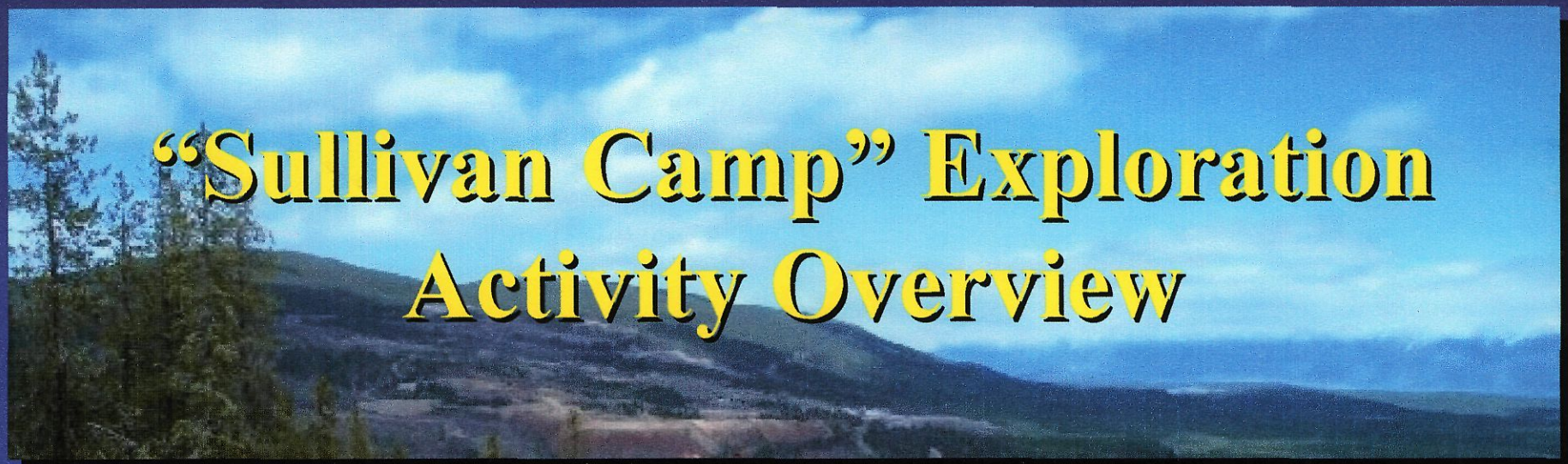
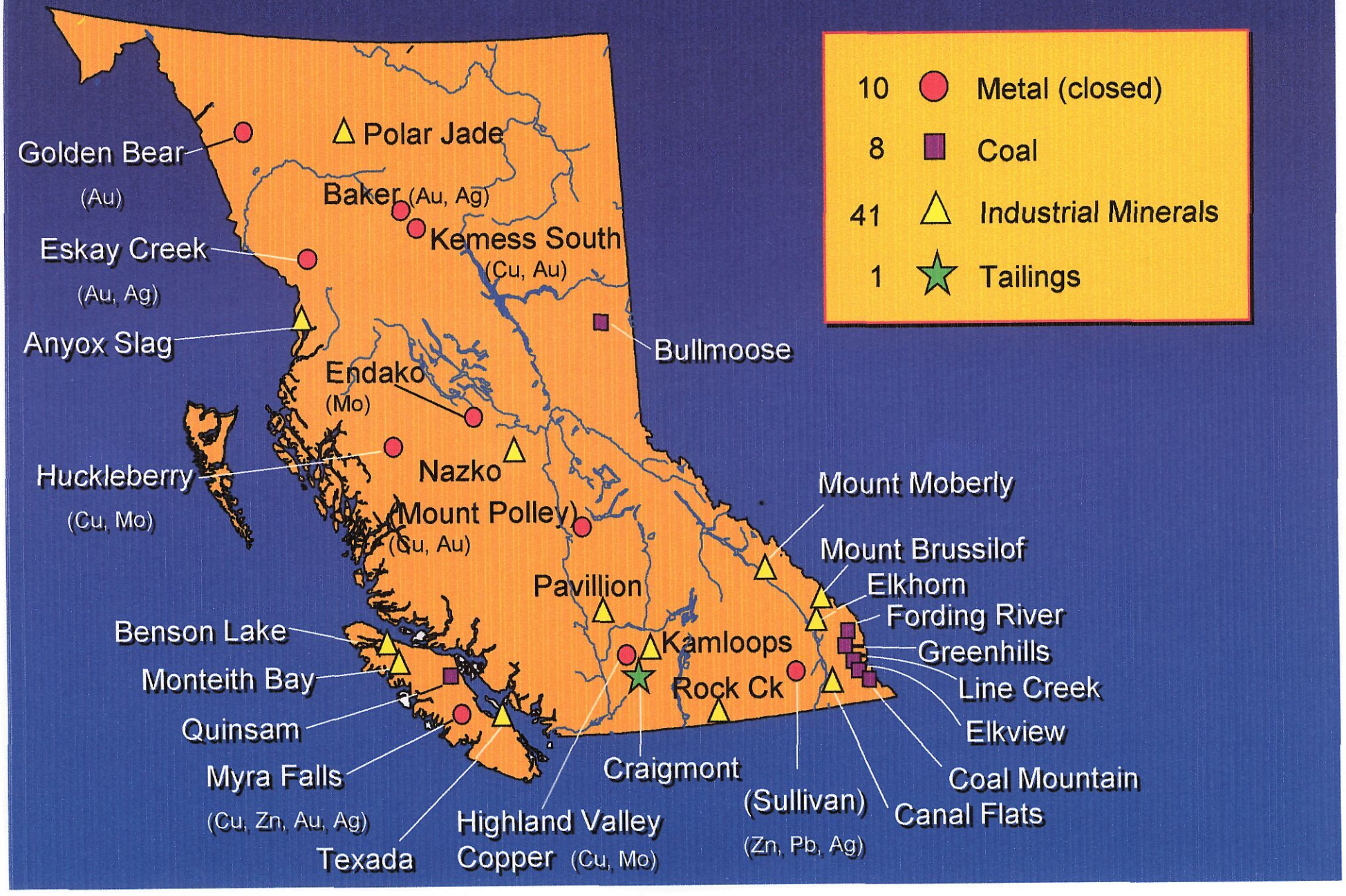
888128 Tom Schroeter



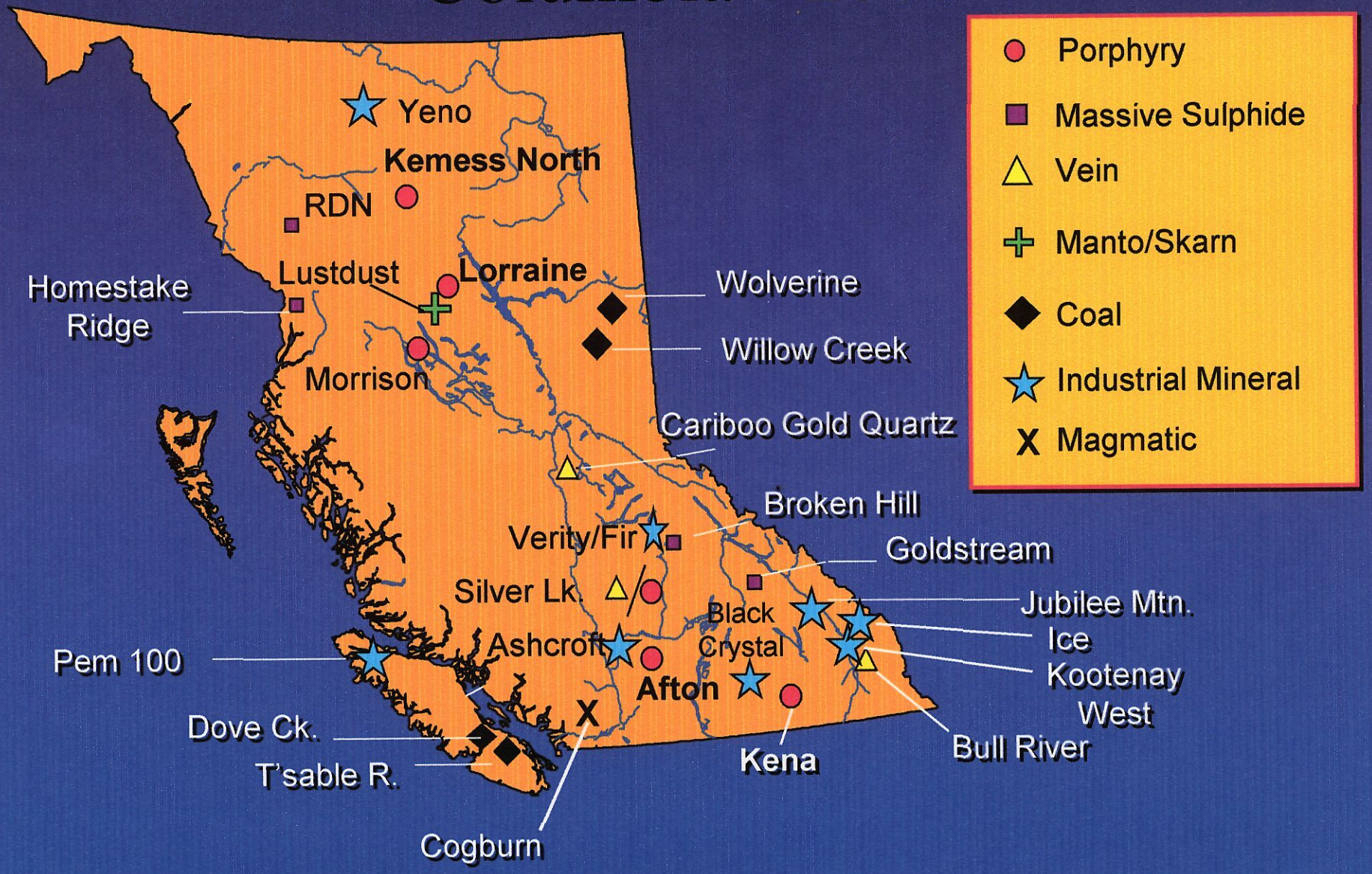
"Sullivan Camp" Exploration Activity Overview

David A. Terry, P.Geo.
Tom G. Schroeter, P.Eng/P.Geo.
British Columbia Ministry of Energy and Mines

