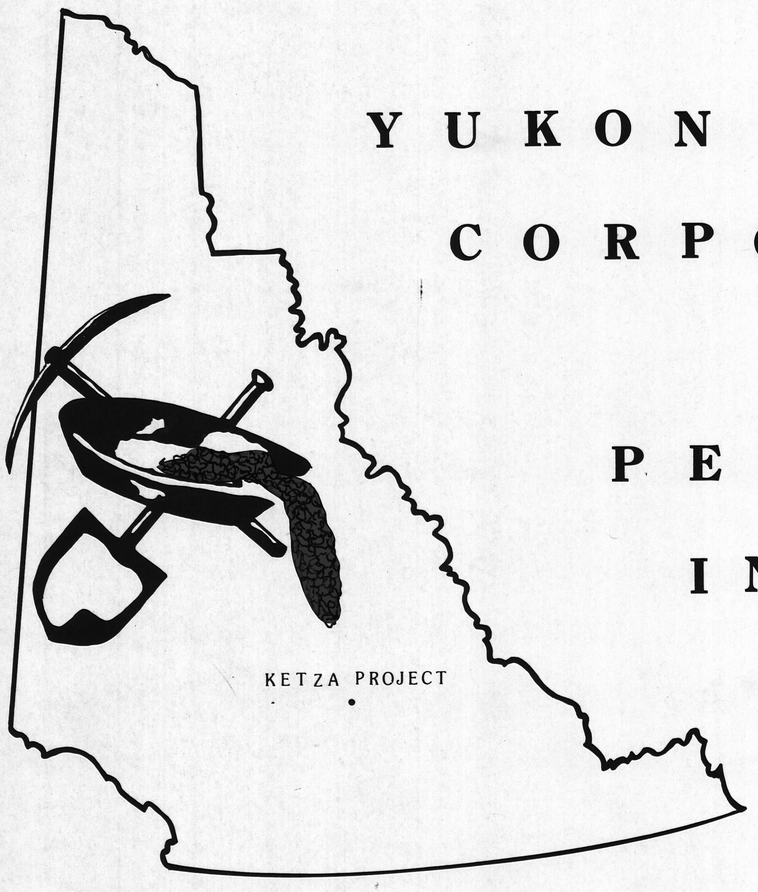


YUKON MINERALS CORPORATION

PERREX RESOURCES INCORPORATED

JOINT VENTURE

AREA A

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

To Accompany Report By B.P. FOWLER, P.Geol.

Compilation Of Work Done On Property During APRIL To NOVEMBER, 1988.

Data Compiled By: B.P. FOWLER, P. Geol.
Project Manager
POLARIS CONSULTING
Reg Harding

Dated: DECEMBER 31, 1988

inches
0 1 2
0 1 2 3 4 5
centimetres
This reference scale bar has been added to the original image. It will scale correctly when printed on the image. Transparencies can be used as a reference for the original size.
YUKON GEOLOGICAL SURVEY

004447

DWG. No. AP-G1 AP-A1

DWG. No. AP-G2 AP-A2

JEFF 3

JEFF 4

JEFF 1

JEFF 2

PN VEIN
AVERAGE SURFACE GRADE

LENGTH (m)	WIDTH (m)	Ag (oz/ton)	Pb (%)	Zn (%)	Ag (oz/ton)	Pb (%)
30.40	1.73	29.94	13.52	3.41	1.46	5.66

LUCKY VEIN
AVERAGE SURFACE GRADE

LENGTH (m)	WIDTH (m)	Ag (oz/ton)	Pb (%)	Zn (%)	Cu (%)	Au oz/ton
83.00	8.38	12.73	2.48	9.24	0.24	0.009

LUCKY (MF) ZONE
AVERAGE SURFACE GRADE

LENGTH (m)	WIDTH (m)	Ag (oz/ton)	Pb (%)	Zn (%)	Cu (%)	Au oz/ton
6.75	3.91	1.06	2.23	9.13	0.13	0.002

JILL VEIN ZONE

OLD PITS

CAT TRAIL

4 x 4 ROAD

SDd

uDMs

CLIFF FACE

TRUE NORTH
1° 59'
GRID
MAGNETIC
15° 11'

INDEX

DWG. No. (AREA/ZONE)(VIEW)—(TYPE)(PLAN No.)

AREA / ZONE	VIEW	TYPE	PLAN No.
"A" P – PN; L – LUCKY; – LUCKY (MF)	P – SURFACE PLAN	G – GEOLOGY	NUMBERED SEQUENTIALLY BY AREA/ZONE AND VIEW.
"B" 2 – No. 2; – No. 2A; 3 – No. 3; – No. 3A; Z – ZEUS; – DELTA; – A VEIN; – B VEIN; – C VEIN	S – DRILL SECTION	A – ASSAY	
"C" G – GROUNDHOG; – JENNY; PT – PT ZONE	L – LONGITUDINAL	R – RESERVE	
	U – UNDERGROUND	S – SURVEY	
		GY – GEOPHYSICS	
		GS – GEOLOGY SECTION	

LEGEND

LATE DEVONIAN AND MISSISSIPPIAN

uDMs Black shale, chert grir, and chert conglomerate.

SILURIAN, EARLY AND MIDDLE DEVONIAN

SDd Buff, grey, and red weathering dolomite, lenses of massive quartz arenite.

SYMBOLS

- Geological contact defined, assumed
- Bedding: inclined, vertical
- Outcrop
- qv — Quartz vein
- Fault
- Cat trench, cat road
- 4 x 4 road
- Claim post, claim boundary
- Rock sample site and number
- Gossan float zone, magnanosiderite, minor galena float
- gal. — Galena vein
- Bluff
- Jointing: inclined, vertical
- Diamond drill hole
- Contour interval : 20 m

inches 0 1 2 — centimetres 0 1 2 3 4 5

This reference scale bar has been added to the original image. It will shrink or stretch with the image, therefore it can be used as a reference for the original size.

YUKON GEOLOGICAL SURVEY

REVISIONS

- MODIFIED AFTER G.DAVIDSON, 1987

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

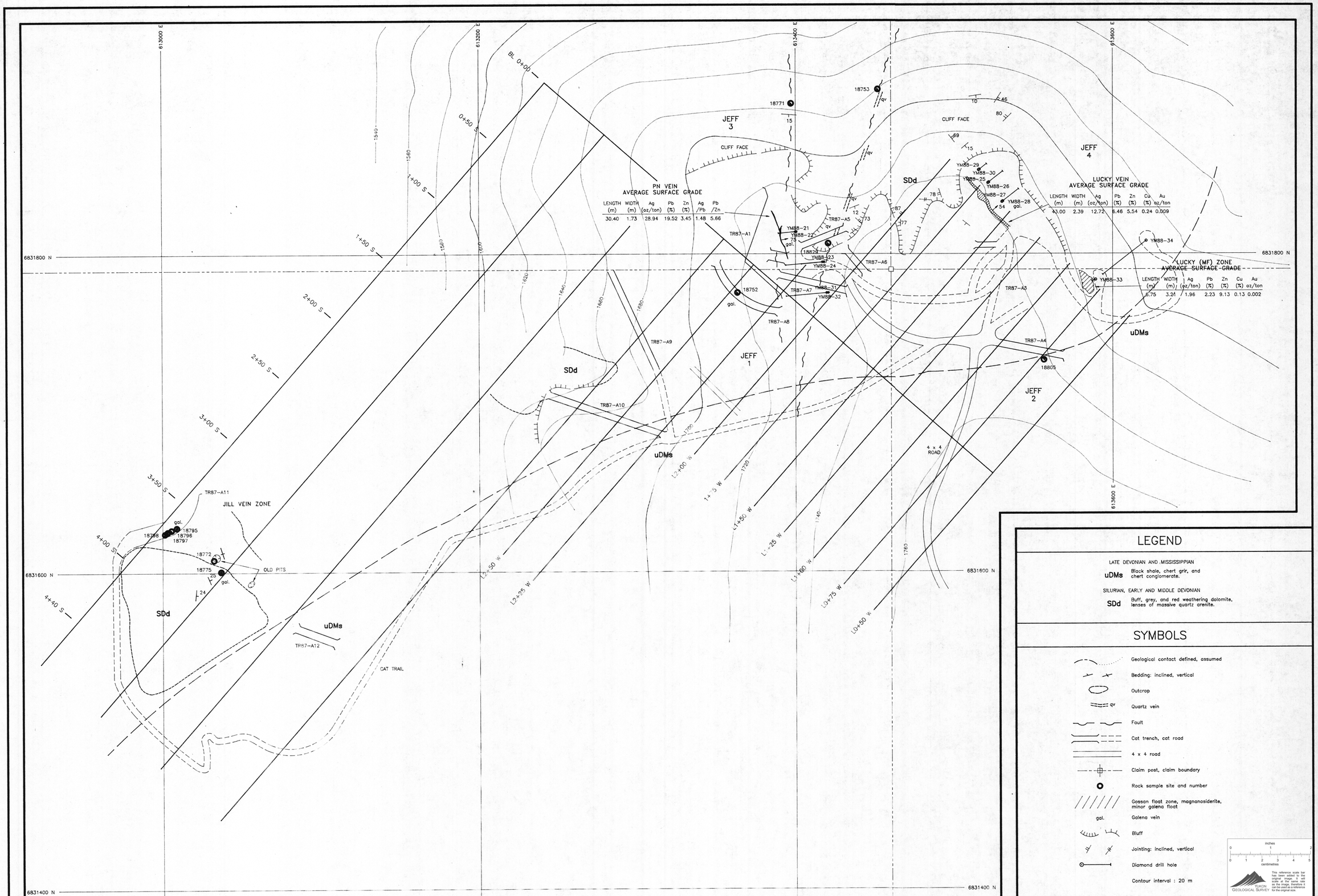
GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:1000

METRES 0 10 20 40 60 80 100 120 METRES
FEET 0 10 30 90 150 210 270 330 390 FEET

AREA "A" INDEX PLAN
PN – LUCKY ZONES

DATE: 88–12–14	TECH.: G.D./M.I./P.R./R.H./B.P.F.	DWG. No. A – I
DRAWN BY: *NEW CONCEPT DRAFTING LTD.*		



LEGEND

LATE DEVONIAN AND MISSISSIPPIAN

uDMs Black shale, chert grit, and chert conglomerate.

SILURIAN, EARLY AND MIDDLE DEVONIAN

SDd Buff, grey, and red weathering dolomite, lenses of massive quartz arenite.

