

Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources

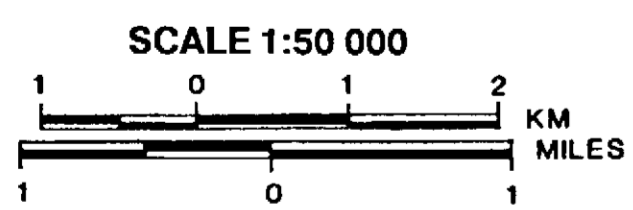
MINERAL RESOURCES DIVISION
GEOLOGICAL SURVEY BRANCH

OPEN FILE 1989-11 (SHEET 1 OF 2)

GEOLOGY OF THE NELSON MAP AREA, SOUTHEASTERN BRITISH COLUMBIA

NTS 082F/06

TRYGVE HØY AND KATHRYN ANDREW



LEGEND

CENOZOIC

QUATERNARY

Qal UNCONSOLIDATED DEPOSITS: TILL, SAND, GRAVEL, SILT

TERTIARY OR OLDER (?)

KTD DIORITE DYKES
KTR RHYOLITE DYKES

MIDDLE EOCENE

Ec CORVALL INTRUSIONS: BIOTITE MONZONITE, BIOTITE-ALBITE MONZONITE

MESOZOIC

JURASSIC

Jn NELSON INTRUSIONS: Jn1, GRANODIORITE, QUARTZ MONZONITE; Jn2, DIORITE PORPHYRY; Jn3, BRECCIA

Jp PSEUDODIORITE, PYROXENITE

LOWER AND MIDDLE (?) JURASSIC

INTRUSIVE UNITS

Jm1 SILVER KING INTRUSIONS: PLAGIOCLASE PORPHYRY; LOCALLY INTENSELY SHEARED
Jmm MAMMOTH INTRUSIONS: PLAGIOCLASE-AUGITE PORPHYRY/DIORITE (?)
Jd1 FINE TO COARSE, GRANULAR DIORITE

ROSSLAND GROUP

Jh HALL FORMATION: SILTSTONE, SANDSTONE, CONGLOMERATE, ARGILLITE, MINOR LIMY UNITS

CONGLOMERATE BED

Je ELISE FORMATION: MAPS TO INTERMEDIATE FLOWS, TUFFS, EPICLASTIC DEPOSITS AND SUBVOLCANIC INTRUSIONS

UPPER ELISE FORMATION

epiclastic units

Je11 TUFFACEOUS CONGLOMERATE: Jn11c, PREDOMINANTLY INTERMEDIATE TO FELSIC VOLCANIC CLASTS; Jn11b, MEDIUM TO FINE FELSIC CLASTS; Jn11a, PREDOMINANTLY MAFIC VOLCANIC CLASTS

Je10 TUFFACEOUS SILTSTONE, SANDSTONE: Jn10a, ARGILLACEOUS SILTSTONE

pyroclastic units

Je5 ANDESITE TUFF, MINOR BASALTIC TUFF: Jn5, LAPILLI TUFF WITH PLAGIOCLASE V- AUGITE-BEARING VOLCANIC CLASTS; Jn5b, PLAGIOCLASE V- AUGITE CRYSTAL TUFF

Je7 BASALTIC TUFF: Jn7, MAFIC, FINE TUFF

flow units

Je6 QUARTZ-EYE RHYOLITE, DACITE

Je5 PLAGIOCLASE V- AMPHIBOLE, ALBITE-ANDESITE

Je4 AUGITE V- PLAGIOCLASE BASALT FLOWS, FLOW BRECCIAS

LOWER AND UPPER ELISE FORMATION (MIDDAY PEAK AREA)

pyroclastic units

Je3 BASALTIC TO ANDESITIC LAPILLI CRYSTAL AND FINE TUFF; REMOVED PYROCLASTIC DEPOSITS; BASE SURGE DEPOSITS (?)