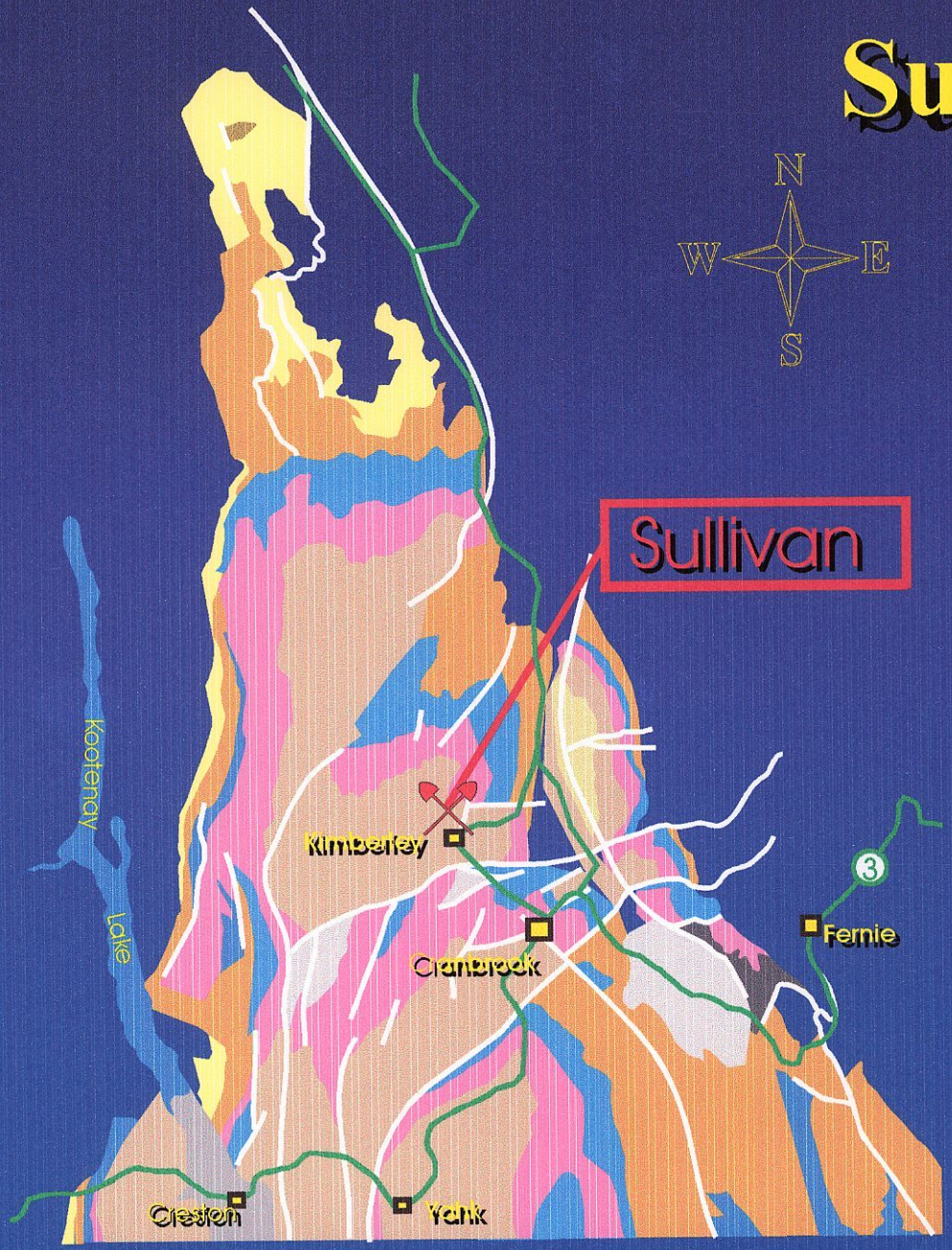
Operating Mines in British Columbia – 2001

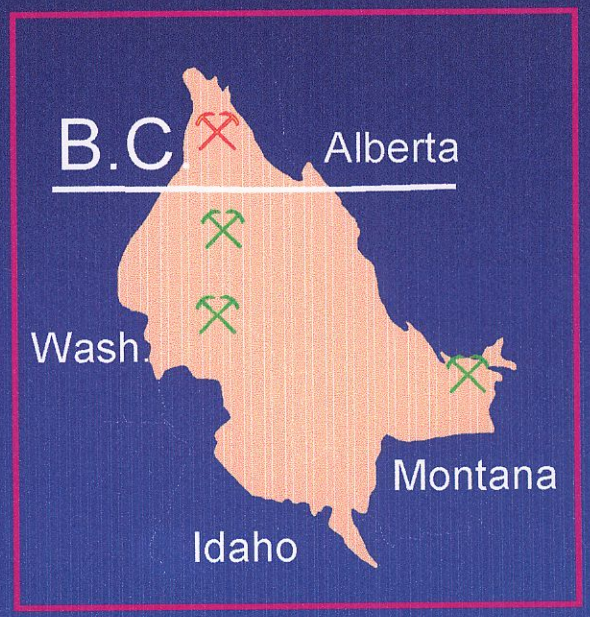


Major Exploration Projects in British Columbia - 2001



Sullivan Camp

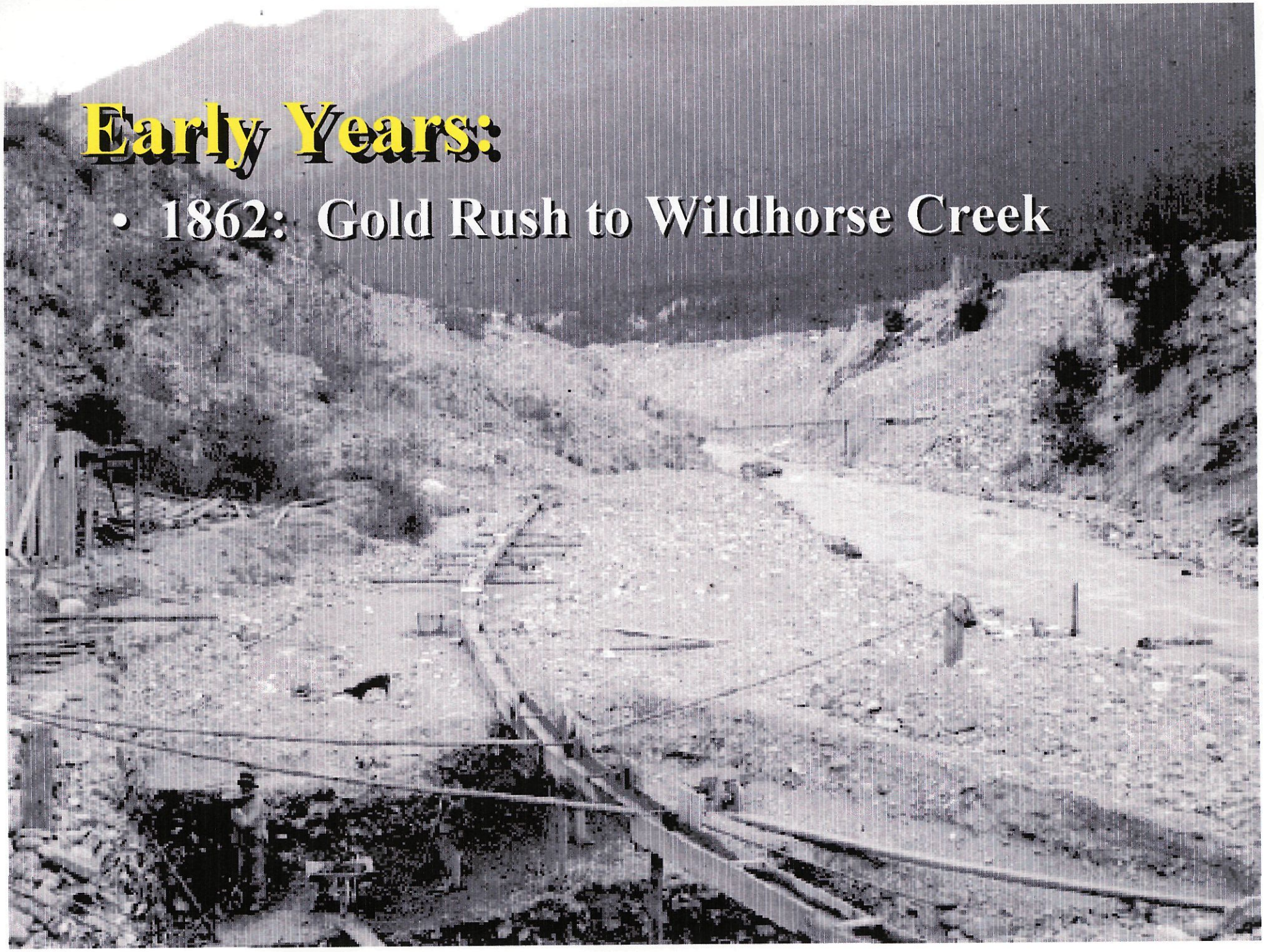




- Mt. Nelson
- Dutch Creek
- Kitchener
- Creston
- Aldridge
- Fort Steele

"Sullivan Camp" Deposit Types

Deposit Type	Commodity	Examples
Stratabound Clastic-Hosted	Sedex Pb-Zn-Ag	•Sullivan, BC •Kootenay King, BC
	Cu-Co	•Sheep Creek, MO; Blackbird, ID
	Sedimentary Cu	•Spar Lake, MO
	Fe	•Iron Range, BC
Stratabound Silica-hosted	Au+/-Pb-Zn-Ag-Ba	•York, MO
Stratabound Carbonate-hosted	Pb-Zn	•Mineral King, BC
Vein	Cu	•Bull River, BC
	Pb-Zn	•St. Eugene; Estella •Stemwinder
	Au	•Midway, BC
Shear-hosted	Au	•David, BC



Early Years:

- 1862: Gold Rush to Wildhorse Creek

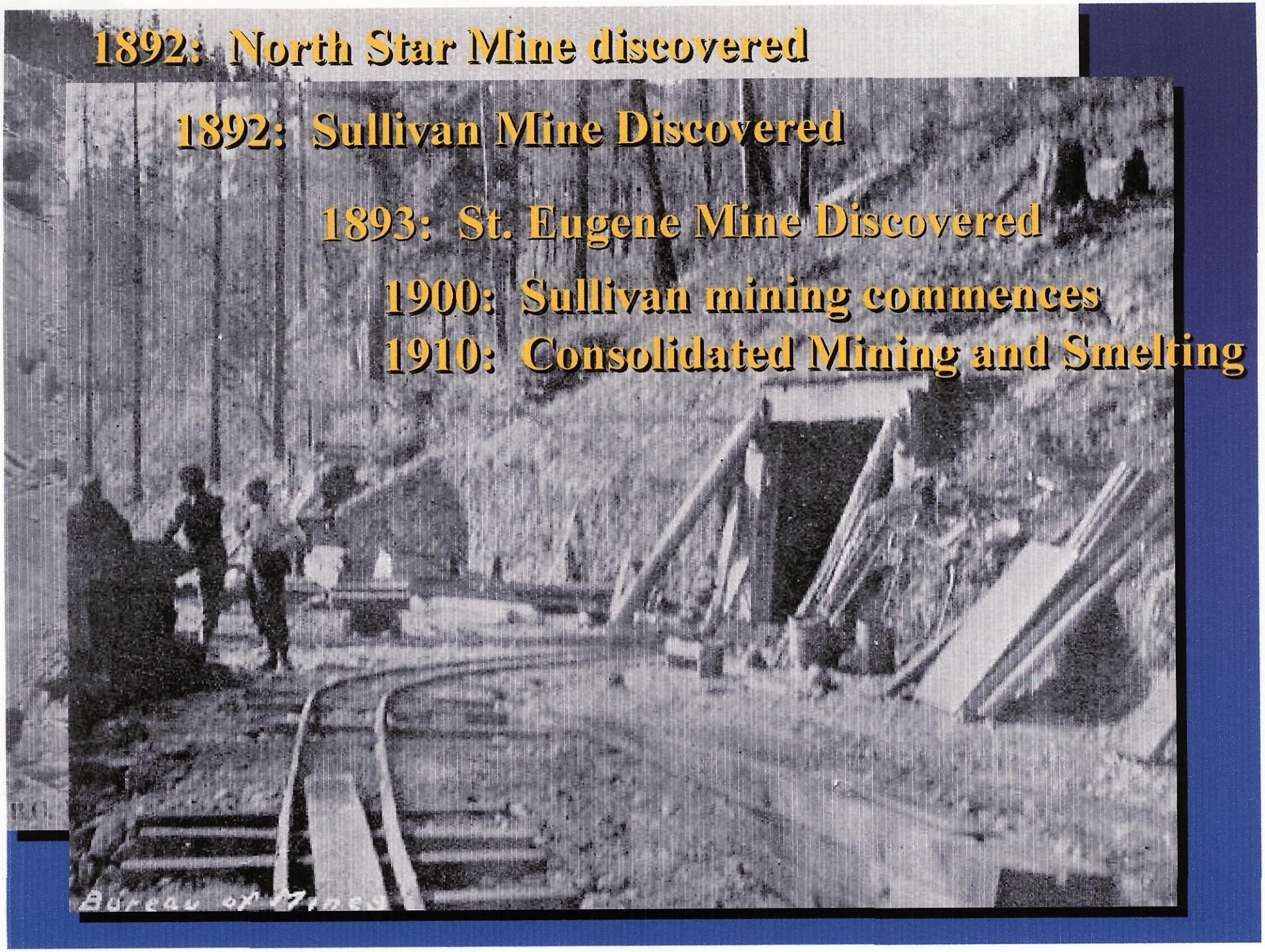
1892: North Star Mine discovered

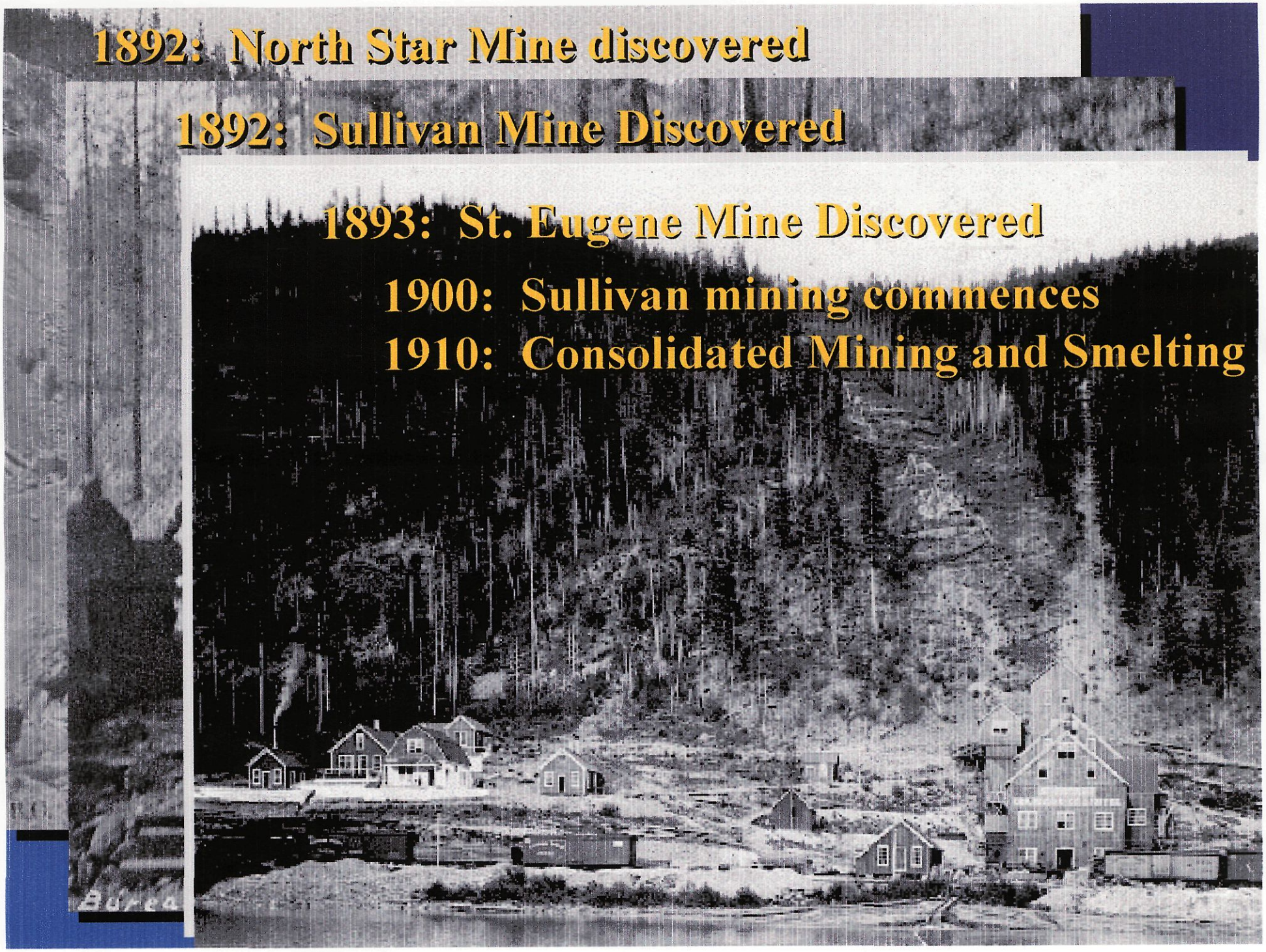
1892: Sullivan Mine Discovered

1893: St. Eugene Mine Discovered

1900: Sullivan mining commences

1910: Consolidated Mining and Smelting


1892: North Star Mine discovered
1892: Sullivan Mine Discovered
1893: St. Eugene Mine Discovered
1900: Sullivan mining commences
1910: Consolidated Mining and Smelting
Bureau of Mines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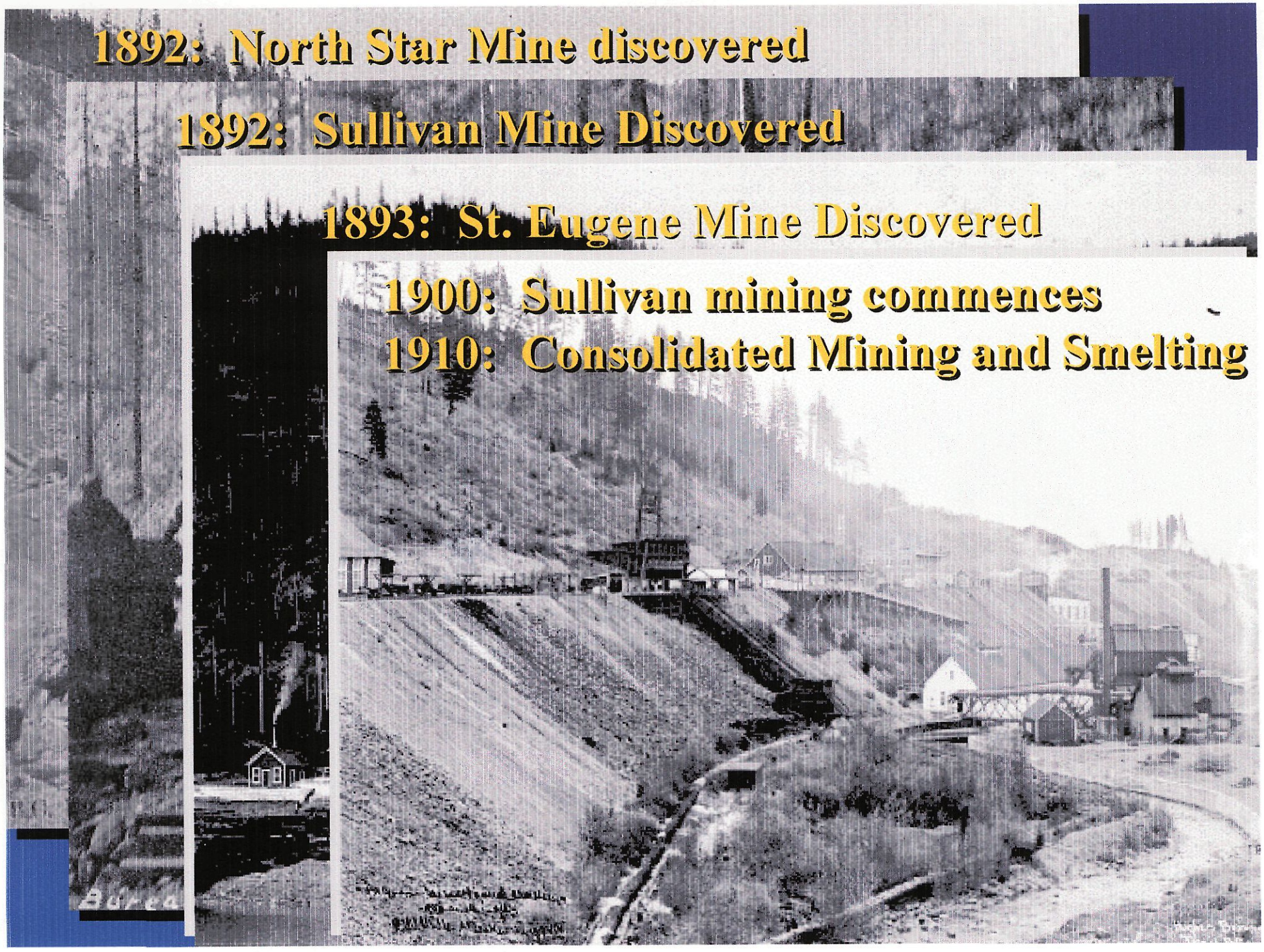
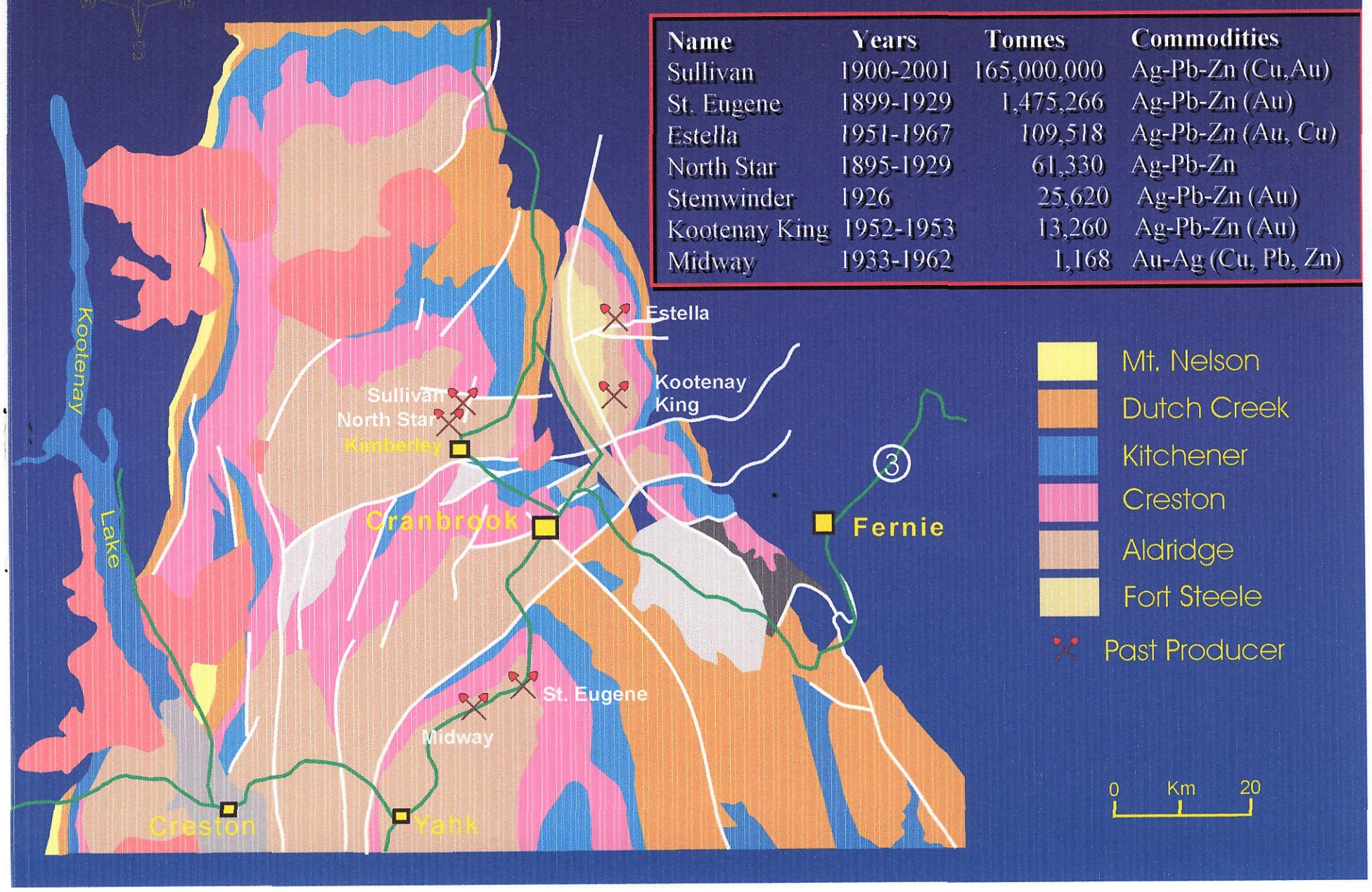


