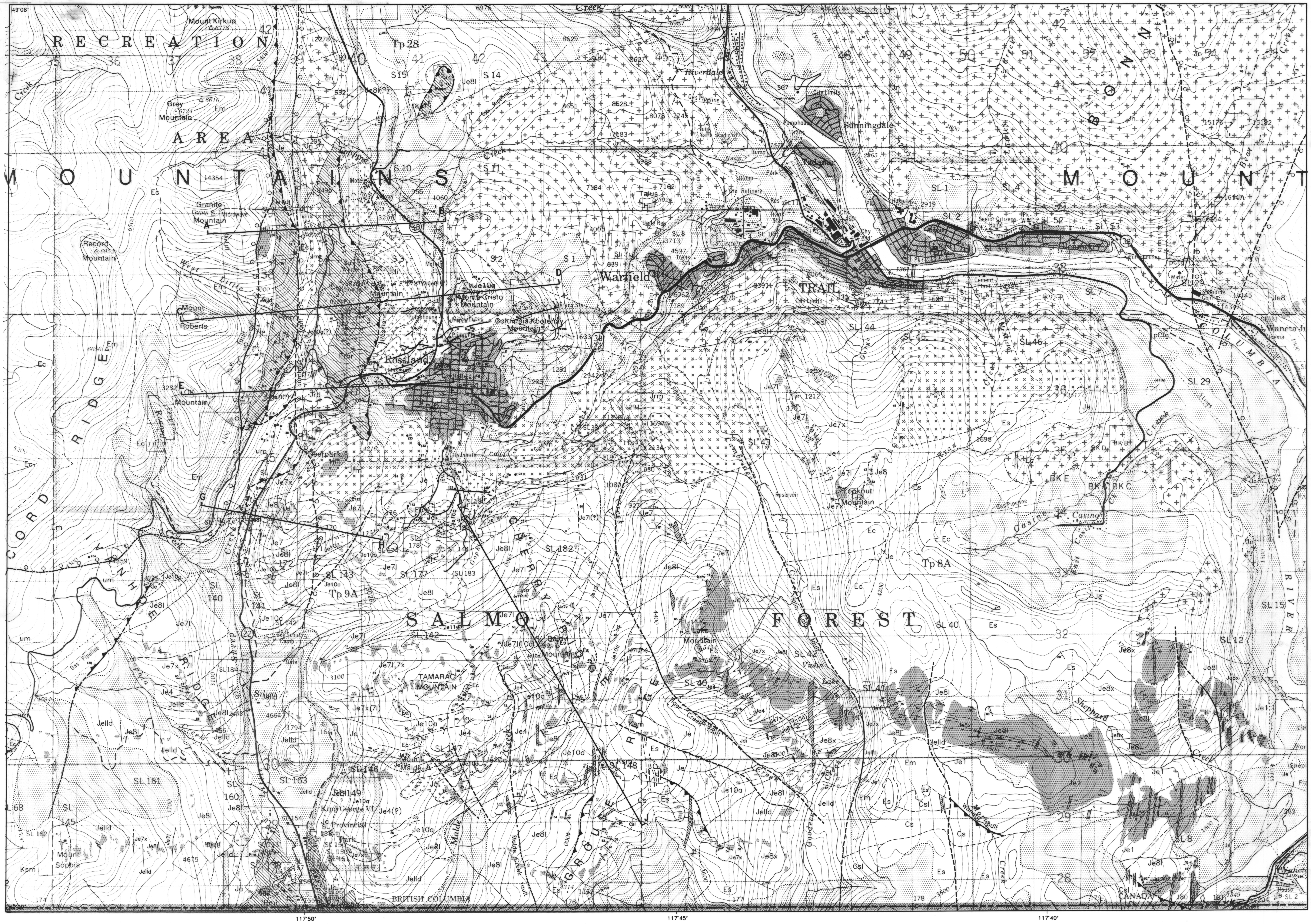


LEGEND

QUATERNARY

- ░ alluvium

TERTIARY

MIDDLE EOCENE

- Ec — CORYELL INTRUSIONS: syenite, quartz monzonite
- Es ▨ — SHEPPARD INTRUSIONS: granite, rhyolite dykes
- Em — MARRON FORMATION: andesite flows; minor lapilli tuff, tuffaceous sandstone and tuffaceous conglomerate

MESOZOIC

UPPER CRETACEOUS

- Ksm — SOPHIE MTN FORMATION: coarse conglomerate with quartzite and/or siltstone clasts, minor argillite

JURASSIC

- Jn — NELSON INTRUSIONS: granite, granodiorite
- Jrd — RAINY DAY INTRUSION: quartz diorite

LOWER AND MIDDLE (?) JURASSIC

intrusive units

- Jrm — ROSSLAND MONZONITE: biotite/biotite–augite monzonite
- Jdi — diorite

ROSSLAND GROUP

- Je — ELISE FORMATION
- Je11 — tuffaceous conglomerate: Jelld, abundant limestone clasts; Jelle, siltstone and mafic volcanic clasts:
- Je10a — argillaceous siltstone
- Je8 — andesite tuff, minor basaltic tuff: Je8l , lapilli tuff with plagioclase ± augite–bearing volcanic clasts; Je8x , plagioclase ± augite crystal tuff
- Je7 — basaltic tuff: Je7l, augite–phyric lapilli tuff, pyroclastic breccia; Je7x, mafic crystal tuff
- Je4 — augite ± plagioclase basalt flows, flow breccias

