

Taking GIS to the Public
Richmond, June 6, 2005
URISA BC Chapter

Geospatial Delivery with



BRITISH
COLUMBIA
Ministry of Energy and Mines

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fax (250) 952-0381
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Outline

Brief Overview

- MapPlace Website
- Data Delivery
- Map Themes

New Data & Tools

- MapperWrapper & Unpluggger
- Image Analysis Tool (IAT)
- Mineral Properties Available
- LRDW Access using FME
- MapPlace OGC WMS Service



Larry Jones
Pat Desjardins
Nick Massey
Gib McArthur
Co-op Students



BRITISH
COLUMBIA

Ministry of Energy and Mines

Examples & Benefits

Ward Kilby

acknowledged
developer of MapPlace

BC Geological Survey Mandate

attract industry investment, government's stewardship of mineral resources, and help manage and protect Crown lands

- 3/4 Geoscience surveys (geological, geochemical, deposit)**
- 3/4 Mineral resource assessments for land use planning**
- 3/4 Mineral, coal and industrial mineral inventories management**
- 3/4 Monitor exploration activities**
- 3/4 Assess geological hazards**
- 3/4 Publish maps and reports**
- 3/4 Provide research tools and geoscience expertise**



What is MapPlace ?

Web application to **interactively view, search and download** geospatial data

Digital publication of geoscience maps, reports & databases

Create, copy and print maps and reports

Links to other data sources, articles, support documents and other map sites

research and plan for exploration investment



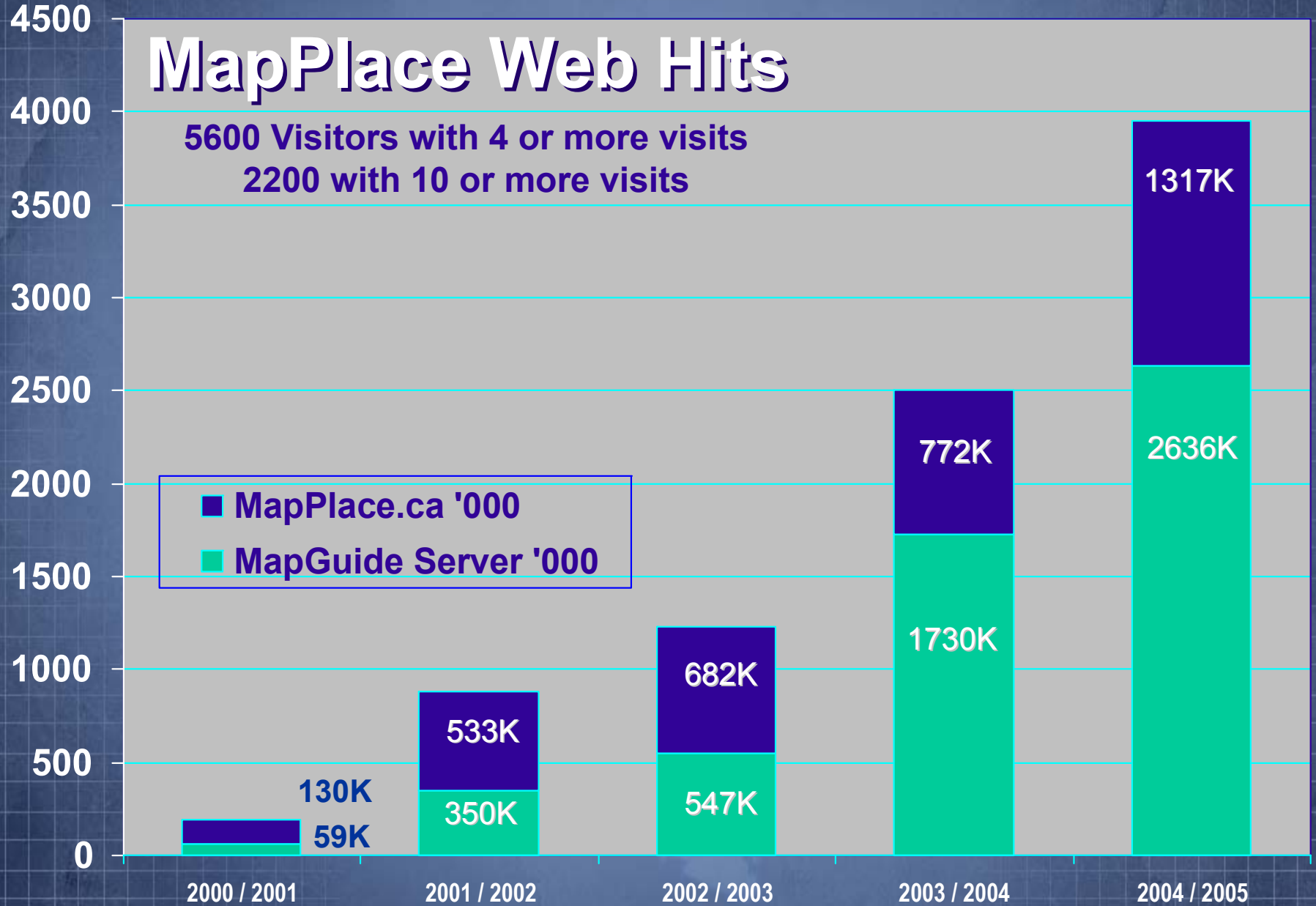


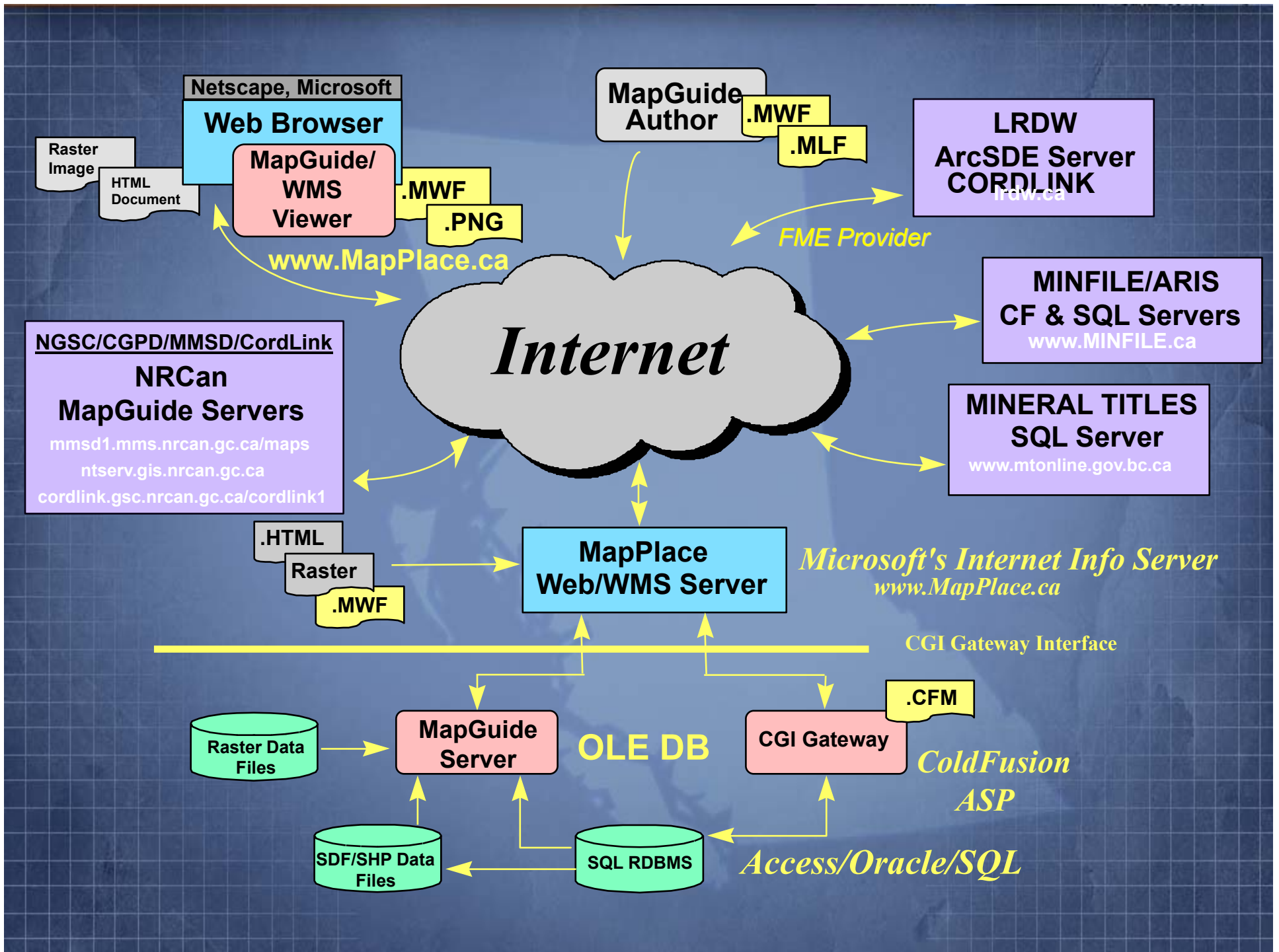
Communities Benefit from Exploration Spending

- 3/4 over 400 large projects
- 3/4 \$29M in 2001
- 3/4 \$130M in 2004
- 3/4 \$150 - \$200M est. in 2005

MapPlace Web Hits

5600 Visitors with 4 or more visits
2200 with 10 or more visits

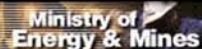




Ministry Home

Government of British Columbia

Programs & Services


[Ministry News](#) [Ministry Search](#) [Reports & Publications](#) [Site Map](#) [Contacts](#)

MapPlace

[Contents](#)

Available Maps

[Selected Theme Maps](#)
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[Geospatial Downloads](#)

Other Links

[ARIS Assessment Reports](#)
[Bedrock Mapping](#)
[Coal](#)
[Educational Resources](#)
[Exploration Expenditures](#)
[Exploration Services](#)
[Geochemistry](#)
[Geophysical Data](#)
[GSB Publications Catalog](#)
[GSB Staff: Who Are We?](#)
[Industrial Minerals](#)
[MapPlace](#)
[MINFILE Mineral Inventory](#)
[Mineral Properties Available](#)
[Metallic Minerals](#)
[Mineral Deposit Profiles](#)
[Mineral Potential](#)
[Operating Mines](#)
[Partnerships](#)
[Surficial Geology & Hazards](#)
[Terrain & Soil Maps](#)
[What's New](#)


[BC Geological Survey Home](#)

MapPlace facilitates easy access to the maps and databases of the BC Ministry of Energy and Mines. Create your own maps using interactive data sets. Create reports and download data from selected themes and objects. *Click the MapPlace.ca image to visit our [Main Maps](#) to assist in your mineral exploration projects. Or visit [Selected Theme Maps](#) to view Oil and Gas, Coal, Publication Index, Surficial Geology, Geophysical, and Mining Economy maps.*

Updated [Digital Bedrock Geology 2005](#) added to [BCGS Geology Map](#) and other maps.

[Mineral Properties Available in British Columbia](#)

[Image Analysis Toolbox Phase 2](#) on [Exploration Assistant](#) see [Fieldwork 2004](#), p. 231-235

Final Product Release of [Quesnel](#) and [Toodoggone](#) Geophysics

NEW!

- [First Time Users ...](#)
- [FAQs / Comment & Support](#)
- [Data Last Posted](#) *Note: Titles information provided to MapPlace is up to a year out of date.*
- [See Mineral Tenure Notice](#)

Significant Links:

- With [EXPLORATION ASSISTANT](#), you can search by:
 - [Mineral Potential TRACTS](#)
 - [MINFILE](#) (commodities, names, and deposit types.)
 - [GEOLOGY](#) (age, lithology, and terrains)
 - [CLAIMS](#) (name and anniversary dates)
 - [REGIONAL GEOCHEMISTRY](#) (38 elements)
- [Links to other Data Sources and Information](#)
- [Geospatial Data Downloads](#) - ARC Shapefiles
- [Complete Table of Maps](#)
- [General Map of BC](#)
- [Land Information BC](#)
- Link to [Internet Mapping Framework \(IMF\)](#), includes:
 - [BC Base Map with Land & Resource Data Warehouse Catalogue](#)
 - [Online Cadastre](#)

Available Maps

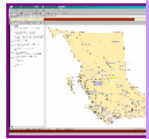
- Contents
- Geology Map
- Exploration Assistant
- Mineral Titles
- OGC WMS Service

- Other Links
- Available Maps
- Selected Theme Maps
- MapperWrapper
- Summary Data Available
- Online Help & Documents
- Updates on MapPlace
- Links to Data & Maps
- Geospatial Downloads

Selected Themes

- Available Maps
- Table of Maps
- General BC

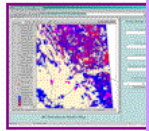
Mineral Pro



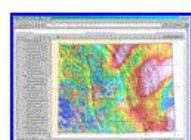
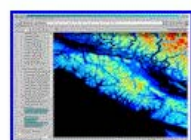
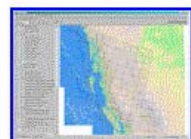
Mineral Act



Oil, Gas and

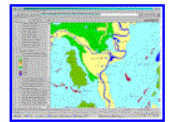


Geophysical Maps



NEW! Quesnel Geophysics: Quesnel Trough Geophysics covers three geophysical surveys:

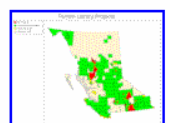
Surficial Geology Maps



Aggregate Potential Areas: Map displays the results of five aggregate potential studies: Prince George, Okanagan, Nanaimo, Sea-to-Sky and Sunshine Coast. [more details](#)

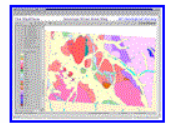


Surficial Geology Map Index: This map is the digital equivalent of GSB Open File 1992-13 Surficial Geology Map Index of British Columbia by P.T. Bobrowsky, T.Giles and W. Jackaman. [more details](#)



Digital Terrain Map Library: The **Introductory Map** acts as a graphical index to the Digital Terrain Map Library, which provides terrain and slope stability related maps in digital format, interactive viewing and raster downloads. [more details](#)

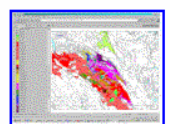
Detailed Geology Maps



Jennings River: Geology of North-Central Jennings River Map Area (NTS 104014E, 15) from Open File 2001-6 by J. Nelson, T. Harms, C. Roots, M. Mihalyuk and M. de Keijzer. [more details](#)



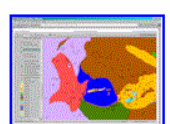
Barkerville Area: The Barkerville area (NTS 093A, H and adjacent maps) map features geology layers of the Barkerville Cariboo and Kootenay terranes. [more details](#)



Lillooet LRMP Area: Includes a shaded relief image (DEM layer) and a magnetics map combined with shaded relief map (Magtopo layer). NTS 092J, 092O(S), 092I(W). [more details](#)




Guichon Batholith: Mapping performed by W. J. McMillan, J. D. Blanch-Flower, P. McAndless, D. Coombes, P. Garvin, 1969-1974. Linework digitally captured by Cominco Ltd. [more details](#)



Vernon Area: Displays Geology Unit, Lines, Structures, Mapping Stations, and Ages in the Vernon Area (NTS 082L03, 06, 11, 13, 14). [more details](#)

Geology Map In

BC Geoscience Databases



MINFILE	$\frac{3}{4}$	12000 mineral occurrences
Digital Geology Map	$\frac{3}{4}$	28 438 polygons
Mineral Potential	$\frac{3}{4}$	780 tracts
Geochemical Data	$\frac{3}{4}$	55K+ RGS; 9500 rock
Exploration Reports	$\frac{3}{4}$	27 000+ ARIS reports
COALFILE Library	$\frac{3}{4}$	850 reports; 10K boreholes
Mineral Deposits	$\frac{3}{4}$	90 deposit descriptions
BC Age database	$\frac{3}{4}$	7000+ records
Publications from 1887	$\frac{3}{4}$	3000 geoscience maps & reports
...on top of Base Data	$\frac{3}{4}$	Topo, Admin, Landuse, Imagery, geophysics

Search MINFILE Database - Microsoft Internet Explorer provided by Government of Br...

Name	ESKAY CREEK	Mining Division	Skeena
Status	Producer	NTS	104B09W NAD 27
Latitude Longitude	36 39 15 N 130 25 37 W	UTM	09 6279588 412514
Commodities	Gold Silver Zinc Copper Lead	Deposit Types	G07 : Subaqueous hot spring Ag-Au. G06 : Noranda/Kuroko massive sulphide Cu-Pb-Zn.
Tectonic Belt	Intermontane	Terranes	Stikine.

