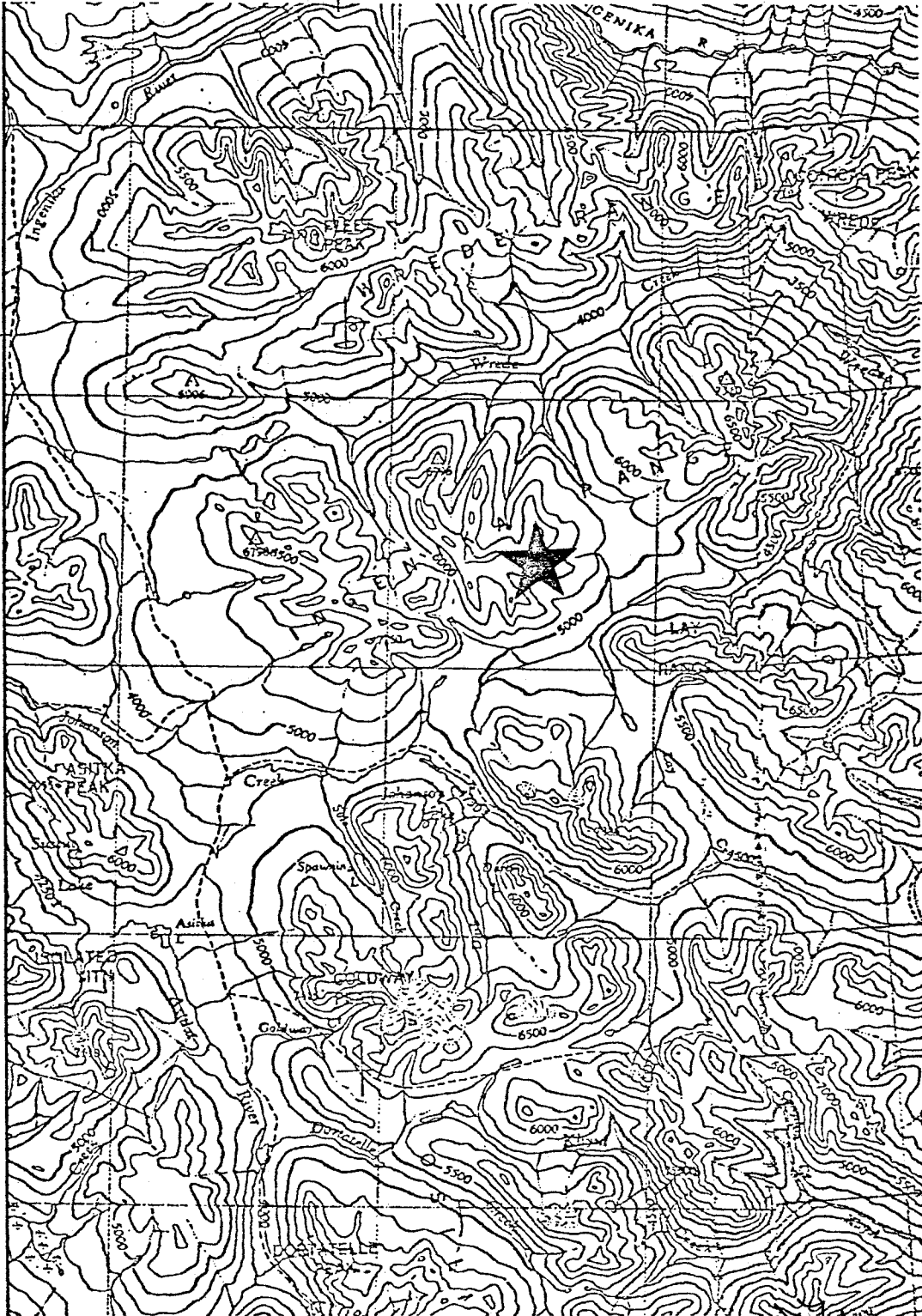
Moving between holes for above drill holes
3.5 hrs at \$41/hr 143.50

\$2,231.50

TOTAL FOR PERIOD JULY 14-AUGUST 18,1977 \$30,391

126°15'

56°45'



Location Map

Ingenika Range Property

NIK Claims

Scale 1" = 4 miles

6452

PERCUSSION DRILL LOG

1 of 14

PROPERTY: Nik

HOLE NO: 493-77-1

DATE: July 30/77

ORIENTATION: Vertical

LOGGER: AW

LOCATION: 489.7N/493.4E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden 0, total 140'

SAMPLE INTERVAL: From 0 To 10'

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 50-60

Colour: predom red gr.

Colour Peculiarities: varying shades of green indicates varying degree of

Magnetics: most mafic xstls magnetic; also sulphides, clasts with magnetite serpent^z

Clast Shape: angular, crystalline, acid intrusives are subangular.

LITHOLOGIES: Type % Alteration

Volcanic: — Hb may be from metavolcanics? — some chlorit^z

Acid Intrusive: Hb-qtz(?) diorite 15%, weak altⁿ (chlorite

Ultramafic: Pyroxenite - 80 Serpent
Hb evident also

Other: minor lg qtz clasts evident; one large clast of
metavolcanic(?) evident (non-magnetic)

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite <u>✓</u>	<u>lg euhedra</u>	<u>dissem</u>	<u>qtz diorite</u>
Pyrrhotite <u>—</u>			
Chalcopyrite <u>✓</u>	<u>massive</u>	<u>intermixed with magnetite/pyrite</u>	
Molybdenite <u>—</u>			
Other <u>—</u>			

% Total Oxides 1-2+

Malachite <u>—</u>	
Magnetite <u>✓</u>	<u>massive ("skarn" mineralization)</u>
Hematite <u>—</u>	

PERCUSSION DRILL LOG

2 of 14

PROPERTY: _____

HOLE NO: NPD 77-1

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 10 To 20'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 40-

Colour: lt to med green

Colour Peculiarities: _____

Magnetics: All except intrusive clasts are strongly magnetic

Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: None

Acid Intrusive: Diorite (Hb) 5% WK-mod chlorit², possible to see bi
± gte

Ultramafic: Groxenite ± Hb 95% , mod serpent²

Other: trace ang gte

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u><1</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite	<input checked="" type="checkbox"/>	<u>dissem</u>	<u>Fg</u>	<u>gte diorite</u>

Pyrrhotite _____

Chalcopyrite trace dissem in mafic xtal in fine fraction

Molybdenite _____

Other _____

% Total Oxides 2+

Malachite _____

Magnetite dissem Fg,

Hematite _____

NORTHWARD
MINING CONTRACTORS LTD.

2560A Simpson Rd.

B. P. Minerals Ltd.
405 - 1199 W. Pender St.
Vancouver, B. C.

Rmd., B.C.

Inv.# 111
Job# N-2
Date: Aug.12/77

Re: Omineca Mining Division Drilling

Period: July 14 - 31, 1977

Drilling Detail	\$ 3,150.00 ✓
Transportation	3,996.47
Moving Between Hole	574.00 ✓
Sampling	246.00 ✓
Reaming Casing	102.50 ✓
Water Supply	1,205.55 ✓
Tractor Rental	2,000.00 ✓
Mud & Additives	516.35 ✓
Other Charges	2,550.41
	<u>\$14,341.28</u>

APPROVED FOR PAYMENT
CHARGE 80031-448 → \$ 1,794.40
DATE SEP 16 1977 INTLS

RECEIVED
 B.P. Minerals Limited
 Vancouver, B.C.
 AUG 15 1977
*(Balance to be paid
subject to discussion
with Contractor).*

Drilling Detail

<u>Hole#</u>	<u>From</u>	<u>To</u>	<u>Footage</u>
1	0	2	2
1	2	129	127
2	0	17	17
2	17	57	40
3	0	8	8
3	8	58	50
4	0	8	8
4	8	78	70
5	0	18	18
5	18	98	80
6	0	40	40
6	40	80	40
7	0	50	50
7	50	100	50
8	0	40	40
8	40	100	60

700' @ \$4.50/ft. \$3150.00

Transportation

(a) Labour

<u>Date</u>	<u>Memo</u>	<u>ManHrs.</u>
July 14	Checking Atlas Copco equipment	16
July 15	Build sloop in Kamloops	16
July 16	Load truck for Johanson Lake	8
July 18	Haul equipment to Prince George	20
July 19	Haul equipment to Indian Meadows	24
July 20	Haul equipment to Johanson Lake	24
		<hr/>
		108 hrs.
	Regular: 108 hrs. @ \$8.50/hr.	918.00
	Plus Benefits @ 15%	137.70
		<hr/>
		\$1055.70

(b) Labour & Equipment

<u>Date</u>	<u>Memo</u>	<u>Hrs.</u>
July 21	Move to property	22
July 22	Move to 1st hole site	22
July 23	Move to 1st hole site	20
July 24	Setup on 1st hole	8
		<hr/>
	Labour: 72 hrs. @ 16.00/hr.	1152.00
	Equipment: 6 days @ 4600.00/mo.	890.32
		<hr/>
		\$2042.32

(c) Trucking

4 x 4 Truck - 733 miles @ .25/mi.	183.25	
3 ton Truck - 733 miles @ .50/mi.	366.50	
Tractor - 733 miles @ .20/mi.	<u>146.60</u>	*\$696.35

(d) Other

Richmond Inn Inv.# 42564 & 42565	56.95	
D. Wright Expense Acct.	<u>145.15</u>	\$202.10

*Other Trucking charges to follow. \$3996.47

Moving Between Holes

<u>Date</u>	<u>Memo</u>	<u>Hrs.</u>
July 25	Move to hole# 2	4
July 27	Move to hole# 3	2½
July 28	Move to hole# 4	1½
July 28	Move to hole# 5	1½
July 29	Move to hole# 6	3
July 30	Move to hole# 7	3/4
July 30	Move to hole# 8	½
July 31	Move to hole# 9	¼
		<u>14 hrs.</u>

Total: 14 hrs. @ 41.00/hr. \$574.00

Sampling

<u>Date</u>	<u>Hole#</u>	<u>Memo</u>	<u>Hrs.</u>
July 26	2	Sampling	2½
July 27	3	"	1½
July 28	3	"	1
July 28	4	"	1

Total: 6 hrs. @ 41.00/hr.

\$246.00

Reaming Casing

<u>Date</u>	<u>Hole#</u>	<u>Memo</u>	<u>Hrs.</u>
July 27	3	Ream casing 8' - 25'	<u><u>2½</u></u>

Total: 2½ hrs. @ 41.00/hr.

\$102.50

Water Supply

Emo Industrial Supply Inv. # 1164	422.15	
Hose from our stock	737.54	
Valley Mine supply	28.14	
Fleck Bros. Inv.# 23 05603	2.91	
Beck Hardware	14.81	
	<u><u>1205.55</u></u>	<u><u>\$1205.55</u></u>

Rentals

Tractor: July 1 - 31	1 mo.	1800.00	
2 pumps: July 16-31	1/2 mo. @400.00	<u>200.00</u>	<u>\$2000.00</u>

Mud & Additives

Thiessen Equipment Ltd. # 1947		203.10	
Production Supply Co. Ltd. #28536		198.75	
45# AM-9 @ 2.40/lb.		108.00	
2# A.P. @ 1.75/lb.		3.50	
844 cc DMAPN @		<u>3.00</u>	<u>\$516.35</u>

Other Charges

1 only Stoneboat (Valley Machine #6163)			<u>\$2550.41</u>
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INVOICE

NORTHWARD MINING CONT. LTD.
2560A Simpson Rd.
Richmond, B. C. V6X 2P9

Inv.#112
Job #N-2
Date: Sept.1/77

B. P. Minerals Ltd.
405 - 1199 W. Pender St.
Vancouver, B. C.

Re: Omineca Mining Division Drilling

Period: August 1 - 15, 1977

Drilling Detail	\$7,816.00	(\$17,374.50)
Moving Between Holes		\$574 (891.75)
Rentals		1,100.00
Mud, Additives & Fuel		754.68
Transportation		3,185.13
Standby		164.00
Water Supply		225.50
Other Labour		(2,152.00)
		<u>(\$25,847.56)</u>
		<u><u>\$13,819</u></u>

B P Minerals Limited
RECEIVED

Vancouver, B.C.

APPROVED FOR PAYMENT

CHARGE 80031-448

DATE SEP 16 1977 HTLS

\$20,346.43 (balance to be paid
subject to discussion
with contractor).

Drilling Detail

Hole#	From	To	Footage
9	0	40	40
9	40	58	18
10	0	20	20
10	20	102	82
11	0	20	20
11	20	108	88
12	0	30	30
12	30	108	78
13	0	26	26
14	0	14	14
15	0	20	20
15	20	108	88
16	0	18	18
16	18	106	88
17	0	5	5
17	5	108	103
18	0	10	10
18	10	108	98
19	0	20	20
19	20	73	53
20	0	20	20
20	20	58	38
21	0	30	30
21	30	108	78
22	0	30	30
22	30	78	48
23	0	40	40
23	40	158	118
24	0	40	40
24	40	138	98
25	0	50	50
25	50	158	108

Drilling Detail Cont'd

Hole#	From	To	Footage
43	15	53	38
44	0	30	30
44	30	93	63
45	X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X
46	0	15	15
46	15	118	103

1737' (3861') @ 4.50/ft.

\$7,816.00 (\$17,374.50)

Moving Between Holes

Date	Memo	Hrs.
Aug 1	Moving Between holes	1 1/2
Aug 2	" " "	1 1/2
Aug 3	" " "	1
Aug 4	" " "	1
Aug 5	" " "	1 1/2
Aug 6	" " "	1
Aug 7	" " "	1
Aug 8	" " "	1 1/2
Aug 9	" " "	3 1/4
Aug 10	" " "	1
Aug 11	" " "	3 1/2
Aug 12	" " "	1/2
Aug 13	" " "	3/4
Aug 14	" " "	1
Aug 15	" " "	13/4

21 3/4 - 7.75 hrs

Total: 21 3/4 hrs. @41.00/hr. (\$891.75)

14 hrs @ \$41/hour

\$574.00

Rentals

Tractor: Aug. 1 - 15	½ mo. @ 1800.00/mo	900.00	
2 pumps: Aug. 1 - 15	½ mo. @ 400.00/mo	<u>200.00</u>	\$1100.00

Mud & Additives & Fuel

Thiessen Equipment Ltd.	Inv.#2116	327.42	
Thiessen Equipment Ltd.	Inv.#2168	181.90	
Chevron Canada Ltd.	Inv.# 939	<u>245.36</u>	<u>\$754.68</u>

Transportation

Canadian Freightways Ltd.	Inv.#862710	107.31	
" " "	Inv.#862742	1304.00	
Russell Transfer Ltd.	Aug.1,1977	1310.82	
Northern Thunderbird Air	Inv.#15109	308.00	
" " "	Inv.#15114	155.00	<u>\$3185.13</u>

Standby

<u>Date</u>	<u>Memo</u>	<u>Hrs.</u>	
Aug 12	Wait for drillfoam	<u>4</u>	
	Total: 4 hrs. @ 41.00/hr.		<u>\$ 164.00</u>

Water Supply

<u>Date</u>	<u>Memo</u>	<u>Hrs.</u>
Aug 1	Clean up waterpump	2½
Aug 7	Move water pump	1½
Aug 11	Move water pump	1½
		<hr/>
		5½

Total: 5½ hrs. @ 41.00/hr.

\$225.50

Other Labour x

<u>Date</u>	<u>Hrs.</u>
July 24 Extra man on rig	12
July 25	10
July 26	10
July 27	9
July 28	12
July 29	12
July 30	12
July 31	12
Aug 1	12
Aug 2	12
Aug 3	12
Aug 4	12
Aug 5	12
Aug 6	12
Aug 7	12
Aug 8	12
Aug 9	12
Aug 10	12
Aug 11	12
Aug 12	12
Aug 13	12
Aug 14	12
Aug 15	12

X Not applied

269 hrs. @16.00/hr.

Cont'd. next page-

Other Labour Cont'd X

269 hrs. @ 16.00/hr.	\$4304.00
Less 50% as per D. Wright	<u>2152.00</u>
	<u><u>\$2152.00</u></u>

X Not applied

Drilling Detail X

Hole#	From	To	Footage
46	118	138	20
47	0	20	20
47	20	118	98
48 X X X X X X X X X X X X	10	20 X X X X X X X X X X	20
48 X X X X X X X X X X X X	20	93 X X X X X X X X X X	73
49 X X X X X X X X X X X X	10	12 X X X X X X X X X X	12
49 X X X X X X X X X X X X	12	70 X X X X X X X X X X	58
50 X X X X X X X X X X X X	10	20 X X X X X X X X X X	20
50 X X X X X X X X X X X X	20	158 X X X X X X X X X X	138
51 X X X X X X X X X X X X	10	20 X X X X X X X X X X	20
51 X X X X X X X X X X X X	20	128 X X X X X X X X X X	108
52 X X X X X X X X X X X X	10	20 X X X X X X X X X X	20
52 X X X X X X X X X X X X	20	108 X X X X X X X X X X	88
53	0	10	10
53	10	158	148
54	0	20	20
54	20	168	148

X From Northward Mining Invoice #114

Total footage - 464 feet @ \$4.50/ft \$2,088.00

STATEMENT OF QUALIFICATIONS

C.D.S. Bates - BA (Oxon), MA (Oxon), MSc, DIC.

- 1968 BA Oxford University
(Honours Degree Geology)
- 1970 MSc Royal School of Mines, Imperial College,
London University
(Mineral Exploration)
- 1970 DIC Royal School of Mines, Imperial College,
London University
(Mineral Exploration)
- 1975 MA Oxford University



NORTHWARD
mining contractors ltd.

256 A Simpson Road, Richmond, B.C. V6X 2P9 — Phone: (604) 273-0985

July 19, 1977

Mr. D. K. Mustard
Exploration Manager
B. P. Minerals Limited
405 - 1199 W. Pender St.
Vancouver, B. C.

BP Minerals Limited
RECEIVED
JUL 21 1977
Vancouver, B.C.

Dear Don:

Re: The Agreement between B.P. Minerals Ltd. and Wright Drilling Ltd. dated 8th day of March 1977 and termed the Percussion Drilling Project.

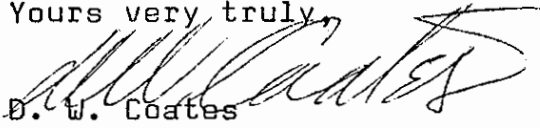
This letter will confirm that by mutual agreement between the above parties, this agreement is now between BP Minerals Ltd. and Northward Mining Contractors Ltd. of 2560A Simpson Rd, Richmond, B. C.

Changes to the above agreement:

It has been agreed between Wright Drilling Ltd. and BP Minerals Ltd. that because the road to Johansen Lake is under construction and transportation conditions have changed since tender date, the mobilization - demobilization to and from truck unload - load point will be at actual cost.

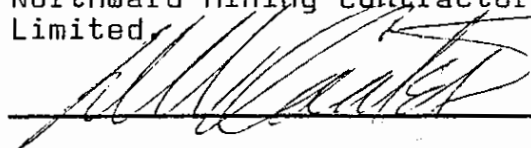
Should the above meet with your approval, would you kindly so signify by forwarding a signed copy of this letter to the above address.

Yours very truly,


D. W. Coates

Accepted on Behalf of BP Minerals Ltd.

Accepted on Behalf of
Northward Mining Contractors
Limited.



BETWEEN: BP MINERALS LIMITED

A body corporate duly incorporated under the laws of the Province of British Columbia, and having its office at

(hereinafter called the Company)

AND: WRIGHT DRILLING LTD., A body corporate duly incorporated under the laws of the Province of British Columbia, and having its office at 1510 Windward Place, Kamloops B.C.

WHEREAS:

A. The Company has requested the Contractor to complete a minimum ten thousand feet of Percussion drilling and related services as hereinafter set forth on the property of the Company in the Omineca Mining Division.

B. The Contractor has agreed to do the said Percussion drilling and to perform the related services requested upon the terms, conditions and provisos hereinafter contained;

NOW THEREFORE THIS AGREEMENT witnesseth that in consideration of the payment of the amounts stipulated herein and mutual promises and covenants herein contained, it is understood and agreed by and between the parties as follows;

1. SCHEDULE OF RATES

Rock	0' to 200'	<u>\$4.50</u> per foot.
Overburden	0' to 50'	<u>\$4.50</u> per foot.
	50' to 100'	field cost

2. TRANSPORTATION AND MOVES

A. It is agreed that the moving of drill, supplies and personnel to the transport discharge point and return from the transport loading point, shall be the lump sum of four thousand dollars.