LOWER ELISE FORMATION

- Je1 — augite ± plagioclase basalt flows, flow breccias
- Ja — ARCHIBALD FORMATION: argillite, minor siltstone and conglomerate

AGE UNKNOWN

- um — ULTRAMAFIC ROCKS: serpentinite, minor dunite

PALEOZOIC

PENNSYLVANIAN–PERMIAN

- Pmr — MOUNT ROBERTS FORMATION: siliceous siltstone, argillite, silty chert; minor sandstone: ls, limestone or dolomite

CARBONIFEROUS

- Cs — argillite, silty argillite, siltstone: Csl, limestone

PALEOZOIC – TERTIARY

- pCtg — TRAIL GNEISS: amphibolite and biotite gneiss, hornblende gneiss, minor schist, pegmatite and aplite

Key to mineral occurrences

- ● Au – Ag – Cu veins
- ○ Ag – Au – Pb – Zn veins
- ◒ ultramafic association
- □ porphyry
- ◇ skarn
- × others
- ⊗ Au ± Ag veins

Numbers are the last three characters of the minfile number.

SYMBOLS

- limit of exposures
- Geological contact (defined,approximate,assumed)
- Fault (defined,approximate,assumed)
- Fault; normal (late); thrust
- Unconformity
- Anticline (assumed)
- Veins
- Bedding (inclined,vertical,overturned tops unknown)
- Cleavage, foliation
- Lineation
- outcrop areas
- Intense hornfels/skarn alteration (around Red Mtn.)
- Dyke
- Fining direction