Capsule Geology
The Eskay Creek deposits lie in the centre of the Iskut- Sulphurets gold camp in the Unuk River valley. Bedrock in the Unuk map area consists of a thick (more than 5000 metres) succession of Upper Triassic to Middle Jurassic volcano-sedimentary arc-complex lithologies (Stuhini and Hazelton groups) underlain by Permian and older arc and shelf sequences (Stikine Assemblage) and overlain

Link to Report
ESKAY CREEK:MACKAY:ESKAY:EMMA:KAY:TOK:SIB:UNUK:VERNA D.:21 (A)

Lat: 56.655651, Lon: -130.430982 MINFILE status : 104B 008-ESKAY CREEK:MACKAY:ESKAY:EMMA:KAY:T 1 : 187,802 40.0 x 29.3 (Km)

http://www.em.gov.bc.ca/cf/minfile/search/search.cfm?mode=capbib&minfilno=104B++008

MINFILE with Landsat & Report Link

Deposit Finder in Frames - Netscape

File Edit View Go Communicator Help

Bookmarks Location: http://ebony.gov.bc.ca/mapplace/minpot/ex_assist.cfm What's Related

Legend

- RGS - Arsenic (<1.2M)
 - 50th Percentile
 - 70th Percentile
 - 90th Percentile
 - 95th Percentile
 - Greater than 95th Perce
 - All Others
- RGS - Copper (<1.2M)
- RGS - Gold by FA (<1.2M)
- RGS - Gold by NA (<1.2M)
 - 50th Percentile
 - 70th Percentile
 - 90th Percentile
 - 95th Percentile
 - Greater than 95th Perce
 - All Others
- RGS - Lead (<1.2M)
- RGS - Mercury (<1.2M)
- RGS - Moly (<1.2M)
- RGS - Nickel (<1.2M)
- RGS - Silver (<1.2M)
- RGS - Uranium (<1.2M)
- RGS - Zinc (<1.2M)
- Rb - Sr Ratio

Map Layers

- Mineral Titles Layers
- Landuse Planning Layers
- Mineral Potential Hatched
- Topographic Layers**
- Grid Layers
- BCGS Geology Layers
- GSC Geology Layers
- Mineral Potential Solid Shade
- Raster Layers
 - Contour map in colour (<
 - Landsat image (<1M)
 - DEM image hillshade (<

Exploration Assistant

Geochemistry Element Selection

visible at 1:1,000,000 scale

Provincial Thresholds

Fluorine by ION

Gold by NA

Gold by FA

Hafnium by NA

Iron by NA

Mapsheet Thresholds

Barium by AAS

Barium by NA

Bismuth by AAS

Bromine by NA

Cadmium by AAS

Analytical Methods

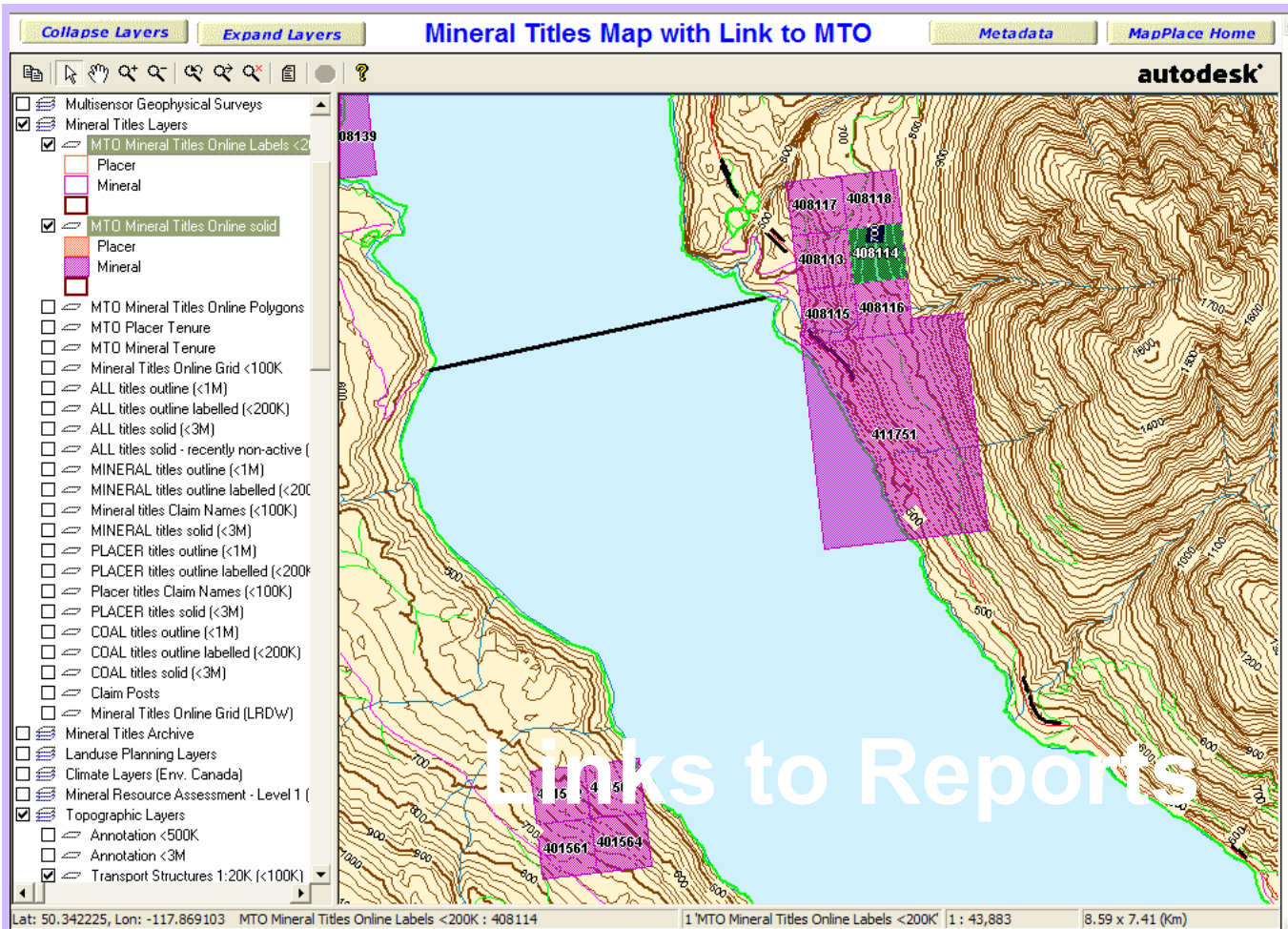
- Gazetteer
- Discovery Potential
- MINFILE
- Geological Maps
- Mineral Titles
- Analysis Tools

Lat: 58.490825, Lon: -129.440024 RGS - Gold

1 : 699,912

93.3 x 112 (Km)

Display and download data from 38 geochemical elements



Mineral Titles Map with double-click link to Tenure Report

Mineral Titles Online Viewer

Tenure Detail

Tenure Number ID	408114	View Tenure	
Termination Type			
Title Type	MC2		
Tenure Sub Type	C		
Tenure Type	M		
Mining Division	SLOCAN		
Good To Date	2006/FEB/11		
Issue Date	2004/FEB/11		
Termination Comments			
Termination Date			
Tag Number	712615M		
Claim Name	GREENHORN #2		
Old Tenure Code	408114		
Area In Hectares	25.0		

Copy to other graphic package

Pan

Zoom-to search tool

Report for selected object

Exploration Assistant

JavaScript frame provides search capabilities

Exploration Assistant

Geology Selection
visible at 1:4,000,000 scale

Age

- _Mesozoic
- _Cretaceous
- _Jurassic**
- _Triassic
- _Paleozoic

Lithology

- Volcanic
- _rhyolite
- _dacite
- _andesite
- _basalt

Terrane

- ANY TERRANE**
- _Alexander
- _Bridge River
- _Cache Creek
- _Cadwallader

Combined Rock Selection

Pop-Up Menu
right-click on map

- Print...
- Page Setup
- Pan
- Reload
- Copy
- Zoom
- Bookmark
- Select
- View
- About

Select Map Objects
Select within polygon
Select Radius
Select Polygon
Select Clear

Lat: 49.437089, Lon: -117.280143 MINFILE st 1: 203,842 29.3 x 29.4 (Km)

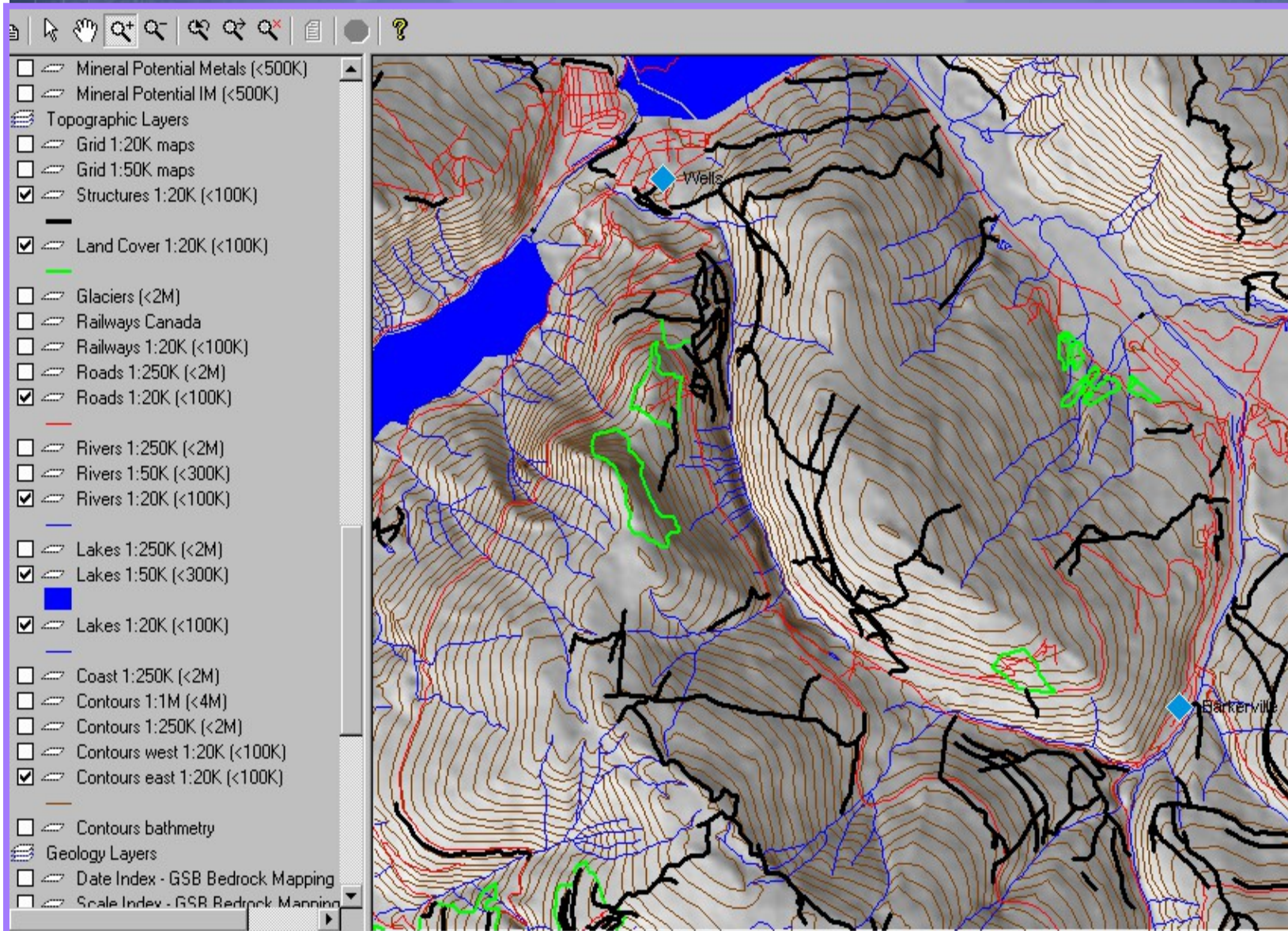
http://www.em.gov.bc.ca/ct/minfile/search/search.cfm?mode=capbib&filno=082FSW379

Cursor Position

Viewing Scale

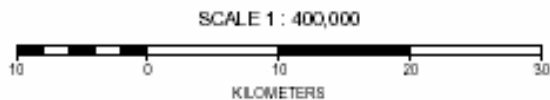
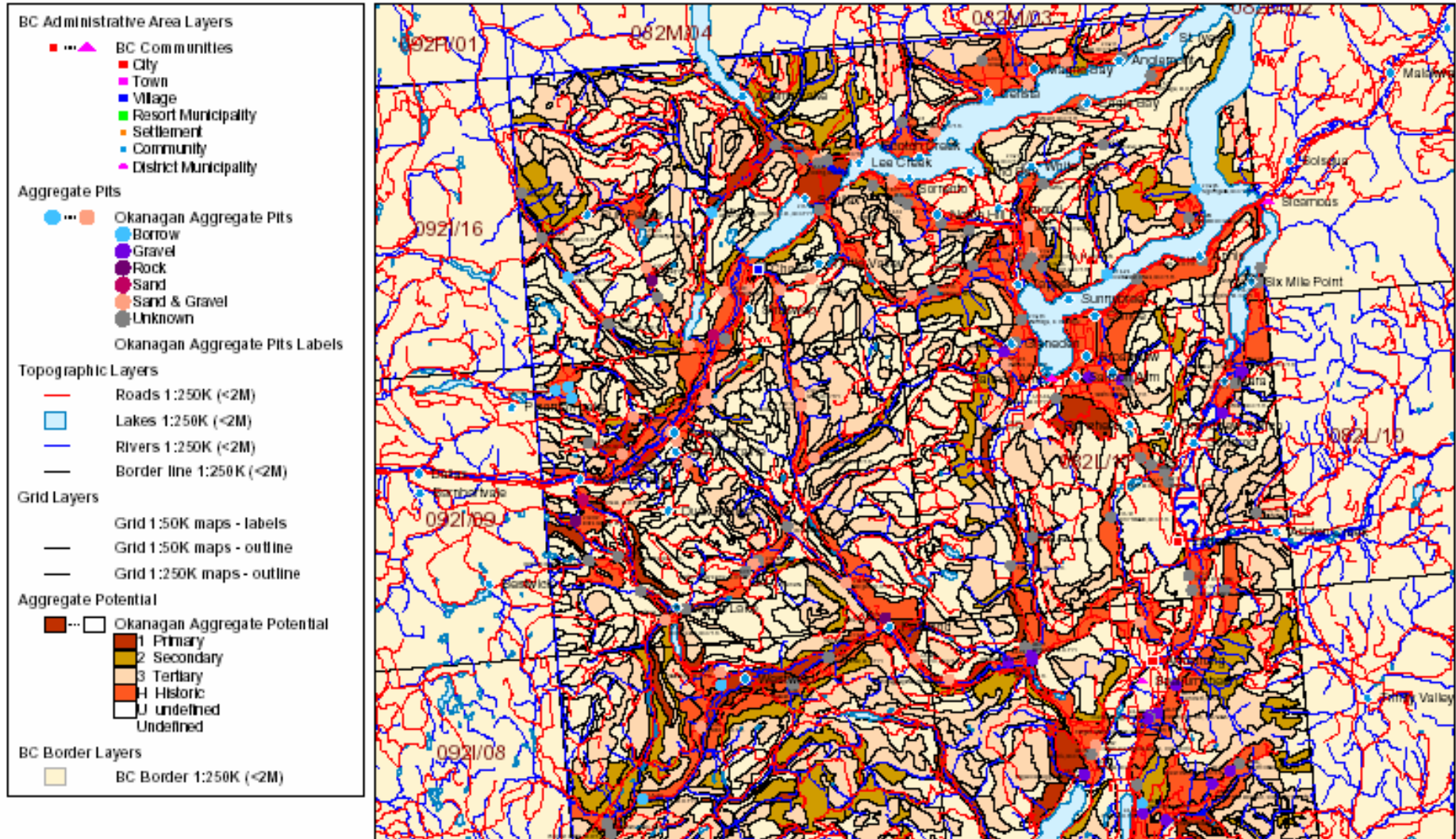
Size of map window

1:20K TRIM Visible at 1:100K



Contours
Roads
Rivers
Lakes
Marshes
Swamps
Structures
Tree Cover
Ice
Coast

Aggregate Potential Okanagan North



Output includes Scale & Legend



Mineral Title Maps

9 turn on PDF
1:20K grid

9 Adobe Reader
required 

9 double click on
1:20K map

9 zoom to
<1:1.5M scale

BCGS Geology Map - Microsoft Internet Explorer provided by Government of British Columbia

