Syngold
EXPLORATION INC.
130 Adelaide Street West
Suite 3202
Toronto, Ontario M5H 3P5
(416) 362-4699

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SUMMARY REPORT - DIAMOND DRILLING
JUNE 03, 1987 TO DECEMBER 31, 1987
OWL CREEK WEST PROPERTY, HOYLE TWP., ONTARIO

OMEP DESIGNATION NO. OM87-5-L-111

REGISTERED PROFESSIONAL ENGINEER
B. D. SIMMONS
PROVINCE OF ONTARIO

B.D. Simmons, P.Eng
March 23, 1988

OM87-5-L-111

INTRODUCTION

Syngold Exploration Inc. funded a program of surface diamond drilling totalling 3,578 metres in 10 drill holes on the Owl Creek West property located in Hoyle Township, Timmins area, Ontario. The program, conducted over the period June 3, 1987 to December 31, 1987 was managed by Kidd Creek Mines Ltd. pursuant to an exploration agreement with Syngold dated February 24, 1986.

LOCATION & ACCESS

The designated area consists of the following parcels located in the southwest corner of Hoyle Township, Ontario.

Parcel 797 (2 leased claims) W1/2, N1/2, Lot 7, Con. I

Parcel 2001 (patented half-lot) N1/2, Lot 8, Con. I

The property is accessible by a private road from Kidd Creek's metallurgical plant on Highway 11 to the west side of the Owl Creek open pit, immediately adjacent to the designated area. Drill roads provide access from this point to the west.

All work documented in this report was conducted on the two leased claims.

HISTORY

There is no record of exploration activity on the property prior to 1966. During the period 1966 to 1973, Canico Ltd., the wholly-owned exploration arm of Inco Limited, conducted geophysical surveys and drilled five holes totalling 1,058 metres to test resulting anomalies. No significant mineralization was intersected.

The property was optioned by Kidd Creek Mines Ltd. in 1978. During 1984, Kidd drilled sixteen widely-spaced holes totalling 5,578 metres. Nine of these holes intersected gold values. Syngold entered an exploration agreement with Kidd on February 24, 1986 and, during 1986 and early 1987, funded a program of 14,261 metres of drilling. Results from this program, reported under previous OMEP designation OM86-5-P-121, confirmed the presence of an extensive zone of gold mineralization. Further drilling was recommended.

The program discussed in this report was initiated on June 3, 1987. An application for designation was filed with the OMEP office on June 1, 1987. The program was approved for designation on July 14, 1987 under Certificate of Designation No. OM87-5-L-111.

Pursuant to the agreement with Kidd, Syngold has now earned a 35% undivided interest in the Owl Creek West property. Subsequent expenditures will be shared with Kidd on a joint venture basis.

OBJECTIVES

The program was conducted to confirm the continuity of gold mineralization above a vertical depth of 300 metres. Individual drill holes were designed to investigate possible extensions of thicker mineralization intersected during 1986. Approximately 3,600 metres of drilling in 10 holes was planned.

PROGRAM

The program was completed as planned. A summary of the drill holes is attached as Table 1 and a summary of significant intersections as Table 2. Individual drill logs are appended to this report. Results are summarized in a section which follows.

Drilling was conducted during the period June 8, 1987 to September 4, 1987 under contract with Bradley Bros. Limited. Up to two drilling rigs were in operation. All work was supervised by personnel employed by Kidd Creek Mines Ltd. Assays were conducted by Bell-White Analytical Laboratories Ltd. Complete core from all drill holes is stored at the exploration offices of Kidd in Timmins, Ontario.

COSTS

Expenditures incurred by Syngold from June 3 to December 31, 1987 were $321,655.81. The "all-in" cost of diamond drilling was $89.90/metre of which contractor costs were $71.46/metre. All costs incurred are eligible as Canadian Exploration Expense and represent eligible expenditures in accordance with OMEP regulations. An auditors' report prepared by Clarkson Gordon is appended.

RESULTS

1) The zone of gold minerization occurs within a steeply-dipping band of mafic volcanic rocks. This band of volcanics is approximately 200 metres thick, strikes east-west and is bounded by sediments to both the north and south. The mineralized zone plunges vertically and appears to be subparallel to the volcanics. Significant mineralization begins at a vertical depth of about 150 metres.

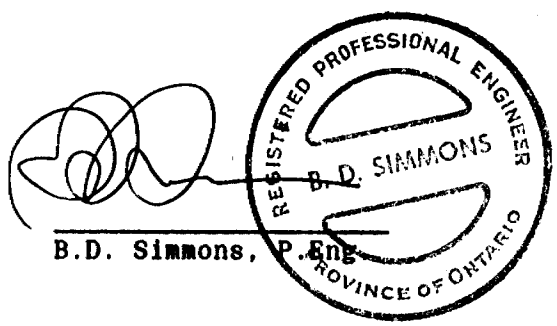
2) The mineralized zone is associated with intense hydrothermal alteration and quartz veining. Gold occurs mainly as fine to medium visible grains in association with pyrite, pyrrhotite and other sulphide minerals.

3) From 150 to 300 metres vertical depth, significant mineralization appears to be reasonably continuous over a strike length of 150 to 200 metres. Within this area, grade and thickness are variable for reasons as yet undetermined.

4) A limited number of intersections below 300 metre depth indicates that the mineralized zone continues to at least 600 metres vertical depth with characteristics similar to the material above 300 metres.

CONCLUSIONS

Additional drilling is definitely merited. An estimate of potential reserves will be calculated to determine whether it is appropriate at this time to consider a program of underground drilling and drifting.



B.D. Simmons, P.Eng.

TABLE 1

DIAMOND DRILL HOLE SUMMARY

HOLE NO.	COLLAR LOC'N	AZIM	DIP	DEPTH (m)	START	FINISH
H13-46	60W 420S	333°	-55°	461.0	08/06/87	17/06/87
H13-47	60W 340S	333°	-50°	302.0	18/06/87	23/06/87
H13-48	20W 425S	333°	-58°	412.0	25/06/87	08/07/87
H13-49	20W 395S	333°	-52°	351.0	10/07/87	17/07/87
H13-50	20E 420S	332°	-56°	397.0	23/07/87	07/08/87
H13-51	60E 440S	333°	-56°	404.0	11/08/87	25/08/87
H13-52	120E 440S	333°	-60°	450.0	12/08/87	25/08/87
H13-53	140E 330S	333°	-60°	290.0	25/08/87	31/08/87
H13-54	180E 370S	333°	-52°	271.0	26/08/87	01/09/87
H13-55	220E 330S	333°	-56°	240.0	01/09/87	04/09/87

TOTAL: 10 Holes, 3,578.0 metres

H13-54	215.4 - 216.5	1.1	3.15
	254.5 - 256.0	1.5	1.65
H13-55	24.5 - 30.5	6.0	5.69
	175.0 - 178.0	3.0	4.29
	189.0 - 195.0	6.0	2.28
	200.0 - 203.0	3.0	1.17

TABLE 2

SUMMARY OF SIGNIFICANT DRILL HOLE INTERSECTIONS

HOLE NO.	INTERVAL (m)	LENGTH (m)	AVG. ASSAY (g/tonne)
H13-46	348.0 - 362.1	14.1	2.54
incl.	348.0 - 353.0	5.0	4.55
	383.0 - 386.0	3.0	4.66
H13-47	233.0 - 240.5	7.5	4.19
H13-48	314.5 - 324.5	10.0	11.93
incl.	314.5 - 317.0	2.5	45.10
	344.0 - 347.0	3.0	3.03
	375.5 - 383.3	7.8	1.46
H13-49	268.5 - 271.5	3.0	4.00
H13-50	295.7 - 297.9	2.2	2.62
	317.3 - 334.1	16.8	2.25
incl.	320.1 - 323.1	3.0	6.34
	342.5 - 344.0	1.5	4.32
	359.0 - 360.5	1.5	5.14
	369.5 - 371.0	1.5	5.83
H13-51	323.0 - 324.5	1.5	7.23
	341.0 - 346.0	5.0	10.42
	392.0 - 393.5	1.5	2.67
H13-52	394.0 - 395.5	1.5	1.58
H13-53	80.0 - 81.5	1.5	4.66
	230.0 - 237.5	7.5	1.43

Der Weduwen, March, 1986

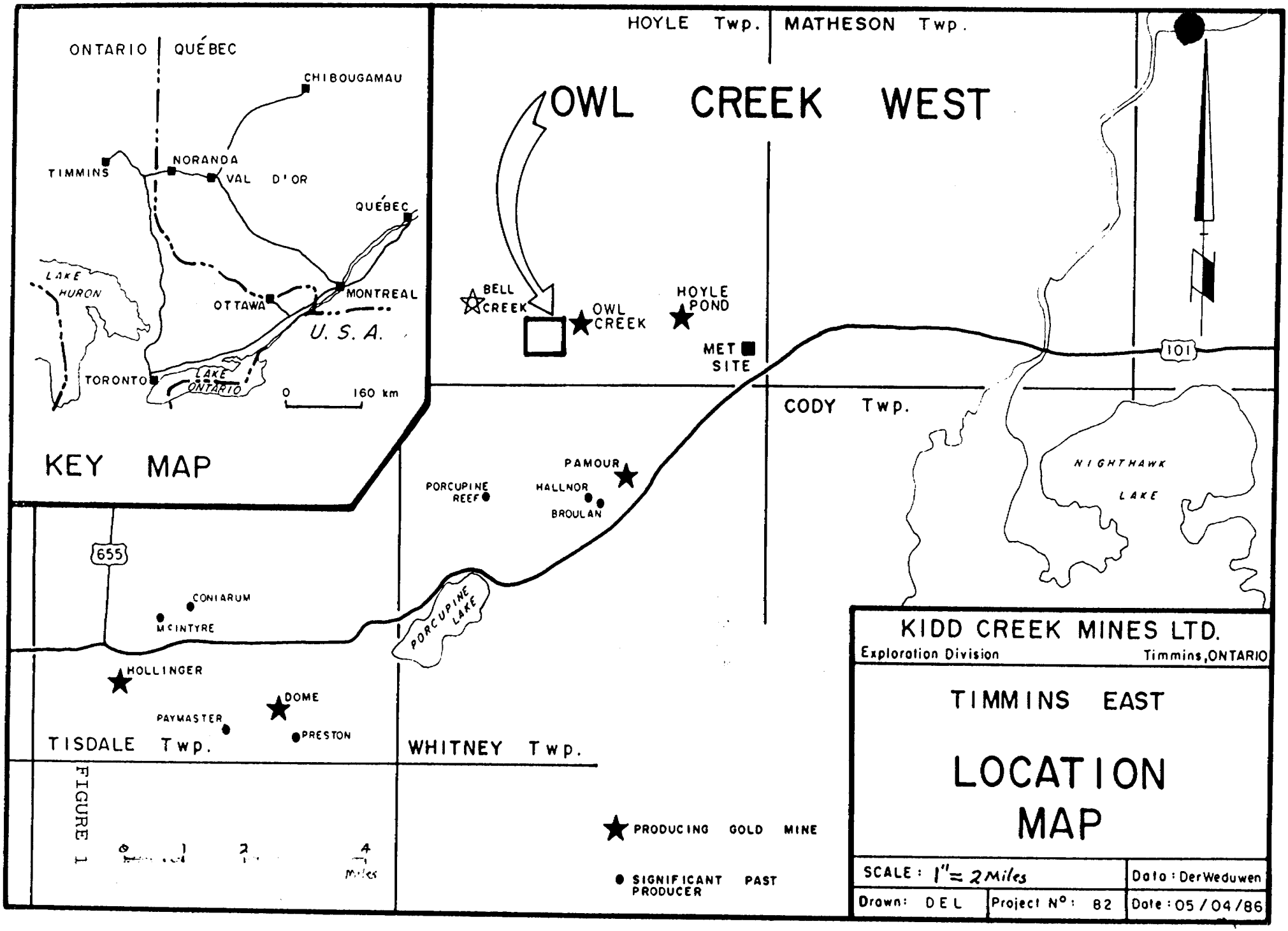


FIGURE 1

KIDD CREEK MINES LTD.
Exploration Division — Timmins, ONTARIO

TIMMINS EAST

LOCATION MAP

SCALE : 1" = 2 Miles		Data : DerWeduwen
Drawn: DEL	Project N°: 82	Date : 05/04/86

OWL CREEK

OPEN

PIT

PIT TOE

PIT CREST

PIT PERIMETER ROAD

12
04
03
H13 - 17
H13 - 18
09
H13 - 21
07, 08
02
05
06
11
AXIS
SECTION
LONGITUDINAL
Jack's Fault
River
Porcupine
H13 - 35
H13 - 55
B Fault
H13 - 53
39
H13 - 33
H13 - 36
H13 - 54
H13 - 32
H13 - 20
H13 - 22
H13 - 24
H13 - 47
15
H13 - 52
H13 - 44
16
H13-27
H13 - 28
H13 - 25
H13 - 26
H13 - 40
49
50, 50A
H13 - 51
34
H13 - 42
H13 - 41
14
48
H13-29
H13-30
H13 - 46
H13 - 37
H13-31
H13 - 19
H13 - 23, 38

0 50 100
metres

LEGEND

- QUARTZ
- GRAPHITIC ARGILLITE / SEDIMENTS
- THOLEIITIC BASALTS
- GREY ZONE
- SYNCLINAL FOLD AXIS

Lot 7

FALCONBRIDGE LTD.
Exploration Division — Timmins, ONTARIO

SYNGOLD J. V.
HOYLE Twp.

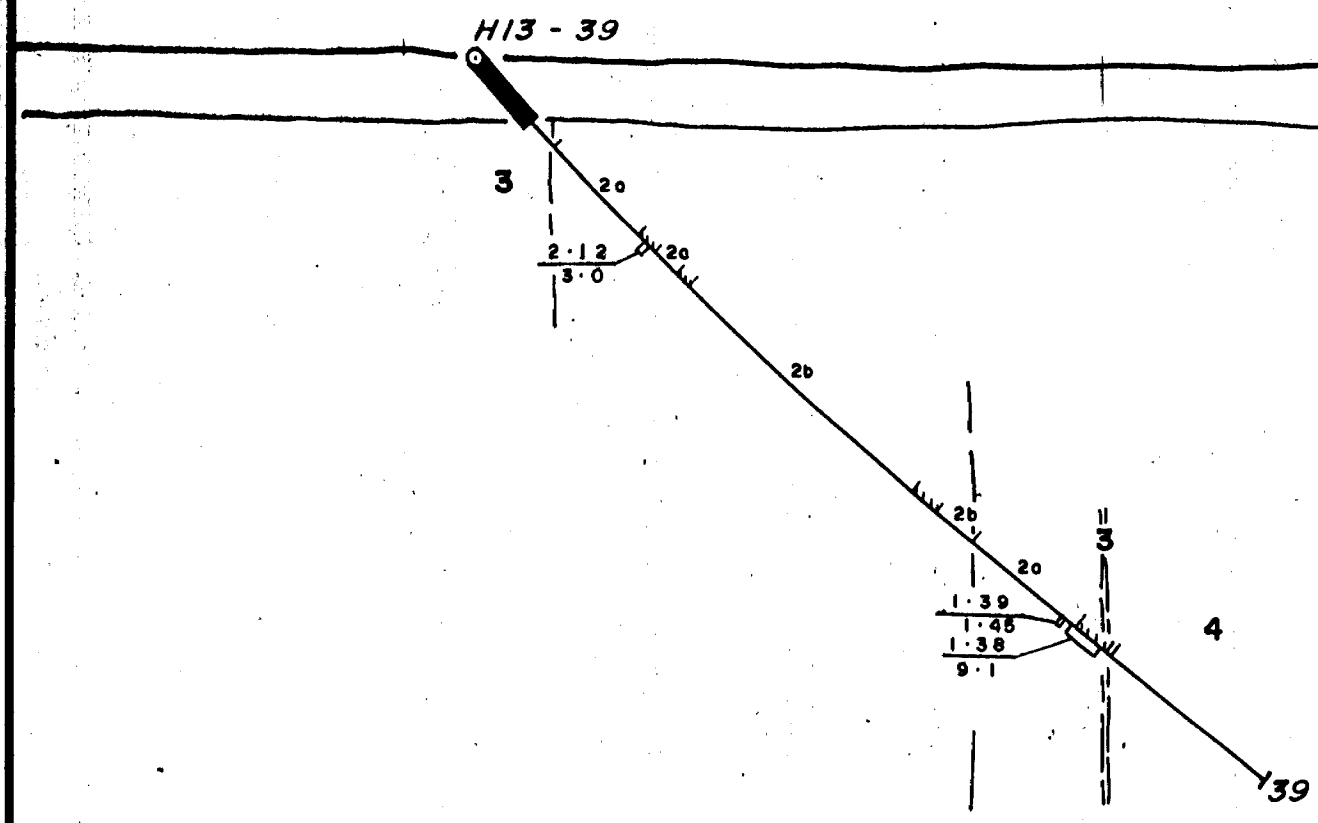
SURFACE GEOLOGY and DIAMOND DRILLING

SCALE 1 : 2,000		Data : DerWeduwen
Drawn : DEL	Project N° : 8155	Date : 15/09/87

TL 400 S

200 S

BL 0



LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
  - a massive
  - b pillowed
  - c flow breccia
- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

GOLD ASSAYS $\frac{\text{gram per tonne}}{\text{metres}}$

0 50 100

metres

FALCONBRIDGE LTD.

Exploration Division Timmins, ONTARIO

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HOYLE Twp.

SECTION

260 E

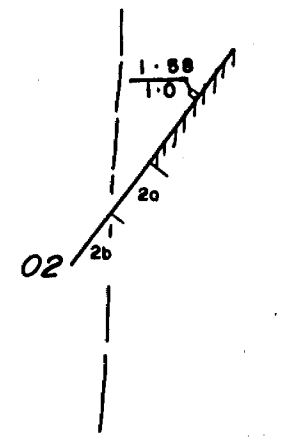
LOOKING WEST

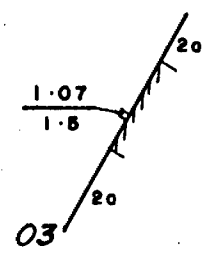
SCALE 1 : 2,000		Data : DerWeduwen
Drawn : DEL	Project No : 8155	Date : 01/10/87

TL 400 S

200 S

BL





LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
  - a massive
  - b pillowed
  - c flow breccia
- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

0 50 100
metres

GOLD ASSAYS $\frac{\text{gram per tonne}}{\text{metres}}$

FALCONBRIDGE LTD.
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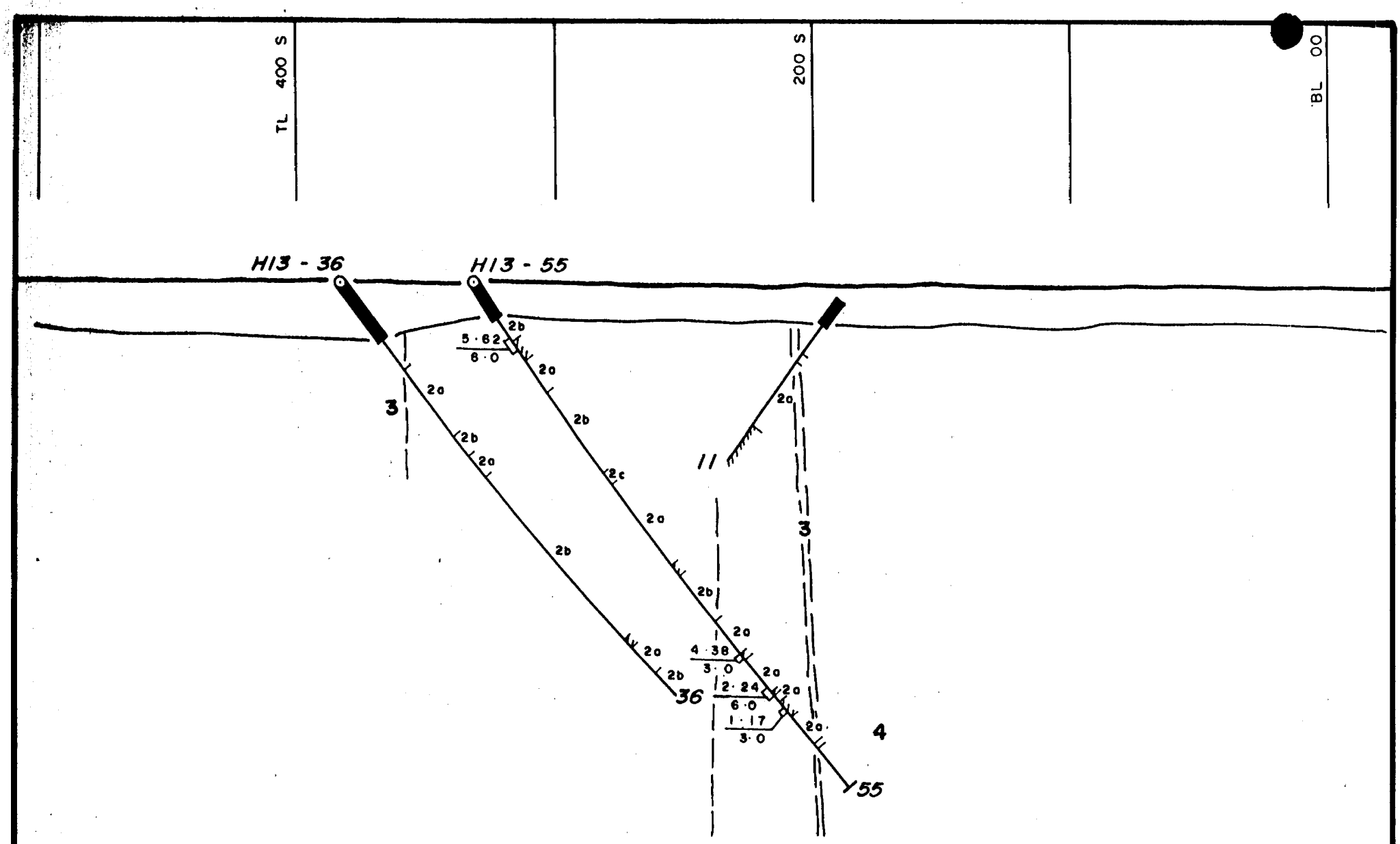
SECTION
240 E

LOOKING WEST

SCALE 1 : 2,000		Data : DerWeduwen
Drawn : DEL	Project Nº : 8155	Date : 08 / 10 / 87



LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
  - a massive
  - b pillowed
  - c flow breccia
- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

0 50 100
metres

GOLD ASSAYS $\frac{\text{gram per tonne}}{\text{metres}}$

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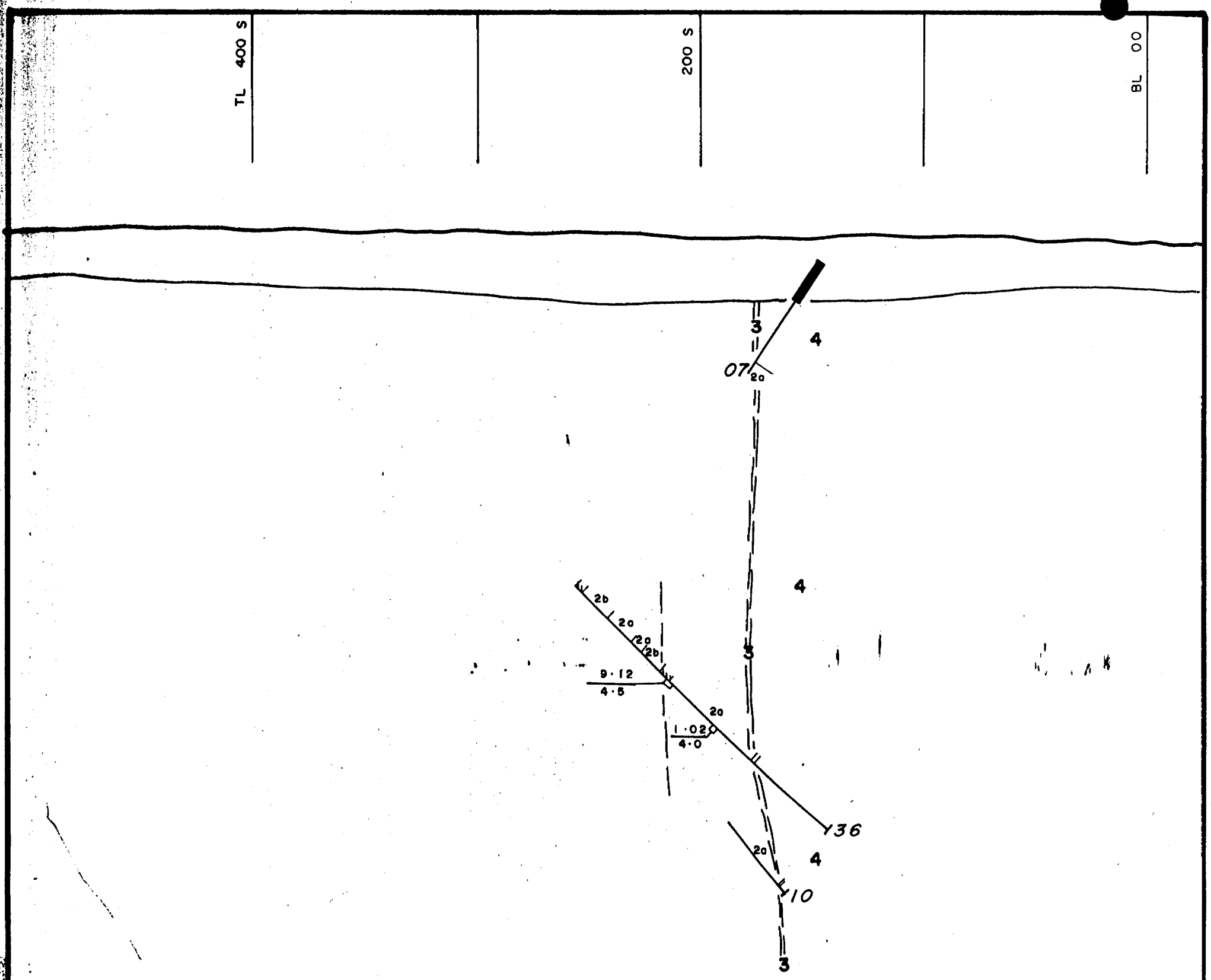
SECTION
220 E

LOOKING WEST

SCALE 1 : 2,000		Data : DerWeduwen
Drawn : DEL	Project N° : 8155	Date : 01/10/87



LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
  - a massive
  - b pillowed
  - c flow breccia
- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

0 50 100
metres

GOLD ASSAYS $\frac{\text{grom per tonne}}{\text{metres}}$

FALCONBRIDGE LTD.
Exploration Division Timmins, ONTARIO

SYNGOLD JV
HOYLE Twp.

SECTION
200 E

LOOKING WEST

SCALE 1 : 2,000		Data : Der Weduwen
Drawn : DEL	Project NO : 8155	Date : 08/10/87

TL 400 S

200 S

BL 00

H13 - 54

4

3

2b

2c

08

6·42
12·79

2·81
24·3

2a

10

12

13·36
1·5

1·82
0·26

5·38
1·85

154

1·42
3·0

1b

26

LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
  - a massive
  - b pillowed
  - c flow breccia
- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

0 50 100
metres

GOLD ASSAYS $\frac{\text{grom per tonne}}{\text{metres}}$

FALCONBRIDGE LTD.
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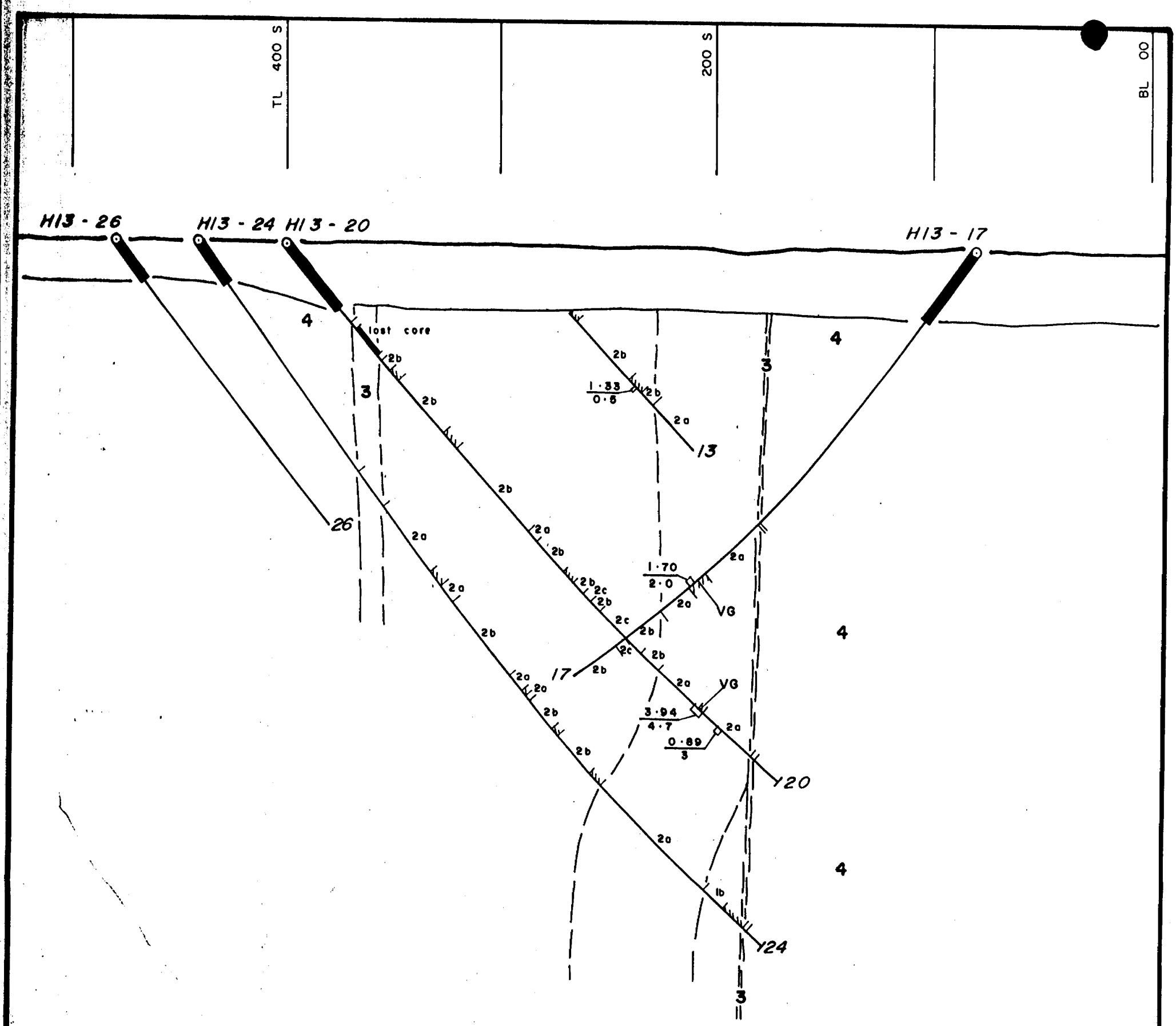
HOYLE Twp.

SECTION

180 E

LOOKING WEST

SCALE 1 : 2,000		Data : DerWeduwen
Drawn : DEL	Project No : 8155	Date : 01 / 10 / 87



LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
  - a massive
  - b pillowed
  - c flow breccia
- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

GOLD ASSAYS $\frac{\text{gram per tonne}}{\text{metres}}$

0 50 100
metres

FALCONBRIDGE LTD.	
Exploration Division	Timmins, ONTARIO
SYNGOLD JV	
HOYLE Twp.	
SECTION	
160 E	
LOOKING WEST	
SCALE 1 : 2,000	Data : Der Weduwen
Drawn : DEL / Project No : 8155	Date : 01 / 10 / 87

TL 400 S

200 S

BL 00

H13 - 53

H13 - 35

H13 - 18

2a

2b

2c

4·66/1·5

3

4

4·66/0·5

35

4·10/4·5

18

5·94/4·5

4·08/1·5

2·06/1·5

1·58/7·5

2·27/2·9

09

17

53

LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
  - a massive
  - b pillowed
  - c flow breccia
- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

GOLD ASSAYS $\frac{\text{gram per tonne}}{\text{metres}}$

0 50 100

metres

FALCONBRIDGE LTD.

Exploration Division Timmins, ONTARIO

SYNGOLD JV

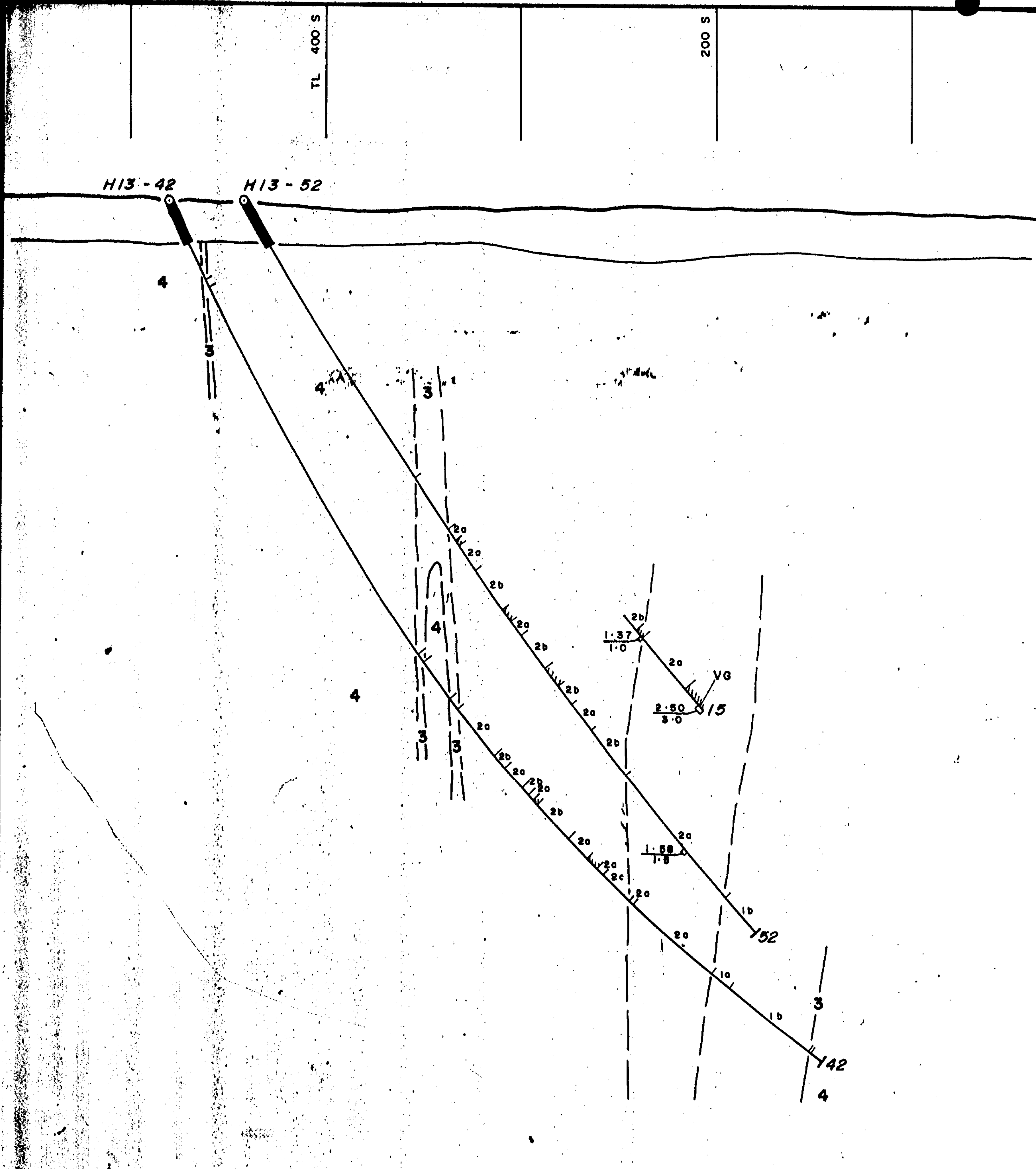
HOYLE Twp.