BC
Ministry of
Energy, Mines and
Petroleum Resources

Geological Survey Branch
OPEN FILE 1991–2

GEOLOGY OF THE ROSSLAND–TRAIL AREA, SOUTHEASTERN BRITISH COLUMBIA

NTS 082F/04

TRYGVE HOY AND KATHRYN P.E. ANDREW

SCALE 1:20,000

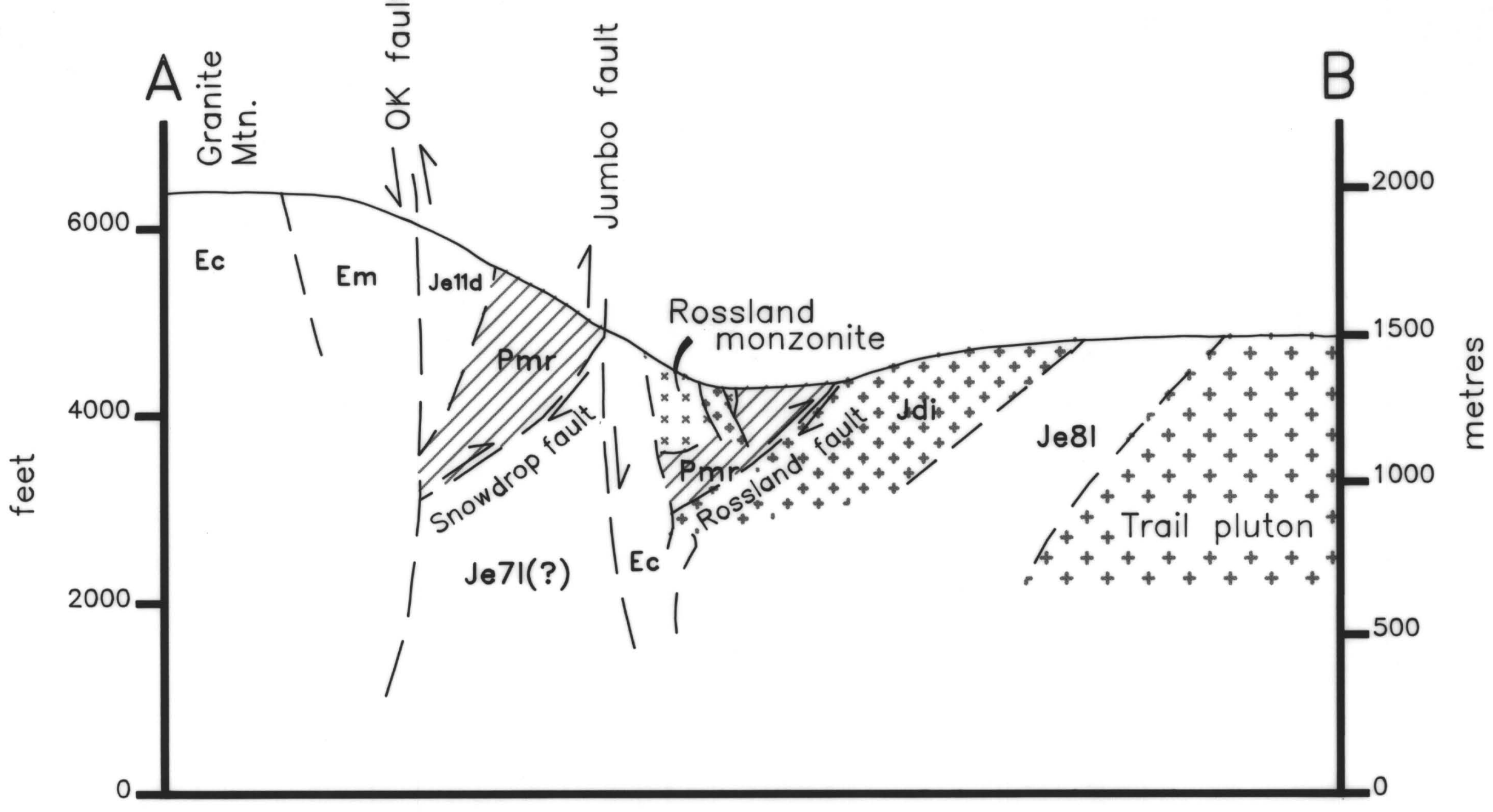
1000 metres 0 Kilometres 2

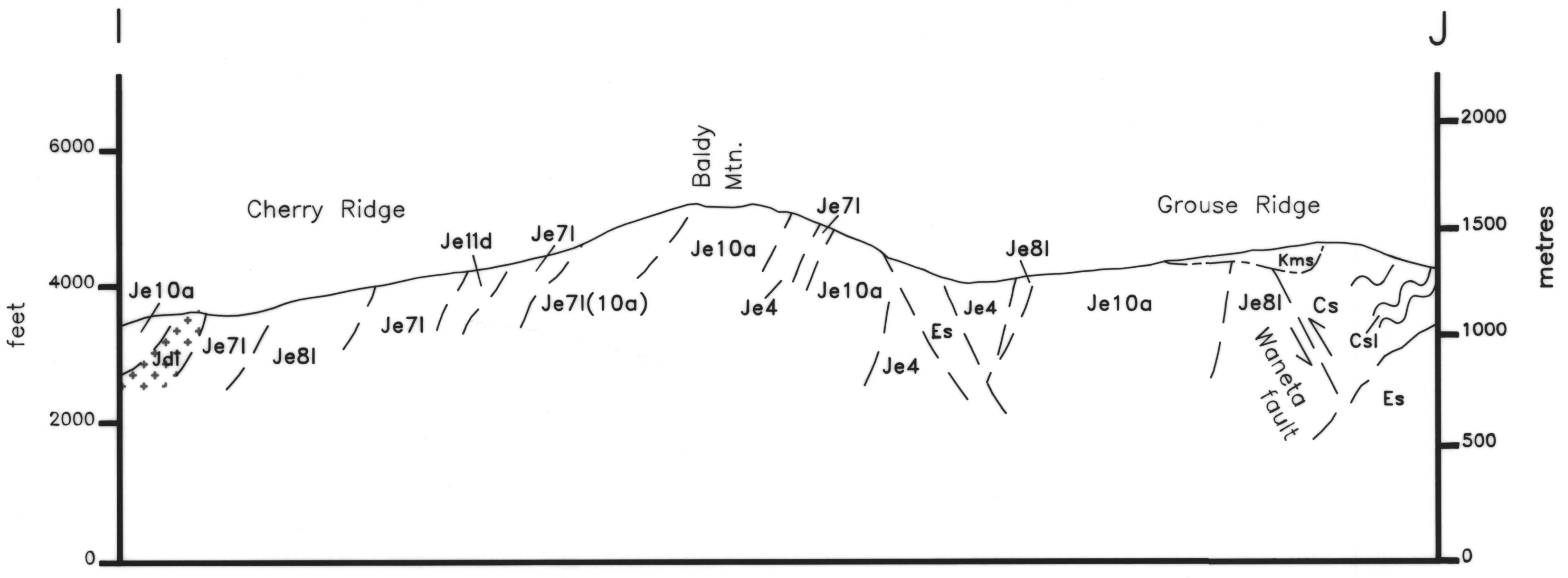
SOURCES OF DATA:

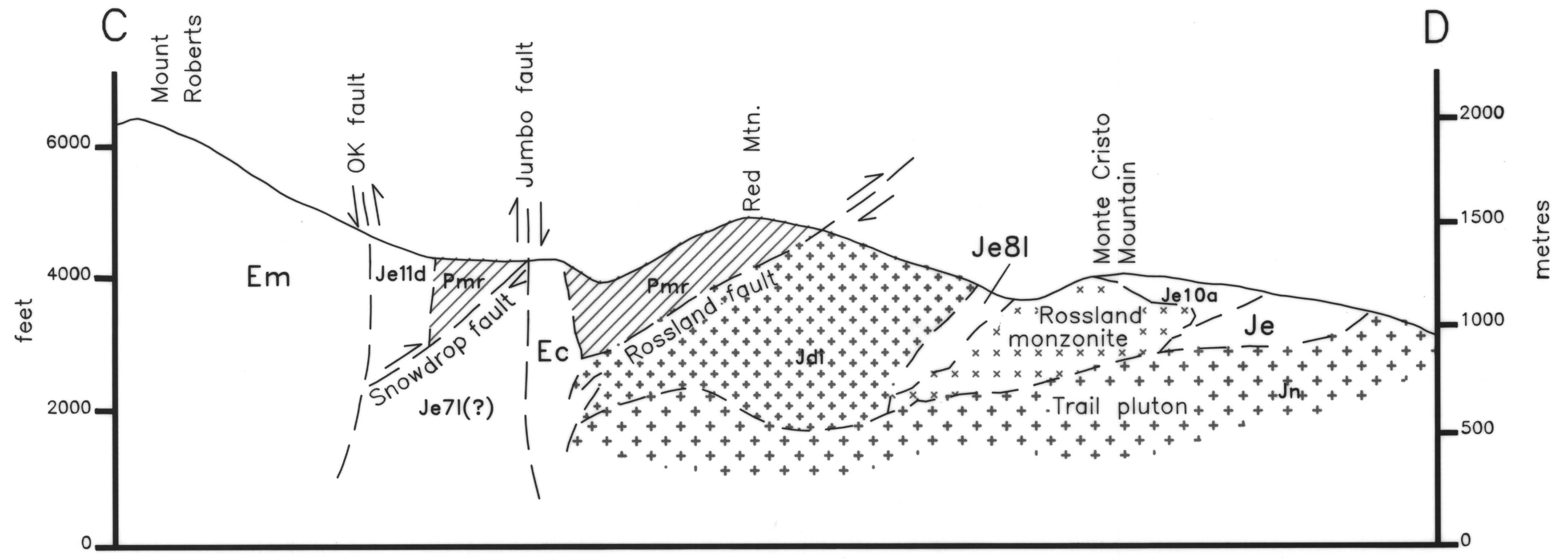
–fieldwork (1990), by T. Hoy, K.P.E. Andrew, and D. Lindsay; Fyles (1984); Little (1960, 1963, 1982); Drysdale (1915)