Past Producers

Name	Years	Tonnes	Commodities
Sullivan	1900-2001	165,000,000	Ag-Pb-Zn (Cu,Au)
St. Eugene	1899-1929	1,475,266	Ag-Pb-Zn (Au)
Estella	1951-1967	109,518	Ag-Pb-Zn (Au, Cu)
North Star	1895-1929	61,330	Ag-Pb-Zn
Stemwinder	1926	25,620	Ag-Pb-Zn (Au)
Kootenay King	1952-1953	13,260	Ag-Pb-Zn (Au)
Midway	1933-1962	1,168	Au-Ag (Cu, Pb, Zn)



Exploration Milestones – 1940s

- Development of detailed stratigraphy
- Association with tourmaline/albite alteration, localized basin, discordant sills, and faults
- Subdivision of Aldridge Formation (LMC)

Exploration Milestones – 1940s

- Development of detailed stratigraphy
- Asso
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  and
- Subc
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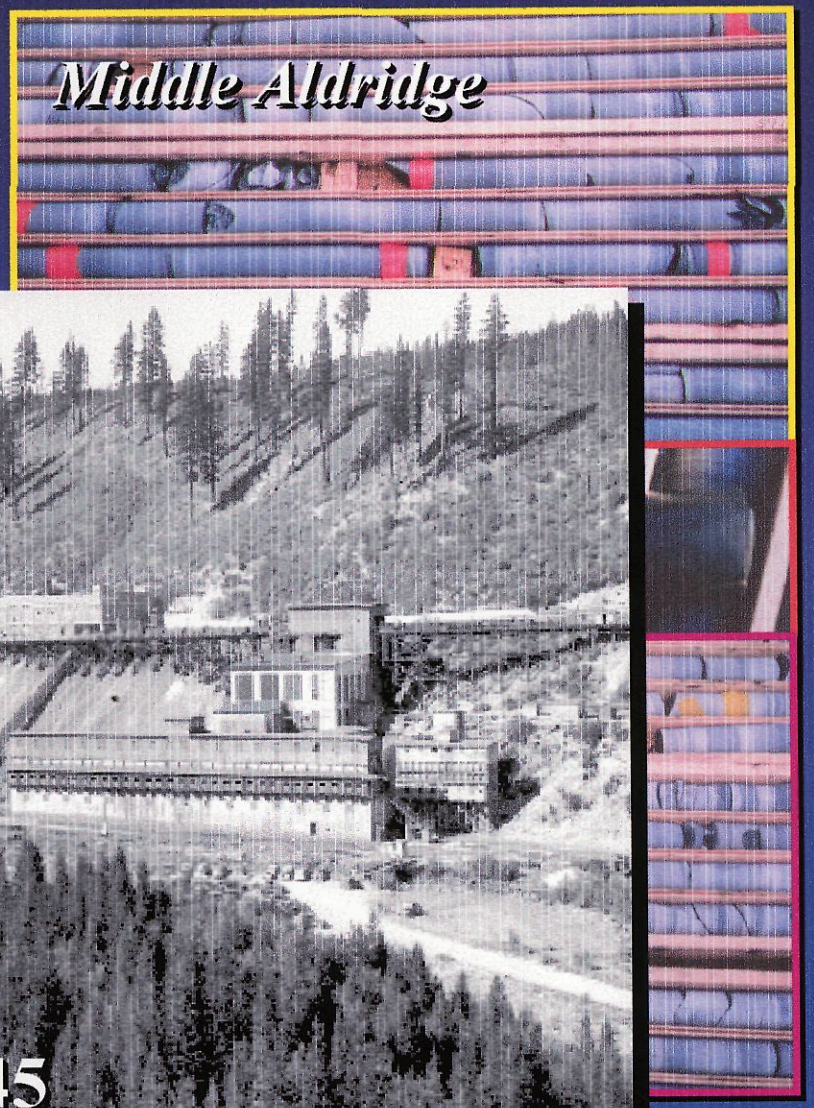
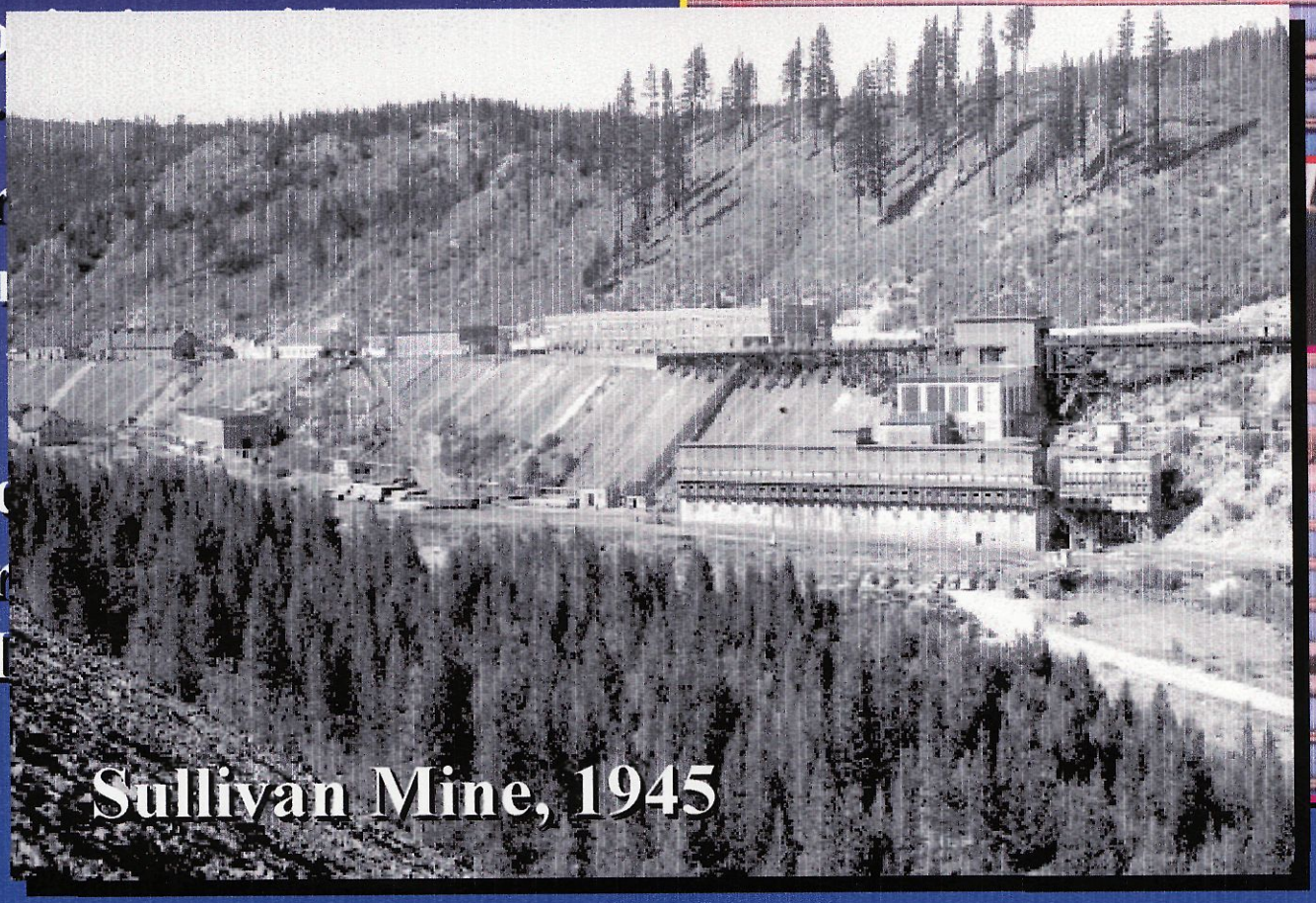
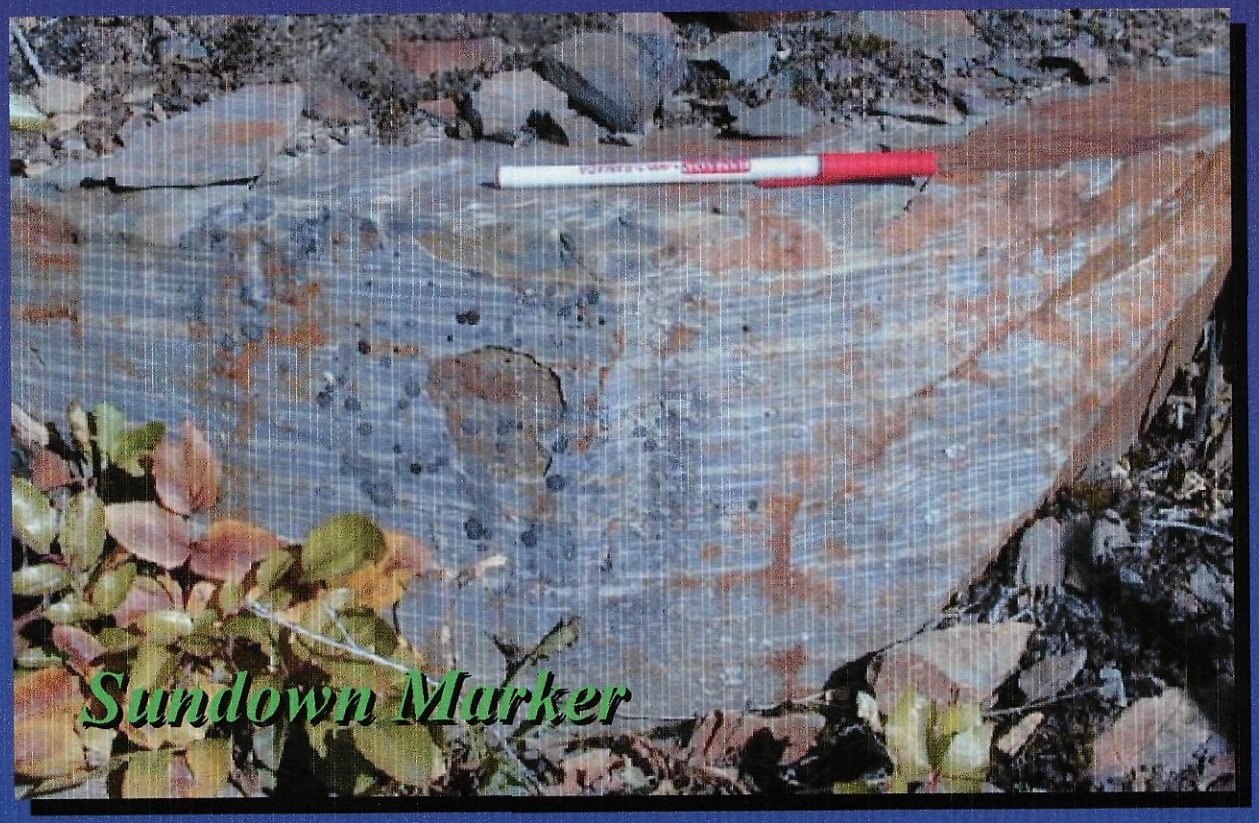