SECTION

140 E

LOOKING WEST

SCALE 1 : 2,000		Data : DerWeduwen
Drawn : DEL	Project N° : 8155	Date : 30/09/87



LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
  - a massive
  - b pillowed
  - c flow breccia
- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

GOLD ASSAYS gram per tonne / metres

0 50 100
metres

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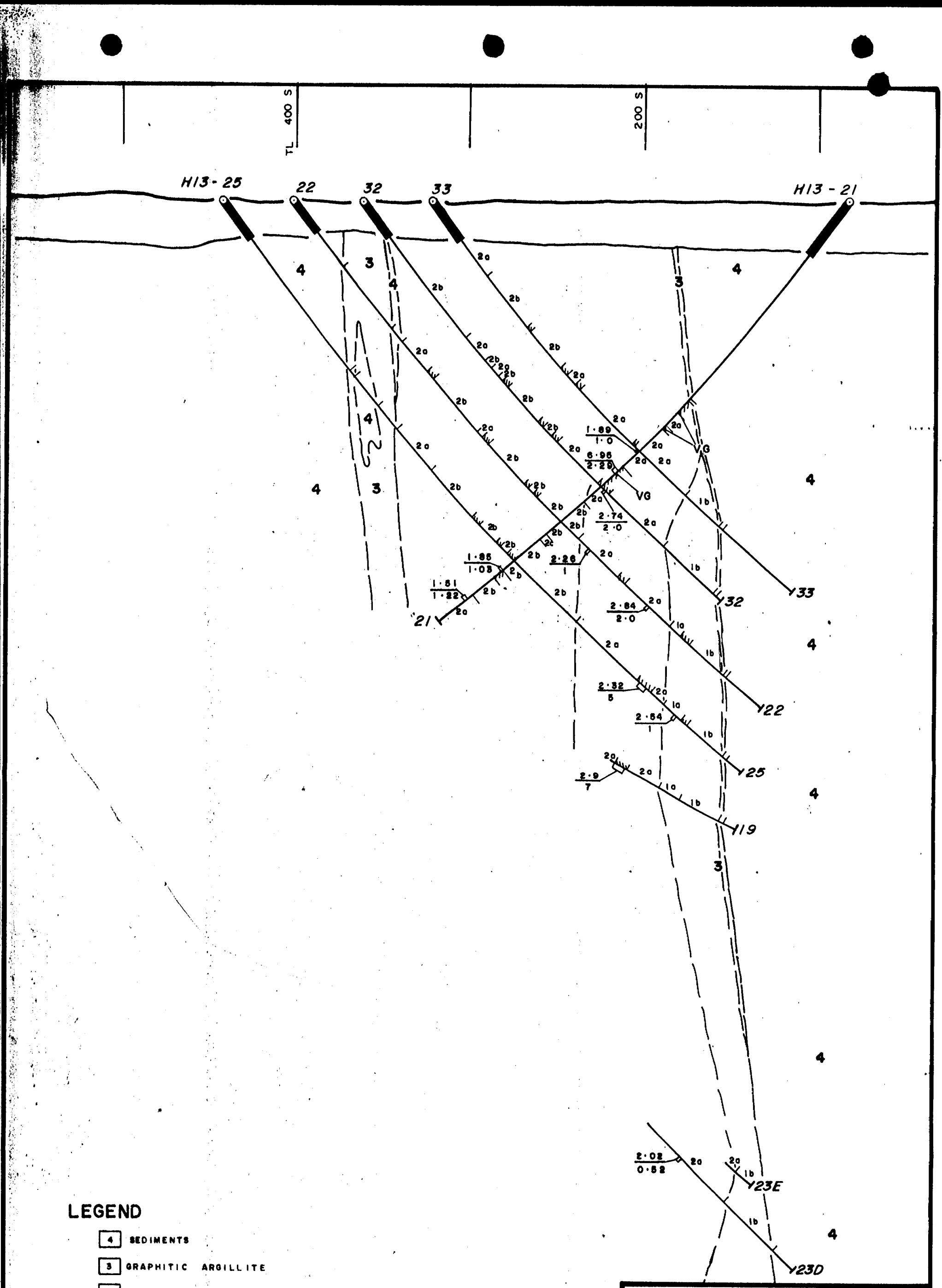
HOYLE Twp.

SECTION 120 E

LOOKING WEST

SCALE 1 : 2,000		Data : DerWeduwen
Drawn : DEL	Project No : 8155	Date : 01 / 10 / 87



LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
  - a massive
  - b pillowed
  - c flow breccia
- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

0 50 100
metres

GOLD ASSAYS $\frac{\text{gram per tonne}}{\text{metres}}$

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Exploration Division Timmins, ONTARIO

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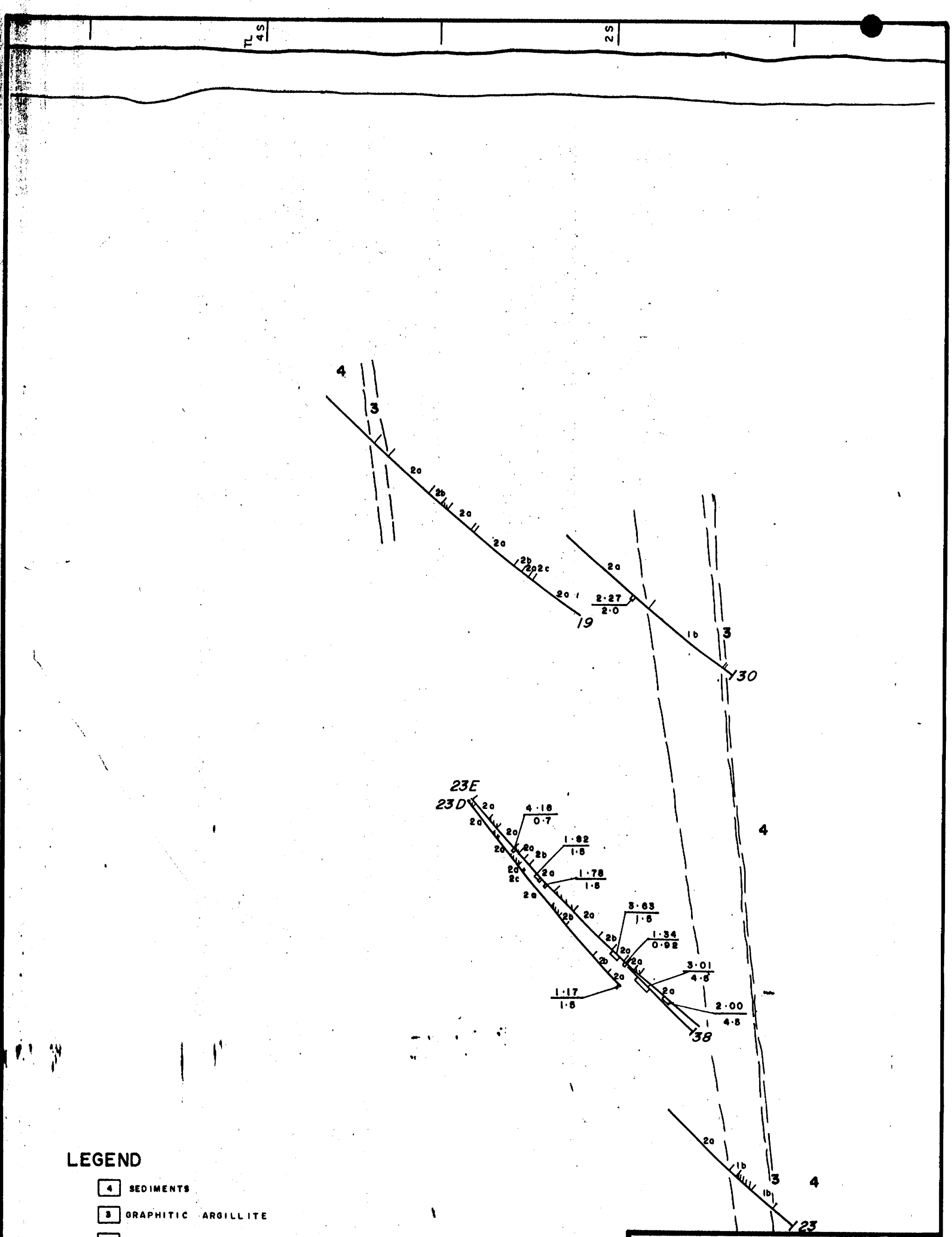
HOYLE Twp.

SECTION 100 E

LOOKING WEST

SCALE 1 : 2,000		Data : Der Weduwen
Drawn : DEL	Project No : 8155	Date : 01 / 10 / 87



LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
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  - a massive
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- GREY ZONE

GOLD ASSAYS $\frac{\text{gram per tonne}}{\text{metres}}$

0 50 100
metres

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Exploration Division Timmins, ONTARIO

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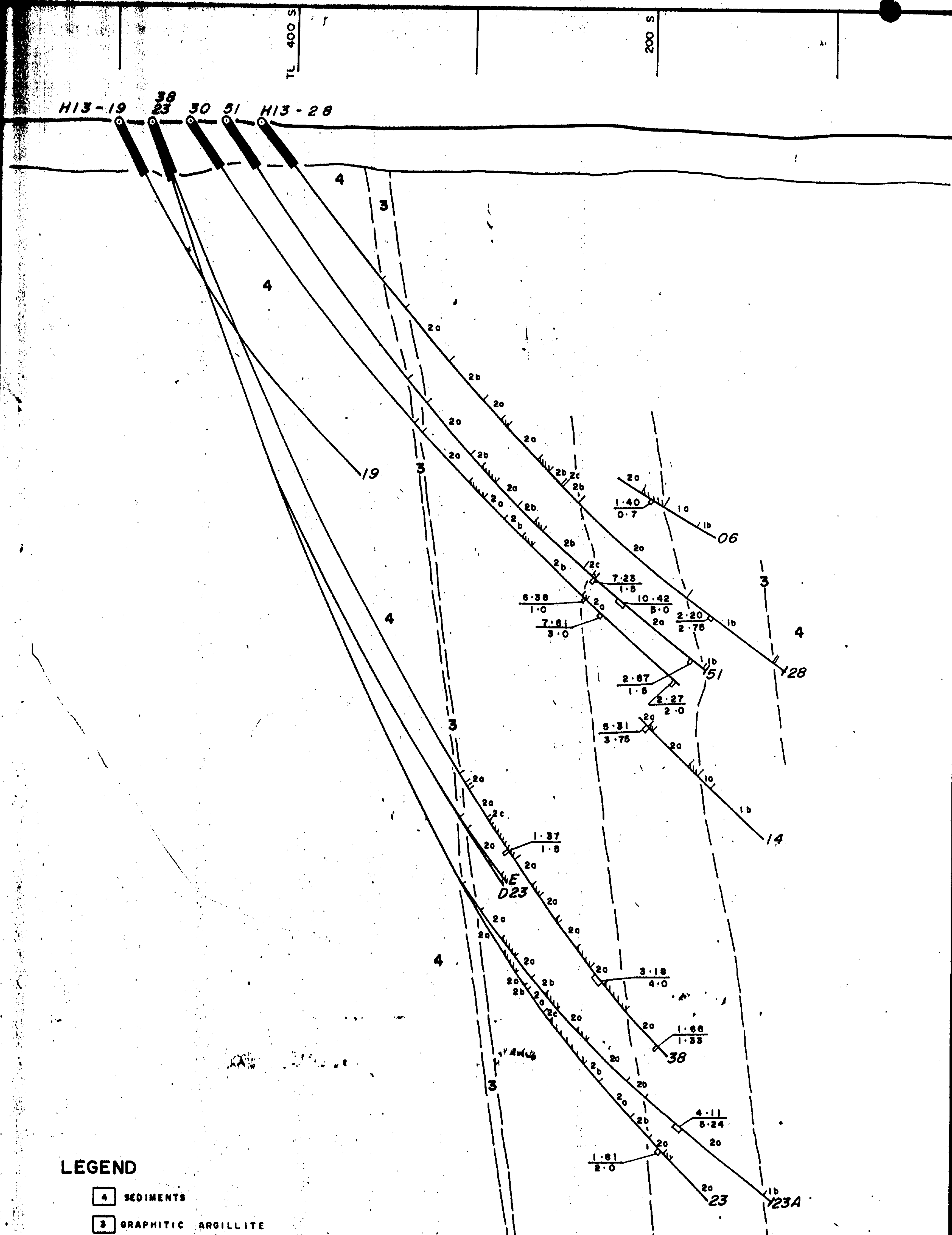
HOYLE Twp.

SECTION 080 E

LOOKING WEST

SCALE 1 : 2,000		Data : DerWeduwen
Drawn : DEL	Project No : 8155	Date : 08/10/87



LEGEND

4	SEDIMENTS
3	GRAPHITIC ARGILLITE
2	IRON THOLEIITIC BASALTS
a	massive
b	pillowed
c	flow breccia
1	HIGH Mg THOLEIITIC BASALTS
a	massive
b	pillowed
▨	GREY ZONE

GOLD ASSAYS $\frac{\text{gram per tonne}}{\text{metres}}$

0 50 100
metres

FALCONBRIDGE LTD.
Exploration Division Timmins, ONTARIO

SYNGOLD JV
HOYLE Twp.

SECTION
060 E

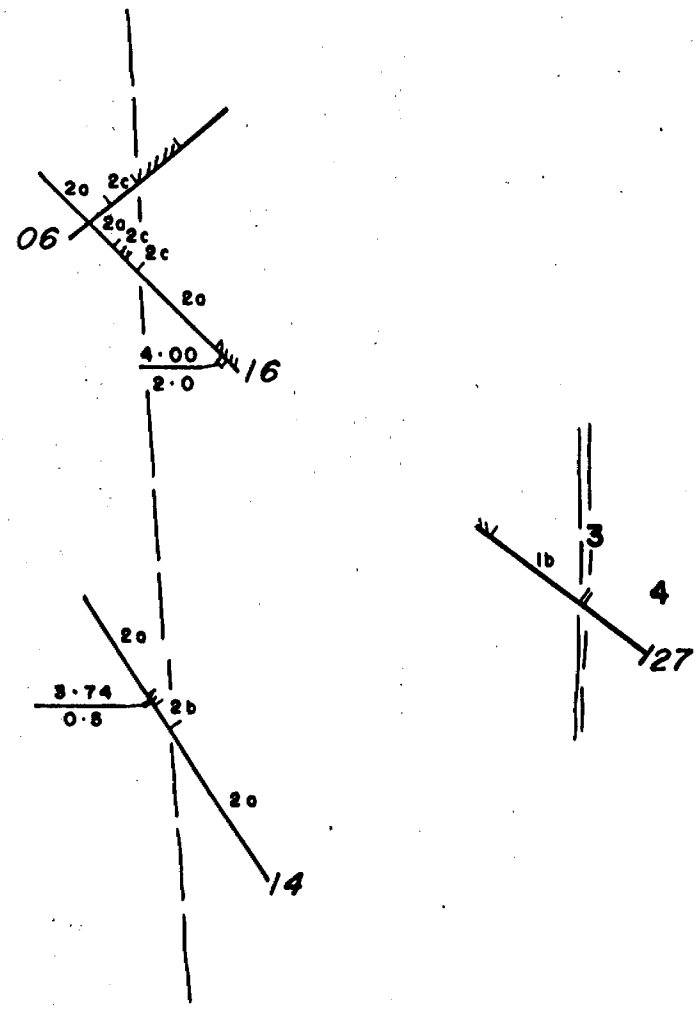
LOOKING WEST

SCALE 1 : 2,000		Data : DerWeduwen
Drawn : DEL	Project Nº : 8155	Date : 01 / 10 / 87

TL 400 S

200 S

BL 00



LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
  - a massive
  - b pillowed
  - c flow breccia
- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

GOLD ASSAYS $\frac{\text{gram per tonne}}{\text{metres}}$

0 50 100
metres

FALCONBRIDGE LTD.

Exploration Division Timmins, ONTARIO

SYNGOLD JV

HOYLE Twp.

SECTION 040 E

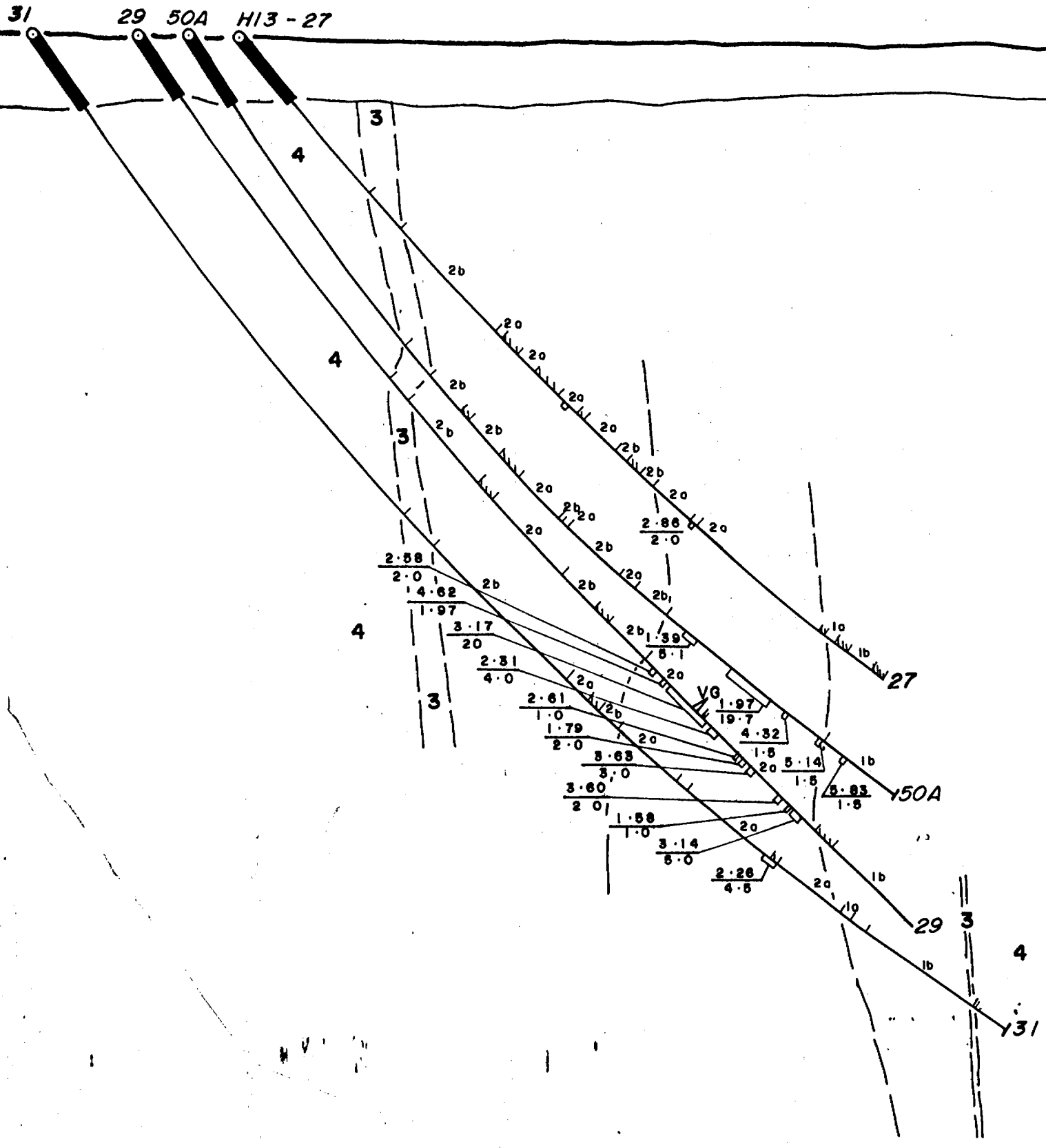
LOOKING WEST

SCALE 1 : 2,000		Data : Der Weduwen
Drawn : DEL	Project No : 8155	Date : 08/10/87

TL 400 S

200 S

BL 00



LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
  - a massive
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  - c flow breccia
- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

0 50 100
metres

GOLD ASSAYS $\frac{\text{gram per tonne}}{\text{metres}}$

FALCONBRIDGE LTD.
Exploration Division Timmins, ONTARIO

SYNGOLD JV
HOYLE Twp.

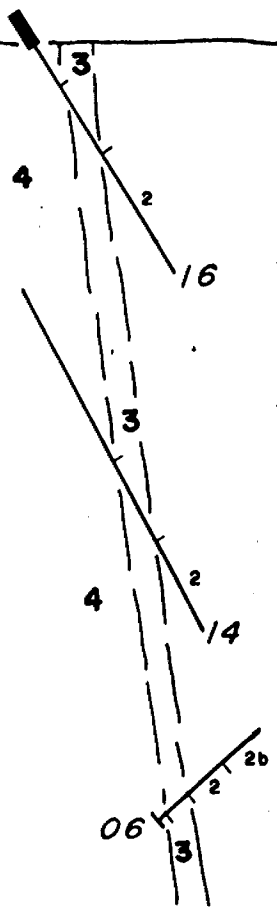
SECTION
020 E
LOOKING WEST

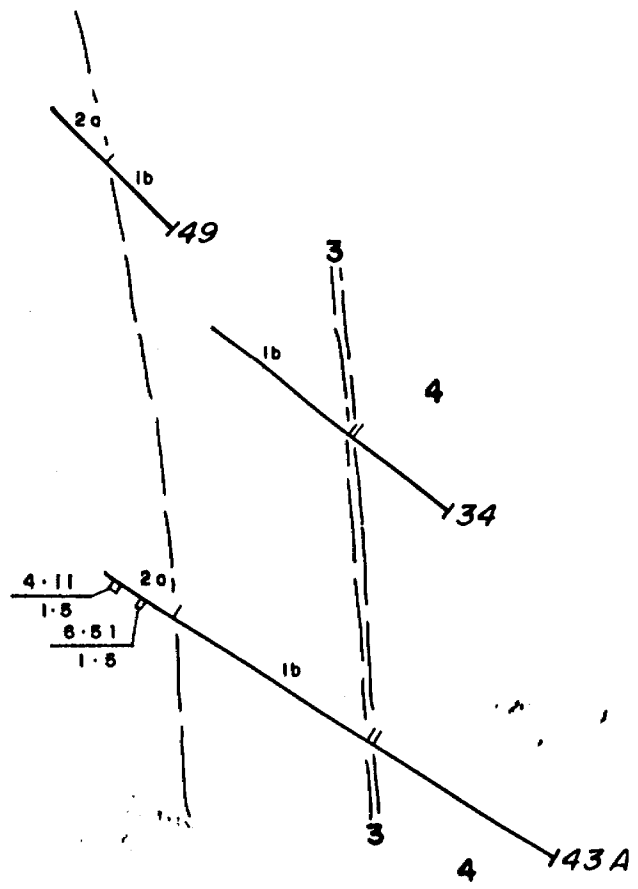
SCALE 1 : 2,000		Data : DerWeduwen
Drawn : DEL	Project N° : 8155	Date : 01/10/87

TL 400 S

200 S

BL 00





LEGEND

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  - a massive
  - b pillowed
  - c flow breccia
- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

0 50 100

metres

GOLD ASSAYS gram per tonne / metres

FALCONBRIDGE LTD.

Exploration Division Timmins, ONTARIO

SYNGOLD JV

HOYLE Twp.

SECTION

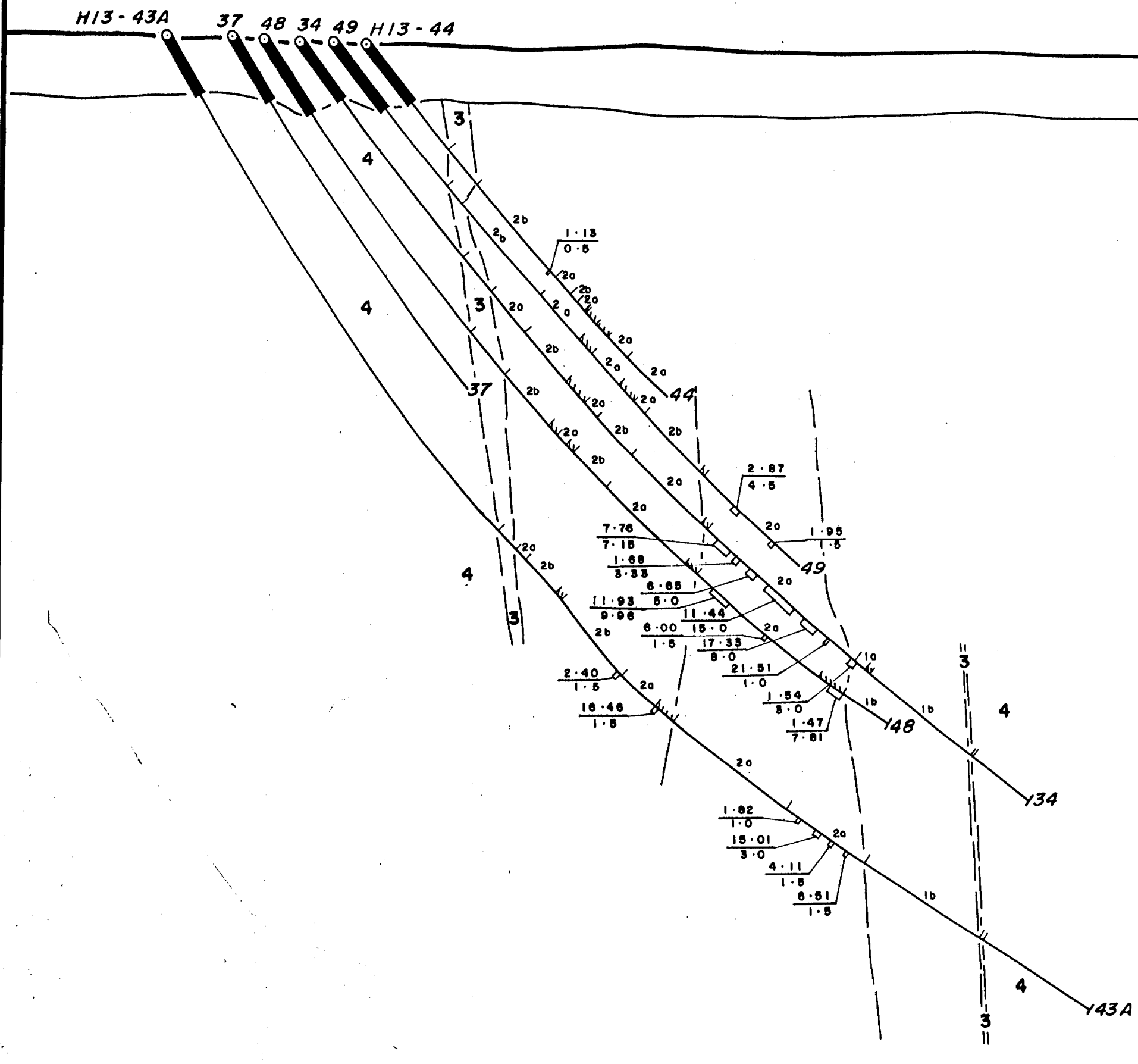
000

LOOKING WEST

SCALE 1 : 2,000		Data : DerWeduwen
Drawn : DEL	Project No : 8155	Date : 08 / 10 / 87

TL 400 S

200 S



LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
  - a massive
  - b pillowed
  - c flow breccia
- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

0 50 100
metres

GOLD ASSAYS $\frac{\text{gram per tonne}}{\text{metres}}$

FALCONBRIDGE LTD.
Exploration Division Timmins, ONTARIO

SYNGOLD JV
HOYLE Twp.

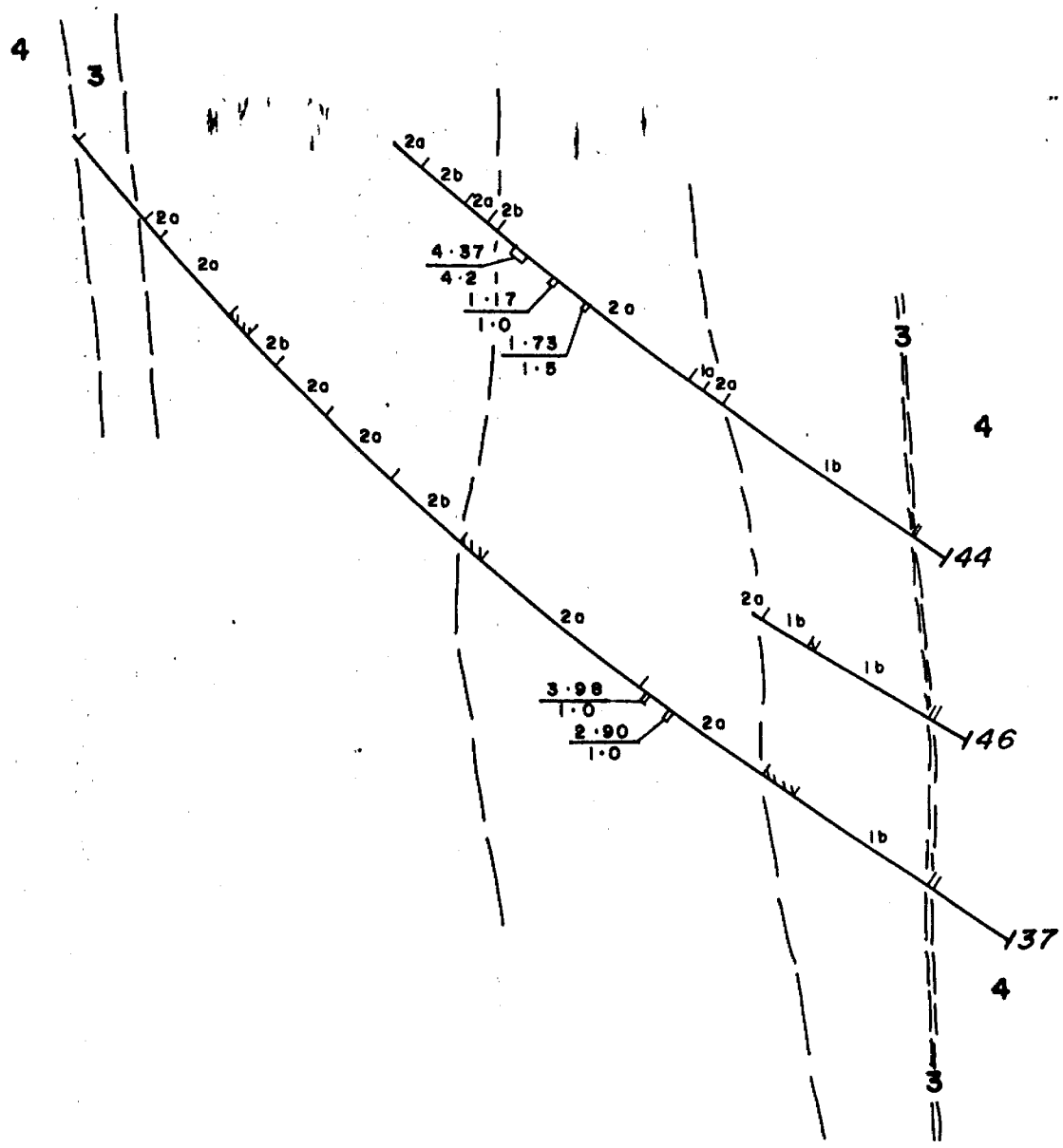
SECTION
020 W

LOOKING WEST

SCALE 1 : 2,000		Data : DerWeduwen
Drawn : DEL	Project Nº : 8155	Date : 01/10/87

TL 400 S

200 S



LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
  - a massive
  - b pillowed
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- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

GOLD ASSAYS $\frac{\text{grom per tonne}}{\text{metres}}$

0 50 100
metres

FALCONBRIDGE LTD.
Exploration Division Timmins, ONTARIO

SYNGOLD JV
HOYLE Twp.

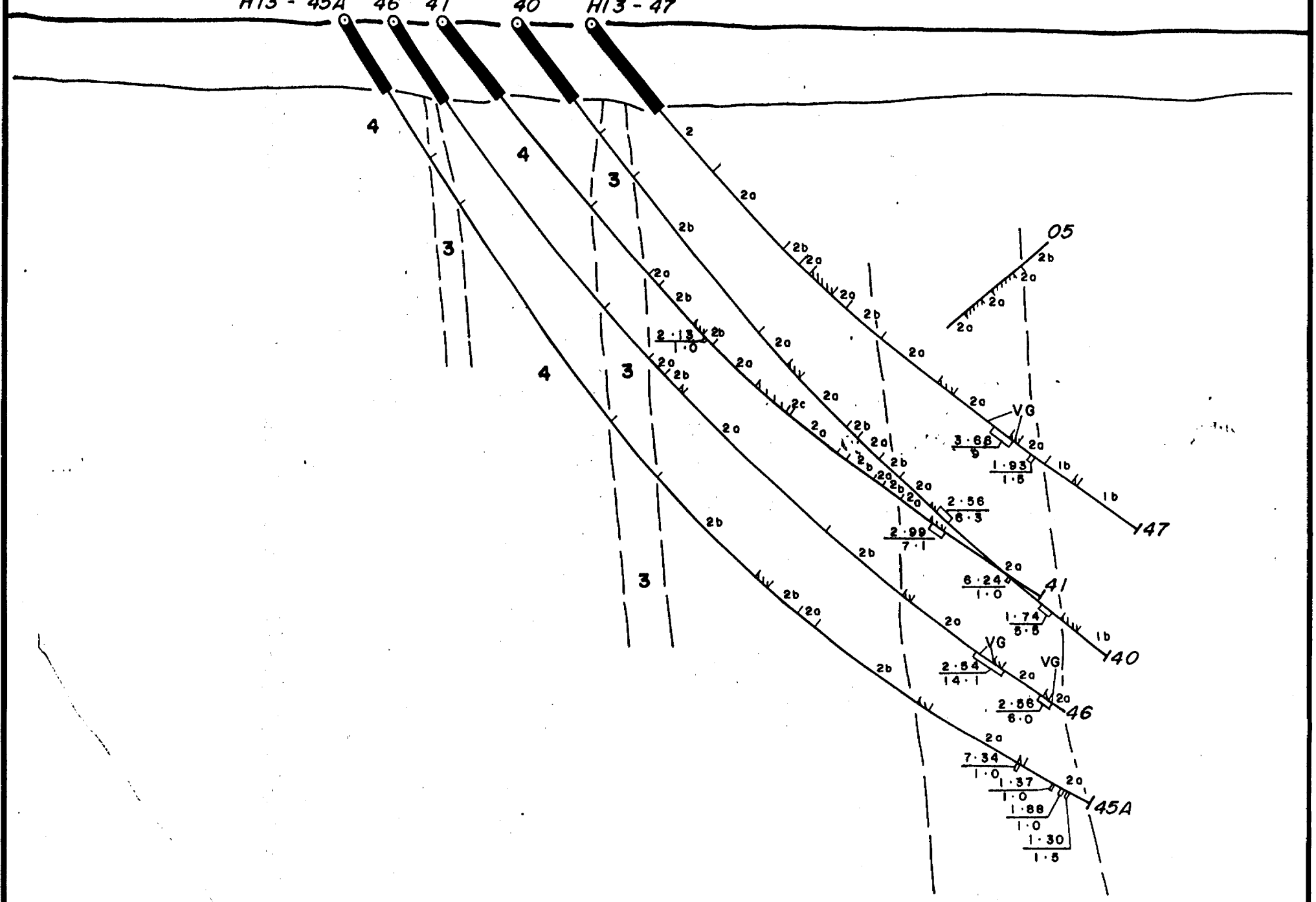
SECTION
040 W
LOOKING WEST

SCALE 1 : 2,000		Data : Der Weduwen
Drawn : DEL	Project No : 8155	Date : / /

TL 400 S

200 S

H13 - 45A 46 41 40 H13 - 47



LEGEND

- 4 SEDIMENTS
- 3 GRAPHITIC ARGILLITE
- 2 IRON THOLEIITIC BASALTS
  - a massive
  - b pillowed
  - c flow breccia
- 1 HIGH Mg THOLEIITIC BASALTS
  - a massive
  - b pillowed
- GREY ZONE

GOLD ASSAYS $\frac{\text{grom per tonne}}{\text{metres}}$

0 50 100
metres

FALCONBRIDGE LTD.
Exploration Division Timmins, ONTARIO

SYNGOLD JV
HOYLE Twp.

SECTION
060 W

LOOKING WEST

SCALE 1 : 2,000		Data : Der Weduwen
Drawn : DEL	Project Nº : 8155	Date : 30/09/87

KIDD CREEK MINES LTD.

EXPLORATION DIVISION

DRILL HOLE RECORD

HOLE NO. H13-46 PROPERTY Syngold J.V. #1 PROJECT NO. 008155 CONTRACTOR Bradley Bros. START 08/06/87 FINISH 17/06/87

COORDINATES Grid Location: Latitude 420S Departure 60W UTM: Lat. ..... Dep. ..... Surveyed: Lat. ..... Dep. ..... Elevation ..... Mine Grid: Lat. 99394.30 Dep. 98170.81 Elev. 286.18

COLLAR ATTITUDE Azimuth 333° Dip -55° LENGTH 461m CORE SIZE BQ

INCLINATION TESTS

Rotodip/Acid Tests

Depth	Dip	Depth	Dip

Compass Tests

Depth	Observed Azimuth	True Azimuth	Dip
60m	In casing		-54.5°
88m	14.5°NW	336.5°	-51.0°
118m	15.0°NW	336.0°	-50.0°
151m	13.5°NW	337.5°	-48.5°
181m	13.5°NW	337.5°	--46.0°
211m	14.5°NW	336.5°	-44.0°
238m	13.0°NW	338.0°	-42.0°
268m	14.5°NW	336.5°	-41.0°
303m	12.5°NW	338.5°	-39.0°
333m	13.3°NW	338.5°	-36.5°
361m	12.5°NW	338.0°	-34.5°
391m	12.0°NW	339.0°	-31.0°
430m	14.0°NW	337.0°	-29.5°
460m	12.0°NW	339.0°	-28.0°

REMARKS NW casing to 34m, BW casing to 76m

Logged by M. Jerome Date 18/06/87 Property Syngold J.V. #1 Hole No. H13-46

PAP 13301 (193)

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
0	38.0	OVERBURDEN					
38.0	143.23	SEDIMENTS					
		- light to medium grey, gritty, fine grained, greywacke sediments bedded at					
		30-35^{0} to core axis					
		- minor interbedded dark grey carbonaceous argillite beds and blebs					
		- unit broken throughout, lost core locally					
		- minor scattered fine pyrite					
		- gradational sequences indicate uphole topping direction					
		- minor to 1% scattered carbonate veining throughout					
		- increasing carbonaceous content downhole					
		lost core from 39.60 - 41.0, 43.3 - 44.0, 46.48 - 47.0, 48.95 - 50.0,					
		51.0 bedding at 35^{0} to core axis					
		- lost core from 54.63 - 56.0, 57.78 - 59.0, 60.96 - 62.0					
		62.12 bedding at 30^{0} to core axis					
		lost core from 63.40 - 65.0, 70.0 - 71.0					
		75.08 bedding at 30^{0} to core axis					
		82.18 bedding at 25o to C.A.					