B. In the event access to the drilling area cannot be realized with the Contractor's truck, moving from that point on will be charged at field cost.

C. The Contractor agrees to erect a suitable camp. Erection and dismantling of the camp will be charged Company's account at the cost of labour only.

D. It is agreed that moves between holes shall be at field cost rates

3. WATER SUPPLY

If necessary would supply at cost

4. DRILL MUD AND CEMENTING

If ever necessary to help prevent cave-ins or hole stabilization would be performed on a field cost basis.

5. BOARD AND LODGING

The COMPANY agrees to provide board and lodging for the Contractor's men at its own expense.

6. DRILL SITES AND TRACTOR RENTALS

The Company will construct all necessary access roads and drilling sites and will provide on request and with out delay such transport, bulldozers, equipment, labour or assistance as may be necessary in moving the said drilling equipment to or from or on or about the drill site and will bear the cost thereof.

7. CASING LOST

Casing lost by the Contractor in any hole requiring over 50 feet of casing charged at cost on site.

8. ROD LOST AND EXCESSIVE PULLING TIME

Rods lost by the Contractor in any hole exceeding 200 feet in depth charged at replacment cost on site. Excessive time required to draw rods from any hole exceeding 200 feet in depth charged on a field cost basis.

9. WAITING TIME

Waiting time through delays by the Company, its servantsoor employees through failure to provide instruction, permits, licences, access roads, transportation and the like when required, will be charged on a field cost basis.

10. TRAVEL TIME

Travel time over one hour per shift per man will be charged at cost of labour only.

11. FIELD COST

It is agreed that the hourly rate shall be interpreted here and hereinafter to be forty - one dollars per hour, per drill outfit. It is also agreed that the Contractor shall include in the hourly rate the cost of supplying all required labour, supervision and maintenance as required, drilling machinery and associated equipment, board and lodging for the drill crew.

In the event only labour is required the rate including board and lodging is sixteen dollars per man hour.

12. CONTRACTOR AGREES

Contractor will provide all the equipment, supplies and labour to carry out the said programme and will, at its expense, have these available and in good order at the drill site on a date to be stated by the Company.

13. THE COMPANY AGREES

- A. The Company will determine the location of all drill holes, the order of drilling the said holes, and the method of obtaining samples but in all other respects the drilling operation shall be carried out under the direction and control of the Contractor Contractor will carry out the drilling as expeditiously as possible but shall not be liable for delays due to ~~weather~~ mechanical failures or other circumstances beyond its control nor shall Contractor be obliged to drill at any site or move its equipment by any route which it considers unsafe for its equipment or personnel.
- B. The Company is to supply all fuels required for the project.

14. ASSIGNMENTS

This agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors and assignees, provided, however, that the same shall not be assignable by either party until the consent in writing of the other shall have first been had and obtained thereto. IN WITNESS THEREOF, this agreement has been executed by the parties hereto the day and the year first herein written.

BY _____
B.P. MINERALS LIMITED
BY D. Wright
WRIGHT DRILLING LTD.

PERCUSSION DRILL LOG

3 of 14

PROPERTY: _____

HOLE NO: NPD 77-1

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 20 To 30'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 40-50

Colour: Lt - med green

Colour Peculiarities: some Fe-stain clasts

Magnetics: weak to moderate

Clast Shape: angular

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: Fg feld-porph diorite 30-40%, weak chlorit², some sec bi (?)

Ultramafic: Pyroxenite

Other: _____

ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite } → fg dissem in diorite porph

Pyrrhotite _____ } massive grains with magnetite

Chalcopyrite

Molybdenite _____

Other _____

% Total Oxides 3%

Malachite _____

Magnetite

Hematite purple crusty hematite on fract and dissem in UM clasts

PERCUSSION DRILL LOG

4 of 14

PROPERTY: _____ HOLE NO: NPD 77-1
 DATE: _____ ORIENTATION: _____
 LOGGER: _____ LOCATION: _____
 OVERBURDEN _____ ; BEDROCK ELEVATION: _____
 DEPTH: overburden _____, total _____
 SAMPLE INTERVAL: From 30 To 40
 ZONE: Oxide ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 40-50
 Colour: Med green / white
 Colour Peculiarities: —
 Magnetics: Most dk clasts are moderately magnetic
 Clast Shape: Angular

LITHOLOGIES: Type % Alteration

Volcanic: NONE —
 Acid Intrusive: Hb ± bi diorite porphyry(?) ; 40% ; some fg sec(?) bi evident
 Ultramafic: Mostly pyroxenite(?)
but one clast of dunite evident ; 60% ; moderate serpent², some thin epidote stringers with py
 Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>1-2%</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite	<input checked="" type="checkbox"/>	fg	dissem in diorite and with epidote veinlets in pyroxenite	
Pyrrhotite	_____			
Chalcopyrite	<input checked="" type="checkbox"/>		massive with pyrite in pyroxenite clasts	
Molybdenite	_____			
Other	_____			
NB More sulphides (pylcpy) evident in fine fraction than in coarse.				
<u>% Total Oxides</u>	<u>?</u>			
Malachite	_____			
Magnetite	<input checked="" type="checkbox"/>			
Hematite	_____			

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APP 77-1'

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 40 To 50'

ZONE: Oxide ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 50-60

Colour: Green to dark grey.

Colour Peculiarities: -

Magnetics: Mod.

Clast Shape: Ang

<u>LITHOLOGIES:</u>	<u>Type</u>	<u>%</u>	<u>Alteration</u>
Volcanic:	_____		
Acid Intrusive:	<u>Hb-feld porph diorite</u>	<u>10-15%</u>	<u>wk chlorit²</u>
Ultramafic:	<u>Pyroxenite</u>	<u>80-90%</u>	<u>wk serpent²; weak-med chlorit²</u>

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite <input checked="" type="checkbox"/>	} fg dissem in diorite 2 grains of massive py/cp ± mag noted - some fg py or cpy dissem in pyroxenite clasts noted in fine fraction		
Pyrrhotite _____			
Chalcopyrite <input checked="" type="checkbox"/>			
Molybdenite _____			
Other _____			
<u>% Total Oxides</u> _____			
Malachite _____			
Magnetite <input checked="" type="checkbox"/>	fg dissem in pyroxenite; altered to limonite		
Hematite _____			

PERCUSSION DRILL LOG

6 of 14

PROPERTY: _____

HOLE NO: NPD 77-1'

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 50 To 60'

ZONE: Oxide ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60
 Colour: Green to black
 Colour Peculiarities: -
 Magnetics: wk to mod.
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: -
 Acid Intrusive: 25% ; diorite (Hb+Bi) ; wk chlorit², minor epidote
 Ultramafic: 75% ; pyroxenite ; weak-mod chlorit²

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite <input checked="" type="checkbox"/>	} - 3% dissem in diorite ; also in pyroxenite massive grains with magnetite		
Pyrrhotite _____			
Chalcopyrite <input checked="" type="checkbox"/>			
Molybdenite _____			
Other _____			
<u>% Total Oxides</u> _____			
Malachite _____			
Magnetite <input checked="" type="checkbox"/>			
Hematite _____			

PERCUSSION DRILL LOG

7 of 14

PROPERTY: _____

HOLE NO: NPD 77-1

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 60 To 70'

ZONE: Oxide ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 40

Colour: lt green

Colour Peculiarities: -

Magnetics: Med.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic:

Acid Intrusive: 40% ; Hb-Bi Diorite ; wk-mod chlorite/epidote
Porph.

Ultramafic: 60% ; Pyroxenite ; wk-mod chlorit²

Other: gtz grains ± py

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite <input checked="" type="checkbox"/>	<u>fg dissem in diorite (~ 3%) ; also dissem in chlorite pyroxenite.</u>		
Pyrrhotite _____			
Chalcopyrite _____			
Molybdenite _____			
Other _____	<u>No massive min² in coarse fraction but some massive py in pyroxenite evident in fine-fraction (± py)</u>		
<u>% Total Oxides</u>			
Malachite _____			
Magnetite <input checked="" type="checkbox"/>			
Hematite _____			

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APD 77-1

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 70 To 80

ZONE: Oxide ; Supergene ? ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60

Colour: Green to black

Colour Peculiarities: —

Magnetics: Moderate to strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: 20% ; Hb-Biotite ; wk chlorit^z

Ultramafic: 80% ; Pyroxenite ; " "

Other: _____

ORE MINERALOGY:

% Total Sulphides 1-2% Texture Habit Rock Type

Pyrite dissem in diorite ; massive min^z with magnetite

Pyrrhotite —
Chalcopyrite — massive with py/mag ; altⁿ to covellite(?)
(Some good massive min^z)

Molybdenite —

Other —

% Total Oxides —

Malachite —

Magnetite

Hematite —

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-1

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 80 To 90'

ZONE: Oxide ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 40

Colour: white to green

Colour Peculiarities: -

Magnetics: larger clasts are non-magnetic

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: 40% ; Hb-bi diorite ; wk chlorit² / epid²

Ultramafic: 60% ; Pyroxenite ; mod-strong chlorit ; some epidote veinlets evident ; mod serpent²

Other: _____

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite } - fg discern in diorite (3+%)

Pyrrhotite _____ } massive min² with mag ; assoc both with

Chalcopyrite } pyroxenite and diorite

Molybdenite _____

Other _____

% Total Oxides _____

ide ? Malachite on Fe-stained chlorit² pyroxenite clast

Zone Magnetite

Hematite _____

PROPERTY: _____

HOLE NO: NPD 77-1

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 90 To 100

ZONE: Oxide ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70
 Colour: Green to black
 Colour Peculiarities: —
 Magnetics: Strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: 15% ; Hb diorite porph ; wk chlorit²

Ultramafic: 85% ; pyroxenite ; wk chlorit² ; mod serpent²

Other: _____

ORE MINERALOGY:

% Total Sulphides Texture Habit Rock Type

Pyrite ✓ } fg dissem in chlorite and lesser amounts in pyroxenite.

Pyrrhotite — } massive with mag

Chalcopyrite ?

Molybdenite —

Other —

% Total Oxides _____

Malachite ✓ on Fe-stained pyroxenite clast

Magnetite ✓ dissem in pyroxenite

Hematite —

PROPERTY: _____

HOLE NO: NPD 77-1

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 100 To 110'

ZONE: Oxide ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 50

Colour: white to green to black

Colour Peculiarities: _____

Magnetics: Strong (um)

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: 40% ; Hb diorite porph ; wk chlorit²/epid²

Ultramafic: 60% ; pyroxenite ; wk serpent²/chlorit²

Other: Minor qtz clasts ± py.

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite 3+% dissem in diorite ; <1% in pyroxenite

Pyrrhotite _____

Chalcopyrite dissem in diorite No massive mineralization. <1%

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite

Hematite _____

PROPERTY: _____

HOLE NO: NPA 77-1

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK _____ ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 110 To 120

ZONE: Oxide ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60

Colour: white to green to black

Colour Peculiarities: —

Magnetics: Mod - strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: 30-40% ; Hb diorite porph ; wk-mod chlorit² ; possible sec bi epidot²

Ultramafic: 60-70% ; pyroxenite (some peridotite ? evident)

Other: Minor gtz clasts

ORE MINERALOGY:

% Total Sulphides 2-3% Texture Habit Rock Type

Pyrite ✓ 3% fg in diorite, traces of cpy

Pyrrhotite —

* Chalcopyrite ✓ dissem fg Cp and Py noted in feld no grains weakly

Molybdenite — one grain of massive Cp/mag epidotized evident

Other —

% Total Oxides —

Malachite —

Magnetite ✓ limonite prominent in pyroxenite

Hematite —

PROPERTY: _____

HOLE NO: NPD 77-1

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 120 To 130'

ZONE: Oxide ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 50

Colour: Green

Colour Peculiarities: _____

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: -

Acid Intrusive: 30-40% Hb diorite purph; weak chlorit²

Ultramafic: 60-70%; pyroxenite ± Hb; wk chlorit²; serpent²

Other: Hb prominent as xstals

ORE MINERALOGY:

% Total Sulphides 1-2% Texture Habit Rock Type

Pyrite } fg dissem in diorite and pyroxenite.

Pyrrhotite _____ } massive min² with magnetite

Chalcopyrite

Molybdenite good Mo coating fracture and dissem with chlorite in one pyrit² diorite clast.

Other _____

% Total Oxides _____

Malachite _____

Magnetite

Hematite _____

PROPERTY: _____

HOLE NO: APD 77-1

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 140'

SAMPLE INTERVAL: From 130 To 140' END

ZONE: Oxide ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 30-40

Colour: white to green

Colour Peculiarities: wood slivers?, dead beetle!

Magnetics: Mod to strong (WM)

Clast Shape: Ang.

LITHOLOGIES: Type & Alteration

Volcanic: —

Acid Intrusive: 50%; Abdiarite; wk chlorit²

Ultramafic: 50%; pyroxenite; wk-mod serpent²

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>1-2%</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite	<input checked="" type="checkbox"/>	<u>up to 5%</u>	<u>dissem fg</u>	<u>py in diorite</u>
Pyrrhotite	<u>—</u>			
Chalcopyrite	<u>?</u>	<u>trace dissem</u>		<u>in diorite</u>
Molybdenite	<u>?</u>	<u>trace dissem</u>		<u>with py in intrusive(?) clast</u>
Other	<u>—</u>			

% Total Oxides _____

Malachite —

Magnetite

Hematite —

NB - oxides occur throughout hole, come from top section

PERCUSSION DRILL LOG

1 of 4

PROPERTY: NIK

HOLE NO: NPD 77-2

DATE: July 31/77.

ORIENTATION: Vertical

LOGGER: R.W.

LOCATION: 491 N / 495.5 E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden 17', total 57'

SAMPLE INTERVAL: From 20 To 30'

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60+
 Colour: Med black, white.
 Colour Peculiarities:
 Magnetics: Highly magnetic w/
 Clast Shape: Ang - sub ang.

LITHOLOGIES: Type % Alteration

Volcanic:
 Acid Intrusive: 20% ; Hb-bi feld porph diorite ; wk chlorit²
 Ultramafic: 80% ; peridotite (possibly some pyroxenite) ; mod - strong serpente

Other:

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite ✓ 2-3% Fg dissem in diorite
 Pyrrhotite
 Chalcopyrite ✓ - one grain of massive Cp/Py/Mt with pyroxene xtals
 Molybdenite
 Other

% Total Oxides 3+%

Malachite
 Magnetite ✓ dissem in peridotite
 Hematite

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-2

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 30 To 40'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 60+

Colour: Green to dk grey.

Colour Peculiarities: relatively uniform

Magnetics: Very strong

Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% peridotite; some ~~of~~ completely serpent^z (talc) grains with Mt.
Possible pyroxenite (?)

Other: 1 subround grain of chlorit^z UM(?) with feld vein (?)
Minor fg qtz or feld grains present.

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u><< 1%</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite	<input checked="" type="checkbox"/>	} Py dissem in perid << 1% one grain of UM? Py and Cpy	with dissem	
Pyrrhotite	_____			
Chalcopyrite	<u>?</u>			
Molybdenite	_____			
Other	_____			

% Total Oxides 3-5%

Malachite _____

Magnetite dissem. fg. in UM

Hematite _____

PERCUSSION DRILL LOG

3 of 4

PROPERTY: _____

HOLE NO: NPD 77-2

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 40 To 50'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 80+

Colour: BK

Colour Peculiarities: Uniformly dk green to black

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: 100% peridotite ; mod-st serpent²

Other: _____

ORE MINERALOGY:

% Total Sulphides << 1% Texture Habit Rock Type

Pyrite dissem in peridotite

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 3.5%

Malachite _____

Magnetite especially visible in talcose grains

Hematite _____

PERCUSSION DRILL LOG

4 of 4

PROPERTY: _____

HOLE NO: NPD 77-2

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total 57'

SAMPLE INTERVAL: From 50 To 60 (57' actually) END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 80+

Colour: BK

Colour Peculiarities: —

Magnetics: Very strong.

Clast Shape: Ang, 1 subang-subround intrusive clast

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: <5% Hb diorite porph (may be foreign); wk chert²

Ultramafic: 95% peridotite; mod-st serpent²

Other: Some calcite veining noted in peridotite

ORE MINERALOGY:

% Total Sulphides _____ Texture _____ Habit _____ Rock Type _____

Pyrite ✓ } Pyrite or pyrrhotite dissem in peridotite (0-1%).

Pyrrhotite ✓

Chalcopyrite ✓ — one grain of massive Cp / Py or Po? ~~noted~~ noted.

Molybdenite _____

Other _____

% Total Oxides 3+%

Malachite _____

Magnetite ✓

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: NLK

HOLE NO: APD 77-3

DATE: July 31/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 491N/496E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden 8', total 58'

SAMPLE INTERVAL: From 8 To 18'

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60
 Colour: Predom med Green
 Colour Peculiarities: -
 Magnetics: Strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic:
 Acid Intrusive: 5%; Hb diorite porph - subround, may be foreign
 Ultramafic: 95%; peridotite; med to strong serpent²

Other:

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u><<1%</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite	<input checked="" type="checkbox"/>	<u>trace dissem in ore</u>	<u>1% in diorite</u>	
Pyrrhotite	<u> </u>			
Chalcopyrite	<u> </u>			
Molybdenite	<u> </u>			
Other	<u> </u>			
<u>% Total Oxides</u> <u> </u>				
Malachite	<u> </u>			
Magnetite	<input checked="" type="checkbox"/>			
Hematite	<u> </u>			

PROPERTY: _____

HOLE NO: NPA 77-3

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 18 To 28'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 70

Colour: dk green

Colour Peculiarities: —

Magnetics: strong

Clast Shape: Ang UM ; ^{vole} intrusive is rounded

LITHOLOGIES: Type % Alteration

Volcanic: metavolcanic (?) 5% - displays weathered surface, probably foreign.

Acid Intrusive: —

Ultramafic: 95% ; peridotite ; mod - strong serpent²

Other: _____

ORE MINERALOGY:

% Total Sulphides « 1% , Texture Habit Rock Type

Pyrite ✓ dissem in well-serpent² grains of UM

Pyrrhotite —

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides —

Malachite —

Magnetite ✓

Hematite —

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-3

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 60

Colour: Green

Colour Peculiarities: some gossanized clasts

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% ; peridotite ; some intense serpent² (talcoose grains)

Other: Two large flakes of brown (sec.?) biotite

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite — gossanized clasts after magnetite.

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-3

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 60

Colour: green

Colour Peculiarities: _____

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% serpent^z peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite

Magnetite

Hematite _____

→ / Ma-stained gossanized clast noted in fine fraction

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-3

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58' END

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 70-80

Colour: Green to black

Colour Peculiarities: —

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: 100% serpent² peridotite

Other: 1 large brown biotite flake noted

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite some gossanized clasts after magnetite

Hematite _____

PERCUSSION DRILL LOG

1 of 8

PROPERTY: NIK

HOLE NO: NPA 77-4

DATE: Aug 1/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 491.3N/496.25E

OVERBURDEN ; BEDROCK ELEVATION: _____

DEPTH: overburden 8, total 78

SAMPLE INTERVAL: From 0 To 10'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 90

Colour: BK

Colour Peculiarities: —

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: 100% peridotite ; wk - med serpent²

Other: _____

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite trace in peridotite

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite dissem limonite after magnetite

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APD 77-4

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 10 To 20'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 80-90

Colour: BK

Colour Peculiarities: —

Magnetics: Strong

Clast Shape: J

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: 100% serpent² peridotite

Other: Minor weakly epidot² feld clasts

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite — trace dissem

Pyrrhotite —

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides _____

Malachite —

Magnetite — some limonite

Hematite —

PERCUSSION DRILL LOG

PROPERTY: _____ HOLE NO: NPD 77-4
 DATE: _____ ORIENTATION: _____
 LOGGER: _____ LOCATION: _____
 OVERBURDEN _____ ; BEDROCK ELEVATION: _____
 DEPTH: overburden _____, total _____
 SAMPLE INTERVAL: From 20 To 30'
 ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 40
 Colour: lt green
 Colour Peculiarities: "salt and pepper" - coloured fine fraction
 Magnetics: strong (UM)
 Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: _____
 * ~~Acid Intrusive~~ INTO DIORITE BEDROCK
 * Acid Intrusive: 50%; Hb diorite; strong chlorit²; trace sec biotite, epidote clasts evident
 Ultramafic: 50%; peridotite

* Other: Brown (sec?) biotite evident in fine-fraction

ORE MINERALOGY:

% Total Sulphides Texture Habit Rock Type

Pyrite ✓ only trace amounts in diorite

Pyrrhotite _____

Chalcopyrite _____

Molybdenite ? → one grain of soft silver mineral in epidote clast

Other _____

% Total Oxides _____

* Malachite ✓ noted on ~~two~~ three limonitized peridotite grains (and on feldspar grains in fine fraction).