SYMBOLS

- Geological contact defined, assumed
- Bedding: inclined, vertical
- Outcrop
- qv — Quartz vein
- Fault
- Cat trench, cat road
- 4 x 4 road
- Claim post, claim boundary
- Rock sample site and number
- Gossan float zone, magnanosiderite, minor galena float
- gal. — Galena vein
- Bluff
- Jointing: inclined, vertical
- Diamond drill hole
- Contour interval : 20 m

inches 0 1 2 — centimetres 0 1 2 3 4 5

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

YUKON GEOLOGICAL SURVEY

REVISIONS

- MODIFIED AFTER G.DAVIDSON, 1987

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

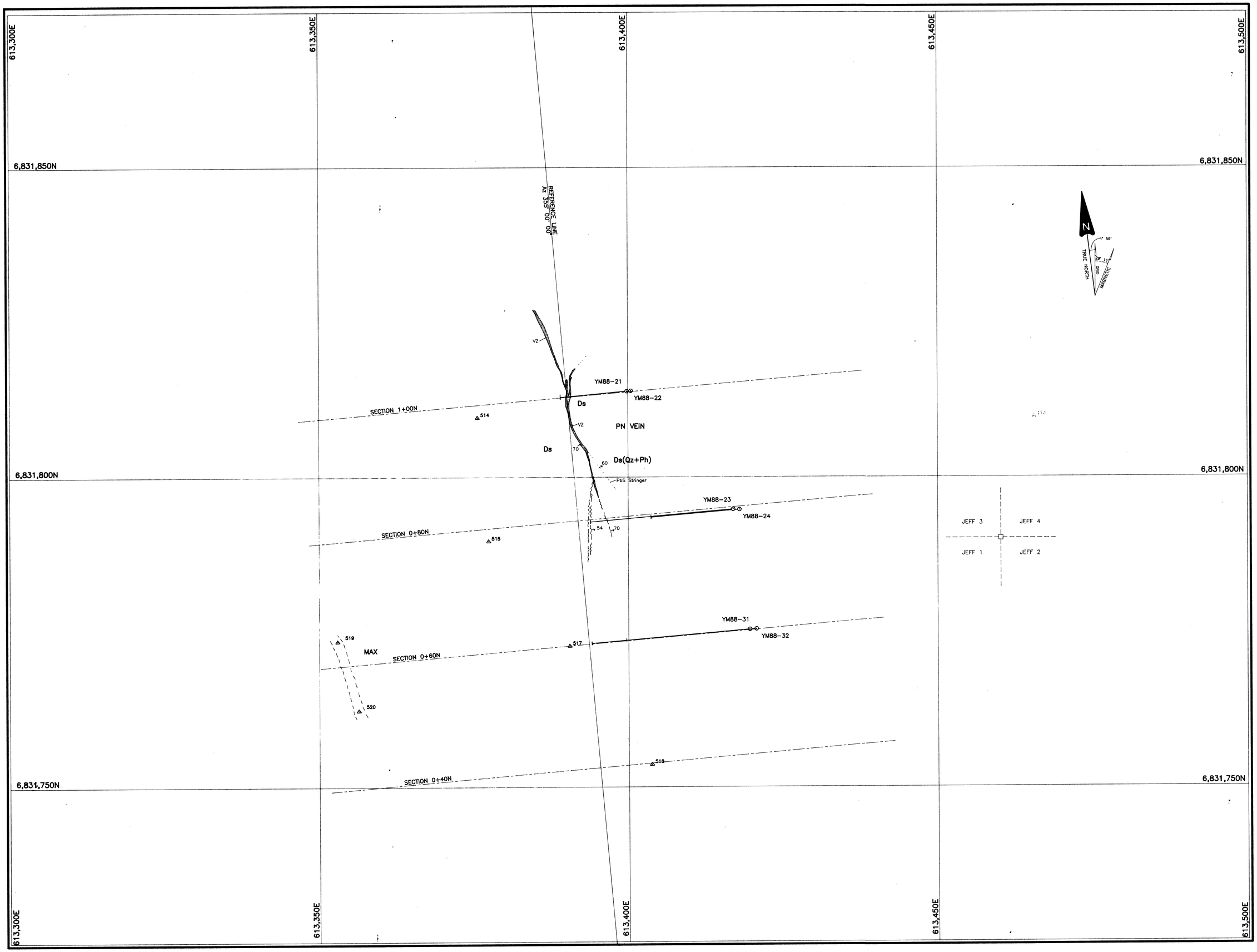
Scale 1:1000

METRES 0 10 20 40 60 80 100 120 METRES
FEET 0 10 30 90 150 210 270 330 390 FEET

AREA A – SURFACE GEOLOGY PN – LUCKY ZONES

DATE: 88–12–14 | TECH.: G.D./M.I./P.R./R.H./B.P.F. | DWG. No. A–G1

DRAWN BY: *NEW CONCEPT DRAFTING LTD.*



REVISIONS

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
i	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/– SPHALERITE +/– TETRAHEDRITE IN BRECCIA
- ● GALENA +/– SPHALERITE +/– TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/– SPHALERITE +/– TETRAHEDRITE – MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/– tetrahedrite +/– sphalerite +/– chalcopyrite +/– pyrite +/– scorodite +/– malachite +/– azurite +/– quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/– massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/– sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/– galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- –– GEOLOGICAL CONTACT – OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Ds(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Damph Amphipora +/– stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sericitic
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- OSsl Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uEOslv Grey – buff calcareous phyllite; thinly laminated
- uEOb Dark green mafic flow or sill

EARLY CAMBRIAN
- lEcsl Grey calcareous mica schist and marble

(modified after Templeman–Kluit, 1977)

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL DATED 31 DECEMBER 1988

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

PN ZONE
SURFACE GEOLOGY

DATE: DECEMBER 31, 1988 | TECH.: G.D. / B.P.F. / R.H. | DWG. No. AP–G1

DRAWN BY: NEW CONCEPT DRAFTING LTD.

613,300E | 613,350E | 613,400E | 613,450E | 613,500E

6,831,850N

6,831,800N

6,831,750N

REFERENCE LINE Az 355° 00'

SECTION 1+00N

SECTION 0+80N

SECTION 0+60N

SECTION 0+40N

YM88-21

YM88-22

YM88-23

YM88-24

YM88-31

YM88-32

514 515 517 518 519 520 536 537

1+06*
44.8 35.5 16.5 NA NA
0.45 18976

1+11*
134.0 72.79 1.39 NA NA
0.40 18851

1+05*
123.0 62.9 1.82 NA NA
0.15 18977
15.8 11.95 9.05 NA NA
3.20 18978

1+03*
8.30 9.55 6.32 NA NA
0.70 18979
72.40 79.10 1.60 NA NA
0.05 18980
11.20 9.00 9.05 NA NA
2.65 18981

1+01*
6.94 5.81 10.35 NA NA
0.80 18982
16.50 14.10 0.10 NA NA
0.70 18983
68.9 57.9 1.91 NA NA
1.00 18984
NA NA NA NA NA
1.00 18985

1+00*
122.0 65.6 1.65 NA NA
0.70 18986

0+98*
136.0 72.9 0.65 NA NA
0.40 18989

0+96.5*
120.0 62.0 1.28 NA NA
0.31 18994

0+95.5*
121.0 74.0 0.23 NA NA
0.33 18995

0+94.5*
113.0 75.4 0.23 NA NA
0.28 18996

0+93.5*
6.05 4.71 3.71 NA NA
1.00 18997
90.10 75.80 0.37 NA NA
0.15 18998
1.12 75.3 0.59 NA NA
1.00 18999

0+99*
13.10 11.50 3.69 NA NA
1.50 18987
120.0 67.9 1.83 NA NA
0.78 18988

0+97.5*
23.2 34.0 2.16 NA NA
0.22 18990
2.25 1.55 1.47 NA NA
1.78 18991
102.0 71.80 0.37 NA NA
0.42 18992
1.42 1.03 0.85 NA NA
1.08 18993

0+91
0.74 0.47 1.43 0.02 13
0.40 77406
47.8 27.3 11.6 0.63 34
0.30 77405
41.6 27.6 6.33 0.73 282
0.30 77061
3.31 1.58 2.56 0.07 66
0.30 77060

0+86
1.08 0.49 1.28 0.03 21
0.70 77404
136.0 49.00 2.03 1.89 135
0.40 77056
5.32 3.04 3.17 0.14 55
0.50 77055
2.92 1.50 2.50 0.05 33
1.30 77058
89.5 44.6 0.34 0.77 65
0.20 77059

0+81
0.58 0.22 0.30 0.01 12
0.60 77054
5.47 1.50 1.93 0.15 57
0.50 77053
0.31 0.13 2.32 0.02 8
0.60 77052

0+76
0.21 0.11 0.30 <0.01 6
0.50 77051
1.06 0.85 1.76 0.03 50
0.60 77050
0.36 0.12 1.05 0.01 8
0.90 77049

NOTE:

* DENOTES 1987 SURFACE SAMPLING PRIOR TO 1988 BULK SAMPLING PROGRAM. SAMPLE LOCATIONS BEST FIT ONLY

PN AVERAGE SURFACE GRADE *

SURF LENGTH (m)	WIDTH (m)	Ag (oz/ton)	Pb (%)	Zn (%)	Ag /Pb	Pb /Zn
30.40	1.73	28.94	19.52	3.45	1.48	5.66

* DILUTED TO 1.22m MINIMUM MINING WIDTH

JEFF 3 | JEFF 4

JEFF 1 | JEFF 2

N

1° 59' EAST

29° 11' CWD

TRUE NORTH

MAGNETIC

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH - metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au (ozs) | Cd (ppm) Where Applicable | Au Pb | CORE RECOVERY %

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

LEGEND

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Cu (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL DATED 31 DECEMBER 1988

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

inches
centimetres
This reference scale bar has been added to the original drawing. When scaled at the same size, the bar should measure 5 cm. on your AS-BUILT reference. for the original size.

REVISIONS

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

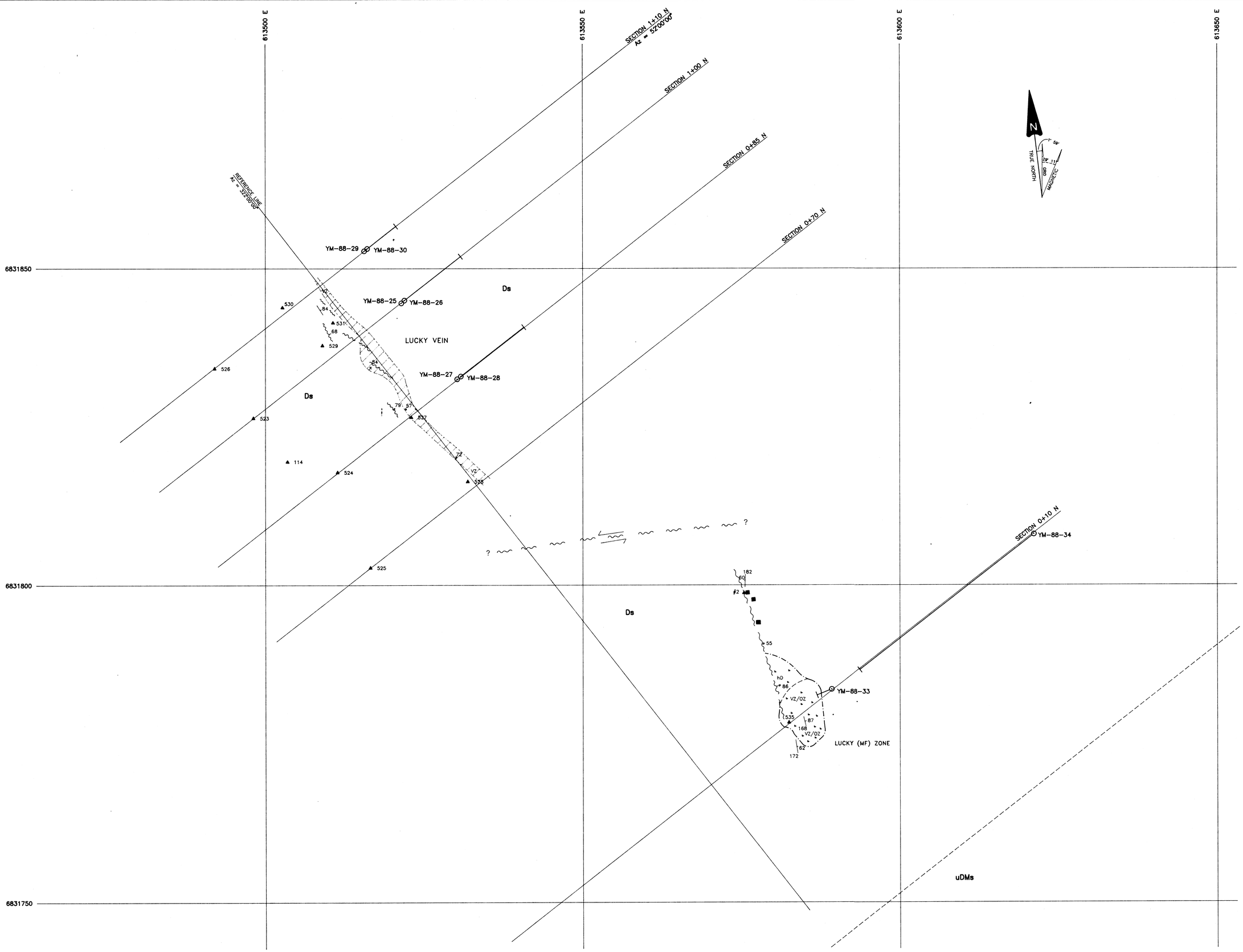
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

PN ZONE
SURFACE ASSAY PLAN

DATE: DECEMBER 31, 1988 | TECH.: R.H., B.P.F. | DWG. No. AP-A1

DRAWN BY: NEW CONCEPT DRAFTING LTD.