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 1

TPP K-3

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		97.39 - 97.53 graded sequence topping uphole, bedded at 30°								
		124.3 bedding at 35° to C.A.								
		126.58 - 128.0 lost core								
		129.0 development of secondary cleavage perpendicular to bedding with graphitic slip surfaces, increasing tectonism of core								
		134.04 bedding at 35° to C.A.								
		134.0 - 143.23 predominently carbonaceous argillite with minor greywacke interbeds								
		137.92 minor slip fault (sinistral)								
		140.0 - 147.0 1-2% disseminated pyrite blebs and cubes throughout, increasing carbonate along bedding planes								
		140.82 - 140.84, 141.19 - 141.28 fine to medium grained light to medium greyish-green, carbonated, intermediate (mafic?) intrusives at 30° to C.A. parallel with bedding								
		143.07 - 143.23 intrusive as above at 25° to C.A. with minor to 1% disseminated pyrite								

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 2

TPP K.V

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
143.23	170.29	GRAPHITIC ARGILLITE								
		- very fine grained, dark grey, bedded graphitic argillite, bedding contorted								
		and variable (20-50°)								
		- minor greywacke content								
		- minor to 2% pyrite throughout, more common uphole								
		- 1-2% carbonate along bedding planes, common uphole								
		- ground upper contact lower contact at 60°(?)								
		- secondary cleavage perpendicular to bedding developed locally throughout								
		143.23 - 143.70 ground core, melange of graphitic argillite, broken carbonate,								
		and pyrite (probable shearing)								
		143.70 - 152.47 tectonized, contorted bedding, 3-5% carbonate throughout								
		1-5% pyrite cubes and blebs								
		147.49 - 147.71 light green, fine to medium grained carbonated mafic (?) intru-								
		sive								
		159.19 bedding at 45° to C.A.								
		168.41 bedding at 32° to C.A.								
		169.66 - 170.29 5-7% pyrite in blebs and with carbonate veinlets								

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TPP K-3

FROM	TO	DESCRIPTION	SAMPLE NO. AE	FROM	TO	SAMPLE LENGTH m	ASSAYS Au ppb
170.29	187.36	FRACTURED MAFIC					
		- fine grained, light to medium grey, fractured (pillowed?) mafic					
		- weak dilated fracturing to moderate/strong fracturing with insitu brecciation, foliation at 45-50° to C.A., black carbonaceous in filling along fractures, general increase in tectonism with depth					
		- very weak to weak carbonaceous alteration of unit locally, weak pervasive carbonatization of unit throughout					
		- minor to 1-2% carbonate and quartz-carbonate veinelts, generally subparallel with foliation					
		- minor pyrite in upper portion of unit					
		170.29 - 176.0 medium grey, weakly carbonaceous altered fractured mafics, with 1-5% quartz/carbonate veining and associated minor pyrite	03257	170.29	171.50	1.21	8
			03258	171.50	173.0	1.5	23
			03259	173.0	174.5	1.5	69
		180.52 - 181.72 moderate/strong tectonized mafic with in situ brecciation	03260	174.5	176.0	1.5	19
			03261	185.0	186.5	1.5	12
		185.0 - 187.36 light/medium grey, weakly carbonaceous altered fractured mafic	03262	186.5	188.0	1.5	53
187.36	189.71	GREY MAFIC					
		- fine grained, weakly to moderately carbonaceous altered, light/medium grey, grey mafic					
		- foliated weakly at 50° (?)					
		- 1-5% quartz/carbonate veining parallel with foliation					
		- minor to 1% pyrite scattered throughout and with carbonate veinlets					
		- gradational contacts					

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TPP K-3

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
			AE	m		m	Au ppb
		187.47 - 187.57 6cm quartz/carbonate vein subparallel to foliation (upper -65°, lower -35°), minor pyrite along wallrock margin					
		188.20 - 188.89 complex quartz/carbonate vein (upper -35°, lower -40°), subparallel to foliation, common wallrock inclusions, minor hydromuscovite along fractures, minor pyrite associated with wallrock inclusions					
189.71	214.52	MASSIVE MAFIC					
		- light grey to green, fine grained, massive mafic					
		- weakly foliated at 45-50°					
		- spotty, mottled chloritic alteration with bleaching throughout, weak pervasive carbonatization throughout					
		- minor quartz/carbonate veining					
		- gradational contacts					
			03263	188.0	189.5	1.5	393
		189.71 - 195.5 very weak pervasive carbonaceous alteration decreasing downhole	03264	189.5	191.0	1.5	15
			03265	191.0	192.5	1.5	11
			03266	192.5	194.0	1.5	8
		194.9 6 cm quartz vein subparallel to foliation at 45°, 1-2% hydromuscovite	03267	194.0	195.5	1.5	7
		in vein and along vein margin	03268	195.5	197.0	1.5	18
		195.28 3cm quartz vein subparallel to foliation at 50° minor hydromuscovite					
		208.29 - 209.56 pillowed mafic appearance, 1-2cm carbonate amygdules locally					

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TPP K-3

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au
			AE	m		m	ppb
		211.5 - 214.52 increased fracturing with carbonaceous in filling (eg. 212.49 - 212.69)					
214.52	235.84	FRACTURED MAFIC					
		- fine grained, light to medium grey, fractured pillowed mafic foliated moderately to strongly at 40-45° to C.A.					
		- tectonism variable throughout unit ranging from weak fracturing/dilation through in situ brecciation to complete brecciation, carbonaceous in filling of fractures					
		- weak to moderate pervasive carbonaceous alteration and moderate to strong pervasive carbonatization throughout					
		- gradational contacts					
		- locally minor 1-2mm dark carbonate-filled amygdules					
		- minor to 1% scattered pyrite associated with zone of stronger carbonaceous alteration					
		- 1-2% scattered, thin, discontinuous quartz and quartz-carbonate veinlets	03269	217.0	218.0	1.0	23
			03270	218.0	219.5	1.5	67
			03271	219.5	221.0	1.5	30
		217.85 - 218.60 breccia zone with minor scattered pyrite	03272	221.0	222.5	1.5	8
			03273	222.5	224.0	1.5	10
		223.89 - 231.71 weak grey mafic with pervasive, weak to moderate carbonaceous alteration	03274	224.0	225.5	1.5	8
			03275	225.5	227.0	1.5	15
			03276	227.0	228.5	1.5	29

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TPP K-3

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
			AE	m		m	Au ppb
235.84	270.2	MASSIVE MAFIC	03278	228.5	230.0	1.5	12
			03279	230.0	231.5	1.5	8
		- fine grained, light greyish-green to light/medium green massive mafic					
		foliated weakly to moderately at 45-50°					
		- weak to moderate pervasive carbonatization throughout, weak pervasive					
		chloritization locally					
		- local 1-2cm carbonate-filled amygdules					
		- minor quartz veining throughout, generally parallel with foliation, minor					
		fracturing					
		- gradational contacts					
		- minor, fine grained, beige-white leucoxene grains locally					
		238.45 - 241.43 light grey altered section					
		241.05 - 241.19 12cm carbonate vein at 60° to C.A. sub-parallel to foliation					
		247.75 - 251.07 amygdaloidal section with pillowed appearance					
		262.53 - 270.20 mottled, spotty chloritic alteration with bleaching, similar					
		to massive mafic from 189.71 - 214.52					
		263.56 9cm carbonate vein subparallel with foliation at 50°, to C.A.,					
		scattered hydromuscovite in vein and along margins					
		265.14 13 cm quartz-clinozoisite vein at 80° to C.A., crosscutting					
		foliation					

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FROM - TO		DESCRIPTION	SAMPLE NO. AE	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au gram			
270.20	310.58	PILLOWED MAFIC								
		- light/medium grey to light/medium green, fine grained, pillowed mafic								
		weakly foliated at 45-50°								
		- weak to moderate pervasive carbonatization throughout, weak to very weak								
		pervasive chloritization								
		- gradational contacts								
		- pillow selveges generally 1-2cm wide, 35-40° to core axis dark green/grey								
		- thin, discontinuous, carbonate and quartz-carbonate stringer veinlets								
		throughout								
		- 1-2mm, oval, carbonate-filled amygdules locally								
		- minor scattered pyrite								
		270.20 - 275.40 light/medium grey, granular carbonated, pillowed mafic								
		293.0 - 303.57 light/medium grey carbonated pillowed mafic								
		303.57 - 307.19 pillow/flow breccia with pillowed sections, moderate to strong								
		carbonate alteration, weak pervasive chloritization								
			03280	303.5	305.0	1.5	trace			
		303.57 - 304.23 1-3% scattered sulphide including pyrite, pyrrhotite	03281	305.0	306.5	1.5	tr			
		and minor chalcopyrite	03282	306.5	308.0	1.5	tr			
			03283	308.0	309.5	1.5	tr			
		307.19 - 310.58 light/medium grey, carbonatized mafic with minor scattered	03284	309.5	310.5	1.0	tr			
		pyrite								

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TPP K

FROM - TO		DESCRIPTION	SAMPLE NO. AE	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au gram			
310.58	314.27	GREY MAFIC								
		- medium to dark grey, medium grained, carbonaceous altered mafic foliated								
		moderately at 50°, granular appearance								
		- moderate pervasive carbonatization and carbonaceous alteration throughout								
		- minor to 1%, fine grained, beige-mauve leucoxene grains throughout								
		- minor to 1% quartz veining generally crosscutting foliation								
		- 1-2% scattered pyrite, sphalerite throughout with minor chalcopyrite and								
		galena locally, sphalerite in secondary carbonate veinlets								
		- gradational contacts								
		310.64 minor shear at 50° to C.A.								
		310.64 - 310.81 medium to dark grey carbonaceous altered section with erratic,	03285	310.5	311.0	0.5	tr			
		broken carbonate veining, 2-5% galena in wallrock, minor to 1% spha-	03286	311.0	312.5	1.5	tr			
		lerite and minor chalcopyrite	03287	312.5	314.0	1.5	tr			
			03288	314.0	315.5	1.5	0.03			
		312.5 - 314.0 approximately 1-3% disseminated fine pyrite and sphalerite								
		312.75 7cm quartz-carbonate vein subparallel to foliation at 50° to								
		C.A., common wallrock inclusions								
314.27	348.05	MASSIVE MAFIC								
		- fine grained, light/medium grey, massive mafic moderately foliated at								
		55-60° to C.A.	03289	315.5	317.0	1.5	tr			

TPP K

FROM - TO		DESCRIPTION	SAMPLE NO. AE	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au gram
		- very weak to weak pervasive carbonatization throughout, very weak sericiti-					
		zation chloritic alteration locally	03290	317.0	318.5	1.5	tr
		- minor to 1% thin quartz stringer veining throughout, generally crosscutting	03291	318.5	320.0	1.5	tr
		foliation	03292	320.0	321.5	1.5	tr
		- up to 1mm, pale brown leucoxene grains locally	03293	321.5	323.0	1.5	tr
		- minor to 3% disseminated pyrite locally	03294	323.0	324.5	1.5	tr
			03295	324.5	326.0	1.5	tr
		314.27 - 317.83 very weak carbonaceous alteration decreasing away from	03296	326.0	327.5	1.5	0.03
		grey mafic	03298	327.5	329.0	1.5	tr
			03299	329.0	330.5	1.5	0.03
		317.05 6cm quartz vein parallel to foliation at 50° grey carbonate	03300	330.5	332.0	1.5	tr
		and wallrock inclusions					
			02801	332.0	333.5	1.5	tr
		318.67 - 324.0 leucoxene-rich section	02802	333.5	335.0	1.5	0.03
			02803	335.0	336.5	1.5	tr
		326.30 - 330.80 minor to 5% disseminated 2 tone pyrite (dark and brassy) with	02804	336.5	338.0	1.5	tr
		minor veining	02805	338.0	339.5	1.5	0.03
			02806	339.5	341.0	1.5	tr
			02807	341.0	342.5	1.5	tr
			02808	342.5	344.0	1.5	0.03
			02809	344.0	345.5	1.5	tr
			02810	345.5	347.0	1.5	tr
			02811	347.0	348.0	1.0	tr

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TPP X-3

FROM - TO		DESCRIPTION	SAMPLE NO. AE	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au gram
348.05	356.54	ALTERED MASSIVE MAFIC					
		- light grey, fine grained, intensely altered massive mafic weakly to					
		moderately foliated at 50-60°					
		- intense pervasive sericitization/carbonatization throughout					
		- minor to 1% fine grained, beige-tan leucoxene grains throughout					
		- minor/1% - 7% scattered dark pyrite and brassy cubic pyrite					
		- minor fracturing, minor thin quartz veining					
		- gradational contacts					
		348.05 - 351.84 minor-2% scattered dark and brassy cubic pyrite, fine, tan					
		leucoxenes throughout					
			02812	348.0	349.0	1.0	7.06
		350.63 4cm quartz vein crosscutting foliation at 35° to C.A.,	02813	349.0	350.0	1.0	1.61
		dark carbonate along margins, VISIBLE GOLD 2mm fleck with specks	02814	350.0	351.5	1.5	1.03
		in fracture in vein near margin at 350.71m, 1-2% dark pyrite in					
		wallrock					
		351.26 5cm quartz vein crosscutting foliation at 50° to C.A., 2-5%					
		hydromuscovite throughout vein					
		351.84 - 353.64 2-7% scattered dark and brassy pyrite	02815	351.5	353.0	1.5	8.37
			02816	353.0	354.5	1.5	1.23
		353.64 - 356.54 minor - 3% dark and brassy pyrite increasing towards lower grey	02818	354.5	356.0	1.5	1.82
		mafic, minor irregular quartz veining					

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TPP K-3A

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au gram			
			AE	m		m				
356.54	360.88	GREY MAFIC								
		- medium to weak grey, fine grained, carbonaceous altered mafic weakly to moderately foliated at 50-55° to C.A.								
		- weak pervasive carbonaceous alteration, very weak pervasive carbonatization								
		- 1-2% fine tan-beige leucoxene grains throughout								
		- 7-10% quartz veining, generally 5-9cm wide and crosscutting foliation								
		- 2-7% scattered dark and brassy cubic pyrite throughout								
			02819	356.0	357.5	1.5	1.71			
		357.17 - 357.37 irregular quartz vein with wallrock inclusions crosscutting foliation (upper -70°, lower -75°) 1-2% pyrite along quartz margins, 3-4% pyrite in surrounding wallrock								
			02820	357.5	359.0	1.5	2.19			
		358.85 3cm quartz vein crosscutting foliation at 80° to C.A.								
		358.13 9cm quartz vein crosscutting foliation at 65° to C.A.								
		358.37 10cm quartz vein crosscutting foliation (upper -70°, lower -40°)								
		358.76 9cm quartz vein crosscutting foliation at 45° to C.A. minor pyrite in vein								
		359.27 4cm irregular quartz vein, truncated and split, crosscutting foliation perpendicular to C.A., 5-7% pyrite in surrounding wallrock	02821	359.0	360.7	1.7	0.75			
		359.38 3cm quartz vein crosscutting foliation at 70° to C.A.								

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TPP K-Y

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		359.99 10 cm quartz vein crosscutting foliation at 80° to C.A.								
		360.43 9 cm quartz vein crosscutting foliation at 60° to C.A., minor hydromuscovite along fractures in vein								
360.88	371.82	MASSIVE MAFIC								
		- medium/light grey, fine grained, massive mafic weakly to moderately foliated at 50-55° to C.A.								
		- moderate to strong pervasive carbonatization throughout, weak to very weak pervasive sericitization								

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T.P.P.K

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
			AE	m		m	Au gram
		- minor quartz and quartz-carbonate stringer veining					
		- minor to 1% fine disseminated tan leucoxene grains throughout					
		- minor to 2% disseminated pyrite (dark and brassy cubic) particularly in upper portion of unit					
		- gradational upper contact					
		360.88 - 362.8 minor to 2% disseminated pyrite in carbonatized (weakly sericitized) massive mafic	02822	360.7	362.1	1.4	0.99
		361.32 - 361.39 minor disseminated, fine arsenopyrite					
		361.60 VISIBLE GOLD speck along margin of 3mm quartz stringer vein, dark carbonate along margin, 3-4% pyrite in surrounding wallrock					
		361.94 8cm quartz vein crosscutting foliation at 40° to C.A., dark grey carbonate along margin, 2-3% pyrite in wallrock	02823	362.1	363.5	1.4	0.07
			02824	363.5	365.0	1.5	tr
			02825	365.0	366.5	1.5	tr
			02826	366.5	368.0	1.5	tr
			02827	368.0	369.5	1.5	tr
			02828	369.5	371.0	1.5	1.06
371.82	380.33	ALTERED MASSIVE MAFIC					
		- fine grained, light/pale grey, altered massive mafic weakly foliated at 50-55° to C.A., unit similar to altered massive mafic from 348.05 - 356.54m					

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FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au
			AE	m		m	gram
		- intense pervasive carbonatization/sericitization throughout					
		- minor scattered, fine, tan leucoxene grains					
		- minor to 3% disseminated dark and brassy pyrite	02829	371.0	372.5	1.5	0.58
		- minor quartz veining	02830	372.5	374.0	1.5	0.89
		- gradational lower contact	02831	374.0	375.5	1.5	0.03
			02832	375.5	377.0	1.5	tr
			02833	377.0	378.5	1.5	tr
		373.54 24cm quartz vein crosscutting foliation (upper -50°, lower -70°) nume-	02834	378.5	380.0	1.5	tr
		rous quartz stringers in wallrock, 1-3% pyrite in wallrock, minor hydromuscovite					
		in wallrock					
380.33	382.59	GREY MAFIC					
		- fine grained, light/medium grey, carbonaceous altered mafic weakly to					
		moderately foliated at 55-60° to C.A.					
		- weak pervasive carbonaceous alteration					
		- 1-2% fine, elongate, disseminated, tan leucoxene grains throughout					
		- minor to 1% crosscutting quartz veins					
		- 1-5% disseminated dark and brassy pyrite throughout					
		- gradational contacts					
		380.48 4cm quartz vein crosscutting foliation at 50° to C.A.	02835	380.0	381.5	1.5	0.89
			02836	381.5	383.0	1.5	0.03
		380.85 2cm quartz vein crosscutting foliation at 35° to C.A., dark carbonate					
		along margins					
		381.14 3cm quartz vein crosscutting foliation at 40° to C.A.					

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FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au gram
			AE	m		m	
382.59	393.81	MASSIVE MAFIC					
		- fine grained, light/medium grey, massive mafic foliated weakly at 55-60° to C.A.					
		- weak to moderate pervasive carbonatization, locally sericitized/carbonatized					
		- minor, erratic thin quartz veining					
		- minor disseminated pyrite locally					
		- gradational upper contact, lower contact at 45° to C.A.					
		382.59 - 385.29 strongly/sericitized carbonatized, pale grey section, 1-5% disseminated dark and brassy pyrite	02837	383.0	384.5	1.5	8.33
			02838	384.5	386.0	1.5	0.99
			02839	386.0	387.5	1.5	tr
			02840	387.5	389.0	1.5	tr
		383.50 - 383.65 irregular quartz vein crosscutting foliation, VISIBLE GOLD specks at 383.58 associated with fine pyrite along wallrock margin	02841	389.0	390.5	1.5	tr
			02842	390.5	392.0	1.5	tr
			02843	392.0	393.5	1.5	0.03
			02844	393.5	395.0	1.5	tr
		384.74 1cm quartz vein crosscutting foliation at 50° to C.A., VISIBLE GOLD speck at 384.75 in quartz near wallrock margin					
393.81	409.67	HIGH MG PILLOWED MAFIC					
		- fine grained, light greyish-green to light grey, high mg pillowed mafic moderately foliated at 55-60°					
		- moderate to weak pervasive and fracture controlled carbonatization, weak pervasive chloritization					
		- 5-10% thin, irregular, discontinuous, carbonate stringer veinlets throughout					

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FROM	TO	DESCRIPTION	SAMPLE NO. AE	FROM m	TO m	SAMPLE LENGTH m	ASSAYS Au gram
		- pillow selveges generally 1-3cm wide, 45-50° to C.A., distinguished by dark green/grey chloritic/carbonate alteration					
		- minor scattered pyrite locally					
			02845	404.0	405.5	1.5	tr
			02846	405.5	407.0	1.5	tr
		404.58 - 409.67 light/medium grey, weak carbonaceous alteration, moderate pervasive carbonatization, minor scattered pyrite	02847	407.0	408.5	1.5	tr
			02848	408.5	410.0	1.5	tr
409.67	411.94	GREY MAFIC					
		- fine grained, medium grey, carbonaceous altered mafic moderately foliated at 55-60°	02849	410.0	411.5	1.5	tr
			02850	411.5	413.0	1.5	tr
		- weak pervasive carbonaceous alteration, moderate to strong pervasive and fracture-controlled carbonatization					
		- 1-5% thin, discontinuous carbonate veining throughout					
		- minor scattered pyrite					
411.94	448.66	HIGH MG VARIOLITIC PILLOWED MAFIC					
		- fine grained, light (lime) green to light greenish-grey, variolitic pillowed mafic weakly foliated at 55-60°					
		- weak fracture controlled, carbonatization, weak pervasive chloritization					
		- minor carbonate veining					
		- pillow selveges at various orientations and various widths, 1-3cm variolitic zones along pillow margins, varioles 1-2mm, oval to round, pale/light green with darker green cores, beige-white feldspar clots and patches associated with selveges.					

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TPP K.

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
		- weak fracturing throughout					
448.66	449.34	SHEARED GRAPHITIC ARGILLITE					
		- sheared and broken graphitic argillite with broken carbonate veining,					
		smeared pyrite					
		- conductive unit					
		- strongly foliated at 50^{0}					
		- upper and lower contacts sharp (upper -50^{0}, lower -45^{0})					
449.34	461.0	CARBONACEOUS ARGILLITE					
		- very fine grained, dark grey, bedded carbonaceous argillite with minor					
		greywacke at $50\text{-}55^{0}$					
		- graded bedding indicates downhole (?) topping direction					
		- 1-3% irregular discontinuous carbonate stringer veinlets throughout					
		commonly with associated minor pyrite					
461.0		END OF HOLE					

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TPP K

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD

SAMPLE NUMBER	(m) FROM	(m) TO	COMPOSITE SAMPLING	ROCK TYPE AND REMARKS
			Au	
			ppb	
AE 01651	38.0	59.0	3	
AE 01652	59.0	80.0	6	Sediments
AE 01653	80.0	101.0	4	Sediments
				Sediments
AE 01654	101.0	125.0	2	
				Sediments
AE 01655	125.0	143.0	3	
				Sediments
AE 01656	143.0	170.0	25	graphitic argillite
AE 01657	176.0	185.0	3	fractured mafic
AE 01658	197.0	214.0	8	massive mafic
AE 01659	236.0	255.0	60	massive mafic
AE 01660	255.0	269.0	4	massive mafic
AE 01661	272.0	304.0	6	pillowed mafi
AE 01662	398.0	403.0	7	pillowed mafi
AE 01663	413.0	432.0	6	variolitic pi mafic (Mg)
AE 01664	432.0	448.0	3	variolitic pi mafic (Mg)
AE 01665	449.0	461.0	67	carbonaceous argillite

Hole No. H13-46

DIAMOND DRILL LOG SAMPLE RECORD

HOLE No. H13-46.

PAGE _____ OF _____

SAMPLE NUMBER	FOOTAGE			S/T.			DESCRIPTION
	From	To	Length				
	348.0	349.0	1.0	7.06	7.06		
	349.0	350.0	1.0	1.61	1.61		
	350.0	351.5	1.5	1.03	1.545		
	351.5	353.0	1.5	8.37	12.555		
	353.0	354.5	1.5	1.23	1.845		
	354.5	356.0	1.5	1.82	2.730		
	356.0	357.5	1.5	1.71	2.565		
	357.5	359.0	1.5	2.19	3.285		
	359.0	360.7	1.7	0.75	1.275		
	360.7	362.1	1.4	0.99	1.386		
	362.1	363.5	1.4	0.07	0.098		
	363.5	365.0	1.5	tr	0.015		
	365.0	366.5	1.5	tr	0.015		
	366.5	368.0	1.5	tr	0.015		
	368.0	369.5	1.5	tr	0.015		
	369.5	371.0	1.5	1.06	1.590		
	371.0	372.5	1.5	0.58	0.870		
	372.5	374.0	1.5	0.89	1.335		
	374.0	375.5	1.5	0.03	0.045		
	375.5	377.0	1.5	tr	0.015		
	377.0	378.5	1.5	tr	0.015		
	378.5	380.0	1.5	tr	0.015		
	380.0	381.5	1.5	0.89	1.335		

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DIAMOND DRILL LOG SAMPLE RECORD

HOLE No. H13-46

PAGE _____ OF _____

SAMPLE NUMBER	FOOTAGE						DESCRIPTION
	From	To	Length				
	381.5	383.0	1.5	0.03	0.045		
	383.0	384.5	1.5	8.33	12.495		
	384.5	386.0	1.5	0.99	1.485		
	386.0	387.5	1.5	tr.			
AVERAGES:	348.0	353.0	5.0	4.55			0.13/16.4'
	348.0	362.1	14.1	2.54	35814		0.07/46.3'
	362.1	369.5	7.4	0.02	.148		
	369.5	374.0	4.5	0.84	3.78		0.14/14.8.
	374.0	380.0	6.0	0.02	.12.		
	383.0	386.0	3.0	4.66			0.13/9.8
	350.0	386.0	6.0	2.56	15.36		0.07/19.7'
	348.0	386.0	38.0	1.45			0.04/124.7'

M45383

KIDD CREEK MINES LTD.

EXPLORATION DIVISION

DRILL HOLE RECORD

HOLE NO. H13-47 PROPERTY Syngold J.V. #1 PROJECT NO. 008155 CONTRACTOR Bradley Bros. START 18-06-87

FINISH 23-06-87

COORDINATES Grid Location: Latitude 340S UTM: Lat. ..... Surveyed: Lat. ..... Mine Grid: Lat. .....

Departure 60W Dep. ..... Dep. ..... Dep. .....

Elevation ..... Elev. .....

COLLAR ATTITUDE Azimuth 333 Dip -50° LENGTH 302m CORE SIZE BQ

INCLINATION TESTS

Rotodip/Acid Tests

Depth	Dip	Depth	Dip

Compass Tests

Depth	Observed Azimuth	True Azimuth	Dip
61m	(in casing)		-49.5
121m	17° NW	334°	-45°
149m	16° NW	335°	-41°
179m	16.5° NW	334.5°	-38.5°
209m	16.0° NW	335°	-36.0°
238m	16.0° NW	335°	-35°
271m	17° NW	334°	-32.5°

REMARKS 3m of 40 m NW casing pulled, BW casing to 94m

Logged by M. Jerome Date 25-6-87 Property ..... Hole No. H13-47

PAP 133011103

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
			AE	m		m	Au gram
		- minor scattered pyrite locally					
		- minor to 1% thin quartz stringers throughout					
		- gradational contacts					
		- lower portion of unit amygdaloidal					
		- upper portion of unit broken, lost core from 77.6 - 80.0, 80.4, - 83.0, 83.67 - 86.0, 86.52 - 89.0					
		77.0 - 89.0 broken core with core loss					
		94.0 end of NQ core					
		96.06 - 96.23 broken quartz vein					
			0285	95.0	96.5	1.5	tr
		96.23 - 98.15 weakly/moderately sericitized/carbonatized massive mafic with scattered pyrite, rusty oxidized core along fractures	0285	96.5	98.0	1.5	tr
			0285	98.0	99.5	1.5	1.03
		114.5 - 115.33 tectonic mafic breccia with 1-60mm sharp mafic fragments (in situ breccia), with white carbonate matrix, 1-2% grey round carbonate amygdules in fragments					
		115.33 - 119.08 weakly amygdaloidal massive mafic					
		118.9 - 119.0 in situ brecciated mafic					
119.08	127.9	PILLOWED (?) MAFIC					

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 2

T.P.P. K-38

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
			AE		m	m	Au gram
		- fine grained, light/pale green, pillowed (?) mafic (possibly massive), weakly foliated at 45-50° to C.A.					
		- weak pervasive and fracture controlled carbonate alteration					
		- indistinct, thin pillow selveges, at 50° to C.A.					
		- minor quartz veining					
		- mottled pattern locally					
		- gradational contacts					
127.9	134.22	MASSIVE MAFIC					
		- light medium grey, fine grained, massive mafic weakly foliated at 55-60° to CA					
		- weak to moderate pervasive carbonatization, very weak carbonaceous alteration increasing towards lower grey zone					
		- minor, fine leucoxene grains scattered locally					
		- minor carbonate veinlets					
		- gradational contacts					
		128.0 - 128.33 broken core					
			02854	132.5	134.0	1.5	tr
134.22	146.05	GREY MAFIC					
		- fine grained, medium to dark grey, carbonaceous altered mafic weakly/moderately foliated at 55-60°					
		- moderate/strong pervasive carbonaceous alteration, weak pervasive carbonatization					

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T.P.P. K-36

FROM - TO	DESCRIPTION	SAMPLE NO. AE	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au gram
	- 5-10% quartz-carbonate veining primarily as one principal vein in central portion of unit					
	- minor to 1% scattered brassy pyrite blebs in mafic					
	- gradational contacts	02855	134.0	135.5	1.5	0.03
		02856	135.5	136.75	1.25	tr
		02857	136.75	137.75	1.0	tr
	136.75 - 138.94 complex, irregular, quartz vein with minor carbonate, 5-7% dark	02858	137.75	138.94	1.19	tr
	brown, irregular dravite swathes in latter half of vein, common	02859	138.94	140.0	1.06	tr
	wallrock blotches and ribbons throughout, vein subparallel(?)	02860	140.0	141.5	1.5	tr
	to foliation, minor grey carbonate locally	02861	141.5	143.0	1.5	0.03
		02862	143.0	144.5	1.5	tr
	139.52 6cm quartz-dravite vein crosscutting foliation at 70° to C.A.,	02863	144.5	146.0	1.5	0.03
	approximately 35-40% brown dravite in vein	02864	146.0	147.5	1.5	0.17
	140.3 9 cm quartz vein crosscutting foliation at (U-55°, L-30°)					
	minor tourmaline needles along vein margin, offsheet veinlets					
	from vein					
	140.71 6cm quartz vein subparallel to foliation at (U-65°, L-70°)					
	140.92 5cm quartz vein subparallel to foliation at 60° to C.A.					

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 4

TPP K-36

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
146.05	153.78	MASSIVE MAFIC								
		- fine to medium grained, light grey to pale/mottled/bleached green, massive								
		mafic weakly to moderately foliated at 55-60° to C.A.								
		- weak to moderate pervasive carbonatization uphole decreasing downhole								
		to weak fracture controlled carbonatization, mottled chloritic spotting								
		with bleaching increasing downhole								
		- 1-2% carbonate veinlets throughout								
		- gradational upper contact								
153.78	172.61	PILLOWED MAFIC								
		- fine grained, light/medium green, pillowed mafic weakly/moderately foliated								
		at 55-60° to C.A.								
		- weak fracture controlled carbonatization								
		- pillow selvages generally thin (2-5mm), at various orientations (30-40°),								
		with up to 5-10%, 1-5mm oval/round carbonate amygdules in adjacent pillows								
		- minor fracturing throughout, flow breccia zones locally								
		- gradational contacts								
		- minor pyrrhotite locally in fractures, and in selveges								
		153.78 - 154.39 brecciated mafic with carbonate matrix								
		164.24 - 166.14 gloppy mafic breccia (pillow breccia) with hyaloclastitic								
		matrix, fine white feldspar (minor -2%) in matrix								

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 5

TPP K-3

FROM	TO	DESCRIPTION	SAMPLE NO. AE	FROM	TO	SAMPLE LENGTH m	ASSAYS Au gram			
172.61	201.85	MASSIVE MAFIC								
		- fine grained, medium green to medium greyish-green, massive mafic weakly to moderately foliated at 55-60° to C.A., foliation increasing in intensity toward lower grey mafic								
		- weak to moderate pervasive and fracture-controlled carbonatization throughout, weak pervasive chloritization throughout, weak pervasive carbonaceous alteration towards lower portion of unit								
		- minor wispy, thin carbonate veining thoughout								
		- minor to 1% disseminated, patchy pyrite locally								
		- gradational contacts								
		- locally fine 1-2mm carbonate blotches (amygdules)								
		176.90 - 177.30 zone of irregular carbonate veining								
			02865	176.0	177.5	1.5	tr			
		177.17 principal vein - 15cm wide carbonate vein parallel to foliation (U-25°, L-55°), minor pyrite scattered in vein, common wallrock inclusions	02866	177.5	179.0	1.5	tr			
		188.36 - 191.0 zone with minor to 2% scattered pyrite blebs	02867	188.0	189.5	1.5	0.03			
			02868	189.5	191.0	1.5	0.69			
		189.62 9cm quartz vein crosscutting foliation at 30° to C.A., 3-4mm rind of dravite crystals along upper margin with minor pyrite	02869	191.0	192.5	1.5	tr			
			02870	192.5	194.0	1.5	tr			

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TPP. K-36

FROM	TO	DESCRIPTION	SAMPLE NO. AE	FROM m	TO	SAMPLE LENGTH m	ASSAYS Au gram
		200.0 - 201.85 increasing carbonaceous alteration, tan leucoxene grains common throughout, moderate to strong foliation	02872	194.0	195.5	1.5	tr
			02873	195.5	197.0	1.5	tr
			02874	197.0	198.5	1.5	tr
		gradational lower contact	02875	198.5	200.0	1.5	tr
			02876	200.0	201.5	1.5	tr
201.85	209.55	GREY MAFIC					
		- fine grained, medium to dark grey, carbonaceous altered mafic moderately to strongly foliated at 55-60° to C.A.					
		- moderate to strong pervasive carbonaceous alteration, moderate to weak pervasive carbonatization decreasing downhole, chloritic alteration of wallrock fragments in quartz veins					
		- 3-5% irregular quartz veining throughout, generally as stringer veinlets					
		- minor to 2% pyrite associated with quartz veins and within fractures in grey mafic					
		- tan leucoxene grains locally common	02877	201.5	203.0	1.5	tr
		- gradational contacts	02878	203.0	204.5	1.5	0.03
			02879	204.5	206.0	1.5	0.21
			02880	206.0	207.4	1.4	0.03
		207.43 - 208.19 zone of irregular quartz veining with numerous wallrock inclusions, common hydromuscovite, minor scattered pyrite	02881	207.4	209.0	1.6	0.17

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T.P.P. K-30

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO (m)		SAMPLE LENGTH	ASSAYS
			AE			m	Au gram
209.55	221.72	MASSIVE MAFIC					
		- fine to medium grained, granular, buff grey massive mafic weakly foliated at 60° (?) to C.A.					
		- strong pervasive carbonatization/sericitization, weak fracture controlled carbonatization					
		- minor to 1% thin quartz stringer veinlets throughout					
		- locally carbon-filled fractures					
		- minor disseminated pyrite in mafic	02882	209.0	210.5	1.5	tr
		- fine, tan leucoxene grains throughout	02883	210.5	212.0	1.5	0.03
		- gradational contacts	02884	212.0	213.5	1.5	tr
			02885	213.5	215.0	1.5	tr
			02886	215.0	216.5	1.5	tr
		216.05 7 cm quartz vein sup-parallel to foliation at 50° to C.A.	02887	216.5	218.0	1.5	tr
			02888	218.0	219.5	1.5	tr
		221.31 6cm quartz-carbonate vein subparellel (?) to foliation at 70° to C.A., minor hydromuscovite in vein	02889	219.5	221.0	1.5	tr
221.72	237.75	ALTERED MAFIC					
		- fine grained, buff grey to light grey, granular, altered massive mafic weakly foliated at 55-60° to C.A.					
		- intense pervasive sericitization/carbonatization, weak carbonaceous alteration in lower portion of unit.					