Magnetite ✓

Hematite _____

PERCUSSION DRILL LOG

4 of 8

PROPERTY: _____

HOLE NO: NPD 77-4

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 30 To 40'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 50

Colour: white to black

Colour Peculiarities: —

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

* Acid Intrusive: 40%; Hb-diorite; strong chlorit²; sec biotite; lots of epidote clasts
 Ultramafic: 60%; peridotite; weak serpent²; chlorit²

Other: _____

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

* Pyrite 1-2% dissem in diorite

Pyrrhotite _____

* Chalcopyrite 2% dissem in diorite; on fractures in peridotite

Molybdenite _____

Other _____

% Total Oxides _____

* Malachite dissem in diorite; on fractures in peridotite

Magnetite

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-4

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 40 To 50'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 60-70'

Colour: DK grey.

Colour Peculiarities: —

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: 15% ; Hb diorite ; strong chlorit² ; sec biotite ; epidote
clasts and veins

Ultramafic: 85% ; serpent² peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite ✓

Pyrrhotite _____

Chalcopyrite ✓

Molybdenite _____

Other _____

} dissem in diorite ~ 2%

% Total Oxides _____

Malachite ✓ after cpy ; also in epidote vein in peridotite

Magnetite ✓

Hematite _____

PERCUSSION DRILL LOG

6 of 8

PROPERTY: _____

HOLE NO: OPD 77-4

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 50 To 60'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 80

Colour: BK

Colour Peculiarities: —

Magnetics: strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: < 5% diorite (out of diorite bedrock.)

Ultramafic: 95% peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite ✓

Pyrrhotite —

Chalcopyrite ✓

Molybdenite —

Other —

} in peridotite; gossanized clasts with Mn
some disseminations evident

% Total Oxides _____

Malachite ✓

Magnetite ✓

Hematite —

PERCUSSION DRILL LOG

2 of 8

PROPERTY: _____

HOLE NO: ~~NPD~~ NPD 77-5

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: -

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% peridotite ? ; 1 large clast may be serpentine or Ca-silicate ?

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-5

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: —

Magnetics: Strong

Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: 100% ~~is~~ peridotite(?) ; some chlorit²

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

4 of 8

PROPERTY: _____

HOLE NO: WPA 77-5

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58

ZONE: Oxide ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 80

Colour: Black

Colour Peculiarities: -

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: 5-10% ; diorite ; some sec biotite

Ultramafic: 90% ; peridotite? ; wk-mod serpent² ; some calcite and epidote veining

Other: _____

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite

Pyrrhotite

Chalcopyrite

Molybdenite

Other

} traces dissem in diorite

% Total Oxides _____

Malachite

Magnetite

Hematite

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-5

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK _____ ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58' To 68'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70-80

Colour: Black

Colour Peculiarities: —

Magnetics: Strong

Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: 20%; diorite; mod chlorit², trace sec biotite

Ultramafic: 80%; peridotite?; weak serpent²

Other: _____

ORE MINERALOGY:

% Total Sulphides <<1% Texture Habit Rock Type

Pyrite ✓

Pyrrhotite —

Chalcopyrite ?

Molybdenite —

Other —

} trace dissemin in diorite

% Total Oxides _____

Malachite —

Magnetite ✓

Hematite —

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-5

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 68 To 78'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 80

Colour: Black

Colour Peculiarities: —

Magnetics: strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: 5% ; diorite ; mod chlorit²

Ultramafic: 95% ; peridotite ? ; mod serpent² (asbestos)

Other: _____

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite trace in diorite

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APP 77-4

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 60 To 70'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 70%
 Colour: Green to black
 Colour Peculiarities: —
 Magnetics: strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —
 Acid Intrusive: 5-10% #6 diorite (bedrock?) ; strong chlorit²
 Ultramafic: 90% peridotite ; some strong serpent² (asbestos)

Other: _____

ORE MINERALOGY:

% Total Sulphides <1 Texture Habit Rock Type

Pyrite	<input checked="" type="checkbox"/>	} dissem in diorite / gossanized, epidotized block with Cp/Ry/Ma
Pyrrhotite	<input type="checkbox"/>	
Chalcopyrite	<input checked="" type="checkbox"/>	

Molybdenite

Other

% Total Oxides _____

Malachite on some fractures in UM
 Magnetite
 Hematite

PERCUSSION DRILL LOG

8 of 8

PROPERTY: _____ HOLE NO: APD 77-4
 DATE: _____ ORIENTATION: _____
 LOGGER: _____ LOCATION: _____
 OVERBURDEN _____ ; BEDROCK ELEVATION: _____
 DEPTH: overburden _____, total 78'
 SAMPLE INTERVAL: From 70 To 78' END
 ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 70
 Colour: BK
 Colour Peculiarities: —
 Magnetics: Strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____
 Acid Intrusive: < 5% diorite
 Ultramafic: 95% peridotite; med - strongly serpentized; some sec biotite evident.

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite <input checked="" type="checkbox"/>	} dissem and Fr-Fill in peridotite; and diorite		1% 1%
Pyrrhotite _____			
Chalcopyrite <input checked="" type="checkbox"/>			
Molybdenite _____			
Other _____			
<u>% Total Oxides</u> _____			
* Malachite <input checked="" type="checkbox"/>	on serpent ² UM		
Magnetite <input checked="" type="checkbox"/>			
Hematite _____			

PERCUSSION DRILL LOG

1 of 8

PROPERTY: NIK

HOLE NO: NPA 77-5

DATE: Aug 1/77

ORIENTATION: Vertical

LOGGER: RLS

LOCATION: 491N / 496.5E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden 18', total 98'

SAMPLE INTERVAL: From 18 To 28'

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 80-90

Colour: Black

Colour Peculiarities:

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic:

Acid Intrusive:

Ultramafic: 100% ; peridotite ? (less olivine) ; weak to mod serpent²

Other:

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite

Pyrrhotite

Chalcopyrite

Molybdenite

Other

% Total Oxides

Malachite

Magnetite

Hematite

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-5

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 78 To 88'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90+

Colour: Black

Colour Peculiarities: very black

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: -

Acid Intrusive: -

Ultramafic: 100% peridotite? ; weakly serpent²

Other: Brown biotite flakes noted

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite

Hematite _____

PROPERTY: _____

HOLE NO: NRD 77-05

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 88 To 98' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95

Colour: Black

Colour Peculiarities: -

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: « 5% diorite

Ultramafic: 95% black peridotite? (olivine not obvious); med to strongly serpent².

Other: Brown flakes of biotite prominent

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite ✓ trace on serpent² grain in fine fraction.

Magnetite ✓

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: NIK

HOLE NO: NPD 77-6

DATE: Aug 1/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: _____

OVERBURDEN ; BEDROCK _____ ELEVATION: _____

DEPTH: overburden 80, total 80

SAMPLE INTERVAL: From 68 To 78'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 30-40

Colour: Orange

Colour Peculiarities: orange oxides

Magnetics: strong ; orange grains also magnetic.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: 10%

Ultramafic: Peridotite 20%
Ankerite 70%

Other: Quartz ~ 5%

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other chromite in ankerite

% Total Oxides _____

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: NIK

HOLE NO: NAD 77-7

DATE: AUG 2/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 491N/497.5E

OVERBURDEN ? ; BEDROCK _____
May be bedrock.

ELEVATION: _____

DEPTH: overburden 50', total 100'

SAMPLE INTERVAL: From 40 To 50'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: Minor orange oxidized clasts

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: < 85% serpent² peridotite

15% antkerized UM (gtz-carbonate)

Other: _____

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite ✓ trace dissem in antkerite

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other chromite ✓ " " "

% Total Oxides _____

Malachite _____

Magnetite ✓

Hematite _____

PERCUSSION DRILL LOG

2 of 6

PROPERTY: _____

HOLE NO: NPD 77-7

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ?

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 50 To 60'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 80

Colour: Black

Colour Peculiarities: —

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: ~ 95% serpent^e peridotite
< 5% ankerite

Other: _____

ORE MINERALOGY:

% Total Sulphides Texture Habit Rock Type

Pyrite < } < 1% dissem in UM, predom in talcose
Pyrrhotite < } grains.

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides _____

Malachite —

Magnetite ✓

Hematite —

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-7

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 60 To 70'

ZONE: Oxide ; Supergene _____ ; Hypogene ?

SAMPLE PROPERTIES:

Colour Index: 80

Colour: Black, some orange

Colour Peculiarities: -

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: -

Acid Intrusive: -

Ultramafic: < 90% serpent² peridotite
10% ankerite

Other: Some qtz-carbonate (?) veining carrying Py

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u><1</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite	<input checked="" type="checkbox"/>	dissem in qtz-carb veins		and in peridotite.
Pyrrhotite	<u>-</u>			
Chalcopyrite	<u>-</u>			
Molybdenite	<u>-</u>			
Other	<u>-</u>			

Pyrrhotite -

Chalcopyrite -

Molybdenite -

Other -

% Total Oxides _____

Malachite -

Magnetite

Hematite -

PERCUSSION DRILL LOG

4 of 6

PROPERTY: _____

HOLE NO: MPD 77-7

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden , total _____

SAMPLE INTERVAL: From 70 To 80'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70-80

Colour: Black

Colour Peculiarities: -

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic:

Acid Intrusive:

Ultramafic: 90% serpent² peridotite
10% antkerite, qtz-carbonate

Other: _____

ORE MINERALOGY:

% Total Sulphides <1 Texture Habit Rock Type

Pyrite } Py or Po dissem in peridotite <1% but
Pyrrhotite } quite visible

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite

Hematite _____

PROPERTY: _____

HOLE NO: NPA 77-7

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 80 To 90'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: —

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: ~ 100% serpent^z peridotite
Minor ankerite

Other: _____

ORE MINERALOGY:

% Total Sulphides <1 Texture Habit Rock Type

Pyrite — } dissem in peridotite
Pyrrhotite — }

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides _____

Malachite —

Magnetite

Hematite —

PROPERTY: _____

HOLE NO: NPD 77-7

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 100'

SAMPLE INTERVAL: From 90 To 100' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 80-90

Colour: Black to brown

Colour Peculiarities: - more brown clasts (olivine?)

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 85% serpent² peridotite; brown olivine(?) prominent
15%ankerite

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite J

Hematite _____

PERCUSSION DRILL LOG

1 of 9

PROPERTY: NLK

HOLE NO: NPA 77-8

DATE: Aug 2/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 491N/497E

OVERBURDEN ? ; BEDROCK ? ELEVATION: _____

DEPTH: overburden 40'?, total 100'

SAMPLE INTERVAL: From 13 To 18'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 25-30

Colour: Lt grey

Colour Peculiarities: lt. colour

Magnetics: Non-magnetic

Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: —

* Acid Intrusive: ~100% diorite ± qtz ; strong chlorit² ; epidote dasts abundant ; trace see. Py bitite

Ultramafic: —

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>3-5%</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite	<input checked="" type="checkbox"/>	<u>dissem sulphides probably all pyrite since no Ma-stain noted.</u>		
Pyrrhotite	<u>—</u>			
Chalcopyrite	<u>—</u>			
Molybdenite	<u>—</u>			
Other	<u>—</u>			
<u>% Total Oxides</u> _____				
Malachite	<u>—</u>			
Magnetite	<u>—</u>			
Hematite	<u>—</u>			

PERCUSSION DRILL LOG

2 of 9

PROPERTY: _____

HOLE NO: NPA 77-8

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ?

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 18 To 28'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 30
 Colour: lt grey
 Colour Peculiarities: -
 Magnetics: non-magnetic
 Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: -

* Acid Intrusive: 100% diorite ; strong chlorit²/epidote clasts abundant

Ultramafic: -

Other: _____

ORE MINERALOGY:

% Total Sulphides 3% Texture Habit Rock Type

Pyrite dissem in diorite (No Cp)

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-8

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ? ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 30

Colour: Lt grey

Colour Peculiarities: -

Magnetics: Non-magnetic

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

* Acid Intrusive: 100% diorite ; mod chlorit², strong epidote

Ultramafic: —

Other: _____

ORE MINERALOGY:

% Total Sulphides 3-5% Texture Habit Rock Type

Pyrite dissem in diorite (No Cp)

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

4 of 9

PROPERTY: _____

HOLE NO: NPA 77-8

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 40

Colour: lt green

Colour Peculiarities: -

Magnetics: wk magnetism of small %

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: -

Acid Intrusive: -

Ultramafic: -

15-20% vfg, biotite?-rich clasts (biotized contact?)
(non-magnetic)
80% diorite with strong chlorite/epidote

Contact Zone?

Other: _____

ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite 1-2% dissem in diorite

Pyrrhotite _____

* Chalcopyrite trace dissem in diorite and biotized(?) clasts

Molybdenite _____

Other _____

% Total Oxides _____

Malachite trace

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-8

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60

Colour: lt green to black

Colour Peculiarities: Mixed.

Magnetics: Strong for UM clasts

Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: _____

35% diorite, strong chlorite/epidote
 10% biotized contact rock; one vein of qtz-py?
 55% fg black peridotite? noted

Contact Zone

Other: _____

ORE MINERALOGY:

% Total Sulphides 1-2% Texture Habit Rock Type

Pyrite 1+% dissem in diorite

Pyrrhotite _____

Chalcopyrite trace in epidot² diorite

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite in peridotite?

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APD 77-8

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: —

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Out of
diorite in
this
interval

Volcanic: —

Acid Intrusive: 10% strongly epidot² diorite

Ultramafic: 90% lg peridotite?

biotized contact rock

Other: Minor gte-carb ankerite

ORE MINERALOGY:

% Total Sulphides << 1% Texture Habit Rock Type

Pyrite dissem in epidot² diorite clasts

Pyrrhotite —

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides —

Malachite —

Magnetite

Hematite —

PERCUSSION DRILL LOG

7 of 9

PROPERTY: _____

HOLE NO: NPD 77-8

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 68 To 78'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: —

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: Minor diorite

Ultramafic: ~100% fg peridotite?

Other: Some gtz-carbonate material

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite ?

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-8

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 78' To 88'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95

Colour: black

Colour Peculiarities: -

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: -

Acid Intrusive: -

Ultramafic: ~ 100% serpent^z fg peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite some thin mag stringers in talcose clasts

Hematite _____

PERCUSSION DRILL LOG

9 of 9

PROPERTY: _____

HOLE NO: NPD 77-8

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 88 To 98

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95

Colour: Black

Colour Peculiarities: -

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: -

Acid Intrusive: -

Ultramafic: ~ 100% serpentⁿ fg peridotite

Other: Minor gtr-carbonate

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

* Magnetite Fine sub// veins prominent in peridotite

Hematite _____

PERCUSSION DRILL LOG

1 of 3

PROPERTY: NIK

HOLE NO: NPD 77-9

DATE: Aug 2/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 491N/496.75E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 58'

SAMPLE INTERVAL: From 28 To 38

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90
 Colour: Black
 Colour Peculiarities: -
 Magnetics: Strong.
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: -

Acid Intrusive: -

Ultramafic: ~100% serpent² peridotite

Other: Minor gtz - carbonate

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite

Pyrrhotite

Chalcopyrite

Molybdenite

Other

% Total Oxides 5%

Malachite

Magnetite ✓

Hematite

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-9

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK _____ ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: _____

Magnetics: Strong

Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: ~100% serpent² peridotite

Other: Very minor subround Qtz and feld (foreign)

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5

Malachite _____

Magnetite ✓

dissem fg in UM

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-9

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: -

Magnetics: Very Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: 100% serpent ~ peridotite

Other: Minorankerite, qtz-carbonate

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite —

Pyrrhotite —

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides 3-5%

Malachite —

Magnetite

Hematite —

PERCUSSION DRILL LOG

1 of 1

PROPERTY: NIX

HOLE NO: NPD 77-13 ABANDONED
NPD 77-14

DATE: Aug 3/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 490.25N/493.8E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 14'

SAMPLE INTERVAL: From 10 To 14' END - tough drilling

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 35-40'

Colour: lt Green

Colour Peculiarities: ---

Magnetics: Weak

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: ---

Acid Intrusive: 90% Hb diorite (porph) - strong chlorit^z, possible sec biotite

Ultramafic: 5-10% chloritized cum (slightly magnetic)

Other:

ORE MINERALOGY:

% Total Sulphides 3-5% Texture Habit Rock Type

Pyrite dissem in diorite

Pyrrhotite ---

Chalcopyrite trace dissem

Molybdenite ---

Other ---

% Total Oxides <1%

Malachite ---

Magnetite trace in diorite

Hematite ---

PERCUSSION DRILL LOG

17 of 9

PROPERTY: NIK

HOLE NO: WPA 27-15

DATE: Aug 3/77

ORIENTATION: Vertical

LOGGER: RLJ

LOCATION: 490.15N/494.35E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 108'

SAMPLE INTERVAL: From 18 ~~18~~ To ~~28~~ 28'

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70

Colour: DK green

Colour Peculiarities:

* Magnetics: Very weakly magnetic for VM

Clast Shape: Ang - subang

LITHOLOGIES: Type % Alteration

Volcanic:

Acid Intrusive:

Ultramafic: 100% serpent² peridotite (?) - non-magnetic

Other:

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite

Pyrrhotite

Chalcopyrite

Molybdenite

Other

% Total Oxides 1%

Malachite

Magnetite

Hematite

PERCUSSION DRILL LOG

2 of 9

PROPERTY: Nik

HOLE NO: NPD 77-15

DATE: Aug 3/77

ORIENTATION: _____

LOGGER: RW

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 60
Colour: lt to med green.
Colour Peculiarities: uniform
Magnetics: Moderate
Clast Shape: Ang - subang.

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% serpent² peridotite (?) (olivine present ?)

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 1%

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-15

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70

Colour: Med Green

Colour Peculiarities: —

Magnetics: _____

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% serpent^e peridotite - some chlorit^e evident

Other: _____

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite trace dissem in serpent^e grains.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 1%

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

4 of 9

PROPERTY: _____

HOLE NO: NPD 77-15

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70

Colour: Med Green

Colour Peculiarities: —

Magnetics: Moderate

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: 100% strongly serpent² peridotite (?)

Other: _____

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite trace dissem in serpent² clasts

Pyrrhotite —

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides < 1%

Malachite —

Magnetite

Hematite —

PERCUSSION DRILL LOG

5 of 9

PROPERTY: _____

HOLE NO: NPA 77-15

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70

Colour: Med green to grey

Colour Peculiarities: mixed grey and green clasts

Magnetics: Moderate

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: 100% serpent^z and/or chlorit^z peridotite (olivine present?)
- some biotized (?) clasts evident

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
<u>< 1%</u>	<u>dissem in strongly</u>	<u>chlorit^z (and serpent^z?)</u>	<u>clasts</u>

Pyrite

Pyrrhotite —

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides 1%

Malachite —

Magnetite

Hematite —

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPS 27-15

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 68 To 78'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70-80
Colour: Med to dk green
Colour Peculiarities: _____
Magnetics: Moderate
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% serpent² and chlorit² peridotite ; definite fresh sec(?) biotite evident ; also some asbestos

Other: _____

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite ✓ trace dissem.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 1%

Malachite _____

Magnetite ✓

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APD 77-15

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 78 To 88'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60-70

Colour: lt grey-green

Colour Peculiarities: —

Magnetics: Moderate

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: 100% chlorit² and/or serpent² peridotite

* * clots of pale brown mica (sec biotite?) are moderately prominent

Other: Asbestos noted

ORE MINERALOGY:

% Total Sulphides << 1% Texture Habit Rock Type

Pyrite trace dissem.

Pyrrhotite —

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides —

Malachite ? — possible trace

Magnetite —

Hematite —

PERCUSSION DRILL LOG

8 of 9

PROPERTY: _____

HOLE NO: NPA 77-15

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 88 To 98'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60-70

Colour: lt to med gray

Colour Peculiarities: _____

Magnetics: Mod to strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% strongly serpent² peridotite; little or no chlorit² and no biotite

Other: Asbestos

ORE MINERALOGY:

% Total Sulphides <1% Texture Habit Rock Type

Pyrite dissem

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite ? possible trace

Magnetite

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-15'

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 108'

SAMPLE INTERVAL: From 98 To 108' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70
 Colour: Med Grey / brown
 Colour Peculiarities: —
 Magnetics: Moderate
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: 100% strongly serpent^z peridotite

Other: Asbestos

ORE MINERALOGY:

% Total Sulphides <1% Texture Habit Rock Type

Pyrite ✓ dissem fig.