File Edit View Favorites Tools Help

Collapse Layers Expand Layers Remove Frame MapPlace home BCGS home

autodesk

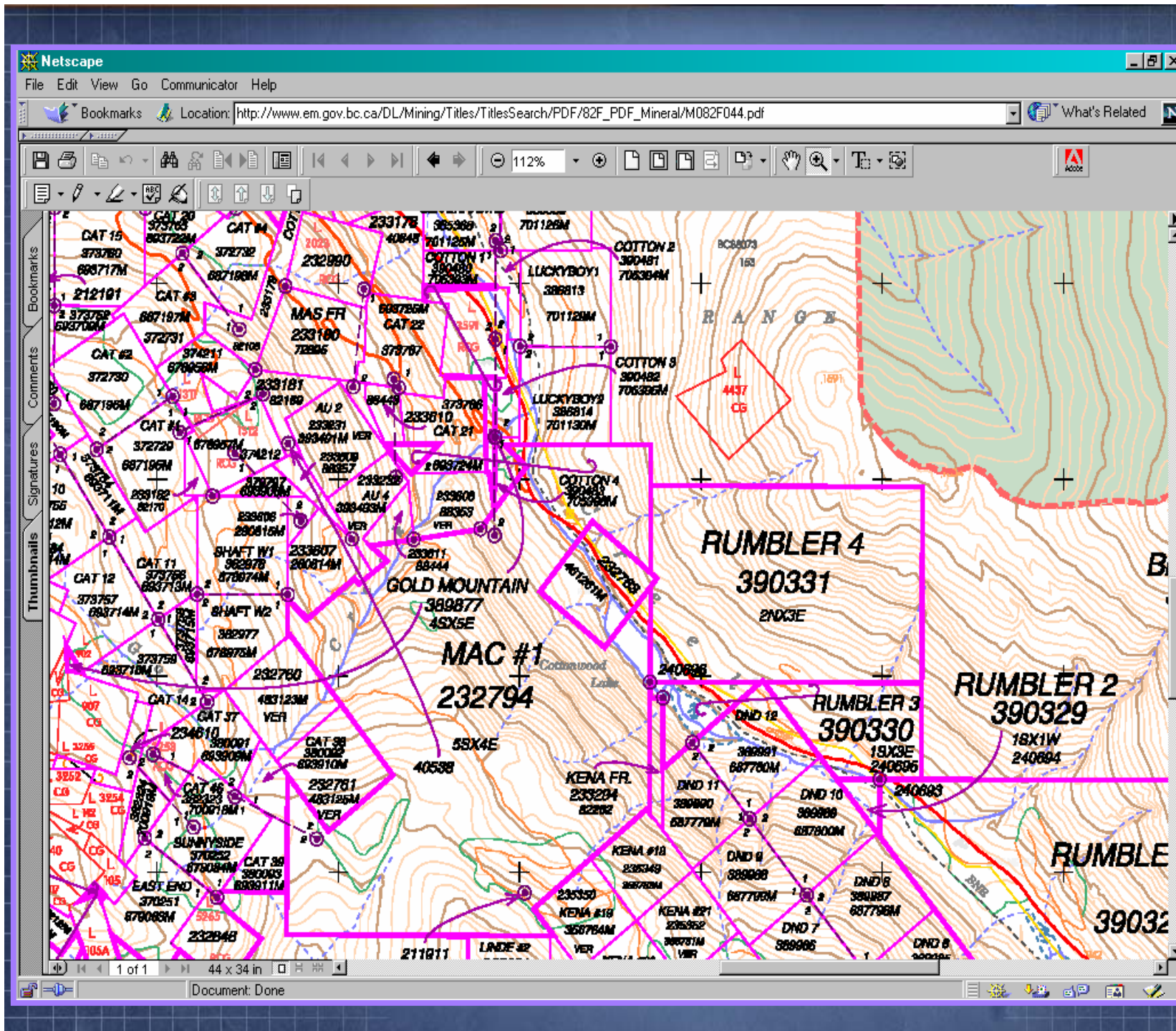
- File Download Layers
- Orthophoto Coverage
- Crown Grant Raster
- Mineral Titles PDF 1:20K Grid
- Mineral Titles PDF 1:250K Grid
- Geology Download_TM Proj.
- BC Administrative Area Layers
- First Nations Layers
- Parks Layers
- Forestry Layers
- Mineral Inventory Layers
- Regional Geochem Layers
- Mineral Titles Layers
 - Mineral titles outline (<1M)
 - Mineral titles solid (<3M)
 - Coal Licenses
 - Mineral Claims
 - Placer Claims
 - Claim Part
 - Mineral titles solid - recently non-active
- Landuse Planning Layers
- Energy Layers
- Mineral Potential Layers (Hatched)
- Topographic Layers
- Grid Layers
- BCGS Geology Layers
- GSC Geology Layers
- Mineral Potential Solid Shade
- Raster Layers
- BC Border Layers

Lat: 49.487162, Lon: -117.322944 Mineral Titles PDF 1:20K Grid : 082F.044

1 : 903,593 172... 3 (Km)

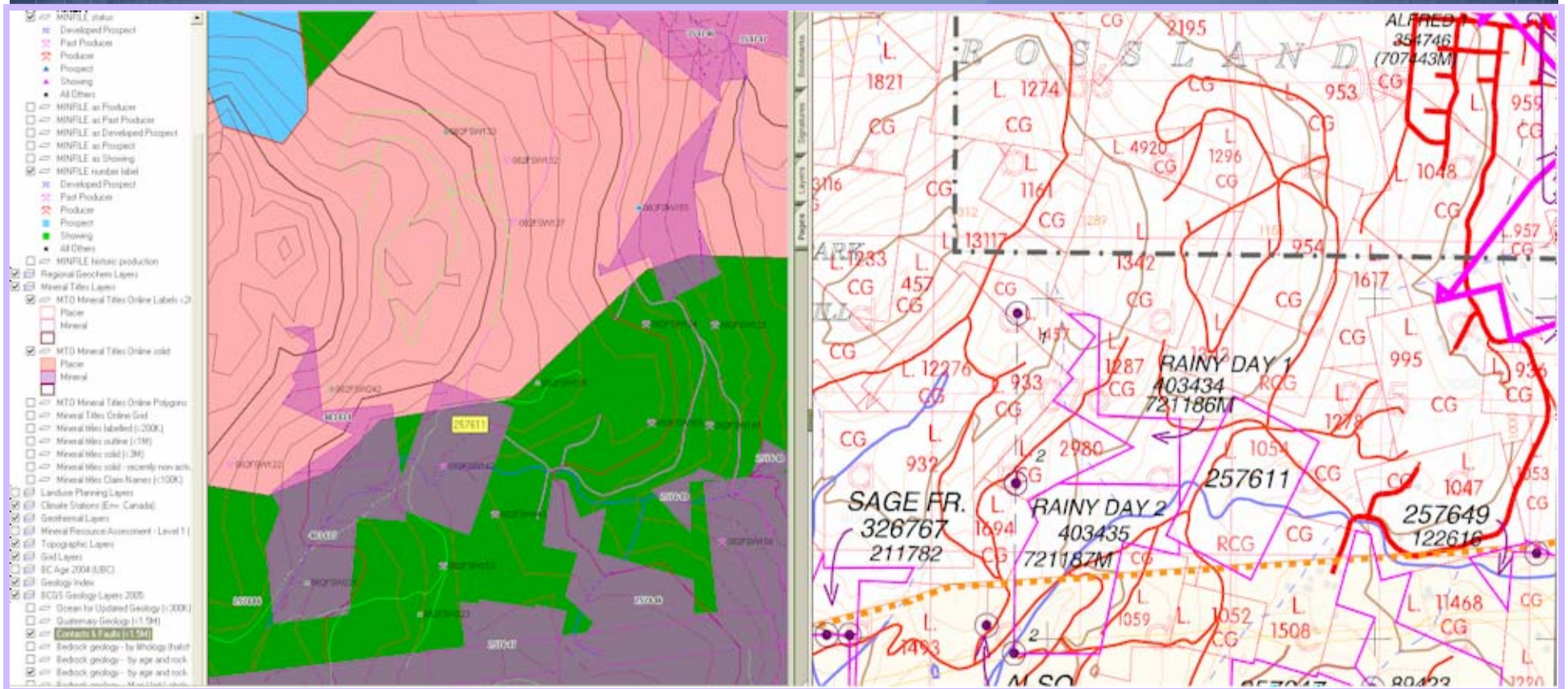
http://srmwww.gov.bc.ca/mida/downloads/pdf/082f/m082f044.pdf

Internet zone

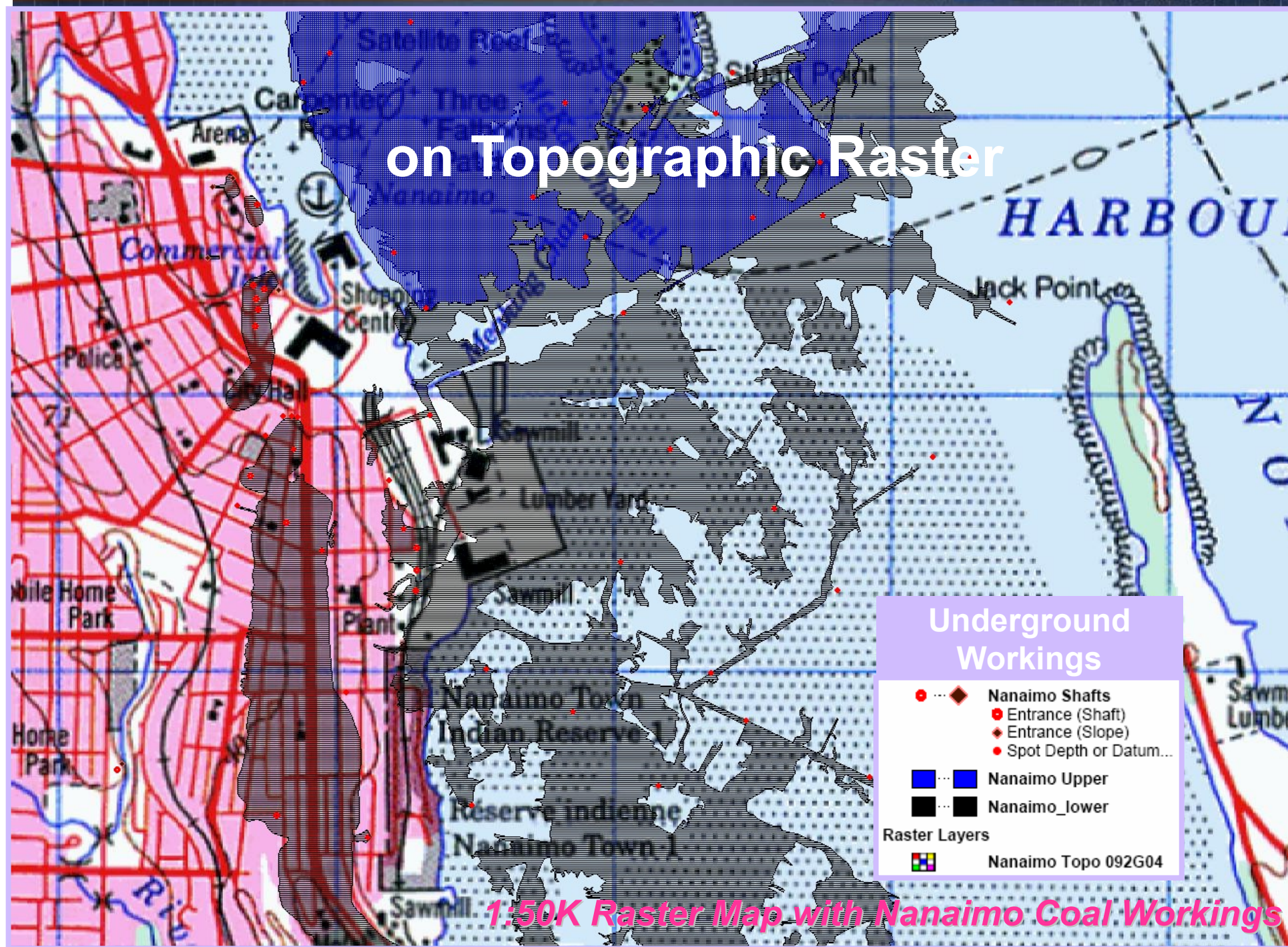


Mineral
Titles
Map in
PDF
format

Mineral Titles data in MapPlace and PDF format

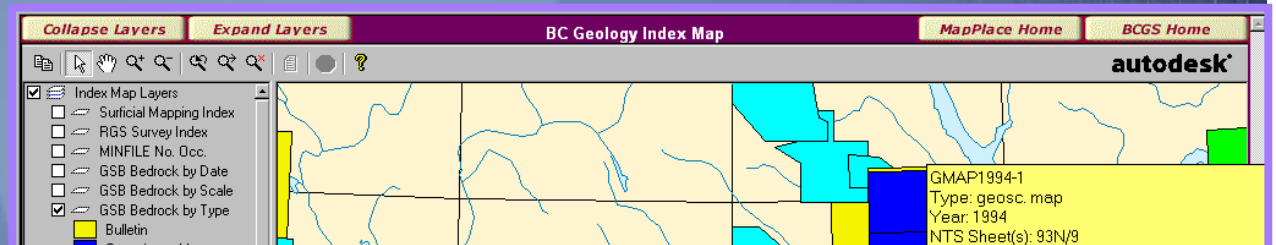


on Topographic Raster



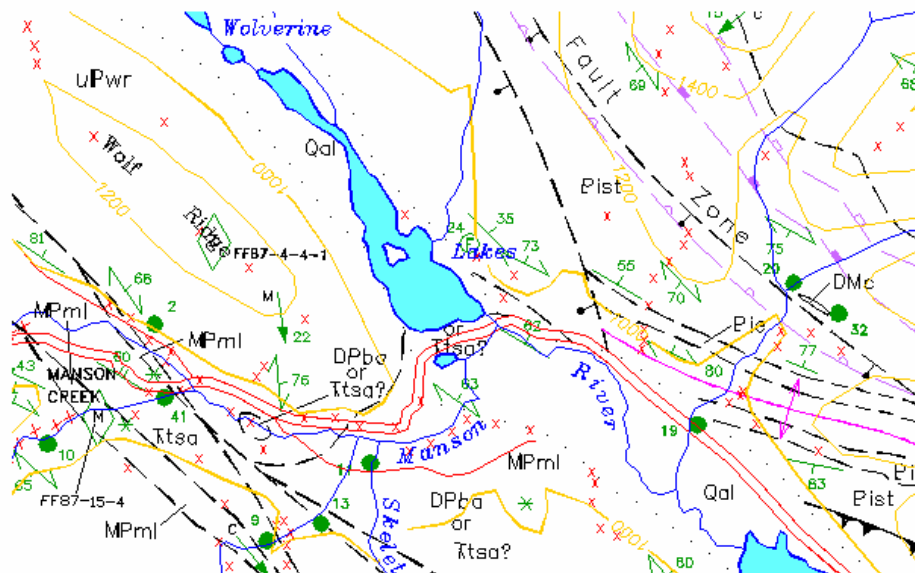
Map Index Footprints Link to Publications

Bedrock Geology Maps
 AutoCad DWF PDF
 HTML MapGuide



Geological Map Index Report

Map Name	Author	NTS Area	Scale 1:	Publication Type	Series Number	Year
Bulletin 91: Bedrock Geology of the Germansen Landing-Manson Creek Area (NTS 93N; 94C) F. Ferri, D.M. Melville				Open file	OF1988-12	1988
				Open file	OF1992-4	1992
				Bulletin	B91 Publication Link	1994
				Geosc. map	GMAP1994-1	1994
				Bulletin	B99 Publication Link	1996



Offshore Oil & Gas Map - Microsoft Internet Explorer provided by CITS

Address: http://webmap.em.gov.bc.ca/mapplace/minpot/offshore.cfm#

Offshore Map Gallery

CMNBC.CA MapPlace.ca

autodesk

Expand Layers Collapse Layers Data Sources Metadata

- Offshore Resource Layers
- Estuaries (PECP 2004)
- Proposed and Protected Areas
- Petroleum and Coal Layers
- Mammals (MSRM-DSS)
- Birds (MSRM-DSS)
- Coastal Resource Layers (CRIMS)
- Climate Layers (Env. Canada)
- Habitats and Species Distribution
- Shellfish and Fish Farms (Source: UNBC/LGL Report)
- Cities
- Towns and villages
- Small communities
- First Nations Layers
- Regional Districts
- Administrative Boundaries
- Electoral Boundaries
- Land Resource Management Plan
- Forestry
- Map Tiles
- Roads
- Waterbodies
- Rivers
- Shoreline Units (MSRM/DSS)
- Land Cover
- Watersheds
- Contours
- Railways
- Mineral Tenure
- Mineral Assessment Reports (ARI)
- Mineral Resource Assessment (LR)
- Mineral Occurrences (MINFILE)
- Geology
- Shaded contours
- Orthophotos
- Aeromag (GSC)
- DEM Hillshade
- NASA Landsat circa 1990
- Landsat
- Gravity (GSC)
- Shaded Relief Map (GSC)
- Base Map

Ministry of Water, Land and Air Protection - Naikoon (Agate Beach and Misty Meadows) - Microsoft Internet Explorer provided by

Address: http://wlapwww.gov.bc.ca/bcparks/explore/parkpgs/naikoon.htm

BC Parks Government of British Columbia

Recreation

Recreation Conservation Education Planning Info Centre

Parks Listed Alphabetically: [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

Naikoon - Agate Beach and Misty Meadows Provincial Park

Attention Visitors - Important Notice

- Park Info
- Visitor Safety
- Location
- Nature & Culture
- Map / Brochure
- Mgmt. Planning
- Reservations
- Photo Gallery

Green = available
Grey = unavailable

Click green symbols for more information

Attention Visitors - Important Notice!