Je2 BASALTIC LAPILLI TUFF WITH AUGITE V- PLAGIOCLASE BEARING VOLCANIC CLASTS

LOWER ELISE FORMATION

Je1 AUGITE V- PLAGIOCLASE BASALT FLOWS, FLOW BRECCIAS, SUBVOLCANIC INTRUSIONS

Ja ARCHBOLD FORMATION: SILTSTONE, SANDSTONE, ARGILLITE, COMMONLY RUSTY WEATHERING

Jbv BASALT, ANDESITE FLOWS; LAPILLI TUFF

YMR GROUP

Jy YMR GROUP: ARGILLITE, SILTSTONE, GRIT, IMPURE LIMESTONE, MINOR CHESTNUT WACKES, GENERALLY RUSTY WEATHERING

PALEOZOIC

LOWER AND (?) MIDDLE ORDOVICIAN

Oa ACTIVE FORMATION: BLACK ARGILLITE, SLATE, QUARTZITE

CAMBRIAN

MIDDLE CAMBRIAN

mEn HELWAY FORMATION: BLACK LIMESTONE, CALCAREOUS ARGILLITE, SLATE, AND PHYLITE

LOWER CAMBRIAN

IC QUARTZITE, SCHIST, ARGILLITE, SLATE, LIMESTONE, MINOR IGNEOUS MEMBERS

IC1 LAB FORMATION: PHYLITE, ARGILLITE, SCHIST, MICACEOUS QUARTZITE, MINOR LIMESTONE

ICr REND FORMATION: ARGILLACEOUS QUARTZITE, ARGILLITE, MICACEOUS SCHIST

ICqr QUARTZITE RANGE FORMATION: WHITE, GREEN, AND PINKISH QUARTZITE; MINOR SCHIST

PRECAMBRIAN

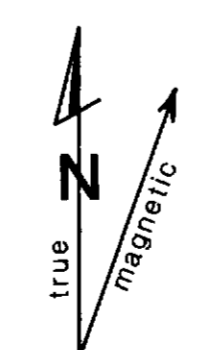
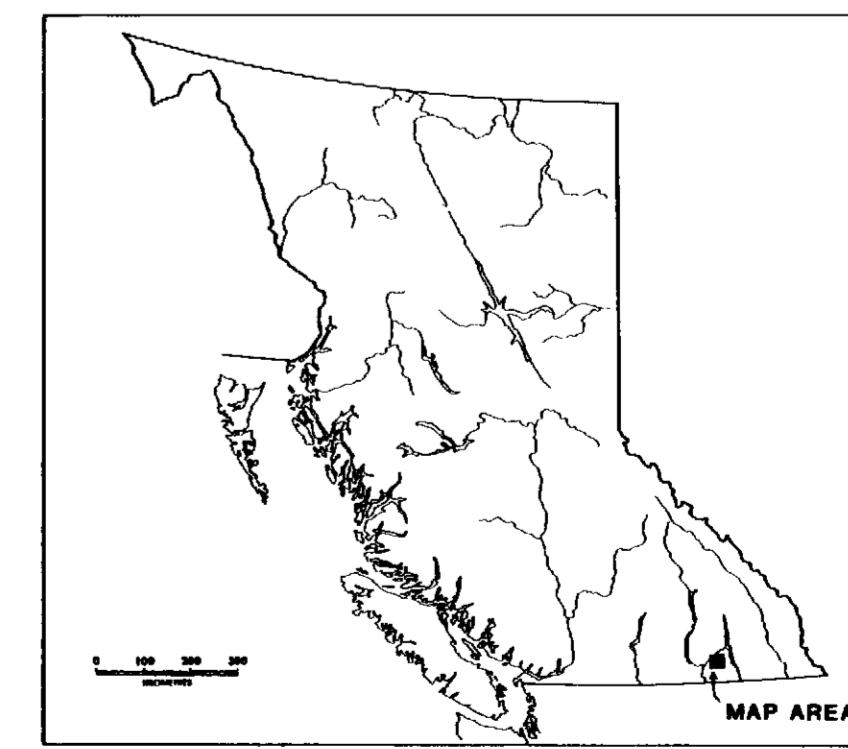
WINDERMERE (?)