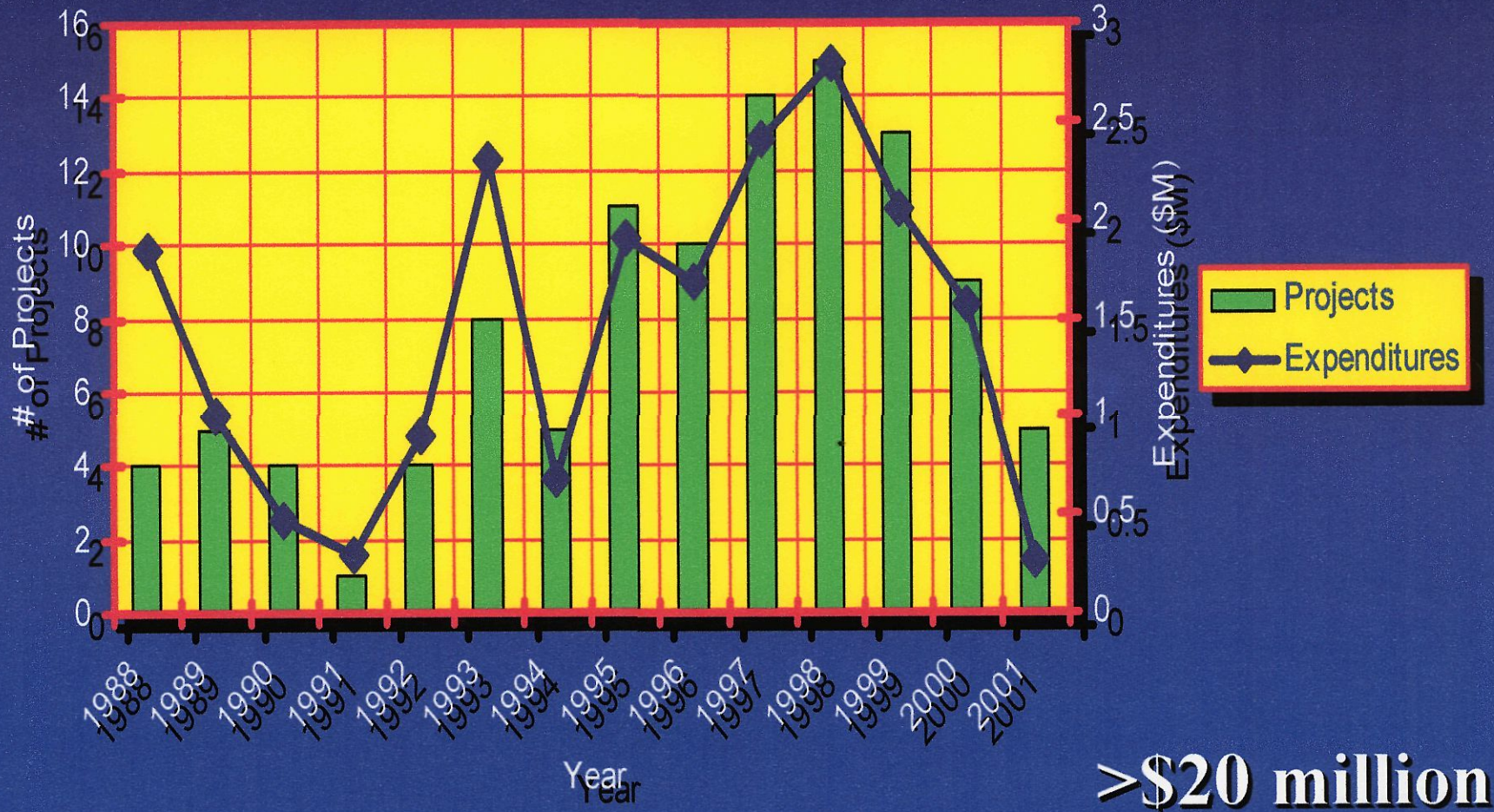

Sullivan Mine, 1945

Exploration Milestones – 1950s and 1960s

- Exhalative vs. replacement origin of ore deposit
- Recognition of light/dark laminated argillite markers



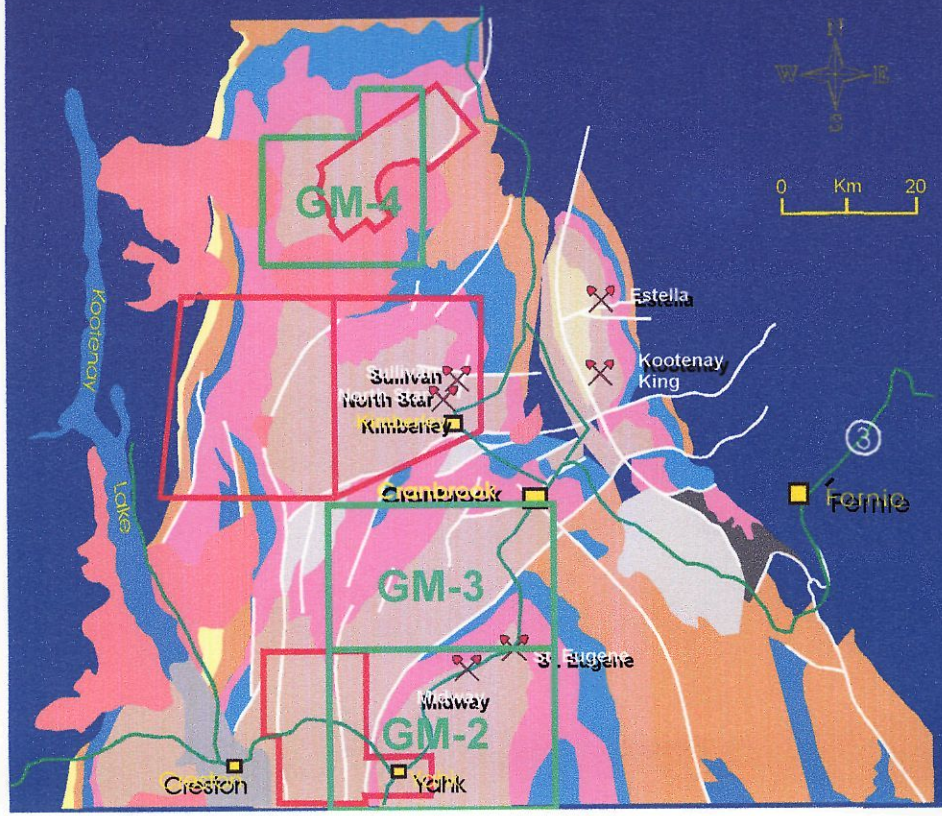
Exploration on Sedex Targets: 1988-2001

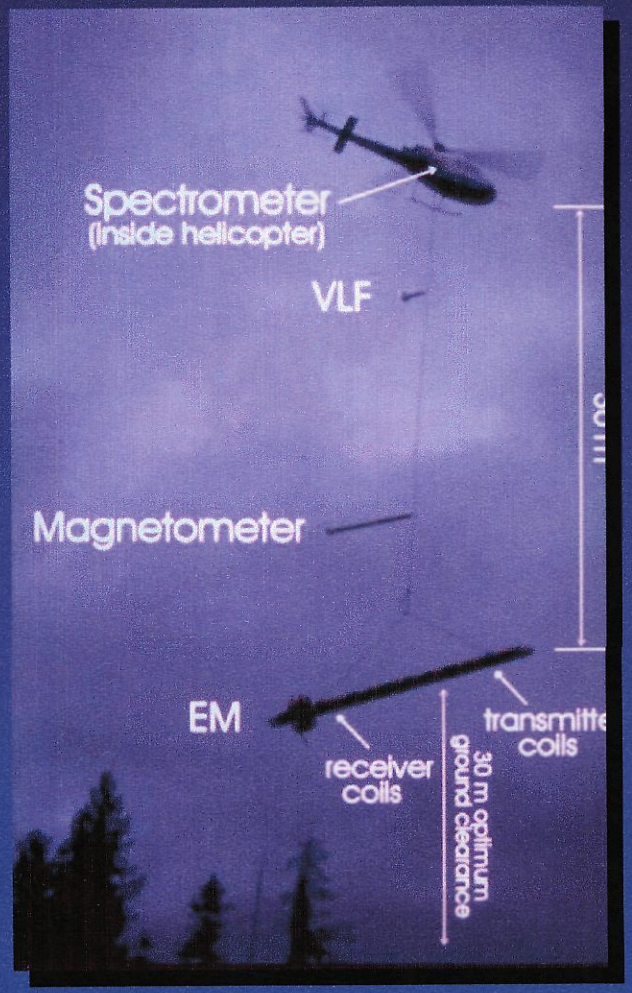


>$20 million

Late 90s Exploration

- 1996 Government Airborne geophysical Survey
- Cost: $600,000
- Estimated $6M exploration