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T.P.P. K-34

FROM - TO	DESCRIPTION	SAMPLE NO. AE	FROM m	TO	SAMPLE LENGTH m	ASSAYS Au gram
	- minor to 1% irregular quartz veining throughout, discontinuous and narrow					
	- tan leucoxene grains common in lower half of unit					
	- minor to 2% scattered pyrite generally in weak carbonaceous altered portion of unit, and peripheral to quartz veins, brassy cubic and dark varieties					
	- gradational contacts					
		02890	221.0	222.5	1.5	tr
	221.72 - 232 buff grey section with minor to 1% scattered pyrite	02892	222.5	224.0	1.5	1.44
	230.16 - 230.21 irregular zone of quartz veining bounded by a slip plane at 20° to C.A., VISIBLE GOLD flecks at 230.17 along wallrock margin	02893	224.0	225.5	1.5	0.03
		02894	225.5	227.0	1.5	tr
		02895	227.0	228.5	1.5	tr
		02896	228.5	230.0	1.5	tr
		02897	230.0	231.5	1.5	0.03
	231.0 beginning of distinct leucoxene grains, increase in number and size towards lower grey mafic	02898	231.5	233.0	1.5	0.03
	232.0 - 237.75 weakly carbonaceous altered mafic; leucoxene bearing, minor to 5% scattered pyrite principally peripheral to quartz veins					
	233.29 irregular quartz vein approximately 4-5cm wide with extremely uneven margins, crosscutting foliation at 20° to C.A., common wallrock inclusions 1-2% pyrite along vein margins	02899	233.0	234.5	1.5	12.82
		02900	234.5	236.0	1.5	1.71
		02901	236.0	237.5	1.5	1.78
	235.56 6cm quartz vein crosscutting foliation at 50°, 1-2% pyrite and minor arsenopyrite in wallrock, 3-4% dark carbonate in vein in fractures					

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TPP K-34

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au ppb			
			AF	m		m				
		and along vein margins								
		236.11 19 cm quartz vein subparallel to foliation (U-50°, L-60°), minor hydromuscovite and carbonate in vein, wallrock inclusions with 1% pyrite in lower 6cm of vein								
		236.50 - 237.75 carbon filled fracture planes throughout.								
237.75	241.65	GREY MAFIC								
		- medium to dark grey, fine grained, carbonaceous altered mafic moderately to strongly foliated at 55-60° to C.A.								
		- moderate to strong pervasive carbonaceous alteration								
		- fine, tan leucoxene grains locally								
		- 3-5% irregular quartz veining throughout								
		- 2-7% brassy pyrite throughout as disseminated blebs associated with quartz veining, and in fractures								
		- gradational contacts								
		238.91 6cm quartz vein subparallel to foliation (U-35°, L-20°) 5% grey carbonate in vein, minor pyrite in vein, 3-5% pyrite in wallrock	02902	237.5	239.0	1.5	1.54			
			02903	239.0	240.5	1.5	3.09			
			02904	240.5	242.0	1.5	0.99			
		239.21 5cm irregular quartz vein crosscutting foliation at 20° to C.A., with extremely irregular vein margins, minor hydromuscovite in fractures, 2-3% pyrite along vein margins, 5% pyrite in wallrock								

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 10

T.P.P. K-56

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au
			AE	m		m	gram
		239.86 - 240.37 zone of quartz veining (15-25%), melange of tectonized quartz veins wallrock, 2-5% pyrite					
		240.26 6cm quartz vein crosscutting foliation at 30° to C.A., minor to 1% pyrite along vein margin					
		240.8 - 242.0 leucoxene bearing grey mafic					
241.65	255.65	MASSIVE MAFIC					
		- fine grained, granular light to buff grey, altered massive mafic moderately foliated at 60-65° to C.A.					
		- strong pervasive carbonatization/sericitization, weak pervasive carbonaceous alteration					
		- tan leucoxene grains throughout, fine 1-3%					
		- minor to 1% thin (1-2cm) quartz veins throughout generally crosscutting foliation	02905	242.0	243.5	1.5	tr
		- minor to 3% pyrite as dark and brassy varieties disseminated in mafic	02906	243.5	245.0	1.5	0.03
		- gradational contacts	02907	245.0	246.5	1.5	tr
			02908	246.5	248.0	1.5	tr
			02909	248.0	249.5	1.5	tr
			02910	249.5	251.0	1.5	0.48
			02911	251.0	252.5	1.5	1.95
			02912	252.5	254.0	1.5	0.03
			02913	254.0	255.5	1.5	tr
			02914	255.5	257.0	1.5	tr

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 11

TPP K-3

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM (m)	TO (m)	SAMPLE LENGTH (m)	ASSAYS Au (gram)			
		243.72 2cm quartz vein crosscutting foliation at 50° to C.A., VISIBLE GOLD specks	AE							
		along upper vein margin at 243.74								
		250.0 - 254.0 zone of minor to 7% scattered disseminated pyrite, with weak								
		carbonaceous alteration, minor-1% quartz veining								
		251.66 7cm quartz vein crosscutting foliation at 30° to C.A., 2-3%								
		dark and brassy pyrite along vein margins								
255.65	269.0	HIGH MG PILLOWED MAFIC								
		- waxy greyish green to medium greyish-green, fine grained, high Mg pillowed mafic								
		- moderate to strong fracture controlled carbonatization throughout								
		- 5-10% thin, stringer, carbonate veinlets throughout								
		- pillow selvages generally 1-2cm wide, dark grey, and indistinct								
		- minor disseminated pyrite locally								
		- gradational contacts								
		255.65 - 256.68 broken core								
269.0	271.55	GREY MAFIC								
		- fine grained, medium grey, carbonaceous altered high Mg mafic moderately foliated at 50-55° to C.A.	02915	267.5	269.0	1.5	0.03			
			02916	269.0	270.5	1.5	0.07			
			02917	270.5	272.0	1.5	tr			

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T.P.P. K-38

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		- moderate pervasive carbonaceous alteration, weak pervasive and fracture controlled carbonate alteration								
		- minor quartz/carbonate veining								
		- gradational contacts								
271.55	302.0	VARIOLITIC HIGH MG PILLOWED MAFIC								
		- fine grained, waxy buff green to light green, variolitic high Mg pillowed mafic foliated moderately at 55-60°								
		- weak to moderate pervasive and fracture controlled carbonatization, weak chloritic alteration								
		- pillow selvages generally 1-3cm wide, dark grey, orientated at 55-60° to C.A., locally with 4-10mm oval variolites along pillow margin								
		- 10-12% thin discontinuous carbonate veinlets throughout								
		- gradational upper contact								
302.0		END OF HOLE								

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 13

T.P.P. K-3A

DIAMOND DRILL LOG SAMPLE RECORD

HOLE No. H13-47.

PAGE _____ OF _____

SAMPLE NUMBER	FOOTAGE			S/T.			DESCRIPTION
	From	To	Length				
	233.0	234.5	1.5	12.82			
	234.5	236.0	1.5	1.71			
	236.0	237.5	1.5	1.78			
	237.5	239.0	1.5	1.54			
	239.0	240.5	1.5	3.09			
	240.5	242.0	1.5	0.99			
	242.0	243.5	1.5	tr			
	243.5	245.0	1.5	0.03			
	245.0	246.5	1.5	tr			
	246.5	248.0	1.5	tr			
	248.0	249.5	1.5	tr			
	249.5	251.0	1.5	0.48			
	251.0	252.5	1.5	1.95			
	252.5	254.0	1.5	0.03			
AVERAGES:	233.0	240.5	7.5	4.19			0.12/24.6
	240.5	252.5	12.0	0.29			
	~~#~~						
	233.0	252.5	19.5	1.76			0.05/64.0

M45383

KIDD CREEK MINES LTD.

EXPLORATION DIVISION

DRILL HOLE RECORD

HOLE NO. H13-48, 48A, 48B PROPERTY Syngold J.V. #1 PROJECT NO. 008155... CONTRACTOR Bradley Bros. START 25-06-87

FINISH 08-07-87

COORDINATES Grid Location: Latitude 4255 UTM: Lat. ..... Surveyed: Lat. ..... Mine Grid: Lat. 99407.93N

Departure 20W Dep. ..... Dep. ..... Dep. 98210.82E

Elevation ..... Elev. 4986.01m

COLLAR ATTITUDE Azimuth 333° Dip -58.0° LENGTH 412m CORE SIZE BQ

INCLINATION TESTS

Rotodip/Acid Tests

Depth	Dip	Depth	Dip	
				H13-48
				H13-48A
				H13-48B

Compass Tests

Depth	Observed Azimuth	True Azimuth	Dip	
79m	21.5°NW	329.5°	-53.5°	H13-48
109m	19.5°NW	331.5°	-50.0°	
148m	19.0°NW	332.0°	-46.0°	
136m	19.0°NW	332°	-48.5°	H13-48A
161m	18.0°NW	333°	-47.5°	
184m	17°NW	334°	-46.0°	
217m	17°NW	334°	-43.5°	
205m	16°NW	335°	-46.0°	
229m	14.5°NW	336.5°	-43.0°	
262m	13.0°NW	338.0°	-41.0°	H13-48B
292m	13.0°NW	338.0°	-43.0°	
320m	13.0°NW	338.0°	-37.0°	
344m	15.5°NW	335.5°	-35.5°	
370m	12.5°NW	338.5°	-32.5°	
400m	11°NW	340°	-31.0°	

REMARKS NW casing to 28.0m, BW casing to 55m
H13-48A - wedge hole off H13-48 at 125m (plug set at 128m)
H13-48B - wedge hole off H13-48A at 200m (plug set at 203m)

Logged by M. Jerome Date 09/07/87 Property ..... Hole No. H13-48

PAP 133011193

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
0	28.22	OVERBURDEN					
28.22	143.69	SEDIMENTS					
		- light to medium grey, fine grained, interbedded greywacke and argillite sediments at 20-25° to C.A. increasing downhole to 35-40°					
		- topping direction downhole as indicated by bedding features					
		- gritty greywacke sediments (light grey) predominant uphole decreasing in proportion to argillite sediments (medium grey) downhole					
		- minor thin quartz-carbonate veining throughout parallel with bedding with associated minor pyrite, pyrite also associated with fractures in sediments. Minor sphalerite in thin carbonate veinlets locally					
		- unit extremely broken in upper portion of unit with core loss, lost core from 28.44 - 29.0, 30.03 - 32.0, 33.20 - 35.0, 36.0 - 33.0, 38.30 - 41.0, 41.68 - 44.0, 44.86 - 47.0, 48.0 - 50.0					
		51.0 bedding at 20° to C.A.					
		55.61 end of NQ core					
		57.84 bedding at 22° to C.A.					
		58.65 2-3% sphalerite in thin secondary carbonate sweat veinlets					
		68.33 bedding at 20° to C.A., soft sediment deformation indicates downhole topping direction					

LOGGED BY: DATE: . PROPERTY HOLE NO. PAGE NO. 1

T.P.P. K-38

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		75.59 16cm quartz-carbonate vein subparallel to bedding at 60° to C.A., 1-3% hydromuscovite in fractures in vein								
		80.5 bedding at 20° to C.A.								
		105.34 graded sequence topping downhole at 30° to C.A.								
		116.78 bedding at 35° to C.A.								
		121.65 bedding at 40° to C.A.								
		130.77 bedding at 40° to C.A.								
		135.0 - 143.69 development of crenulation cleavage perpendicular to bedding, increasing carbonaceous content, increased cubic pyrite (1-3%) over last 1.5m								
		143.62 - 143.69 15-20% cubic pyrite								
		sheared and broken lower contact								
143.69	151.18	CARBONACEOUS ARGILLITE								
		- fine grained, dark grey to black, bedded carbonaceous argillite at 40-50° to C.A.								
		- 1-2% thin carbonate veinlets parallel with bedding throughout								

LOGGED BY: DATE: . PROPERTY HOLE NO.

TPP K-3

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
			AE	m		m	Au gram
		- 1-3cm carbonatized mafic (?) intrusive locally					
		- minor to 5% scattered brassy cubic pyrite throughout					
		- light grey, moderate to strongly carbonatized mafic (?) intrusives parallel with bedding at 143.96 - 143.98 (45^{0}), 144.28 - 144.31 (50^{0}), 144.36 - 144.39 (50^{0}), 145.84 - 145.88 (50^{0}), 146.94 - 147.13 (40^{0})					
		147.25 -147.35 quartz vein with broken contacts					
			02918	146.0	147.5	1.5	tr
			02919	147.5	149.0	1.5	tr
151.18	158.0	GRAPHITIC ARGILLITE					
		- fine grained, dark grey to black, conductive graphitic argillite bedded at $40-45^{0}$ to C.A.					
		- thin, white carbonate stringer veins and planes generally parallel with bedding					
		- graphitic slip surfaces throughout					
		- minor to 2% pyrite in fractures and along bedding planes					
		- gradational upper contact					
		152.21 - 153.05 tectonized graphitic argillite with broken carbonate minor pyrite disrupted bedding					
158.0		END OF H13-48 (29/06/87), pull up to 128m set plug, top of wedge at 125m, wedge down (H13-48A)					

LOGGED BY: DATE: PROPERTY HOLE NO. PAGE NO. 3

T.P.P. K-30

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
126.0	143.64	SEDIMENTS					
		- light to medium grey, fine grained interbedded greywacke and argillite sediments at 35-40° to C.A. (similar to sediments from 28.22-43.69 in H13-48)					
		- minor thin carbonate veinlets throughout					
		- minor pyrite in fractures and associated with carbonate veinlets					
		- gradational lower contact					
		127.17 bedding at 35° to C.A.					
		131.32 bedding at 40° to C.A.					
		136.0 - 143.64 development of cleavage perpendicular to bedding with graphitic slip surfaces					
143.64	152.49	CARBONACEOUS ARGILLITE					
		- fine grained, dark grey to black, bedded carbonaceous argillite at 45-50° to C.A., similar to carbonaceous argillite from 143.69 - 151.18m in H13-48					
		- 1-2% thin carbonate veinlets generally parallel with bedding					
		- light green-grey carbonated mafic (?) intrusives locally					
		- gradational contacts					
		- minor to 3% scattered cubic brassy pyrite throughout					

LOGGED BY: DATE: . PROPERTY HOLE NO. PAGE NO. 4

T.P.P. K-38

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
		- light grey, moderate to strongly carbonatized mafic (?) intrusives parallel with bedding at 144.25 - 144.32 (30^0), 144.92 - 144.96 (45^0), 146.60 - 146.64 (30^0), 147.83 - 148.30 (35^0)					
152.49	179.96	GRAPHITIC ARGILLITE					
		- fine grained, dark grey to black, conductive graphitic argillite bedded at 40-45^0 to C.A., similar to graphitic argillite from 151.18 - 158.0 in H13-48 - 1-2% thin carbonate veins generally parallel with bedding with associated brassy pyrite, minor to 7% brassy pyrite throughout in - carbonate veinlets scattered at random, semi-massive locally - graphitic slip surfaces throughout					
		155.71 - 155.75 light greenish-grey carbonated mafic (?) intrusive at 45^0 to C.A.					
		166.08-166.12 mafic (?) intrusive at 45^0 to C.A., minor scattered fine pyrite within					
		169.70 - 171.67 greywacke rich section with 3-5% pyrite					
179.96	189.79	FRACTURED MAFIC					
		- fine grained, light to buff grey, fractured pillowed (?) mafic moderately to strongly foliated at 45-50^0 to C.A.					

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TPP. K-38

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
			AE	m		m	Au gram			
		- unit weakly to strongly tectonized (insitu fracturing to complete brecciation)								
		- minor to 1% stringer carbonate veinlets throughout	02920	188.0	189.5	1.5	tr			
		- moderate to strong pervasive carbonatization throughout, very weak to weak pervasive carbonaceous alteration locally	02921	189.5	191.0	1.5	tr			
		- minor to 1% cubic brassy pyrite in upper portion of unit								
		- unit locally has 1-2mm dark carbonate amygdules								
189.79	202.68	PILLOWED MAFIC								
		- fine grained, light green, pillowed mafic weakly to moderately foliated at 50-55° to C.A.								
		- lower portion of unit weakly to moderately pervasively carbonatized								
		- minor to 1% quartz-carbonate veining and thin carbonate veinlet								
		- pillow selvages generally less than 1cm wide, at 50° to C.A., and locally with minor pyrrhotite								
		- 1-2mm elongate, oval carbonate amygdules locally								
		- gradational contacts								
		198.5 - 202.68 weak to moderate pervasive carbonatization increasing downhole								
202.68	207.57	FRACTURED MAFIC								
		- light greenish-grey to medium greenish-grey fractured mafic moderately foliated at 50° to C.A.								
		- moderate to strong pervasive carbonatization throughout, very weak to weak pervasive carbonaceous alteration locally.								

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TPP. K-38

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
			AE	m		m	Au gram			
		- minor to 1% thin, discontinuous, stringer carbonate veinlets throughout								
		- variable tectonism ranging from weak dilatory fracturing to complete brecciation								
		- minor scattered pyrite blebs								
			02922	202.0	203.0	1.0	tr			
		203.0 -204.0 medium grey carbonaceous altered fractured mafic	02923	203.0	204.5	1.5	tr			
			02924	204.5	206.0	1.5	tr			
			02925	206.0	207.5	1.5	tr			
207.57	210.1	MASSIVE MAFIC								
		- fine grained, light grey to light greenish-grey, massive mafic weakly								
		foliated at 50° to C.A.								
		- weak dilated fracturing throughout								
		- weak pervasive carbonatization, very weak pervasive carbonaceous alteration	02926	207.5	209.0	1.5	tr			
		in lower portion of unit.	02927	209.0	210.5	1.5	tr			
		- minor thin carbonate veining								
210.1	213.68	GREY MAFIC								
		- fine grained, medium grey, carbonaceous altered massive mafic weakly to								
		moderately foliated at 50-55° to C.A.								
		- weak pervasive carbonaceous alteration and carbonatization throughout								
		- 1-2% thin erratic carbonate stringer veinlets throughout								
		- minor scattered pyrite locally								
		- gradational contacts								
		- weak fracturing throughout								

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T.P.P. K-38

FROM	TO	DESCRIPTION	SAMPLE NO. AE	FROM (m)	TO (m)	SAMPLE LENGTH (m)	ASSAYS Au gram			
		211.66 19 cm wide carbonate vein subparallel to foliation at 60° to C.A.	02928	210.5	212.0	1.5	tr			
			02929	212.0	213.5	1.5	tr			
213.68	218.0	MASSIVE MAFIC								
		- fine grained, light greenish-grey massive mafic weakly to moderately foliated at 50° to C.A., similar to massive mafic unit from 207.57 - 210.1m	02930	213.5	215.0	1.5	0.07			
		- weak fracturing throughout								
		- minor thin carbonate veinlets throughout								
218.0		End of H13-48A (01/07/87), pull up to 203m - set plug, top of wedge at 200m, wedge down (H13-48B)								
201.0	202.78	PILLOWED MAFIC								
		- fine grained, medium greyish-green, pillowed mafic weakly to moderately foliated at 45-50° to C.A. , similar to pillowed mafic unit in H13-48A from 189.79-202.68m								
		- weak dilated fracturing throughout, increasing in intensity downhole								
		- minor thin carbonate veinlets and carbonate amygdules								
202.78	206.61	FRACTURED MAFIC								
		- fine grained, light to medium greyish-green, fractured mafic (pillowed?) moderately to strongly foliated at 45-50° to C.A. similar to fractured mafic unit from 202.68 - 207.57 in hole H13-48A								
		- moderate to strong pervasive and fracture controlled carbonatization, weak pervasive carbonaceous alteration locally								
		- minor discontinuous, thin carbonate veining throughout								
		- gradational contacts								

FROM	TO	DESCRIPTION	SAMPLE NO. AE	FROM	TO	SAMPLE LENGTH m	ASSAYS Au gram
206.61	217.23	MASSIVE MAFIC					
		- fine grained, light greyish-green to light grey massive mafic weakly to moderately foliated at 45-50° to C.A.					
		- weak dilated fracturing throughout					
		- weak pervasive and fracture controlled carbonatization throughout, very weak to weak pervasive carbonaceous alteration					
		- minor to 1% thin, irregular carbonate stringers throughout					
		- gradational contacts					
		- minor scattered pyrite					
			02932	206.0	207.5	1.5	tr.
			02933	207.5	209.0	1.5	tr
			02934	209.0	210.5	1.5	tr
		211.38 - 213.97 light/medium grey, very weak to weakly carbonaceous altered zone, minor pyrite in fractures and with carbonate veinlets	02935	210.5	212.0	1.5	tr
			02936	212.0	213.5	1.5	tr
			02937	213.5	215.0	1.5	tr
			02938	215.0	216.5	1.5	tr
			02939	216.5	218.0	1.5	tr
217.23	220.16	GREY MAFIC					
		- Fine grained, light greyish-green, fractured pillowed (?) mafic strongly foliated at 45-50° to C.A.					
		- weak to moderate pervasive carbonaceous alteration, moderate to strong pervasive carbonatization					

LOGGED BY: DATE: . PROPERTY HOLE NO.

FROM	TO	DESCRIPTION	SAMPLE NO. AE	FROM m	TO m	SAMPLE LENGTH m	ASSAYS Au gram			
		- weak dilatory fracturing throughout with brecciation locally								
		- minor thin carbonate stringer veining	02940	218.0	219.5	1.5	tr			
		- minor scattered pyrite	02941	219.5	221.0	1.5	1.06			
		- gradational contacts								
220.16	221.22	FRACTURED MAFIC								
		- fine grained, light greyish-green, fractured pillowed(?) mafic strongly foliated at 45-50° to C.A.								
		- moderate to strong pervasive carbonatization								
		- unit strongly tectonized - generally all breccia with minor dilated fracturing carbon filled fractures	02942	221.0	222.5	1.5	tr			
		- minor pyrite in carbonaceous matrix, minor sphalerite locally								
221.22	246.31	PILLOWED MAFIC								
		- fine grained, light green pillowed mafic weakly to moderately foliated at 50-55° to C.A.								
		- weak pervasive carbonatization								
		- minor thin, irregular, discontinuous carbonate stringer veinlets throughout								
		- minor to 1% oval, elongate, white carbonate amygdules in central portion of unit								
		- pillow selveges generally less than 1cm wide, dark green/grey, 40-50° orientations with bleached pillow margins, minor pyrrhotite in selveges locally								
		- minor fracturing throughout, increasing in intensity downhole with local								

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
		breccia zones					
		- gradational contacts					
		226.52 7cm carbonate vein parallel to foliation at 35° to C.A. with minor wallrock inclusions, minor chlorite patches					
		242.27 - 246.31 weak dilated fracturing with local breccia zones, carbonaceous matrix and fracture filling					
		243.43 - 244.38, 244.72 - 245.01, 246.02 - 246.31 breccia zones					
246.3	298.19	MASSIVE MAFIC					
		- fine grained, light green to greyish-green to light grey, massive mafic weakly foliated at 50-55° to C.A.					
		- variable alteration intensities and types throughout - locally very weak pervasive and fracture controlled carbonatization, mottled chloritic spotting with bleaching					
		- minor thin carbonate and quartz-carbonate veining throughout, generally subparallel with foliation					
		- weak fracturing locally					
		- minor fine beige leucoxene grains locally					
		- gradational contacts					
		246.3 - 248.0 minor, very fine leucoxene grains in a weakly fractured massive mafic					

LOGGED BY: DATE: PROPERTY HOLE NO.

TPP K-38

FROM - TO	DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
		AE	m		m	Au gram
	249.72 - 251.69 light to medium grey weakly carbonaceous altered zone with minor crosscutting carbonate veining	02943	248.0	249.5	1.5	tr
		02944	249.5	251.0	1.5	tr
		02945	251.0	252.5	1.5	tr
	252.28 16 cm quartz-carbonate vein subparallel(?) to foliation (upper -30°, lower -80°), 50-60% brown-beige clinozoisite, 40-50% quartz, minor carbonate and pyrite					
	256.60 - 261.5 fine grained, light greyish-green section with minor fine leucoxene grains					
	264.69 - 280.55 light green, mottled and chloritic spotted massive mafic					
	267.80 - 273.3 possible pillowed mafic section with remnent pillow selvedges, obscured by alteration					
	273.37 9cm quartz-clinozoisite - carbonate vein crosscutting foliation at (upper -75°, lower -80°)					
	275.67 8cm carbonate-chlorite vein crosscutting foliation (upper -50°, lower 45°)					
	280.55 - 290.0 light buff-grey, mottled massive mafic					
		02946	288.5	290.0	1.5	tr
	290.0 - 298.19 light greyish-green to grey massive mafic with increasing carbonaceous alteration towards lower grey mafic, moderate pervasive carbonatization throughout, minor carbonate veining	02947	290.0	291.5	1.5	0.03
		02948	291.5	293.0	1.5	tr
		02949	293.0	294.5	1.5	tr

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FROM	TO	DESCRIPTION	SAMPLE NO. AE	FROM m	TO m	SAMPLE LENGTH m	ASSAYS Au gram			
			02950	294.5	296.0	1.5	tr			
			02951	296.0	297.5	1.5	tr			
		294.70 12cm carbonate vein crosscutting foliation at 60° to C.A., minor ribbon of dravite near upper contact								
298.19	305.32	GREY MAFIC								
		- fine grained, medium grey, carbonaceous altered massive mafic weakly foliated at 50-55° to C.A.								
		- weak pervasive carbonaceous alteration, weak to moderate pervasive carbonatization								
		- weak fracturing throughout					ppb	gram		
		- minor thin carbonate veining								
		- gradational contacts								
		- minor scattered pyrite blebs	02952	297.5	299.0	1.5	i	tr		
			02953	299.0	300.5	1.5	8			
		304.74 - 304.90 complex carbonate veined zone, extremely irregular contacts with common wallrock inclusions. Minor scattered pyrite	02954	300.5	302.0	1.5	8			
			02955	302.0	303.5	1.5	15			
			02956	303.5	305.0	1.5	165			
		305.13 13cm (?) quartz-carbonate vein subparallel to foliation at 50° to C.A., minor pyrite in quartz, 5% galena with carbonate in lower quarter of unit								
305.32	309.65	MASSIVE MAFIC								
		- fine grained, light greenish-grey to grey, massive mafic weakly								

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
			AF	m		m	Au ppb
		foliated at 50-55° to C.A.					
		- weak pervasive carbonatization, sericitization, very weak pervasive					
		carbonaceous alteration with weak fracturing in upper portion of unit	02957	305.0	306.5	1.5	355
		- gradational contacts	02958	306.5	308.0	1.5	15
		- minor scattered pyrite locally	02959	308.0	309.5	1.5	11
309.65	340.93	ALTERED MASSIVE MAFIC					
		- fine to medium grained, granular, light buff-grey to grey to mauve-grey,					
		altered massive mafic, very weakly to weakly foliated at 50-60° to C.A.					
		- variable alteration types and intensities throughout - strong to intense					
		pervasive sericitization, carbonatization and silicification (locally),					
		minor carbonaceous alteration					
		- minor thin quartz veining throughout generally crosscutting foliation at					
		high angles					
		- variable sulphide content - nil to 5% pyrite-pyrrhotite or pyrite locally,					
		minor arsenopyrite peripheral to quartz veining locally					
		- tan to pink-grey fine leucoxenes throughout					
		i) 309.65 - 314.54 light grey, strongly carbonatized/sericitized massive mafic					
		with local pyrite					
		310.3 - 310.8 4-5% dark pyrite disseminated in mafic and concentrated	02960	309.5	311.0	1.5	162
		peripheral to a 2cm wide quartz vein crosscutting foliation at 40°	02961	311.0	312.5	1.5	11
		to C.A. at 310.49m	02962	312.5	314.0	1.5	11
			02963	314.0	314.54	0.54	26

LOGGED BY: DATE: PROPERTY HOLE NO.

T.P.P. K-38

FROM - TO	DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		AE	m		m	Au ppb	gram		
	ii) 314.54 - 316.60 medium mauve-grey, granular, intensely sericitized/carbona-	02964	314.54	315.54	1.0		108.69		
	tized, leucoxene bearing massive mafic, 2-5% fine dark and brassy	02965	315.54	317.0	1.46		1.58		
	pyrite and pyrrhotite throughout, minor fine arsenopyrite peripheral to								
	thin quartz veinlets, gradational contacts								
	315.35 truncated quartz vein with 15-80% patches of massive to semi								
	massive pyrite, smear of VISIBLE GOLD flecks in offshoot thin quartz-								
	filled fracture at 315.30								
	iii) 316.60 - 318.70 altered massive mafic with minor pyrite and quartz veining	02966	317.0	318.5	1.5	606			
	iv) 318.70 - 323.7 altered massive mafic with 1-4% dark pyrite throughout								
	(5% locally), minor pyrrhotite locally up to 1mm pink-tan leucoxenes								
	throughout, minor quartz veining								
	318.70 - 319.10 medium mauve-grey, granular zone with 4-5% pyrite-	02967	318.5	320.0	1.5	594			
	pyrrhotite, minor arsenopyrite	02968	300.0	321.5	1.5		1.61		
	320.58 4cm quartz vein crosscutting foliation (U-45°, L-65°) with								
	irregular contacts, 1-2% ribbony dravite and hydromuscovite in vein,								
	3-5% dark pyrite in surrounding wallrock								
	321.96 13 cm quartz vein crosscutting foliation at 55° to C.A., minor	02969	321.5	323.0	1.5	447			
	pyrite along wallrock margins	02970	323.0	324.5	1.5		2.02		
		02971	324.5	326.0	1.5	34			
		02972	326.0	327.5	1.5	88			

LOGGED BY: DATE: PROPERTY HOLE NO. PAGE NO. 15

T.P.P. K-30

FROM	TO	DESCRIPTION	SAMPLE NO. AE	FROM m	TO m	SAMPLE LENGTH m	ASSAYS Au ppb
		v) 323.7 - 340.93 medium buff/mauve-grey, leucoxene bearing, strongly carbonatized /sericitized massive mafic, minor thin quartz veining, minor scattered pyrite	02973	327.5	329.0	1.5	19
			02974	329.0	330.5	1.5	15
			02975	330.5	332.0	1.5	89
			02976	332.0	333.5	1.5	15
			02977	333.5	335.0	1.5	18
			02978	335.0	336.5	1.5	14
			02979	336.5	338.0	1.5	15
			02980	338.0	339.5	1.5	49
			02981	339.5	341.0	1.5	29
340.93	342.3	GREY MAFIC					
		- light to medium grey, fine grained, carbonaceous altered massive mafic	02982	341.0	342.5	1.5	40
		weakly to moderately foliated at 50-55° to C.A.					
		- weak pervasive carbonaceous and carbonate alteration					
		- minor irregular quartz veining with associated minor brassy pyrite in veins					
		and in surrounding wallrock					
		- fine grained tan-beige leucoxenes throughout					
		- minor fracturing					
342.3	383.31	ALTERED MAFIC					
		- fine grained, granular, light buff-grey to light grey, altered massive mafic					
		weakly foliated at 55-60° to C.A.					
		- variable alteration types and intensities throughout - strong to intense					
		sericitization/carbonatization, weak carbonaceous alteration locally					

LOGGED BY: DATE: PROPERTY HOLE NO. PAGE NO. 16

TPP.K-34

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
			AE	m		m	Au ppb	gram		
		- minor quartz veining								
		- gradational contacts								
			02983	342.5	344.0	1.5	36			
		i) 342.3 - 352.06 light (buff) grey, altered massive mafic with minor scattered	02984	344.0	345.5	1.5	49			
		pyrite	02985	345.5	347.0	1.5		6.00		
			02986	347.0	348.5	1.5	22			
		350.27 start of pyrite occurrence increasing downhole	02987	348.5	350.0	1.5	18			
			02988	350.0	351.5	1.5	163			
		ii) 352.06 - 352.41 light grey, weakly carbonaceous altered section with minor	02989	351.5	352.5	1.0	237			
		3% scattered dark and brassy pyrite								
		352.96 - 353.19 23 cm irregular quartz vein subparallel (?) to foliation	02990	352.5	353.5	1.0	288			
		(U-25°, L-65°) minor to 1% pyrite along vein margins 1-3% pyrite in	02991	353.5	354.5	1.0	355			
		surrounding wallrock	02992	354.5	356.0	1.5	549			
			02993	356.0	357.5	1.5	147			
		iii) 353.41 - 356.84 light grey, intensely sericitized/carbonatized massive	02994	357.5	359.0	1.5	754			
		mafic, 1-3% scattered dark and brassy pyrite throughout, minor quartz	02995	359.0	360.5	1.5	47			
		veining crosscutting foliation	02996	360.5	362.0	1.5	171			
			02997	362.0	363.5	1.5	488			
		iv) 356.84 - 376.0 light buff grey to grey strongly carbonatized/sericitized	02998	363.5	365.0	1.5	101			
		massive mafic with minor scattered dark pyrite, minor veining	02999	365.0	366.5	1.5	32			
			03000	366.5	368.0	1.5	12			
		v) 376.0 - 383.31 light grey, intensely altered section, leucoxene bearing,	AF							
		locally weak carbonaceous alteration, minor quartz veining crosscutting	01666	368.0	369.5	1.5	11			
		foliation with associated minor arsenopyrite in wallrock locally,	01667	369.5	371.0	1.5	14			
		minor to 2% pyrite throughout (dark and brassy varieties)	01668	371.0	372.5	1.5	6			

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TPP K-38

FROM - TO		DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb	gram		
		380.27 - 380.34 irregular quartz vein crosscutting (?)	01669	372.5	374.0	1.5	8			
		foliation, fine blue-grey quartz (?) eyes in wallrock,	01670	374.0	375.5	1.5	45			
		VISIBLE GOLD speck in quartz near lower margin at 380.34	01671	375.5	377.0	1.5		1.37		
			01672	377.0	378.5	1.5		1.65		
			01673	378.5	380.0	1.5		1.20		
			01674	380.0	381.60	1.6		1.68		
			01675	381.6	383.31	1.71		1.41		
383.31	388.2	MASSIVE HIGH MG MAFIC								
		- light green to greyish-green, fine grained, massive high Mg mafic weakly	01676	383.31	384.5	1.19	37			
		foliated at 60° to C.A.	01677	384.5	386.0	1.5	22			
		- weak pervasive carbonatization, chloritization	01678	386.0	387.5	1.5	469			
		- minor quartz veining crosscutting foliation	01679	387.5	389.0	1.5	115			
		- minor fracturing								
		- gradational contacts								
388.2	389.63	GREY MAFIC								
		- fine grained, light-medium grey, carbonaceous altered high Mg mafic	01680	389.0	390.5	1.5	489			
		moderately foliated at 60°								
		- weak pervasive carbonaceous alteration and carbonatization								
		- minor erratic thin carbonate and quartz veining with associated minor pyrite								
		- gradational contacts								

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TPP K-M

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
389.63	412.0	PILLOWED HIGH MG MAFIC								
		- fine grained, light/pale green, pillowed high Mg mafic weakly foliated at								
		55-60°								
		- weak to moderate pervasive carbonatization, very weak chloritization locally								
		- pillow selveges generally 1-2cm wide, generally high angle, with white-cream								
		feldspar clots locally, possible variolites								
		- minor - 2% quartz and quartz-carbonate veining throughout, irregular and thin								
		- weak fracturing locally								
412.0		END OF HOLE								

LOGGED BY: DATE: PROPERTY HOLE NO. PAGE NO. 19

DIAMOND DRILL LOG SAMPLE RECORD

HOLE No. H13-48

PAGE _____ OF _____

SAMPLE NUMBER	FOOTAGE			S/T.			DESCRIPTION
	From	To	Length				
	314.54	315.54	1.0	108.69	108.69		
	315.54	317.0	1.46	1.54	2.2484		
	317.0	318.5	1.5	0.61	.915		
	318.5	320.0	1.5	0.59	.885		
	300.0	321.5	1.5	1.61	2.415		
	321.5	323.0	1.5	0.45	.675		
	323.0	324.5	1.5	2.02	3.015		
	324.5	326.0	1.5	0.03			
	~~344.0~~	~~345.5~~	~~1.5~~	~~0.05~~			
	345.5	347.0	1.5	6.00			
	347.0	348.5	1.5	0.02			
	348.5	350.0	1.5	0.02			
	350.0	351.5	1.5	0.16			
	351.5	352.5	1.0	0.24			
	352.5	353.5	1.0	0.29			
	353.5	354.5	1.0	0.36			
	354.5	356.0	1.5	0.55			
	356.0	357.5	1.5	0.15			
	357.5	359.0	1.5	0.75			
	359.0	360.5	1.5	0.05			
	360.5	362.0	1.5	0.17			
	362.0	363.5	1.5	0.49			
	363.5	365.0	1.5	0.10			

DIAMOND DRILL LOG SAMPLE RECORD

HOLE No. H13-48.

PAGE _____ OF _____

SAMPLE NUMBER	FOOTAGE						DESCRIPTION
	From	To	Length				
	365.0	366.5	1.5	0.03			
	366.5	365.0	1.5	0.01			
	368.0	369.5	1.5	0.01			
	369.5	371.0	1.5	0.01			
	371.0	372.5	1.5	0.01			
	372.5	374.0	1.5	0.01			
	374.0	375.5	1.5	0.05			
	375.5	377.0	1.5	1.37			
	377.0	378.5	1.5	1.65			
	378.5	380.0	1.5	1.20			
	380.0	381.6	1.6	1.68			
	381.6	383.31	1.71	1.41			
AVERAGES	314.54	324.5	9.96	11.93			0.35/32.7'
	344.0	347.0	3.0	3.03			0.09/9.6'
	375.5	383.31	7.81	1.46			0.04/35.6'

M45383

KIDD CREEK MINES LTD.