Wts THREE SISTERS FORMATION: GREEN AND GREY GRIT AND QUARTZITE; MINOR SCHIST AND LIMESTONE

SYMBOLS

- Limit of mapping, exposure
- Geological contact: (defined, approximate, assumed)
- Fault: (defined, approximate, assumed)
- Fault, thrust
- Fault, normal
- Anticline: (defined, approximate, assumed)
- Anticline, overturned
- Syncline: (defined, approximate, assumed)
- Syncline, overturned
- Bedding: (inclined, vertical, overturned, top unknown)
- Cleavage, foliation
- Lamination
- Mineral deposit, occurrence: (see table for symbols)
- Fossil locality (GSC)

(100 FOOT CONTOUR INTERVAL)



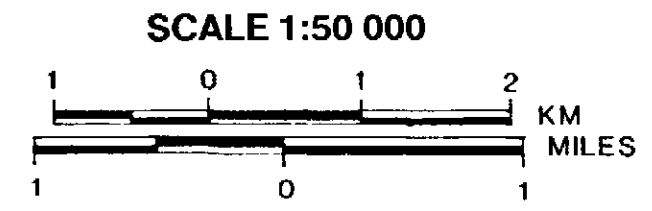
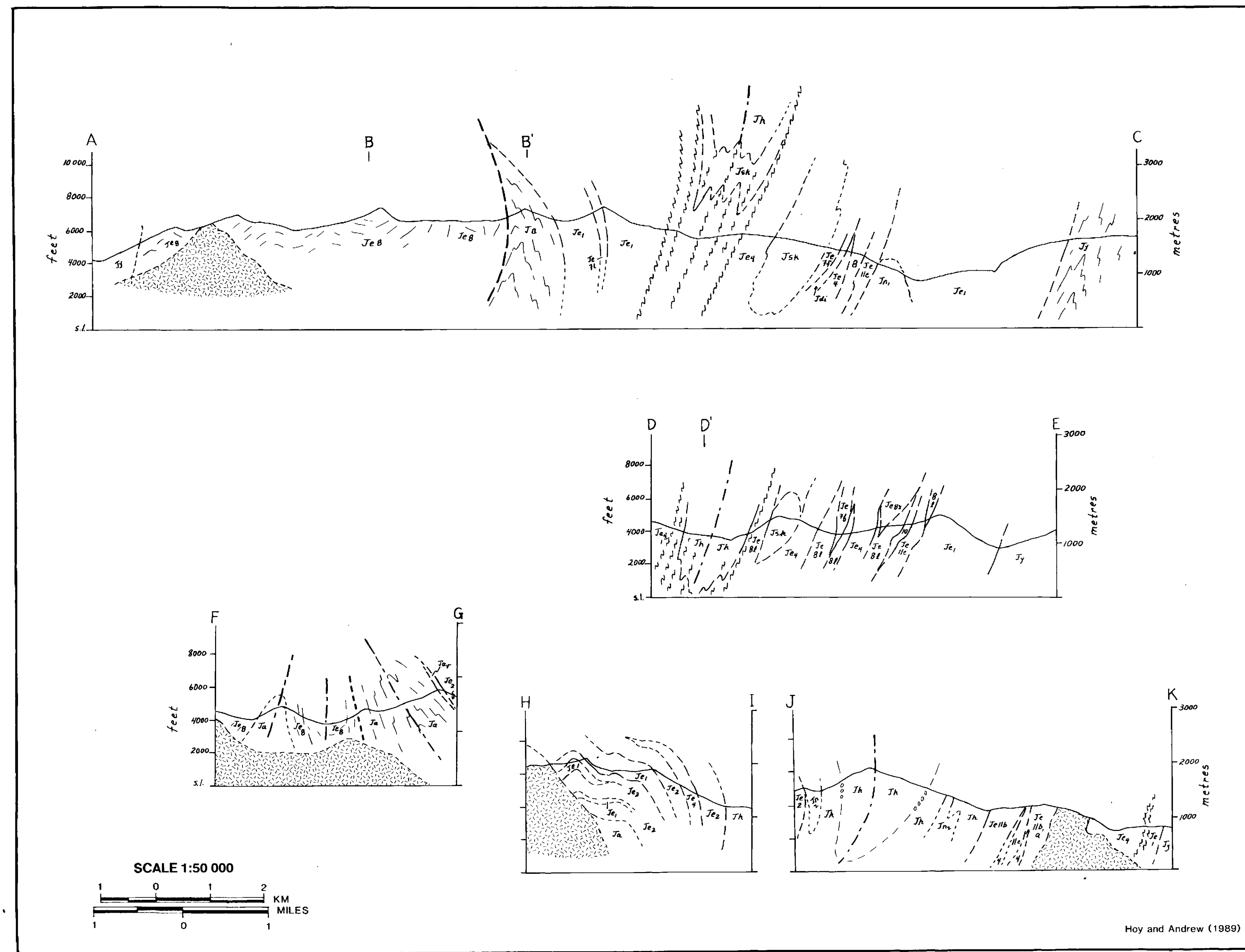
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 TRYGVE HÖY AND KATHRYN ANDREW