Pyrrhotite —

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides —

Malachite —

Magnetite ✓

Hematite —

PERCUSSION DRILL LOG

1 of 9

PROPERTY: NLK HOLE NO: NPD 27-16
 DATE: Aug 4/77 ORIENTATION: Vertical
 LOGGER: RW LOCATION: 489.65N/495.45E
 OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 106'

SAMPLE INTERVAL: From 16 To 26'

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 80
 Colour: Med black
 Colour Peculiarities: uniform
 Magnetics: Strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic:
 Acid Intrusive:
 Ultramafic: 100% serpent² peridotite - some bioticed (?) clasts evident

Other:

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite ✓ thin veins and dissem in serpent² clasts
 Pyrrhotite
 Chalcopyrite
 Molybdenite
 Other

% Total Oxides 2%

Malachite
 Magnetite ✓
 Hematite

PERCUSSION DRILL LOG

PROPERTY: _____ HOLE NO: NPA 77-16
 DATE: _____ ORIENTATION: _____
 LOGGER: _____ LOCATION: _____
 OVERBURDEN _____ ; BEDROCK ELEVATION: _____
 DEPTH: overburden _____, total _____
 SAMPLE INTERVAL: From 26 To 36'
 ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 75
 Colour: Med Black
 Colour Peculiarities: —
 Magnetics: Strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —
 Acid Intrusive: —
 Ultramafic: 100% serpent² peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides 51% Texture Habit Rock Type

Pyrite dissem in serpent² clasts

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

3 of 9

PROPERTY: _____

HOLE NO: NPD 77-16

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 36 To 46'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 75

Colour: dk green to black

Colour Peculiarities: —

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: 10% Bi - diorite porphyry - strong chlorit²

Ultramafic: 90% chlorit² and serpent² peridotite (definite olivine)

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite <input checked="" type="checkbox"/>	<u>3-5% dissem in diorite</u>		<u><1% dissem in UM</u>
Pyrrhotite _____			
Chalcopyrite _____			
Molybdenite <input checked="" type="checkbox"/>	<u>with pyrite on fracture of chlorit² pyroxene</u>		
Other _____	<u>also on fracture in serpent² clast</u>		

% Total Oxides _____

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

4 of 9

PROPERTY: _____

HOLE NO: NPD 77-16

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 46 To 56'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 75
Colour: DK green
Colour Peculiarities: —
Magnetics: Wk - mod.
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: ~ 100% serpent^z and chlorit^z peridotite ; possible biotization present.

Other: minor epidote clasts

ORE MINERALOGY:

% Total Sulphides 1-2% Texture Habit Rock Type

Pyrite

Pyrrhotite —

Chalcopyrite

Molybdenite trace dissem in UM

Other —

% Total Oxides —

Malachite —

Magnetite

Hematite —

Sulphides increased

} Py → Cp ; dissem in UM ; some purple-red (hematite) min^z in UM containing Cp.

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-16

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 56 To 66'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 7.5

Colour: DK grey-green

Colour Peculiarities: _____

Magnetics: Weak

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: ~ 100% chlorit² and serpent² peridotite.

Other: calcite and epidote clasts evident

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite dissem in UM

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

6 of 9

PROPERTY: _____

HOLE NO: NPD 77-16

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 66 To 76'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60
 Colour: Lt to med green
 Colour Peculiarities: —
 Magnetics: ok wk - mod.
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: ~100% serpent² and chlorit² peridotite(?) - sheared? (slickensides)

Other: Minor qtz - feld

ORE MINERALOGY:

% Total Sulphides <1% Texture Habit Rock Type

Pyrite dissem in UM

Pyrrhotite —

Chalcopyrite one intrusive-looking clast with good dissem cp

Molybdenite — trace dissem in chlorit² UM

Other —

% Total Oxides —

Malachite —

Magnetite —

Hematite —

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APD 77-16

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 76 To 86'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60-70
Colour: Med Green
Colour Peculiarities: —
Magnetics: Mod to strong
Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: —
Acid Intrusive: —
Ultramafic: 100% chlorite² and sheared peridotite(?)
— possible sec. biotite after chlorite

Other: _____

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite }
Pyrrhotite } Py >> Cp ; dissem in UM.
Chalcopyrite }
Molybdenite
Other

% Total Oxides _____

Malachite _____
Magnetite _____
Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APD 77-16

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 86 To 96'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70
Colour: Med to DK green
Colour Peculiarities: _____
Magnetics: Mod to strong
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic:

Acid Intrusive: _____

Ultramafic: 100% chloritized peridotite(?) ; some stäckenside(?) material evident

Other: A few feldspar clasts evident, minor epidote

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite

Pyrrhotite _____

Chalcopyrite ? trace

Molybdenite _____

Other _____

} dissem and fract-fill in UM

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

9 of 9

PROPERTY: _____

HOLE NO: NPD 77-16

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 106'

SAMPLE INTERVAL: From 96 To 106' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70

Colour: Med Grey

Colour Peculiarities: slight change from last section

* Magnetics: Strong (increase)

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% serpent² (asbestos) and chlorit² peridotite(?)
 — also some epidote on fractures.

Other: _____

ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite dissem and fract-fill

Pyrrhotite _____

Chalcopyrite _____

* Molybdenite trace on serpent² fracture with pyrite
 — trace dissem on talcose fracture

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

1 of 6

PROPERTY: NIK

HOLE NO: NPA 77-19

DATE: AUG 5/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 488N/496E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 73'

SAMPLE INTERVAL: From 18 To 28'

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90
 Colour: Black
 Colour Peculiarities: —
 Magnetics: Very strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

? Volcanic: possible metavolcanic present - 5%
 Acid Intrusive: —
 Ultramafic: ~95% locally serpent² peridotite (?); some shearing
 Other: Minor calcite vein material

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
<u>0</u>			
Pyrite	<u> </u>		
Pyrrhotite	<u> </u>		
Chalcopyrite	<u> </u>		
Molybdenite	<u> </u>		
Other	<u> </u>		
<u>% Total Oxides</u>	<u>3%</u>		
Malachite	<u> </u>		
Magnetite	<input checked="" type="checkbox"/> <u>dissem</u>		
Hematite	<u> </u>		

PERCUSSION DRILL LOG

2 of 6

PROPERTY: _____

HOLE NO: APD 77-19

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70

Colour: Predom black, some white

Colour Peculiarities: mixed

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 90% black peridotite(?); some talcose grains
- slickensides evident.

Other: ~ 5-10% siliceous-looking grains with serpentine(?) and magnetite

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 2-3%

Malachite _____

Magnetite fg dissem

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____ HOLE NO: NPD 77-19
 DATE: _____ ORIENTATION: _____
 LOGGER: _____ LOCATION: _____
 OVERBURDEN _____ ; BEDROCK ELEVATION: _____
 DEPTH: overburden _____, total _____
 SAMPLE INTERVAL: From 38 To 48
 ZONE: Oxide ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: ~~60~~ 60
 Colour: Black to pink
 Colour Peculiarities: Mixed
 Magnetics: Black UM strongly mag.
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____
Acid Intrusive: Fg Hb-diorite subporphyry; some Fe-stain
Ultramafic: ~50% black fg peridotite(?)

Contact zone (with arrow pointing to Acid Intrusive)

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u><1</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite	<input checked="" type="checkbox"/>	<u>dissem in diorite</u>		
Pyrrhotite	_____			
Chalcopyrite	_____			
Molybdenite	_____			
Other	_____			
<u>% Total Oxides</u> _____				
Malachite	_____			
Magnetite	_____			
Hematite	_____			

PERCUSSION DRILL LOG

4 of 6

PROPERTY: _____

HOLE NO: NPA 77-19'

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 90-100

Colour: Black

Colour Peculiarities: minor mixing

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: < 5% Hb diorite, some weathered grains

Ultramafic: 95% black fg UM (peridotite serpentized)

Other: White acicular radiating mineral forms veins (open-space fill) - gypsum?

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite trace in diorite

Pyrrhotite —

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides 3-5%

Malachite —

Magnetite dissem

Hematite —

PERCUSSION DRILL LOG

5 of 6

PROPERTY: _____

HOLE NO: NID 77-19

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90-100

Colour: Black

Colour Peculiarities: —

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: Minor oxidized and weathered Hb diorite

Ultramafic: 95% black fg serpent² peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides 41% Texture Habit Rock Type

Pyrite dissem in diorite

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite dissem

Hematite _____

PERCUSSION DRILL LOG

6 of 6

PROPERTY: _____

HOLE NO: NPA 77-19

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 73'

SAMPLE INTERVAL: From 68 To 73' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: some mixing

Magnetics: _____

Clast Shape: _____

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: 5% Hb-diorite: weathered, oxidized

Ultramafic: 95% serpentized peridotite: lots of talcose material

Other: _____

* ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite minor with G-Mo

Pyrrhotite trace dissem in UM

* { Chalcopyrite } veining and dissem in talcose and chloritic
 Molybdenite } UM clasts: massive grains of both evident

Other _____

% Total Oxides _____

Malachite _____

Magnetite dissem in talcose grains

Hematite _____ (mineralization of Cu-Mo is post-serpent²)

PERCUSSION DRILL LOG

PROPERTY: NLK

HOLE NO: NPD 77-20

DATE: AUG 5/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 488N/496.5E

OVERBURDEN ? ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 58'

SAMPLE INTERVAL: From 8 To 18'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 80
 Colour: Black
 Colour Peculiarities: mixed: oxides, serpentine
 Magnetics: Strong
 Clast Shape: Ang to subrounded.

LITHOLOGIES: Type % Alteration

Volcanic: ?
 Acid Intrusive: — minor dioritic clasts < 5%
 Ultramafic: — ankerite 10%
 — serpentine 20%
 — peridotite 70% — strongly magnetite veined

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____
 Pyrrhotite _____
 Chalcopyrite _____
 Molybdenite _____
 Other _____

% Total Oxides 5

Malachite _____
 Magnetite ✓ fg dissem and in fine sub// veins in UM
 Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APD 77-20

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 18 To 28'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: ~~Pt~~ 80

Colour: Black to orange

Colour Peculiarities: —

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: < 5% diorite, Hb weakly chloritized.

Ultramafic: — Ankerite 15%
 — Serpentine 10%
 — Peridotite (?) 75%

Other:

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 3%

Malachite _____

Magnetite dissem.

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-20

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 80
Colour: Black to orange
Colour Peculiarities: -
Magnetics: Strong
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: -
Acid Intrusive: -
Ultramafic: - 90% serpent² peridotite; some chlorit² noted
- <10% ankeritized UM clasts

Other: _____

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5+%

Malachite _____

Magnetite dissem

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APD 77-20

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 85
Colour: Black to orange
Colour Peculiarities: -
Magnetics: Very strong
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: -

Acid Intrusive: -

Ultramafic: - 10% ankartzized UM
- 90% serpent² peridotite, minor chloritization

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5

Malachite _____

Magnetite dissem

Hematite _____

PERCUSSION DRILL LOG

5 of 5

PROPERTY: _____

HOLE NO: APD 77-20

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 58'

SAMPLE INTERVAL: From 48 To 58' END

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 75
Colour: Black to orange
Colour Peculiarities: mixed
Magnetics: very strong
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: -15% altered UML
- 85% Serpent² peridotite.

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5

Malachite _____

Magnetite dissem

Hematite _____

PERCUSSION DRILL LOG

1 of 8

PROPERTY: NIK

HOLE NO: NPA 77-21

DATE: AUG 6/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 488N/497E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 108'

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 80

Colour: ~~dk~~ DK grey to black

Colour Peculiarities: - weathered surfaces are grey

Magnetics: Strong to very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: ~100% serpentized peridotite; intensely magnetite-veined

Other: Minor xtaline prisms of qtz(?) vein material.

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite

Pyrrhotite

Chalcopyrite

Molybdenite

Other

% Total Oxides 10

Malachite

* Magnetite veins and dissem.

Hematite

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-21

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 85

Colour: Black

Colour Peculiarities: -

Magnetics: Very strong

Clast Shape: Angular

LITHOLOGIES: Type % Alteration

Volcanic: -

Acid Intrusive: 15% plasmatic qtz xtals

Ultramafic: 95% serpentized peridotite - strong magnetite veining

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 10

Malachite _____

Magnetite dissem and veins.

Hematite _____

PERCUSSION DRILL LOG

3 of 8

PROPERTY: _____

HOLE NO: 110 77-21

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 80

Colour: Black

Colour Peculiarities: —

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: minor prismatic xtals (too soft for qtz)

Ultramafic: ~ 100% serpent² peridotite — strong mag veining.

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 8

Malachite _____

Magnetite dissem and vein

Hematite _____

PERCUSSION DRILL LOG

4 of 8

PROPERTY: _____

HOLE NO: NPD 77-21'

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide ? ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: # 80

Colour: Black

Colour Peculiarities: Some mixing

Magnetics: Strong.

Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: —

Contact.
Zone?

* Acid Intrusive: 15% diorite porphyry(?) with pervasive pale brown sec(?) biotite

Ultramafic: 85% mod serpent⁺ peridotite - less mag veining
- some clickersided serpentine

Other: Some oxidized clasts evident

* - xtalline white vein material and also pale yellow earthy

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type UM

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5

Malachite _____

Magnetite vein + dissem

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-21

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 68 To 78'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70

Colour: Black to white

Colour Peculiarities: Mixed

Magnetics: UM is very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: Biotized diorite and felsic clasts ~ 40%

Ultramafic: 60% serpent² peridotite - some strong mag veining

Other: _____

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite 2% dissem in diorite

Pyrrhotite —

Chalcopyrite trace

Molybdenite —

Other —

% Total Oxides 3%

Malachite —

Magnetite vein and dissem in UM

Hematite —

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NDA 77-21

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 78' To 88'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 65

Colour: Black to white

Colour Peculiarities: Mixed

Magnetics: UM is very strong

Clast Shape: Any

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: 50% biotized diorite

Ultramafic: 50% serpent² peridotite

Other: oxides clasts still evident

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite

Pyrrhotite _____

* Chalcopyrite

Molybdenite _____

Other _____

} 1-2% in diorite
dissem in diorite ; assoc with biotite
Py = Cp

% Total Oxides 5%

Malachite _____

Magnetite

Hematite _____

vein and dissem in UM

PROPERTY: _____

HOLE NO: NPD 77-21

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 88 To 98'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: minor mixing

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

out of
diorite

Volcanic: _____

Acid Intrusive: 5% biotized diorite

Ultramafic: 95% black serpent² peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides LL Texture Habit Rock Type

Pyrite trace in diorite

Pyrrhotite one submassive grain in serpentine

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5

Malachite _____

Magnetite dissem

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-21

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 108'

SAMPLE INTERVAL: From 98 To 108' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95-100

Colour: Black

Colour Peculiarities: Uniform

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: < 5% biotized diorite

Ultramafic: 95% black serpent² peridotite

Other: Some oxidized grains still evident

ORE MINERALOGY:

% Total Sulphides < 1 Texture Habit Rock Type

Pyrite _____

* Pyrrhotite discern and on fractures in UM

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5

Malachite _____

Magnetite dissem

Hematite _____

PERCUSSION DRILL LOG

1 of 5

PROPERTY: NIK

HOLE NO: NPA 77-22

DATE: Aug 6/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 488N/497.5E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 78'

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 85

Colour: Black

Colour Peculiarities: some mixing (orange, white)

Magnetics: Very strong.

Clast Shape: Ang to subang.

LITHOLOGIES: Type % Alteration

Volcanic:

Acid Intrusive: 5% ^{and calcite} gneiss material

Ultramafic: 95% black serpent² peridotite, some antenitized clasts

Other:

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>0</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
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Pyrite

Pyrrhotite

Chalcopyrite

Molybdenite

Other

% Total Oxides 3-5%

Malachite

Magnetite dissem in UM.

Hematite

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-22

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 80

Colour: Black to orange

Colour Peculiarities: mixed

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: 5% qtz-- calcite vein material

Ultramafic: 95% black serpent² peridot
→ 15% isankeritized.

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 2%

Malachite _____

Magnetite dissem.

Hematite _____

PERCUSSION DRILL LOG

3 of 5

PROPERTY: _____

HOLE NO: NPD 77-22

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 80

Colour: Black to orange

Colour Peculiarities: mixed

Magnetics: Strong

* Clast Shape: Sand-sized coarse fraction ; most ^{is} angular

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 40% qtz ± carbonate ankerite
60% black serpent[?] peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite dissem

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-22

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 85

Colour: Black

Colour Peculiarities: less mixed

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: ~ 15% ankertized clasts
~ 85% black serpent² peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite ✓

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____ HOLE NO: NPA 77-22
 DATE: _____ ORIENTATION: _____
 LOGGER: _____ LOCATION: _____
 OVERBURDEN _____ ; BEDROCK ELEVATION: _____
 DEPTH: overburden _____, total 78'
 SAMPLE INTERVAL: From 68 To 78' END
 ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 50-60
 Colour: lt-med grey-green.
 Colour Peculiarities: Mixed with orange, lighter than last sections.
 Magnetics: Strong.
 Clast Shape: Ang to subround(?)

LITHOLOGIES: Type % Alteration

Volcanic: _____
 Acid Intrusive: 15% diorite ; mod chlorit² and sericit²(?)
 Ultramafic: ~25% strongly ankeritized UM
~60% black serpent² peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides 41% Texture Habit Rock Type

Pyrite } dissem in diorite, Cp = Py
 Pyrrhotite _____ }
 Chalcopyrite
 Molybdenite _____
 Other _____

% Total Oxides 3%

Malachite _____
 Magnetite dissem
 Hematite _____

PERCUSSION DRILL LOG

PROPERTY: NIR

HOLE NO: NPA 77-23

DATE: Aug 6/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 488N/498E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 158'

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 85
 Colour: DK grey
 Colour Peculiarities:
 Magnetics: Very strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic:
 Acid Intrusive: minor dioritic clasts; < 5% ; weak chlorit²
 Ultramafic: 95% serpentinized peridotite with intense mag veining
 Other: Minor white quartz(?) vein material

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite ✓
 Pyrrhotite
 Chalcopyrite ✓
 Molybdenite
 Other

} trace amounts in diorite

% Total Oxides 5+%

Malachite
 Magnetite ✓ dissem and vein in UM
 Hematite

PERCUSSION DRILL LOG

2 of 12

PROPERTY: _____

HOLE NO: NPD 77-23

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: uniform

Magnetics: Very strong

Clast Shape: Ang but relatively fq (almost sand)

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: ~100% serpentized peridotite with strong magg veining.

Other: Minor xtaline white vein mineral

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5+

Malachite _____

Magnetite dissem and vein

Hematite _____

PERCUSSION DRILL LOG

3 of 12

PROPERTY: _____

HOLE NO: NPD 77-23

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide ; Supergene _____ ; Hypogene ~~_____~~

SAMPLE PROPERTIES:

Colour Index: 80
Colour: Black
Colour Peculiarities: —
Magnetics: Very strong
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: ~100% serpentized peridotite with mag veining; talcose grains prominent.

Other: Trace of qtz and calcite vein material

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5+

Malachite _____

Magnetite dissem and vein.

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-23

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 68 To 78'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

* limonite still occurring on fractures

SAMPLE PROPERTIES:

Colour Index: 85

Colour: Black

Colour Peculiarities: _____

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% serpent² peridotite with strong mag vein ; talcose grains prominent

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5+

Malachite _____

Magnetite dissem and vein

Hematite _____

PERCUSSION DRILL LOG

5 of 12

PROPERTY: _____

HOLE NO: NPD 77-23

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK _____

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 78 To 88'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

Fe-stain on fractures

SAMPLE PROPERTIES:

Colour Index: 80
Colour: Black, minor white
Colour Peculiarities: mixed
Magnetics: Very strong.
Clast Shape: Ang

LITHOLOGIES: Type & Alteration

Volcanic: ←

contact → Acid Intrusive: extremely biotized diorite porphyry ; 20%

Ultramafic: ~80% serpent² peridotite with mag veining.