- There are no park alerts at this time.

Park Info:

From Rose Point, or "Naikoon" as it was called by the Haida, at the northeast tip of Graham Island, largest of the Queen Charlotte Islands, broad, sandy beaches seem to stretch endlessly to form the eastern and northern boundaries of this unique and intriguing park. The park occupies part of the Hecate Depression, a trough between the Outer Mountains to the west and the Coast Mountains on the mainland to the east. The park is largely low and flat. Most of its topographic features are formed by underlying glacial deposits. In the northeast corner, Argonaut Hill, the highest point in the park, rises only 150 metres above sea level. Tow Hill, an outcrop of basalt columns, is a prominent landmark about 100 metres high on the north beach. Almost 100 km of beaches is the primary

Lat: 53.932832, Lon: -131.806164 Parks (Aug 99) solid by type : Naikoon

1 : 1,465,445 530 x 371 (km)

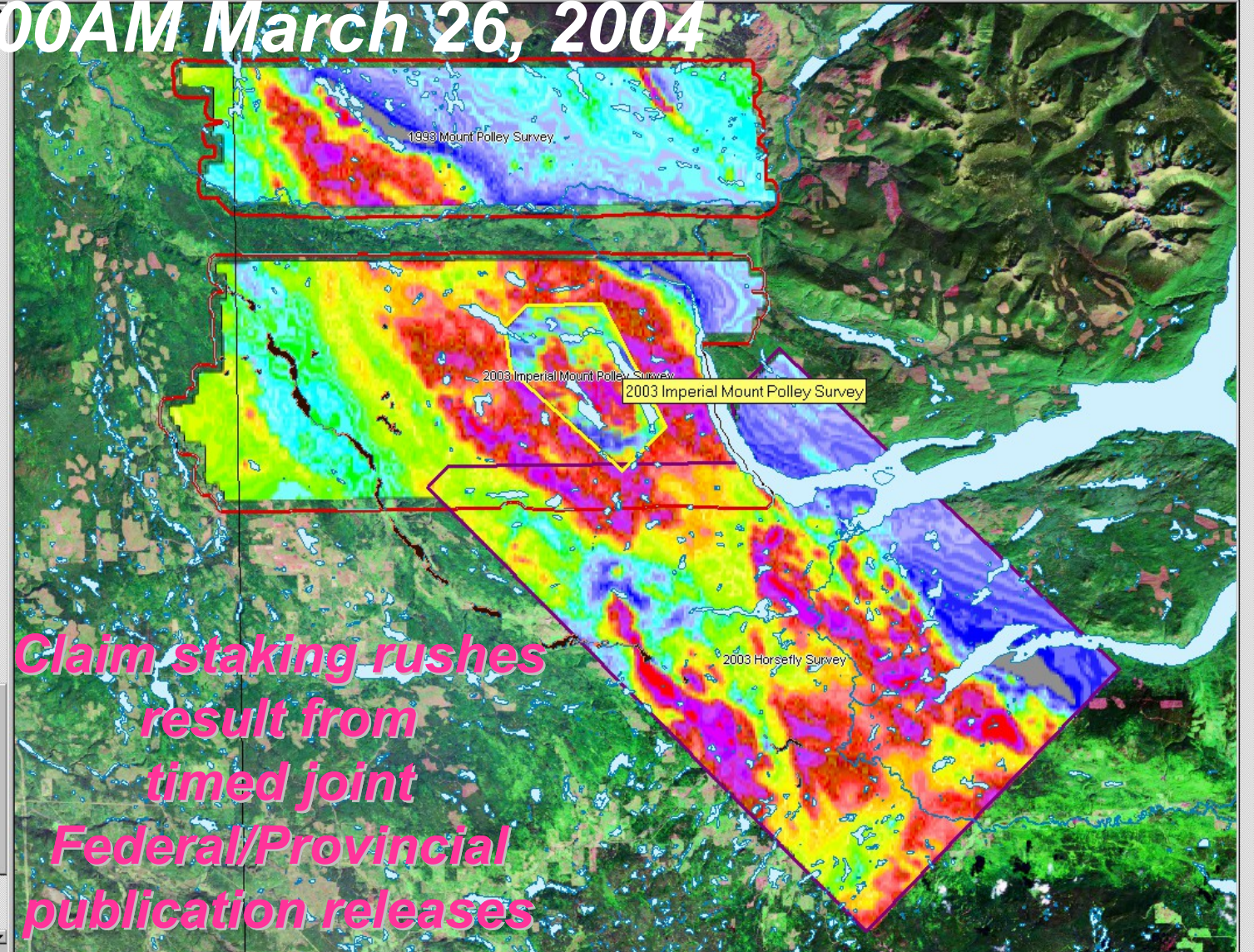
http://wlapwww.gov.bc.ca/bcparks/explore/parkpgs/naikoon.htm

Internet

URL Links to external websites

100AM March 26, 2004

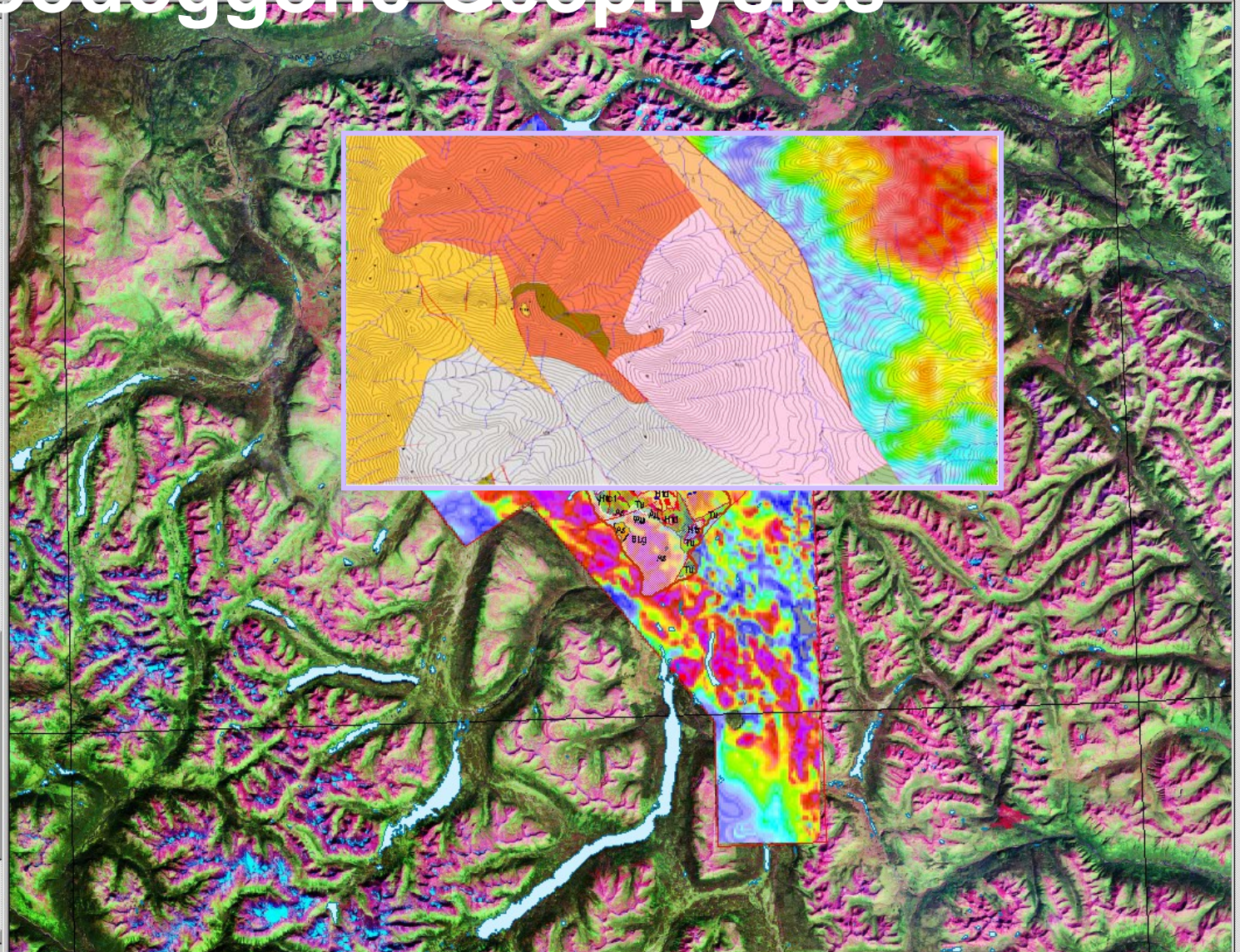
- Level 1 - Ind. Mir. by ank
- Multisensor Geophysical Survey
- 2003 Imperial Mount Polley Survey
- 2003 Horseshy Survey
- 1993 Mount Polley Survey
- Survey Labels
- 2003 Imperial Mount Polley Survey
- Magnetic total field (MTF, r
- Calculated magnetic vertic
- Potassium (K, %)
- equivalent Uranium (eU, pp
- equivalent Thorium (eTh, p
- Natural air absorbed dose r
- equivalent Uranium/equive
- equivalent Uranium/Potass
- equivalent Thorium/Potass
- Ternary radioelement map I
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- Magnetic total field (MTF, r
- Calculated magnetic vertic
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- equivalent Thorium (eTh, p
- Natural Air Absorbed Dose
- equivalent Uranium/equive
- equivalent Uranium/Potass
- equivalent Thorium/Potass
- Ternary Radioelement Map
- equivalent Potassium/Thor
- MTF Emphasizing Highs
- L7 Landsat Imagery (GEOGRA
- Footprints
- L10



Claim staking rushes result from timed joint Federal/Provincial publication releases

Toodoggone Geophysics

- Geological Contact, defined
- Geological contact, approx
- Geological contact, blank
- Geological contact, inferred
- Landslide
- Mapping Limit
- Normal Fault, defined
- Normal Fault, inferred
- Reverse Fault, defined
- Reverse Fault, inferred
- Thrust Fault
- Unconformity, defined
- Unconformity, inferred
- Wrench Fault, defined
- Wrench Fault, inferred
- Station Locations
- Toodoggone Geology Sha
 - As
 - Av
 - BLg
 - BLm
 - Ht
 - Htb
 - Htc
 - Htc1
 - Htd
 - Htm
 - Hts
 - Ts
 - Tv
 - dike
- Toodoggone Geology
- BCGS Geology Layers
- GSC Geology Layers
- Toodoggone Geophysics
 - Geophysics Outlines
 - Magnetic total field (nT)
 - Calculated magnetic vertic
 - Potassium (K, %)
 - equivalent Uranium (eU, pp
 - equivalent Thorium (eTh, p
 - Natural air absorbed dose r
 - equivalent Uranium/equive
 - equivalent Uranium/Potass
 - equivalent Thorium/Potass
 - Ternary radioelement map



Collapse Layers

Expand Layers

Petroleum Tenure & Wells Map

MapPlace Home

Oil & Gas Website

autodesk

Bowser Basin

Bowser Basin Geology (MEM - Petroleum)

Line Structure

Faults (<2M)

Contacts (<2M)

Underlying Bedrock

Geology (<2M)

Geology (<2M) with Labels

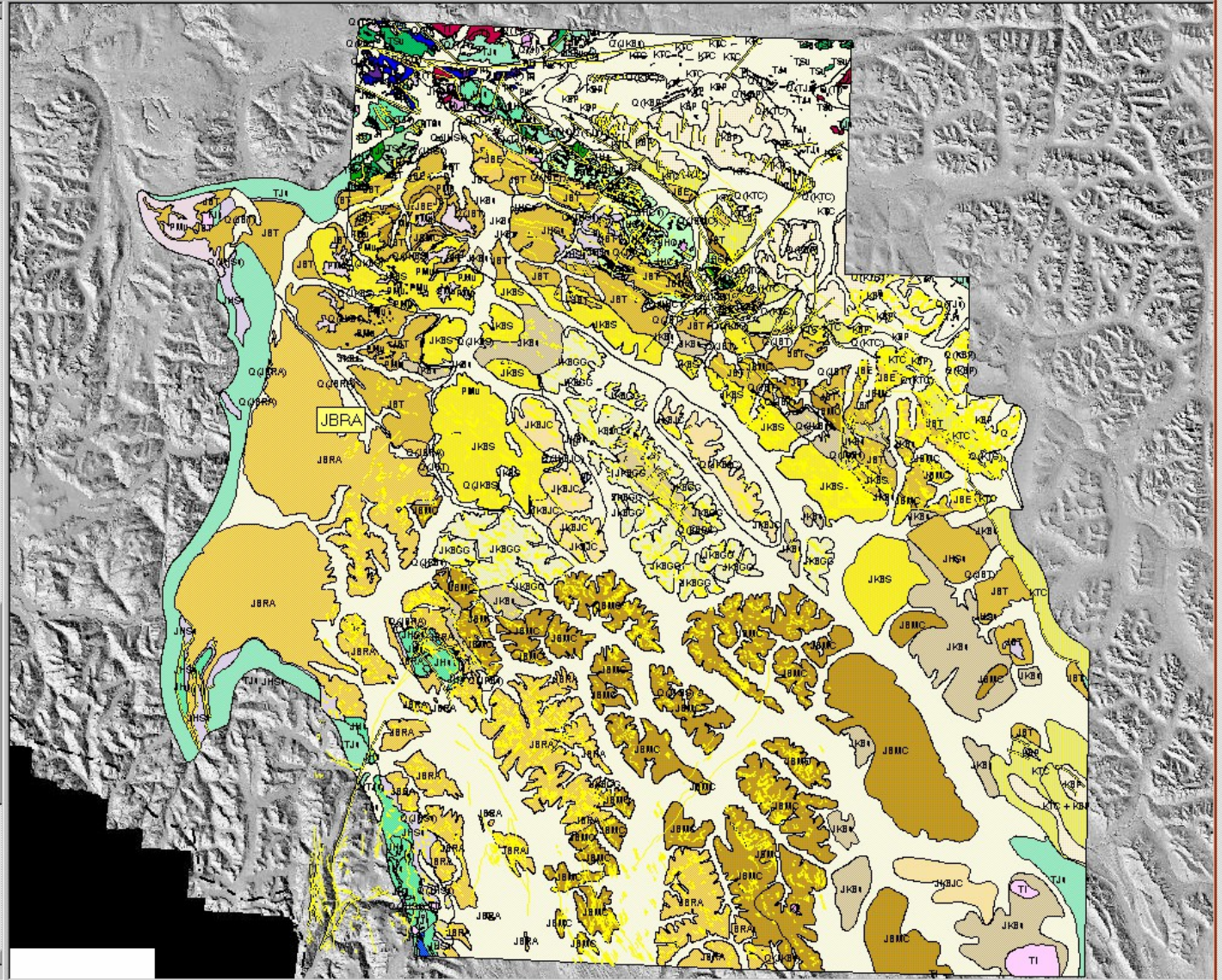
- Q
- KBP
- KTC
- PMv
- KBDC
- JKBGG
- JKBS
- JKBJC
- JBE
- Ti
- KP
- JKBP
- TJi
- TJi
- mJBv
- JHCu
- Pb
- JHSu
- JKBu
- Ji
- mJBs
- JBMC
- Ti
- JBT
- JHu
- TSs
- JBRA
- TJu
- DMSv
- Pi
- Pc
- TSv
- TJc
- PTb
- Pvs

BCGS Geology Layers

Date Index - GSB Bedrock Mapping

Scale Index - GSB Bedrock Mapping

Time Index - GSR Bedrock Mapping



Lat: 57.100912, Lon: -130.095927 Geology (<2M) with Labels : JBRA

1 : 1,092,019

288 x 233 (Km)