MINERAL OCCURRENCES IN THE NELSON AREA

NAME	MINFILE NO. (82F/SW)	COMMODITIES	* STATUS
Porcupine	63	Au,Ag,Pb,Zn,Sn	1
Nevada	64	Au,Ag,Pb,Zn	1
Anne	65	Pb,Zn,Au	2
Centre Star	66	Au,Pb,Zn,Ag	2
Dundee	67	Au,Ag,Pb,Zn	1
Yankee Girl	68	Au,Ag,Pb,Zn	1
Two Star	69	Au,Pb,Zn	2
May Blossom	70	Pb,Zn,Au,Mo	2
Tamarac	72	Au	4
Protection	73	Au,Ag,Pb,Zn	1
Ymir	74	Au,Ag,Pb,Zn	1
Good Hope	75	Au,Zn,Ag,Cd	1
Blackcock	76	Au,Ag,Pb,Zn	1
Wilcox	77	Au,Ag,Pb,Zn	1
Foghorn	78	Au,Pb	3
Gold Cup	79	Au,Ag,Cu	1
Dumas	80	Au,Ag,Pb,Zn	4
Old Timer	81	Au,Ag	4
Queen Victoria	82	Cu,Ag,Au	1
Star	83	Au,Cu,Ag	1
Eureka	84	Cu,Au,Ag	1
Central	85	Cu,Au,Ag	1
Granite-Poorman	86	Au,Ag,Cu,Pb,Zn,W	1
Verango	87	Au,Ag,W,Pb,Zn	1
Royal Canadian	88	Au,Ag,W	1
Good Hope	89	Au,Ag,Cu	1
Miracle	90	Au,Ag	1
91	91	Au	1
May and Jennie	92	Au,Ag,Cu	1
Gold Hill	92	Au,Ag,Cu	1
Venus and Juno	166	Au,Ag,(Pb,Zn)	1
Athabasca	168	Au,Ag,(Pb,Zn)	1
California	169	Au,Ag,(Pb,Zn)	1
Shamrock	170	Au,Ag,(Pb,Zn)	1
Irene	171	Au,Ag,(Pb)	4
Great Eastern	172	Au,Ag	1
Victoria	173	Au,Ag,Cu,Pb	1
Starlight	174	Au,Ag,Cu	4
Daylight	175	Au,Ag,Cu	1
Silver King	176	Au,Ag,Cu,Pb,Zn	1
Referendum	177	Au,Ag,Pb,Zn	1
Northern Light	178	Au,Ag,Cu	1
Golden Eagle	179	Au,Pb,Zn,Ag	3
Gold King	181	Cu,Au,Ag	1
Bear	182	Au,Ag	1
Fern	183	Au,Ag,Cu	1
Canadian Belle	184	Au,Ag	1
Golden Age	185	Au,Ag,W,Pb,Zn	1
Euphrates	186	Au,Ag,Pb,Zn	1
Second Relief	187	Au,Ag,Pb,Zn,Mo,Cu	1
Harriet	188	Au,Ag	4
Porto Rico	189	Au,Ag,Cu,Pb,Zn	1
Spotted Horse	190	Au,Ag	1