REVISIONS

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL DATED 31 DECEMBER 1988

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

inches 0 1
centimetres 0 1 2

This reference scale for size has been added to the original drawing. The scale at the lower right is the image, therefore it is not valid for reference to the original size.

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- acorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Dx(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Damphi Amphipora +/- stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sericitic
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- OSsl Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uCOslv Grey - buff calcareous phyllite; thinly laminated
- uCOb Dark green mafic flow or sill

EARLY CAMBRIAN
- lCcal Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

LUCKY ZONE
SURFACE GEOLOGY PLAN

DATE: 88-12-19 | TECH.: M.I., B.P.F., P.R. | DWG. No. AP-G2

DRAWN BY: NEW CONCEPT DRAFTING LTD.

613500 E

613550 E

613600 E

6831850

6831800

6831750

REFERENCE LINE
Az = 322°00'00"

SECTION 1+10 N
Az = 52°00'00"

SECTION 1+00 N

SECTION 0+85 N

SECTION 0+70 N

SECTION 0+10 N

YM-88-29 YM-88-30 YM-88-25 YM-88-26 YM-88-27 YM-88-28 YM-88-34 YM-88-33

1+10 1+05 1+00 0+95 0+90 0+85 0+80 0+75 0+70 0+30 0+10 0+05

#1 #2

530 531 529 526 527 523 114 524 528 525 535 533

	2.10	1.21	0.22	
	1.41	0.46	0.15	
	1.42	5.17	0.56	
	0.04	0.11	0.01	
	166	449	22	
	1.00	1.45	0.90	
	77017	77401	77015	
	0.17	23.40	0.19	
	0.15	16.25	0.15	
	3.50	3.47	0.09	
	0.04	0.29	<0.02	
	48	454	14	
	1.40	1.40	1.00	
	77020	77019	77018	
4.67	8.17	57.2	1.21	0.18
4.25	7.45	39.0	1.80	0.09
2.19	2.79	1.63	1.41	0.45
0.05	0.08	0.77	0.13	0.01
435	245	558	75	21
0.50	1.00	1.09	0.55	0.65
77025	77024	77023	77022	77021
0.60	47.9	41.0	7.61	0.12
0.39	14.1	16.75	3.94	0.11
0.70	3.33	4.69	1.65	0.30
0.02	0.74	0.54	0.09	<0.01
50	109	640	198	33
0.35	1.63	1.42	1.10	1.30
77080	77403	77028	77402	77026
	0.58	2.19	9.89	0.16
	0.27	1.30	6.64	0.07
	11.15	6.20	1.39	0.11
	0.10	0.12	0.03	<0.01
	72	590	294	28
	1.40	1.40	0.90	0.55
	77034	77033	77032	77031
	0.26	0.68	0.37	0.26
	0.14	0.16	0.12	0.14
	1.45	3.13	12.80	1.67
	0.05	0.33	0.59	0.01
	22	71	125	54
	0.80	0.90	0.60	1.20
	77038	77037	77036	77035
		0.08	5.79	0.03
		0.05	4.90	0.03
		1.12	4.51	0.78
		0.01	0.34	<0.01
		24	444	16
		1.00	1.40	1.50
		77041	77040	77039
		0.07	1.21	0.05
		0.05	0.50	0.01
		1.01	22.60	0.40
		<0.01	0.17	<0.01
		25	277	15
		1.10	1.60	0.70
		77044	77043	77042
0.08		1.00	14.20	5.83
0.04		0.87	1.32	5.31
<0.01		0.74	0.62	1.15
26		83	45	369
1.20		0.75	0.70	0.55
77048		77047	77046	77045

			4.00	0.13
			2.34	0.07
			1.73	0.47
			0.07	<0.01
			40	17
			1.20	0.60
			77009	77010
0.18	13.00	0.55	2.03	7.89	1.57	0.04	0.10
0.16	16.20	0.43	2.35	11.30	2.62	0.03	0.09
1.27	17.95	10.55	0.95	4.59	0.96	0.56	0.15
0.07	0.30	0.13	0.03	0.08	0.01	<0.01	0.01
14	254	13	14	7	11	5	<5
0.89	0.60	1.15	0.91	0.45	0.63	0.50	2.40
77008	77007	77006	77005	77004	77003	77002	77001
			1.15	0.80	0.14	0.14
			0.74	0.46	0.05	0.23
			15.90	11.90	3.80	0.52
			0.25	0.14	0.03	<0.01
			108	67	34	7
			0.95	1.00	1.00	0.95
			77014	77013	77012	77011

LUCKY VEIN
AVERAGE SURFACE GRADE

LENGTH (m)	WIDTH (m)	Ag (oz/ton)	Pb (%)	Zn (%)	Cu (%)	Au oz/ton
43.00	2.39	12.72	6.46	5.54	0.24	0.009

LUCKY (MF) ZONE
AVERAGE SURFACE GRADE

LENGTH (m)	WIDTH (m)	Ag (oz/ton)	Pb (%)	Zn (%)	Cu (%)	Au oz/ton
21.20	2.47	3.97	4.43	5.77	0.08	0.001

LUCKY (MF) ZONE
AVERAGE SURFACE GRADE

LENGTH (m)	WIDTH (m)	Ag (oz/ton)	Pb (%)	Zn (%)	Cu (%)	Au oz/ton
6.75	3.21	1.96	2.23	9.13	0.13	0.002

TRUE NORTH
GRID
MAGNETIC
1° Dip

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH – metres)

ASSAY SEQUENCE

SAMPLE No.	Ag (oz./ton)	Pb %	Zn %	Cu (ppm) Where Applicable	Au ppb	CORE RECOVERY LENGTH %

AVERAGE GRADE

HORIZ. WIDTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY %

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Cu (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL DATED 31 DECEMBER 1988

NOTE.
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inches
centimetres

This reference scale has been added to the original drawing. If not to scale at the same size as the image, therefore the drawing has been reduced / enlarged from the original size.

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

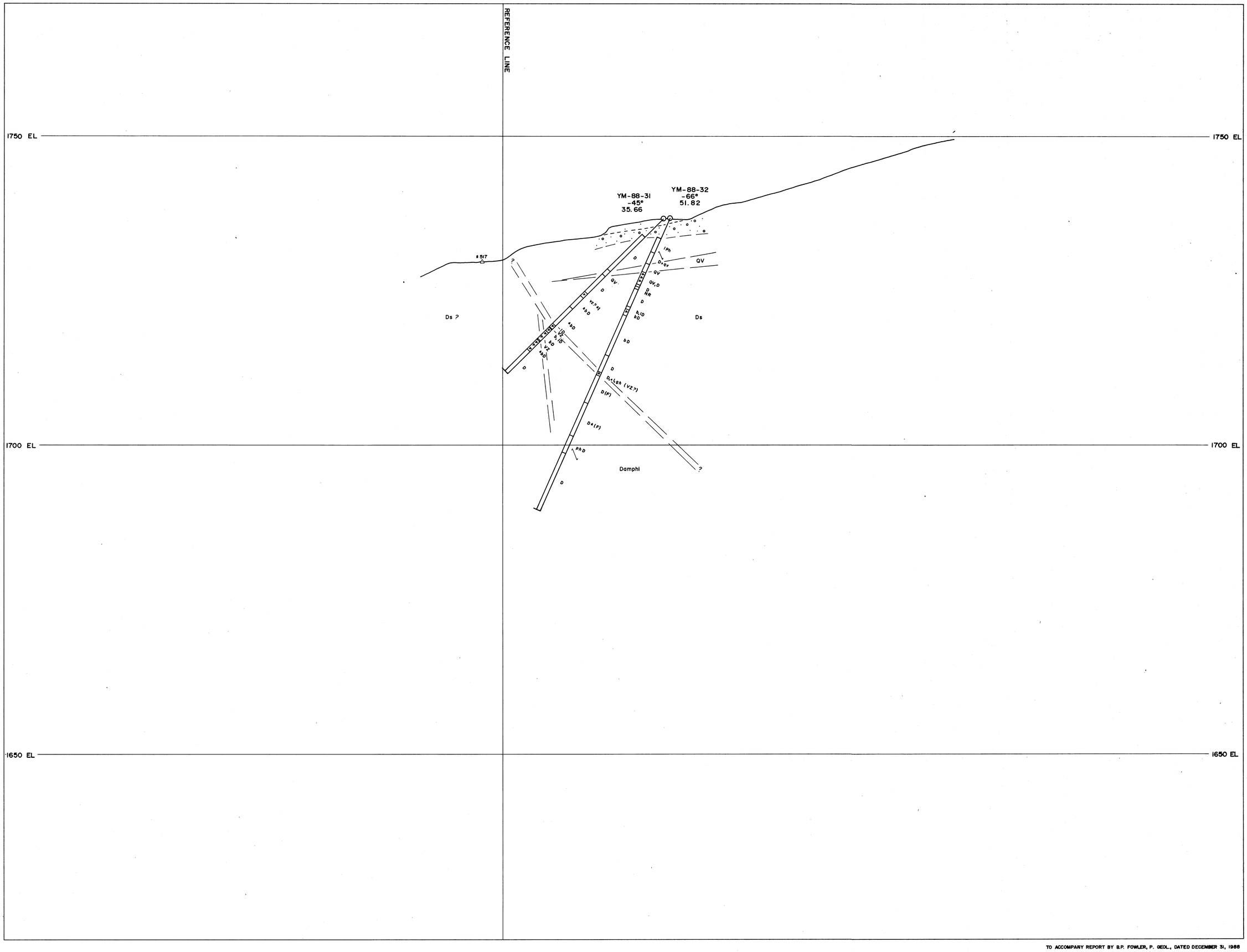
Scale 1:250

METRES 0 1 2 3 4 5 6 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

LUCKY ZONE
SURFACE ASSAY PLAN

DATE: 88-12-19 | TECH.: R.H./B.P.F. | DWG. No. AP-A2

DRAWN BY: NEW CONCEPT DRAFTING LTD.



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(f)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
ab	CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Dc(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Damphl Amphipora +/- stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sereciticc
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- OSsl Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uEDslv Grey - buff calcareous phyllite; thinly laminated
- uEOb Dark green mafic flow or sill

EARLY CAMBRIAN
- lEcsl Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

NOTE:
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YUKON MINERALS - PERREX J.V.