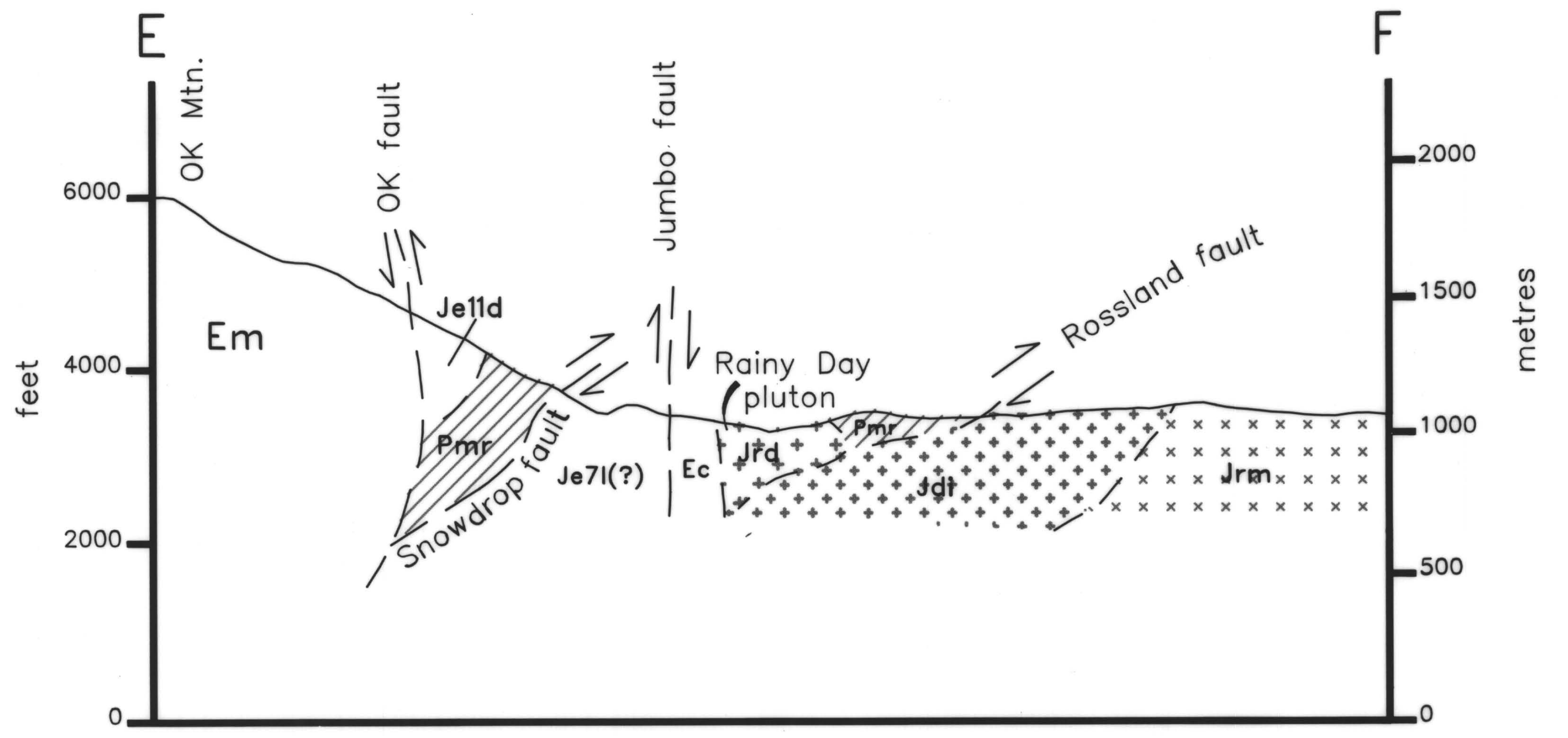
ACKNOWLEDGEMENTS:

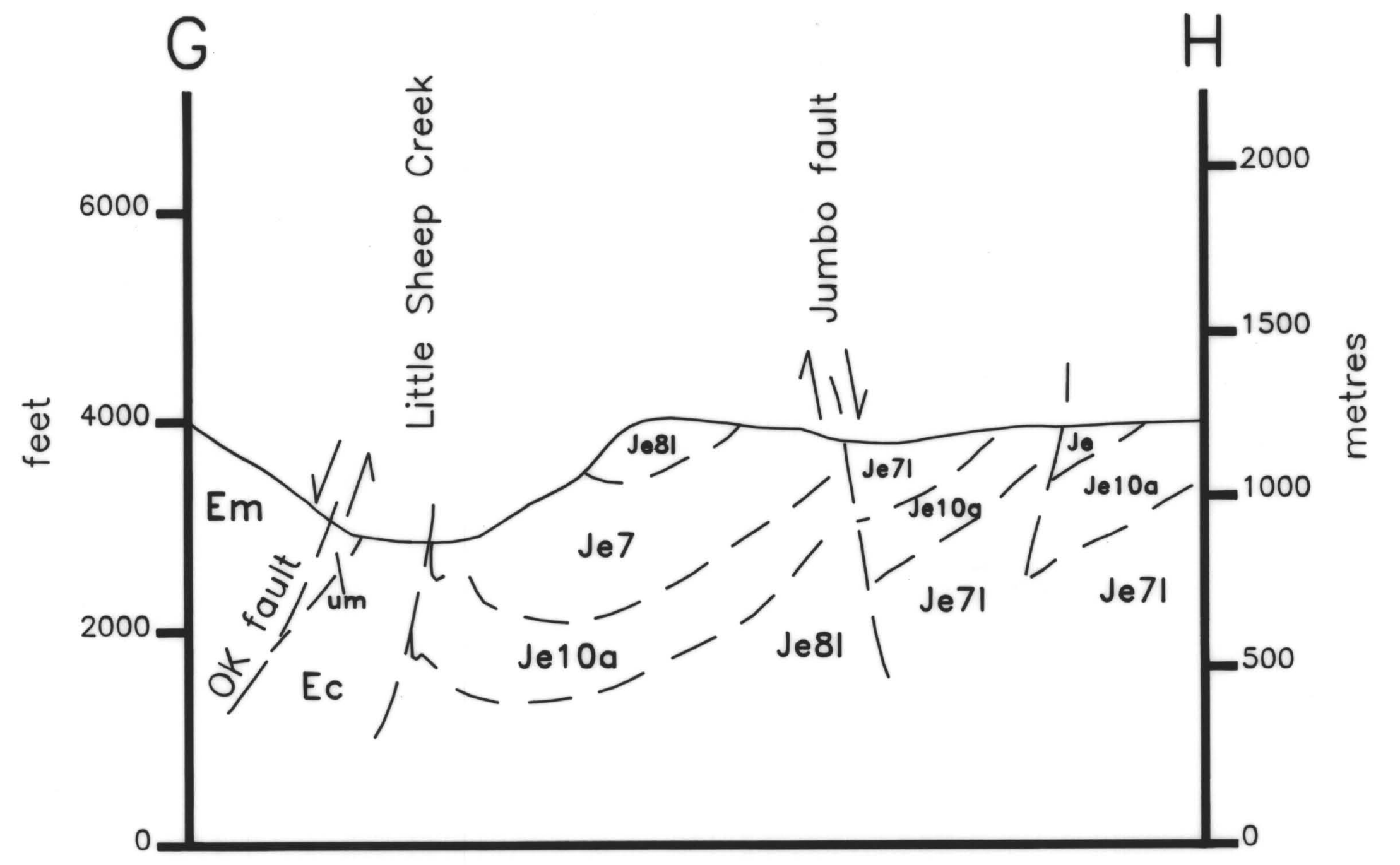
–field assistance by Darryl Lindsay, Heather Blyth, Helena Karam, and Eivin Hoy
–cartography by A.R. Pettipas