Other: _____

ORE MINERALOGY:

% Total Sulphides 1-2% Texture Habit Rock Type

Pyrite }
Pyrrhotite } Cp = Py ; dissem in diorite ; trace Py in
Chalcopyrite } UM
Molybdenite
Other

% Total Oxides 5%

Malachite
Magnetite vein and dissem in UM
Hematite

PERCUSSION DRILL LOG

6 of 12

PROPERTY: _____

HOLE NO: NPD 77-23

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 88 To 98'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70

Colour: lt gray to black

Colour Peculiarities: —

Magnetics: UM is very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Dyke * Acid Intrusive: Extremely biotized diorite ~ 65-70% (minor unbiotized Hb diorite)

Ultramafic: 35% black serpent² peridotite.

Other: _____

ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite ✓

Pyrrhotite ✓ trace dissem in UM

Chalcopyrite ✓

Molybdenite _____

Other _____

} Py and Cp ~ 2% in diorite. (Cp = Py)

% Total Oxides 2%

Malachite _____

Magnetite ✓ dissem in UM

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____ HOLE NO: NPD 77-23
 DATE: _____ ORIENTATION: _____
 LOGGER: _____ LOCATION: _____
 OVERBURDEN _____ ; BEDROCK ELEVATION: _____
 DEPTH: overburden _____, total _____
 SAMPLE INTERVAL: From 98 To 108
 ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 80
 Colour: Black
 Colour Peculiarities: — change
 Magnetics: Very strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —
 Acid Intrusive: Extremely biotized diorite ~ 20% ; feldspars fresh
 Ultramafic: 80% black serpent² peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite ✓
 Pyrrhotite —
 Chalcopyrite ✓ trace } dissem in diorite
 Molybdenite —
 Other —

% Total Oxides 2%

Malachite —
 Magnetite ✓ dissem in AM.
 Hematite —

Out of
dyke in
his
interval

PERCUSSION DRILL LOG

8 of 12

PROPERTY: _____

HOLE NO: APD 77-23

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 108 To 118'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70

Colour: Black to white

Colour Peculiarities: Mixed

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: Biotized diorite ~ 15%

Ultramafic: 85% serpent² peridotite; minor chlorit²

Other: _____

ORE MINERALOGY:

% Total Sulphides <1% Texture Habit Rock Type

Pyrite dissem in diorite

Pyrrhotite trace dissem in UM

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 2%

Malachite _____

Magnetite dissem in UM

Hematite _____

PERCUSSION DRILL LOG

9 of 12

PROPERTY: _____

HOLE NO: NPD 77-23

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 118 To 128'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70

Colour: Black to white

Colour Peculiarities: mixed

Magnetics: Very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: Biotized diorite ~ 10%

Ultramafic: 90% serpent² peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides <1 Texture Habit Rock Type

Pyrite ✓

Pyrrhotite _____

Chalcopyrite ✓

Molybdenite _____

Other _____

} dissem in diorite
Py = Cp

% Total Oxides 2%

Malachite _____

Magnetite ✓ dissem in UM

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APPD 77-23

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 128 To 138'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60-70

Colour: Med grey

Colour Peculiarities: some mixing

Magnetics: Very strong.

Clast Shape: Ang but generally fine grained

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: Biotized diorite ~10%

Ultramafic: 90% serpent² peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides 41% Texture Habit Rock Type

Pyrite trace in diorite, trace in talcose clasts

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 2%

Malachite _____

Magnetite dissem in UM.

Hematite _____

PERCUSSION DRILL LOG

11 of 12

PROPERTY: _____

HOLE NO: NPA 77-23

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 138 To 148'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60-70

Colour: Med Grey

Colour Peculiarities: —

Magnetics: Strong

Clast Shape: Ang but fine-grain

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: Minor dioritic clasts, biotized

Ultramafic: ~ 100% serpent², weakly chlorit² peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides 22 1/2% Texture Habit Rock Type

Pyrite _____

Pyrrhotite trace dissem in UM

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 3+%

Malachite _____

Magnetite dissem in UM

Hematite _____

PERCUSSION DRILL LOG

12 of 12

PROPERTY: _____

HOLE NO: NPD 77-23

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 158'

SAMPLE INTERVAL: From 148 To 158' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70
 Colour: Dk grey
 Colour Peculiarities: _____
 Magnetics: Strong
 Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: ~ 25+% biotized diorite

Ultramafic: ~ 75% serpent² and moderately chlorit² peridotite

Other: Some ~~thin~~ Fe-stained clasts evident (sloughing?)

ORE MINERALOGY:

% Total Sulphides << 1% Texture Habit Rock Type

Pyrite _____

Pyrrhotite trace dissem in UM

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 2%

Malachite _____

Magnetite dissem in UM, also some thin veining

Hematite _____

PERCUSSION DRILL LOG

1 of 11

PROPERTY: NIK

HOLE NO: NPA 77-24

DATE: Aug 7/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 488N/498.5E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 138'

SAMPLE INTERVAL: From 28 To 38

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 75
 Colour: Black
 Colour Peculiarities: -
 Magnetics: Strong
 Clast Shape: Ang but fine-grained

LITHOLOGIES: Type % Alteration

Volcanic: -
 Acid Intrusive: trace of diorite.
 Ultramafic: ~100% mod serpent² peridotite.

Other:

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u><1%</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite	<input checked="" type="checkbox"/>	} dissem and on fractures in UM.		
Pyrrhotite	<input type="checkbox"/>			
Chalcopyrite	<u> </u>			
Molybdenite	<u> </u>			
Other	<u> </u>			
<u>% Total Oxides</u>	<u>2%</u>			
Malachite	<u> </u>			
Magnetite	<input checked="" type="checkbox"/>	} dissem in UM		
Hematite	<u> </u>			

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-24

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 90+

Colour: Black

Colour Peculiarities: weathered grains evident (or brown olivine)

Magnetics: Very strong

Clast Shape: Angular

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% moderately serpent² peridotite (brown olivine.)

Other: _____

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite ✓ } dissem in UM
Pyrrhotite ?

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 3%

Malachite _____

Magnetite ✓ dissem

Hematite _____

PERCUSSION DRILL LOG

3 of 11

PROPERTY: _____

HOLE NO: NPD 77-24

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

lots of Fe-oxide

SAMPLE PROPERTIES:

Colour Index: 70

Colour: Black to pale green.

Colour Peculiarities: mixed

Magnetics: Black UM is strongly magnetic; large green clasts are ~~non mag~~ weakly mag.

* Clast Shape: Ang to subrounded; large size range, large clasts are subrounded (slump?)

LITHOLOGIES: Type % Alteration

Volcanic: ?

Acid Intrusive: _____

Ultramafic: 65% black peridotite - brown olivine present; mod serpent

35% large pale green clasts are weathered serpentinite(?)

Other: Minor white x-talline vein mineral - subrounded slump?

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite dissem in weathered serpentinite clasts

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite dissem in both UM's.

Hematite _____

PERCUSSION DRILL LOG

4 of 11

PROPERTY: _____

HOLE NO: APD 77-24

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95 - 100

Colour: Black

Colour Peculiarities: Uniform

Magnetics: Very strong.

Clast Shape: Ang, gen f.g.

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% black weakly (?) serpent² peridotite.
- minor talcose clasts

Other: _____

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite ✓ } trace dissem and on fractures.

Pyrrhotite ✓

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5+%

Malachite _____

Magnetite ✓ dissem.

Hematite _____

PERCUSSION DRILL LOG

5 of 11

PROPERTY: _____

HOLE NO: NPA 77-24

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 68 To 78'

ZONE: Oxide ? ; Supergene _____ ; Hypogene

Some Fe-staining

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: —

Magnetics: Very strong

Clast Shape: Ang, Fg

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: ~100% mod-strongly serpent² peridotite ; some sub-
- minor chlorit² asbestos evident

Other: Minor white xtaline vein mineral

ORE MINERALOGY:

% Total Sulphides 11% Texture Habit Rock Type

Pyrite —

Pyrrhotite dissem in talcose grains and as thin veins

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides 5%

Malachite —

Magnetite dissem

Hematite —

PERCUSSION DRILL LOG

6 of 11

PROPERTY: _____

HOLE NO: NPD 77-24

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 78 To 88'

ZONE: Oxide ? ; Supergene _____ ; Hypogene
Minor Fe-oxides

SAMPLE PROPERTIES:

Colour Index: 85-90

Colour: Black

Colour Peculiarities: —

Magnetics: Very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: ~100 mod-st. serpent² peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides ~1% Texture Habit Rock Type

Pyrite trace dissem. in talcose UM.

Pyrrhotite dissem and fr-fill in UM

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 3-5%

Malachite _____

Magnetite dissem.

Hematite _____

PERCUSSION DRILL LOG

7 of 11

PROPERTY: _____

HOLE NO: APD 77-24

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 88 To 98'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: —

Magnetics: Very strong.

Clast Shape: Ang, fg.

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: 100% black, moderately serpent² peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides <1 Texture Habit Rock Type

Pyrite —

Pyrrhotite dissem in UM

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides 5.7.

Malachite —

Magnetite dissem.

Hematite —

PERCUSSION DRILL LOG

8 of 11

PROPERTY: _____

HOLE NO: NPA 77-24

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 98 To 108

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES: No COARSE FRACTION - Logged Fine Fraction

Colour Index: 80

Colour: Black

Colour Peculiarities: mixing with white

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% strongly serpent² peridotite, lots of white tabose clasts.

Other: _____

ORE MINERALOGY:

% Total Sulphides ? < 1 Texture Habit Rock Type

Pyrite ✓ trace } dissem

Pyrrhotite ✓

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides ? 3%

Malachite _____

Magnetite ✓ dissem

Hematite _____

PERCUSSION DRILL LOG

9 of 11

PROPERTY: _____

HOLE NO: NPD 77-24

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 108 To 118

ZONE: Oxide [?] _____ ; Supergene _____ ; Hypogene
Misc Fe-oxides

SAMPLE PROPERTIES: NO COARSE FRACTION AVAILABLE

Colour Index: 80

Colour: ~~Black~~ Dark Grey

Colour Peculiarities: _____

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% strongly (?) serpent² peridotite.

Other: _____

ORE MINERALOGY:

% Total Sulphides cc 1% Texture Habit Rock Type

Pyrite dissem

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides ?

Malachite _____

Magnetite dissem

Hematite _____

PERCUSSION DRILL LOG

10 of 11

PROPERTY: _____

HOLE NO: NPA 77-24

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 118 To 128'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES: No COARSE FRACTION AVAILABLE

Colour Index: 85

Colour: ~~Black~~ Dk grey.

Colour Peculiarities: _____

Magnetics: Very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% serpent² peridotite

Other: _____

ORE MINERALOGY:

% Total Sulphides << 1% Texture Habit Rock Type

Pyrite ? } trace dissem
Pyrrhotite ? }

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5+%

Malachite _____

Magnetite dissem.

Hematite _____

PERCUSSION DRILL LOG

11 of 11

PROPERTY: _____ HOLE NO: NPD 77-24
 DATE: _____ ORIENTATION: _____
 LOGGER: _____ LOCATION: _____
 OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 138'

SAMPLE INTERVAL: From 128 To 138' END

ZONE: Oxide ? ; Supergene _____ ; Hypogene
Fe-Oxide clasts present

SAMPLE PROPERTIES: NO COARSE FRACTION AVAILABLE

Colour Index: 85
 Colour: Black
 Colour Peculiarities: —
 Magnetics: Very strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —
 Acid Intrusive: —
 Ultramafic: 100% serpentinized peridotite

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>?</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite	_____			
Pyrrhotite	_____			
Chalcopyrite	_____			
Molybdenite	_____			
Other	_____			
<u>% Total Oxides</u> <u>5%</u>				
Malachite	_____			
Magnetite	<input checked="" type="checkbox"/>	<u>dissem</u>		
Hematite	_____			

PERCUSSION DRILL LOG

1 of 6

PROPERTY: NLK

HOLE NO: NPA 77-32

DATE: _____

ORIENTATION: Vertical

LOGGER: RLW

LOCATION: 488N/497-75E

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 78'

SAMPLE INTERVAL: From 18 To 28

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 7D
 Colour: Med to Dk grey.
 Colour Peculiarities: _____
 Magnetics: Very strong,
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____
 Acid Intrusive: ~5% white "bull" quartz
 Ultramafic: 85% black pyroxenite (peridotite?); strong serpent² (asbestos)

* Other: 5-10% asbestos fibre up to ~~1/2~~ 1/2" long

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____
 Pyrrhotite _____
 Chalcopyrite _____
 Molybdenite _____
 Other _____

% Total Oxides 5%

Malachite _____
 Magnetite dissem., f.g.
 Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APD 77-32

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 60

Colour: Orange to black

Colour Peculiarities: lighter, more oxides

Magnetics: wk - mod.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Count } Volcanic: _____
 Acid Intrusive: Hb diorite ± qtz; felsic clasts comprise ~ 40-50%; Hb unalt^d
 Ultramafic: ~ 40% black pyroxenite/peridotite(?)

* Other: 5-10% asbestos: up to 1/2 - 3/4" long.

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite trace dissem in diorite

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 1.2%

Malachite _____

Magnetite dissem in UM, ~ 5%

Hematite _____

PERCUSSION DRILL LOG

3 of 6

PROPERTY: _____

HOLE NO: APA 77-32

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 75

Colour: Black to orange to white

Colour Peculiarities: mixed

Magnetics: Black clasts strongly magnetic

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: Hb diorite ; gen unalt^d ; ~ 50%

Ultramafic: Black fg. pyrox/porid ~ 50% ; mod serpent²

Other: < 5% asbestos fibre

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite trace dissem in diorite

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite dissem in UM

Hematite _____ * some strong limonitization

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 72-32

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58'

ZONE: Oxide ; Supergene _____ ; Hypogene _____
Some Fe-stain on fractures

SAMPLE PROPERTIES:

Colour Index: 80-90

Colour: Black

Colour Peculiarities: change.

Magnetics: Very strong.

Clast Shape: Ang to subrounded - lots of subround clasts.

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: 30% Hb diorite ^(porphyry); weak chlorit²

Ultramafic: ~70% black, fig. pyrox/perid.; mod serpent²

Other: Minor milk-white, amorphous vein mineral, minor asbestos

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite dissem in diorite

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite fig. dissem in UML; some hematite,

Hematite _____ ~~limonite~~ limonite stain

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APD 77-32

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 6.5-7.0
Colour: lt to med grey.
Colour Peculiarities: lighter
Magnetics: UM is strong.
Clast Shape: Ang

Into another diorite

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: Diorite porphyry (?) with fig. biotite (some may be sec.)
Some fig. biot rich clasts may be biotized margins.

60%
40%

Ultramafic: fg black perid/pyrox ; med serpent^c

Other: Minor asbestos

ORE MINERALOGY:

% Total Sulphides << 1% Texture Habit Rock Type

Pyrite trace dissem in diorite

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 3+%

Malachite _____

Magnetite dissem in UM.

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-32

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 78'

SAMPLE INTERVAL: From 68 To 78' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70? (dusty)
 Colour: Med Grey
 Colour Peculiarities: _____
 Magnetics: Strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____
 Acid Intrusive: Bro² diorite porphyry ~ 15-20%.
 Ultramafic: ~ 75% pyrox/pend i mod to strongly serpent²

Other: 3-5% asbestos fibre (dust appears to be made up mostly of fg. asbestos)

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____
 Pyrrhotite _____
 Chalcopyrite _____
 Molybdenite _____
 Other _____

% Total Oxides 3%

Malachite _____
 Magnetite dissem in UML
 Hematite _____

PERCUSSION DRILL LOG

1 of 6

PROPERTY: N/K

HOLE NO: ADA 77-33

DATE: Aug / 77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 488N/496.25E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 78'

SAMPLE INTERVAL: From 18 To 28'

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 80

Colour: Brown-black

Colour Peculiarities: most clasts look weathered

Magnetics: Very strong.

Clast Shape: Ang to subrounded

LITHOLOGIES: Type % Alteration

Volcanic:

Acid Intrusive:

Ultramafic: 95% peridotite(?) ; strong mag veining ; weak (?) serpentinization

Other: 5% white xstalline vein mineral

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite

Pyrrhotite

Chalcopyrite

Molybdenite

Other

% Total Oxides 5+%

Malachite

Magnetite ✓ dissem and fine veins.

Hematite

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-33

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 85

Colour: Black

Colour Peculiarities: — less weathered.

Magnetics: Very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: ~ 100% somewhat weathered peridotite(?) ; mod(?) serpent², less mag veining, minor chlorit²

Other: Minor stickensides, minor white xtaline vein mineral

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 50%

Malachite _____

Magnetite ✓ dissem and in thin veins.

Hematite _____

PERCUSSION DRILL LOG

3 of 6

PROPERTY: _____

HOLE NO: NPD 77-33

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 85

Colour: DK black-brown

Colour Peculiarities: — very few weathered clasts

Magnetics: Very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: 100% serpentized peridotite(?) — some asbestos fibre noted.

Other: Minor slickensides ; minor white crystalline vein mineral

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite mostly disse.

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-33

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58'

ZONE: Oxide ? ; Supergene _____ ; Hypogene
5% Fe-stained serpentine

SAMPLE PROPERTIES:

Colour Index: 85-90

Colour: Black

Colour Peculiarities: _____

Magnetics: Very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: ~ 2% felsic clasts, minor epidot²

Ultramafic: 98% serpentized peridotite or pyroxenite(?)

Other: Slickensides evident., minor asbestos.

ORE MINERALOGY:

% Total Sulphides <1% Texture Habit Rock Type

Pyrite _____

Pyrrhotite dissem in OM.

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 3%

Malachite _____

Magnetite dissem.

Hematite _____

PERCUSSION DRILL LOG

59 of 6

PROPERTY: _____

HOLE NO: NPA 77-33

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES: NCHA. - logged fine-fraction

Colour Index: 80

Colour: Black

Colour Peculiarities: _____

Magnetics: Very strong

Clast Shape: very fine-grained

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% serpentinized peridotite/pyroxenite.

Other: _____

ORE MINERALOGY:

% Total Sulphides <1% Texture Habit Rock Type

Pyrite _____

Pyrrhotite dissem and on fractures

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite fig. dissem.

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-33

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 78'

SAMPLE INTERVAL: From 68' To 78' END

ZONE: Oxide ? ; Supergene _____ ; Hypogene
Fe-stained serpentine evident

SAMPLE PROPERTIES:

Colour Index: 90
Colour: Black
Colour Peculiarities: —
Magnetics: Very strong
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: — quartz and/or feldspar clast with mag veinlet.

Ultramafic: 98% fg.(?) black serpentized peridotite(?)

Other: Minor slickensides.

ORE MINERALOGY:

% Total Sulphides <1% Texture Habit Rock Type

Pyrite —

Pyrrhotite dissem and on fractures

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides 5%

Malachite —

Magnetite dissem.

Hematite —

PERCUSSION DRILL LOG

PROPERTY: NIK

HOLE NO: NPD 77-34

DATE: AUG 11/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 488N/495-75E

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 98

SAMPLE INTERVAL: From 18 To 28'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95

Colour: Black

Colour Peculiarities: —

Magnetics: Very strong.

Clast Shape: Ang, gen. fig.

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: ~100% black, fig. peridotite(?)

Other: Minor white xtal^m vein mineral, some slickensided serpentine evident

ORE MINERALOGY:

% Total Sulphides ≤ 1% Texture Habit Rock Type

* Pyrite	<input checked="" type="checkbox"/>	} mainly on fractures in UM (Py > Po >> Cp)
Pyrrhotite	<input checked="" type="checkbox"/>	
Chalcopyrite	<input type="checkbox"/>	

Molybdenite _____

Other _____

% Total Oxides 3-5%

Malachite _____

Magnetite dissem., fig.

Hematite _____

PERCUSSION DRILL LOG

2 of 8

PROPERTY: _____

HOLE NO: NPD 77-34

(between # 18 and # 19)

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95
 Colour: Black
 Colour Peculiarities: very dark
 Magnetics: Very strong.
 Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: ~ 100% black f.g., peridotites ; local serpent²

Other: < 5% white stalⁿ vein mineral, also quartz vein ; slickensided serpentine evident.

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite trace dissem in serpent² clasts

Pyrrhotite trace dissem in black VM.

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite fg. dissem

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____ HOLE NO: APD 77-34
 DATE: _____ ORIENTATION: _____
 LOGGER: _____ LOCATION: _____
 OVERBURDEN _____ ; BEDROCK ELEVATION: _____
 DEPTH: overburden _____, total _____
 SAMPLE INTERVAL: From 38 To 48'
 ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90
 Colour: black
 Colour Peculiarities: _____
 Magnetics: Very strong.
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% black, f.g. peridotite ; local serpent² (shears?)