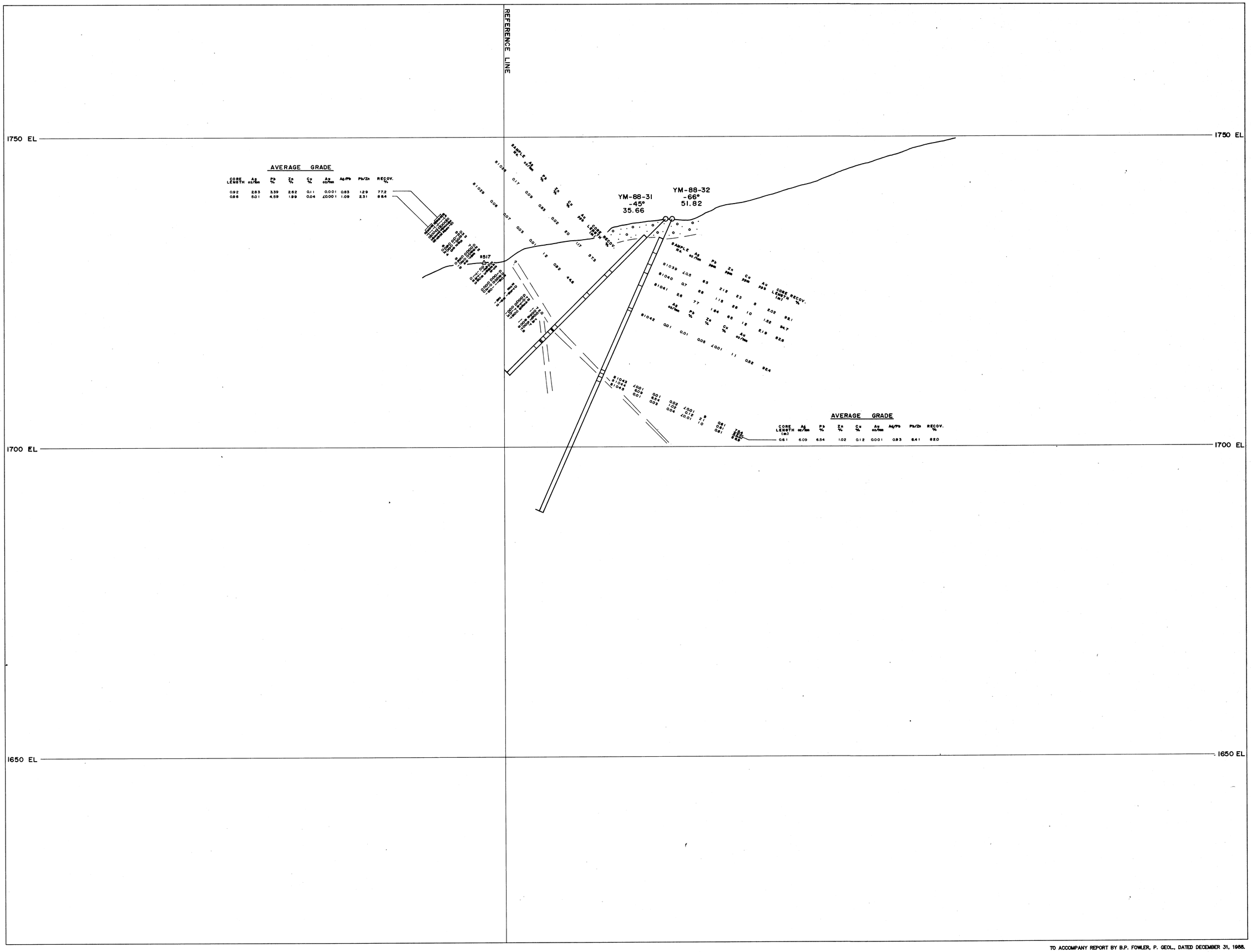
KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250 (METRES 0 1 2 3 4 5 10 15 20 25 30 METRES; FEET 0 5 10 15 20 25 50 75 100 FEET)

PN ZONE
VERTICAL CROSS SECTION - 0 + 60 GEOLOGY
LOOKING N 5° W

DATE: DECEMBER 16, 1988 | TECH.: B.F. | DWG. No. PS-G1
DRAWN BY: POLARIS CONSULTING, R.H. & J.B.



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH - metres)

ASSAY SEQUENCE: SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | * Au (oz./ton) | CORE LENGTH | RECOVERY %

AVERAGE GRADE: HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | * Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

* (Cu %) Where Applicable

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Cu (%)
Au (ppb)
SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
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YUKON MINERALS — PERREX J.V.

KETZA PROJECT
GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

PN ZONE
VERTICAL CROSS SECTION - 0 + 60 ASSAY
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DATE: DECEMBER 16, 1988 | TECH.: B.F.
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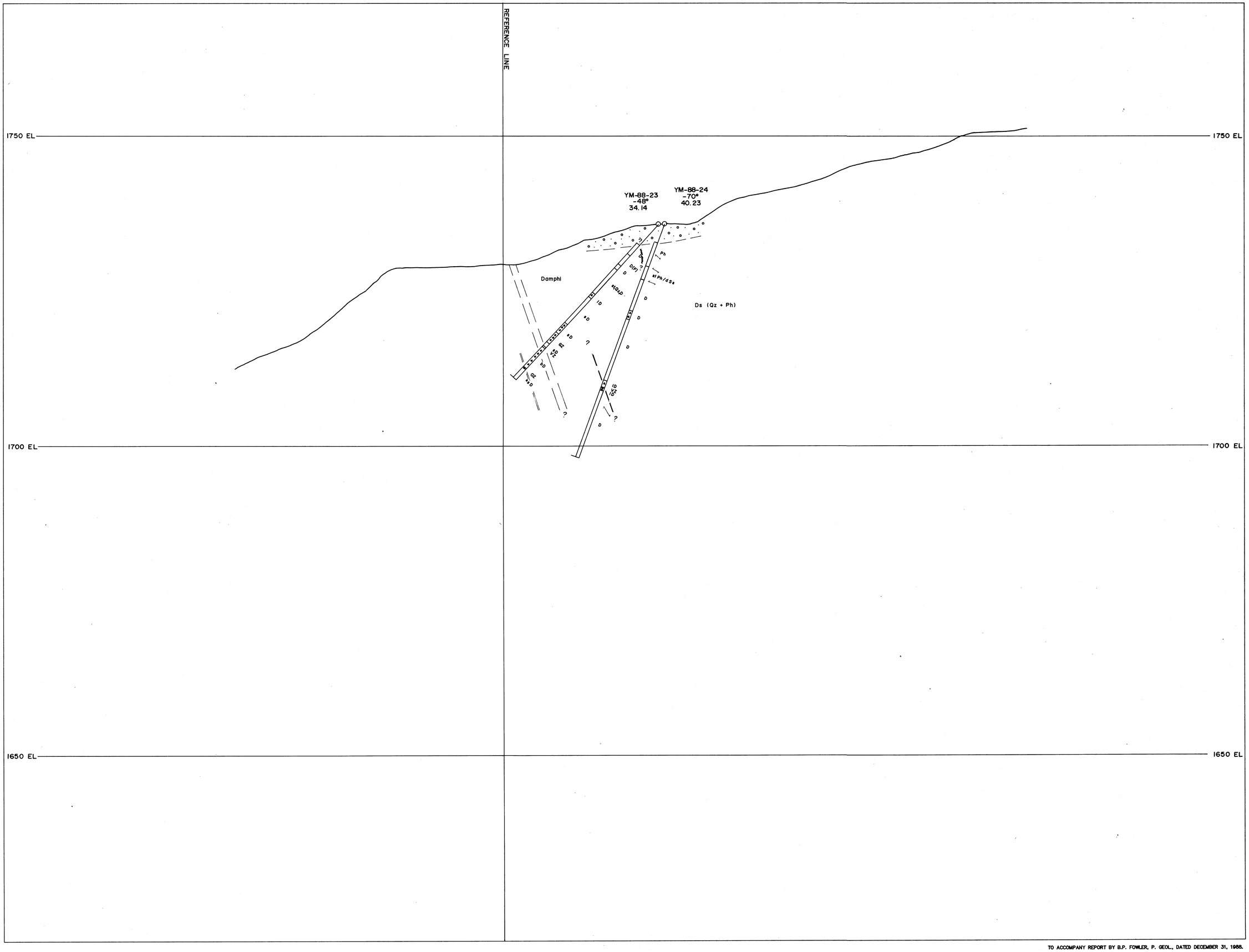

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
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Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
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m	MANGANESE
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- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
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EARLY CAMBRIAN
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Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
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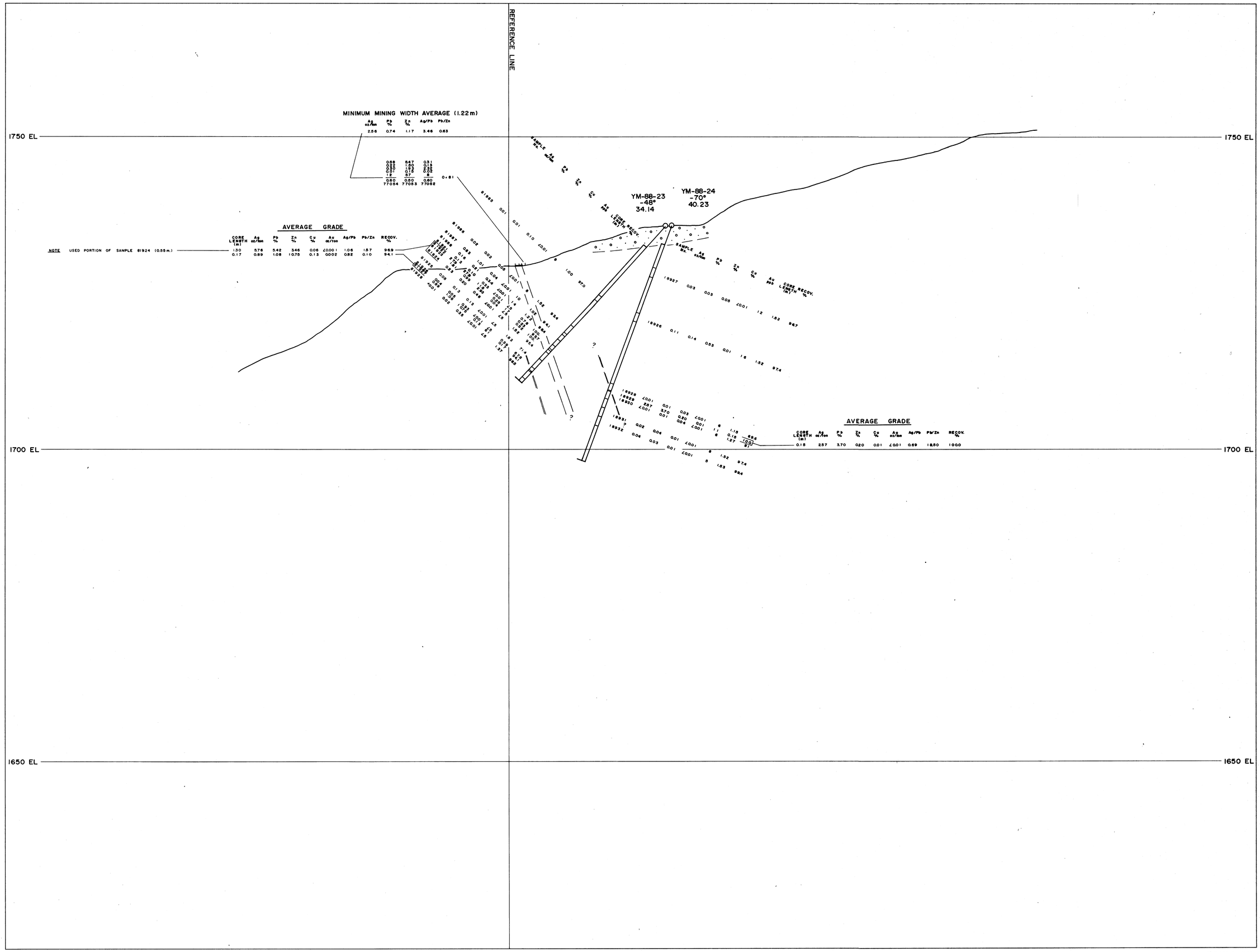
PN ZONE
VERTICAL CROSS SECTION - 0+80N GEOLOGY
LOOKING N 5° W

DATE: DECEMBER 16, 1988 | TECH.: B.F.
DRAWN BY: POLARIS CONSULTING , R.H. & J.B.
DWG. No. PS-G2



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-80° (INCLINATION)
65.00 (LENGTH – metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au ppb | CORE LENGTH | RECOVERY %
Cu (%) Where Applicable

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | * Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %
* Cu (%) Where Applicable

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Cu (%)
Au (ppb)
SAMPLE WIDTH (m)
SAMPLE No.