- Industrial Partnership

Assessement Reports: 1988-2001

Major Companies (7):	# of Reports
Cominco Ltd.	22
Rio Algom Exploration Inc.	4
Placer Dome Inc. (Vancouver)	3
Minnova	2
Esso Resources Canada Limited	1
Hudson Bay Exploration	1
Inco Ltd.	1

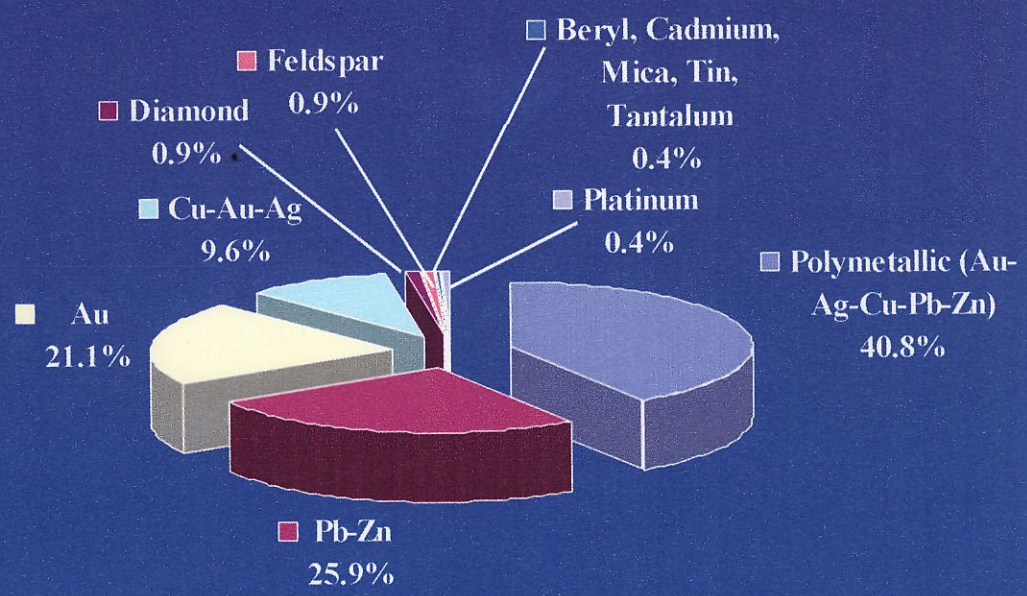
Total Reports: 267

- Drilling: 93
- Geophysical: 81
- Geochemical: 125
- Prospecting: 42

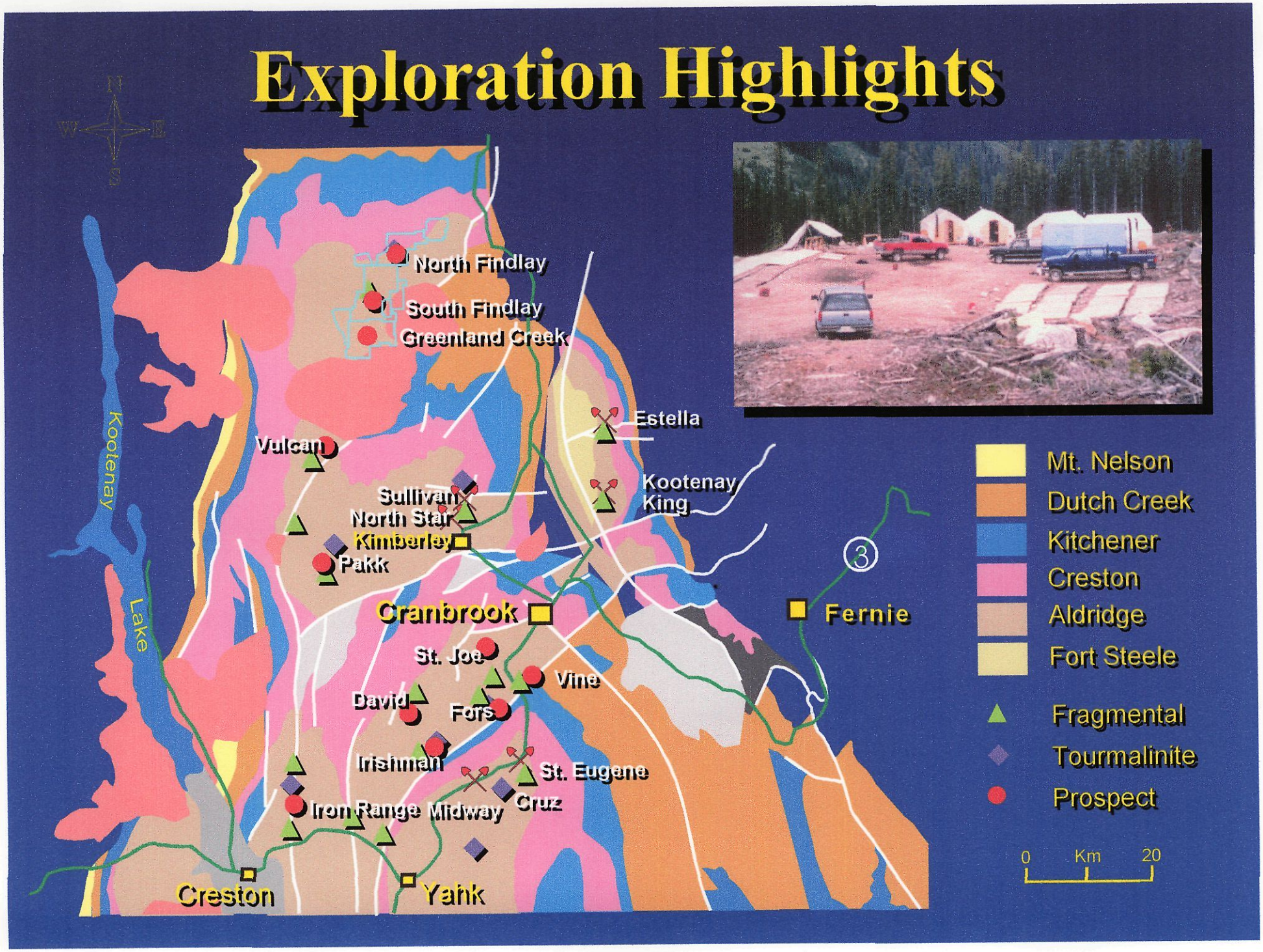
Junior Companies (51):

Stanfield, R.H.	15
Chapleau Resources Ltd.	11
Consolidated Ramrod Gold Corp.	10
Sedex Mining Corp.	9
Abitibi Mining Corp.	8
Cathedral Gold Corp.	7
Lone Peak Placer Ltd.	6

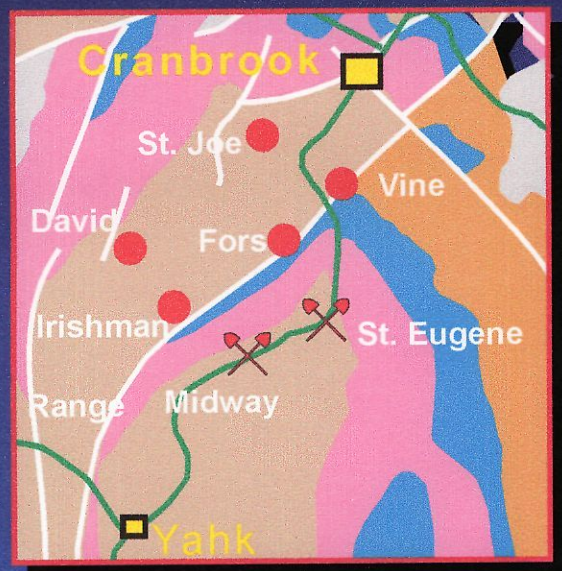
Individuals (32)