LEGEND

EOCENE
- Ec Coryell intrusions
- Em Marron Formation

LATE JURASSIC
- Jrd Rainy Day pluton
- Jn Trail pluton

MIDDLE JURASSIC (?)
- Jrm Rossland monzonite

LOWER JURASSIC
- Je Elise Formation
- Jdl Rossland sill

PALEOZOIC
- Pmr Mt. Roberts Formation
- Cs metasedimentary rock

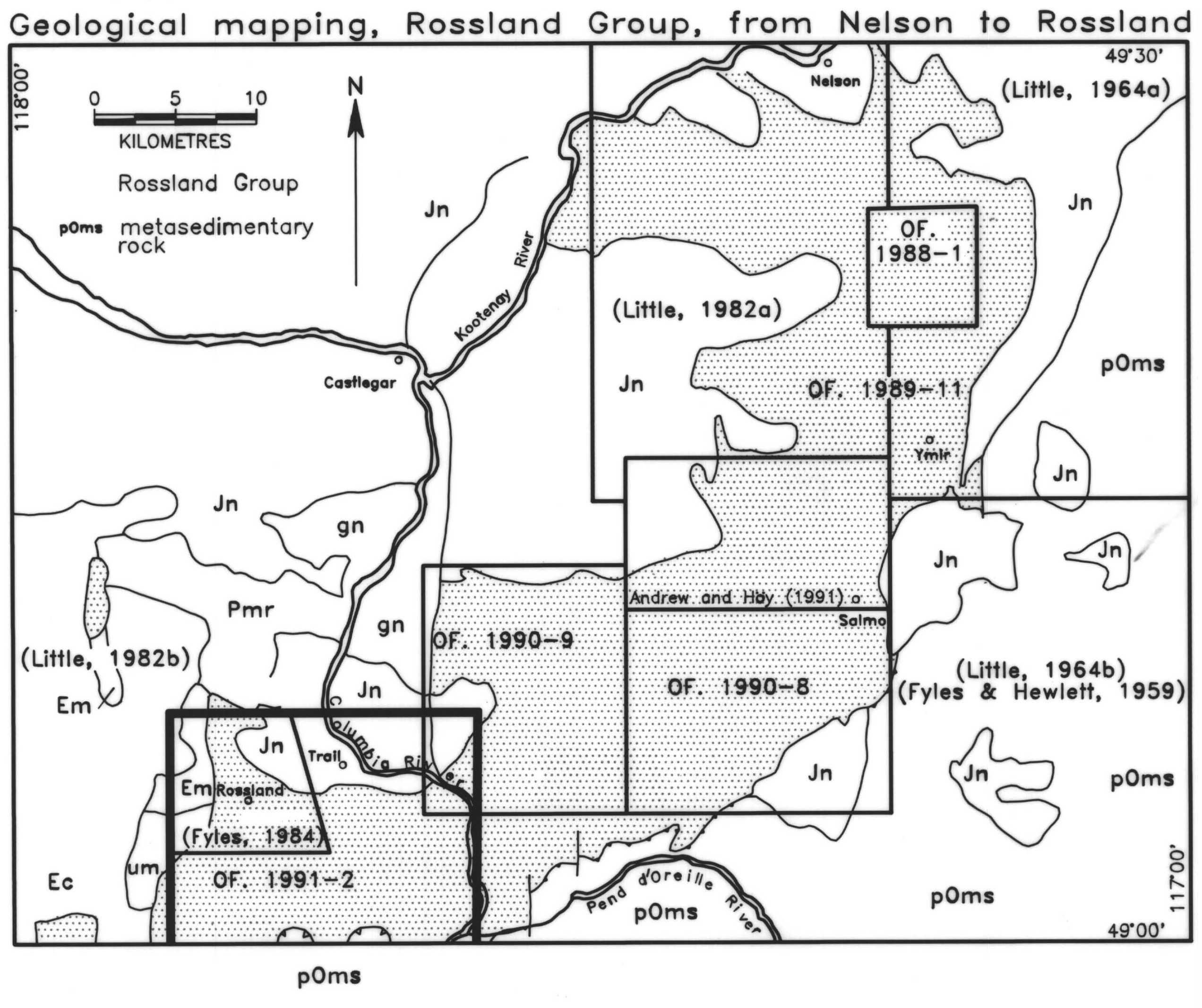
AGE UNKNOWN
- um ultramafic unit

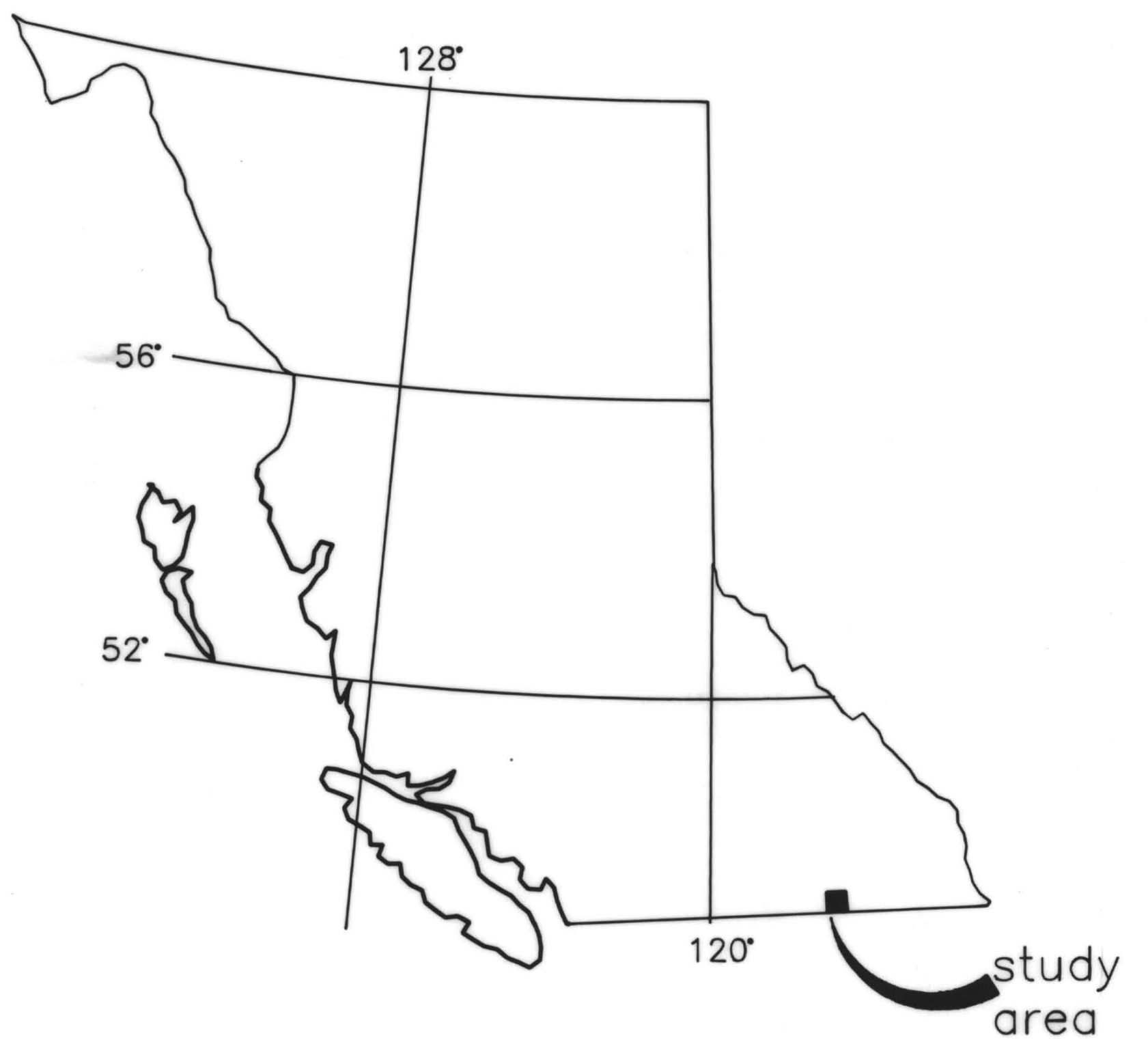
(see map for detailed legend)