Commodore	191	Au,Ag	1
Elise	192	Au,Ag,Pb,Zn	4
Arizona	193	Au	1
Ymir Belle	194	Au,Pb,Zn,Ag	4
Pilot-Good Hope	196	Au,Ag,Pb	1
Myrtle	197	Au,Ag,Pb,Zn	2
Dewey	198	Ag,Au,Pb,Zn	1
Perrier	208	Au,Ag,Pb,Zn,Cu	1
Catherine	209	Au,Ag,Pb,Zn	1
Hummingbird	210	Au,Ag,Pb,Zn	4
Mammoth	211	Mo,Cu,Ag,Au	4
Crab Lummon	213	Pb,Zn,Cu,Ag,Au,W,Mo	4
Rand	216	Au	4
Whitewater	222	Au,Ag	1
Hattie	226	Mo,W,Cu,Ag	4
Rex	227	Cu	4
Stewart	229	Mo,W,Au	2
Silver 1	230	Ag,Pb,Zn	4
Silver 5	231	Ag,Pb,Zn	4
Hungaryman	235	Au,Cu	4
Kena	237	Cu,Au	4
Atlin-Nome	239	Au	4
Paradise	248	Au,Ag,Cu	4
Bobbi	250	Mo,W	2
Fresno	251	Mo	4
Jackpot	254	Cu,Ag,Au	4
Accorn	269	W,Au	4
Lucky-Bill-Tag	270	U	4
Josie	274	Cu	4
North Star	276	Au	3
Free Silver	277	Pb,Ag	4
Shiloh	281	Au,Zn,Pb	4
Monarch	282	Cu,Ag	3
New York Central	284	Au	4
Nelson	294	granite	4
Nelson Clay	296	clay	1
Ymir Pulaskite	297	dimension stone	4
Rachel	299	Au,Ag,Pb	1
Ben Hassen	300	Ag,Pb,Zn,Au,Cu	4
Arnold	301	Pb,Zn,Ag,Au,Cu	4
Reah	302	Au,Ag	4
Root	303	Au,Pb,Ag	4
Laska 1	304	Au,Ag,Pb,Zn	4
Flying Dutchman	308	Au,Ag,Cu,(Pb)	4
Star of the West	309	Ag,Pb,Zn	4
Arrow Tungsten	311	W,Mo	3
Summit	313	Au,Ag,Mn,(Pb,Zn)	4
Pingree	314	Au,Cu	4
Bluebird	316	Au,Ag	4
Sterling	317	Au,Pb,Zn	4
Laska 2	318	Au,Ag,Pb,Zn	4
Laska 3	319	Au,Ag,Pb	4
Tec Gold	324	Au,Cu	4
Belle	328	Mo	4
Shalt	331	Au,Cu	4
Copper Zone	332	Cu	4
Great Western Gp	333	Au,Cu	4
Jennie Bell	334	Au,Ag,Pb	1
Canadian Pacific	335	Ag,Au,Pb,Zn	3
Three Friends	336	Au,Ag,Cu	3