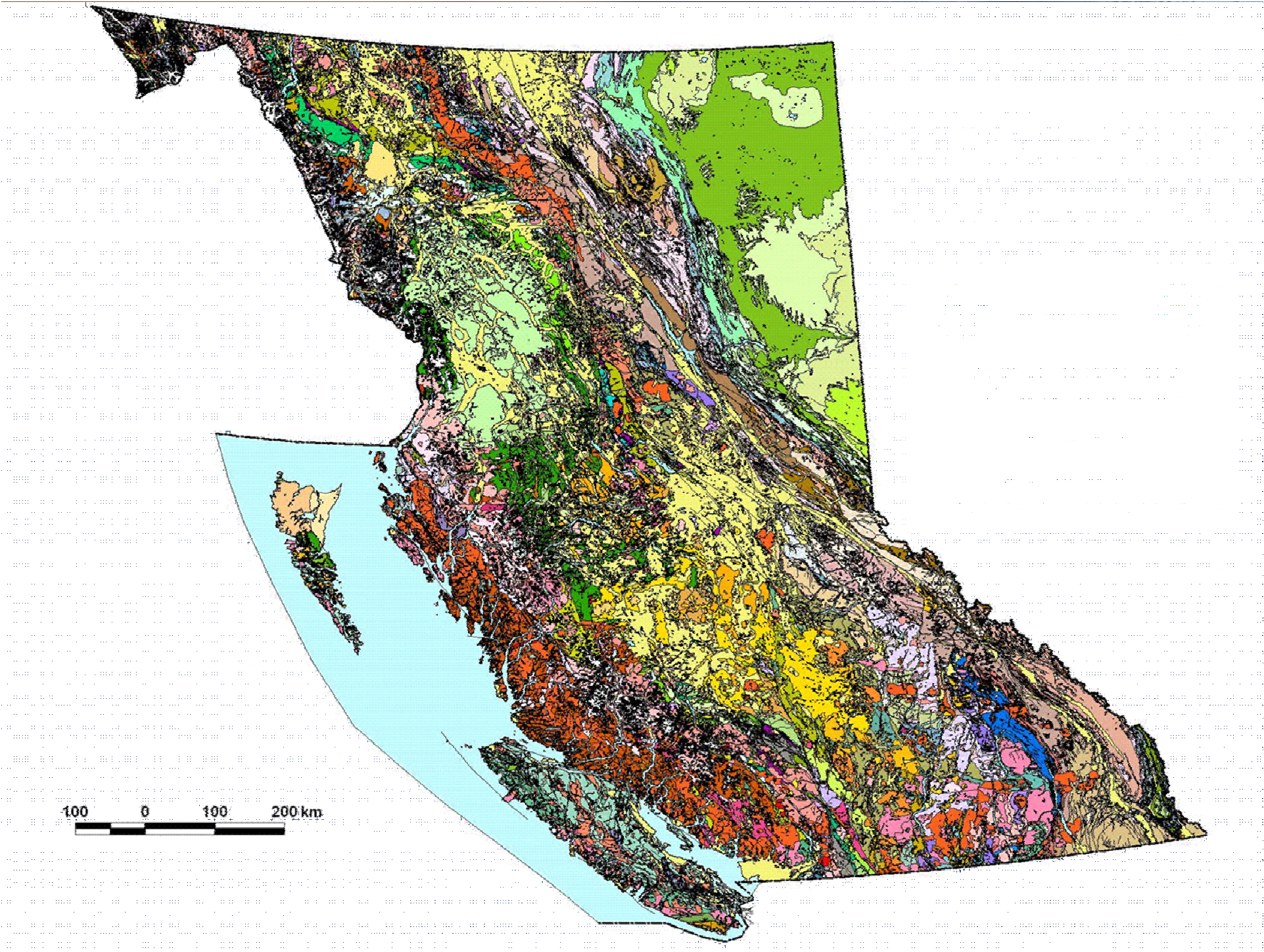


Internet

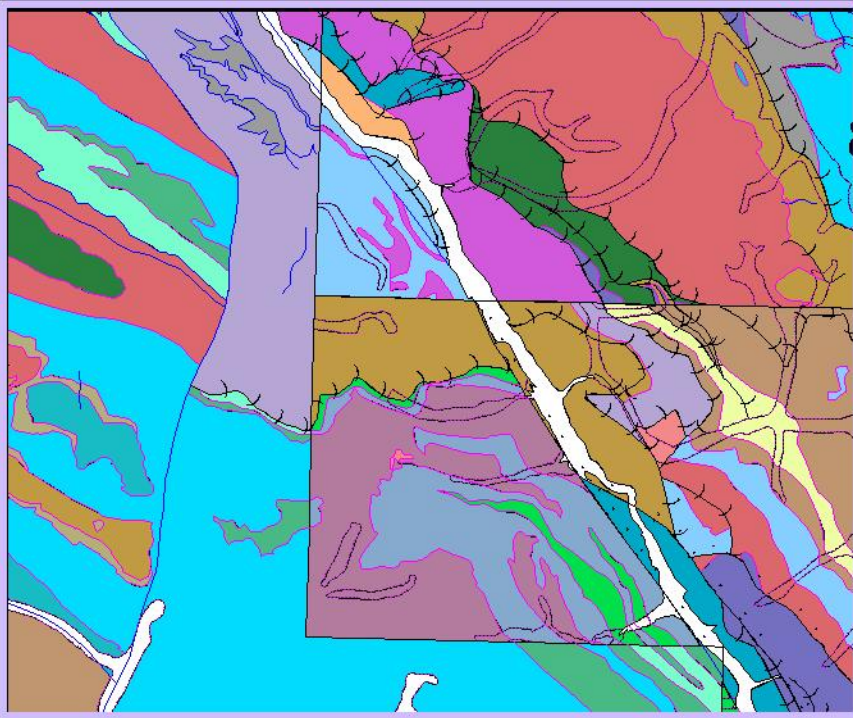
Geospatial Data Downloads

The table below lists the files available for downloading. File formats are zipped ARC Shapefiles in NAD 83 and either BC Albers or Geographic (decimal degrees) projection. Some files are in e00 (decimal degrees) and dBASE format. These files can be used with most GIS systems or the free [ArcExplorer](#). See [Notes & Links](#).

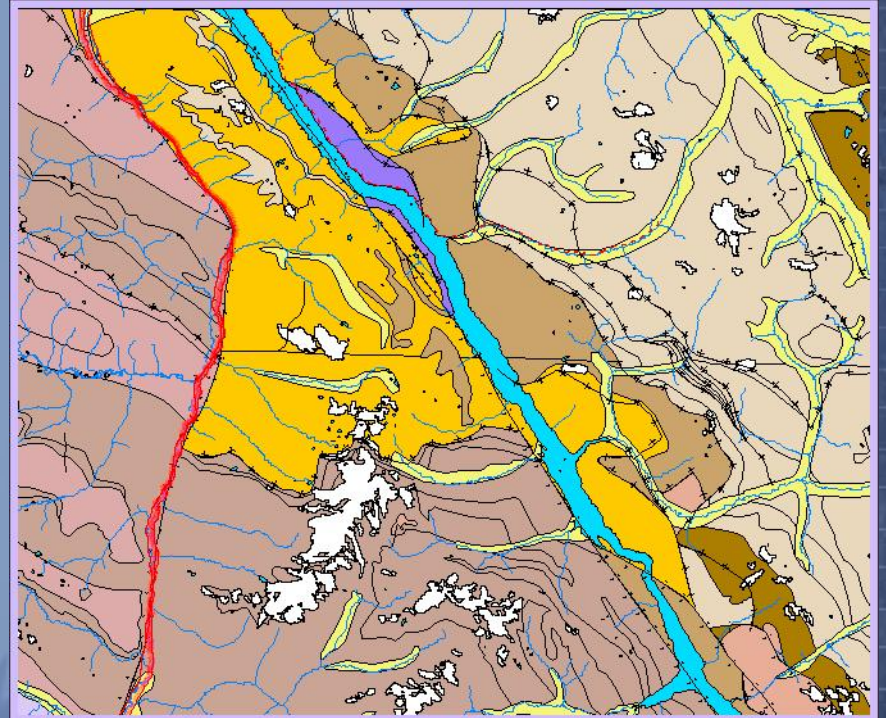
Date	Data (with Home Page links & more downloads)	ARC Shapefiles BC Albers (size zip/shp MB)	ARC e00 & Shapefiles Geographic (size zip/shp MB)
Jan. 2005 May 2004 Dec. 2001	Bedrock Geology ... GIS Data Files ... BC Geology Maps ... Metadata for bedrock_bc_alb ... Metadata for bedrock_bc_dd ... Metadata for geol_e00 ... Metadata for faults_bc_alb ... Metadata for faults_bc_dd ... Metadata for faults_e00	Digital Geology downloads 2005... Geology Compilation 1991-96: bedrock_bc_alb.zip (32/150) faults_bc_alb.zip (4/39)	Digital Geology downloads 2005... Geology Compilation 1991-96: bedrock_bc_dd.zip (26/150) geol_e00.zip (19/113) faults_bc_dd.zip (3/38) faults_e00.zip (3/16)
1998	Tectonic Assemblage Geology Tectonic Belts & Terranes	tectassem_bc_alb.zip (14/18) tecbelts_bc_alb.zip geoterranes_bc_alb.zip	tectassem_bc_dd.zip (16/18) tecbelts_bc_dd.zip geoterranes_bc_dd.zip
1998	BCGS Geology Map Index 1988 in .DBF format		gsbindex_dbf.zip
1998	Mineral Resource Assessment Level 1 (MRA1) (Metallic and Industrial Mineral Potential) ... Metadata for minpot_bc_alb ... Metadata for minpot_bc_dd	minpot_bc_alb.zip (6/9)	minpot_bc_dd.zip (5/9) minpot_e00.zip (3/12)
Feb. 2002 - July 2003	Mineral Occurrences - MINFILE ... more downloads ... Metadata for MINFILE.DBF (July 2003)	minfile_bc_alb.zip (1/17) Feb. 2002	minfile_bc_dd.zip (1/17) Feb. 2002 minfile_dbf.zip (1/9) July 2003 minfile_e00.zip (1/8) June 2003
Feb. 2002 - June 2003	Assessment Report Index - ARIS ... more downloads ... report downloads ... Metadata for ARIS.DBF (June 2003)	aris_bc_alb.zip (1/6) Feb. 2002	aris_bc_dd.zip (1/6) Feb. 2002 aris_dbf.zip (2/17) June 2003 aris_e00.zip (1/8) June 2003
Sept. 2004	BCGS CGKN Metadata Catalogue in MS Access format		metaman.zip
	Mineral Tenure PDF Maps	Contact Mineral Titles Branch link to Digital Mineral Titles Reference Maps	
May 2001	Regional Geochemistry ... RGS Summary & Downloads	rgs_bc_alb.zip (6/63)	rgs_bc_dd.zip (6/63) rgs_e00.zip (7/85)
Oct. 2004	BC Age Data 2004A-1 (Release 3, October 2004)	MS Access download from Open File 2004-3 , includes ReadMe Document	
Feb. 2004	MineMatch Anomaly Clusters (Metadata) Georeference Online	www.RocksToRichesBC.com	
	Magnetic and Gravity data	GSC Geophysical Data Centre	



BC Digital Geology Map



1994-5



2005

ArcView GIS 3.2 + Create Legend

File Edit View Theme Graphics Window Create Legend Help

Scale 1: 249,346 1,107,669.54 473,276.80

3C Albers

some Base Data

extensive attribute data

includes layers for bedrock geology, faults, Quaternary cover, ocean, ice, lakes, rivers, roads, railways, communities

Bc_tiles_alb.shp
 Bc_250kgrid_alb.sl
 Bc_border_alb.shp
 Bc_communities_2
 Bc_road_alb.shp
 Gravel
 Paved
 Bc_rail_alb.shp
 Bc_ftlns_alb.shp
 Extension Fa
 Fault
 Normal Fault
 Thrust
 Bc_river_alb.shp
 Bc_riverpoly_alb.sl
 Bc_ice_alb.shp
 Bc_lake_alb.shp
 Bc_ocean_alb.shp
 Bc_quaternary_alb
 Bc_geology_alb.shp
 ?ETD
 ?dr

Identify Results

1: Bc_geology_alb.shp - Is

Shape	Polygon
Area	47137570.000
Perimeter	43104.270
Keycode	Jl V
Tecunit	MJgv
Strat_unit	EMJgd
Era	Mesozoic
Period	Jurassic
Strat_age	Early Jurassic to M
Strat_name	Island Plutonic Sui
Strat_agec	2054
Group_suit	Island Plutonic Sui
Formation	
Rock_type	granodioritic intrusi
Rock_code	gd
Rock_class	intrusive rocks
Original_d	Granodiorite, quart
Age_max_te	Early Jurassic
Age_min_te	Middle Jurassic
Age_max_nu	208
Age_min_nu	157.1
Project	Vancouver Island
Agegroup	205_intrusive rock
Agecode	20540
Lithcode	83
Source_id	1007
Unit	EMJgd - Mesozoic
Remarks	
Belt	Insular
Terr_code	Wr
Terrane	Wrangellia
Terr_clr	425
Basin_code	
Basin	
Basin_age	
Bas_clr_1	
Bas_clr_2	
Strat1	EMJgd
Strat1_clr	130

Clear Clear All

BCGS Geology Map - Microsoft Internet Explorer

Address: <http://webmap.em.gov.bc.ca/mapplace/minpot/bcgs.cfm#>

Geology Map with push-button Legend

MapPlace Home
BCGS Home
autodesk

File Download Layers
 BC Administrative Area Layers
 Cities
 BC Communities
 City
 Town
 Village
 Resort Municipality
 Settlement
 Community
 District Municipality
 BC Localities (<500K)
 BC Municipalities
 BC Municipality labels
 Provincial Electoral Boundaries
 Regional Mines Offices
 Regional Districts
 Development Regions
 WLAP Boundaries
 BC Mining Divisions (Gold Commissic
 BC Mining Regions (Shade)
 BC Mining Regions (Solid)
 BC Border
 First Nations Layers
 Parks Layers
 Forestry Layers
 Mineral Inventory Layers
 Regional Geochem Layers
 Multisensor Geophysical Surveys
 Mineral Titles Layers
 Landuse Planning Layers
 BTM (Baseline Thematic Mapping)
 Climate Stations (Env. Canada)
 Geothermal Layers
 Mineral Resource Assessment - Level 1
 Topographic Layers
 Volcanos
 Earthquakes
 Glaciers (<2M)
 Railways Canada
 Railways 1:6M
 Roads 1:250K (<2M)
 Coast (<1M)
 Coast 1:250K (<2M)
 Contours 1:1M (<4M)
 Contours 1:250K (<2M)
 Contours bathymetry
 Bathymetry contours (250K)

Lat: 49.490804, Lon: -125.372770 Bedrock geology - by lithology (hatched) : uTrVK -Middle Triassic


[p://webmap.em.gov.bc.ca/mapplace/minpot/geol_legend_screen_updated_2.asp](http://webmap.em.gov.bc.ca/mapplace/minpot/geol_legend_screen_updated_2.asp)

Geology Legend

Bounding Box: North: 49.887 South: 49.352 East: -125.919 West: -124.820
NTS Mapsheet: 092F


Eocene to Oligocene

Mount Washington Plutonic Suite

 EOIM quartz dioritic intrusive rocks


Upper Cretaceous

Nanaimo Group

 uKN undivided sedimentary rocks


Early Jurassic to Middle Jurassic

Island Plutonic Suite

 EMJgd granodioritic intrusive rocks

Lower Jurassic

Bonanza Group

 IJBca calc-alkaline volcanic rocks

Late Triassic

New ...

MapperWrapper & Unplugger

- 9 Add points, polygons, lines and text
- 9 Long/Lat Grid Overlay
- 9 Symbol Resizing
- 9 View Maps Off-line 'Unplugger'

Image Analysis Tools (IAT)

- 9 Analyze geopositioned multi and hyperspectral imagery

The MapPlace - MapperWrapper

Details: The MapperWrapper provides the ability to create layers and add map objects, such as lines, polygons, symbols, text and custom grids, to existing MapPlace basemaps. This added information resides only on the client computer and is not transmitted to the Internet. A continuous Internet connection is required to obtain the basemap information, such as topographic contours and imagery, as well as, being able to obtain reports from the MapPlace server.

The '**Unplucker**' option allows for the creation of a map which can be used off-line with the MapperWrapper Tools or simply viewed in an Internet browser.

There are two components to the MapperWrapper service. The first component, this one, resides on the MapPlace server. Its function is to provide access to a variety of base maps that have been designed for used in this process and provide the tools to enable additional user information to be added to the maps. The second component is the MapperWrapper remote package that enables continued work on a map previously saved as a MapGuide map file (*.mwf) and residing on the client computer. This file contains all the commands required to request the appropriate base map information over the Internet and holds all of the client input map features, including the off-line layers saved with the Unplucker.