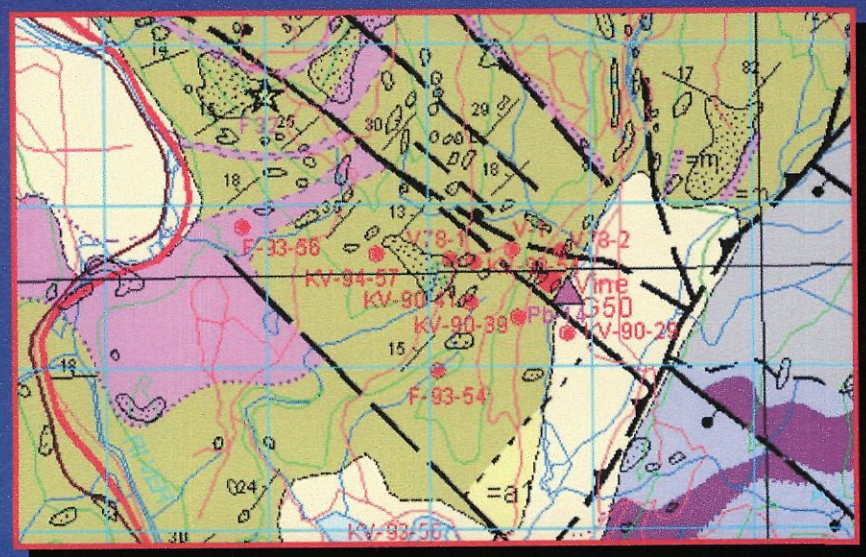


Exploration Highlights



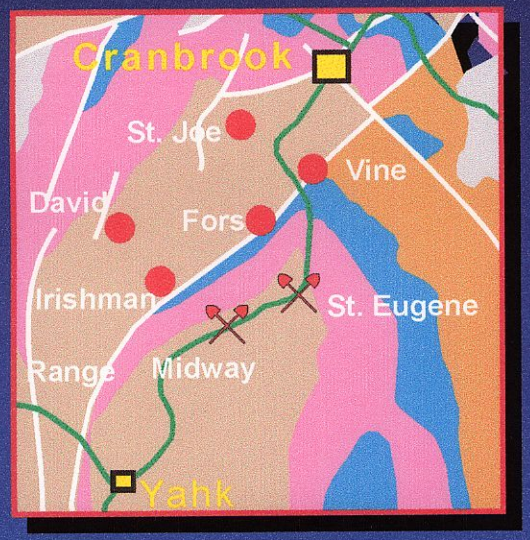
1976 - Vine





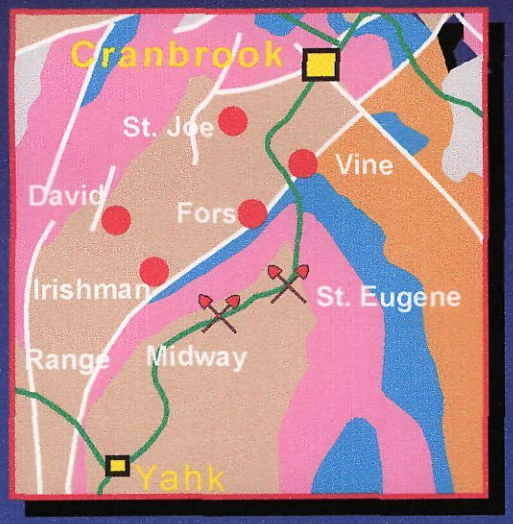
- Sulphide boulders – massive sulphide vein
- 1989 – Kokanee Explorations
- 1990 Resource
- 1,300,000 tonnes
  - 2.2 g/t Au
  - 36.3 g/t Ag
  - 3.12 % Pb
  - 3.12 % Zn
  - 0.11 % Cu

1989 - David



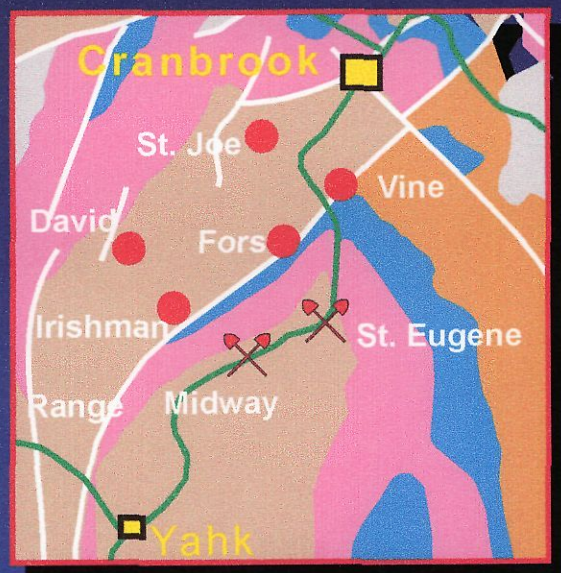
- Gold in silicified shear zone ~ 2m wide
- 1990-91: Dragoon Resources
  - –resource of ~100,000 tonnes @10g/t Au
- Ongoing work
  - – parallel zones

1992 - Fors

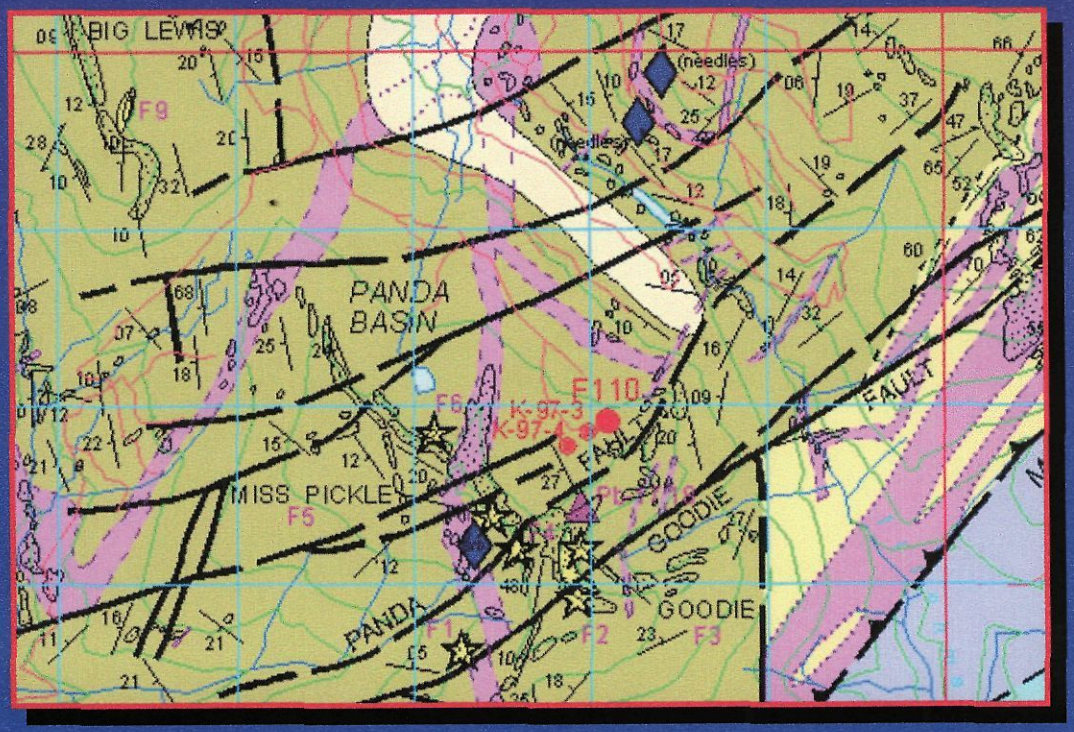


- Chapleau/Barkhor/ Kokanee
- 42m of disseminated to massive sulphide
- 9.35% Pb, 16.4% Zn, 0.09% Cd, 98 g/t Ag over 1m

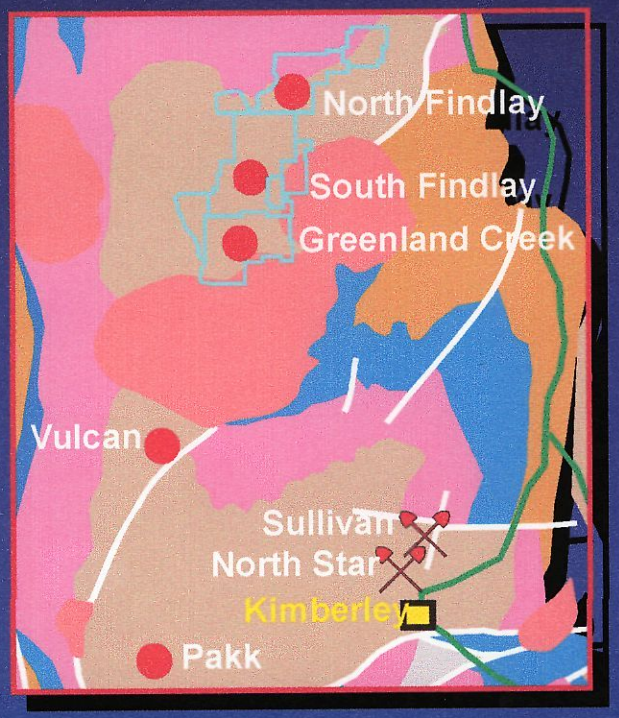
1997 - Irishman/Lewis



- Kennecott/Sedex
- 9.65% Zn, 5.82% Pb, 49.4 g/t Ag over 2.6m at 505m depth

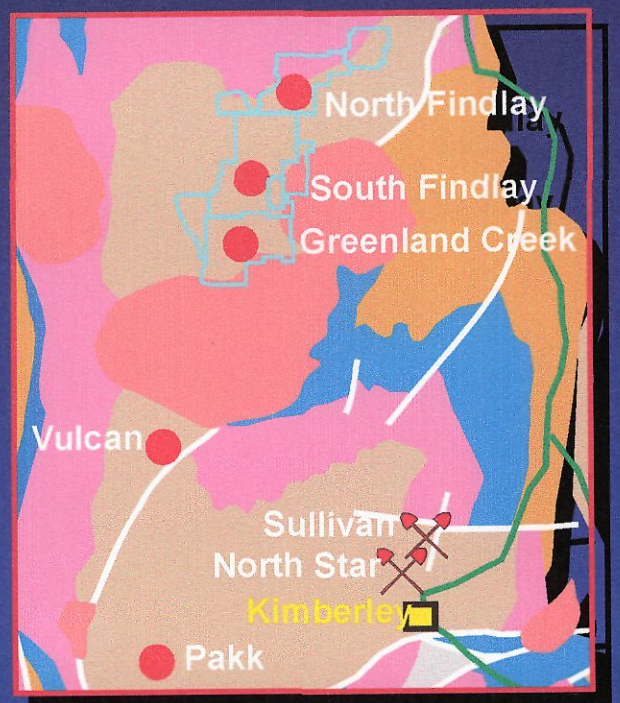


1988, 1996 - Mark Creek



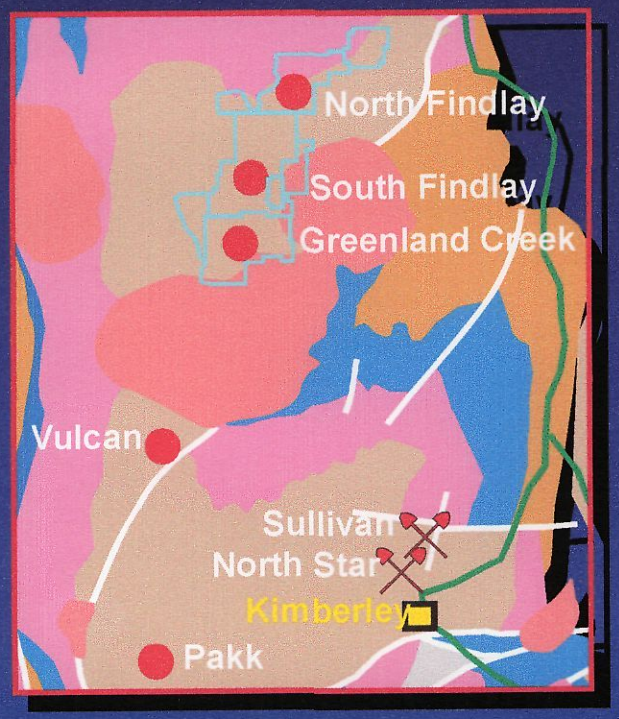
- Cominco exploration north of the Kimberley Fault
- 1988 ddh 6464 intersected 0.3m grading 4.1% Zn, 0.16% Pb, 11 g/t Ag at 2600m depth
- 1996 ddh 6465 intersected Sullivan mine upper stratigraphy - Kimberley fault @ 2470m
- Large off-hole conductor