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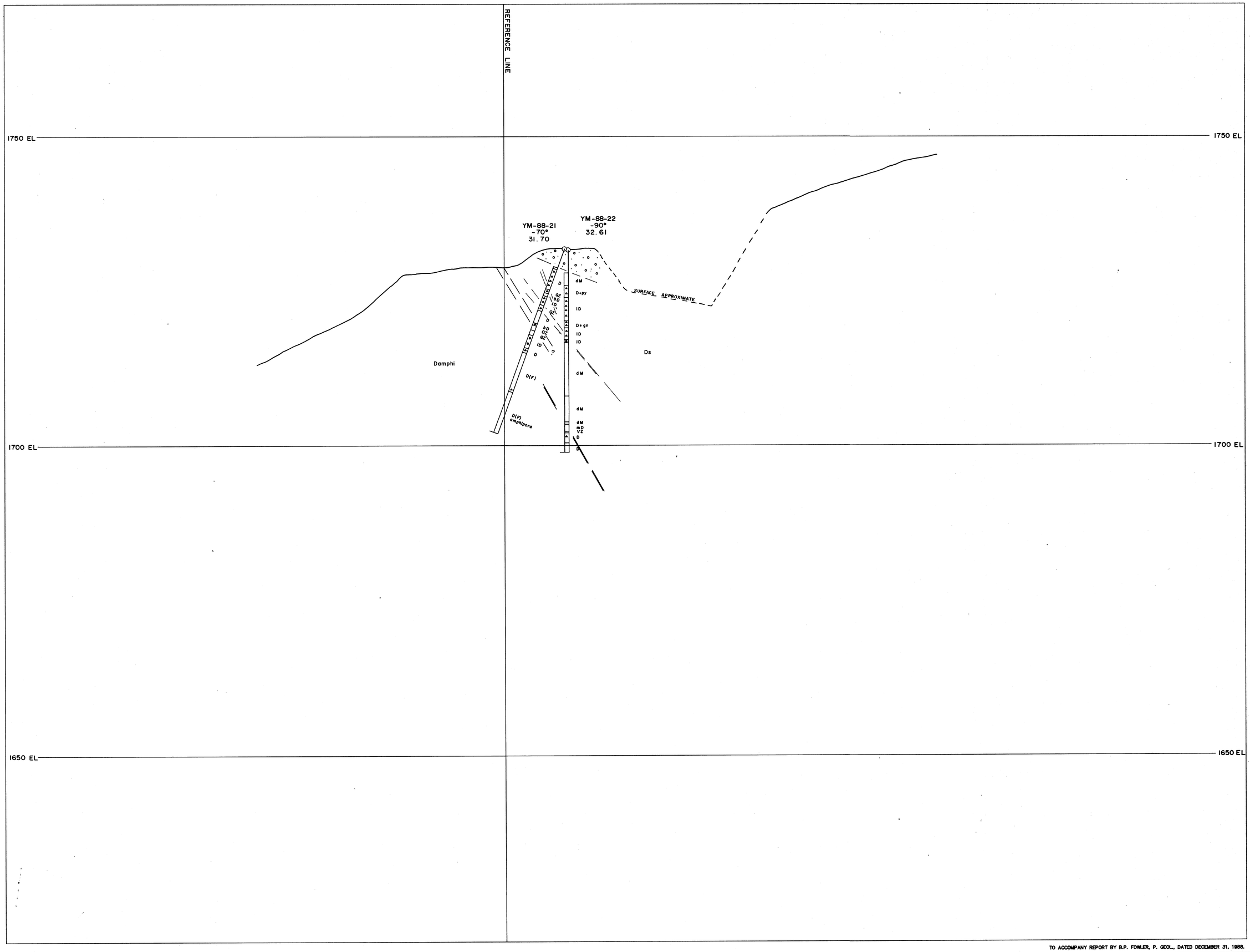

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REVISIONS

LEGEND

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- si SILICIFIED
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- h HEMATITE
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EARLY CAMBRIAN
- MCsel Grey calcareous mica schist and marble

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YUKON MINERALS - PERREX J.V.

KETZA PROJECT
GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

PN ZONE
VERTICAL CROSS SECTION - 1+00 GEOLOGY
LOOKING N 5°W

DATE: DECEMBER 16, 1988 | TECH.: B.F. | DWG. No. PS-G3
DRAWN BY: POLARIS CONSULTING, R.H. & J.B.

REFERENCE LINE

1750 EL

1700 EL

1650 EL

MINIMUM MINING WIDTH AVERAGE (1.22m)

	Ag oz/ton	Pb %	Zn %	Ag/Pb	Pb/Zn
	70.00	37.64	0.95	1.86	3.982

SAMPLED IN 1987 (G. DAVIDSON)
PRIOR TO 1988 BULK SAMPLING PROGRAM
INITIAL SAMPLE ELEVATION NOT KNOWN

AVERAGE GRADE

	CORE LENGTH (m)	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/Pb	Pb/Zn	RECOV. %
	3.64	0.91	0.92	3.21		0.001	0.99	0.29	89.8
NOTE USED PORTION OF SAMPLE 81920 (0.61m.)	1.38	8.62	5.69	6.62	0.11	0.006	1.51	0.86	96.4

YM-88-21
-70°
31.70

YM-88-22
-90°
32.61

SURFACE APPROXIMATE

SAMPLE No.	Ag oz/ton	Pb %	Zn %	Cu %	Au ppb	CORE LENGTH (m)	RECOV. %
81976	0.05	0.07	0.02	<0.001	8	0.82	96.0
81977	0.25	0.44	0.33	<0.001	7	1.63	92.0
81978	0.55	0.26	2.39	0.02	16	1.15	93.0
18933	0.03	0.05	0.36	<0.001	9	2.11	94.0
81979	2.13	2.25	6.68	0.06	61	0.20	100.0
18934	0.03	0.01	0.09	<0.001	13	1.01	96.0
18935	<0.01	<0.01		<0.001	11	1.00	96.0
81980	0.02	0.03	0.11	<0.001	8	1.17	95.0
81981	1.90	2.31	0.13	<0.001	45	0.26	84.0
81982	0.04	0.04	0.04	<0.001	7	1.62	96.0

AVERAGE GRADE

CORE LENGTH (m)	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/Pb	Pb/Zn	RECOV. %
0.20	2.13	2.25	6.68	0.06	0.002	0.95	0.34	100.
0.26	1.90	2.31	0.13	<0.01	<0.001	0.82	1.777	84.6

1650 EL

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH - metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | # Au Pb | # Cu (%) Where Applicable | CORE RECOVERY % | LENGTH

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | # Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

Cu (%) Where Applicable

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Cu (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
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inches
centimetres

This reference scale for hard copies is valid for original images A and A1 only at the same ratio as the original. It can be used as a reference for the remainder.

YUKON MINERALS — PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

PN ZONE
VERTICAL CROSS SECTION - 1+00 ASSAY
LOOKING N 5°W

DATE: DECEMBER 16, 1988 | TECH.: B.F. | DWG. No. PS-A3

DRAWN BY: POLARIS CONSULTING, R.H. & J.B.

1800 EL.

1750 EL.

1700 EL.

1650 EL.

SECTION 1+00N

SECTION 0+80N

SECTION 0+60N

SECTION 0+40N

AVERAGE GRADE

SURFACE LENGTH m	WIDTH m	Ag oz/ton	Pb %	Zn %	Ag/ Pb	Pb/ Zn
30.40	1.73	28.94	19.52	3.45	1.48	5.66

	WIDTH m	Ag oz/ton	Pb %	Zn %	Ag/ Pb	Pb/ Zn
1+11+	1.22	43.93	23.87	0.46	1.84	51.89
1+06+	1.22	16.53	13.09	6.09	1.26	2.15
1+05+	1.22	28.98	19.21	8.16	1.59	2.23
1+03+	3.40	11.50	10.14	8.38	1.13	1.21
1+01+	2.50	34.30	28.97	4.10	1.19	7.07
1+00+	1.22	70.00	37.64	0.95	1.86	39.62
0+99+	2.28	49.67	30.79	3.05	1.61	10.10
0+98+	1.22	44.59	23.80	0.21	1.87	113.81
0+97.5+	2.47	30.48	15.60	1.34	1.95	13.46
0+96.5+	1.22	30.49	15.75	0.33	1.94	47.73
0+95.5+	1.22	32.73	20.02	0.06	1.63	333.67
0+94.5+	1.22	25.83	17.30	0.05	1.50	346.00
0+93.5+	2.15	9.62	42.50	2.03	0.23	20.94
0+91	1.22	22.98	14.01	5.41	1.64	2.59
0+86	2.40	32.82	13.33	2.38	2.46	5.60
0+81	1.22	2.56	0.74	1.17	3.46	0.63
0+76	1.22	0.70	0.48	1.40	1.46	0.34

NOTE:

* DENOTES 1987 SURFACE SAMPLING PRIOR TO 1988 BULK SAMPLING PROGRAM. SAMPLE ELEVATIONS PROJECTED DOWN TO PRESENT SURFACE

YM88-21 (HW VEIN)

YM88-21 (FW VEIN)

YM88-22 (HW VEIN)

YM88-22 (FW VEIN)

YM88-23 (HW VEIN)

YM88-23 (FW VEIN)

YM88-24 (HW VEIN)

YM88-31 (HW VEIN)

YM88-31 (FW VEIN)

YM88-32 (HW VEIN)

AVERAGE GRADE

CORE LENGTH m	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/ Pb	Pb/ Zn	RECOV %
3.54	0.92	0.93	3.19		0.01	0.99	0.29	89.5
1.38	8.62	5.69	6.62	0.11	0.006	1.51	0.86	96.4
0.20	2.13	2.25	6.68	0.66	0.002	0.95	0.34	100.0
0.26	1.90	2.31	0.13	0.01	<0.001	0.82	17.77	84.6

AVERAGE GRADE

CORE LENGTH m	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/ Pb	Pb/ Zn	RECOV %
0.92	2.83	3.39	2.62	0.11	0.001	0.83	1.29	77.2
0.86	5.01	4.59	1.99	0.04	<0.001	1.09	2.31	88.4
0.61	6.09	6.54	1.02	0.12	0.001	0.93	6.41	82.0

AVERAGE GRADE

CORE LENGTH m	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/ Pb	Pb/ Zn	RECOV %
1.30	5.76	5.42	3.46	0.06	<0.001	1.06	1.57	96.9
0.17	0.89	1.08	10.75	0.13	0.002	0.82	0.10	94.1
0.15	2.57	3.70	0.20	0.01	<0.001	0.69	18.50	100.0

REVISIONS

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH - metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au ppb | CORE LENGTH % | Cd (ppm) Where Applicable

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

LEGEND

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL DATED 31 DECEMBER 1988

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

PN ZONE
LONGITUDINAL (ASSAY) SECTION LOOKING N 85° E

DATE: DECEMBER 31, 1988	TECH.: B.P.F. / R.H.	DWG. No.
DRAWN BY: NEW CONCEPT DRAFTING LTD.		PL-A1

1800 EL

1750 EL

1700 EL

1650 EL

SECTION 1+00N

SECTION 0+80N

SECTION 0+60N

1+11* 1+06* 1+05* 1+03* 1+01* 1+00* 0+99* 0+98* 0+97.5* 0+95.5* 0+94.5* 0+93.5* 0+91 0+86 0+81 0+76

AVERAGE GRADE

SURF LENGTH m	HORIZ WIDTH m	Ag oz/ton	Pb %	Zn %
30.40	1.73	28.94	19.52	3.45

BLOCK 88-29
1,089 tons

BLOCK 88-30
880 tons

BLOCK 88-31
1511 tons

YM88-21

AVERAGE GRADE

HORIZ WIDTH m	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	RECOV %
1.22	8.62	5.69	0.91	0.006	0.006	96.4

YM88-23

AVERAGE GRADE

HORIZ WIDTH m	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	RECOV %
1.23	5.76	5.42	3.46	0.06	<0.001	96.9

YM88-24

AVERAGE GRADE

HORIZ WIDTH m	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/ Pb	Pb/ Zn	RECOV %
0.10	2.57	3.70	0.20	0.01	<0.001	0.69	18.50	100.0
0.15	1.90	2.31	0.13	0.01	<0.001	0.82	17.77	84.6

YM88-22

YM88-31

AVERAGE GRADE

HORIZ WIDTH m	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/ Pb	Pb/ Zn	RECOV %
1.13	2.83	3.39	2.62	0.11	0.001	0.83	1.29	77.2

YM88-32

0.77	6.09	6.54	1.02	0.12	0.001	0.93	6.41	82.0

NOTE:

* DENOTES 1987 SURFACE SAMPLING PRIOR TO 1988 BULK SAMPLING PROGRAM. SAMPLE ELEVATIONS PROJECTED DOWN TO PRESENT SURFACE

REVISIONS

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(f)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

inches 0 1

centimetres 0 2

This reference scale bar has been added to the original drawing. When scale at the same size, it can be used as a reference for the original size.