An Internet Explorer or Netscape Web browser, along with the appropriate MapGuide Viewer, is required to use this feature. See [MapperWrapper Manual](#) for additional information.

Launch MapperWrapper with a fresh on-line basemap:

- [BC Albers Projection, Whole province, NAD 83](#)
- [UTM Zone 11 Projection, Whole province, NAD 83](#)
- [UTM Zone 10 Projection, Whole province, NAD 83](#)
- [UTM Zone 9 Projection, Whole province, NAD 83](#)
- [UTM Zone 8 Projection, Whole province, NAD 83](#)
- [UTM Zone 7 Projection, Whole province, NAD 83](#)

Working with a saved map: To work with a map that has been saved on a client computer the MapperWrapper remote package must be downloaded and installed on the client computer.

- 1) [Download Mapper Wrapper](#) (500K) remote package.
- 2) Extract the Zipped files to a single directory.
- 3) The map file, *BaseMap.mwf*, is the default map.
- 4) Other maps can be used if renamed to *BaseMap.mwf*.
- 5) Launch the MapperWrapper by opening the *MapperWrapper.htm* file in a browser. For example, right-click the file and Open With Internet Explorer.

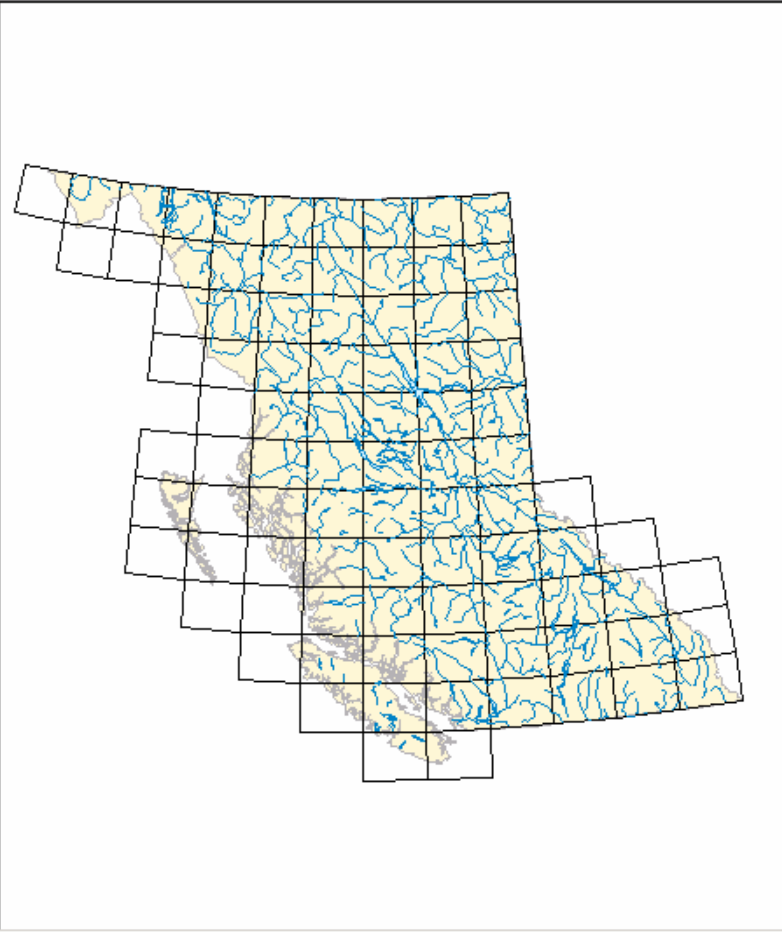
See [MapPlace Client-Mapping Tools](#) (PDF 149Kb) in [Fieldwork 2003](#) for additional tools.

See [MapperWrapper Manual](#) for additional information.



autodesk

- Enhanced Landsat Download
- File Download Layers
 - Orthophoto Coverage
 - Crown Grant Raster Index
 - Mineral Titles PDF 1:250K Grid
 - Coal Titles PDF 1:250K Grid
 - Placer Titles PDF 1:250K Grid
 - Geology Download_TM Proj.
- BC Administrative Area Layers
 - Cities
 - BC Communities
 - BC Localities
 - BC Municipalities
 - Regional Mines Offices
 - Administrative Boundaries
 - Electoral Boundaries
 - Regional Districts
 - WLAP Boundaries
 - BC Mining Divisions
 - BC Mining Regions (Shade)
 - BC Mining Regions (Solid)
 - BC Border
- First Nations Layers
 - Aboriginal Communities
 - Indian Reserves
 - Treaty SDI outlines
- Parks Layers
 - Parks (Aug 99) solid by type
 - BC Parks (Nov 2001) outline
 - Parks (Aug 99) hatched by type
- Forestry Layers
 - Tree Farm Licences



x: 1,257,536.879376, y: 1,662,757.117977 (ME) 1 : 15,216,849 1,804 x 2,130 (Km)

MAPPER TOOL

Layer Control

Active Layer Name:

Layer Priority: 99

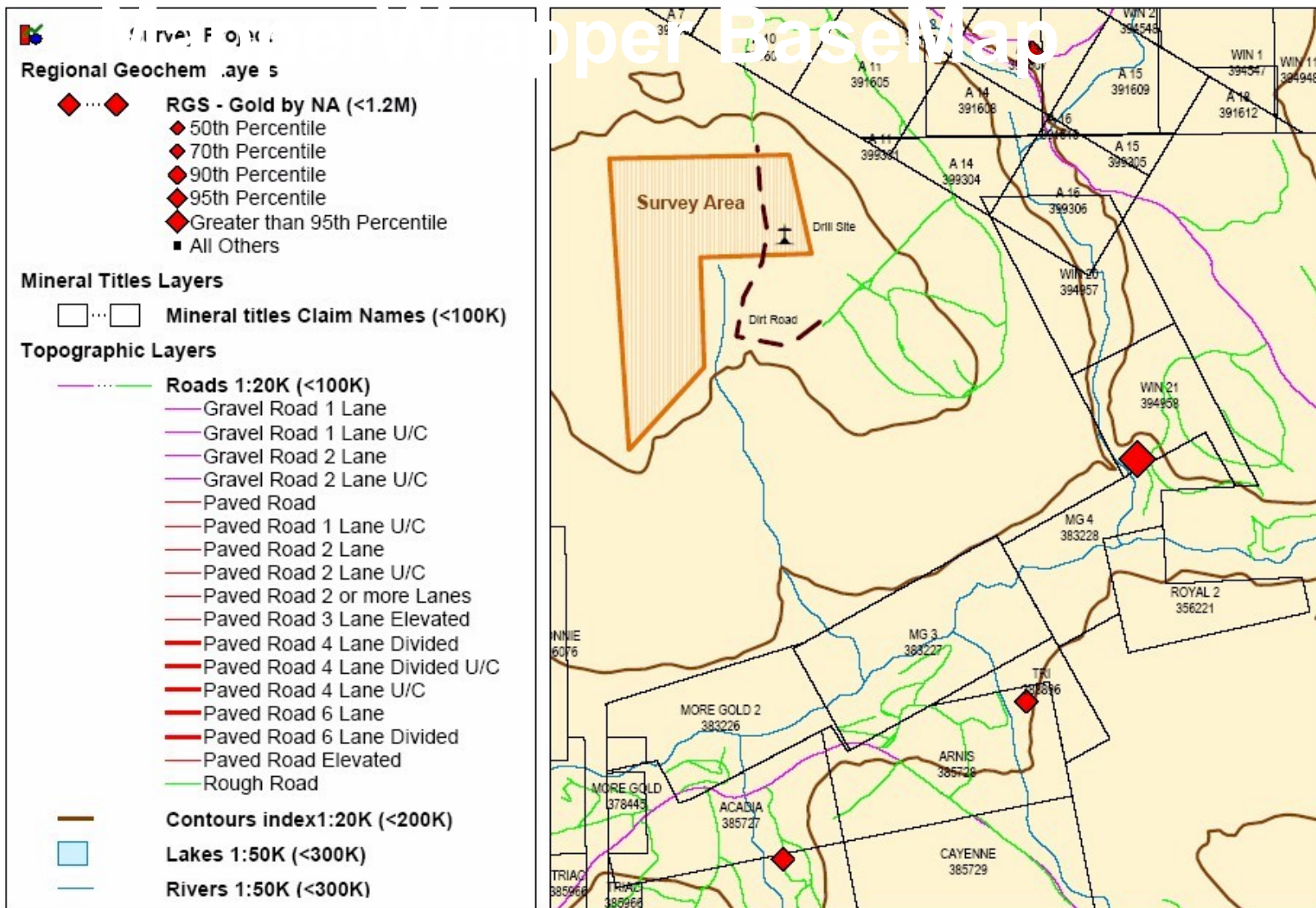
(0 - 100)

Add/Change Layer

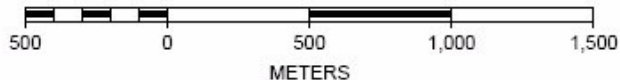
- Symbol Control
- Line Control
- Polygon Control
- Text Control
- Erase Control
- Save Control
- Grid Control
- UnPluggger Control

Mapper Wrapper Active Layer=

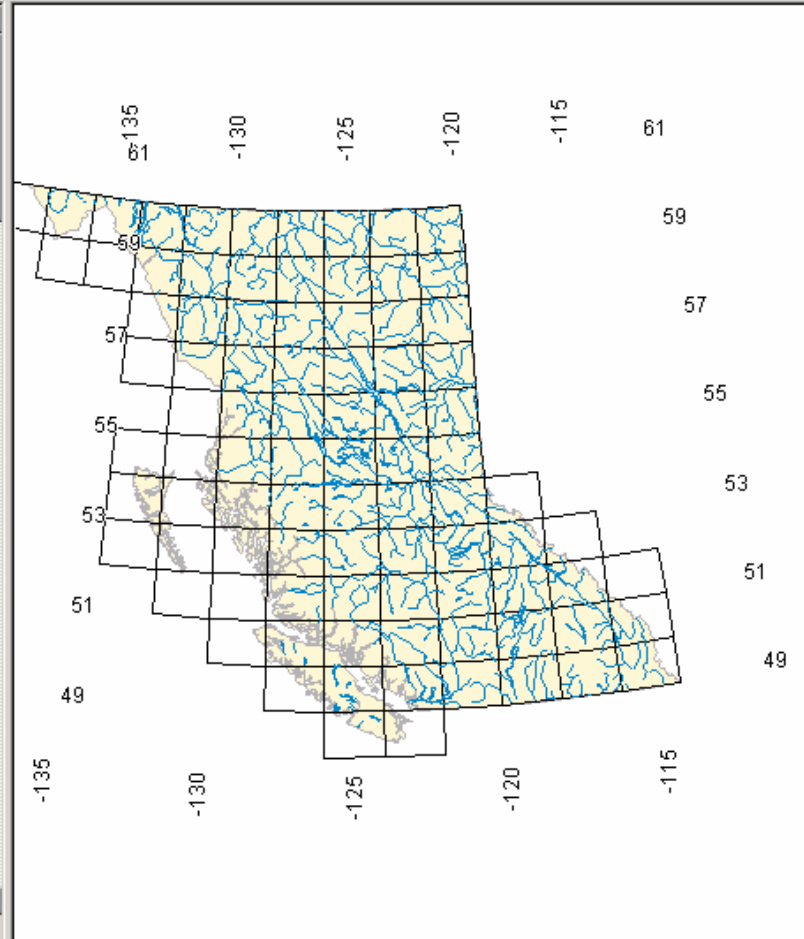
MapperWrapper BaseMap



SCALE 1 : 25,000



- GridOverlay
- Enhanced Landsat Download
- File Download Layers
 - Orthophoto Coverage
 - Crown Grant Raster Index
 - Mineral Titles PDF 1:250K Grid
 - Coal Titles PDF 1:250K Grid
 - Placer Titles PDF 1:250K Grid
 - Geology Download_TM Proj.
- BC Administrative Area Layers
 - Cities
 - BC Communities
 - BC Localities
 - BC Municipalities
 - Regional Mines Offices
 - Administrative Boundaries
 - Electoral Boundaries
 - Regional Districts
 - WLAP Boundaries
 - BC Mining Divisions
 - BC Mining Regions (Shade)
 - BC Mining Regions (Solid)
 - BC Border
- First Nations Layers
 - Aboriginal Communities
 - Indian Reserves
 - Treaty S01s outlines
- Parks Layers
 - Parks (Aug 99) solid by type
 - BC Parks (Nov 2001) outline
 - Parks (Aug 99) hatched by type



MAPPER TOOL

Grid Overlay

Coordinate System
 Map Coordinate System (MCS?)

Latitude and Longitude

Tick Marks or Lines
 Lines Tick Marks None

Line Labels
 On Off

Label Size M

Colour (1-256)
 [Colours](#)

East-West Lines
 Spacing(N): South Line:

North-South Lines
 Spacing(W): West Line:

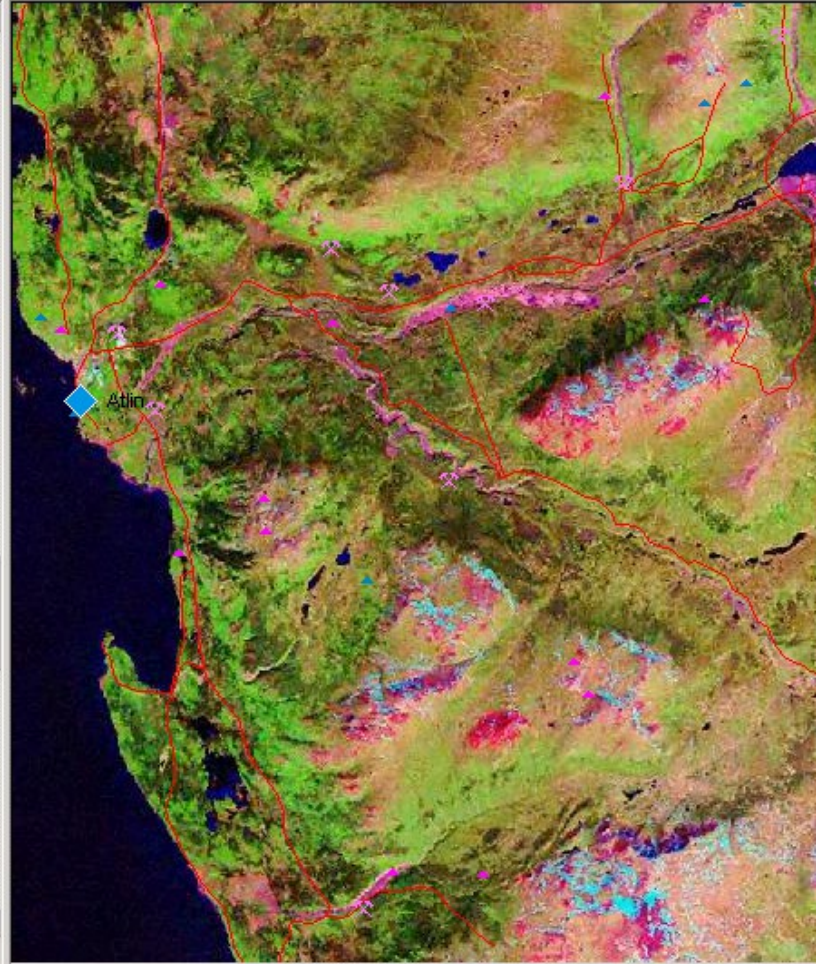
x: 1,778,917.639983, y: 40,052.707052 (METERS) 1 : 16,346,224 1,938 x 2,288 (Km)

Mapper Wrapper Active Layer=



autodesk

- Climate stations (active)
- Mineral Potential Hatched
- Mineral potential tract labels
- Mineral potential tract outlines
- Mineral Potential Metals (<500K)
- Mineral Potential IM (<500K)
- Topographic Layers
- Glaciers (<2M)
- Railways Canada
- Railways 1:6M
- Roads 1:250K (<2M)
- Coast 1:20K (<1M)
- Contours 1:1M (<4M)
- Contours 1:250K (<2M)
- Contour labels 1:20K (<50K)
- Contours index1:20K (<200K)
- Contours bathymetry
- Bathymetry contours (250K)
- Man-made Waterbody (1:50K)
- Lakes 1:250K (<2M)
- Lakes 1:50K (<300K)
- Wetlands (1:50K)
- Rivers 1:250K (<2M)
- Rivers 1:50K (<300K)
- Rivers with Fisheries Report
- Major Rivers with Fisheries Report
- Aquifers (<2M)
- Watershed Groups (<600K)
- Watershed Group Labels
- Watersheds 1:50K (<300K)
- Border line 1:250K (<2M)



x: 582,015.204659, y: 1,648,547.098864 (MET) 1 : 163,766 19.4 x 22.9 (Km)

Mapper Wrapper Active Layer=

MAPPER TOOL Unplugger Control

Unplugger is used to create a map that can be used without an active Internet connection. The resulting map may be used with the MapperWrapper Tools or simply opened in an Internet browser with the MapGuide viewer installed. Simply Zoom into the area of interest and turn on all required layers. Only those layers which have been turned on will be available for viewing when disconnected from the Internet. Certain functions requiring Internet access will not be available such as reports and zoom-goto when working off line. These functions and all other layers will be available when the Internet connection is restored. Only the map area that is within the map window will be available for viewing. To cover a large area at a given scale several 'unplugged' maps may be produced.