Other: Serpentine slickensides evident

ORE MINERALOGY:

% Total Sulphides 44% Texture Habit Rock Type

Pyrite trace on fractures

Pyrrhotite trace dissem.

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite f.g. dissem.

Hematite _____

PERCUSSION DRILL LOG

4 of 8

PROPERTY: _____

HOLE NO: NPA 77-34

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 85

Colour: Black

Colour Peculiarities: Some mixing

Magnetics: Strong to very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% peridotite — more strongly serpent², lots of talcose clasts

Other: _____

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite ~~trace~~ dissem in serpent² clasts

Pyrrhotite trace dissem in block UM.

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 35%

Malachite _____

Magnetite dissem, fig.

Hematite _____

PROPERTY: _____

HOLE NO: NPA 77-34

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 85

Colour: Black

Colour Peculiarities: some mixing

Magnetics: Strong to very strong,

Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% black peridotite? (maybe serpent² pyroxenite) : lots of talcose altⁿ.

Other: Minor white vein mineral

ORE MINERALOGY:

% Total Sulphides << 1% Texture Habit Rock Type

Pyrite trace dissem in serpent² clasts

Pyrrhotite trace dissem in black UM.

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 3%

Malachite _____

Magnetite dissem, fig., especially in talcose clasts

Hematite _____

PERCUSSION DRILL LOG

6 of 8

PROPERTY: _____ HOLE NO: NPD 77-34
 DATE: _____ ORIENTATION: _____
 LOGGER: _____ LOCATION: _____
 OVERBURDEN _____ ; BEDROCK ELEVATION: _____
 DEPTH: overburden _____, total _____
 SAMPLE INTERVAL: From 68 To 78'
 ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95
 Colour: Black
 Colour Peculiarities: minor mixing
 Magnetics: Very strong.
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% peridotite(?) : mod serpent² (local?)

Other: Minor slickensides

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite trace on fractures

Pyrrhotite fg dissem and some more massive veinlets.

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite fg, dissem.

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NIPD 77-34

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 78 To 88'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95-100

Colour: Black

Colour Peculiarities: very dark and uniform

Magnetics: _____

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% black f.g. peridotite : only minor talc altⁿ

Other: Some slickensides and slickensided ~~⇒~~ serpentine evident

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite good euhedral xtals in one talcose clast

Pyrrhotite dissem and on fractures

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite dissem., f.g.

Hematite _____

PROPERTY: _____

HOLE NO: NPA 77-34

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 98'

SAMPLE INTERVAL: From 88 To 98' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 85
 Colour: Black, some white
 Colour Peculiarities: mixed
 Magnetism: Strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% peridotite; mod to strong talc/serpentine alt

Other: Minor clinker-sided clasts, some calcite and white ktallⁿ vein mineral present.

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite } dissem in talc clasts (Po = Py)
 Pyrrhotite

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 3%

Malachite _____

Magnetite dissem., f.g.

Hematite _____

PERCUSSION DRILL LOG

1 of 4

PROPERTY: NIK

HOLE NO: NPD 77-40

DATE: AUG 15

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 489.2N/495.5E

OVERBURDEN ? ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 48'

SAMPLE INTERVAL: From 8 To 18

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 70-80

Colour: Dk green to black

Colour Peculiarities: uniform

Magnetics: 0 → mod (some of larger clasts are non-magnetic)

Clast Shape: Ang to subrounded; some clasts up to 1" in size

LITHOLOGIES: Type % Alteration

Volcanic: larger clasts, non-magnetic, rounded and weathered = O/B ~20%

Acid Intrusive: _____

Ultramafic: 80% looks like weak to mod serpent² pyroxenite although Hb is evident (Hb-pyroxenites?)

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 2%

Malachite _____

Magnetite dissem. in pyroxenite

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-70

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 18 To 28'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 70

Colour: Med to DK green

Colour Peculiarities: uniform

Magnetics: Mod to strong

Clast Shape: Ang to subang., clasts up to 1/2"

LITHOLOGIES: Type % Alteration

Volcanic: ? 5% subrounded.

Acid Intrusive: _____

Ultramafic: 95% serpentized Hb-pyroxenite (?) - some clusters of Hb evident: mod serpent²

Other: _____

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite dissem mainly in serpent² clasts (white)

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 2%

Malachite _____

Magnetite f.g., dissem

Hematite _____

PERCUSSION DRILL LOG

3 of 4

PROPERTY: _____

HOLE NO: APD 77-40

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 7.5

Colour: Med green to black

Colour Peculiarities: dark blk-black UM clasts

Magnetics: strong to very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: ?

Acid Intrusive: _____

Ultramafic: ~ 100% pale green to black (very magnetic) pyroxenite (?);
mod to strong serpent^z

Other: Minor asbestos fibre noted.

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite dissem in serpent^z clasts

Pyrrhotite dissem in black UM

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 3%

Malachite _____

Magnetite vfg. dissem.

Hematite _____

PERCUSSION DRILL LOG

4 of 4

PROPERTY: _____

HOLE NO: NPD 77-40

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 48'

SAMPLE INTERVAL: From 38 To 48' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 75-80

Colour: Med Black

Colour Peculiarities: some mixing

Magnetics: strong to very strong.

Clast Shape: Ang, finer-grained.

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% mod - strongly serpent² pyroxenite

Other: _____

ORE MINERALOGY:

% Total Sulphides <1% Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite ? trace

Molybdenite _____

Other _____

% Total Oxides 3+%

Malachite _____

Magnetite vfg., dissem.

Hematite _____

} dissem in serpent² clasts

PERCUSSION DRILL LOG

1 of 10

PROPERTY: ALIK

HOLE NO: APD 77-41

DATE: Aug 15/77

ORIENTATION: Vertical

LOGGER: RWJ

LOCATION: 489.5N/496E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 118'

SAMPLE INTERVAL: From 18 To 28

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90
 Colour: Black
 Colour Peculiarities:
 Magnetics: Very strong.
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic:

Acid Intrusive:

Ultramafic: 100% black; f.g (?) pyroxenite; mod. serpent²

Other: Minor serpentine slickensides.

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite ✓ trace dissem in serpent² clasts

Pyrrhotite ✓ dissem

Chalcopyrite

Molybdenite

Other

% Total Oxides 5%

Malachite

Magnetite ✓ vfg dissem.

Hematite

PERCUSSION DRILL LOG

2 of 10

PROPERTY: _____

HOLE NO: NPD 77-41

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95
 Colour: Black
 Colour Peculiarities: _____
 Magnetics: Very strong,
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% black pyroxenite ; local serpent² (shears)

Other: Serpentine slickensides evident

ORE MINERALOGY:

% Total Sulphides 44% Texture Habit Rock Type

Pyrite _____

Pyrrhotite trace dissem

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite fg. dissem.

Hematite _____

PERCUSSION DRILL LOG

3 of 10

PROPERTY: _____

HOLE NO: NPD 77-71

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95

Colour: Black

Colour Peculiarities: _____

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% black pyroxenite ; local serpent^z (shears) and perovskite (?)

Other: Some asbestos fibre and veining

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite vfg., dissem.

Hematite _____

PERCUSSION DRILL LOG

4 of 10

PROPERTY: _____ HOLE NO: NPD 77-41'
 DATE: _____ ORIENTATION: _____
 LOGGER: _____ LOCATION: _____
 OVERBURDEN _____ ; BEDROCK ELEVATION: _____
 DEPTH: overburden _____, total _____
 SAMPLE INTERVAL: From 48 To 58'
 ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 85-90
 Colour: White to black
 Colour Peculiarities: minor mixing.
 Magnetics: Very strong.
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____
 Acid Intrusive: _____

Ultramafic: 100% black pyroxenite ; more strongly Serpent², white talcose clasts prominent, minor white

Other: amorphous mineral (opal?)

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite _____
 Pyrrhotite dissem.
 Chalcopyrite _____
 Molybdenite _____
 Other _____

% Total Oxides 5%

Malachite _____
 Magnetite vfg, dissem.
 Hematite _____

PERCUSSION DRILL LOG

5 of 10

PROPERTY: _____

HOLE NO: APD 77-41

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: _____

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% black serpent^z pyroxenite

Other: _____

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite _____

Pyrrhotite trace dissem and on fractures

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite ifg dissem

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-41

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 6B To 7B'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60
Colour: lt to med grey
Colour Peculiarities: lighter
Magnetics: Very strong
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% pyroxenite - strong altⁿ to talc/serpentine

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

* Malachite ? tourquoise & colouring on talcose clasts (no sulphides seen)

Magnetite fg, dissem.

Hematite _____

PERCUSSION DRILL LOG

8 of 10

PROPERTY: _____

HOLE NO: NPA 77-41

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 88' To 98'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70

Colour: Lt grey to black

Colour Peculiarities: —

Magnetics: Very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% pyroxenite ; mod-strong talc/serp altⁿ
- possible green olivine, minor

Other: _____

ORE MINERALOGY:

% Total Sulphides 4% Texture Habit Rock Type

Pyrite ✓ trace dissem in serpent^e clasts

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite ✓

Hematite _____

PERCUSSION DRILL LOG

9 of 10

PROPERTY: _____

HOLE NO: APD 77-41

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 98 To 108'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 75

Colour: Dk grey

Colour Peculiarities: _____

Magnetics: Very strong.

Clast Shape: Any

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% pyroxenite; strong talc/serp altⁿ.

Other: Some large serpentine slickenside clasts

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite ✓ } dissem and fract-fill

Pyrrhotite _____

Chalcopyrite _____

Molybdenite ✓ dissem in one talcose clast.

Other _____

% Total Oxides 5%

Malachite _____

Magnetite ✓

Hematite _____

PERCUSSION DRILL LOG

10 of 10

PROPERTY: _____

HOLE NO: NPD 77-41

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total 118'

SAMPLE INTERVAL: From 108 To 118' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 85

Colour: Black

Colour Peculiarities: _____

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% pyroxenite ; mod talc/serp altⁿ

Other: Minor serpentine slickensides.

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite dissem primarily in talcose clasts

Pyrrhotite dissem

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

1 of 11

PROPERTY: NIR

HOLE NO: NPD 77-42

DATE: AUG 15/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 489.5N/496.5E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 128'

SAMPLE INTERVAL: From 18 To 28

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black to orange

Colour Peculiarities: minor enkerite

Magnetics: Very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic:

Acid Intrusive:

Ultramafic: 100% pyroxenite ; weak talc/serp altⁿ

Other: Minor 5-10% ankentic clasts , minor slickensides.

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite

Pyrrhotite

Chalcopyrite

Molybdenite

Other

% Total Oxides 5%

Malachite

Magnetite fg. dissem.

Hematite

PERCUSSION DRILL LOG

2 of 11

PROPERTY: _____

HOLE NO: NPD 77-42

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 50

Colour: Med green to orange

Colour Peculiarities: ~ 50/50 mix

Magnetics: Very strong (ankerit² clasts are non-magnetic)

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

? Acid Intrusive: 10% strongly epidot² diorite (?) ~~diort~~

Ultramafic: _____

90% ~ 60% is orange ankerit² clasts

Other: _____

~ 40% black to light green pyroxenite; variable qtz-carb altⁿ

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite

dissem in partially ankeritized clasts

Pyrrhotite _____

Chalcopyrite

trace dissem in epidotized(?) clast

* Molybdenite

very fine-grained dissem in non-magnetic, partially ankeritized(?) clast. (qtz silicified)

Other _____

% Total Oxides 2-3%

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

3 of 11

PROPERTY: _____

HOLE NO: NPA 77-42

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide ? ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 20

Colour: white, minor orange, black

Colour Peculiarities: very white

Magnetics: Only black clasts are magnetic (strong)

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: ~ 80% leucocratic diorite ; mod to strong chlorit², weak epidot².

Ultramafic: ~ 10% black pyroxenite clasts
~ 10% orange ankerite clasts

Other: _____

ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite coarser-grained dissem in diorite

Pyrrhotite _____ } (Pg > Cp > Mo)

* Chalcopyrite } very fine-grained dissem in diorite(?)

* Molybdenite

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

Dyke

v.f.g.

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-42

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: marked change from last section (contact ~ 48')

Magnetics: Very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: None?

Ultramafic: 100%: ~5% orangeankerite clasts
black pyroxenite; wk talc/serp alt~

Other: Minor epidote clasts

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite dissem in talcose clasts

Pyrrhotite dissem

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-42

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95-100

Colour: Black

Colour Peculiarities: — very dark

Magnetics: Very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: 100% very black serpentized pyroxenite ; some asbestos veining.

Other: Minor orangeankerite

ORE MINERALOGY:

% Total Sulphides 0 < 1 Texture Habit Rock Type

Pyrite _____

Pyrrhotite dissem

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite vfg dissem.

Hematite _____

PERCUSSION DRILL LOG

6 of 11

PROPERTY: _____

HOLE NO: APD 77-42

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 68 To 78'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95

Colour: Black

Colour Peculiarities: uniform

Magnetics: Very Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% black pyroxenite; weak talc/serp altⁿ

Other: < 3% orange zinkerite

ORE MINERALOGY:

% Total Sulphides 21% Texture Habit Rock Type

Pyrite _____

Pyrrhotite trace disse

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

7 of 11

PROPERTY: _____

HOLE NO: MPD 77-42

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 78 To 88'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95
 Colour: Black
 Colour Peculiarities: —
 Magnetics: Very strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% black pyroxenite; weak talc/serp altⁿ.

Other: 5% orangeankerite

ORE MINERALOGY:

% Total Sulphides Texture Habit Rock Type

Pyrite _____
 Pyrrhotite dissem and on fractures
 Chalcopyrite _____
 Molybdenite _____
 Other _____

% Total Oxides 5%

Malachite _____
 Magnetite
 Hematite _____

PERCUSSION DRILL LOG

8 of 11

PROPERTY: _____

HOLE NO: APD 77-42

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 88 To 98'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95
Colour: Black
Colour Peculiarities: _____
Magnetics: Very strong
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% black pyroxenite ; wk talc/serp alt.

Other: Minor orangeankerite

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite _____

Pyrrhotite trace dissem

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

9 of 11

PROPERTY: _____

HOLE NO: NPD 77-42

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 98 To 108'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95

Colour: Black

Colour Peculiarities: _____

Magnetics: Very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% black pyroxenite ; weak talc/serp altⁿ

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

10 of 11

PROPERTY: _____

HOLE NO: NPD 77-42

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 108 To 118'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95-100

Colour: Black

Colour Peculiarities: —

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: —

Acid Intrusive: —

Ultramafic: 100% black pyroxenite; weak folc/sup alt

Other: Minor orangeankerite

ORE MINERALOGY:

% Total Sulphides 4% Texture Habit Rock Type

Pyrite —

Pyrrhotite dissem and on fractures

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides 5%

Malachite —

Magnetite

Hematite —

PERCUSSION DRILL LOG

11 of 11

PROPERTY: _____

HOLE NO: ND 77-42

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 128'

SAMPLE INTERVAL: From 118 To 128' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 95

Colour: Black

Colour Peculiarities: _____

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% black pyroxenite ; weak talc/serp altn

Other: _____

ORE MINERALOGY:

% Total Sulphides 41% Texture Habit Rock Type

Pyrite _____

Pyrrhotite dissem

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

1 of 8

PROPERTY: NIR

HOLE NO: NPD 77-43

DATE: AUG 15/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 489.5N/497E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 93'

SAMPLE INTERVAL: From 13 To 23'

ZONE: Oxide ✓ ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 85
 Colour: Black
 Colour Peculiarities:
 Magnetics: strong to very strong.
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic:

Acid Intrusive:

Ultramafic: 100% Fine to mg pyroxenite(?) (may be peridotite, some brown clivine?) present; mod

Other: Minor antenite talc/serp altⁿ

ORE MINERALOGY:

% Total Sulphides < 1% Texture Habit Rock Type

Pyrite ✓ dissem in chlorite-talc(?) clasts

Pyrrhotite Py ≥ Mo.

Chalcopyrite

Molybdenite ✓ dissem in chlorite-talc(?) clasts

Other

% Total Oxides 3-5%

Malachite

Magnetite ✓ fg. dissem

Hematite

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-43

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 23 To 33'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 80

Colour: Black

Colour Peculiarities: _____

Magnetics: Very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% pyroxenite - peridotite : wk-mod talc/serp alt^m

Other: * 5%ankerite clasts

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite trace dissem

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite fg. dissem.

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD77-43

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 33 To 43'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90
Colour: Black
Colour Peculiarities: _____

Magnetics: Very strong
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% pyrox/peridotite ; weak talc/serp alt

Other: Minor antenite

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite Fig. dissem

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APD 77-43

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 43 To 53'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 85

Colour: Black

Colour Peculiarities: _____

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% pyrox/ferid ; weak to mod talc/serp alt.

Other: 5%ankerite clasts

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite trace dissem.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite fg. dissem

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-43

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 53 To 63

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90

Colour: Black

Colour Peculiarities: _____

Magnetics: Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% black pyrox/perid; mod talc/serp altⁿ.

Other: _____

ORE MINERALOGY:

% Total Sulphides 41% Texture Habit Rock Type

Pyrite ✓ trace dissem in serpent² clast

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 50%

Malachite _____

Magnetite ✓ fig. dissem.

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-43

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 63 To 73'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: B5

Colour: Black

Colour Peculiarities: _____

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 95% pyrox/peridotite ; mod talc/serp alt.

Other: 5%ankerite clasts.

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite fg. dissem.

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-43

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 73 To 83'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 85

Colour: Black

Colour Peculiarities: —

Magnetics: Very strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 95% pyrox/perid ; mod talc/serp altⁿ.

Other: 5% ankerite clasts

ORE MINERALOGY:

% Total Sulphides 1% Texture Habit Rock Type

Pyrite ✓ } dissem, fig.

Pyrrhotite —

Chalcopyrite —

Molybdenite —

Other —

% Total Oxides 5%

Malachite —

Magnetite

Hematite —

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APD 77-43

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 93'

SAMPLE INTERVAL: From 83 To 93' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 90
 Colour: Black
 Colour Peculiarities: _____
 Magnetics: Very strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% pyrox/perid (brown olivine present?) : mod talc alt.

Other: _____

ORE MINERALOGY:

% Total Sulphides ~1% Texture Habit Rock Type

Pyrite dissem in talc/serp clasts

Pyrrhotite _____

Chalcopyrite _____

Molybdenite thin vein in talc clast.

Other _____

% Total Oxides 5%

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: NIK

HOLE NO: NPD 77-44

DATE: AUG 16/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 489.5N/497.5E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 93'

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 50
 Colour: Lt orange-brown.
 Colour Peculiarities: Lots of ankerite
 Magnetics: Mod - strong.
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic:
 Acid Intrusive:
 Ultramafic: 100% mod. ankeritized pyrox/psidolite

Other:

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
<u>0</u>			
Pyrite	<u> </u>		
Pyrrhotite	<u> </u>		
Chalcopyrite	<u> </u>		
Molybdenite	<u> </u>		
Other	<u> </u>		
<u>% Total Oxides</u>	<u>2-3%</u>		
Malachite	<u> </u>		
Magnetite	<input checked="" type="checkbox"/>	<u>fg. dissem.</u>	
Hematite	<u> </u>		
Chromite	<u>?</u>		

PERCUSSION DRILL LOG

2 of 7

PROPERTY: _____

HOLE NO: NPA 77-44

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 50-60

Colour: lt orange-brown

Colour Peculiarities: lots of ankerite

Magnetics: Mod → strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% mod. ankeritized peridotite (?)

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 3%

Malachite _____

Magnetite Fig. dissem.

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-44

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 50-60
 Colour: Lt orange-brown
 Colour Peculiarities: lots of ankerite
 Magnetics: Mod → strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____
 Acid Intrusive: _____
 Ultramafic: 100% mod. ankeritized peridotite(?)

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____
 Pyrrhotite _____
 Chalcopyrite _____
 Molybdenite _____
 Other _____

% Total Oxides 3+%

Malachite _____
 Magnetite fg. dissem
 Hematite _____

PERCUSSION DRILL LOG

4 of 7

PROPERTY: _____

HOLE NO: NPA 77-44

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58' To 68'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 60
 Colour: lt orange brown to black
 Colour Peculiarities: ankerite
 Magnetics: Strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____
 Acid Intrusive: _____
 Ultramafic: 100% wk-mod ankeritized peridotite(?)

Other: _____

ORE MINERALOGY:

% Total Sulphides 2-1% Texture Habit Rock Type

Pyrite 2 submassive clast

Pyrrhotite trace dissem.