EXPLORATION DIVISION

DRILL HOLE RECORD

HOLE NO. H13-49 PROPERTY Syngold JV #1 PROJECT NO. 008155 CONTRACTOR Bradley Bros. START 10/07/87 FINISH 17/07/87

COORDINATES Grid Location: Latitude 395S Departure 20W UTM: Lat. ..... Dep. ..... Surveyed: Lat. ..... Dep. ..... Elevation ..... Mine Grid: Lat. ..... Dep. ..... Elev. .....

COLLAR ATTITUDE Azimuth 335° Dip -52° LENGTH 351m CORE SIZE BQ

INCLINATION TESTS

Rotodip/Acid Tests

Depth	Dip	Depth	Dip

Compass Tests

Depth	Observed Azimuth	True Azimuth	Dip
92m	In casing		-52.0°
134m	12.5°NW	338.5°	-48.0°
164m	13.0°NW	338.0°	-46.5°
194m	11.5°NW	339.5°	-45.0°
233m	11.5°NW	339.5°	-44.0°
263m	10.5°NW	340.5°	-42.5°
298m	10.5°NW	340.5°	-40.0°
323m	11.0°NW	340.0°	-39.0°

REMARKS 6m of 37m NW casing pulled, BW casing to 123.0m

Logged by M. Jerome Date 23/07/87 Property ..... Hole No. H13-49

PAP 13301 (83)

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
0	37.0	OVERBURDEN					
37.0	83.0	SEDIMENTS					
		- fine grained, light to medium grey, interbedded greywacke and argillite sediments at 25-35° to C.A. (generally 30°)					
		- indistinct topping direction					
		- increasing carbonaceous content downhole					
		- unit broken throughout with core loss					
		- minor scattered pyrite throughout					
		- nil to minor carbonate veining					
		37.77 - 38.0 lost core					
		40.25 bedding at 25° to C.A.					
		45.16 bedding at 30° to C.A.					
		58.2 - 59.0 lost core					
		59.83 bedding at 25° to C.A.					
		67.44 - 68.0 lost core					
		68.97 bedding at 35° to C.A.					

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 1

TPP K-1

FROM	TO	DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb			
		77.25 bedding at 30° to C.A.								
		79.12 - 80.0 lost core								
		80.26 increase in carbonaceous argillite content with minor to 1% cubic brassy pyrite								
		broken lower contact								
83.0	89.72	GRAPHITIC ARGILLITE								
		- fine grained, dark grey to black, bedded graphitic argillite at 35-40° to C.A.								
		- unit extremely broken throughout								
		- minor to 80-90% massive/nodular pyrite locally								
		- broken contacts								
		83.78 - 86.0 lost core								
		86.65 - 86.96 85-95% massive and nodular pyrite, minor carbonate	01682	86.0	87.5	1.20	261			lost core
		87.79 - 88.17 40-45% nodular and massive pyrite	01683	87.5	89.0	1.20	261			
		86.0 - 89.0 2.39 of 3.0m of core recovered								

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 2

T.P.P. K-3

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
89.72	123.14	FRACTURED MAFIC					
		- fine grained, light to buff grey, fractured massive mafic moderately to					
		weakly foliated at variable orientations (45-55°)					
		- very weak pervasive carbonaceous alteration in upper half of unit, weak to					
		moderate pervasive carbonatization throughout					
		- minor thin,discontinuous carbonate veinlets throughout					
		- minor to 1% scattered, brassy, cubic pyrite throughout					
		- weak to strong tectonism throughout - carbon filled dilated irregular					
		fracturing to complete brecciation downhole					
		- broken upper contact					
		- core broken throughout					
		93.76 - 95, 103.55 - 104.0 lost core					
		120.14 - 120.59 breccia zone					
		121.87 - 123.14 buff coloured, bleached and carbonated, massive mafic,					
		very weak fracturing					
		123.0 end of NQ core					

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 3

FROM	TO	DESCRIPTION	SAMPLE NO. AF	FROM m	TO m	SAMPLE LENGTH m	ASSAYS Au ppb			
123.14	159.0	PILLOWED MAFIC								
		- fine grained, buff grey to light green to greyish-green, pillowed mafic								
		weakly to moderately foliated at 45-50° to C.A.								
		- weak to moderate pervasive carbonatization throughout particularly in buff								
		grey areas, weak pervasive chloritization locally								
		- unit locally amygdaloidal with 1-3% oval, elongate, carbonate amygdules								
		- minor to 1% thin carbonate veinlets and thicker quartz-carbonate veins								
		throughout								
		- pillow selvages generally 1-2cm wide, chloritzed (dark grey-green), varia-								
		ble orientation (25-35° to C.A.), locally with well-formed, hyaloclastitic								
		texture.								
		- weak fracturing locally								
		123.14 - 126.85 buff grey, carbonatized/bleached section								
		129.26 - 135.40 weakly chloritized section (light green)								
		133.90 well-formed hyaloclastitic selvege								
		140.16 - 140.42 25cm quartz vein crosscutting foliation (U-broken L-60° to	01684	140.0	141.0	1.0	14			
		C.A.), minor wallrock inclusions, chloritic patches, very minor pyrite								
		142.8 - 143.32 irregular quartz vein with complex contacts, common wallrock	01685	142.5	144.0	1.5	23			
		inclusions, minor to 1% emerald green hydromuscovite along fractures								
		and in patches, minor pyrite								

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 4

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au ppb
			AF	m		m	
		145.10 - 145.64 lost core					
		158.13 - 158.90 shear zone at 40-45° to C.A. with minor, fine scattered pyrite pyrrhotite, chlorite patches	01686	158.0	159.0	1.0	18
159.0	170.79	MASSIVE MAFIC					
		- fine grained, buff-greenish grey to light greenish-grey massive mafic weakly foliated at 45-50° to C.A.					
		- weak pervasive carbonatization throughout, weak carbonaceous alteration nearing grey zone					
		- minor thin, irregular carbonate veinlets throughout					
		- minor to nil scattered pyrite-pyrrhotite					
		- gradational lower contact					
		159.0 - 164.0 buff grey section					
		164.0 - 170.79 light grey to greenish-grey section with medium grey carbonaceous altered zones					
170.79	181.85	GREY MAFIC					
		- fine grained, light to medium grey, carbonaceous altered massive mafic moderately foliated at 45-50° to C.A.					
		- weak to moderate pervasive carbonatization, moderate to strong pervasive carbonatization					

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 5

EPP K-3#

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
			AF	m		m	Au ppb
		- minor thin carbonate veinlets throughout	01687	170.0	171.0	1.0	6
		- minor slickensides on core interiors	01688	171.0	172.45	1.45	18
		- gradational contacts	01689	172.45	174.0	1.55	8
		- minor scattered pyrite	01690	174.0	175.5	1.50	10
			01691	175.5	177.0	1.5	12
		172.48 4cm wide, irregular quartz vein with numerous off-shoot veinlets,	01692	177.0	178.5	1.5	11
		subparallel (?) to foliation at 65°, 3-5% brown dravite along vein	01693	178.5	180.0	1.5	11
		margins, minor pink carbonate	01694	180.0	181.5	1.5	14
			01695	181.5	183.0	1.5	11
181.85	195.49	MASSIVE MAFIC					
		- fine grained, light green to medium greyish-green, massive mafic weakly					
		foliated at 55-60° to C.A. unit light green in middle, darker at top and bottom					
		- weak pervasive and fracture-controlled carbonatization, weak pervasive					
		chloritization					
		- minor thin, erratic carbonate veinlets throughout					
		- minor scattered pyrite locally					
		- gradational contacts					
		- minor, fine leucoxene grains (white-cream) scattered locally					
195.49	203.65	GREY MAFIC					
		- fine grained, light to medium greenish-grey carbonaceous altered massive					
		mafic weakly foliated at 50-55° to C.A.					
		- very weak to weak pervasive carbonaceous alteration, weak to moderate					
		pervasive carbonatization					

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 6

TPP 4-78

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
			AF	m		m	Au ppb
		- minor to 1% thin, irregular, carbonate and quartz-carbonate veinlets throughout					
		- minor scattered pyrite in grey mafic and associated with thin carbonate veinlets					
		201.07 irregular quartz vein crosscutting foliation at 30° to C.A., minor pyrite in vein, brown (carbonate?) mineral rimming wallrock inclusion in vein	01696	195.0	196.5	1.5	140
			01697	196.5	198.0	1.5	29
			01698	198.0	199.5	1.5	96
			01699	199.5	201.0	1.5	167
			01701	201.0	202.5	1.5	21
			01702	202.5	204.0	1.5	14
203.65	207.98	PILLOWED MAFIC					
		- fine grained, light to medium green, pillowed mafic moderately foliated at 50° to C.A.					
		- weak to moderate pervasive carbonatization, weak chloritic alteration					
		- up to 5mm oval, elongate carbonate amygdules throughout					
		- minor, thin, carbonate veinlets throughout					
		- pillow selvages generally 1cm wide, dark green (chloritized), 25-45° to C.A.					
		- gradational contacts					
207.98	229.47	MASSIVE MAFIC					
		- fine grained, light to medium greyish green, massive mafic weakly to moderately foliated at 50-55° to C.A.					
		- weak pervasive and fracture-controlled carbonatization, weak pervasive chloritization locally, mottled chloritic spotting with bleaching downhole					

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 7

T.P.P. K-3

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
		- minor discontinuous and erratic, thin carbonate veining throughout					
		- minor carbon filled fracturing with pyrite locally					
		- fine white leucoxene grains in zones throughout					
		- gradational contacts					
229.47	246.0	PILLOWED MAFIC					
		- fine grained, light green to greyish-green pillowed mafic weakly foliated					
		at 50-55^{0} to C.A.					
		- Weak pervasive carbonatization towards lower massive mafic, weak pervasive					
		chlorite alteration locally					
		- locally 1-4mm oval, elongate, carbonate amygdules					
		- minor thin quartz-carbonate veinlets, locally with minor pyrrhotite					
		- weak fracturing throughout					
		- pillow selvages generally 35-45^{0} chloritized 5-10mm wide with bleached pillow					
		margins, minor pyrrhotite in selveges locally					
		243.60 - 246.0 shear zone at 35-40^{0} to C.A., increasing intensity towards					
		lower contact, wispy chloritic/sericite alteration, sharp lower					
		contact at 40^{0} to C.A.					
246.0	252.18	MASSIVE MAFIC					
		- fine grained, granular, medium grey to greenish-grey massive mafic weakly					
		foliated at 55-60^{0} to C.A.					
		- weak pervasive carbonaceous and chloritic alteration					

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 8

TPP. K-3

FROM	TO	DESCRIPTION	SAMPLE NO. AF	FROM m	TO	SAMPLE LENGTH m	ASSAYS Au ppb
		- thin erratic, carbonate veining throughout					
		- gradational lower contact					
			01703	246.0	247.5	1.5	10
		246.54 - 249.42 weak grey mafic	01704	247.5	249.0	1.5	8
			01705	249.0	250.5	1.5	12
		251.93 - 252.03 5cm carbonate vein crosscutting foliation at 15° to C.A.	01706	250.5	252.1	1.6	15
		minor chlorite along margins, 1-3% black tourmaline blotches					
252.18	326.14	ALTERED MASSIVE MAFIC					
		- fine grained granular light/medium grey to pale bleached grey to mauve-grey					
		altered massive mafic weakly foliated at 50-55° to C.A. -					
		- variable alteration types and intensities throughout-strong to intense					
		pervasive sericitization/carbonatization, very weak pervasive chloritization/					
		carbonaceous alteration locally					
		- up to 3-4% pyrite and/or pyrrhotite disseminated in intensely altered zones					
		- minor quartz and carbonate veining throughout					
			01707	252.1	253.5	1.4	7
		i) 252.18 - 259.03 fine grained, medium greenish grey, moderately chloritized	01708	253.5	255.0	1.5	21
		mafic, fine white to beige leucoxene grains throughout	01709	255.0	256.5	1.5	44
			01710	256.5	258.0	1.5	12
		ii) 259.03 - 268.37 intensely sericitized/carbonatized, pale grey, granular,	01711	258.0	259.5	1.5	63
		minor quartz veining, fine white feldspar clots and tan-beige leucoxene	01712	259.5	261.0	1.5	523
		grains throughout, minor to 4% scattered pyrite	01713	261.0	262.5	1.5	133
			01714	262.5	264.0	1.5	37
			01715	264.0	265.5	1.5	14

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO.

FROM - TO	DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb	gram		
	feldspar clots and tan-beige leucoxene grains throughout, minor to 5%	01716	265.5	267.0	1.5	21			
	scattered pyrite	01717	267.0	268.5	1.5	604			
	266.80 - 268.37 minor to 4% dark and brassy pyrite scattered throughout, most concentrated from 267.19 - 267.91m								
	iii) 268.37 - 270.44 intensely altered, pale grey massive mafic with 1-5% scattered pyrite-pyrrhotite 1-3% thin erratic quartz veining throughout				2.87 +.5				
	269.11 12cm quartz vein crosscutting foliation at 75° to C.A., 10-15% grey carbonate blotches in vein								
	269.75 - 270.10 irregular quartz vein crosscutting foliation (L-35°), 2-3% scattered pyrite-pyrrhotite in wallrock, VISIBLE GOLD specks with grey carbonate inclusions at 270.06 and 270.08m	01718	268.5	270.15	1.65		2.64	4.00 +1.0	
	iv) 270.44 - 290.72 strongly to intensely sericitized/carbonatized light to buff grey, massive mafic, fine tan leucoxene grains locally throughout, 1-2% scattered dark and brassy pyrite locally	01719	270.15	271.5	1.35		5.66		
		01720	271.5	273.0	1.5	59			
	276.39 9cm complex quartz-carbonate vein crosscutting (?) foliation, carbonate offshoots in wallrock	01721	273.0	274.5	1.5	6			
		01722	274.5	276.0	1.5	11			
		01723	276.0	277.5	1.5	143			
	279.0 - 282.0 0.47m of core missing	01724	277.5	279.0	1.5	75			
		01725	279.0	280.25	1.25	21		0.47m lost	
		01726	280.25	281.53	1.28	97		core from	
	285.40 - 290.72 minor to 1% scattered dark pyrite throughout	01727	282.0	283.5	1.5	133		279.0-282.0	
		01728	283.5	285.0	1.5	128			

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 10

T.P.P. 5-1

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
			AF	m		m	Au ppb	gram		
		289.86 9cm quartz-carbonate vein subparallel to foliation	01729	285.0	286.5	1.5	685			
		at 40° to C.A.	01730	286.5	288.0	1.5	132			
			01731	288.0	289.5	1.5	15			
		v) 290.72 - 326.14 buff to buff grey (light grey), moderately to strongly	01732	289.5	291.0	1.5		1.95		
		carbonatized, locally weakly carbonaceous altered (light grey sections)	01733	291.0	292.5	1.5	14			
		massive mafic, minor thin quartz veining throughout, grey chloritic	01734	292.5	294.0	1.5	4			
		spots throughout fine leucoxenes locally	01735	294.0	295.5	1.5	7			
			01736	295.5	297.0	1.5	3			
		290.72 - 312.0 buff, carbonatized, massive mafic	01737	297.0	298.5	1.5	4			
			01738	298.5	300.0	1.5	6			
		312.0 - 326.14 alternating buff massive mafic with weak carbonaceous	01739	300.0	301.5	1.5	3			
		altered sections	01740	301.5	303.0	1.5	45			
			01741	303.0	304.5	1.5	4			
		309.21 9cm quartz-carbonate vein crosscutting foliation (perpendicu-	01742	304.5	306.0	1.5	7			
		lar to C.A.)	01743	306.0	307.5	1.5	6			
			01744	307.5	309.0	1.5	2			
		309.48 6cm quartz-carbonate vein crosscutting foliation at 75° to C.A.	01745	309.0	310.5	1.5	6			
			01746	310.5	312.0	1.5	3			
		318.20 - 319.58 very weakly carbonaceous altered zone	01747	312.0	313.5	1.5	3			
			01748	313.5	315.0	1.5	3			
			01749	315.0	316.5	1.5	3			
			01750	316.5	318.0	1.5	38			
			01751	318.0	319.5	1.5	263			
			01752	319.5	321.0	1.5	21			
			01753	321.0	322.5	1.5	6			
			01754	322.5	324.0	1.5	10			

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T.P.P. K-3A

FROM - TO		DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb
			01755	324.0	325.5	1.5	1
			01756	325.5	327.0	1.5	8
			01757	327.0	328.5	1.5	26
			01758	328.5	330.0	1.5	7
			01759	330.0	331.5	1.5	58
			01760	331.5	333.0	1.5	58
			01761	333.0	334.5	1.5	55
			01762	334.5	336.0	1.5	15
326.14	339.38	HIGH MG PILLOWED MAFIC					
		- fine grained, light grey to light emerald green, pillowed high Mg mafic					
		moderately foliated at 55-60°					
		- moderate pervasive chloritization/sericitization (emerald green) throughout					
		weak pervasive carbonaceous alteration (light grey) locally					
		- carbon filled fracturing					
		- minor quartz and carbonate veining					
		- minor scattered brassy pyrite					
		- gradational contacts					
		329.04 - 330.54 weak grey mafic					
339.38	351.0	HIGH MG MASSIVE MAFIC					
		- fine grained, light greenish-grey to light green massive high Mg mafic					
		weakly foliated at 55-60° to C.A.					

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FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		- weak fracturing locally, carbon filled								
		- very weak pervasive carbonaceous, chlorite and carbonate alteration								
		- minor quartz veining throughout								
351.0		END OF HOLE								

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 13

TPP 8-1

DIAMOND DRILL LOG SAMPLE RECORD

HOLE No. #13-49 PAGE _____ OF _____

SAMPLE NUMBER	FOOTAGE						DESCRIPTION
	From	To	Length				
	267.0	268.5	1.5	0.60	0.90		
	268.5	270.15	1.65	2.64	4.356		
	270.15	271.5	1.35	5.66	7.641		
	271.5	273.0	1.5	0.06			
	289.5	291.0	1.5	1.95			
AVERAGES	267.0	271.5	4.5	2.87			
	268.5	271.5	3.0	4.00			

M45383

KIDD CREEK MINES LTD.

EXPLORATION DIVISION

DRILL HOLE RECORD

HOLE NO. H13-50 PROPERTY Syngold J.V. #1 PROJECT NO. 008155 CONTRACTOR Bradley Bros. START 20/07/87 FINISH 22/07/87

COORDINATES Grid Location: Latitude 420S Departure 20E UTM: Lat. Dep. Surveyed: Lat. Dep. Elevation Mine Grid: Lat. Dep. Elev.

COLLAR ATTITUDE Azimuth 333° Dip -53.0° LENGTH 110m CORE SIZE BQ

INCLINATION TESTS

Rotodip/Acid Tests

Depth	Dip	Depth	Dip

Compass Tests

Depth	Observed Azimuth	True Azimuth	Dip
59m	-51.0°	(in casing)	
83m	-47.0°	13.5° NW	337.5°
107m	-46.5°	14.0° NW	337.0°

REMARKS All NW and BW casing pulled (31m and 69m)

Logged by M. Jerome Date 23/07/87 Property Hole No. H13-50

P.A.P. 13301 | 193

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
0	31.0	OVERBURDEN					
31.0	110.0	SEDIMENTS					
		- fine grained, light to medium grey, interbedded greywacke and carbonaceous argillite sediments bedded at 25-35° to C.A.					
		- possible uphole topping direction from indistinct graded sequences					
		- minor thin discontinuous carbonate veinlets throughout					
		- minor fracture-controlled pyrite locally					
		- unit broken with core loss locally					
		31.0 - 32.0 oxidized, weathered broken sediments					
		35.24 bedding at 20° to C.A.					
		40.56 - 41.0 lost core					
		43.26 - 44.0 lost core					
		42.42 quartz vein (6cm thereof) with broken contacts					
		49.37 bedding at 30° to C.A.					
		61.67 bedding at 30° to C.A.					
		69.78 end of NQ core					

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 1

TPP K-3

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		77.89 bedding at 30° to C.A.								
		90.0 - 110.0 predominently carbonaceous argillite, minor scattered brassy pyrite locally								
		99.16 bedding at 35° to C.A.								
		109.91 6cm mafic (?) intrusive parallel to bedding at 35° to C.A., fine grained, light greenish grey, moderately to strongly carbonated								
110.0		END OF HOLE								

LOGGED BY: M. Jerome DATE: PROPERTY HOLE NO. PAGE NO. 2

T.P.P. K-38

DRILL HOLE RECORD

KIDD CREEK MINES LTD.
EXPLORATION DIVISION

HOLE NO. H13-50 A,B,C,D PROPERTY Syngold JV #1 PROJECT NO. 008155 CONTRACTOR Bradley START 23/7/87 FINISH 08/07/87

COORDINATES Grid Location: Latitude 420S Departure 20E UTM: Lat. ..... Dep. ..... Surveyed: Lat. 99429:24N Dep. 98243:05 Elevation 285.49 Mine Grid: Lat. ..... Dep. ..... Elev. .....

COLLAR ATTITUDE Azimuth 333° Dip -56.0° LENGTH 397m CORE SIZE BQ

INCLINATION TESTS

Rotodip/Acid Tests

Depth	Dip	Depth	Dip

Compass Tests

Depth	Dip	Azimuth	True Azimuth
68m	-55.5°	15°NW	336.0°
86m	-55.0	16.0NW	335.0
110m	-55.0	16.5NW	334.5
140m	-55.0	15.0NW	336.0
170m	-54.5	15.0NW	336.0
97m	-52.5	17.5NW	333.5
124m	-52.0	17.0NW	334.0
154m	-51.0	16.5NW	334.5
184m	-48.0	17.0NW	334.0
148m	-48.5	(next to wedge)	
172m	-48.5	16.5NW	334.5
202m	-46.5	16.0NW	335.0
232m	-44.5	14.0NW	337.0
253.0	-41.0	13.0NW	338.0
283.0	-38.5	13.0NW	338.0
343.0	-36.5	13.0NW	338.0

REMARKS NW casing to 31m BW casing to 63m
H13-50B wedge off H13-50A at 91m
H13-50C wedge off H13-50B at 146m
H13-50D wedge off H13-50C at 243m

Logged by M. Jerome/J. DerWeduwen Date ..... Property ..... Hole No. .....

PAP 133011 193

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
0	31.0	OVERBURDEN					
31.0	155.47	SEDIMENTS					
		- fine grained, interbedded gritty greywacke sediments (light grey) and finer grained argillite (medium grey) at 25-30° to C.A., increase in argillite content downhole					
		- indistinct graded sequences indicate possible uphole topping direction					
		- minor, thin, irregular carbonate veinlets throughout with minor pyrite locally					
		- upper portion of unit broken and fractured with core loss					
		core loss: 31.75 - 32.0, 37.77-38.0, 39.44 - 41.0					
		42.24 bedding at 30° to C.A.					
		50.83 - 51.25 possible graded section at 25° to C.A.					
		61.40 bedding at 24° to C.A.					
		63.24 end of NQ core					
		84.59 bedding at 25° to C.A.					
		96.04 bedding at 30° to C.A.					

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T.P.P. K-36

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
		98.0 - 155.47 predominantly carbonaceous argillite with slight increase in pyrite occurrence					
		106.96 bedding at 20° to C.A.					
		113.0 beginning of crenulation cleavage perpendicular to bedding, increase intensity downhole					
		126.08 bedding at 32° to C.A.					
		- fine grained, granular light greenish-grey, carbonatized mafic (?) intrusives generally parallel with bedding at: 128.94 (4 cm, 45°) 129.19 (9cm, 40°) 133.74 (21 cm, 40°), 134.25 (3cm 65°), 136.24 (15 cm 45°), 136.75 (7cm, 40°) 145.50 (8cm, 50°), 145.66 (25 cm, 40°)					
		146.88 bedding at 25°					
		152.03 - 154.16 carbon-rich, shear zone with pyrite, broken carbonate veinlets					
155.47	170.39	GRAPHITIC ARGILLITE					
		- fine grained, black to dark grey, bedded graphitic argillite at 30-40° to C.A., bedding folded and bent locally (tectonized)					
		- 1-3% erratic thin carbonate stringers uphole, parallel to bedding downhole					

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TPP K-38

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		- unit broken and tectonized uphole								
		- minor pyrite throughout								
		156.37 20 cm broken quartz (carbonate) vein with sheared contacts								
		160.94 - 161.0 quartz vein with sheared contacts								
		gradational lower contact								
170.39	174.0	FRACTURED MAFIC								
		- fine grained, light to medium grey, fractured massive (?) mafic moderately								
		foliated at 30° to C.A.								
		- moderate to strong pervasive carbonatization, weak to very weak								
		carbonaceous alteration (pervasive)								
		- minor thin, erratic carbonate veinlets locally								
		- unit generally brecciated with sections of insitu brecciation with								
		fracturing, fractures filled by carbon								
		- minor scattered brassy pyrite throughout in mafic and in matrix								
		- locally, minor, white, carbonate amygdules								
174.0		end of H13-50A, wedge at 91m H13-50B								

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TPP K-50

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
91.0	146.86	SEDIMENTS								
		- fine grained, light to medium grey, interbedded gritty greywacke sediments								
		and fine grained argillite at 25-35° to C.A. generally, unit similar to								
		sediments in H13-50A from 31.0 - 155.47								
		91.77 - 92.0 lost core								
		92.77 bedding at 25° to C.A.								
		100.76 bedding at 30° to C.A.								
		112.0 beginning of crosscutting crenulation cleavage increasing in								
		intensity downhole								
		117.0 bedding at 25° to C.A.								
		119.2 - 119.63 shear zone at 40° to C.A.								
		- fine grained, granular, carbonated, light greenish-grey, mafic (?) intrusives								
		generally subparallel with bedding at: 126.36 (9cm, 40°), 129.51 (14 cm, 40°)								
		132.51 (20cm, 25°), 133.64 (5cm, 30°), 142.08 (33 cm, 50°)								
		133.08 bedding at 20° to C.A.								
		gradational lower contact								

LOGGED BY: DATE: PROPERTY HOLE NO.

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
146.86	162.48	GRAPHITIC ARGILLITE								
		- very fine grained, medium to dark grey, graphitic argillite similar to graphitic argillite unit in H13-50A from 155.47 - 170.39m								
		147.03 - 147.96 shear zone with broken core								
		147.96 - 148.20 greenish-grey mafic (?) intrusive, fractured with minor 1% fine cubic pyrite								
		151.13 - 151.30 14 cm quartz vein with sheared contacts, minor graphitic inclusions								
		151.30 - 156.5 gently warped bedding throughout								
		157.85 bedding at 40° to C.A.								
		157.95 4cm carbonated, light grey mafic (?) intrusive subparallel to bedding at 40° to C.A.								
		161.87 - 162.48 sheared, broken core								

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TPP K-38

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
162.48	173.77	FRACTURED MAFIC					
		- fine grained, light to medium grey, fractured massive mafic weakly foliated at 35-40° to C.A.					
		- weak to very weak pervasive carbonaceous alteration in upper portion of hole, weak pervasive and fracture controlled pervasive carbonatization throughout					
		- minor to 1% thin, erratic, carbonate and quartz-carbonate veinlets throughout					
		- minor scattered pyrite locally					
		- variable intensity of stress throughout - range from weak insitu brecciation/fracturing to complete brecciation, carbon filling of fractures					
		162.48 - 164.0 moderate to strong pervasive carbonaceous alteration obscuring mafic					
		164.0 - 168.5 weak pervasive carbonaceous alteration					
173.77	179.67	MASSIVE MAFIC					
		- fine grained, buff grey, massive mafic weakly foliated at 40-45° to C.A.					
		- weakly to moderately pervasively carbonatized					
		- minor thin carbonate veinlets throughout					
		- weak fracturing obscured by alteration					
		- minor scattered pyrite throughout					

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TPP K-34

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au ppm
		178.26 - 179.67 fractured mafic, locally amygdaloidal (possibly pillowed), carbon-filled fractures	AF				
		178.50 - 178.63 dark grey, carbonaceous altered section with minor pyrite					
179.67	183.30	GREY MAFIC					
		- medium grey fine grained, carbonaceous altered, fractured massive (?) mafic moderately to strongly foliated at 45° to C.A.	01764	178.0	179.0	1.0	.018
		- weak pervasive carbonaceous alteration throughout, moderate to strong pervasive carbonatization	01765	179.0	180.5	1.5	.023
		- 1-2% thin, erratic carbonate stringer veinlets throughout	01766	180.5	182.0	1.5	.012
		- minor, scattered pyrite throughout	01767	182.0	183.5	1.5	.014
		- insitu brecciation and dilated fracturing throughout					
		- sharp lower contact					
183.30	188.0	PILLOWED MAFIC					
		- fine grained, light green to buff-green, pillowed mafic weakly foliated at 45-50° to C.A.					
		- weak to moderate pervasive carbonatization throughout					
		- locally, 1-4mm oval carbonate amygdules					
		- minor, thin quartz-carbonate and carbonate veinlets					
		- pillow selvedges generally less than 1cm wide, with bleached pillow margins					

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TPP K-30

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		183.30 - 184.53 weakly fractured section								
		2nd wedge plug placed at 146.0m. Core starts at 144.0m. Hole now called H13-50C								
144.0	158.47	GRAPHITIC ARGILLITE								
		Dark grey to black, fine grained and moderately soft. Unit carries 5-7% bands(beds?) of pyrite at 40-45° to the core axis, which parallel the foliation. Minor quartz stringers.								
		146.30 - 147.00 lost core								
		147.00 - 148.45 weakly fractured zone with fractures 3-10cm in length and carbonate filled. A crenulation cleavage also developed perpendicular to foliation.								
		148.45 - 149.27 badly broken graphitic core. Probable fault gouge.								
		149.27 - 152.13 zone with flat, weakly contorted bedding at 25-30° to the core axis.								

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TPP. K-30

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
158.47	169.30	FRACTURED MAFICS								
		Dark grey-buff to light buff-coloured and fine grained. Unit is moderately carbonatized and weakly carbonaceous. Moderately fractured throughout with the fractures having been dilated and filled with carbonaceous material. Moderate foliation at 40-45° to the core axis. Unit carries 1% cubic pyrite.								
		158.47 - 165.57 medium to dark grey-buff zone. Strongly fractured throughout, which are carbonaceous filled. Carries 1-2% cubic and fine masses pyrite pillowed?								
		158.65 - 159.00 lost core								
		165.57 - 169.30 light buff-coloured weakly fractured zone. Definitely a pillowed sequence.								
169.30	176.63	PILLOWED MAFICS								
		Light to medium buff-coloured and fine grained. Unit is pillowed with thin 10-40mm, weakly chloritic selvages. Unit is strongly carbonatized and moderately sericitized. Minor 1-3mm carbonate amygdules. Weakly fractured, which are carbonate filled.								

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T.P.P. K-38

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au ppm
176.63	181.09	GREY FRACTURED MAFICS	AE				
		Medium grey and fine grained. Unit is moderately fractured throughout, which are carbonaceous filled. Unit is moderately carbonatized and carbonaceous. Minor shearing at 50° to the core axis paralleling foliation. Minor thin carbonate stringers and minor pyrite.	7517	176.5	178.0	1.5	.021
			7518	178.0	179.5	1.5	.007
			7519	179.5	181.0	1.5	.006
181.09	198.55	PILLOWED MAFICS					
		Light buff-coloured to light green and fine grained. Unit pillowed with 10-30mm chloritic selvages with hyaloclastite often visible. Amygdaloidal with 1-3mm carbonate filled amygdules. Unit is bleached about the pillow selvages, amygdules and fractures. Weak foliation at 40-45° to the core axis.					
		181.09 - 184.23 Medium buff coloured, moderately carbonatized zone					
		184.23 - 198.55 light to medium green, relatively fresh pillowed mafics. Minor feldspar phenocrysts developed adjacent to pillow selvages.					
		109.84 - 191.06 quartz vein at 70-75° to the core axis crossing foliation. Carries 5-7% coarse light buff coloured clinozoisite.					

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TPP K-3A

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
			AE	m.		m.	Au ppm
198.55	209.26	GREY MAFICS					
		Medium to dark grey and fine grained. Unit is moderately fractured, which have been filled with carbonaceous material. Unit is moderately carbonatized (reacts to HCl acid), weakly to moderately carbonaceous and weakly chloritic. Moderate foliation at 40^{0} to core axis. Carries 5% thin quartz and carbonate stringers.					
		198.55 - 203.20 Medium grey mafics with minor weak shearing parallel to foliation. Carries minor fracture controlled pyrite. Pillowed?	7520	198.0	199.5	1.5	.007
			7521	199.5	201.0	1.5	.004
		203.20 - 207.95 Weak grey granular zone. Weakly carbonaceous with 1% fracture controlled pyrite and 2% thin quartz stringers. Pillowed?	7522	201.0	202.5	1.5	.003
			7523	202.5	204.0	1.5	.004
			7524	204.0	205.5	1.5	.006
		207.95 - 209.26 Medium grey-green massive mafics. Weakly carbonaceous	7525	205.5	207.0	1.5	.002
			7526	207.0	208.5	1.5	.004
209.26	214.03	MASSIVE MAFICS	7527	208.5	210.0	1.5	.008
		Medium green and medium grained. Moderately carbonatized (reacts to HCl acid). Carries 1% fine white leucoxenes. Also weakly chloritic. Moderate foliation at 45^{0} to the core axis.					

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TPP K-38

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO	SAMPLE LENGTH	ASSAYS
214.03	216.05	SHEARED PILLOWED MAFICS				
		Light to medium green, fine grained. In part sheared at 40° to the core axis. Sheared portion dark green and chloritic. Carries 2-3% thin irregular carbonate stringers.				
		214.03 - 214.97 Dark green, strongly sheared zone.				
		214.97 - 216.05 Light green pillowed and amygdaloidal mafics. Weakly sheared. Minor bleaching about selvages and amygdules.				
216.05	231.72	MASSIVE MAFICS				
		Medium green to buff-green and medium to coarse grained. Carries minor fine white leucoxenes. Moderate foliation at 45-50° to the core axis. Locally bleached.				
		216.05 - 221.09 Light green granular zone that is weakly carbonatized and chloritic.				
		221.09 - 226.02 Medium buff-green to dark buff moderately carbonatized zone. Carries 1-2% thin carbonate stringers and minor cubic pyrite.				