When the desired area is exposed in the map window and all required layers have been turned on 'lock down' the map's characteristics. When satisfied that the map contains all the required features and covers the required area click on the 'Create Map' button. It will appear in a new window and can then be saved to a local directory.

Lock Down Map
Create Map

Layer Control

The MapPlace - IAT on [Exploration Assistant](#)



Details: Image Analysis Toolbox (IAT): This BC and Yukon Chamber of Mines' Rocks to Riches program was delivered by Cal Data Ltd. January 5, 2003. The IAT is a framework to add, process and display a variety of multi and hyperspectral imagery. The IAT includes Enhanced Satellite Imagery, delivered by McElhanney Consulting Services Ltd. A description of these projects and use of the IAT are available in [Fieldwork 2004](#). Tel: 09-215; **Kilby, W.E., Kliparchuk, K. and McIntosh, A.:** [Image Analysis Toolbox and Enhanced Satellite Imagery Integrated into The MapPlace](#) (PDF document, 5.7 Mb).

NEW! January 24, 2005: In Phase 2, the IAT was completed with the addition of more analysis tools, imagery and imagery types. Near-complete coverage of the province with Landsat 7 (ETM+) imagery and 40 ASTER images are now available. Two new tools, the Tasseled Cap Transformation and the Spectral Angle Mapper (SAM) were added. Program enhancements were also made to the existing IAT programs to increase their efficiency and capability. See [Fieldwork 2004](#), p. 231-235 for details.

July 15, 2004: Added 48 new Landsat images (L21 – L68), covering most of BC. These images are available for processing using the IAT. They are not yet available as enhanced downloads.

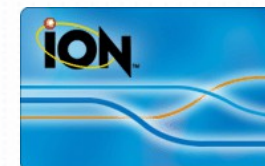
Image Analysis Links:

- [Hyperspectral Imaging Analysis in Geomatica 9 \(PDF, 1MB\)](#) by PCI Geomatics
- [A fractal concentration–area method for assigning a color palette for image representation](#) paper by Qiuming Chenga and Qingmou Lia.
- [ASTER Spectral Library NASA. Search Page.](#)

View Exploration Assistant with IAT

The screenshot displays the Autodesk Exploration Assistant software interface. The central map shows a geographical area of British Columbia with several semi-transparent rectangular overlays representing satellite imagery. A yellow box highlights a specific area on the map. The left sidebar contains a list of layers, including 'Enhanced Landsat Download', 'ASTER Analysis areas', 'Landsat Analysis areas', and various regional and geological layers. The right sidebar, titled 'Exploration Assistant', features the 'Image Analysis Toolbox' with buttons for 'Bring to Top', 'Original Order', 'Analyze Image', 'Clear Selection', and 'Focus Image'. Below this is the 'Toggle Image Group Layers (on/off)' section with buttons for 'ASTER', 'LANDSAT', 'AVIRIS', and 'HYPERION'. At the bottom of the right sidebar, there is a section for 'Enhanced Landsat Download' with a list of categories: 'Gazetteer', 'Discovery Potential', 'MINFILE', 'Regional Geochemistry', 'Geological Maps', 'Mineral Titles', and 'Analysis Tools'. The status bar at the bottom indicates the current location and scale: 'Lat: 53.877430, Lon: -123.363855 Landsat Analysis areas: L34 1 : 8,164,249 1,004 x 1,540 (km)'.

Powered by



The MapPlace - Microsoft Internet Explorer

Address <http://www.mapplace.ca/>

Image Analysis Tool (IAT)

Image Analysis Tools

Select the type of analysis desired.

Zoom to at least 1:1 000 000 to see image.

- One-Band Analysis
- Three-Band Analysis
- Two-Band Ratio
- FCC
- NDVI Vegetation Analysis
- Tasseled Cap Transformation
- Spectral Angle Mapper

[Focus Images](#)

[Back to Exploration Assistant](#)

Lat: 54.868302, Lon: -122.228522 BC Border : 1 : 1,724,237 250 x 249 (Km)

Landsat Image: L18
Collection Date & Time: 1999-08-02 19:10:53 GMT
Image Source: [GeoGratis](#)

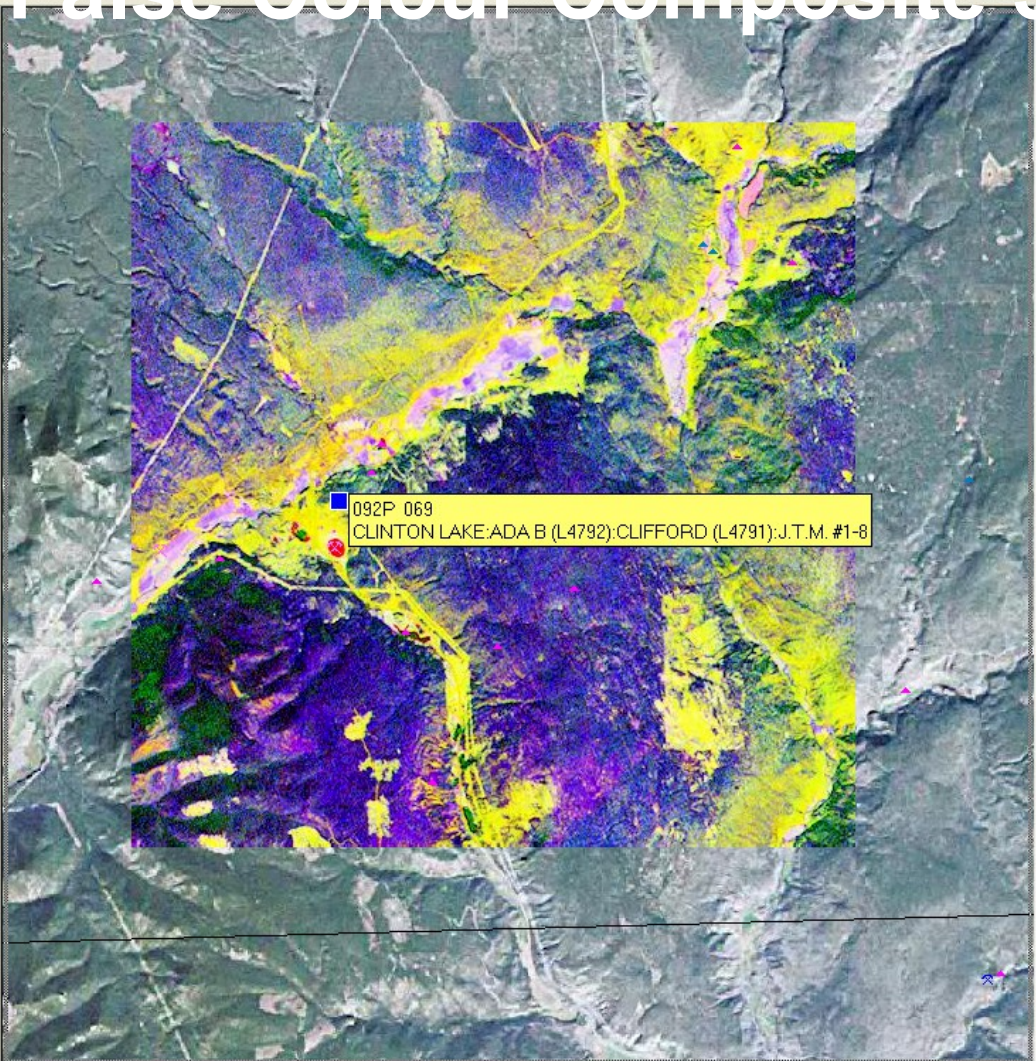
Tools

Collection Date

Link to Image Source

False Colour Composite 3/1,5/4,5/7

- WLAP Boundar
- BC Mining Divis
- BC Mining Regi
- BC Mining Regi
- BC Border
- First Nations Layers
 - Aboriginal Comr
 - Indian Reserve
 - Treaty SOfs out
 - Treaty SOfs lab
 - Treaty SOfs hal
- Parks Layers
 - Parks (Aug 99)
 - BC Parks (Nov)
 - Parks (Aug 99)
- Forestry Layers
 - Tree Farm Licei
 - Timber Supply /
 - Forest districts
- Mineral Inventory L:
 - Aggregate Inve
 - ARIS reports by
 - ARIS number le
 - ARIS expendit.
 - Coal Assessmei
 - MINFILE status
 - Producer
 - Past Producer
 - Developed Prc
 - Prospect
 - Showing
 - All Others
 - MINFILE numb
 - MINFILE histori
 - MINFILE FINDER
- RGS Geochemistry
 - 50th Percentile
 - 70th Percentile
 - 90th Percentile
 - 95th Percentile
 - Greater than 95th l
 - All Others
- Regional Geochem
 - RGS locations l
 - RGS labels (<11
 - RGS - Antimony



False Colour Composite Analysis

STEPS:

- Select a numerator and denominator band for each image colour. If the numerator and denominator are the same that ratioing will not be performed but the designated band will be used.
- Adjust the "Analysis Area Pixel Width" value.
- Click on the "Digitize Centre of Interest" button and then select the desired point on the master image.

A color scaled image of the selected dimension will be produced and centered on the digitized location.

Use the toggle button below to turn the analysis result image off and on.

Turn on or off any of the other data layers.

Digitize Center of Interest

Band 3 - 63-69 Red Numerator
 Band 1 - 45-52 Red Denominator

Band 5 - 155-175 Green Numerator
 Band 4 - 76-90 Green Denominator

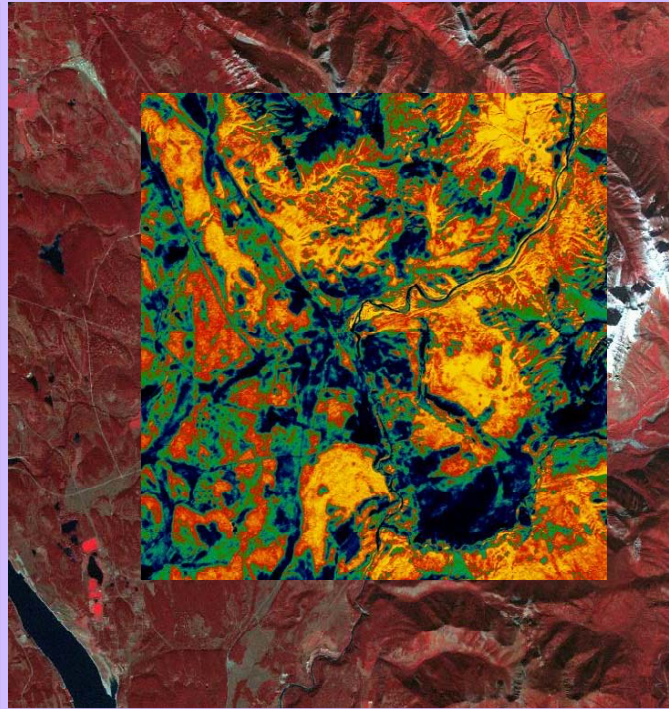
Band 5 - 155-175 Blue Numerator
 Band 7 - 208-235 Blue Denominator

500 = Analysis Area Pixel Width
 1 - 1000 pixels

Lat: 51.074006, Lon: -121.582951 MINFILE status : 092P 069-CLINTON LAKE:ADA 1 : 110,768 21.3 x 21.9 (Km)

Landsat Image: L10
 Collection Date & Time: 2001-10-05 18:48:53 GMT

Image Source: GeoGratis



Two-Band Ratio Analysis

STEPS:

- Select the two bands for ratio numerator and denominator. If numerator and denominator are the same no ratioing will be performed but the band will be displayed.
 - Select desired colour map to apply to result.
 - Enter desired size of analysis area.
 - Click on "Digitize Centre of Interest" button and then click on the point of interest on the master image.
- A color scaled image of the selected dimension will be produced and centered on the digitized location.

Use the toggle button below to turn the analysis result image off and on.

Turn on or off any of the other data layers.

Digitize Centre of Interest

Band 3 - .76-.86 Numerator
Band 7 - 2.235-2.285 Denominator
Blue/Green/Red/Yel Colour Map

1000 = Analysis Area Pixel Width

1 - 1000 pixels

ASTER Image

Bands 3/7 Ratio

Blue-Green-Red-
Yellow Colour
Mapping

Enhanced Landsat Download

Exploration Assistant Image ID "L9"

Enhanced Landsat 7 imagery displayed on the MapPlace is available for download in two formats and two map projections. The images are available in either UTM NAD 83 projections or in the BC Albers projection and in either geoTIFF or ECW formats. The original image data was obtained from **GeoGratis**. The enhanced images were produced by McElhanney Consulting Services Ltd. and funded by a grant from the 'Rocks to Riches' program administered by the BC and Yukon Chamber of Mines.

Both the geoTIFF and ECW formats contain georeference information internally. Additional georeference information is available for each format in the form of a *.tfw (World) file for the geoTiff images and a *.ers (ER-Mapper) reference file for the ECW formatted images.

Download Enhanced Landsat Imagery

	UTM		BC ALBERS	
geoTiff	IMAGE	*.TFW	IMAGE	*.TFW
ECW	IMAGE	*.ERS	IMAGE	*.ERS

- Regional Geochemistry
- Geological Maps
- Mineral Titles
- Analysis Tools

A satellite image of a mountainous region, likely the Kitsault area. The image shows a large, dark blue lake in the lower-left quadrant, surrounded by green, forested mountains. Several peaks are covered in snow, particularly in the upper-left and upper-right areas. The terrain is rugged with visible ridges and valleys. The text "Enhanced Landsat Download" is overlaid in white at the top.

Enhanced Landsat Download

Use image to help with structural analysis in Kitsault area

New ...