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 3-5%

Malachite _____

Magnetite fg. dissem ; possible Chromite dissem.

Hematite _____

PERCUSSION DRILL LOG

5 of 7

PROPERTY: _____

HOLE NO: N/A 77-44

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 68 To 78'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 50-60
 Colour: Lt orange-brown to black
 Colour Peculiarities: * ankerite
 Magnetics: Strong
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% mod ankeritized peridotite(?)

Other: _____

ORE MINERALOGY:

% Total Sulphides 0 Texture Habit Rock Type

Pyrite _____

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 3%

Malachite _____

Magnetite F.g. dissemin-

Hematite _____

PERCUSSION DRILL LOG

6 of 7

PROPERTY: _____

HOLE NO: NPD 77-44

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 78 To 88'

ZONE: Oxide ? ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 65-70

Colour: DK grey

Colour Peculiarities: noticeably less ankerite

Magnetics: Strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% weak to mod ankeritized peridotite.

Other: _____

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite ? } trace dissem

Pyrrhotite ✓

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 3-5%

Malachite _____

Magnetite ✓ fg. dissem

Hematite _____

PERCUSSION DRILL LOG

7 of 7

PROPERTY: _____

HOLE NO: APD 77-44

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 93'

SAMPLE INTERVAL: From 88 To 93' END

ZONE: Oxide ? ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 60

Colour: Med grey

Colour Peculiarities: minor ankerite

Magnetics: Strong → very strong.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: _____

Acid Intrusive: _____

Ultramafic: 100% weakly ankeritized peridotite.

Other: _____

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite ✓ } trace dissem
Pyrrhotite ✓

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 5%

Malachite _____

Magnetite ✓ fig. dissem

Hematite _____

PERCUSSION DRILL LOG

1 of 110

PROPERTY: NIK

HOLE NO: NPD 77-46

DATE: Aug 17/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 491N/493E

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 118

SAMPLE INTERVAL: From 15 To 18'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

SAMPLE PROPERTIES:

Colour Index: 70
 Colour: Med to Dk green
 Colour Peculiarities: mixed
 Magnetics: Weak
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: fine to coarse gr Hb-rich volc-metavolc : feld phenos "evident;
~80% mod chlorit², minor epidot².
 Acid Intrusive: felsic (diorite?) clasts ~ 15-20%
 Ultramafic: _____

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
<u>~1%</u>			
Pyrite	<input checked="" type="checkbox"/> <u>fg dissem in volc and in felsic clasts (veins?)</u>		
Pyrrhotite	_____		
Chalcopyrite	_____		
Molybdenite	_____		
Other	_____		
<u>% Total Oxides</u>	<u>0</u>		
Malachite	_____		
Magnetite	_____		
Hematite	_____		

PERCUSSION DRILL LOG

2 of 11

PROPERTY: _____

HOLE NO: NPD 77-46

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 18 To 281

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 6.5

Colour: Med Green

Colour Peculiarities: _____

Magnetics: 0 → very weak.

Clast Shape: Ang.

LITHOLOGIES: Type & Alteration

Volcanic: ~ 90% volc-metavolc; fg Hb-rich; med chlorit², weak epidot²

Acid Intrusive: 10% felsic vein(?) material.

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides ~1% Texture Habit Rock Type

Pyrite fg dissem in volc.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

3 of 11

PROPERTY: _____

HOLE NO: NPD 77-46

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70

Colour: DK green to black

Colour Peculiarities: _____

Magnetics: 0

Clast Shape: Ang'

LITHOLOGIES: Type % Alteration

Volcanic: ~100% volc-metavolc, Alb+rich: mod chlorit², some epidote and feldspar veining.

Acid Intrusive: _____

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 3% Texture Habit Rock Type

Pyrite dissem and on fractures.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite trace dissem

Hematite _____

PERCUSSION DRILL LOG

4 of 11

PROPERTY: _____

HOLE NO: NFD 77-46

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 65
 Colour: Med green
 Colour Peculiarities: mixed
 Magnetics: Very weak.
 Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: ~ 80% volc - metavolc, Hb-rich; mod chlorit²/epidot²
 Acid Intrusive: Feldspar clasts (white to pink vein material) ~ 20%
 Ultramafic: _____ u

Other: _____

ORE MINERALOGY:

% Total Sulphides 2-3% Texture Habit Rock Type

Pyrite dissem mainly in volc.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite trace dissem

Hematite _____

PERCUSSION DRILL LOG

5 of 110

PROPERTY: _____

HOLE NO: APD 77-46

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58'

ZONE: Oxide ; Supergene _____ ; Hypogene

some Fe-staining

SAMPLE PROPERTIES:

Colour Index: 70

Colour: dk green to black

Colour Peculiarities: _____

Magnetics: Very weak.

Clast Shape: Ang - a lot of large (1/2") clasts

LITHOLOGIES: Type % Alteration

Volcanic: ~80% volc-metavolc: mod epidote veining and chlorit²

Acid Intrusive: 20% pink to white, sometimes Hb-bearing Feldspar clasts

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 3+% Texture Habit Rock Type

Pyrite dissem in volc., in epidote veins and in feld. veins

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 0

Malachite _____

Magnetite _____

Hematite _____

PROPERTY: _____

HOLE NO: NPD 77-46

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60

Colour: white to med green.

Colour Peculiarities: mixed

Magnetics: Med (stronger)

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: 60-70% volc-metavolc ; med chlorit²/epidote veining.

Acid Intrusive: 30-40% pink to white felsic vein material

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 3% Texture Habit Rock Type

NB → some is probably PO (magnetic)

Pyrite dissem in chlorit² volc, in epidote veins and in felsic vein clasts.

Pyrrhotite

Chalcopyrite trace dissem in epidote vein clast.

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite trace dissem in epidote clasts

Hematite _____

PERCUSSION DRILL LOG

7 of 11

PROPERTY: _____

HOLE NO: APD 77-46

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 6.8 To 78.1

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60-70

Colour: Dk green to black

Colour Peculiarities: some weathered clasts

Magnetics: Weak

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: ~ 100% volc-metavolc : weak to mod chlorit²/epidote veining,

Acid Intrusive: minor felsic veining,

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite	<input checked="" type="checkbox"/>	} dissem; some submassive Py clasts (Py >> Cp)
Pyrrhotite	_____	
Chalcopyrite	<input checked="" type="checkbox"/>	

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite vfg dissem mag with sulphides.

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-46

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 78 To 88'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 50-60
Colour: Med green to white
Colour Peculiarities: mixed
Magnetics: Very weak.
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: ~85% volc-metavolc. i some fg feld-rich clasts may be intrusive ;
Acid Intrusive: ~15% felsic vein(?) material; some looks like leucodiorite
Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2' Texture Habit Rock Type

Pyrite

Pyrrhotite _____

Chalcopyrite trace

Molybdenite _____

Other _____

} dissem in volc and felsic clasts
(Py >> Cp.)

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

9 of 11

PROPERTY: _____

HOLE NO: MPD 77-46

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 88 To 98'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60
 Colour: Med green to white
 Colour Peculiarities: mixed
 Magnetics: Very weak.
 Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: 60-70% volc-metavolc ; weak to med chlorit²/epidot²
 Acid Intrusive: ~30-40% is felsic (leucodiorite?) clasts. - vein material?
 Ultramafic: _____

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
<u>3%</u>	<u>dissem in volc and felsic clasts</u>		
Pyrite <input checked="" type="checkbox"/>			
Pyrrhotite _____			
Chalcopyrite _____			
Molybdenite _____			
Other _____			
<u>% Total Oxides</u> _____			
Malachite _____			
Magnetite _____			
Hematite _____			

PERCUSSION DRILL LOG

10 of 11

PROPERTY: _____

HOLE NO: NPA 77-46

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 98 To 108'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 50-60

Colour: Med green to white

Colour Peculiarities: mixed

Magnetics: weak to mod. (dissem mag)

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: ~70% volc-metavol²; mod chlorit², wk epidot²

Acid Intrusive: ~30% felsic/teucodiorite clasts; chlorit² mafics, minor epidot²

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite dissem, some submassive clasts

Pyrrhotite _____

Chalcopyrite trace dissem in pink calcite clast

Molybdenite trace dissem in chlorit²/feldspathized (?) clast.

Other _____

% Total Oxides 1%

Malachite _____

Magnetite dissem in epidot² clasts

Hematite _____

PERCUSSION DRILL LOG

11 of 11

PROPERTY: _____

HOLE NO: NPD 77-46

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total 118

SAMPLE INTERVAL: From 108 To 118' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES: NCFA ?

Colour Index: 50-60
 Colour: Med green to white
 Colour Peculiarities: mixed
 Magnetics: Mod (stronger?)
 Clast Shape: — very fine-grained

LITHOLOGIES: Type % Alteration

Volcanic: 70% (?) volc-metavolc, wk-med epidot²/chlorit².
 Acid Intrusive: 30% (?) felsic dchts.
 Ultramafic: _____

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>3-5%</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
Pyrite	<input checked="" type="checkbox"/>	<u>dissem?</u>		
Pyrrhotite	_____			
Chalcopyrite	_____			
Molybdenite	_____			
Other	_____			
<u>% Total Oxides</u>	<u>1%</u>			
Malachite	_____			
Magnetite	<input checked="" type="checkbox"/>	<u>vfg dissem</u>		
Hematite	_____			

PERCUSSION DRILL LOG

1 of 8

PROPERTY: NIR

HOLE NO: NPA 77-47

DATE: Aug 17/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 491N/492.5E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 93'

SAMPLE INTERVAL: From 13 To 23'

ZONE: Oxide ; Supergene ; Hypogene

Fe-stain on fractures

SAMPLE PROPERTIES:

Colour Index: 80

Colour: Dk green to black

Colour Peculiarities:

Magnetics: Weak

Clast Shape: Ang - lots of 1/2" clasts

LITHOLOGIES: Type & Alteration

Volcanic: ~ 85% Fg-Hb-bearing volc-metavolc; feldspar evident; very weak propylitic alt.

Acid Intrusive: Quartz ± k-spar(?) veining evident (pegmatite?)

Ultramafic: ~ 15%

Other:

ORE MINERALOGY:

% Total Sulphides 2-3% Texture Habit Rock Type

Pyrite Fg dissem in volc; eg, selvages in

Pyrrhotite qtz-k-spar veins

Chalcopyrite

Molybdenite

Other

% Total Oxides ~ 1%

Malachite

Magnetite with sulphides in qtz-k-spar veins.

Hematite

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-47

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 23 To 33'

ZONE: Oxide ; Supergene _____ ; Hypogene _____

Fe stain on fractures

SAMPLE PROPERTIES:

Colour Index: 80

Colour: Med black

Colour Peculiarities: _____

Magnetics: Weak.

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: 90% volc-metavolc & some silicification; weak chlorit

Acid Intrusive: pink qtz vein material w 5-10%

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 4% Texture Habit Rock Type

Pyrite predom dissem in volc

Pyrrhotite _____

Chalcopyrite ~~Trace~~

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite dissem with Py in qtz vein

Hematite _____

PROPERTY: _____

HOLE NO: NRD 77-47

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 33 To 43'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 80

Colour: Black

Colour Peculiarities: _____

Magnetics: Weak

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: 95% volc-metavolc: minor silicification.

Acid Intrusive: 5% pink qtz veining.

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 4% Texture Habit Rock Type

Pyrite

Pyrrhotite _____

Chalcopyrite ? trace

Molybdenite _____

Other _____

} disson in volc.

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: APD 77-47

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 43 To 53'

ZONE: Oxide ? ; Supergene _____ ; Hypogene

Fe stain on fractures

SAMPLE PROPERTIES:

Colour Index: 60

Colour: Black

Colour Peculiarities: _____

Magnetics: Very weak.

Clast Shape: Ang, lots of 1/2 clasts.

LITHOLOGIES: Type % Alteration

Volcanic: 0% volc-metavolc : wk silicif⁺, some chlorite/epidote.

Acid Intrusive: 5% qtz vein material

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides _____ Texture Habit Rock Type

Pyrite dissem mainly and on fractures in volc.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite ? trace dissem in qtz vein with Pg.

Other _____

% Total Oxides 0.1%

Malachite _____

Magnetite dissem in qtz veins

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: MA 77-47

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 53 To 63'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 75

Colour: Med to Dk grey.

Colour Peculiarities: not as black

Magnetics: 0 → Strong

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: 100% volc. meta. ; ~~per...~~ pervasive and vein-type silicif + wk-med.

Acid Intrusive: _____

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2-3% Texture Habit Rock Type

Pyrite dissem and on fractures.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

6 of 8

PROPERTY: _____

HOLE NO: ADA 77-47

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 63 To 73'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70-80

Colour: Black

Colour Peculiarities: _____

Magnetics: 0 - mod.

Clast Shape: Ang - lots of 1/2" clasts.

LITHOLOGIES: Type & Alteration

Volcanic: 100% volc-metavolc. ? (some fg rock looks intrusive-gabbro?)

Acid Intrusive: _____ - qtz-epidote vein(?) material prominent

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 3-4% Texture Habit Rock Type

Pyrite dissem in volc and in qtz-epid veins.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides ~1%

Malachite _____

Magnetite dissem in certain clasts.

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-47

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 73 To 83'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 80
Colour: Dk grey
Colour Peculiarities: _____
Magnetics: 0 → mod.
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: 100% volc-metavolc } mod qtz-epidote veining.
Acid Intrusive: _____
Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 3% Texture Habit Rock Type

Pyrite ✓ dissem and on fractures

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: 77-47

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 93'

SAMPLE INTERVAL: From 83 To 93' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 75-80
Colour: Dk grey
Colour Peculiarities: _____
Magnetics: Gen very weak
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: 100% meta-volc ; mod qtz-epid veining, some silicification.
Acid Intrusive: _____
Ultramafic: _____

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
<u>4%</u>	<u>dissem, on fractures</u>	<u>in qtz-epidote clasts</u>	
Pyrite	<input checked="" type="checkbox"/>		
Pyrrhotite	_____		
Chalcopyrite	_____		
Molybdenite	_____		
Other	_____		
<u>% Total Oxides</u> <u>< 1%</u>			
Malachite	_____		
Magnetite	<input checked="" type="checkbox"/>	<u>dissem in epidote</u>	
Hematite	_____		

PERCUSSION DRILL LOG

1 of 15

PROPERTY: NK

HOLE NO: NPD 77-53

DATE: AUG 18/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 491.5N/492.4E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 168'

SAMPLE INTERVAL: From 18 To 28'

ZONE: Oxide ; Supergene ; Hypogene

↓ minor Fe-stain on fractures

SAMPLE PROPERTIES:

Colour Index: 70

Colour: dk grey.

Colour Peculiarities: some epidote

Magnetics: Weak (local)

Clast Shape: Ang

LITHOLOGIES: Type & Alteration

Volcanic: 100% ; mod qtz - epidote veining; pervasive epidot².

Acid Intrusive:

Ultramafic:

Other:

ORE MINERALOGY:

% Total Sulphides 2-3% Texture Habit Rock Type

Pyrite dissem and in qtz-epid.

Pyrrhotite

Chalcopyrite

Molybdenite

Other

% Total Oxides

Malachite

Magnetite dissem in epidote veins with Py.

Hematite

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-53

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 75

Colour: Dk grey-green

Colour Peculiarities: _____

Magnetics: weak to mod (local)

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: 100% : weak-mod qtz-epidote veining, minor K-spar

Acid Intrusive: _____

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2-3% Texture Habit Rock Type

Pyrite dissem and in veins.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 1%

Malachite _____

Magnetite dissem in epidote veins with Py.

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____ HOLE NO: NPA 77-53
 DATE: _____ ORIENTATION: _____
 LOGGER: _____ LOCATION: _____
 OVERBURDEN _____ ; BEDROCK ELEVATION: _____
 DEPTH: overburden _____, total _____
 SAMPLE INTERVAL: From 38 To 48'
 ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 75
 Colour: Dk grey-green
 Colour Peculiarities: _____
 Magnetics: Weak (local)
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: 100% weak pervasive qtz-epidote, minor k-spar.
 Acid Intrusive: _____
 Ultramafic: _____

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
<u>2-3%</u>	<u>dissem and on fractures and veins.</u>		
Pyrite	<input checked="" type="checkbox"/>		
Pyrrhotite	_____		
Chalcopyrite	_____		
Molybdenite	_____		
Other	_____		

<u>% Total Oxides</u>	
<u>1%</u>	
Malachite	_____
Magnetite	<input checked="" type="checkbox"/> <u>dissem in Py-epid veins.</u>
Hematite	_____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPD 77-53

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 50-60
Colour: Med green to pink
Colour Peculiarities: lighter.
Magnetics:
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Contact Volcanic: 40% weak epidot², silicif²(?)
Acid Intrusive: ~60% pink, siliceous stg. dykes (contact phase) -
no mafics.
Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 4% Texture Habit Rock Type

Pyrite dissem in dyke(?) and in volc.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite trace dissem in Py-gte veins.

Hematite _____

PERCUSSION DRILL LOG

5 of 15

PROPERTY: _____

HOLE NO: APD 77-53

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60

Colour: Dk grey-green to pink

Colour Peculiarities: mixed, less pink

Magnetics: 0 → weak

Clast Shape: Ang

LITHOLOGIES: Type & Alteration

C Volcanic: 75% ; wk qtz ± epidote veining.

Acid Intrusive: ~25% pink "monzonite" clasts ; weak-mod perv epidot²/chlorit'

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 3% Texture Habit Rock Type

Pyrite dissem in monzonite and volc.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides 1%

Malachite _____

Magnetite dissem with Pg.

Hematite _____

PERCUSSION DRILL LOG

6 of 15

PROPERTY: _____

HOLE NO: NPA 77-53

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 68' To 78'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 85

Colour: ~~dk~~ DK grey - black

Colour Peculiarities: no pink.

*Magnetics: Med - wk. (not UM) - local

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: 95% ; stronger magnetically ; med epid ± qtz veining.

Acid Intrusive: < 5% "monzonite"

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2-3% Texture Habit Rock Type

Pyrite dissem, on fractures.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite ?

Hematite _____

PERCUSSION DRILL LOG

7 of 15

PROPERTY: _____

HOLE NO: NPD 77-53

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 78 To 88'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 80

Colour: DK grey

Colour Peculiarities: epidote

Magnetics: weak to mod (local)

Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: 95% ; weak to mod qtz - epidote veining.

Acid Intrusive: < 5% "monzonite"

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2-3% Texture Habit Rock Type

Pyrite dissem and in veins

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite ?

Hematite _____

PERCUSSION DRILL LOG

8 of 15

PROPERTY: _____

HOLE NO: APD 77-53

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 88 To 98'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 75

Colour: DK grey

Colour Peculiarities: — minor white

Magnetics: Weak - mod.

Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: 90-95% ; wk-mod qtz-epidote veining.

Acid Intrusive: 5-10% siliceous "monzonite"

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2-3% Texture Habit Rock Type

Pyrite dissem, veins, fractures.

Pyrrhotite _____

Chalcopyrite ?

Molybdenite _____

Other _____

% Total Oxides < 1%

Malachite _____

Magnetite ? dissem in qtz-epid with Py

Hematite _____

PERCUSSION DRILL LOG

9 of 15

PROPERTY: _____

HOLE NO: XPD 77-53

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 98 To 108'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 85

Colour: Black

Colour Peculiarities: _____

Magnetics: Mod - wk.

Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: 95% ; wk qtz-epidote veining.

Acid Intrusive: < 5% monzonite

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 3% Texture Habit Rock Type

Pyrite dissem, veins, fractures

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

10 of 15

PROPERTY: _____

HOLE NO: NPD 77-53

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 108 To 118'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 75

Colour: DK grey

Colour Peculiarities: _____

Magnetics: Weak - mod.

Clast Shape: Ang

LITHOLOGIES: Type & Alteration

Volcanic: 95%; weak epidot²; wk-mod perv chlorit²

Acid Intrusive: 5% monzonite?

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 3% Texture Habit Rock Type

Pyrite dissem, Fractures

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite ?

Hematite _____

PERCUSSION DRILL LOG

11 of 15

PROPERTY: _____

HOLE NO: APD 77-53

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 118 To 128'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 75

Colour: Dk grey

Colour Peculiarities: _____

Magnetics: Wk-mod.

Clast Shape: Fg.

LITHOLOGIES: Type % Alteration

Volcanic: 100%; wk-mod qtz-epidote veining.