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TPP K-30

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
			AE	m.		m.	Au ppm
		226.02 - 229.62 Dark buff-green to green moderately chloritic and carbonatized zone. Carries 2-3% thin carbonate stringers.	7528	228.0	229.5	1.5	.027
		229.62 - 230.76 Carbonate zone with coarse grey to white carbonate crystals. Carries 20-25% buff coloured mafic inclusions, minor pyrite and minor pyrrhotite.	7529	229.5	231.0	1.5	.069
		230.76 - 231.72 Dark green-buff massive mafics with minor pyrite and pyrrhotite. Moderately carbonatized.	7530	231.0	232.5	1.5	.468
231.72	233.30	PILLOWED MAFICS Medium green, fine grained short interflow unit. Pillowed with thin, 5-10mm selvages. Amygdaloidal with 1-3mm carbonate filled amygdules. Local bleached patches. Weakly fractured which are carbonate filled.					
233.30	235.87	MASSIVE MAFICS Medium green and fine to medium grained. Unit is leucoxene bearing with 1-2% fine white leucoxene crystals. Unit is moderately chloritic and weakly carbonatized. Weak foliation at 45-50° to the core axis.					
235.87	263.15	PILLOWED MAFICS Light to medium green, fine grained and moderately hard. Pillowed with thin 10-60mm selvage zones. Unit is also amygdaloidal with 1-4mm, often					

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TPP K-36

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
			AE	m.		m.	Au ppm
		"pipe-like" carbonate filled amygdules. Weak bleaching occurs about the selvages and amygdules. Weak foliation at 50° to the core axis. Minor pyrrhotite in the selvages.					
		@ 243.30 a wedge was set at the bottom of drill hole H13-50C. Core starts again at 243.0m and drill hole now designated H13-50D.					
263.15	270.13	MASSIVE MAFICS					
		Medium green to green-buff and medium grained. Moderately carbonatized (reacts to HCl acid). Unit is weakly to moderately bleached which gives core a mottled appearance. Minor fine white leucoxenes throughout. Weak foliation at 50-55° to the core axis. Carries minor pyrite and minor thin carbonate stringers.					
		269.75 - 270.13 Dark grey sheared carbonaceous zone with 20-30% intermixed quartz and 1% fine pyrite.	7531	268.2	269.7	1.5	.004
			7532	269.7	270.2	0.5	.006
270.13	278.24	PILLOWED MAFICS					
		Very similar to unit at 235.87m. Moderately bleached about pillow selvages, amygdules and fractures					

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TPP K-30

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
			AE	m.		m.	Au ppm
278.24	281.36	FLOW BRECCIA					
		Light green, fine grained oblong fragments in a dark green chloritic matrix. Matrix locally contains light cream coloured feldspar (Albite?) 2-3mm in size. The fragments range from 20-60mm in diameter and have distinct bleached rims.					
281.36	285.71	PILLOWED MAFICS					
		Very similar to unit at 270.13. Becomes moderately carbonatized and sericitic towards end of unit.					
285.71	362.85	ALTERED MASSIVE MAFICS					
		Dark grey-green to various buff shades and fine to medium grained. Ranges from moderately to intensely carbonatized. Usually with a granular appearance.					
		285.71 - 295.76 Dark grey-green zone. Moderately carbonatized (reacts to HCl acid) and weakly chloritic. Minor carbonate stringers. Minor pyrite and sphalerite. Moderate foliation at 50-55^{0} to the core axis.					
		285.71 - 288.41 Amygdaloidal zone with 1-3mm round calcite filled amygdules.					
			7533	285.5	287.0	1.5	.027

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T.P.P. K-36

FROM - TO	DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
		Ae	m.		m.	Au ppm
	@ 287.77 a large 20x3mm sphalerite clot in a carbonate patch.	7534	287.0	288.5	1.5	.007
	@ 290.33, a 15mm carbonate vein at 35° to the core axis. Parallels foliation with 5% red sphalerite. Sheared contacts.	7535	288.5	290.0	1.5	.012
		7536	290.0	291.5	1.5	.029
	@ 291.94, a 10-20mm quartz vein at 20° to the core axis. Parallels foliation with 15% intermixed carbonate. Sheared contacts.	7537	291.5	293.0	1.5	.004
	@ 293.49, a 10-15mm quartz vein at 65° to the core axis. Subparallel to foliation with minor pyrite. Sheared carbonaceous contacts.	7538	293.0	294.5	1.5	.007
	295.76 - 300.96 Medium to dark grey-buff zone. Intensely carbonatized (does not react to HCl acid). Carries 1-3% fine pyrite, 1% pyrrhotite and 3-5% quartz veining. Hazy tan coloured leucoxenes throughout.	7539	294.5	295.7	1.2	.022
	295.76 - 296.09 Dark grey sheared zone with 20-30% intermixed quartz paralleling foliation. Central portion broken and carbonaceous. Carries 1-2% pyrite and minor hydromuscovite.	7540	295.7	296.5	0.8	3.67
	296.09 - 296.36 Quartz vein at 36° to the core axis paralleling foliation. Carries 10-15% mafic inclusions, 5-7% pyrite and pyrrhotite, 1% arsenopyrite within the inclusions and 1% fracture controlled hydromuscovite.					
	296.38 - 300.97 Intensely altered zone with 2-3% streaky pyrite and pyrrhotite and 1-3% quartz veining.					

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TPP K-30

FROM - TO	DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
		AE	m.		m.	Au ppm
	297.04 - 297.78 light grey-green strongly bleached (silicified) zone with 5-7% pyrite and pyrrhotite.	7541	296.5	297.9	1.4	2.02
	298.49 - 298.60 quartz vein at 70° to the core axis. Crosses foliation with 5% dravite in a 2-3mm band, minor pyrite and pyrrhotite and minor hydromuscovite.	7542	297.9	299.3	1.4	.608
	299.39, a 30mm quartz vein at 60° to the core axis. Parallels foliation with a 2-4mm dravite band along upper contact and 3-5% pyrite and pyrrhotite.	7543	299.3	300.8	1.5	.307
	300.39 - 300.49 quartz vein at 40-60° to the core axis. Crosses foliation with minor pyrite and minor dravite.					
	300.96 - 317.17 Dark buff, gradually becoming a light buff colour. Coarse grained and granular. Strongly carbonatized. Carries 2-3% tan to mauve coloured leucoxenes. Minor carbonate stringers. Towards end of zone contains short patches with dendritic carbonaceous material.	7544	300.8	302.3	1.5	.047
		7545	302.3	303.8	1.5	.008
		7546	303.8	305.3	1.5	.014
		7547	305.3	306.8	1.5	.004
	317.17 - 320.00 Medium buff-coloured granular zone. Carries 1-3% fine clotty pyrite along foliation planes and within fractures and minor quartz stringers. Minor carbonaceous material about the quartz stringers. Moderate foliation at 55° to the core axis.	7548	306.8	308.3	1.5	.006
		7549	308.3	309.8	1.5	.007
		7550	309.8	311.3	1.5	.012
		7551	311.3	312.8	1.5	.010
		7552	312.8	314.3	1.5	.007
		7553	314.3	315.8	1.5	.004
		7554	315.8	317.3	1.5	.015

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T.P.P. K-38

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS				
			AE	m.		m.	Au ppm				
		@ 317.59, a 3mm quartz stringer at 60-65° to the core axis. Crosses foliation with several fine flecks Visible Gold within vein.	7555	317.3	318.6	1.3	1.71				V.G.
		@ 318.67, a weakly contorted 30mm vein at 30-50° to the core axis. Crosses foliation with 5% mafic inclusions and 1-2% pyrite.	7556	318.6	320.1	1.5	.622				
		319.10 - 319.19 Quartz-carbonate zone at 70° to the core axis. Parallels foliation with minor fine pyrite.									
		320.00 - 323.45 Weak grey zone. Medium to dark grey-buff in colour and fine grained. Intensely carbonatized and weakly carbonaceous. 3-5% dark tan coloured leucoxenes. Carries 3-5% streaky pyrite and pyrrhotite and 5% quartz veining.									
		@ 320.18, a 70mm quartz vein at 45° to the core axis. Parallels foliation with 10-15% mafic inclusions and 1% pyrite and pyrrhotite.	7457	320.1	321.6	1.5	2.74				
		@ 320.50, a 50mm quartz-carbonate vein at 80° to the core axis. Crosses foliation with minor pyrite and chalcopyrite.									
		321.11 - 321.22 quartz vein at 75° to the core axis. Crosses foliation with 1% pyrite about the contacts.									

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FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
			AE	m		m	Au ppm			
		@ 321.45 a weakly contorted 20mm quartz-carbonate vein at 65-70° to the core axis. Parallels foliation with minor pyrite and sphalerite.								
		@ 321.87 a 55mm quartz vein at 65-80° to the core axis. Crosses foliation with 5-7% fine pyrite about the contacts and within fractures and 2-3% pyrrhotite.	7558	321.60	323.10	1.5	9.94			V.G
		322.05 - 322.15 Quartz vein at 40-60° to the core axis. Parallels foliation with 2-3% fracture controlled pyrite.								
		@ 322.19, a 15mm quartz vein at 70° to the core axis. Parallels foliation with 3-5% fine pyrite along the contacts.								
		@ 322.23, a 20mm carbonate-quartz vein at 75° to the core axis. Parallels foliation with 10-15% fine pyrite and 5% dravite.								
		322.27 - 322.35 Quartz vein at 75-80° to the core axis. Crosses foliation with 1-2% fracture controlled pyrite and minor pyrrhotite.								
		@ 322.61, a 4mm quartz vein at 70o to the core axis. Crosses foliation with 2-3% pyrrhotite masses. Several small Visible Gold flecks are associated with one pyrrhotite mass.								
		@ 322.69, a 30mm quartz-carbonate vein at 70° to the core axis. Crosses foliation with 2-3% fracture controlled pyrite.								

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T.P.P. K-34

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
			AE	m.		m.	Au ppm			
		@ 323.39, a 15mm quartz vein at 60° to the core axis. Crosses foliation with 1-2% pyrite and pyrrhotite.	7559	323.10	324.20	1.2	1.71			
		@ 328.30, a 50mm quartz vein at 50-55° to the core axis. Crosses foliation with minor pyrite.								
		323.45 - 344.58 Light buff to medium grey-buff zone. Intensely carbonatized throughout. Sulphide content varies from minor to 4% - predominantly pyrite. Minor quartz veining. Moderate foliation at 55-60° to the core axis.								
		323.45 - 325.70 zone with 2-3% fine clotty pyrite, minor pyrrhotite and minor quartz stringers.	7560	324.20	325.70	1.5	.960			
		326.68 - 329.21 zone with 2-4% fine clotty pyrite and 1-2% quartz stringers.	7561	323.70	327.0	1.3	.112			
		@ 327.29, a 5mm quartz vein at 80° to the core axis. Crosses foliation with minor pyrite.	7562	327.0	328.0	1.0	2.26			
		@ 327.44, a 20-30mm quartz vein at 10-40° to the core axis. Parallels foliation with 2-3% fine pyrite.								
		@ 327.61, a 5mm quartz vein at 80° to the core axis. Crosses foliation with 2-3% pyrite and pyrrhotite.	7563	328.0	329.5	1.5	.506			

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T.P.P. K-36

FROM - TO	DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
		AE	m.		m.	Au ppm
	330.42 - 330.75 zone with 1-2% fine clotty pyrite.	7564	329.5	331.0	1.5	.226
	331.10 - 332.96 light buff-coloured zone with 2-3% "two-tone" pyrite, 1% pyrrhotite and 1-2% quartz veining.	7565	331.0	332.0	1.0	.398
	@ 332.21, a 20-50mm quartz vein at 60° to the core axis. Parallels foliation with 1% pyrite and pyrrhotite and minor sphalerite.	7566	332.0	333.0	1.0	4.97
	332.33 - 332.46 irregular quartz patch at 10-30° to the core axis. Carries 2-3% pyrite and pyrrhotite.	7567	333.0	334.1	1.1	1.41
	334.82 - 336.25 zone with 1-2% fine pyrite and 1-2% quartz veining.					
	@ 334.86, a 15mm quartz vein at 70° to the core axis. Crosses foliation.	7568	334.1	335.1	1.0	.032
	@ 335.44, a 50mm quartz vein at 80° to the core axis. Crosses foliation with 10% coarse carbonate and minor pyrite. Weakly carbonaceous contacts.	7569	335.1	336.5	1.4	1.10
	@ 336.17, a 55mm quartz-carbonate vein at 70-80° to the core axis. Crosses foliation.					
	336.25 - 342.00 Light buff coloured zone with very minor pyrite and minor thin quartz stringers.					

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TPP K-30

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
			Ag	m.		m.	Au ppm
		@ 337.42, a 50mm quartz vein at 75-80° to the core axis. Crosses foliation with minor pyrite.	7570	336.5	338.0	1.5	.104
			7571	338.0	339.5	1.5	.006
		342.00 - 344.58 zone with 1-2% fine pyrite.	7572	339.5	341.0	1.5	.012
			7573	341.0	342.5	1.5	.051
		344.58 - 362.85 light buff, coarse grained granular zone. Strongly carbonatized. Carries minor thin carbonate stringers and minor chloritic wisps?	7574	342.5	344.0	1.5	4.32
			7575	344.0	345.5	1.5	.133
			7576	345.5	347.0	1.5	.010
		358.05 - 358.69 Dark green zone with 2-3% coarse mauve coloured leucoxenes.	7577	347.0	348.5	1.5	.049
			7578	348.5	350.0	1.5	.015
			7579	350.0	351.5	1.5	.004
		359.65 - 360.12 zone with 1% fine clotty pyrite.	7580	351.5	353.0	1.5	.003
			7581	353.0	354.5	1.5	.006
			7582	354.5	356.0	1.5	.007
		362.35 - 362.85 Weakly sheared zone of 55-60° to the core axis with 1% fine clotty pyrite.	7583	356.0	357.5	1.5	.004
			7584	357.5	359.0	1.5	.038
			7585	359.0	360.5	1.5	5.14
			7586	360.5	362.0	1.5	.004

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TPP K-3A

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
				m.		m.	Au ppm
362.85	397.0	PILLOWED MAFICS					
		Light to medium green-buff and fine to medium grained. Pillowed unit with hazy 10-60mm chloritic selvages. Varioles are occasionally seen adjacent to the pillow selvages. Unit is strongly carbonatized and sericitized. Local bright green fuchsitic (chloritic?) zones. Weak foliation at 65° to the core axis	7587	362.0	363.5	1.5	.067
			7588	363.5	365.0	1.5	.010
		366.15 - 367.14 Pale green fuchsitic (chloritic?) zone with minor "two-tone" pyrite.	7589	365.0	366.5	1.5	.049
			7590	366.5	368.0	1.5	.071
		373.10 - 380.15 dark buff-green zone with minor thin quartz stringers.	7591	368.0	369.5	1.5	.012
			7592	369.5	371.0	1.5	5.83
		380.15 - 390.02 Light to medium buff coloured zone with local 10-30mm fuchsitic (chloritic?) patches.	7593	371.0	372.5	1.5	.019
			7594	373.5	374.0	1.5	.015
		390.02 - 397.0 light to medium green weakly bleached zone. Weakly carbonatized and chloritic. Carries 5-7% thin carbonate stringers and blebs.					
		397.00 end of hole.					

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TPP K-38

DIAMOND DRILL LOG SAMPLE RECORD

HOLE No. H13-50

PAGE _____ OF _____

SAMPLE NUMBER	FOOTAGE						DESCRIPTION
	From	To	Length				
	294.5	295.7	1.2	0.022			
	295.7	296.5	0.8	3.67		2.936	
	296.5	297.9	1.4	202		2.888	
	297.9	299.3	1.4	0.61		.854	
	299.3	300.8	1.5	0.31		.465	
	300.8	302.3	1.5	0.05.			
	317.3	318.6	1.3	1.71		2.223	
	318.6	320.1	1.5	0.62		0.93	
	320.1	321.6	1.5	2.74		4.11	
	321.6	323.1	1.5	9.94		14.91	
	323.1	324.2	1.2	1.71		2.052	
	324.2	325.7	1.5	0.96		1.44	
	325.7	327.0	1.3	0.11		.143	
	327.0	328.0	1.0	2.26.		2.26.	
	328.0	329.5	1.5	0.51		.765	
	329.5	331.0	1.5	0.33		.495	
	331.0	332.0	1.0	0.46		.46	
	332.0	333.0	1.0	4.97		4.97	
	333.0	334.1	1.1	1.41		1.551	
	334.1	335.1	1.0	0.03		0.03	
	335.1	336.5	1.4	1.10		1.54	

M45383

DIAMOND DRILL LOG SAMPLE RECORD

HOLE No. H13-50

PAGE _____ OF _____

SAMPLE NUMBER	FOOTAGE						DESCRIPTION
	From	To	Length				
AVERAGES.	295.7	297.9	2.2	2.74	2.62		0.08/~~0.4~~' 7.2'
	295.7	300.6	5.1	1.39			0.04/16.7'
	317.3	334.1	16.8	2.25			0.07/55.1'
	317.3	324.2	6.9	3.51			0.10/22.6'
	320.1	323.1	3.0	6.34			0.18/9.8'
	331.0	334.2	3.2	2.16			0.06/10.5'

M45383

DRILL HOLE RECORD

KIDD CREEK MINES LTD.
EXPLORATION DIVISION

HOLE NO. H13-51 PROPERTY Syngold #1 PROJECT NO. 008155 CONTRACTOR Bradley START 11/08/87
FINISH 25/08/87

COORDINATES Grid Location: Latitude 440.S Departure 60.E UTM: Lat. Dep. Surveyed: Lat. Dep. Elevation
Mine Grid: Lat. 99425.36N Dep. 98288.29E Elev. 4985.43m

COLLAR ATTITUDE Azimuth 333° Dip -56.0° LENGTH 404 m. CORE SIZE BQ

INCLINATION TESTS

Rotodip/Acid Tests

Depth	Dip	Depth	Dip

Compass Tests

	Depth 50 m	Observed Azimuth in casing	True Azimuth	Dip -56.0°
H13-51	79	16.5° NW	334.5°	-53.0°
	109	17.0° NW	334.0°	-52.0°
	139	17.0° NW	334.0°	-51.5°
	163	15.0° NW	336.0°	-51.0°
	187	17.0° NW	334.0°	-50.5°
	217	15.0° NW	336.0°	-50.0°
	247	17.0° NW	334.0°	-49.0°
H13-51A	223	14.0° NW	337.0°	-48.0°
	241	14.0° NW	337.0°	-47.5°
	262	16.5° NW	334.5°	-44.5°
	292	13.5° NW	337.5°	-42.5°
	322	12.5° NW	338.5°	-41.0°
	355	14.5° NW	336.5°	-39.0°
	385	13.0° NW	338.0°	-37.0°

REMARKS all NW casing pulled (31 m). BW casing to 69.0 m.
- H13-51A - wedge hole off H13-51 at 215 m (plug set at 218 m)
- wedge set at 247.0 m in H13-51A.

Logged by M. Jerome Date Aug. 25, 1987 Property Syngold #1 Hole No. H13-51

PAP 133011 193

FROM - TO m		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
0	31.0	OVERBURDEN								
31.0	173.48	SEDIMENTS								
		- fine grained, light to medium grey, gritty interbedded greywacke and argillite sediments at 20 - 30° to c.a. generally.								
		- minor, thin, erratic carbonate veinlets throughout.								
		- upper portion of unit (12-15 m) broken with core loss.								
		- gradational sections indicate probable uphole topping direction.								
		- minor pyrite locally in carbonate veinlets.								
		- argillite content increasing downhole.								
		31.0 - 32.0 0.51 of 1.0 m core recovered.								
		32.0 - 38.0 3.61 of 6.0 m core recovered.								
		41.28 bedding at 25° to c.a.								
		51.28 bedding at 30° to c.a.								
		52.39 - 52.50 gradational section topping uphole.								
		56.15 bedding at 30° to c.a.								
		62.05 bedding at 35° to c.a.								

LOGGED BY: M. Jerome DATE: Aug. 25, 1987 PROPERTY Syngold #1 HOLE NO. H13-51 PAGE NO. 1

TPP K-3a

FROM - TO m		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		67.96 bedding at 25° to c.a.								
		69.0 end of NQ core								
		69.0 - 71.0 1.5 of 2.0 m of core recovered.								
		82.97 bedding at 25° to c.a.								
		95.18 bedding at 30° to c.a.								
		106.0 - 107.0, 108.0 - 109.17 lost core								
		104.06 bedding at 30° to c.a.								
		112.44 4 cm carbonated, granular mafic (?) intrusive at 35° to c.a.								
		123.98 - 124.31 mafic (?) intrusive.								
		125.27 bedding at 20° to c.a.								
		- secondary cleavage crosscutting bedding beginning at 134.0 m. increasing downhole with increased pyrite occurrence.								
		139.95 bedding at 30° to c.a.								
		- unit has tectonized appearance past 152.0 m. with broken core, common stringer								

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TPP K-3M

FROM - TO m		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		carbonate veinlets, and crosscutting cleavage.								
		153.88 - 154.02 mafic (?) intrusive.								
		163.59 - 163.78 mafic (?) intrusive at 48°.								
		173.0 - 173.48 carbon-rich section.								
173.48	190.77	GRAPHITIC ARGILLITE								
		- very fine grained, dark grey to black, tectonized and bedded graphitic argillite (35 - 40° to c.a.).								
		- 1 - 3% thin carbonate stringer veinlets throughout with associated minor to 2% pyrite nodules.								
		- unit fractured and broken locally, graphitic slip surfaces, crosscutting cleavage locally.								
		- gradational contacts.								
		- unit carbonated throughout.								
		178.03 - 178.19 complex quartz-carbonate vein with numerous wallrock inclusions, subparallel to bedding at 50°.								
		178.26 - 180.0 broken, tectonized core with shear at 178.70.								
		183.83 - 183.95 quartz-carbonate vein subparallel to bedding at 45° to c.a. with numerous wallrock inclusions.								

LOGGED BY: M. Jerome DATE: Aug. 25, 1987 PROPERTY Syngold #1 HOLE NO. H13-51 PAGE NO. 3

TPP K-36

FROM - TO m		DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb			
		185.48 - 185.72, 185.80 - 185.90 semi-massive nodular pyritic sections.								
		188.20 bedding at 40° to c.a.								
190.77	204.49	MASSIVE MAFIC								
		- fine grained, medium grey, fractured massive mafic.								
		- moderately foliated at 40° to c.a.								
		- very weak to weak pervasive carbonaceous alteration, weak to moderate pervasive and fracture controlled carbonatization.								
		- minor scattered cubic pyrite within upper 2 m of graphitic argillite unit.								
		- minor thin quartz and carbonate veining throughout.								
		- weak carbon-filled dilational fracturing with local areas of brecciation (minor)								
		- broken upper contact with graphitic argillite.								
		190.77 - 192.0 minor to 1% scattered cubic pyrite, carbonaceous alteration of mafic.								
		201.79 - 202.15 complex quartz vein subparallel (?) to foliation (U - 65°, L - 80°), minor pyrite in vein along margins, 5 - 10% emerald green hydromuscovite in vein, wallrock inclusions throughout.	01768	201.5	203.0	1.5	7			
			01769	203.0	204.5	1.5	6			
204.49	215.35	FRACTURED MAFICS								
		- fine grained, tan grey to medium grey, fractured massive mafic moderately to strongly foliated at 40° to c.a.								

FROM - TO m		DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb			
		- very weak to weak pervasive carbonaceous alteration locally, moderate to strong pervasive carbonatization throughout.								
		- minor scattered pyrite throughout mafic, in carbonate stringers and in fractures.								
		- structure variable throughout - ranging from weak dilational fracturing to complex brecciation with dark grey carbonaceous matrix.								
		- gradational contacts.								
			01770	204.5	206.0	1.5	8			
		207.0 - 210.5 weakly carbonaceous altered grey mafic.	01771	206.0	207.5	1.5	11			
			01772	207.5	209.0	1.5	8			
		209.65 - 209.85 16 cm quartz vein with irregular contacts (U - 50°, L - 70°), minor wallrock inclusions and clinozoisite grains along upper contact.	01773	209.0	210.5	1.5	8			
			01774	210.5	212.0	1.5	10			
			01775	212.0	213.5	1.5	11			
			01776	213.5	215.0	1.5	8			
		211.76 - 213.06 weakly carbonaceous altered grey mafic.								
215.35	221.2	MASSIVE MAFIC								
		- fine grained, tan-grey-green, massive mafic weakly foliated at 35 - 40° to c.a.								
		- weak to moderate pervasive and fracture controlled carbonatization throughout.								
		- minor thin carbonate stringers throughout.								
		- weak dilational fracturing throughout.								
		- gradational contacts.								
221.2	228.35	FRACTURED MAFIC								
		- fine grained, light tan-green to light green, fractured massive mafic (possibly								

TPP K-M

FROM - TO m		DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb
		changing to pillowed mafic downhole), moderately to strongly foliated at 40 - 45° to c.a., similar to fractured unit from 204.49 - 215.35 m.					
		- weak to moderate pervasive carbonatization throughout, very weak pervasive carbonaceous alteration locally.					
		- minor thin carbonate stringers throughout.					
		- variable structure ranging from weak dilational fracturing to complete brecciation.					
		- gradational contacts.					
228.35	237.09	PILLOWED MAFIC					
		- fine grained, light green, pillowed mafic weakly foliated at 45 - 50° to c.a.					
		- weak pervasive and fracture controlled carbonatization.					
		- 1 - 4 mm oval, creamy, carbonate-filled amygdules throughout, generally 2 - 5% peripheral to pillow selveges, locally pyrrhotite-filled.					
		- pillow selveges generally less than 1 cm wide, oriented at 30 - 35° to c.a.					
		- minor thin carbonate veining throughout.					
237.09	248.03	GREY MAFIC					
		- fine grained, dark to medium grey, carbonaceous altered massive (?) mafic weakly foliated at 40° to c.a.	01777	236.0	237.5	1.5	7
		- moderate to strong pervasive carbonatization decreasing in intensity downhole, weak to moderate pervasive carbonaceous alteration.	01778	237.5	239.0	1.5	181
			01779	239.0	240.5	1.5	168
		- 1 - 3% thin irregular quartz and quartz-carbonate stringer veinlets throughout with associated minor pyrite.	01780	240.5	242.0	1.5	162
			01781	242.0	243.5	1.5	27
			01782	243.5	245.0	1.5	21

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FROM - TO m		DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb
		- weak dilational fracturing distinguishable locally.	01783	245.0	246.5	1.5	12
		- gradational contacts.	01784	246.5	248.0	1.5	21
248.03	260.0	MASSIVE MAFIC	01785	248.0	249.5	1.5	11
		- fine grained, light greyish-green to light green, massive mafic weakly foliated at 40 - 45° to c.a.					
		- very weak pervasive carbonaceous alteration in upper 3 m of unit with weak pervasive carbonatization, chloritic spotting with bleaching in remainder of unit.					

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TPP K-M

FROM - TO m		DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au			
		- beige brown, fine leucoxene grains throughout.								
		- thin carbonate stringers throughout.								
		- mottled texture.								
		- gradational upper contact.								
		248.03 - 252.5 light grey-green, weakly carbonaceous / carbonatized massive mafic.								
		252.5 - 260.0 mottled, chloritic spotted light green massive mafic.								
260.0		END OF H13-51								
		pull up to 218 m - set plug, wedge up from 215.0 -- H13-51A								
216.0	221.2	MASSIVE MAFIC								
		- fine grained, tan-grey-green, massive mafic similar to massive unit in H13-51 from 215.35 - 221.20 m (possibly pillowed), weakly foliated at 40 - 45° to c.a.								
		- weak to moderate pervasive carbonatization throughout, very weak pervasive carbonatization in lower portion of unit.								
		- minor, thin, quartz-carbonate stringer veining throughout.								
		216.0 - 218.0 0.42 m of core missing.								
		216.40 - 216.51 10 cm quartz-carbonate vein with irregular margins (U - 60°, L - 70°), 1 - 2% light green hydromuscovite along lower and upper								

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TPP K-30

FROM - TO m		DESCRIPTION	SAMPLE NO.	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb			
		contacts.	AE							
		220.2 - 221.2 very weak pervasive carbonaceous, weak fracturing increasing in intensity downhole.								
221.2	228.4	FRACTURED MAFIC								
		- fine grained, light tan-green to light green, fractured massive mafic (possibly pillowed mafic downhole), similar to fractured mafic in H13-51 from 221.2 - 228.35 m.								
		- weak pervasive and fracture controlled carbonatization throughout.								
		- variable structure - generally complete in situ brecciation with weak dilational fracturing locally.								
		227.65 - 228.4 weak pervasive carbonaceous alteration.								
228.4	237.2	PILLOWED MAFIC								
		- fine grained, light green, pillowed mafic similar to unit in H13-51 from 228.35 - 237.0 m, foliated weakly from 45 - 50° to c.a.								
		- weak pervasive and fracture controlled carbonatization.								
237.2	248.5	GREY MAFIC								
		- fine grained, dark to medium grey, carbonaceous altered massive (?) mafic weakly foliated at 40° to c.a., similar to grey mafic unit in H13-51 from	01786	236.0	237.5	1.5	7			
			01787	237.5	239.0	1.5	180			

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T.P.P. K-38

FROM - TO m		DESCRIPTION	SAMPLE NO. AE	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb
		237.09 - 248.03 m.					
		- weak to moderate pervasive carbonaceous alteration decreasing in intensity towards upper and lower contacts, moderate to strong pervasive carbonatization.	01788	239.0	240.5	1.5	144
			01789	240.5	242.0	1.5	38
			01790	242.0	243.5	1.5	41
		- 1 - 3% thin, irregular, quartz and quartz-carbonate stringer veinlets throughout with associated minor pyrite, minor dravite locally.	01791	243.5	245.0	1.5	8
			01792	245.0	246.5	1.5	154
		- weak dilational fracturing distinguishable locally.	01793	246.5	248.0	1.5	8
		- gradational contacts.	01794	248.0	249.5	1.5	19
248.5	250.0	MASSIVE MAFIC					
		- fine grained, light greyish-green to light green, massive mafic weakly to moderately foliated at 40 - 45° to c.a., similar to massive unit in H13-51 from 248.03 - 260.0 m.					
250.0		END OF HOLE, wedge set at 247.0					
248.0	248.57	GREY MAFIC					
		- latter portion of grey mafic unit from 237.2 - 248.5 in H13-51A (above).					
248.57	266.17	MASSIVE MAFIC					
		- fine grained, light greyish-green to light green, massive mafic weakly foliated at 40 - 45° to c.a., mottled, similar to massive mafic unit in H13-51 from 248.03 - 260.0 m, and from 248.5 - 250.0 m (above).					
		- chloritic spotting with background bleaching throughout, very weak pervasive					

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T.P.P. K-30

FROM - TO m		DESCRIPTION	SAMPLE NO.	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au			
		carbonaceous alteration and carbonatization in upper 2 m of unit.	AF							
		- beige-brown, fine leucoxene grains throughout.								
		253.17 - 253.48 31 cm carbonate vein subparallel to foliation (U - 70°, L - 70°), minor quartz, chlorite and Mg (?) carbonate in vein.								
		263.25 - 263.40 15 cm quartz vein at 80° to foliation (crosscutting), minor carbonate.								
266.17	278.78	PILLOWED MAFIC								
		- fine grained, light green, pillowed mafic weakly foliated at 50 - 55° to c.a.								
		- weak pervasive carbonatization throughout.								
		- minor thin carbonate veinlets.								
		- locally, minor 1 - 3 mm elongate carbonate amygdules.								
		- pillow selvages generally thin (1 - 3 mm), variable angles (40 - 45° to c.a.).								
		- weak fracturing locally.								
		- gradational lower contact.								
278.78	285.34	GREY MAFIC								
		- fine grained, medium to dark grey, carbonaceous altered pillowed mafic weakly foliated at 45 - 50° to c.a.								
		- moderate to strong pervasive carbonaceous alteration, weak to moderate pervasive carbonatization throughout.								
		- minor, thin carbonate veinlets throughout.								

FROM - TO m		DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb			
		- gradational contacts.								
		- minor pyrite locally.								
		281.67 - 281.92 complex quartz vein parallel (?) to foliation at 60° to c.a.,	01795	278.0	279.5	1.5	4			
		5 - 10% dark brown dravite throughout, minor wallrock inclusions	01796	279.5	281.0	1.5	6			
		(approximately 23 cm wide vein).	01797	281.0	282.5	1.5	15			
			01798	282.5	284.0	1.5	8			
			01799	284.0	285.5	1.5	19			
			01800	285.5	287.0	1.5	6			
285.34	316.2	PILLOWED MAFIC								
		- fine grained, light green pillowed mafic weakly foliated at 50 - 55° to c.a.,								
		unit similar to pillowed unit from 266.17 - 278.78 m.								
		- weak fracture controlled carbonatization locally.								
		- minor to 1% thin carbonate stringer veinlets throughout.								
		- pillow selvages generally less than 1 cm wide, variable orientations (40 - 60°								
		generally), commonly with 1 - 2% elongate carbonate amgydules along margins								
		of pillows.								
		- weak fracturing downhole.								
		- minor pyrrhotite locally in pillows and in pillow selvages.								
		312.70 - 312.97 brecciated pillowed mafic section.								
316.2	322.26	PILLOW BRECCIA								
		- fine grained, light buff-green, pillow fragments set in granular, medium								

FROM - TO m		DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb	ASSAYS Au gram		
		grained, medium greyish-green mafic matrix, unit moderately foliated at 45 - 55° to c.a.								
		- mafic fragments weakly carbonatized, weak to very weak pervasive carbonaceous alteration at bottom of unit.								
		- minor, complex quartz veining locally.								
		320.38 - 321.51 irregularly carbonate veined section disguising brecciated nature, weak pervasive chloritization / carbonaceous alteration.	01801	320.0	321.0	1.5	8			
322.26	324.29	GREY MAFIC								
		- fine grained, light to medium grey, carbonaceous altered massive (?) mafic, indistinct foliation.								
		- weak pervasive carbonaceous alteration and moderate pervasive carbonatization throughout.	01802	321.5	323.0	1.5	7			
		- minor pyrite locally along fractures.	01803	323.0	324.5	1.5		7.23	/	
		- minor veining except for a quartz vein near lower contact.								
		323.71 - 324.18 quartz vein with broken contacts subparallel to foliation at 40° (U), minor carbonate and wallrock inclusions in vein, 1 - 2% hydromuscovite along fractures.								
324.29	401.8	ALTERED MASSIVE MAFIC								
		- light grey (mauve) to greenish-grey, fine to medium grained (granular), altered massive mafic weakly to moderately foliated at 40 - 50° to c.a.								

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FROM - TO m		DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb
		- variable alteration types and intensities throughout - strong to intense pervasive carbonatization / sericitization.					
		- minor to 5% sulphide mineralization (dark and brassy pyrite, pyrrhotite) associated with intensely altered sections.					
		- quartz veining locally.					
			01804	324.5	326.0	1.5	17
		i) 324.29 - 333.29 light greyish-green, moderately to strongly carbonatized / sericitized, massive mafic, minor thin quartz stringers throughout, minor pyrite locally.	01805	326.0	327.5	1.5	6
			01806	327.5	329.0	1.5	8
			01807	329.0	330.5	1.5	480
			01808	330.5	332.0	1.5	49
		ii) 333.29 - 337.18 light grey to light buff-grey, intensely carbonatized / sericitized, massive mafic, thin quartz stringers locally (minor to 1%), minor to 1% disseminated pyrite.	01809	332.0	333.5	1.5	6
			01810	333.5	335.0	1.5	141
			01811	335.0	336.5	1.5	684
			01812	336.5	338.0	1.5	8
		333.90 2 cm quartz vein crosscutting foliation at 55°, 1% pyrite in wallrock.					
		335.02 - 336.09 slightly darker section (less intense alteration).					
		broken lower margin.					
		iii) 337.18 - 341.17 strongly to intensely carbonatized / (sericitized), granular, light grey, massive mafic, fine buff leucoxene grains throughout, minor thin quartz stringers throughout with minor pyrite in wallrock.	01813	338.0	339.5	1.5	52
			01814	339.5	341.0	1.5	58

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TPP K-38

FROM - TO m	DESCRIPTION	SAMPLE NO.	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb	ASSAYS Au gram
	iv) 341.17 - 345.94 light grey to mauve-grey, fine grained, intensely carbonatized / sericitized, massive mafic, 5 - 7% high angle quartz veining throughout, 1 - 7% sulphide content as two tone pyrite (dark and brassy cubic) and pyrrhotite locally (generally 5 - 7% sulphide from 342.0 - 345.5).	01815	341.0	342.5	1.5		2.40
		01816	342.5	344.0	1.5		5.83
		01817	344.0	345.0	1.0		30.31
		01818	345.0	346.0	1.0		9.43
	342.26 15 cm quartz vein crosscutting foliation (U - 65°, L - 75°), 5 - 7% wallrock inclusions, 1 - 3% pyrite in wallrock, minor pyrite in vein.						
	342.92 10 cm quartz vein crosscutting foliation (U - 75°, L - 85°), minor pyrite in vein.						
	343.45 6 cm quartz vein crosscutting foliation at 70° to c.a., minor pyrrhotite in vein, VISIBLE GOLD smear with pyrite along upper margin at 343.45 m, about 5 - 7% pyrite in wallrock.						
	344.12 8 cm quartz vein crosscutting foliation at 75° to c.a., 1 - 2% pyrite / pyrrhotite in vein.						
	344.71 - 344.82 erratic, complex section of quartz veining.						
	345.35 9 cm quartz vein crosscutting foliation (U - 50°, L - 55°), minor pyrite and hydromuscovite in vein.						