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT; FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- 35 FOLIATION & ANGLE TO CORE AXIS
- 30 BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- DS(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Damph Amphipora +/- stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sericitic
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- OSsl Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uEOslv Grey - buff calcareous phyllite; thinly laminated
- uEOb Dark green mafic flow or sill

EARLY CAMBRIAN
- lEcsl Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL DATED 31 DECEMBER 1988

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

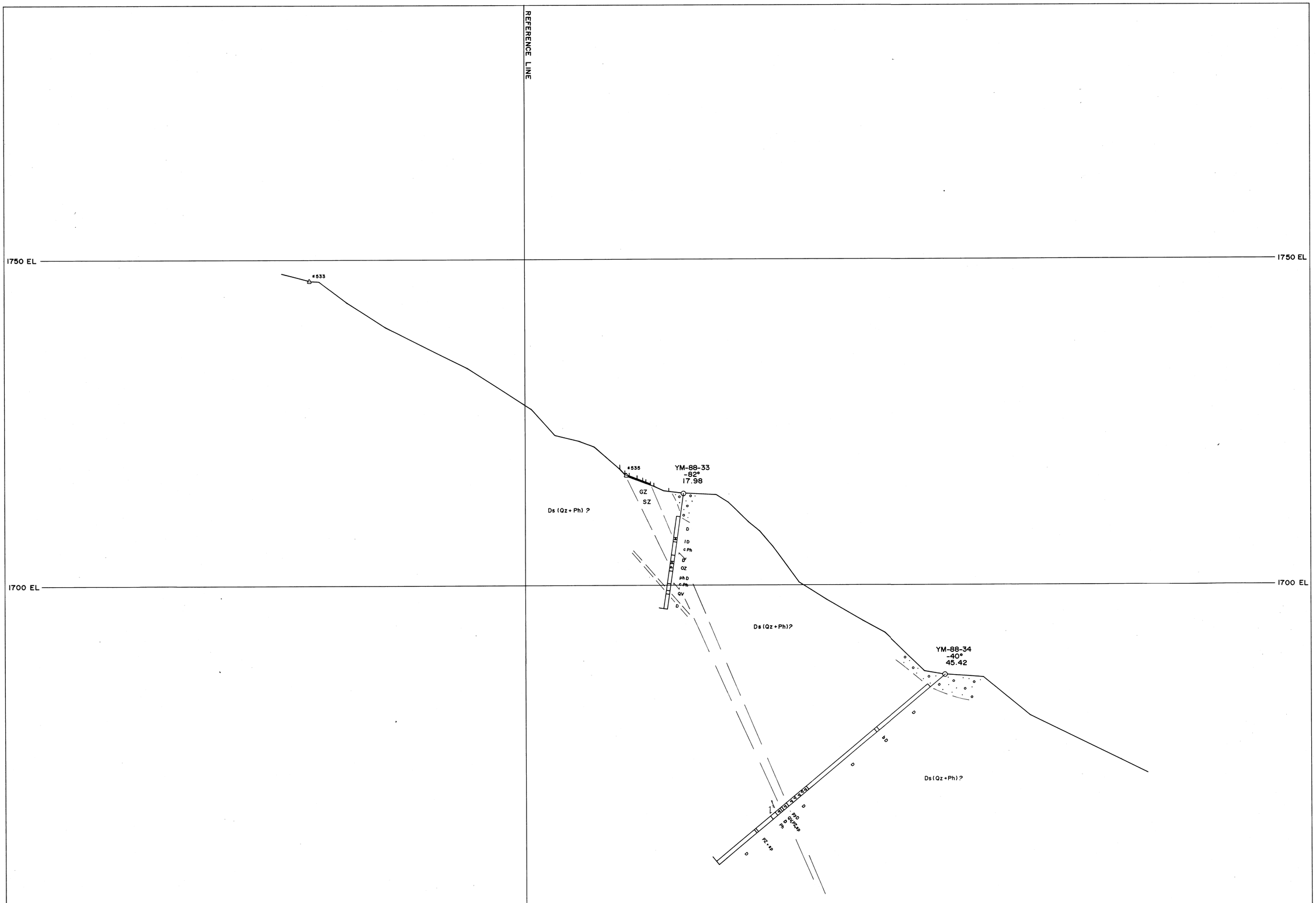
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

PN ZONE
LONGITUDINAL RESERVE SECTION LOOKING N 85° E

DATE: DECEMBER 31, 1988 | TECH.: B.P.F. / R.H. | DWG. No. PL-R1

DRAWN BY: NEW CONCEPT DRAFTING LTD.



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(f)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

inches
centimetres
Drawing is to be plotted to this scale for the notes added to the original image. It will be distorted if plotted as the image. Illustration CDrummond, BSAGT if can be used in a report, but not for true original size.

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
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SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

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- uEOsltv Grey - buff calcareous phyllite; thinly laminated
- uEOb Dark green mafic flow or sill

EARLY CAMBRIAN
- lEcsl Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

LUCKY ZONE
VERTICAL CROSS SECTION - 0+10 N GEOLOGY
LOOKING N 38° W

DATE: DECEMBER 21, 1988 | TECH.: B.F. | DWG. No. LS-G1

DRAWN BY: POLARIS CONSULTING , J.B.

REFERENCE LINE

1750 EL

1700 EL

8533

0 + 10

Ag oz/ton	0.18	1.30	0.23	2.03	7.89	1.87	0.04	0.10
Pb %	0.16	1.630	0.43	2.30	1.30	0.62	0.03	0.09
Cu %	0.87	1.030	0.015	0.83	0.08	0.89	<0.001	0.19
Au ppb								
SAMPLE WIDTH	0.82	0.80	1.18	0.81	0.45	0.83	0.80	6.20
SAMPLE No.		77008	77007	77006	77005	77004	77003	77002	77001

0 + 10

8535

YM-88-33
-82°
17.98

AVERAGE SURFACE GRADE

WIDTH (m)	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/Pb	Pb/Zn
3.74	3.96	5.10	7.07	0.11	0.002	0.78	0.72

SAMPLE No.	Ag oz/ton	Pb %	Zn %	Cu %	Au ppb	CORE LENGTH (m)	RECOV. %
81048	<0.01	0.03	0.04	<0.001	1	0.67	70.3
81049	0.01	0.04	0.05	<0.001	1	0.80	84.2
81050	0.27	0.46	0.19	<0.001	6	1.22	54.9
81051	7.00	1.19	1.91	0.02	38	0.61	67.2
81052	0.03	0.02	0.36	<0.001	8	2.00	39.0
81053	0.38	0.08	1.10	0.10	181	1.50	70.7
81054	0.01	0.05	0.23	<0.001	<5	0.81	37.0
81055	<0.01	0.02	0.29	<0.001	<5	1.13	97.3
81056	<0.01	<0.01	0.05	<0.001	<5	1.12	90.2
81057	<0.01	<0.01	0.02	<0.001	<5	0.48	100.0
			0.01			0.82	91.8

AVERAGE GRADE

CORE LENGTH (m)	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/Pb	Pb/Zn	RECOV. %
4.11	1.19	0.22	4.47	0.04	0.002	5.41	0.05	54.7

YM-88-34
-40°
45.42

SAMPLE No.	Ag oz/ton	Pb %	Zn %	Cu %	Au ppb	CORE LENGTH (m)	RECOV. %
81058	0.07	0.01	0.03	<0.001	1	0.80	100.0
81059	0.01	0.01	0.02	<0.001	<1	0.78	97.5
81060	0.07	0.02	0.03	<0.001	1	0.80	100.0
81061	0.01	0.01	0.02	<0.001	<1	0.80	100.0
81062	0.50	0.02	0.03	<0.001	7	0.12	98.1
81063	0.02	0.01	0.04	<0.001	<1	0.84	100.0
81064	0.04	0.02	0.05	<0.001	1	1.93	100.0

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH – metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Cu (%) Where Applicable | CORE LENGTH | RECOVERY %

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

Cu (%) Where Applicable

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Cu (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

inches / centimetres

This reference scale for original maps is set at 1:250. If the original image is not the same size as in the map, therefore the scale is not a reference for the original size.

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

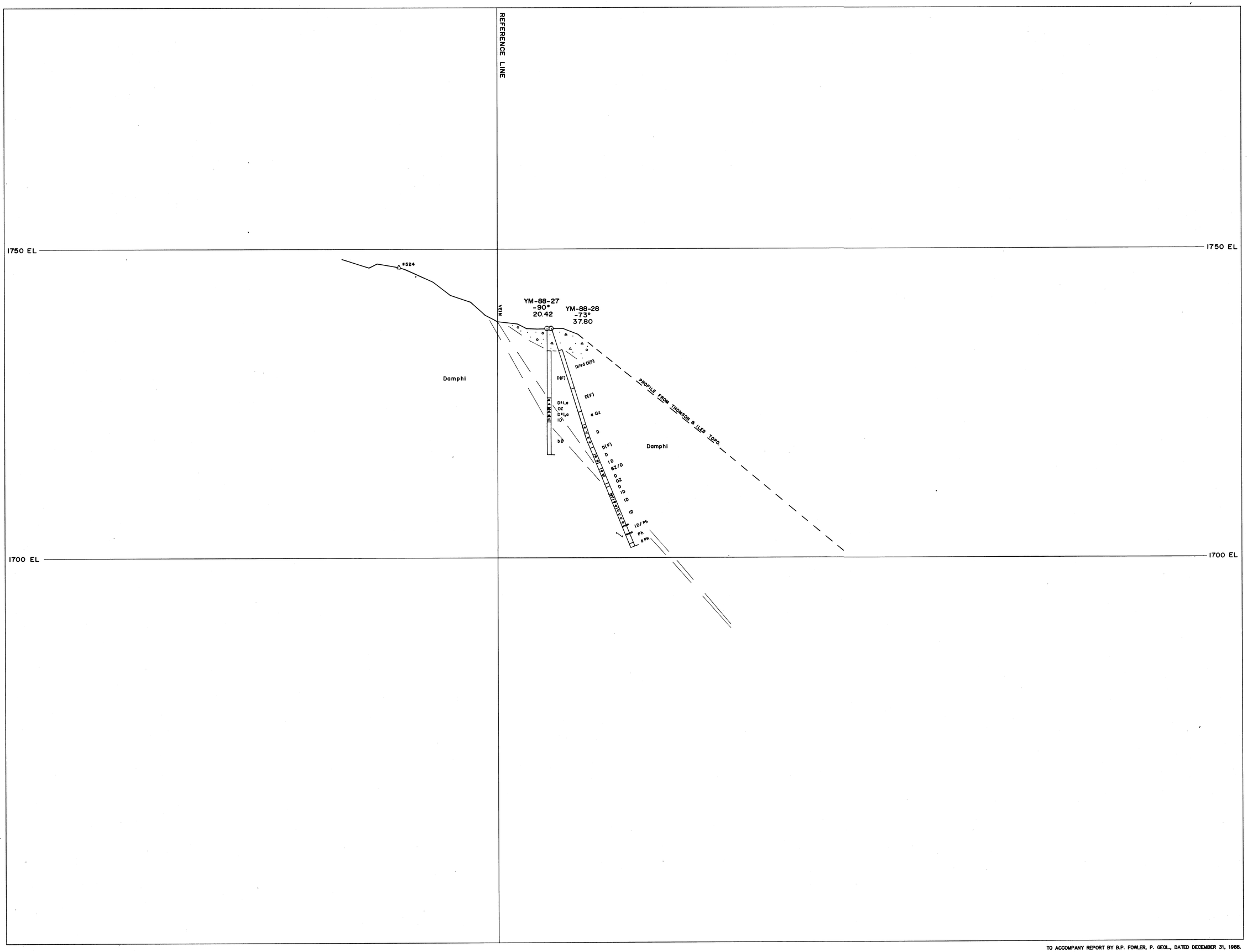
METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

LUCKY ZONE
VERTICAL CROSS SECTION - 0 + 10 N ASSAY
LOOKING N 38° W

DATE: DECEMBER 21, 1988 | TECH.: B.F.