Acid Intrusive: _____

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 3% Texture Habit Rock Type

Pyrite dissem, veins.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides <1%

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

12 of 15

PROPERTY: _____

HOLE NO: NPA 77-53

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 128 To 138'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 35
 Colour: lt green
 Colour Peculiarities: epidote
 Magnetics: 0
 Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: 85% strong pervasive epidote², some k-spar veining
 Acid Intrusive: ~ 10-15% SiOite → monzonite clasts; Hb weakly chlorit²
 Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 3-4% Texture Habit Rock Type

Pyrite ✓ dissem in both rock types.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite ? trace dissem in k-feld² intrusive clast

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

13 of 15

PROPERTY: _____

HOLE NO: 119277-53

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 138 To 148'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 40

Colour: lt green

Colour Peculiarities: epidote

Magnetics: 0

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: 95% ; ~60% is strongly epidotized.

Acid Intrusive: 5% monzonite (?)

Ultramafic: _____

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>3%</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
--------------------------	-----------	----------------	--------------	------------------

Pyrite dissem.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

14 of 15

PROPERTY: _____

HOLE NO: APA 77-53

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 148 To 158'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 50-60

Colour: Med Green

Colour Peculiarities: less epidote

Magnetics: Weak (local)

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: ~~100%~~ 95% strongly epidotized, some silicification.

Acid Intrusive: < 5% monzonite.

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 3% Texture Habit Rock Type

Pyrite dissem

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

15 of 15

PROPERTY: _____

HOLE NO: NPD 77-53

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total 168'

SAMPLE INTERVAL: From 158 To 168' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 65
Colour: Med to DK green
Colour Peculiarities: less epidote.
Magnetics: weak - mod
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: ~100%; mod epidotized (weaker than last 2 sections), some qtz+epidote veins
Acid Intrusive: Minor monzonite
Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 3% Texture Habit Rock Type

Pyrite dissem

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides ~1%

Malachite _____

Magnetite fg dissem

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: NIK

HOLE NO: NPD77-54

DATE: Aug 19/77

ORIENTATION: Vertical

LOGGER: RW

LOCATION: 492.5N/492.6E

OVERBURDEN ; BEDROCK ELEVATION:

DEPTH: overburden , total 168'

SAMPLE INTERVAL: From 28 To 38'

ZONE: Oxide ; Supergene ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 80
Colour: Dk grey to black
Colour Peculiarities:
Magnetics: Mod (local)
Clast Shape: Ang to subang.

LITHOLOGIES: Type & Alteration

Volcanic: 85% ; wk epidote ± qtz veining.

Acid Intrusive: 45% monzonite clasts - subang (slump of B?);
mod chlorit² of Hb

Ultramafic:

Other:

ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite dissem , limonitized.

Pyrrhotite

Chalcopyrite

Molybdenite

Other

% Total Oxides <1%

Malachite

Magnetite dissem in qtz Py-epidote

Hematite

PERCUSSION DRILL LOG

2 of 14

PROPERTY: _____

HOLE NO: NPD 77-54

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 38 To 48'

ZONE: Oxide ? ; Supergene _____ ; Hypogene
Rounded limonite² clasts

SAMPLE PROPERTIES:

Colour Index: 65
 Colour: dk grey
 Colour Peculiarities: some weathered clasts
 Magnetics: Weak (local)
 Clast Shape: Ang

LITHOLOGIES: Type & Alteration

Volcanic: 85% ; weak epidot²/chlorit²
 Acid Intrusive: ~ 15% monzonite ; mod chlorit²
 Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2-3% Texture Habit Rock Type

Pyrite dissem in both rock types

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite dissem in Py-epid

Hematite _____

PERCUSSION DRILL LOG

3 of 14

PROPERTY: _____

HOLE NO: NPD 77-54

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 48 To 58'

ZONE: Oxide ; Supergene _____ ; Hypogene

Some Fe-stain on fractures

SAMPLE PROPERTIES:

Colour Index: 60

Colour: Dk grey to pink

Colour Peculiarities: mixed

Magnetics: Very weak

Clast Shape: Ang to subang.

LITHOLOGIES: Type & Alteration

Volcanic: 60% : weak epidote veining ; some monzonite veining.

Acid Intrusive: ~40% monzonite, mod chlorit², wk epidot²

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite dissem in both rocks, also in epidote veins

Pyrrhotite _____ Py is often limonitized.

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite ?

Hematite _____

Contact ?

PERCUSSION DRILL LOG

27 of 114

PROPERTY: _____

HOLE NO: NPD 77-54

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK

ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 58 To 68'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 30-40

Colour: Pink to DK green

Colour Peculiarities: lighter, mixed.

Magnetics: Weak

Clast Shape: Ang, gen fg

LITHOLOGIES: Type % Alteration

Volcanic: ~20% : some epidote veining evident

Acid Intrusive: Monzonite ~ 80% ; wk chlorit²/epidot²

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 1-2% Texture Habit Rock Type

Pyrite fg dissem in monzonite and vcl.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides < 1%

Malachite _____

Magnetite dissem in monzonite

Hematite _____

PROPERTY: _____

HOLE NO: NPA 77-54

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 68 To 78'

ZONE: Oxide ; Supergene _____ ; Hypogene
Fe-stain

SAMPLE PROPERTIES:

Colour Index: 65-70

Colour: DK grey-green to pink

*Colour Peculiarities: weathered clasts evident

Magnetics: 0

Clast Shape: Ang to subrounded.

LITHOLOGIES: Type % Alteration

Volcanic: ~ 50% ; weak epidote veining.

Acid Intrusive: Monzonite ~ 50% ; wk chlorit²/epidot²

Ultramafic: _____

Other: One slickensided, limonitized clast -

ORE MINERALOGY:

% Total Sulphides 3% Texture Habit Rock Type

Pyrite dissem in monzonite and volc.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

6 of 14

PROPERTY: _____

HOLE NO: APD 77-54

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 78 To 88'

ZONE: Oxide ; Supergene _____ ; Hypogene
Fe-stained clasts (slump)

SAMPLE PROPERTIES:

Colour Index: 65
Colour: DK grey to pink
Colour Peculiarities: mixed
Magnetics: Very weak
Clast Shape: f.g.

LITHOLOGIES: Type % Alteration

Volcanic: ~50% : wk epidote veining.
Acid Intrusive: ~50% monzonite : wk chlorit²/epidot²
Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2-3% Texture Habit Rock Type

Pyrite dissem in both rocks.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

PROPERTY: _____

HOLE NO: NPA 77-54

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 88 To 98'

ZONE: Oxide ; Supergene _____ ; Hypogene
limonitized clasts evident

SAMPLE PROPERTIES: NCFA?

Colour Index: 60-70

Colour: DK grey

Colour Peculiarities: _____

Magnetics: Very weak.

Clast Shape: Eq.

LITHOLOGIES: Type % Alteration

Volcanic: ~ 80% ; wk epidot²

Acid Intrusive: ~ 20% monzonite ; wk chlorit²

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite dissem in both rocks

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

8 of 14

PROPERTY: _____

HOLE NO: NPD 77-51

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 98 To 108'

ZONE: Oxide ; Supergene _____ ; Hypogene
Fe oxides

SAMPLE PROPERTIES:

Colour Index: 75
Colour: DK grey-green, minor pink
Colour Peculiarities: a few large weathered clasts.
Magnetics: Very weak
Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: 80% wk chlorit²/epidot²; some monzonite veining, qtz veining
Acid Intrusive: a 20% monzonite
Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite dissem in both rocks.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

9 of 14

PROPERTY: _____

HOLE NO: NPD 77-54

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 108 To 118'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 75
 Colour: Dk grey, minor pink
 Colour Peculiarities: _____
 Magnetics: 0 → mod.
 Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: 95% : weak epidot²
 Acid Intrusive: 5% monzonite.
 Ultramafic: _____

Other: _____

ORE MINERALOGY:

<u>% Total Sulphides</u>	<u>Texture</u>	<u>Habit</u>	<u>Rock Type</u>
--------------------------	----------------	--------------	------------------

Pyrite dissem and fractures.

Pyrrhotite _____

Chalcopyrite trace on fract.

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

10 of 14

PROPERTY: _____

HOLE NO: NPD 77-54

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 118 To 128'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

Some rounded limestone clasts

SAMPLE PROPERTIES:

Colour Index: 60-65

Colour: Med grey-green.

Colour Peculiarities: _____

Magnetics: Very weak

Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: 95% ; wk-med epidot²

Acid Intrusive: 5% monzonite.

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite dissem and fractures.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

11 of 14

PROPERTY: _____

HOLE NO: NPD 77-54

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 128 To 138'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index:

Colour:

Colour Peculiarities:

Magnetics: *Very weak.*

Clast Shape:

LITHOLOGIES: Type % Alteration

Volcanic: *90%* : *wk epidot^e and silicification*

Acid Intrusive: *5-10%* monzonite : *oxidized by (slump)*

Ultramafic: _____

Other:

ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite *dissem.*

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite _____

Hematite _____

PERCUSSION DRILL LOG

12 of 14

PROPERTY: _____

HOLE NO: NPD 77-54

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 138 To 148'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 65

Colour: Med grey-green

Colour Peculiarities: _____

Magnetics: Very weak

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: 95%: weak epidot², mod silicification.

Acid Intrusive: <5% monzonite

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 1-2% Texture Habit Rock Type

Pyrite dissem

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

Other _____

% Total Oxides =1%

Malachite _____

Magnetite dissem

Hematite _____

PROPERTY: _____

HOLE NO: NPD 77-154

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total _____

SAMPLE INTERVAL: From 148 To 158'

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 60

Colour: Med grey-green to white.

Colour Peculiarities: mixed

Magnetics: weak to mod (stronger)

Clast Shape: Ang

LITHOLOGIES: Type % Alteration

Volcanic: 95% ; weak - mod silicification ; qtz and calcite (?)
vein material evident

Acid Intrusive: < 5% monzonite

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 2% Texture Habit Rock Type

Pyrite dissem and fract-fill

Pyrrhotite _____

Chalcopyrite in calcite (?) vein,

Molybdenite _____

Other _____

% Total Oxides _____

Malachite _____

Magnetite

Hematite _____

PERCUSSION DRILL LOG

14 of 14

PROPERTY: _____

HOLE NO: AD 77-54

DATE: _____

ORIENTATION: _____

LOGGER: _____

LOCATION: _____

OVERBURDEN _____ ; BEDROCK ELEVATION: _____

DEPTH: overburden _____, total 168'

SAMPLE INTERVAL: From 158 To 168' END

ZONE: Oxide _____ ; Supergene _____ ; Hypogene

SAMPLE PROPERTIES:

Colour Index: 70

Colour: Med Gray-green

Colour Peculiarities: mixed

* Magnetics: Mod

Clast Shape: Ang.

LITHOLOGIES: Type % Alteration

Volcanic: 95% weak silicification, minor epidote

Acid Intrusive: < 5% monzonite

Ultramafic: _____

Other: _____

ORE MINERALOGY:

% Total Sulphides 3% Texture Habit Rock Type

Pyrite less dissem, more in qtz veins ± epidote.

Pyrrhotite _____

Chalcopyrite _____

Molybdenite _____

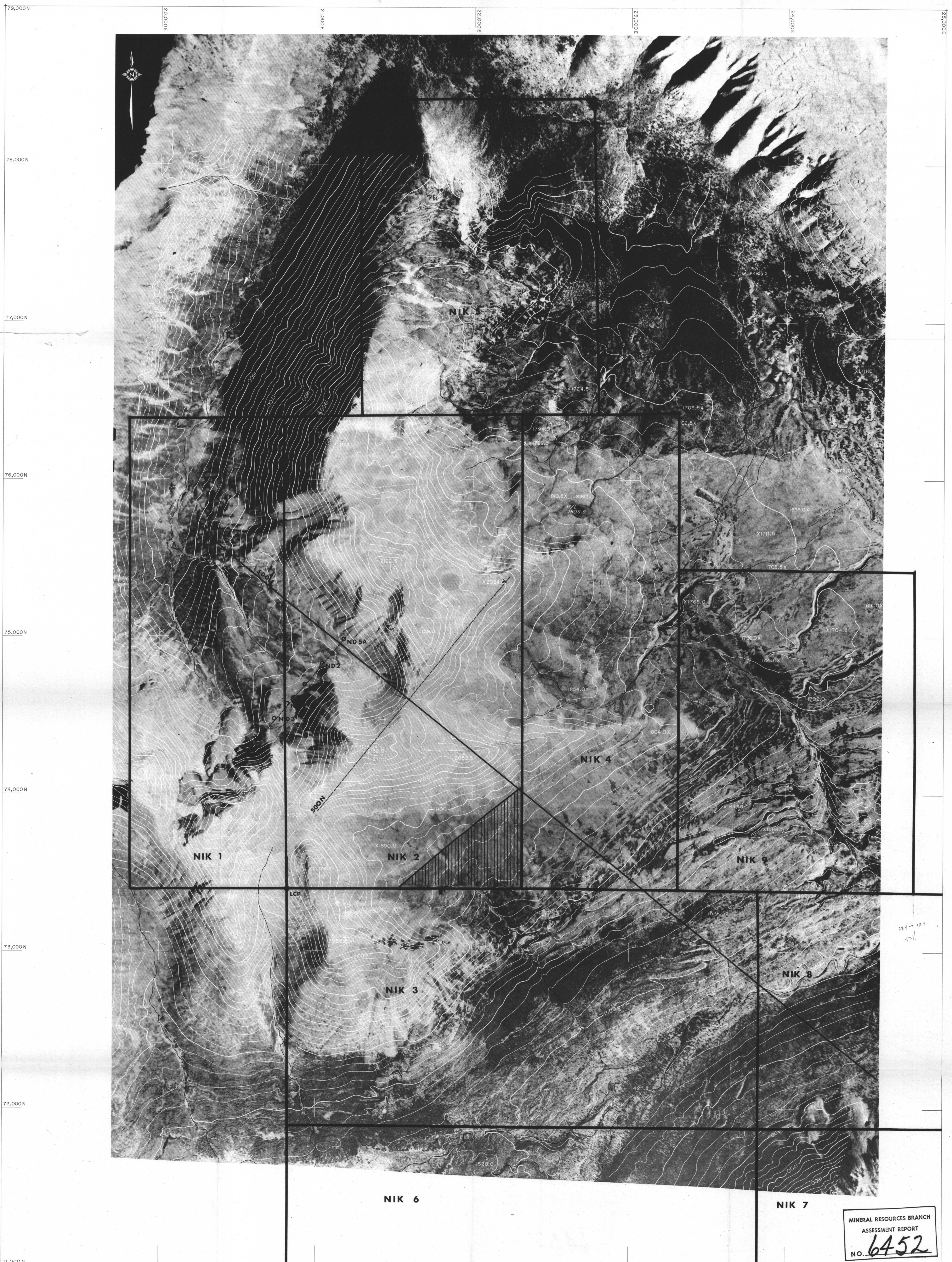
Other _____

% Total Oxides _____

Malachite _____

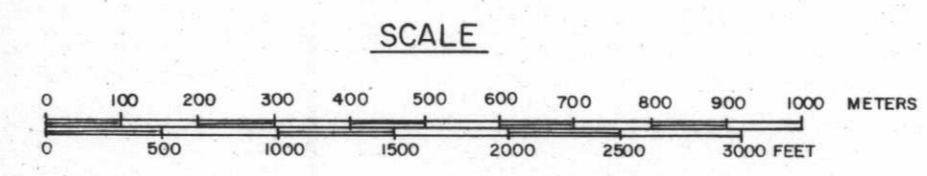
Magnetite dissem in gm and in py veins.

Hematite _____



MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
 NO. 6452

○ DIAMOND DRILL LOCATIONS (1976)
 ▨ PERCUSSION DRILL AREA (1977)



BP MINERALS LIMITED	
INGENIKA RANGE PROPERTY	
PRELIMINARY RECONNAISSANCE TYPE MAPPING	
FIG. 2	
Scale	1 : 10000
Contour Interval	20 metres
Date	MAY 1976
Job No.	06260-0
Sheet No.	1-1

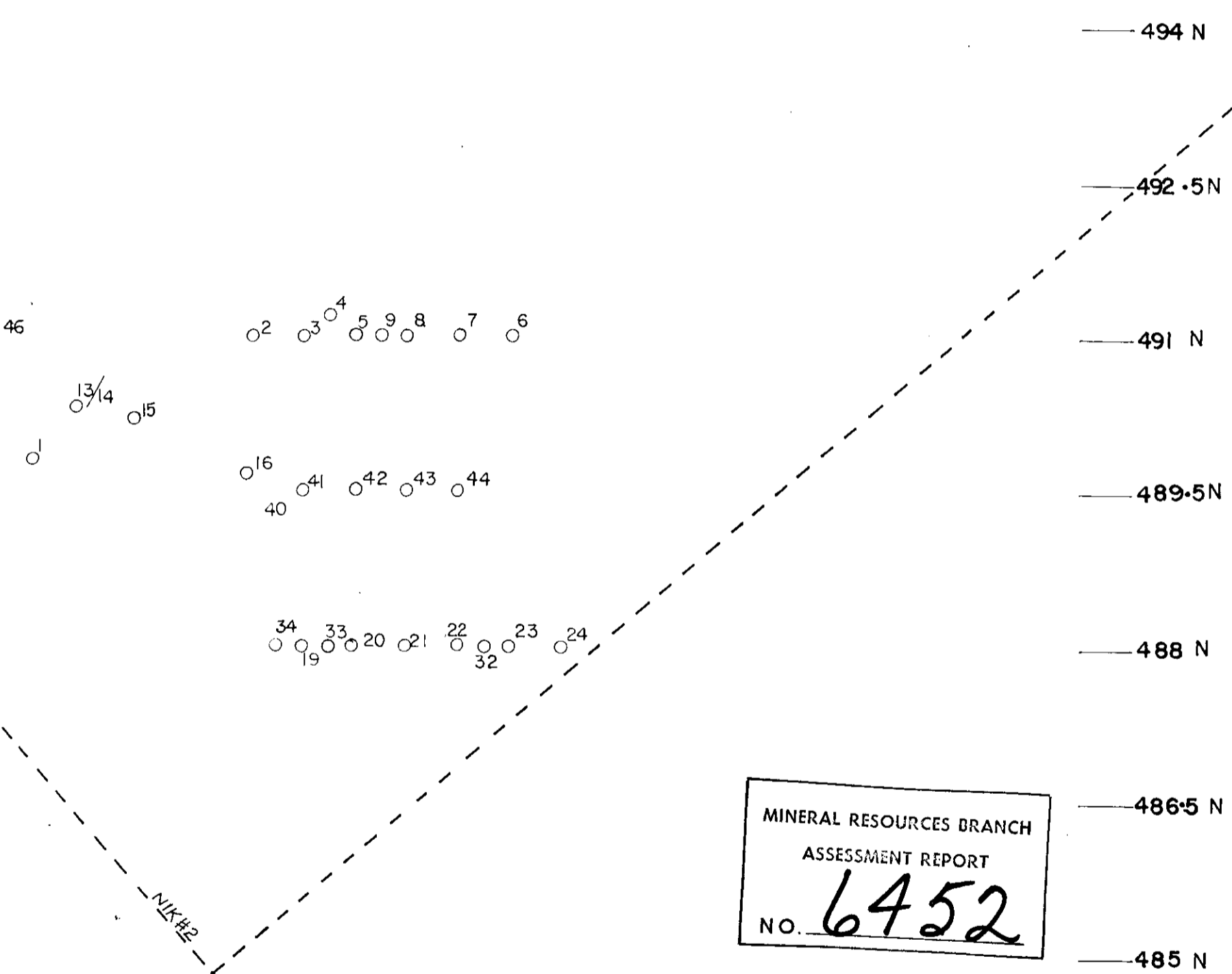
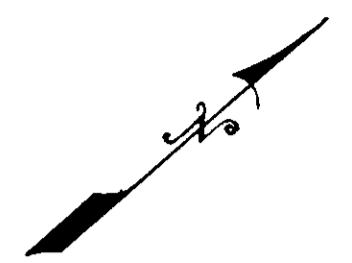
McElhanney
 Surveying &
 Engineering Ltd.
 1200 West Pender Street, Vancouver B.C. Canada

344 → 123
 576

490 E

495 E

500 E



MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
 NO. **6452**

BP Minerals Limited <i>[Signature]</i>			
INGENIKA RANGE PROPERTY			
NIK CLAIMS			
Southern Cirque			
PERCUSSION DRILL HOLE LOCATION			
SCALE 1:5000	DATE	NTS	FIG.
To accompany report:		PROJ.	