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FROM - TO m	DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb
	v) 345.94 - 352.49 light / medium greenish-mauve-grey strongly altered massive mafic, mauve / tan leucoxene grains throughout.	01819	346.0	347.0	1.0	82
		01820	347.0	348.5	1.5	119
		01821	348.5	350.0	1.5	70
		01822	350.0	351.5	1.5	7
	iv) 352.49 - 370.18 light grey, granular, strongly to intensely carbonatized/ sericitized, massive mafic, minor veining, minor to 1%	01823	351.5	353.0	1.5	80
		01824	353.0	353.90	0.90	432
	scattered pyrite locally.	01825	353.90	354.90	1.0	104
		01826	354.90	356.0	1.1	891
		01827	356.0	357.5	1.5	45
	353.97 - 354.87 quartz vein crosscutting foliation (U - 35°,	01828	357.5	359.0	1.5	14
	L - 50°), last 23 cm has 50 - 60% carbonate in vein with	01829	359.0	360.5	1.5	480
	wallrock inclusions, minor pyrite in vein.	01830	360.5	362.0	1.5	18
		01831	362.0	363.5	1.5	307
		01832	363.5	365.0	1.5	44
		01833	365.0	366.5	1.5	549
	vii) 370.18 - 374.06 very weakly carbonaceous altered, moderately to strongly	01834	366.5	368.0	1.5	8
		01835	368.0	369.5	1.5	10
	carbonatized / sericitized massive mafic, minor quartz	01836	369.5	371.0	1.5	7
	veining.	01837	371.0	372.5	1.5	4
		01838	372.5	374.0	1.5	3
	viii) 374.06 - 387.2 medium greyish-green, strongly carbonatized (sericitized)	01839	374.0	375.5	1.5	4
	massive mafic, minor veining, fine tan leucoxene grains	01840	375.5	377.0	1.5	7
	throughout.	01841	377.0	378.5	1.5	7
		01842	378.5	380.0	1.5	6
	ix) 387.20 - 401.8 light / medium grey, strongly carbonatized /(sericitized)	01843	380.0	381.5	1.5	10
	massive mafic, minor quartz veining, minor to 1% disseminated	01844	381.5	383.0	1.5	10

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FROM - TO m		DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb	ASSAYS Au gram
		pyrite from 390.5 - 394.3 m.	01845	383.0	384.5	1.5	3	
			01846	384.5	386.0	1.5	4	
			01847	386.0	387.5	1.5	6	
			01848	387.5	389.0	1.5	3	
			01849	389.0	390.5	1.5	15	
			01850	390.5	392.0	1.5	480	
			01851	392.0	393.5	1.5		2.67
			01852	393.5	395.0	1.5	69	
			01853	395.0	396.5	1.5	199	
401.80	404.0	HIGH MG PILLOWED MAFIC	01888	396.5	398.0	1.5	12	
			01889	398.0	399.5	1.5	7	
		- waxy. greyish-green, fine-grained. high Mg pillowed mafic weakly foliated at	01890	399.5	401.0	1.5	3	
		50 - 55° to c.a.	01891	401.0	401.80	0.80	4	
		- weak pervasive carbonatization / chloritization.	01892	401.80	402.90	1.10	6	
		- pillow selvages indicated by darker greyish-green colour (chloritization /	01893	402.90	404.0	1.10	12	
		carbonaceous alteration).						
		- fine white carbonate clots scattered throughout.						
		- sharp upper contact at 55° to c.a.						
404.0		END OF HOLE						

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TPP K-M

DRILL HOLE RECORD

KIDD CREEK MINES LTD.
EXPLORATION DIVISION

HOLE NO. H13-52 PROPERTY Syngold J.V. #1 PROJECT NO. 008155 CONTRACTOR Bradley Bros. START August 12, 1987

FINISH August 25, 1987

COORDINATES Grid Location: Latitude 440S UTM: Lat. ..... Surveyed: Lat. ..... Mine Grid: Lat. 99451.18N

Departure 120E Dep. ..... Dep. ..... Dep. 98342.89E

Elevation ..... Elev. 4984.88m

COLLAR ATTITUDE Azimuth 333° Dip -60° LENGTH 450m CORE SIZE BQ

INCLINATION TESTS

Rotodip/Acid Tests

Depth	Dip	Depth	Dip

Compass Tests

Depth	Observed Azimuth	True Azimuth	Dip
54m	casing	-	-57°
84m	16°NW	335°	-57°
114m	16°NW	335°	-57°
144m	16°NW	335°	-56°
177m	13.5NW	337.5°	-57°
207m	13.5NW	337.5°	-56.5°
237m	16.5NW	334.5°	-55°
267m	14.5NW	336.5°	-53.5°
297m	15°NW	336°	-52°
327m	15°NW	336°	-51.5°
354m	13°NW	338.0°	-52.0°
387m	12.0°NW	339.0°	-49.5°
422m	14.0°NW	337.0°	-46.5°

REMARKS 9m of 26m NW casing pulled, BW casing to 54m

Logged by S.F. Povoden, M. Jerome Date 27/08/87 Property Syngold J.V. #1 Hole No. H13-52

PAP 13301 (193)

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
0.00	26.00	OVERBURDEN								
26.00	163.47	SEDIMENTS								
		- medium grey, fine to medium grained, poorly sorted, gritty greywacke with feldspar, carbonate and local argillaceous rip-up clasts (stretched parallel to bedding)								
		- greywacke is intercalated with weakly carbonaceous argillaceous beds (less than 1cm and up to 28cm) oriented 20°/CA (at 46.0m); initially unit contains about 3-4% argillite which becomes thicker and more prominent with depth - by 65m have about 15% argillite, by 93m about 30% argillite and by 124.00m have about 15% greywacke								
		- graded bedding indicates tops up the hole (to the south)								
		- local carbonate veinlets (up to 2mm) comprise 1-2% of unit; generally parallel bedding but are also common at 60°/CA - may contain local pyrite clots (up to 2mm)								
		- locally pyrite may be finely disseminated (less than 1mm), clotty (up to 5mm increasing to 8mm by 72.0m; present in finer grained zones in/near argillites), as a fracture filling and along bedding planes; initially pyrite content is less than 1% but increases to 2% by 80m.								
		- core badly broken to 54.00m								
		- 26.96 to 28.00m - lost core								

LOGGED BY: SFP DATE: PROPERTY HOLE NO. H13-52 PAGE NO. 1

TPP 8-38

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		- 29.37 to 31.00m - lost core								
		- 32.97 to 34.00m - lost core								
		- 35.56 to 37.00m - lost core								
		- 37.63 to 40.00m - lost core								
		- 42.29 to 43.00m - lost core								
		- 45.42 to 46.00m - lost core								
		- 58.50m - bedding oriented 30°/CA								
		- 59.55 to 59.62m - carbonate veining and minor brecciation of sediments - fine pyrite (up to 2%)								
		- 68.28 to 68.34m - carbonate vein oriented 35°/CA containing 5% galena								
		- 72.5m - bedding oriented 25°/CA								
		- 81.48 to 82.00m - lost core								
		- 76.5 to 90.0m - broken core								
		- at 91.25m - bedding oriented 30°/CA								
		- 93m - finer grained greywacke with about 30% argillite beds								
		- 95.3m - secondary cleavage developed at 40°/CA approximately perpendicular to bedding								

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TPP 4-30

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		- as of 92m see local quartz-carbonate veins generally oriented parallel to bedding (up to 5cm true width) and containing minor fine pyrite								
		- 101.5m - graded bedding indicates tops up the hole (to the south)								
		- 119.0 to 124.0 - unit quite broken up								
		- 117.0m - bedding oriented at 25°/CA								
		- 129.28 to 130.00m - lost core								
		- 132.09 to 133.0m - lost core								
		- as of 124.00m - predominantly argillite with about 15% greywacke and 1-2% carbonate veinlets								
		- dendritic pyrite (up to 6mm size) is present (up to 1%)								
		- strong secondary cleavage at 50°/CA								
		at 124.0m - bedding oriented at 25°/CA								
		- 141.0m bedding at 25°/CA								
		- 155.50m - bedding oriented at 30°/CA								
		- secondary cleavage strong - oriented 30-55°/CA								
		- 162.00 to 162.48m - small shear oriented 45°/CA - contains about 10% carbonate and 4% quartz								

LOGGED BY: SFP DATE: PROPERTY HOLE NO. H13-52 PAGE NO. 3

TPP R-30

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		- contact at 163.47m oriented parallel to bedding at 30°/CA								
163.47	194.10	GRAPHITIC ARGILLITE								
		- dark grey to black, fine-grained, weakly sheared unit								
		- about 5% carbonate stringers/veinlets often oriented 30-40°/CA otherwise randomly oriented - often contain pyrite								
		- also some wider carbonate zones (up to 2cm)								
		- pyrite nodules (up to 2.5cm) and euhedra (up to 12mm) comprise up to 5% of unit; pyrite grains are often stretched parallel to foliation (30-40°/CA) and may show strain shadows								
		- local areas (up to 50cm) badly broken								
		- 168.10 to 169.50 - carbonaceous argillite								
		- 169.93 to 174.50 - carbonaceous argillite								
		- these two zones contain less than 1% carbonate veinlets and up to 1% pyrite								
		- local 10cm strongly carbonatized zones								
		- carbonate veining oriented 80°/CA at 186.0m								
		- 187.0m - locally brecciated pyrite nodules in carbonate veins.								

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TPP K-36

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
			AF			m	Au ppb
		- 190.30 to 190.61m - strong shear oriented 20°/CA - badly broken with ground graphite					
		- contact at 194.10m in ground core-orientation not known					
194.10	201.13	MASSIVE MAFIC					
		- grey, fine-grained, soft, weakly carbonaceous unit					
		- weakly foliated at 30°/CA					
		- weakly to moderately carbonatized (reactant/HCl)					
		- carbonate veinlets oriented 35°/CA as well as crossing foliation					
		- local pyrite as disseminated grains (less than 1mm), clots (up to 3mm) and large euhedra (up to 6mm, near 201.0m)					
		- 195.20m - 30cm dilative fractured zone with carbonaceous infilling					
		- 194.5 to 198.5 - badly broken core					
		- 195.86 to 196.00m - lost core					
		- 199.30 to 201.13m - dilative fractured zone oriented 35°/CA with carbonaceous infilling	01383	199.63	201.13	1.50	19
		- sharp contact at 201.13m - marked by possible shear - strongly carbonatized zone from 200.90 to 201.13m oriented 35°/CA	01384	201.13	202.00	0.87	14

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TPP K-36

FROM - TO		DESCRIPTION	SAMPLE NO. AF	FROM — TO		SAMPLE LENGTH m	ASSAYS Au			
							ppb			
201.13	204.32	GREY MASSIVE MAFIC								
		- dark grey to black, fine-grained, soft, moderately carbonaceous unit								
		- moderately foliated at 20-30°/CA								
		- weakly carbonatized (strongly reactant/HCl)								
		- local, strong secondary cleavage (crenulation cleavage) oriented 60°/CA								
		- weakly fractured and carbonaceously infilled								
		- contains 2-3% pyrite as fine clots (up to 2mm) often stretched parallel to foliation and locally, large euhedra (up to 12mm)								
		- 201.52 to 201.90m - sheared subparallel to C.A.								
		@ 203.50m - 1.5cm quartz (5%) carbonate vein oriented 25°/CA parallel to foliation	01385	202.0	203.5	1.5	10			
		@ 203.54m - 3cm quartz (15%) carbonate vein oriented 20°/CA parallel to foliation								
		@ 204.03m - 4cm quartz (8%) carbonate vein oriented 40°/CA								
		- from 204.07 to 204.24m - sheared subparallel to CA crossing foliation								
		@ 204.24 to 204.32m - quartz (10-12%) carbonate vein oriented 20°/CA (at 204.24; 30°/CA at 204.32m)								
		- sharp contact at 204.32m oriented 30°/CA	01386	203.5	205.0	1.5	7			

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TPP K-36

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
			AF			m	Au ppb
204.32	219.41	MASSIVE MAFIC					
		- medium grey (to 213.10m) then tan-grey, fine grained, moderately soft unit - still weakly carbonaceous					
		- foliation oriented 25-45°/CA					
		- weakly to moderately carbonatized (reactant/HCl)					
		- quartz-carbonate veinlets oriented randomly (40-45°/CA and up to 70°/CA) and comprise about 1% of unit					
		- weakly carbonaceous through to 213.10m					
		- weak to moderate dilative fracturing with carbonaceous infilling - oriented 40-50°/CA					
		- pyrite occurs as large euhedra (up to 15mm) randomly occuring or infilling fractures, and as clots (up to 10mm, but generally 3mm) which are generally stretched parallel to foliation or shearing (comprise 2-3% up to 213.2m)	01387	205.0	206.5	1.5	6
			01388	206.5	208.0	1.5	11
		- 207.31 to 207.94m - small shear zone oriented 20-25°/CA and contains 15% carbonate					
		- 208.28 to 208.95m - small shear zone (8% carbonate) oriented 30-35°/CA	01389	208.0	209.5	1.5	11
		- 209.13 to 209.64m - shear oriented 30o/CA containing 15% quartz, and 10-15% carbonate	01390	209.5	211.0	1.5	6
			01391	211.0	212.5	1.5	12
		- contact at 219.41m oriented 50°/CA - 219.18 to 219.41m - somewhat brecciated	01392	212.5	214.0	1.5	12

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FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
		(or strong dilative fracturing) with carbonate are carbonaceous infilling					
		- stretching is parallel to contact					
219.41	243.10	PILLOWED MAFIC					
		- light green with yellow tint, fine-grained, moderately soft to moderately hard unit					
		- moderate foliation at 30-40°/CA					
		- very weakly carbonatized (variable reaction/HCl) and moderately so in selvages; local carbonate veinlets (up to 2mm) randomly oriented					
		- weakly chloritic throughout with selvages moderately chloritic					
		- selvage thickness ranges from 2-13cm and often contain brecciated or strongly fractured host rock as well as pyrite/pyrrhotite clots (up to 2mm) and minor carbonaceous infilling					
		- amygdules are present locally - carbonate +/- chlorite filled (up to 10mm)					
		- very local quartz (5-15%) carbonate veinlets show various orientations (up to 3cm wide)					
		- 228.5 to 233.0m - weak dilative fracturing with carbonaceous infilling increasing in intensity until unit is brecciated (at about 229.70 to 230.88m) and then reduces in intensity to 233.0m					
		- 241.5 to 243.0m -dilative fracturing (weak)					

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FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au
			AF			m	ppb
		- 242m - gradational colour change occurring to grey, due to increased carbon content					
		- 243.10m - gradational contact					
243.10	249.64	GREY MASSIVE MAFIC					
		- medium to dark grey, fine-grained, moderately soft, moderately carbonaceous, possibly weakly sheared unit.					
		- foliation is moderate to strong at 35-40°/CA indicated by small (up to 2mm) carbonate veinlets which comprise 10% of unit (other carbonate veinlets are randomly oriented)					
		- pyrite (1-2%) occurs as clots (up to 8mm) or groups of clots often stretched parallel to foliation, and as a fracture filling	01393	243.10	244.00	0.90	4
			01394	244.00	245.50	1.50	47
		@ 245.28m - 12cm zone of carbonate, quartz (20%), host rock and pyrite (less than 1%) oriented subparallel to foliation (40°/CA)	01395	245.50	246.82	1.32	26
		- 246.82 - 247.00m - lost core	01396	247.00	248.50	1.50	63
		- contact at 249.64m in broken core possibly marked by quartz (40-50%) carbonate vein oriented 80°/CA	01397	248.50	249.64	1.14	12

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TPP 8-30

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
			AF			m	Au ppb
249.64	259.08	MASSIVE MAFIC					
		- light to medium green (with weak yellow tint locally), fine-grained, hard unit					
		- commonly bleached resulting in either chlorite or possibly albite mottles (less than 1mm)					
		- weakly chloritic					
		- minor (less than 1%) carbonate veinlets present at random orientations					
		- locally, small clinozoisite and quartz veins are present (up to 4cm)					
		- 249.77 - 250.0m - lost core					
		- 255.00 to 255.20m - quartz (50%) carbonate (30%), clinozoisite (possibly) vein with contacts showing variable orientations					
		- 256.12 to 257.70m - grey tan zone which may be due to increased carbonate (granular texture-non to weakly reactant/HCl) and chlorite alteration	01398	256.12	257.72	1.60	3
		- possible contact at 259.08m oriented 75°/CA					
259.08	279.42	PILLOWED MAFIC					
		- light green, fine-grained, moderately hard to hard (where bleached) unit					

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FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		- locally bleached								
		- weakly to moderately carbonatized (reactant/HCl); local carbonate veinlets (generally up to 2mm) show random orientations								
		- weakly chloritic although pillow selvages are often strongly chloritic and often have bleached veins								
		- selvages often quite fractured and may contain fine pyrite/pyrrhotite (less than 1%) clots (less than 2mm) stretched parallel to the selvage								
		- local dilative fracturing with chlorite infilling								
		- amygdules present throughout unit (up to 5%) and may be carbonate (up to 9mm) or quartz (up to 3mm) filled								
		- 276.88 to 277.00m - lost core								
		- local quartz (up to 10%) carbonate veins (up to 1.5cm) oriented 20-50°/CA								
		- gradational contact possibly at 279.42m - marked by gradational colour change to tan grey								
279.42	290.22	GREY PILLOWED MAFIC								
		- light to dark grey, fine-grained, moderately soft to moderately hard, weakly to moderately carbonaceous unit								
		- weak foliation at about 30-40°/CA								

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FROM	TO	DESCRIPTION	SAMPLE NO. AF	FROM	TO	SAMPLE LENGTH m	ASSAYS Au ppb			
		- weakly to moderately carbonatized (reactant/HCl) with local carbonate veinlet (up to 3%) showing random orientations								
		- local dilative fracturing - carbonaceously filled - pillow selvages often fragmented and contain carbonate, minor chlorite and carbonaceous material								
		- 279.42 to 279.98m - tan grey, carbonatized zone with carbonate veinlets often containing pyrite/pyrrhotite clots; amygdules present and carbonate filled (1-2%)	01399	279.42	281.00	1.58	21			
		- 279.98m contact (oriented 40°/CA) with darker grey carbonaceous zone (possibly weakly sheared) which grades into lighter tan grey at 280.90m - about 10% randomly oriented carbonate stringers (several at 40°/CA) - local pyrite clots and fracture filling (about 1%)								
		- 280.90 to 284.10m - similar to 270.42 to 279.98m	01400	281.00	282.50	1.50	3			
		- 284.10 - 290.22 consistent dark grey zone showing strong foliation at 40°/CA marked by carbonate veinlets and stretched pyrite clots parallel to foliation - minor carbonate filled amygdules through zone	06001 06002	282.50 284.00	284.00 285.37	1.50 1.37	23 8			
		- 286.00 to 286.55m - possible shear zone oriented 40°/CA (carbonate flooded from 286.28 to 286.55m)	06003 06004	286.00 287.50	287.50 289.00	1.50 1.50	7 3			

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FROM - TO		DESCRIPTION	SAMPLE NO. AF	FROM — TO		SAMPLE LENGTH m	ASSAYS Au ppb			
		- 285.37 to 286.00m - lost core								
		- sharp contact at 290.22m marked by carbonate zone (from 290.09 to 290.22m) oriented 40°/CA	06005	289.0	290.22	1.22	2			
290.22	301.79	PILLOWED MAFIC								
		- light green to green grey, fine-grained moderately hard to hard unit with local patches of carbonaceous alteration; fractures, some bleached zones and selvages may contain carbonaceous material								
		- local bleaching of pillow rims and local albite mottles present								
		- weakly carbonatized (non-reactant/HCl); also local (1%) carbonate and quartz-carbonate veinlets/veins (up to 6mm), randomly oriented								
		- local clots of pyrite/pyrrhotite present in small fractures								
		- selvages are either weakly chloritic or chlorite has been replaced by carbonaceous material; also contain local (less than 1%) pyrite/pyrrhotite clots (less than 2mm)								
		- local amygdules (up to 2%) may be carbonate, chlorite, quartz or pyrrhotite filled (up to 6mm)								
		- strong foliation at 290.22 to 291.06m oriented 40°/CA								

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FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		- 291.06 to 291.37m - carbonate vein with host rock inclusions and minor amounts of pyrite (less than 1%, less than 1mm)								
		- 293.70 to 293.97m - medium grey, weakly carbonaceous zone								
		- 296.63 to 297.14m - dark grey carbonaceous zone								
		- 300.03 to 300.45m - medium grey carbonaceous zone								
		- sharp contact at 301.79m oriented 40°/CA consisting of 1cm zone of carbonate and chlorite								
301.79	318.05	MASSIVE MAFIC								
		- green grey, fine-grained, moderately hard to hard unit with mottled alteration texture								
		- weakly foliated at about 40°/CA								
		- locally bleached								
		- weakly to moderately carbonatized (reactant/HCl) - granular texture								
		- fine, randomly oriented carbonate and quartz carbonate veinlets parallel and cross foliation								
		- local carbonate-filled amygdules (up to 6mm)								
		- weakly chloritic and increasing somewhat from 317.0 to 318.05m.								
		- locally have fracture-filling pyrrhotite and clots of pyrrhotite (less than 1%)								

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TPP K 30

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
		- 311.80 to 312.12m - small pillowed horizon, with fragmented selvages					
		- lower contact oriented 35°/CA					
		- @ 316.83 to 316.90m - quartz (75%) carbonate (15%) clinozoisite (10%) vein oriented 50°/CA crossing foliation, with pyrrhotite clots (up to 2mm)					
		- sharp contact at 318.05m oriented 70°/CA marked by 1cm of slightly fragmented material					
318.05	336.85	PILLOWED MAFIC					
		- light green to grey-green, fine-grained, moderately hard unit					
		- local bleaching as well as of pillow rims					
		- local weak foliation oriented 40-45°/CA					
		- weakly carbonatized (variable reaction/HCl) with local, randomly oriented carbonate and quartz carbonate veinlets (up to 4mm) comprising 1% of unit					
		- weakly chloritic with selvages strongly chloritic; selvages often contain carbonate and minor pyrrhotite (up to 1mm; less than 1%)					
		- local weakly carbonaceous alteration					
		- amygdules (up to 5mm) present locally and comprise 1-2% of unit; generally, carbonate filled					
		- local dilative fracturing is quartz or chlorite filled					

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IPP 5-30

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au
			AF	m		m	ppb
		@ 318.65m - 8cm quartz carbonate (10%) vein oriented 50°/CA					
		- minor pyrrhotite/pyrite clot (up to 1mm) along contacts					
		@ 319.35m - 9cm quartz carbonate (10%) vein oriented 50°/CA crossing foliation					
		- locally minor shear zones					
		- 325.89 to 326.36m - shear zone oriented 20°/CA crossing foliation with local pyrrhotite clots stretched parallel to foliation					
		- 328.70m - unit undergoes gradational colour change, to strong carbonate alteration - carbonate needles present locally as of 328.50m					
		- 331.0 to 333.0m - broken core					
		- contact at 336.85m - contact is ground and orientation not known					
336.85	346.93	SHEARED PILLOWED MAFIC					
		- green-grey to dark grey, fine-grained, moderately soft, strongly foliated (at 35-45°/CA) unit with zones of moderate carbonaceous alteration (also as fracture filling)					
		- moderately to strongly carbonatized (reactant/HCl)					
		- quartz and quartz carbonate veinlets generally cross-cutting foliation at high angle to core axis					
			06006	336.85	338.50	1.65	7
			06007	338.50	340.00	1.50	4

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TPP K-30

FROM - TO		DESCRIPTION	SAMPLE NO. AF	FROM — TO		SAMPLE LENGTH m	ASSAYS Au ppb			
		@ 339.72 - 339.83m - sheared vein assembly containing quartz, carbonate, host rock and minor pyrite/pyrrhotite oriented 35°/CA and parallel to foliation	06008	340.00	341.50	1.50	22			
			06009	341.50	343.00	1.50	52			
		@ 342.47 - 342.61m - as 339.72 to 339.83m but oriented 45°/CA	06010	343.00	344.50	1.50	8			
		@ 345.00 to 345.20m - quartz, carbonate chlorite weakly sheared vein oriented 45°/CA (subparallel to foliation) with local minor pyrite and chalcopyrite clots parallel to foliation in vein.	06011	344.50	346.00	1.50	8			
		346.30 - 346.38 broken core								
		approximate sharp lower contact at 50° to C.A.								
346.93	381.72	MASSIVE MAFIC								
		- fine grained, medium green, massive mafic weakly foliated at 50° (?) to C.A.								
		- weak pervasive carbonatization and weak-moderate pervasive chloritization throughout								
		- minor carbonate high angle veinlets throughout								
		- minor brassy cubic pyrite locally disseminated in mafic								
		- minor - 1%, 1-2mm, white, oval carbonate amygdules in upper portion of unit								
		- up to 1-3%, fine white/cream leucoxene grains increasing in quantity and size downhole								
		- extremely gradational lower contact								

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TPP K-36

FROM	TO	DESCRIPTION	SAMPLE NO. AF	FROM m	TO	SAMPLE LENGTH m	ASSAYS Au ppb			
		346.93 - 352.0 minor to 1% carbonate amygdules (nil past 352.0) in massive leucoxene aphyric mafic								
		360.0 beginning of very fine leucoxenes								
		365.0 - 371.0 minor, scattered up to 1mm, dark grey-green chloritic (?) blotches throughout								
		373.60 - 381.72 1-3%, large (up to 1mm), creamy-white leucoxene grains throughout, gradually becoming tan in colour, gradual increase in alteration intensity (carbonatization/(sericitization))	01854	379.0	380.5	1.5	6			
			01855	380.5	382.0	1.5	6			
381.72	427.16	ALTERED MASSIVE MAFIC								
		- fine grained, light tan-mauve grey, altered massive mafic weakly foliated at 40-45° to C.A.								
		- variable alteration types and intensities throughout- generally strong to intense carbonatization/sericitization								
		- minor quartz/carbonate veining								
		- locally, minor to 3% scattered dark pyrite	01856	382.0	383.5	1.5	4			
		- mauve-tan leucoxene grains locally throughout	01857	383.5	385.0	1.5	8			
			01858	385.0	386.5	1.5	4			
			01859	386.5	388.0	1.5	6			

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TPP K-36

FROM - TO	DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		AE	m		m	Au ppb	gram		
	i) 381.72 - 394.0 strong pervasive carbonatization/sericitization, light/ medium tan-greenish-grey, minor pyrite locally	01860	388.0	389.5	1.5	4			
		01861	389.5	391.0	1.5	15			
		01862	391.0	392.5	1.5	4			
	ii) 394.0 - 394.52 intensely carbonatized/sericitized, light grey, massive mafic section with 2-3% scattered dark pyrite	01863	392.5	394.0	1.5	12			
		01864	394.0	395.5	1.5		1.58	/	
		01865	395.5	397.0	1.5	49			
	@394.22 4cm quartz vein parallel to foliation at 55° to C.A., 1-2% pyrite in vein, common wallrock inclusions	01866	397.0	398.5	1.5	8			
		01867	398.5	400.0	1.5	23			
		01868	400.0	401.5	1.5	6			
	iii) 394.52 - 399.86 strong to intense carbonatization/sericitization, minor pyrite locally, fine leucoxene grains throughout	01869	401.5	403.0	1.5	49			
		01870	403.0	404.5	1.5	14			
		01871	404.5	406.0	1.5	6			
		01872	406.0	407.5	1.5	3			
	iv) 399.86 - 402.32 light grey, intensely carbonatized/sericitized massive mafic, minor pyrite locally	01873	407.5	409.0	1.5	3			
		01874	409.0	410.5	1.5	4			
		01875	410.5	412.0	1.5	32			
	v) 402.32 - 427.16 light grey, strongly carbonatized (sericitized) massive mafic, minor veining/pyrite locally	01876	412.0	413.5	1.5	163			
		01877	413.5	415.0	1.5	6			
		01878	415.0	416.5	1.5	7			
	@412.63 3mm quartz veinlet crosscutting foliation at 80°, minor dark pyrite/arsenopyrite in wallrock	01879	416.5	418.0	1.5	4			
		01880	418.0	419.5	1.5	6			
		01881	419.5	421.0	1.5	26			
	425.74 - 427.16 weakly carbonaceous altered light/medium grey massive mafic	01882	421.0	422.5	1.5	8			
		01883	422.5	424.0	1.5	10			
		01884	424.0	425.5	1.5	4			
		01885	425.5	427.0	1.5	2			

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TPP K-36

FROM	TO	DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb			
			01886	427.0	428.5	1.5	10			
427.16	450.0	HIGH MG PILLOWED MAFIC								
		- fine grained, to granular, light greyish-green to medium green, pillowed high Mg mafic weakly to moderately foliated at 35-45° to C.A.								
		- weak pervasive and fracture controlled carbonatization locally, weak pervasive chloritization throughout								
		- minor to 1% thin carbonate stringers throughout								
		- pillow selvages generally 1-2cm wide, chloritized dark green, variably orientated, associated downhole with variolitic and feldspar rich pillow margins								
		- upper contact at 20° to C.A.								
		427.16 - 433.0 weakly carbonatized pillowed mafic, moderately foliated throughout								
		442.0 - 450 variolitic pillowed mafic								
450.0		END OF HOLE								

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TPP K-30

DRILL HOLE RECORD

KIDD CREEK MINES LTD.
EXPLORATION DIVISION

HOLE NO. H13-53 PROPERTY Syngold J.V. #1 PROJECT NO. 008155 CONTRACTOR Bradley Bros. START 25/08/87
FINISH 31/08/87

COORDINATES Grid Location: Latitude 330S UTM: Lat. Surveyed: Lat. Mine Grid: Lat. 99562.89N
Departure 140E Dep. Dep. Dep. 98312.60E
Elevation Elev. 4985.57m

COLLAR ATTITUDE Azimuth 333° Dip -60° LENGTH 290m CORE SIZE BQ

INCLINATION TESTS

Rotodip/Acid Tests

Depth	Dip	Depth	Dip

Compass Tests

Depth	Observed Azimuth	True Azimuth	Dip
73m	-59.0°		
98m	-57.5°	20°NW	331.0°
128m	-57.0°	19.0°NW	332.0°
158m	-56.5°	20°NW	331.0°
187m	-55.0°	19.0°	332.0°
217m	-54.0°	20°NW	331.0°
255m	-51.0°	18.0°NW	333°

REMARKS All NW casing pulled (25m), BW casing to 58m

Logged by M. Jerome Date 01/09/87 Property Hole No. H13-53

P.A.P. 13301 (183)

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
0	25.0	OVERBURDEN								
25.0	29.74	MASSIVE (?) MAFIC								
		- light to medium green fine grained, massive (?) (possibly pillowed) mafic								
		weakly foliated at 20-25° to C.A.								
		- weak fracture controlled carbonatization, weak pervasive chloritization								
		- minor carbonate veinlets throughout								
		- locally, minor oval carbonate amygdules								
		- unit extremely broken with core loss: 25.77 - 26.0, 27.82 - 29.0								
29.74	42.81	OXIDIZED MAFIC								
		- light brown-tan, oxidized fractured and massive mafic								
		- unit extremely broken with core loss: 29.78 - 32.0, 32.41 - 35.0, 36.19,								
		38.0, 38.27 - 41.0, 41.0 - 42.73								
42.81	77.25	PILLOWED (?) MAFIC								
		- fine grained, light/pale green to tan-grey pillowed (?) mafic weakly								
		foliated at 40-45° to C.A.								
		- weak pervasive carbonatization locally, weak pervasive chloritization								
		- pillow selvages generally 1-3cm wide, at variable orientation, chloritized								
		dark grey-green, with well-developed hyaloclastite locally, bleached margins								
		- 1-3mm carbonate amygdules locally								
		- unit extremly broken with core loss: 46.82 - 47.0, 48.47 - 50.0, 50.74 -								

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T.P.P. K-39

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
			AF	m		m	Au ppb	gram		
		- 52.54, 53.63 - 54.42								
		- minor disseminated brassy pyrite locally								
		- gradational contacts								
		53.63 - 62.31 light tan-grey-green weakly carbonatized pillowed mafic								
		57.94 - 59.68 sheared, foliated pillowed mafic at 40° to C.A.								
		62.31 - 72.28 light/medium green pillowed mafic with well-developed hyaloclastitic selveges								
		- white needle-like, feldspar (?) lathes (1-2%) from 70-40 - 71.50m								
		72.28 - 77.25 light/medium greenish-grey to tan pillowed mafic, bleaching increasing downhole, gradational lower contact	01894	74.0	75.5	1.5	11			
			01895	75.5	77.0	1.5	8			
77.25	91.86	ALTERED PILLOWED (?) MAFIC	01896	77.0	78.5	1.5	4			
		- fine grained, light tan grey to light grey, bleached/altered pillowed (?) mafic, appears to be massive locally, weakly foliated at 45° to C.A.								
		- weak pervasive carbonatization throughout, locally waxy green pervasive, weak to moderate sericitization								
		- minor veining								
		- minor to 1% scattered dark pyrite throughout								
		- locally 1-2mm carbonate amygdules	01897	78.5	80.0	1.5	33			
			01898	80.0	81.5	1.5		4.66		

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T.P.P. K-3a

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
			AF	m		m	Au ppb
			01899	81.5	83.0	1.5	25
		77.25 - 81.91 probable pillowed mafic section	01900	83.0	84.5	1.5	49
			01901	84.5	86.0	1.5	19
		81.91 - 91.86 possible massive mafic section	01902	86.0	87.5	1.5	17
			01903	87.5	89.0	1.5	143
		89.24 oxidized, iron-stained section (4 cm)	01904	89.0	90.5	1.5	33
			01905	90.5	92.0	1.5	15
		89.63 minor to 5% dark greyish-brown, dravite/tourmaline associated					
		with irregular quartz veinlets					
		- broken lower contact					
91.86	136.43	PILLOWED MAFIC					
		- fine grained, light green to light grey, pillowed mafic weakly to moderately					
		foliated at 30-35° to C.A.					
		- weak to moderate fracture controlled and pervasive carbonatization, spotty					
		chloritic alteration with bleaching downhole					
		- minor carbonate veinlets throughout					
		- minor disseminated pyrite locally					
		- pillow selvages rare, generally 1-5mm wide, variable orientations	01906	92.0	93.5	1.5	754
		- carbonate amygdules locally	01907	93.5	95.0	1.5	40
			01908	95.0	96.5	1.5	17
			01909	96.5	98.0	1.5	2
		91.86 - 93.25 very weakly carbonaceous altered, sheared pillowed mafic	01910	98.0	99.5	1.5	2
		foliated at 30-35° to C.A., minor pyrite	01911	99.5	101.0	1.5	2
			01912	101.0	102.5	1.5	8

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FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au
			AF	m		m	ppb
		93.25 - 105.77 light grey, moderately carbonatized pillowed mafic	01913	102.5	104.0	1.5	6
			01914	104.0	105.5	1.5	4
		105.77 - 136.43 light green, fresh pillowed mafic - mottled sections appear					
		to possibly be massive mafic					
		107.0 - 107.07 irregular carbonate veining with 2-3% semi-massive					
		chalcopyrite along wallrock/vein margin					
			01915	134.0	135.5	1.5	3
136.43	148.88	GREY MAFIC	01916	135.5	137.0	1.5	18
			01917	137.0	138.5	1.5	6
		- fine grained, medium to dark grey, carbonaceous altered pillowed mafic	01918	138.5	140.0	1.5	2
		weakly to moderately foliated at 35-40° to C.A.	01919	140.0	141.5	1.5	3
		- alternating zones of	01920	141.5	143.0	1.5	51
		moderate and weak carbonaceous alteration, weak to moderate pervasive	01921	143.0	144.5	1.5	15
		carbonatization throughout	01922	144.5	146.0	1.5	10
		- minor to 1% thin carbbnate veinlets throughout, locally with minor sphalerite	01923	146.0	147.5	1.5	91
		- minor disseminated pyrite locally	01924	147.5	149.0	1.5	12
		- sharp upper contact at 10°, gradational lower contact					
		143.35 - 143.52 14 cm carbonate vein parallel to foliation (U-40°, L-50°),					
		minor dravite along fractures					
148.88	154.97	SHEARED PILLOWED MAFIC					
		- fine grained, light tan-greenish-grey, sheared pillowed mafic moderately to	01925	149.0	150.5	1.5	14
		well foliated at 40-45° to C.A.	01926	150.5	152.0	1.5	14

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TPP.K-3

FROM - TO		DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb			
		- weak pervasive carbonatization, weak fracture controlled carbonaceous alteration locally	01927	152.0	153.5	1.5	14			
		- minor carbonate veinlets throughout, locally with minor sphalerite	01928	153.5	155.0	1.5	12			
		- gradational upper contact, sharp lower contact at 45° to C.A.								
		- weak dilational fracturing								
154.97	156.66	GREY MAFIC								
		- fine grained medium to dark grey, carbonaceous altered pillowed mafic moderately foliated at 40-45° to C.A.	01929	155.0	156.5	1.5	10			
		- moderate to strong pervasive carbonaceous alteration, weak pervasive carbonatization	01930	156.5	158.0	1.5	8			
		- minor, thin carbonate veinlets throughout								
		- gradational lower contact								
156.66	175.32	PILLOWED MAFIC								
		- fine grained, light/medium green, pillowed mafic moderately foliated at 35-45° to C.A.								
		- very weak pervasive carbonaceous alteration in upper two metres of unit, weak pervasive carbonatization locally								
		- minor carbonate stringers								
		- pillow selveges, generally thin (1-2mm). low angle (20-40°) with bleached margins.								
		- 1-3% white, 1-3mm, oval carbonate amygdules locally throughout								
		- gradational contacts								

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FROM	TO	DESCRIPTION	SAMPLE NO. AF	FROM m	TO	SAMPLE LENGTH m	ASSAYS Au ppb			
		156.66 - 158.0 very weak carbonaceous alteration								
175.32	195.63	MASSIVE MAFIC								
		- fine grained, medium green, massive mafic weakly foliated at 35-40° to C.A.								
		- very weak pervasive carbonatization								
		- minor, thin carbonate veinlets throughout								
		- weak fracturing locally								
		- minor pyrite locally								
195.63	205.31	GREY MAFIC	01931	194.0	195.5	1.5	10			
			01932	195.5	197.0	1.5	45			
		- fine grained, medium grey, carbonaceous altered massive mafic weakly to moderately foliated at 40° to C.A.	01933	197.0	198.5	1.5	67			
			01934	198.5	200.0	1.5	336			
		- moderate pervasive carbonaceous alteration, weak to moderate pervasive carbonatization throughout	01935	200.0	201.5	1.5	374			
			10936	201.5	203.0	1.5	73			
		- minor, thin quartz and carbonate stringers throughout	01937	203.0	204.5	1.5	40			
		- minor scattered brassy pyrite through unit	01938	204.5	206.0	1.5	234			
		- gradational contacts								
		- fine tan-mauve leucoxene grains locally throughout								
			01939	206.0	207.5	1.5	141			
205.31	224.89	MASSIVE MAFIC	01940	207.5	209.0	1.5	18			
			01941	209.0	210.5	1.5	10			
		- fine grained, light/medium greenish-grey, massive mafic weakly foliated at 40-45° to C.A.	01942	210.5	212.0	1.5	8			
			01943	212.0	213.5	1.5	8			
		- weak to moderate pervasive chloritization/carbonatization throughout	01944	213.5	215.0	1.5	6			

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TPP K-3e

FROM	TO	DESCRIPTION	SAMPLE NO. AF	FROM m	TO m	SAMPLE LENGTH m	ASSAYS Au ppb	gram		
			01945	215.0	216.5	1.5	7			
		- minor carbonate stringers throughout with associated minor pyrite locally,	01946	216.5	218.0	1.5	11			
		minor scattered pyrite throughout	01947	218.0	219.5	1.5	3			
		- gradational contacts	01948	219.5	221.0	1.5	6			
		- fine tan leucoxene grains locally	01949	221.0	222.5	1.5	10			
			01950	222.5	224.0	1.5	29			
224.89	259.20	ALTERED MAFIC								
		- light grey to tan/buff grey, fine grained altered massive mafic weakly								
		foliated at 45-50° to C.A.								
		- variable alteration intensities and types throughout - strong to intense								
		sericitization/carbonatization								
		- minor quartz veinlets throughout								
		- minor disseminated brassy and dark pyrite locally								
		- fine tan leucoxene grains locally								
			01951	224.0	225.5	1.5	10			
		224.89 - 226.90 strongly carbonatized/sericitized, light grey massive mafic	01952	225.5	227.0	1.5	32			
			01953	227.0	228.5	1.5	857			
		226.90 - 233.0 light grey, intensely carbonatized/sericitized massive mafic	01954	228.5	230.0	1.5	617			
		minor to 2% dark and brassy pyrite scattered throughout, minor high	01955	230.0	231.5	1.5		4.08		
		angle quartz veinlets (1-2cm)	01956	231.5	233.0	1.5	119			
			01957	233.0	234.5	1.5	15			
			01958	234.5	236.0	1.5	891			
		229.92 4cm quartz vein crosscutting foliation at 80° to C.A. minor	01959	236.0	237.5	1.5		2.06		
		dravite	01960	237.5	239.0	1.5	17			

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TPP K-38

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
			AF	m		m	Au ppb
		dravite in vein	01961	239.0	240.5	1.5	95
			01962	240.5	242.0	1.5	617
		233.0 - 259.20 strongly carbonatized/sericitized massive mafic, minor quartz	01963	242.0	243.5	1.5	701
		veining	01964	243.5	245.0	1.5	128
			01965	245.0	246.5	1.5	137
		242.0 - 245.0 minor to 1% scattered dark pyrite	01966	246.5	248.0	1.5	754
			01967	248.0	249.5	1.5	64
			01968	249.5	251.0	1.5	11
			01969	251.0	252.5	1.5	10
			01970	252.5	254.0	1.5	12
			01971	254.0	255.5	1.5	10
			01972	255.5	257.0	1.5	8
			01973	257.0	258.5	1.5	10
259.20	279.25	HIGH MG PILLOWED MAFIC	01974	258.5	260.0	1.5	12
		- fine to medium grained, waxy, yellowish-buff-grey, high Mg pillowed mafic					
		moderately foliated at 40-50° to C.A.					
		- weak pervasive carbonatization, sericitization/chloritization,					
		- minor to 2%, thin carbonate veinlets throughout					
		- upper contact about 55° to C.A., lower contact gradational					
		- pillow selveges up to 5cm wide, chloritized dark green-grey, generally					
		at 40-50° to C.A.					
		- fine white feldspar (?) speckling of core throughout					
		- minor brassy pyrite locally					
		- shearing progressively increasing downhole					

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TPP K-3A

FROM	TO	DESCRIPTION	SAMPLE NO. AF	FROM m	TO m	SAMPLE LENGTH m	ASSAYS Au ppb			
279.25	285.72	GREY MAFIC								
		- fine grained, light grey, carbonaceous altered high Mg pillowed mafic	01975	279.25	281.0	1.75	16			
		strongly to moderately foliated (sheared) at 45-50° to C.A.	01976	281.0	282.5	1.5	7			
		- minor to 2% thin carbonate stringers throughout	01977	282.5	284.0	1.5	5			
		- very weak to weak pervasive carbonaceous alteration/carbonatization	01978	284.0	285.72	1.72	21			
		- minor disseminated pyrite locally								
		- unit sheared throughout with breakage								
285.72	286.02	SHEARED GRAPHITIC ARGILLITE								
		- fine grained, black to dark grey, conductive, sheared graphitic argillite								
		- broken throughout, irregular carbonate veining locally								
286.02	290.0	SEDIMENTS								
		- fine grained, medium to dark grey, interbedded carbonaceous argillite and								
		greywacke sediments (predominantly carbonaceous argillite) at 35-40° to C.A								
		- minor to 1% thin carbonate veining throughout, irregular								
		- minor scattered brassy pyrite in sediments and in carbonate veinlets, minor								
		sphalerite in carbonate veinlets locally								
290.0		END OF HOLE								

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TPP K-3

KIDD CREEK MINES LTD.