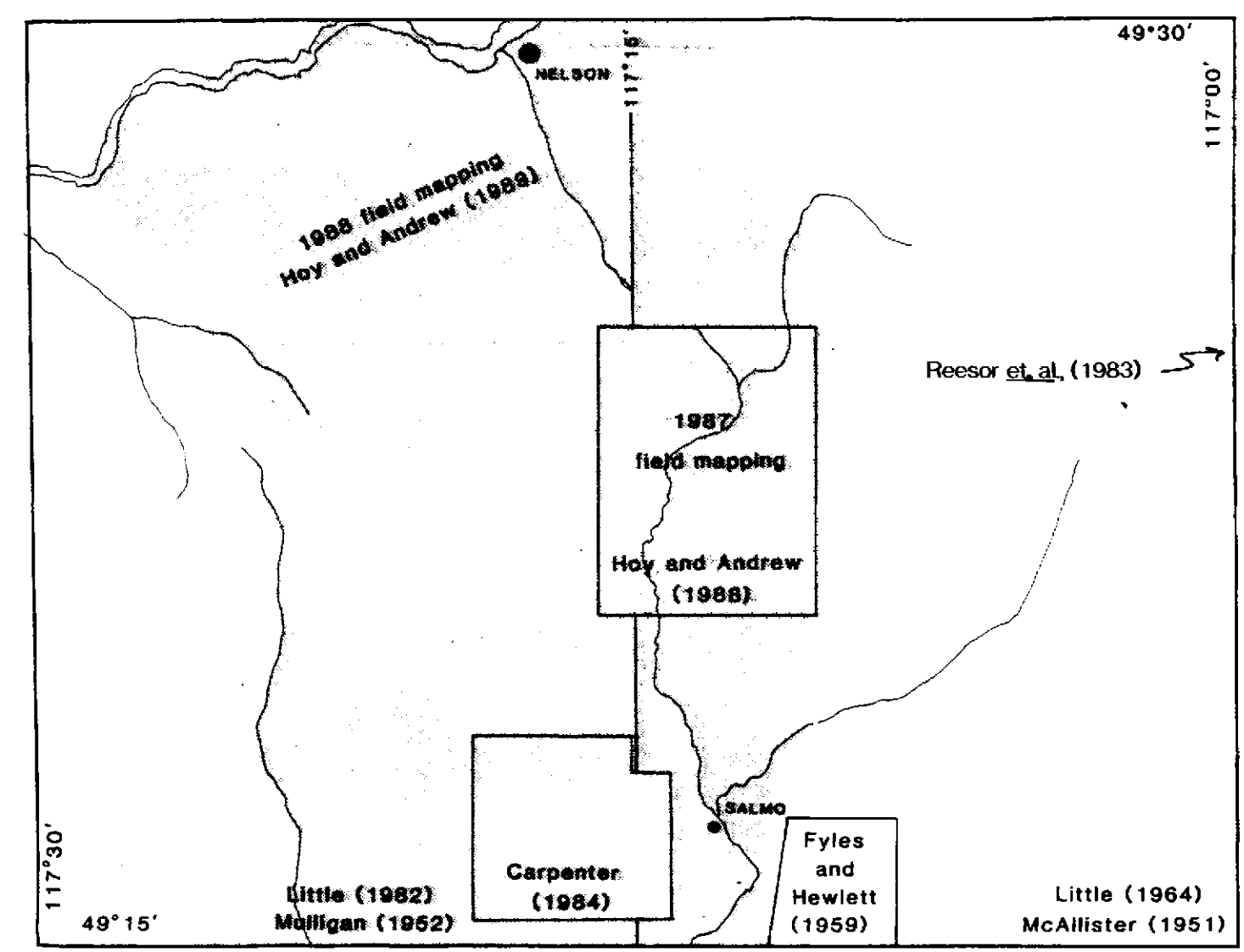
* 1 - past producer, 2 - developed prospect, 3 - prospect, 4 - showing



Hoy and Andrew (1989)

VERTICAL CROSS SECTIONS - NELSON MAP AREA

RECENT MAPPING AND SOURCES OF DATA



MINERAL OCCURRENCE SYMBOLS

POPHYRY/BRECCIA	VEIN OCCURRENCES	CONFORMABLE GOLD
□ Mo/Cu	● Au-Ag-Cu	▲ CONFORMABLE GOLD
SKARNS	○ Ag-Au-Pb-Zn	
◆ Au-Cu	● Au-Ag	× OTHER
◇ Cu-Au	STRATIFORM SULPHIDE	
◇ Mo-W	△ Pb-Zn-Ag	

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