1996–2000 - Findlay Properties



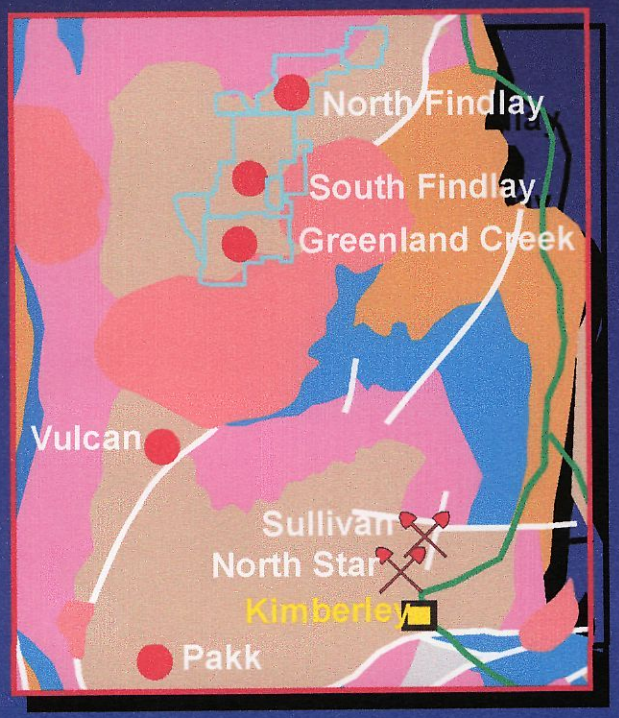
- Eagle Plains Resources
  - 1997-1998 Kennecott
  - 1999-2000 Billiton - North
  - 1999-2000 Rio Algom - South
- Tourmalinized Siltstone, MA
  - 1998: 105m @ 5.5 ppm Ag, 1460 ppm Pb, and 42 ppm Zn
- Fragmental @LMC
  - 1998: 25,500 ppm Zn over 1.29m

1997 - Greenland Creek



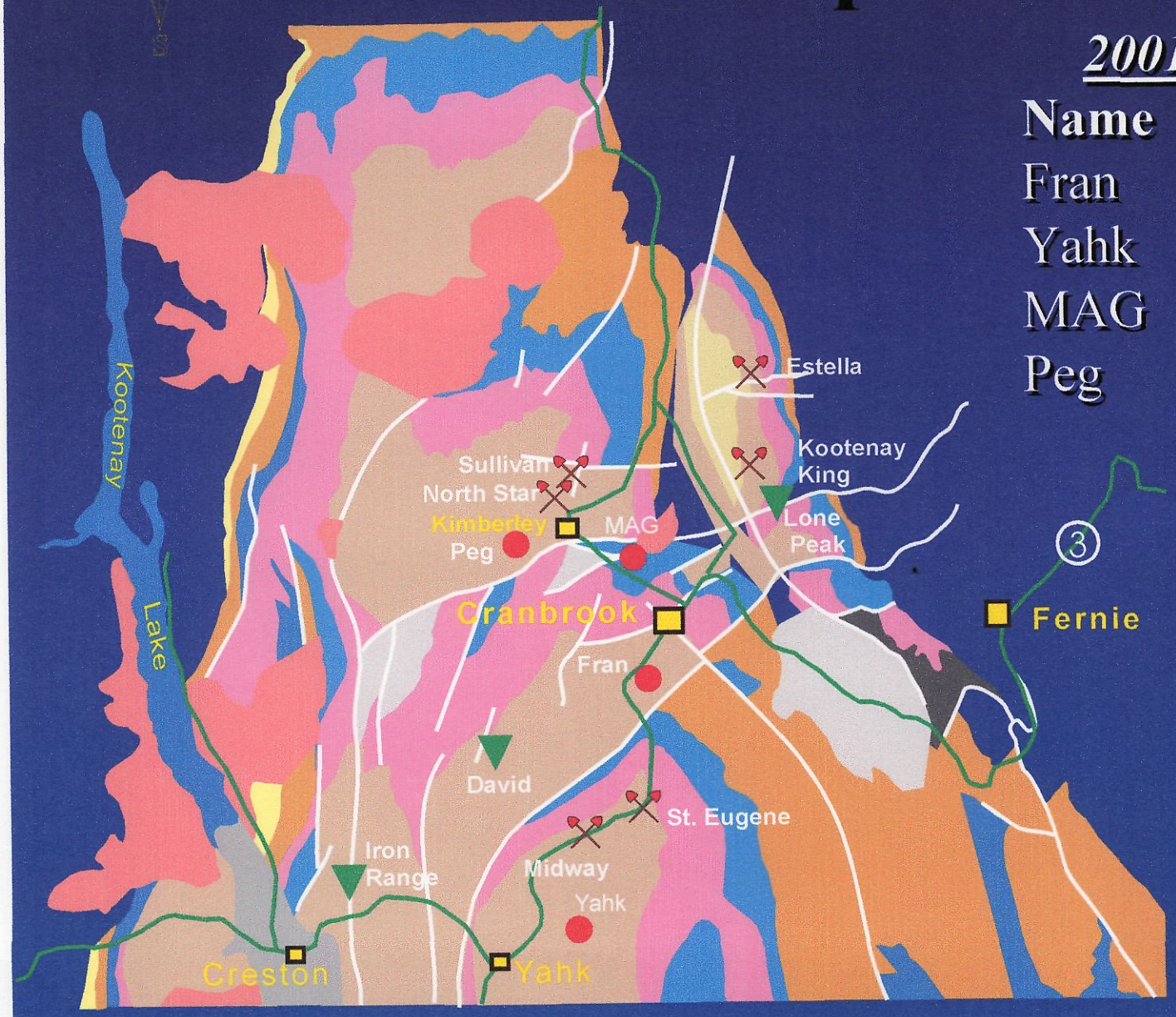
- Eagle Plains Resources
- Grab: 130 g/t Ag, 9.17% Pb, and 6.27% Zn
- 7-hole drill program
  - Alteration & Stratabound sulphdies
  - Up to to 6.6% Zn/0.33m
- 1998-2000 Kennecott Option

1999 - Pakk



- Super Group Holdings Ltd.
- LMC
- 3 new showings
- 1999-2000 optioned to Chapleau Resources

2001 Exploration



2001 DRILLING

Name	Holes	Metres
Fran	1	100
Yahk	2	140
MAG	1	660
Peg	4	99
		999

- Mt. Nelson
- Dutch Creek
- Kitchener
- Creston
- Aldridge
- Fort Steele
- Past Producer
- Drilling
- Prospecting, mapping, sampling

0 Km 20

- "Sullivan Camp"
  - New showings
  - Proven potential for large deposits
  - Excellent infrastructure and access
  - geological knowledge
  - Vents, structures, alteration
  - Au, Olympic Dam, Rare Metals, IMs, etc.

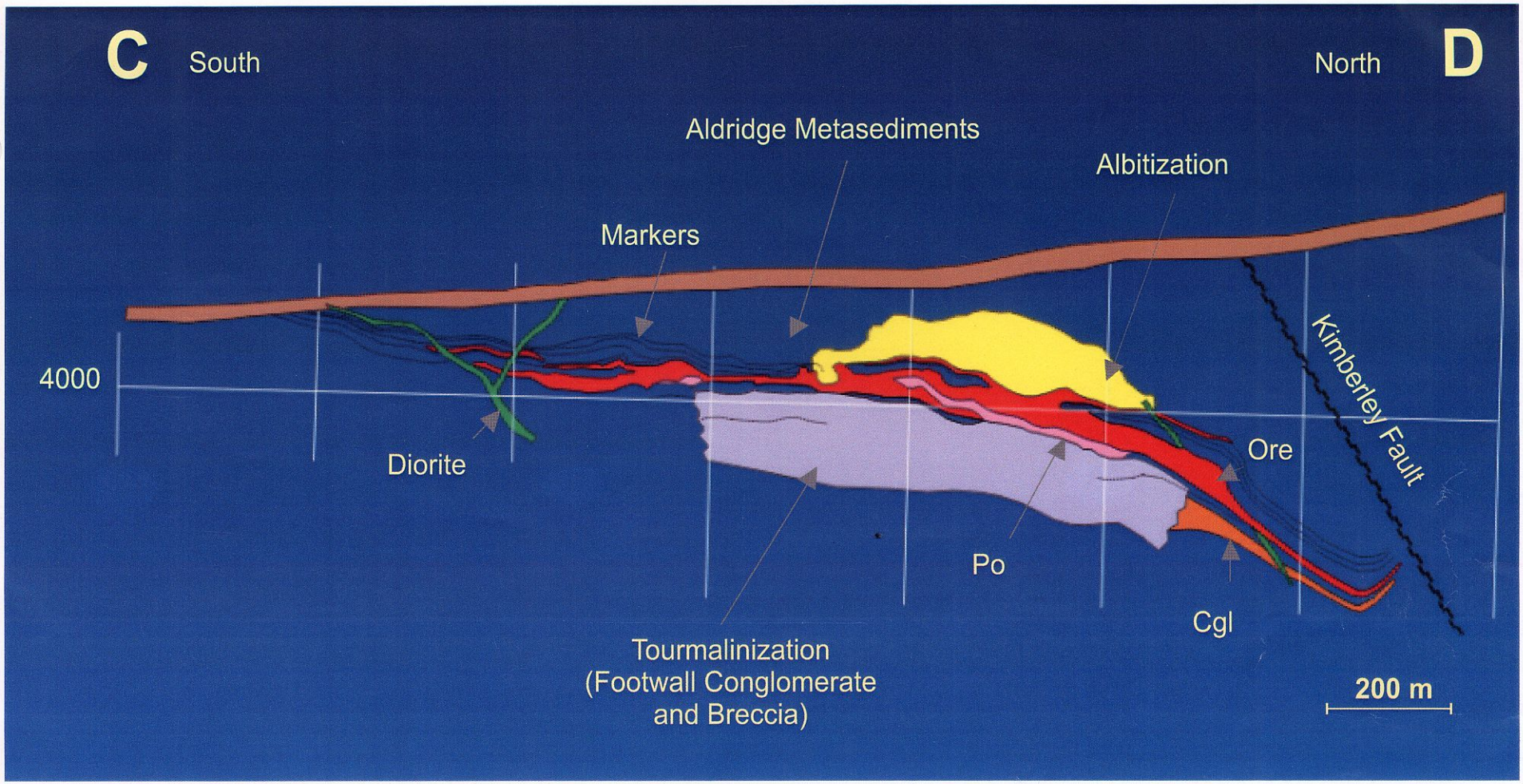


Figure 8: Sullivan Mine - Longitudinal Section (after Ransom, Lajoie and Pauwels, 2001)