MINERAL DEPOSIT TABLE

MINFILE No.	DEPOSIT NAME	COMMODITY	DEPOSIT TYPE	STATUS
082FSW093	LE ROI (L.240)	AU,AG,CU	Au–Ag–Cu veins	past producer
082FSW094	CENTRE STAR (L.588)	AU,AG,CU,MO	Au–Ag–Cu veins	past producer
082FSW095	NICKEL PLATE (L.537)	AU,AG,CU	Au–Ag–Cu veins	past producer
082FSW096	IRON MASK (L.688)	AU,CU,AG	Au–Ag–Cu veins	developed prospect
082FSW097	WAR EAGLE (L.680)	AU,AG,CU,MO,NI	vein/skarn (?)	past producer
082FSW098	VIRGINIA (L.681)	AU,AG,CU	Au–Ag–Cu veins	past producer
082FSW099	IRON HORSE (L.795)	AU,CU	Au–Ag–Cu veins	past producer
082FSW100	IRON COLT (L.796)	AU,AG,CU,CO	Au–Ag–Cu veins	past producer
082FSW101	MONTE CRISTO (L.802)	AU,CU,AG,NI,CO	Au–Ag–Cu veins	developed prospect
082FSW102	EVENING STAR (L.801)	AU,AG,CU,NI,CO,MO,BI	ultramafic association	past producer
082FSW103	CITY OF SPOKANE (L.804)	AU,CU	Au–Ag–Cu veins	showing
082FSW104	RED MOUNTAIN (L.1000)	AU,CU	Au–Ag–Cu veins	showing
082FSW105	BLACK BEAR (L.538)	AU,CU,AG	Au–Ag–Cu veins	past producer
082FSW106	GOLDEN QUEEN (L.944)	MO,WO,CU	porphyry/skarn	developed prospect
082FSW107	NOVELTY (L.958)	AU,MO,CO,UR,BI,AG	porphyry/skarn	developed prospect
082FSW108	GERTRUDE (L.690)	MO,CU,AU,AG,WO,ZN,BI	porphyry/skarn	showing
082FSW109	GIANT (L.997)	AU,MO,AG,CU,PB,ZN,CO	porphyry/skarn	past producer
082FSW110	COXEY	MO,CU,WO,AG,AU	porphyry/skarn	past producer
082FSW111	JUMBO (L.965)	AU,AG,MO,CU,BI	porphyry/skarn	past producer
082FSW112	GOLD HILL (L.640)	AG	Au ± Ag veins	past producer
082FSW113	CALIFORNIA (L.956)	AU,CU,AG,AS,MO	porphyry/skarn	past producer
082FSW114	WHITE BEAR (L.1149)	AU,CU,AG	Au–Ag–Cu veins	past producer
082FSW115	SNOWDROP	AU,AG,CU,PB	ultramafic association	past producer
082FSW116	I.X.L.	AU,AG,CU,PB,ZN,NI,AB	ultramafic association	past producer
082FSW117	O.K.	AU,AG,CU,PB	ultramafic association	past producer
082FSW118	GOLDEN DRIP (L.539)	AU,AG,PB,ZN,CU	ultramafic association	past producer
082FSW119	MIDNIGHT (L.1186)	AU,AG,PB,ZN,CU,NI,CR	ultramafic association	past producer
082FSW120	NORWAY	AG,AU	Au ± Ag veins	past producer
082FSW121	SPITZEE (L.2520)	AU,AG,CU,WO	Au–Ag–Cu veins	past producer
082FSW122	DEER PARK (L.932)	AU,CU,AG,MO,FE,WO	skarn	prospect
082FSW123	HOMESTAKE (L.936)	AG,AU,CU	Au–Ag–Cu veins	past producer
082FSW124	MONDAY (L.995)	AG,ZN,PB,CU	Ag–Au–Pb–Zn veins	past producer
082FSW125	GOPHER (L.1050)	CU,AU,AG,BI	Au–Ag–Cu veins	showing
082FSW126	TUESDAY (L.1278)	CU,AU,AG	Au–Ag–Cu veins	showing
082FSW127	SUNSET (L.954)	AU,AG,CU,FE	skarn	past producer
082FSW128	MAID OF ERIN (L.1293)	AG,CU,ZN,AU	Au–Ag–Cu veins	showing
082FSW129	MABEL (L.1202)	CU,AU,AG	Au–Ag–Cu veins	showing
082FSW130	VANDOT	CR,NI,PT,CO,TI,FE	ultramafic association	showing
082FSW131	ROBERT E. LEE (L.1292)	AU,AG,CU,ZN,BI	Au–Ag–Cu veins	past producer
082FSW132	PHOENIX (L.953)	AU,AG,CU	Au–Ag–Cu veins	past producer
082FSW133	ABE LINCOLN (L.1296)	AU,CU	Au–Ag–Cu veins	showing
082FSW134	ST. ELMO (L.923)	MO,CU,WO,AG,AU	porphyry/skarn	past producer
082FSW135	CONSOLIDATED ST. ELMO (L.924)	AU,CU,AG,MO,WO	porphyry/skarn	past producer
082FSW136	CLIFF (L.921)	AU,CU,AG,WO,BI	skarn	past producer
082FSW137	SOUTHERN BELLE (L.1348)	AU	Au ± Ag veins	showing