DRAWN BY: POLARIS CONSULTING, J.B.

DWG. No. LS-A1



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
Slt	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
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c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- D≤(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Damphi Amphipora +/- stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sereictic
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ORDOVICIAN AND SILURIAN
- OSsl Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uEOslv Grey - buff calcareous phyllite; thinly laminated
- uEOb Dark green mafic flow or sill

EARLY CAMBRIAN
- ЄCsal Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

LUCKY ZONE
VERTICAL CROSS SECTION- 0+85 N GEOLOGY
LOOKING N 38° W

DATE: DECEMBER 21, 1988 | TECH.: B.F.
DRAWN BY: POLARIS CONSULTING, J.B.
DWG. No. LS-G2

REFERENCE LINE

1750 EL

1700 EL

#524

0 + 85

Ag oz/ton	0.26	0.68	0.37	0.26
Pb %	0.16	0.13	0.07	0.14
Zn %	0.48	0.46	1.10	0.67
Cu %	0.03	0.33	0.09	0.01
Au ppb				
SAMPLE WIDTH	0.80	0.80	0.80	1.20
SAMPLE No.	77038	77037	77036	77035

YM-88-27
-90°
20.42

YM-88-28
-73°
37.80

AVERAGE SURFACE GRADE

WIDTH (m)	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/Pb	Pb/Zn
1.50	0.56	0.14	7.00	0.43	0.003	4.00	0.02

AVERAGE GRADE

CORE LENGTH (m)	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/Pb	Pb/Zn	RECOV. %
3.90	1.47	1.15	0.98	0.02	0.001	1.28	1.17	94.6

SAMPLE No.	Ag oz/ton	Pb %	Zn %	Cu %	Au ppb	CORE LENGTH (m)	RECOV. %
18924						1.12	89.3
81998	1.68	1.42	0.42	0.01	27	1.52	95.4
81999	1.80	2.04	0.43	0.04	87	0.40	95.0
82000	1.97	1.21	0.34	0.01	21	1.13	89.4
18901	0.27	0.15	3.09	0.03	66	0.85	?

SAMPLE No.	Ag oz/ton	Pb %	Zn %	Cu %	Au ppb	CORE LENGTH (m)	RECOV. %
18920	0.04	0.005	0.04	0.001	30	0.87	87.4
18921	0.09	0.008	0.008	0.002	27	1.53	93.5
18922	0.68	0.01	0.09	0.001	36	1.52	100.0
18923	0.03	0.30	0.01	0.001	15	1.22	82.0
18909	0.26	0.09	0.10	0.01	51	1.52	99.4
18910	0.14	3.10	0.05	0.001	33	1.52	100.0
18911	2.95	0.50	0.40	0.06	207	1.00	65.8
18912	0.45	0.52	0.54	0.001	78	1.17	93.8
18913	1.17	0.14	2.62	0.002	75	0.25	51.9
18914	0.22	0.64	3.19	0.001	24	1.27	97.1
18915	0.81	0.77	2.50	0.001	162	1.05	94.1
18916	0.82	0.13	1.98	0.001	81	1.52	78.3
18917	0.37	0.11	0.42	0.001	30	1.52	73.2
18918	0.09	0.05		0.001	15	1.52	82.2
18919	0.04						

AVERAGE GRADE

CORE LENGTH (m)	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/Pb	Pb/Zn	RECOV. %
3.09	1.69	1.66	0.13	0.02	0.004	1.02	1.277	71.5

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH – metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Cu % | Au (oz./ton)* | Ag/Pb | Pb/Zn | CORE LENGTH | RECOVERY %

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Cu % | Au (oz./ton)* | Ag/Pb | Pb/Zn | RECOVERY %

* Cu (%), Au (oz./ton) Where Applicable

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Cu (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

inches / centimetres

This reference scale bar has been added to the original image. It will be accurate for the image as the image dimensions have not been altered as it is a reference to the original size.

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

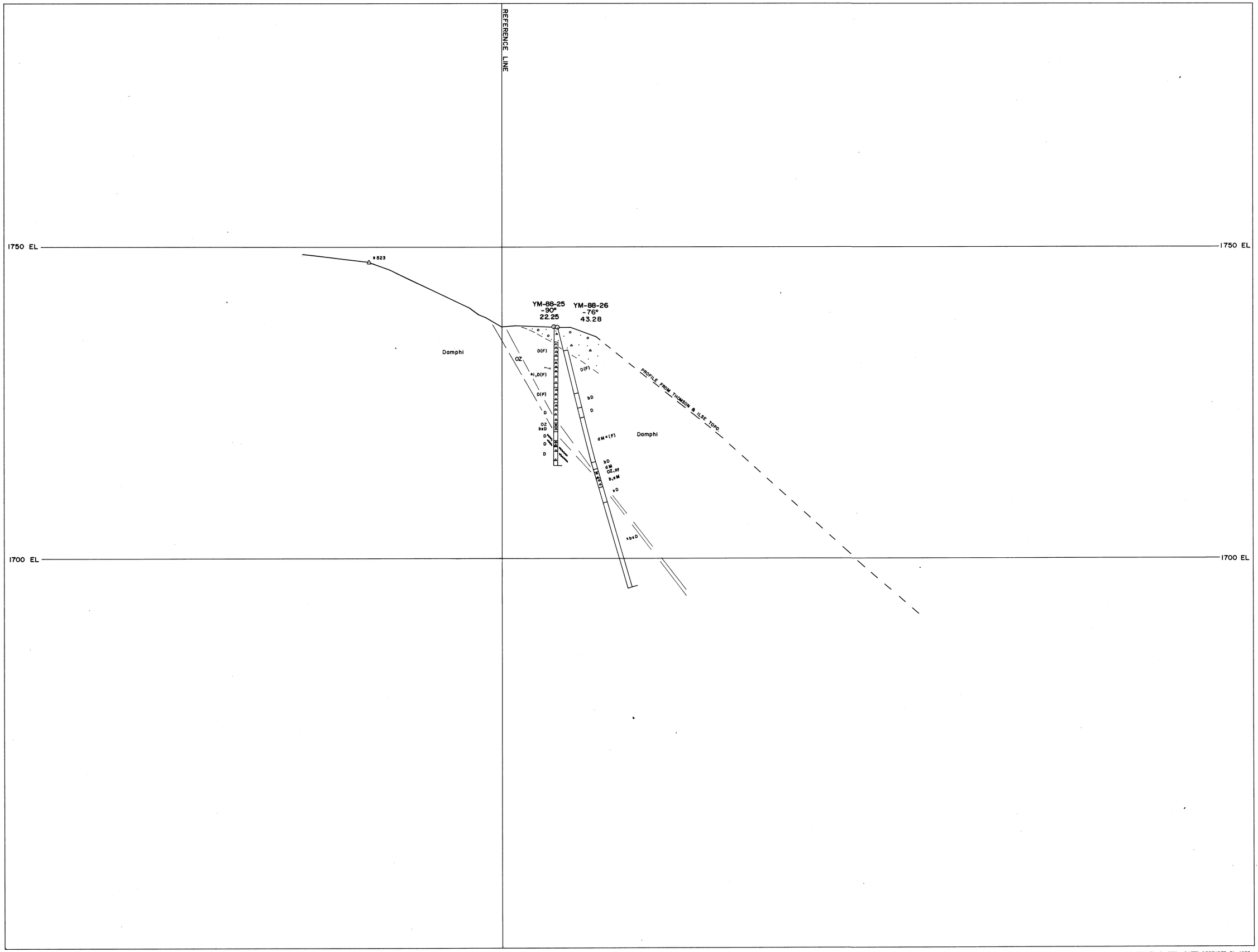
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

LUCKY ZONE
VERTICAL CROSS SECTION - 0+85 N ASSAY
LOOKING N 38° W

DATE: DECEMBER 21, 1988 | TECH.: B.F.
DRAWN BY: POLARIS CONSULTING, J.B.

DWG. No. LS-A2



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- 35 FOLIATION & ANGLE TO CORE AXIS
- 30 BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Dd(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite

- Damphi Amphipora +/- stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sereciticc
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- OSsl Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- ℓ€Oslv Grey - buff calcareous phyllite; thinly laminated
- ℓ€Ob Dark green mafic flow or sill

EARLY CAMBRIAN
- ℓ€cal Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

NOTE:
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inches / centimetres
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YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

LUCKY ZONE
VERTICAL CROSS SECTION - 1+00 N GEOLOGY
LOOKING N 38° W

DATE: DECEMBER 21, 1988 | TECH.: B.F. | DWG. No. LS-G3
DRAWN BY: POLARIS CONSULTING , J.B.

REFERENCE LINE

1750 EL

1700 EL

AVERAGE SURFACE GRADE

WIDTH (m)	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/Pb	Pb/Zn
2.59	2.813	2.011	2.19	0.36	0.012	1.40	9.18

5523

1+00

YM-88-25
-90°
22.25

YM-88-26
-76°
43.28

1+00

Ag oz/ton	4.67	8.17	5.22	1.21	0.18
Pb %	4.26	7.46	3.84	1.80	0.09
Zn %	2.13	2.79	7.01	1.97	0.23
Cu %	0.05	0.08	0.77	0.13	0.01
Au ppb					
SAMPLE WIDTH	0.50	1.00	1.03	0.59	0.65
SAMPLE No.	77025	77024	77023	77022	77021

SAMPLE No.	Ag oz/ton	Pb %	Zn %	Cu %	Au ppb	CORE LENGTH (m)	RECOV. %
18902	0.12	0.14	0.22	∠0.01	24	1.42	986
18903	0.67	0.63	0.58	0.03	684	0.75	853
18904	0.16	0.10	0.72	0.01	288	2.55	943
18905	0.06	0.06	0.53	∠0.01	57	1.52	947
18906	0.38	0.25	0.60	∠0.01	75	1.88	867
81941	0.66	0.47	4.96		37	0.87	1000
81942	1.845	16.70	3.85		510	0.54	970
81943	1.43	0.64	5.12		61	0.82	902
18943	0.05	0.04	0.06	∠0.01	16	0.96	844
18907	0.58	0.37	0.85	0.04	6	0.70	1000
18908	0.07	0.05	0.75	0.01	27	0.75	960

AVERAGE GRADE

CORE LENGTH (m)	Ag oz/ton	Pb %	Zn %	Au oz/ton	Ag/Pb	Pb/Zn	RECOV. %
2.23	5.25	4.46	4.75	0.005	1.18	0.94	933

SAMPLE No.	Ag oz/ton	Pb %	Zn %	Cu %	Au ppb	CORE LENGTH (m)	RECOV. %
81944	0.21	0.09	0.94		25	0.48	1000
81945	7.87	1.018	4.36		395	1.04	933
81946	0.55	0.58	0.42		110	1.53	954
81947	0.65	0.65	0.40	0.01	99	1.52	930

AVERAGE GRADE

CORE LENGTH (m)	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/Pb	Pb/Zn	RECOV. %
1.04	7.87	1.018	4.36		0.012	0.77	2.33	933

PROFILE FROM THOMSON & ILSE TOPO.