EXPLORATION DIVISION

DRILL HOLE RECORD

HOLE NO. H13-54 PROPERTY Syngold J.V. #1 PROJECT NO. 008155 CONTRACTOR Bradley Bros. START 26/08/87 FINISH 01/09/87

COORDINATES Grid Location: Latitude 370S Departure 180E UTM: Lat. ..... Dep. ..... Surveyed: Lat. ..... Dep. ..... Elevation ..... Mine Grid: Lat. 99543.14N Dep. 98366.88E Elev. 4983.87m

COLLAR ATTITUDE Azimuth 333.0 Dip -52.0° LENGTH 271.0m CORE SIZE BQ

INCLINATION TESTS

Rotodip/Acid Tests

Depth	Dip	Depth	Dip

Compass Tests

Depth	Observed Azimuth	True Azimuth	Dip
57m	-49°	14°NW	337.0°
87m	-47.0°	12.5°NW	338.5°
117m	-46.0°	13°NW	338°
138m	-45.5	11°NW	340°
168m	-45.0°	12°NW	339.0°
198m	-44.5°	13.5°NW	337.5°
231m	-43.5	10.5°NW	340.5°
270m	-42.5°	11.5°NW	339.5°

REMARKS NW casing to 19m, BW casing to 30m

Logged by M. Jerome Date 05/09/87 Property ..... Hole No. H13-54

PAP 13301 (193)

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
			AF	m		m	Au ppb			
0	19.0	OVERBURDEN								
19.0	35.75	FRACTURED MAFIC								
		- fine grained, light/medium grey to tan-grey fractured pillowed (massive?) mafic moderately foliated at 30-35° to C.A.								
		- very weak to weak pervasive carbonaceous alteration, weak pervasive carbonatization locally								
		- scattered minor brassy cubic pyrite in mafic and in thin carbonate stringer veinlets								
		- minor carbonate veining throughout								
		- upper portion of unit broken with core loss: 20.34 - 22.0 22.0 - 23.40								
		- weak dilational fracturing to brecciation throughout, carbon filling of fracturing								
		25.0 - 25.30 weak carbonaceous alteration, minor to 1% pyrite in carbonate stringers	01887	24.64	26.04	1.5	4			
		30.0 end of NQ core								
35.75	83.51	PILLOWED MAFIC								
		- fine grained, light tan-buff to light green to light greenish-grey, pillowed mafic, weakly to moderately foliated at 45-50° to C.A.								
		- variable alteration types and intensities throughout, locally fresh unaltered pillowed mafic to weak/moderate pervasive carbonatization								

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TPP K-M

FROM	TO	DESCRIPTION	SAMPLE NO. AF	FROM m	TO m	SAMPLE LENGTH m	ASSAYS Au ppb			
		to weak fracture controlled carbonaceous alteration								
		- minor to 1% thin carbonate veinlets throughout								
		- pillow selveges generally less than 1cm wide, variable orientation								
		(30-40° to C.A.) locally with bleached margins								
		- gradational contacts								
		35.75 - 41.32 tan-buff, moderately carbonatized/sericitized pillowed mafic								
		- 40.38 - 40.89 hyaloclastite breccia zone								
		41.32 - 51.67 light to medium green, fresh pillowed mafic								
		51.67 - 60.63 light green, weakly carbonatized pillowed mafic, mottled								
		spotting with bleaching locally	01979	60.0	61.0	1.0	225			
			01980	61.0	62.5	1.5	18			
		60.63 - 66.33 fracture controlled weakly carbonaceous altered pillowed	01981	62.5	64.0	1.5	51			
		mafic, minor fracture controlled pyrite from 64.90 - 66.33m	01982	64.0	64.90	0.90	136			
			01983	64.90	66.33	1.43	679			
		66.33 - 83.51 light green to greenish-grey, bleached pillowed mafic	01984	66.33	67.0	0.67	23			
		69.71 - 70.30 chloritized medium green section								
83.51	85.48	SHEARED PILLOWED MAFIC								
		- fine grained, light green, pillowed mafic moderately to strongly								
		foliated at 55-60° to C.A.								

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FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
		- weak pervasive carbonatization					
		- minor crosscutting, thin carbonate/quartz veinlets					
		- pillow selvages thin (less than 1cm), chloritized dark grey/green, parallel with foliation					
		- gradational contacts					
		- minor scattered pyrite					
85.48	108.98	PILLOWED MAFIC					
		- fine grained, light greenish-buff-grey, to light/medium green, pillowed mafic sililar to unit from 35.75 - 83.51m (particularly 41.32 - 51.67m), weakly foliated at 50-55° to C.A.					
		- weak to moderate carbonatization locally					
		- pillow selveges generally thin (less than 1cm), at variable orientations, bleached margins locally, associated 1-3mm oval carbonate amygdules peripheral to selveges					
		- minor carbonate veining throughout					
108.98	111.63	SHEARED PILLOWED MAFIC					
		- fine grained, light green, pillowed mafic moderately to strongly foliated at 55-60° to C.A. (similar to unit from 83.51 - 85.48m)					
		- weak pervasive carbonatization, chloritization					
		- minor to 1% thin carbonate veinlets throughout					
		pillow selveges thin (less than 1cm), dark grey/green, parallel with foliation					

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FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		- gradational contacts								
111.63	145.43	PILLOWED MAFIC								
		- fine grained, light/medium green, pillowed mafic similar to unit from 85.48 - 108.98m, weakly foliated at 50-55° to C.A.								
		- weak pervasive carbonatization locally								
		- minor carbonate veining throughout								
		- 1-3mm carbonate amygdules locally								
		- minor pyrite/pyrrhotite locally in mafic and in selveges								
		136.25 - 136.65 brecciated pillowed mafic section with carbonate speckling throughout (10-15%)								
		144.22 - 144.37 hyaloclastitic section								
		sharp lower contact								
145.43	147.96	PILLOW BRECCIA								
		- light green, fine grained pillowed mafic fragments in a granular, medium/coarse grained mauve-white carbonated matrix moderately foliated at 45-50° to C.A.								
		- weakly to moderately carbonatized matrix								
		- fragments subangular to subrounded, 1-2mm to 4-5cm in size, locally alteration highlights fragments								

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FROM	TO	DESCRIPTION	SAMPLE NO.	FROM (m)	TO (m)	SAMPLE LENGTH (m)	ASSAYS Au (ppb)			
		- minor pyrrhotite disseminated in matrix throughout	AF							
147.96	160.61	PILLOWED MAFIC								
		- fine grained, light green pillowed mafic weakly foliated at 50-55° to C.A., similar to pillowed unit from 111.63 - 145.43m								
		- weak pervasive chloritization/carbonatization locally								
		- minor quartz/carbonate veining locally								
		- pillow selveges extremely variable in orientation and width, commonly chloritized dark green with bleached margins								
		- 1-3mm carbonate amygdules locally								
		- gradational lower contact								
		- 148.57 - 148.67, 148.86 - 149.40 brecciated pillowed mafic sections with carbonate-rich matrix similar to pillow breccia unit from 145.43 - 147.96m								
		- 149.65 - 150.0 medium green, chloritized mafic section								
		149.72 - 14 cm carbonate vein subparallel to foliation (U-60°, L-70°), common wallrock inclusions								
160.61	168.75	GREY MAFIC								
			01985	160.0	161.5	1.5	12			
		- fine grained, medium grey, carbonaceous altered pillowed mafic, moderately foliated (sheared) at 55-60° to C.A.	01986	161.5	163.0	1.5	10			
			01987	163.0	164.5	1.5	40			
		- weak to moderate pervasive carbonaceous alteration and carbonatization	01988	164.5	166.0	1.5	47			

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FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au
			AF	m		m	ppb
		throughout					
		- minor thin quartz-carbonate veinlets, generally thin, irregular high angle	01989	166.0	167.5	1.5	10
		and crosscutting	01990	167.5	169.0	1.5	12
		- minor scattered, brassy pyrite locally					
		- gradational contacts					
168.75	193.08	PILLOWED MAFIC					
		- fine grained, light green, pillowed mafic similar to unit from 111.63 -					
		145.43m, weakly foliated at 50-60° to C.A.					
		- weak pervasive chloritization/carbonatization locally					
		- minor quartz veining locally					
		- pillow selveges generally irregular in width and orientation, chloritized					
		dark green, bleached margins locally					
		- 1-3mm, oval carbonate amygdules locally throughout					
		177.03 - 178.0 pillow breccia section					
		lower contact approximately at 55° to C.A.					
193.08	211.65	MASSIVE MAFIC					
		- fine grained, light green to medium greyish-green massive mafic weakly					
		foliated at 45-55° to C.A.					
		- weak pervasive carbonatization uphole increasing downhole to weak/moderate					
		pervasive carbonatization/chloritization					
		- minor quartz-carbonate veinlets throughout					

FROM	TO	DESCRIPTION	SAMPLE NO. AF	FROM m	TO m	SAMPLE LENGTH m	ASSAYS Au ppb	Au gram		
		- upper portion of unit with minor to 1% 1-2mm round carbonate amygdules scattered throughout								
		- gradational lower contact								
		193.08 - 205.62 light green, amygdaloidal massive mafic								
		205.62 - 211.65 medium greyish-green, weakly/moderately chloritized/ carbonatized massive mafic	01991	208.0	209.5	1.5	12			
			01992	209.5	211.0	1.5	8			
211.65	256.64	ALTERED MASSIVE MAFIC								
		- fine grained, granular, light/medium greenish-grey to light grey, altered massive mafic weakly to moderately foliated at 50-55° to C.A.								
		- variable alteration intensities and types throughout- moderate to intense sericitization/carbonatization, weak pervasive carbonaceous alteration locally								
		- minor to 2% disseminated pyrite locally, locally pyrite and sphalerite in quartz-carbonate veinlets								
		- gradational contacts between alteration								
		- fine leucoxene grains locally								
		i) 211.65 - 214.65 light greenish-grey, strongly carbonatized/sericitized (?) mafic, moderately foliated at 55° to C.A.,fine tan leucoxene grains throughout, minor scattered pyrite	01993	211.0	212.5	1.5	51			
			01994	212.5	214.0	1.5	40			
			01995	214.0	215.4	1.4	63			
			01996	215.4	216.5	1.1		3.15	✓	

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TPP K-3A

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS
			AF	m		m	Au ppb
		ii) 214.65 - 216.52 light/medium grey, weakly/moderately carbonaceous altered and carbonatized sheared massive mafic, minor to 2% thin quartz and carbonate veining throughout locally with minor to 1% pyrite along margins					
		216.31 14cm carbonate vein subparallel to foliation at 50° to C.A., minor to 1% pyrite and sphalerite along margins of wallrock inclusions	01997	216.5	217.0	0.5	463
			01998	217.0	218.5	1.5	55
		iii) 216.52 - 220.84 light/medium grey moderately to strongly carbonatized sericitized massive mafic, weak fracturing throughout	01999	218.5	220.0	1.5	52
			02000	220.0	221.0	1.0	274
		iv) 220.84 - 223.25 light/medium grey, strongly carbonatized/sericitized, weakly/moderately carbonaceous altered massive mafic, minor to 3% pyrite scattered throughout, minor veining	06401	221.0	222.0	1.0	960
			06402	222.0	223.25	1.25	839
		221.31 12 cm irregular quartz-carbonate vein crosscutting (?) foliation at 70° to C.A. minor chlorite in vein, pyrite along margins, wallrock inclusions throughout, minor arsenopyrite in wallrock					
		v) 223.25 - 237.31 variable light to medium grey, moderately to strongly carbonatized/sericitized, weak carbonaceous alteration locally, minor high angle thin quartz-carbonate veining throughout minor to 1% scattered pyrite locally peripheral to quartz veinlets, minor sphalerite, galena and chalcopyrite locally in carbonate veinlets	06403	223.25	224.5	1.25	358
			06404	224.5	226.0	1.5	32
			06405	226.0	227.5	1.5	260
			06406	227.5	229.0	1.5	49
			06407	229.0	230.5	1.5	92
			06408	230.5	232.0	1.5	96
			06409	232.0	233.5	1.5	121

LOGGED BY: DATE: PROPERTY HOLE NO. PAGE NO. 8

TPP K-3A

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
			AF	m		m	Au ppb	Au gram		
		228.55 - 229.75 weakly carbonaceous altered section, minor pyrite locally	06410	233.5	235.0	1.5	80			
			06411	235.0	236.5	1.5	29			
		vi) 237.31 - 246.51 light grey, strongly carbonatized/seritized, granular massive mafic minor scattered pyrite throughout	06412	236.5	238.0	1.5	180			
			06413	238.0	239.5	1.5	16			
			06414	239.5	241.0	1.5	36			
		vii) 246.51 - 248.85 light/medium grey, strongly carbonatized/sericitized, weakly carbonaceous altered, massive mafic, minor to 1% pyrite peripheral to quartz veining	06415	241.0	242.5	1.5	14			
			06416	242.5	244.0	1.5	93			
			06417	244.0	245.5	1.5	95			
			06418	245.5	247.0	1.5	99			
		248.58 9 cm quartz vein crosscutting foliation at 65° to C.A.	06419	247.0	248.5	1.5	88			
			06420	248.5	250.0	1.5	340			
		viii) 248.85 - 251.19 light grey, intensely carbonatized/sericitized massive mafic, minor quartz veinlets with arsenopyrite locally in wallrock, minor to 1% dark pyrite throughout, tan leucoxenes throughout								
			06421	250.0	251.5	1.5	192			
			06422	251.5	253.0	1.5	125			
			06423	253.0	254.5	1.5	19			
		ix) 251.19 - 256.64 light/medium grey, strongly carbonatized/sericitized, weakly/moderately carbonaceous altered, massive mafic, moderately foliated at 55-60° to C.A., pink-tan leucoxene grains throughout, minor pyrite scattered throughout	06424	254.5	256.0	1.5		1.65		
			06425	256.0	256.64	0.64	47			
256.64	258.16	GRAPHITIC ARGILLITE								
		- fine grained, black to dark grey, bedded at 40° to C.A. broken with core loss (0.31 of 1.52m of core recovered)								

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FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
		- unit conductive, minor pyrite along bedding planes								
258.16	271.0	SEDIMENTS								
		- fine grained, dark grey, interbedded greywacke and carbonaceous argillite at 45-50^0 to C.A.								
		- minor thin carbonate veinlets throughout generally parallel with bedding								
		- minor scattered pyrite throughout								
271.0		END OF HOLE								

LOGGED BY: DATE: PROPERTY HOLE NO. PAGE NO. 10

DRILL HOLE RECORD

KIDD CREEK MINES LTD.
EXPLORATION DIVISION

HOLE NO. H13-55 PROPERTY Syngold J.V. #1 PROJECT NO. 008155 CONTRACTOR Bradley Bros. START 01/09/87 FINISH 04/09/87

COORDINATES Grid Location: Latitude 330S Departure 220E UTM: Lat. ..... Dep. ..... Surveyed: Lat. ..... Dep. ..... Elevation ..... Mine Grid: Lat. 99592.58N Dep. 98384.95E Elev. 4983.37

COLLAR ATTITUDE Azimuth 333° Dip -56.0° LENGTH 240.0m CORE SIZE BQ

INCLINATION TESTS

Rotodip/Acid Tests

Depth	Dip	Depth	Dip

Compass Tests

Depth	Observed Azimuth	True Azimuth	Dip
49m	-54.5°	19.5°NW	331.5°
79m	-53.0°	20.5°NW	330.5°
109m	-53.0°	16.0°NW	335.0°
139	-52.0°	19.0°NW	332.0°
169	-51.5°	17.5°NW	333.5°
205	-50.0°	18.5°NW	332.5°

REMARKS NW casing to 16m, BW casing to 19m

Logged by N. Jerome Date ..... Property ..... Hole No. H13-55

PAP 13301 (193)

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au	ASSAYS Au		
			AF	m		m	ppb	gm		
0	16.0	OVERBURDEN								
16.0	26.45	PILLOWED (?) MAFIC								
		- fine grained, light/bleached greenish-grey, pillowed (?) mafic (possibly massive) weakly foliated at 40-50° to C.A.								
		- moderate to strong pervasive bleaching/(sericitization?) throughout (weak pervasive carbonatization)								
		- minor carbonate veinlets locally								
		- minor scattered dark pyrite blotches throughout								
		- gradational lower contact								
		- rare pillow selvages concealed by alteration								
		16.0 - 16.22 lost core	06426	16.22	17.0	0.78	857			
			06427	17.0	18.0	1.0	73			
		16.22 - 16.43 broken, irregular, carbonate veining in carbonaceous material	06428	18.0	19.0	1.0	60			
			06429	19.0	20.0	1.0	23			
			06430	20.0	21.5	1.5	21			
		19.0 end of NQ core	06431	21.5	23.0	1.5	67			
			06432	23.0	24.5	1.5	73			
		25.48 11 cm quartz vein, high angle (U-55°, L-80° to C.A.) irregular margins	06433	24.5	26.0	1.5		7.13		
		common wallrock inclusions 1-2% oxidized pyrite in vein, brown oxidized footwall								
26.45	35.34	GREY MAFIC								

LOGGED BY: DATE: PROPERTY HOLE NO. PAGE NO. 2

TPP. K-3M

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
			AF	m		m	Au ppb	Au gm		
		- fine grained, medium grey, carbonaceous altered pillowed (?) mafic, weakly								
		to moderately foliated at 45-50° to C.A.								
		- moderate pervasive carbonaceous alteration in central portion of unit								
		weakening on bothsides, very weak pervasive carbonatization								
		- minor, thin, quartz veinlets throughout generally parallel with foliation								
		- minor to 1% scattered brassy/cubic pyrite throughout								
		- locally, white, oval quartz/carbonate amygdules								
		- gradational contacts								
		28.23 - 31.38 strongest carbonaceous alteration coincident with most								
		intense foliation/shearing	06434	26.0	27.5	1.5	66			
			06435	27.5	29.0	1.5	339			
		29.03 - 29.36 33 cm irregular quartz vein with broken contacts, 5-10%	06436	29.0	30.5	1.5		15.22		
		wallrock (dravite?) inclusions throughout, crosscutting seconda-	06437	30.5	32.0	1.5	62			
		ry carbonate veinlets in quartz	06438	32.0	33.5	1.5	103			
			06439	33.5	35.0	1.5	108			
35.34	50.84	MASSIVE MAFIC —								
		- fine grained, granular, light grey to bleached grey, massive mafic weakly								
		foliated at 45-55° (?) to C.A.								
		- moderate to strong pervasive carbonatization/bleaching, very weak perva-								
		sive carbonaceous alteration	06440	35.0	36.5	1.5	29			
		- weak fracturing throughout	06441	36.5	38.0	1.5	77			
		- minor disseminated brassy and dark pyrite in upper 6-7m of unit	06442	38.0	39.5	1.5	450			
		- minor thin quartz veining	06443	39.5	41.0	1.5	21			
		- gradational upper contact, sharp broken lower contact	06444	41.0	42.5	1.5	16			

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS
			AF	m		m	Au ppb
		35.34 - 42.0 disseminated minor dark and brassy pyrite throughout					
		42.3 oxidized core					
		49.71 - 50.84 broken core					
50.84	87.74	PILLOWED MAFIC					
		- fine grained, light green to tan-buff to grey, pillowed mafic weakly to moderately foliated at 50° to C.A.					
		- weak pervasive carbonatization/chloritization/carbonaceous alteration locally					
		- pillow selveges generally less than 1cm wide, variably orientated, hyaloclastitic, bleached margins, associated oval white carbonate amygdules in surrounding pillows					
		- carbonate amygdules throughout unit					
		- minor pyrrhotite in selveges and in mafic					
		51.05 - 51.65 lost core					
		68.03 - 69.37 weakly carbonaceous altered, sheared pillowed mafic at 50° to C.A.	06445	68.0	69.5	1.5	10
		68.95 - 68.16 18 cm quartz-carbonate vein with 1-3% dravite swathes along lower margin, minor pyrite					

LOGGED BY: DATE: PROPERTY HOLE NO. PAGE NO. 4

TPP K-3

FROM - TO		DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb			
87.74	92.68	PILLOW BRECCIA								
		- fine grained, light green pillowed mafic fragments in a medium to coarse	06446	87.5	89.0	1.5	11			
		grained, dark grey matrix	06447	89.0	90.5	1.5	18			
		- weak to moderate pervasive carbonatization/chloritization of matrix	06448	90.5	92.0	1.5	99			
		hyaloclastitic appearance, white feldpar (?) clots and fine pyrrhotite/	06449	92.0	93.5	1.5	19			
		pyrite throughout								
		- weak fracturing throughout								
		- pillow fragments variable in size and shape								
		- gradational contacts								
92.68	131.0	MASSIVE MAFIC								
		- fine grained, light green to greyish-green, massive mafic weakly foliated								
		at 40-50° to C.A.								
		- weak fracture controlled carbonaceous alteration locally, mottled								
		chloritic spotting with bleaching downhole								
		- weak fracturing throughout								
		- minor quartz-carbonate veining throughout								
		- minor pyrite/pyrrhotite locally in mafic								
		92.68 - 99.87 weak to moderate fracture controlled carbonaceous alteration								
		99.87 - 102.21 weak to moderate pervasive carbonaceous alteration								

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TPP X-3a

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au ppb
			AF		m	m	
		100.77 - 102.02 irregular quartz-carbonate vein with indistinct margins	06450	99.5	101.0	1.5	263
		smokey grey carbonate and white quartz throughout, grey mafic	06451	101.0	102.5	1.5	12
		inclusions along margins	06452	102.5	104.0	1.5	34
		102.21 - 103.35 low angle carbonate vein approximately parallel with core					
		axis, 2-3cm wide, minor clinozoisite in vein					
		102.21 - 128.04 light green, mottled massive mafic, sharp lower contact at					
		70^{o} to C.A.					
		128.04 - 131.0 light grey, moderately carbonatized massive mafic with	06453	128.0	129.5	1.5	18
		increasing carbonaceous alteration	06454	129.5	131.0	1.5	8
131.0	136.39	GREY MAFIC					
		- fine grained, medium grey, carbonaceous altered massive (?) mafic weakly					
		to moderately foliated at 50-60^{o} to C.A.					
		- moderate pervasive carbonaceous alteration, weak to moderate pervasive					
		carbonatization					
		- minor irregular quartz veining	06455	131.0	132.5	1.5	33
		- gradational contacts	06456	132.5	134.0	1.5	26
			06457	134.0	135.5	1.5	14
			06458	135.5	137.0	1.5	12
		132.34 - 132.76 patchy brown dravite swathes with irregular quartz veining,					
		minor pyrite					

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TPP K-38

FROM - TO		DESCRIPTION	SAMPLE NO. AF	FROM — TO m		SAMPLE LENGTH m	ASSAYS Au ppb			
136.39	158.52	PILLOWED MAFIC								
		- fine grained, light green to light/medium greyish-green, pillowed mafic								
		weakly foliated at 50° to C.A.								
		- weak pervasive and fracture controlled carbonatization throughout								
		- minor to 1% thin, irregular quartz-carbonate veining throughout								
		- 1-3mm oval, white carbonate amygdules peripheral to pillow selvages								
		throughout								
		- pillow selvages chloritized dark green, irregular with variable widths								
		136.39 - 137.29 sheared pillowed mafic at 55° to C.A.								
		sharp lower contact at 30° (?) to C.A.								
158.52	174.26	MASSIVE MAFIC								
		- fine grained, dark greenish-grey to granular, light grey, massive mafic,								
		weakly foliated locally at 50° to C.A.								
		- weak pervasive chloritization in upper part of unit, weak pervasive								
		carbonatization throughout								
		- minor thin quartz-carbonate veinlets throughout								
		- gradational lower contact								
		- fine grained leucoxene grains in lower portion of unit								
		158.52 - 170.0 dark greenish-grey, chloritized massive mafic								

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TPP 4.3a

FROM	TO	DESCRIPTION	SAMPLE NO. AF	FROM m	TO m	SAMPLE LENGTH m	ASSAYS Au ppb	Au gram
		170.0 - 174.26 light greyish-green, granular, weakly chloritized/carbonatized	06459	170.0	171.5	1.5	10	
		massive mafic, fine tan leucoxene grains throughout	06460	171.5	173.0	1.5	11	
			06461	173.0	174.0	1.0	36	
174.26	218.94	ALTERED MASSIVE MAFIC						
		- fine grained to granular, light grey to buff grey, altered massive mafic,						
		weakly to moderately foliated locally at 50° to C.A.						
		- variable alteration intensities and types throughout-moderate to intense						
		sericitization/carbonatization, weak to moderate pervasive carbonaceous						
		alteration locally						
		- variable quantities of dark and brassy pyrite, and sphalerite locally						
		i) 174.26 - 175.07 strongly carbonatized/sericitized, granular, leucoxene	06462	174.0	175.0	1.0	18	
		bearing massive mafic, very weakly carbonaceous altered, minor						
		scattered pyrite						
		ii) 175.07 - 176.59 strongly carbonatized/sericitized, weakly carbonaceous	06463	175.0	176.60	1.60		5.73
		altered, light grey massive mafic, moderate shearing about central						
		quartz veining at 50° to C.A., minor to 1% pyrite and sphalerite						
		(with galena) along shear planes						
		175.84 - 176.15 irregular zone of quartz-carbonate veining, 1-3% pyrite/						
		sphalerite in wallrock inclusions within veins						

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TPP K-3A

FROM - TO	DESCRIPTION	SAMPLE NO.	FROM	TO	SAMPLE LENGTH	ASSAYS Au ppb	ASSAYS Au gram
		AF	m		m		
	iii) 176.59 - 182.60 light grey, strongly to moderately carbonatized/	06464	176.60	178.0	1.4		2.64
	sericitized, massive mafic, minor finely disseminated pyrite throughout	06465	178.0	179.0	1.0	43	
	increasing to 2-3% peripheral to quartz veinlets	06466	179.0	180.5	1.5	206	
		06467	180.5	182.0	1.5	480	
	177.29 - 177.44 17 cm irregular quartz vein crosscutting foliation						
	(U-80°, L-55°), minor - 1% pyrite along vein margins, 2-3%						
	pyrite in wallrock (10cm above, 30 cm below)						
	iv) 182.60 - 188.78 light grey to buff grey, moderately sericitized/	06468	182.0	183.5	1.5	132	
	carbonatized, massive mafic, minor pyrite locally	06469	183.5	185.0	1.5	40	
		06470	185.0	186.5	1.5	15	
		06471	186.5	188.0	1.5	8	
	v) 188.78 - 194.75 light/medium grey to mauve-grey, fine grained to granular,						
	strong to intensely carbonatized/sericitized massive mafic, minor						
	to 1% quartz veining						
	188.78 - 191.15 light/medium grey, granular leucoxene bearing massive	06472	188.0	189.0	1.0	210	
	mafic, 1-3% dark and brassy pyrite, 190.78 - 5cm quartz vein	06473	189.0	190.0	1.0		4.32
	crosscutting, foliation at 30° to C.A., 1-3% brassy pyrite	06474	190.0	191.0	1.0		1.65
	along margins and in wallrock						
	191.15 - 193.56 mauve-grey, fine grained massive mafic, 1-3% fine	06475	191.0	192.5	1.5	480	
	pyrite throughout with minor, fine arsenopyrite near quartz	06476	192.5	194.0	1.5		1.10
	veinlets locally, 192.18 - 2cm quartz vein crosscutting foliation						
	at 50° to C.A., VISIBLE GOLD fleck with pyrite at 192.18m						

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FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
			AF	m		m	Au ppb	Au gram		
		193.56 - 194.75 light/medium grey, very weakly carbonaceous altered massive mafic, 2-4% pyrite, 193.69 - 12 cm quartz vein crosscutting foliation at 55° to C.A., 1-2% brassy pyrite along margins	06477	194.0	195.0	1.0		5.31		
		vi) 194.75 - 198.0 light grey to mauve grey, intensely to strongly sericiti-	06478	195.0	196.0	1.0	73			
		zed/carbonatized massive mafic, minor scattered dark pyrite	06479	196.0	197.0	1.0	69			
			06480	197.0	198.5	1.5	480			
		196.72 - 197.07 zone of quartz veining with intense sericitization/ carbonatization of wallrock, minor pyrite								
		vii) 198.0 - 206.82 light/medium grey, weakly to moderately carbonaceous	06481	198.5	200.0	1.5	60			
		alteration increasing downhole, tan leucoxenes throughout, minor pyrite	06482	200.0	201.5	1.5		1.10		
		locally	06483	201.5	203.0	1.5		1.23		
			06484	203.0	204.5	1.5	39			
		213.0 - 218.94 weak fracture controlled carbonaceous alteration with	06485	204.5	206.0	1.5	335			
		increasing foliation (shearing), 217.45 - 217.60 irregular	06486	206.0	207.5	1.5	92			
		quartz vein with common wallrock inclusions	06487	207.5	209.0	1.5	44			
			06488	209.0	210.5	1.5	66			
218.94	221.0	GRAPHITIC ARGILLITE	06489	210.5	212.0	1.5	51			
			06490	212.0	213.5	1.5	12			
		- fine grained, black to dark grey, bedded graphitic argillite at 50-60° to	06491	213.5	215.0	1.5	40			
		C.A., conductive	06492	215.0	216.5	1.5	14			
		- unit sheared and broken with distorted carbonate veinlets	06493	216.5	218.0	1.5	37			
		- minor to 2% brassy pyrite associated with carbonate veinlets	06494	218.0	218.94	0.94	64			
		- upper contact at 35° to C.A. broken lower contact								

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T.P.P. K-36

FROM - TO		DESCRIPTION	SAMPLE NO.	FROM — TO		SAMPLE LENGTH	ASSAYS			
221.0	240.0	SEDIMENTS								
		- fine grained, light to medium grey, interbedded greywacke and carbonaceous								
		argillite at 40-50° to C.A.								
		- minor to 1% thin carbonate veinlets throughout								
		- minor scattered pyrite								
		- unit broken locally								
240.0		END OF HOLE								

LOGGED BY: DATE: PROPERTY HOLE NO. PAGE NO. 11

T.P.P. K.

DIAMOND DRILL LOG SAMPLE RECORD

HOLE No. H13-55

PAGE _____ OF _____

SAMPLE NUMBER	FOOTAGE			SIT			DESCRIPTION
	From	To	Length				
	175.0	176.6	1.6	5.73		9.168	
	176.6	178.0	1.4	2.64		3.696	
	178.0	179.0	1.0	0.04		.04	
	179.0	180.5	1.5	0.21		.315	
	180.5	182.0	1.5	0.48		.72	
	182.0	183.5	1.5	0.13		.195	
	183.5	185.0	1.5	0.09		.06	
	185.0	186.5	1.5	0.02		.03	
	186.5	188.0	1.5	0.01		.015	
	188 0	189.0	1.0	0.21		.21	
	189.0	190.0	1.0	4.32		4.32	
	190.0	191.0	1.0	1.65		1.65	
	191.0	192 5	1.5	0.48		.72	
	192 5	194.0	1.5	1.10		1.65	
	194.0	195.0	1.0	5.31		5.31	
	195.0	196.0	1.0	0.07		0.07	
	196.0	197 0	1.0	0.07		0.07	
	197 0	198 5	1.5	0.48		0.72	
	198 5	200 0	1.5	0.06		0.09	
	200 0	201.5	1.5	1.10		1.65	
	201.5	203.0	1.5	1.23		1.845	

M45383

DIAMOND DRILL LOG SAMPLE RECORD

HOLE No. H13-55 PAGE _____ OF _____

SAMPLE NUMBER	FOOTAGE			S/T.			DESCRIPTION
	From	To	Length				
Average							
	175.0	178.0	3.0	4.29	✓	12.89	0.13/9.8'
	178.0	189.0	11.0	0.14	✓	1.54	
	189.0	195.0	6.0	2.28	✓	13.68	
	195.0	200.0	5.0	0.19		0.95	
	200.0	203.0	3.0	1.17		3.51	
	175.0	203.0	28.0	1.16			

M45383