082FSW138	GOLDEN CHARIOT (L.691)	AU,CU	Au–Ag–Cu veins	showing
082FSW139	GREAT WESTERN (L.692)	AU,CU	Au–Ag–Cu veins	showing
082FSW140	MOUNTAIN VIEW (L.682)	MO,WO,CU,AU,AG,PB	porphyry/skarn	developed prospect
082FSW141	GOOD FRIDAY (L.967)	MO,AU,CU,PB,ZN,WO	porphyry/skarn	showing
082FSW142	HATTIE (L.1054)	AU,AG,CU,BI	Au–Ag–Cu veins	past producer
082FSW143	RICHMOND (L.1508)	AG,PB,AU,CU,ZN	Ag–Au–Pb–Zn veins	past producer
082FSW145	BLUE BIRD (L.1053)	AG,PB,ZN,AU,CU,AN	Ag–Au–Pb–Zn veins	past producer
082FSW146	MAYFLOWER (L.799)	AG,PB,ZN,AU,CD	Ag–Au–Pb–Zn veins	past producer
082FSW147	JOSIE (L.536)	AU,AG,CU	Au–Ag–Cu veins	past producer
082FSW148	ANNIE (L.730)	AU,AG,CU	Au–Ag–Cu veins	developed prospect
082FSW149	GEORGIA (L.928)	AU,AG,CU	Au–Ag–Cu veins	past producer
082FSW150	COLUMBIA (L.694)	AU,AG,CU,NI,BI	Au–Ag–Cu veins	past producer
082FSW151	KOOTENAY (L.697)	AU,AG,CU,NI,BI	Au–Ag–Cu veins	past producer
082FSW152	CROWN POINT (L.981)	AU,CU,AG	skarn	past producer
082FSW153	LILY MAY (L.1052)	AG,CU,PB,ZN,AU,AN	Au–Ag–Cu veins	past producer
082FSW154	CURLEW (L.1220)	AG,AU,PB,ZN	Ag–Au–Pb–Zn veins	past producer
082FSW155	RED EAGLE (L.1615)	AG,PB,CU,ZN	Ag–Au–Pb–Zn veins	past producer
082FSW156	NATURE BOY	AG,PB,ZN	Ag–Au–Pb–Zn veins	showing
082FSW157	URAL (L.2944)	AU,AG,PB,ZN	Ag–Au–Pb–Zn veins	past producer
082FSW158	CASINO RED CAP	AU,AG,PB,ZN	Ag–Au–Pb–Zn veins	past producer
082FSW159	COLUMBIA	AU,AG	vein	past producer
082FSW160	SUNSET (L.6563)	AG,PB,ZN,CU	skarn	past producer
082FSW164	UNION (L.944)	PB,ZN,AU,AG,BI,CU	Ag–Au–Pb–Zn veins	past producer
082FSW165	NEST EGG (L.1048)	AU,CU,AG	Au–Ag–Cu veins	showing
082FSW167	SDR	AU,CU,AG,PB,ZN	skarn	showing
082FSW180	CELTIC QUEEN (L.987)	AU,AG,CU,PB,ZN	Au–Ag–Cu veins	showing
082FSW195	MASCOT (L.1344)	AU,AG,CU	Au–Ag–Cu veins	showing
082FSW206	COMMANDER (L.960)	AU,CU,WO	skarn	showing
082FSW214	LITTLE SHEEP CK ULTRAMAFICS	NI,CR,AB	ultramafic association	showing
082FSW217	EUREKA (L.946)	MO,CU	porphyry	showing
082FSW221	INDEPENDENT (L.1275)	WO,AG,AU	vein	showing
082FSW223	ZILOR (L.1051)	CU,PB,ZN,AG,AU	Au–Ag–Cu veins	showing
082FSW224	RAINY DAY (L.1399)	MO,CU	porphyry	showing
082FSW225	ST. LOUIS (L.935)	CU,MO	porphyry/skarn	showing
082FSW238	LAST CHANCE	AG,AU,PB,ZN,CU	Ag–Au–Pb–Zn veins	showing
082FSW242	GRAND PRIZE (L.933)	AU,CU,BI,PB	skarn	showing
082FSW246	VIEW (L.645)	AU,CU,AG,MO	porphyry/skarn	showing
082FSW258	GOLD 1–2	AU,AG,PB	Ag–Au–Pb–Zn veins	showing
082FSW263	JERO	AU	Au ± Ag veins	showing
082FSW264	CAL	AU,AG,CU,PB,ZN	Au–Ag–Cu veins	showing
082FSW285	CRISTINE (L.1219)	AU,CU	Au–Ag–Cu veins	showing
082FSW286	SILVERINE (L.732)	AU,AG,CU,BI	Au–Ag–Cu veins	past producer
082FSW287	KIRKUP	CU,MO,WO	porphyry	showing
082FSW293	ROSSLAND	GR	magmatic	producer
082FSW295	MITZIE 1	AG,PB,ZN,CU,AU	skarn	past producer
082FSW298	MALDE	AU,AG,CU,PB,ZN,MO,CR	Au–Ag–Cu veins	showing
082FSW312	CARIBOU SHOWING (L.1205)	AU,AG	Au ± Ag veins	showing
082FSW323	SILVERADO	AU,AG,PB,ZN	Ag–Au–Pb–Zn veins	showing
082FSW338	WANETA LIMESTONE	LS	stratiform	showing

Geological mapping, Rossland Group, from Nelson to Rossland





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