1700 EL

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH – metres)

ASSAY SEQUENCE: SAMPLE No. | Ag (oz./ton) | Pb % * | Zn % * | Au PPB * | Cu (%) * Where Applicable | CORE LENGTH * | RECOVERY *

AVERAGE GRADE: HORIZ. WIDTH * | Ag (oz./ton) * | Pb % * | Zn % * | Au (oz./ton) * | Ag/Pb * | Pb/Zn * | RECOVERY %

* Cu (%) Where Applicable

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Cu (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
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inches / centimetres

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YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 80 75 100 FEET

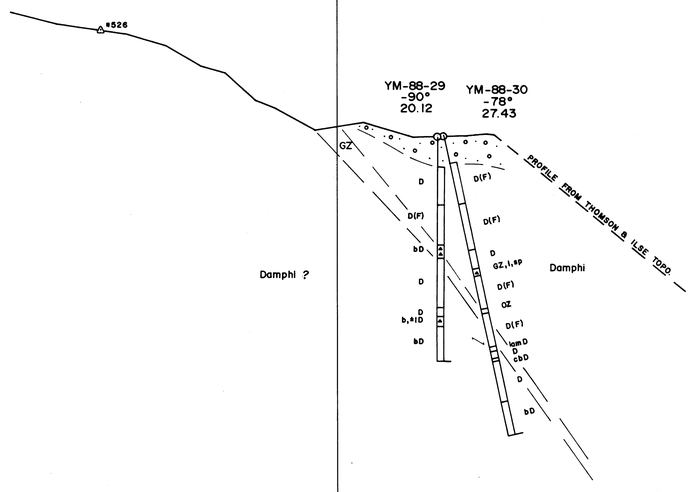
LUCKY ZONE
VERTICAL CROSS SECTION - 1+00'N ASSAY
LOOKING N 38° W

DATE: DECEMBER 21, 1988 | TECH.: B.F. | DWG. No. LS-A3
DRAWN BY: POLARIS CONSULTING , J.B.

REFERENCE LINE

1750 EL

1700 EL



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/– SPHALERITE +/– TETRAHEDRITE IN BRECCIA
- ● GALENA +/– SPHALERITE +/– TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/– SPHALERITE +/– TETRAHEDRITE – MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/– tetrahedrite +/– sphalerite +/– chalcopyrite +/– pyrite +/– scorodite +/– malachite +/– azurite +/– quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/– massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/– sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/– galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT – OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Ds(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Damphi Amphipora +/– stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sacrotic
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- OSsl Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uEDslv Grey – buff calcareous phyllite; thinly laminated
- uEOb Dark green mafic flow or sill

EARLY CAMBRIAN
- lEcsl Grey calcareous mica schist and marble

(modified after Templeman–Kluit, 1977)

NOTE:
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Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

LUCKY ZONE
VERTICAL CROSS SECTION - 1+10N GEOLOGY
LOOKING N38°W

DATE: DECEMBER 21, 1988 | TECH.: B.F.
DRAWN BY: POLARIS CONSULTING , J.B.
DWG. No. LS-G4

REFERENCE LINE

1750 EL

1700 EL

AVERAGE SURFACE GRADE

WIDTH (m)	Ag oz/ton	Pb %	Zn %	Cu %	Au ppb	Ag/Pb	Pb/Zn
2.45	1.57	0.85	3.64	0.08	0.010	1.85	0.23

#526

1+10

YM-88-29
-90°
20.12

YM-88-30
-75°
27.43

1+10

Ag oz/ton	2.10	0.90	0.22
Pb %	1.41	0.53	0.15
Zn %	1.42	4.45	0.56
Cu %	0.04	0.53	0.01
Au ppb			
SAMPLE WIDTH (m)	1.00	1.45	0.90
SAMPLE No.	77017	77016	77015

SAMPLE No.	Ag oz/ton	Pb %	Zn %	Cu %	Au ppb	CORE LENGTH (m)	CORE RECOV. %
18938	0.04	0.03	0.17	<0.01	18	1.21	74.4
81983	0.04	0.03	0.43	<0.01	21	0.71	88.7
81984	0.01	0.02	0.14	<0.01	5	0.91	78.1

SAMPLE No.	Ag oz/ton	Pb %	Zn %	Cu %	Au ppb	CORE LENGTH (m)	CORE RECOV. %
18936	<0.01	<0.01	0.01	<0.01	18	0.86	94.2
81989	1.37	0.94	1.22	<0.01	39	0.85	90.9
18937	0.01	<0.01	0.01	<0.01	19	1.53	98.0
81990	0.02	0.02	0.04	<0.01	17	0.72	93.5
81991	2.74	0.82	2.58	0.09	2095	0.40	70.5
81992	0.23	0.12	1.04	0.01	105	1.15	90.2
81993	0.50	0.30	1.57	0.01	52	0.30	10.00
81994	0.44	0.26	0.70	0.01	63	0.69	84.6
81995	0.21	0.17	1.07	<0.01	47	0.69	82.6
81996	0.17	0.05	3.35	0.02	12	0.67	88.1

AVERAGE GRADE

CORE LENGTH (m)	Ag oz/ton	Pb %	Zn %	Cu %	Au oz/ton	Ag/Pb	Pb/Zn	RECOV. %
1.52	0.89	0.32	1.45	0.03	0.030	2.78	0.22	84.9

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH – metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au ppb | Cu (%) Where Applicable | CORE LENGTH | CORE RECOVERY %

AVERAGE GRADE

HORIZ. WIDTH " | Ag (oz./ton) " | Pb % " | Zn % " | Au (oz./ton) " | Ag/Pb " | Pb/Zn " | RECOVERY %

" Cu (%) Where Applicable

LEGEND

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Cu (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
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inches
centimetres
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YUKON MINERALS – PERREX J.V.

KETZA PROJECT
GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

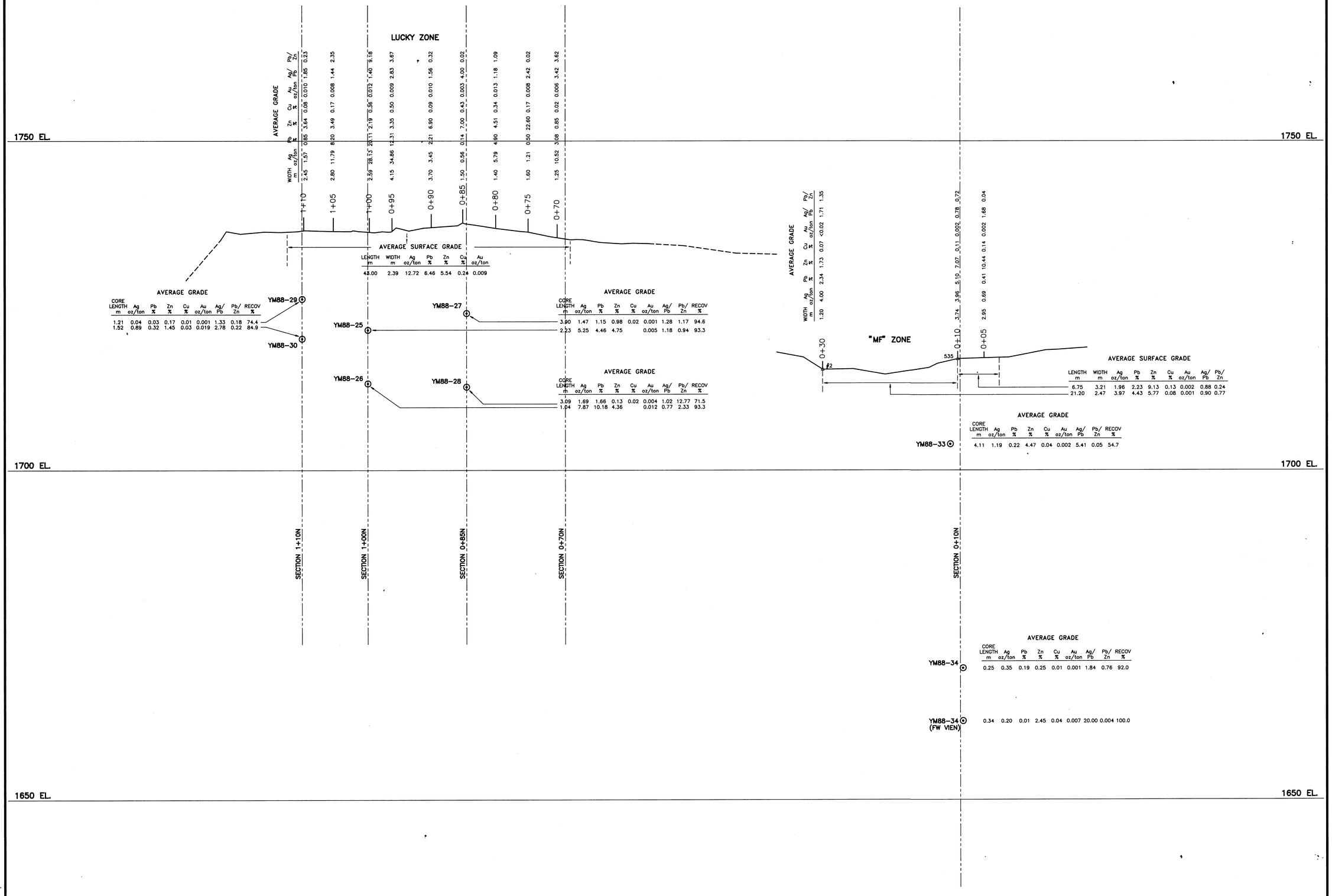
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

LUCKY ZONE
VERTICAL CROSS SECTION - 1+10N ASSAY
LOOKING N38°W

DATE: DECEMBER 21, 1988 | TECH.: B. F.
DRAWN BY: POLARIS CONSULTING, J.B.

DWG. No. LS-A4



REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH – metres)

ASSAY SEQUENCE: Ag (oz./ton), Pb %, Zn %, Au (oz./ton), Cu (ppm) Where Applicable, Au ppb, CORE RECOVERY %, CORE LENGTH

AVERAGE GRADE: HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL DATED 31 DECEMBER 1988

NOTE:
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inches / centimetres
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YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250
METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

LUCKY & MF ZONE
LONGITUDINAL (ASSAY) SECTION LOOKING N 52° E

DATE: DECEMBER 31, 1988 | TECH.: B.P.F / R.H. | DWG. No. LL-A1
DRAWN BY: NEW CONCEPT DRAFTING LTD.

REVISIONS

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

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(F)	FOSSILIFEROUS
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l	LIMONITE
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MINERALIZATION

- GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

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SILURIAN, EARLY AND MIDDLE DEVONIAN
- Dd(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Damphl Amphipora +/- stromatoporoid dolostone
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- Ds Silicified dolostone, fine grained, sericitic
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- OSsl Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uEOslv Grey - buff calcareous phyllite; thinly laminated
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EARLY CAMBRIAN
- lECal Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

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TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL DATED 31 DECEMBER 1988

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

LUCKY - MF - ZONES
LONGITUDINAL RESERVES SECTION LOOKING N 52° E

DATE: DECEMBER 31, 1988 | TECH.: B.P.F. / R.H.
DRAWN BY: NEW CONCEPT DRAFTING LTD.
DWG. No. LL-R1