Mineral Properties Available

- 9 Exploration clients can submit information to market mineral properties in BC

Direct Access to LRDW

- 9 Access the BC Corporate Land & Resource Data Warehouse with FME Provider for MapGuide

OGS WMS Service & Viewer

MINERAL PROPERTIES AVAILABLE IN BRITISH COLUMBIA Submission Form

IDENTIFICATION

PROPERTY NAME
DEVELOPMENT STATUS
(optional, may not be published on map)

MINERAL PROPERTY

COMMODITY SECTOR

TARGET DEPOSIT TYPES (up to 2 in order of importance)

COMMODITIES PRESENT/SOUGHT
(up to 3 in order of importance)

MINERAL OCCURRENCE(S) ON PROPERTY
(up to 3 MINFILE Nos in order of importance) (eg. 104B--123, 092INE087)

LOCATION OF PROPERTY

(geographic centre to be used for map plotting)

NTS 1:50K MAP

(eg. 092B/12W)

NAD 83 LAT/LON

LATITUDE ° ' "
LONGITUDE ° ' "

OR

NAD 83 UTM

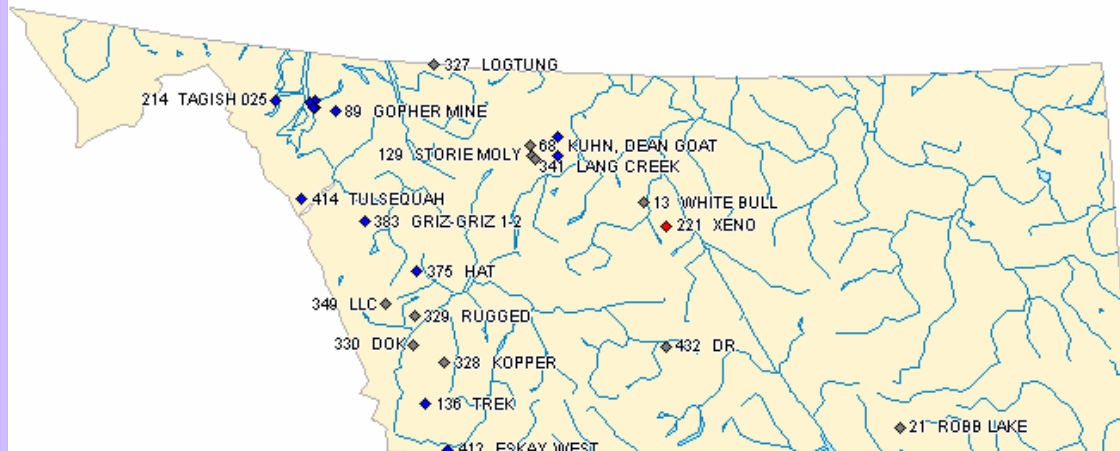
ZONE
NORTHING
EASTING

CONTACT INFORMATION

PROSPECTOR/
PRINCIPAL OFFICER
COMPANY NAME (optional)
EMAIL ADDRESS
WEB ADDRESS

PHONE NUMBER
FAX NUMBER

Mineral Properties Available Map



Mineral Properties Available Contact Information

Property Name: LENNAC LAKE

Principal Officer: DON MACINTYRE

Email Address: don.macintyre@shaw.ca

Phone Number: (250) 477-5773

Fax Number: (250) 477-5773

Commodities: CU MO

MINFILE Occurrences: [093L 191](#)

Target Deposit Type: Porphyry / Vein, Breccia and Stockwork

Commodity Sector: Base Metal

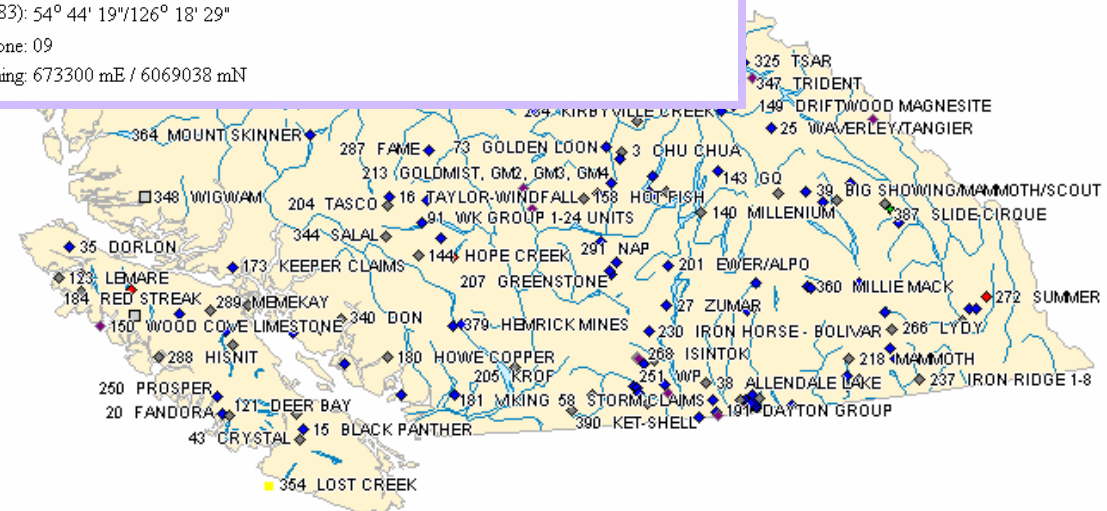
Development status: Undeveloped Prospect

NTS map: 093L/09W

Latitude/Longitude (NAD83): 54° 44' 19" / 126° 18' 29"

UTM Zone: 09

UTM Easting/Northing: 673300 mE / 6069038 mN



FME S

Ministry of Sustainable Resource Management
MSRM Corporate Metadata Service
Data Discovery

- ▶ [Home / Search](#)
- ▶ [Browse](#)
- ▶ [Advanced Search](#)
- ▶ [Saved Results](#)

[Exit this e-service](#) ▶

Land Information BC Discovery Service

Metadata Details


This page shows you the details of the record you selected. From this screen you have the following options:

1. **printable** displays the record in a format that you can print.
2. **XML** displays the record in XML code.
3. **order** button will be accessible when the data is orderable.

If you want to add this record to your list of saved records click on **add to Saved** button, otherwise you can return to the search screen and continue your search.

[add to Saved](#)
[footprint](#)
[printable](#)
[XML](#)

Mineral Inventory File

MINFILE contains over 12,100 metallic, industrial mineral and coal occurrences for B.C. Each of these occurrences contain 84 data elements describing mineral deposits in terms of geography, geology and economics. The database is used by government, industry and academia for resource management, land-use planning, exploration and research.

Identification Information

Title	Mineral Inventory File
Description	MINFILE contains over 12,100 metallic, industrial mineral and coal occurrences for B.C. Each of these occurrences contain 84 data elements describing mineral deposits in terms of geography, geology and economics. The database is used by government, industry and academia for resource management, land-use planning, exploration and research.
Data Custodian Organization	Geological Survey Branch (MEM)
Date of Data	2003-01-01 (revision)
Resource Status	onGoing
Update Cycle	unknown
Purpose (Intended Use)	The database is used by government, industry and academia for resource management, land-use planning, exploration and research.

FME Universal Viewer - [View 0 (sde)]

File View Window Help

Viewspace

- View 0
 - Dataset: SDE30 (sd)
 - WHSE_MINER

Feature: 1 of 1

Feature Type: WHSE_MINERAL_TENURE.MINFIL_MINERAL_FILE

Coord Sys: WHSE_MINERAL_TENURE.MINFIL_MINERAL_FILE

Attribute Name	Attribute Value
COMMODITY_CODE1	AU
COMMODITY_DESCRI...	Gold
DATUM_REFERENCE	NAD 83
DECIMAL_LATITUDE	53.09167
DECIMAL_LONGITUDE	-121.88361
DEPOSIT_CHARACTE...	05
DEPOSIT_CHARACTE...	Unconsolidated
DEPOSIT_CLASS_CODE1	13
DEPOSIT_CLASS_CODE2	08
DEPOSIT_CLASS_DES...	Placer
DEPOSIT_CLASS_DES...	Residual
DEPOSIT_TYPE_CODE1	CD1
DEPOSIT_TYPE_DESC...	Surficial placers
ELEVATION	0
fme_geometry	fme_point
fme_type	fme_point
GEOMETRY.entity	1
LATITUDE_DEGREES	53
LATITUDE_HEMISPHERE	N
LATITUDE_MINUTES	5
LATITUDE_SECONDS	30
LONGITUDE_DEGREES	121
LONGITUDE_HEMISP...	W
LONGITUDE_MINUTES	53
LONGITUDE_SECONDS	1
MINERAL_FILE_NUMBER	093H 011
NAME1	BEAVER PASS
NAME2	PEARSON'S PLACER
NTS_MAPSHEET1	093H04W
OBJECTID	122865
PRODUCTION_INDICA...	N
REGION_CODE1	BC
REGION_DESCRIPTION1	British Columbia
RESERVES_INDICATOR	N
sde30_type	sde30_point
SE_ROW_ID	7169
STATUS_CODE	SHOW
STATUS_DESCRIPTION	Showing
TECTONIC_BELT_CODE	OM
TECTONIC_BELT_DES...	Omineca
TERRANE_CODE	KOB
TERRANE_DESCRIPTION	Barkerville
UTM_EASTING	574761
UTM_NORTHING	5883050
UTM_ZONE	10

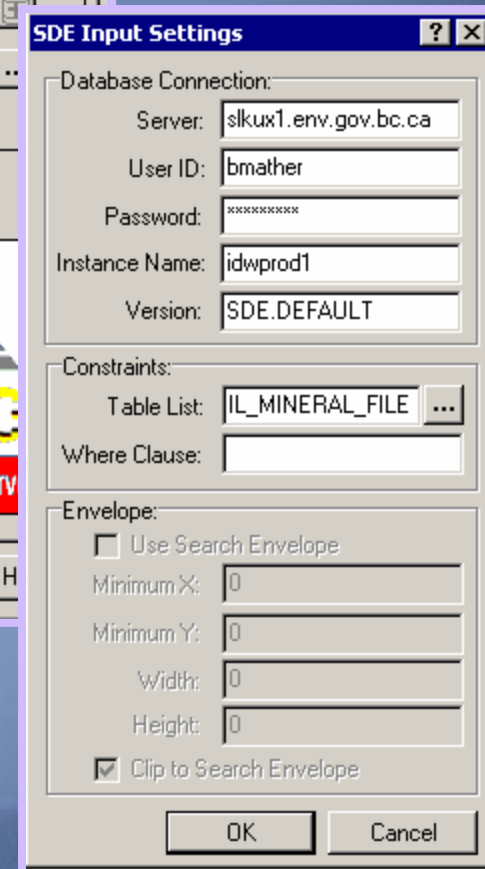
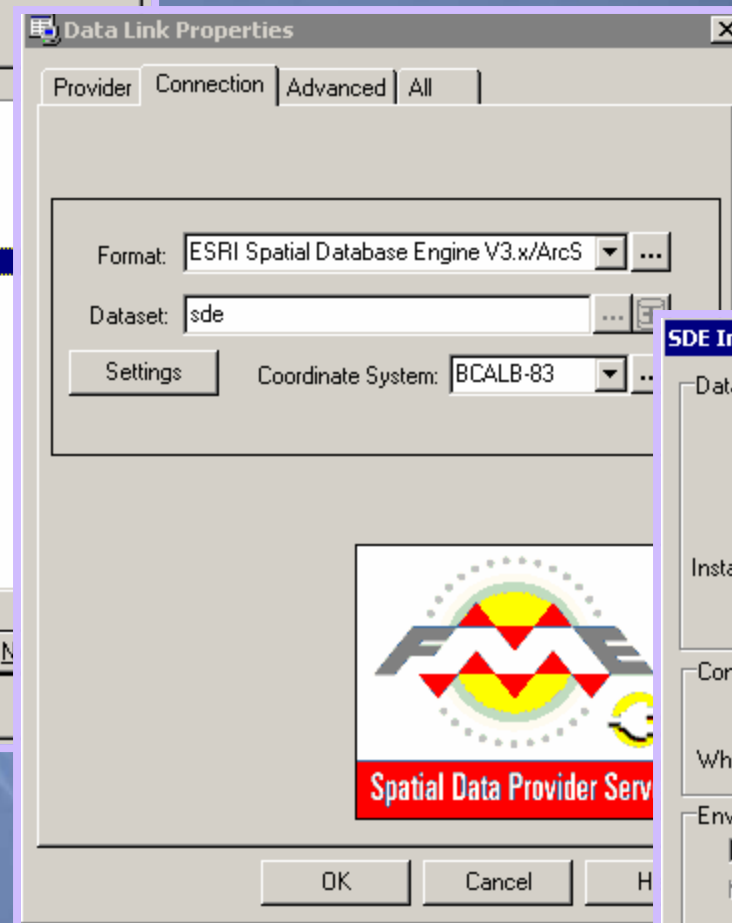
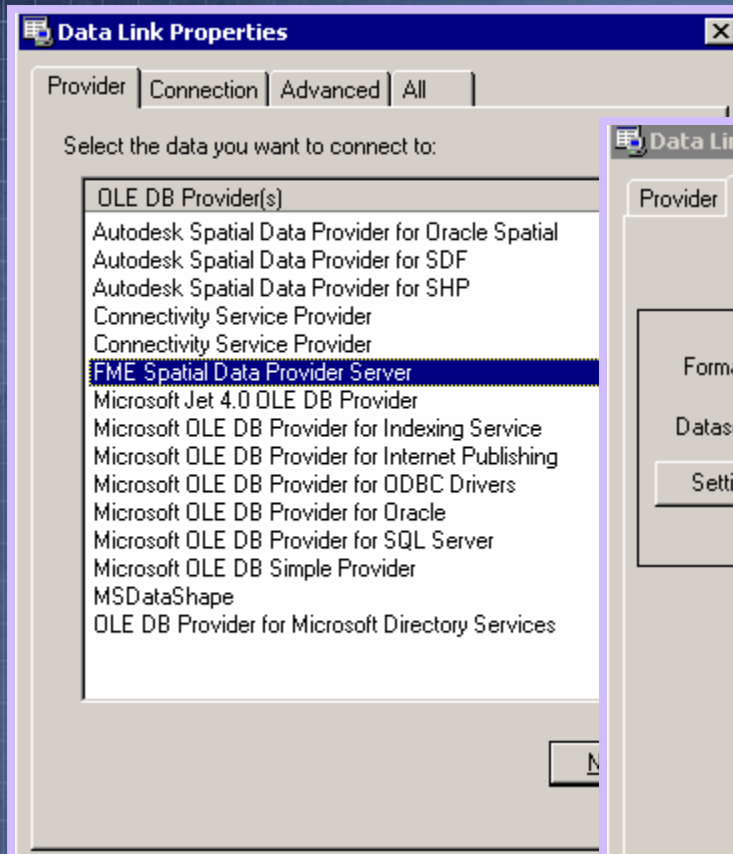
Coord Dimension: 2D
Total Number of Coords: 1

Bounding Box:
min x: 1274942.598, max x: 1274942.598
min y: 906248.311, max y: 906248.311

Coordinate Listing:

FME Provider Viewer

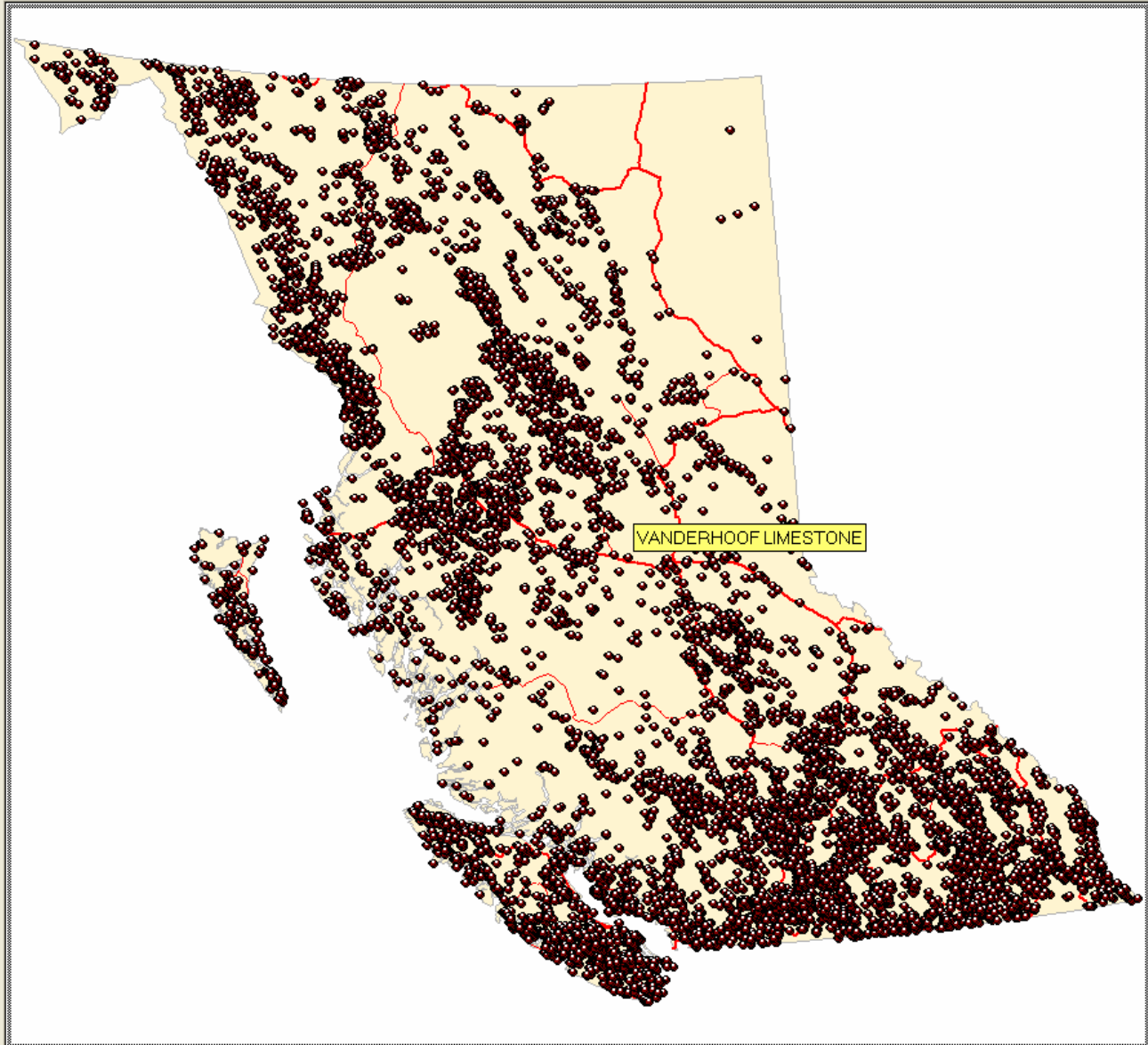
FME Provider for MapGuide



TIME SDP Viewer

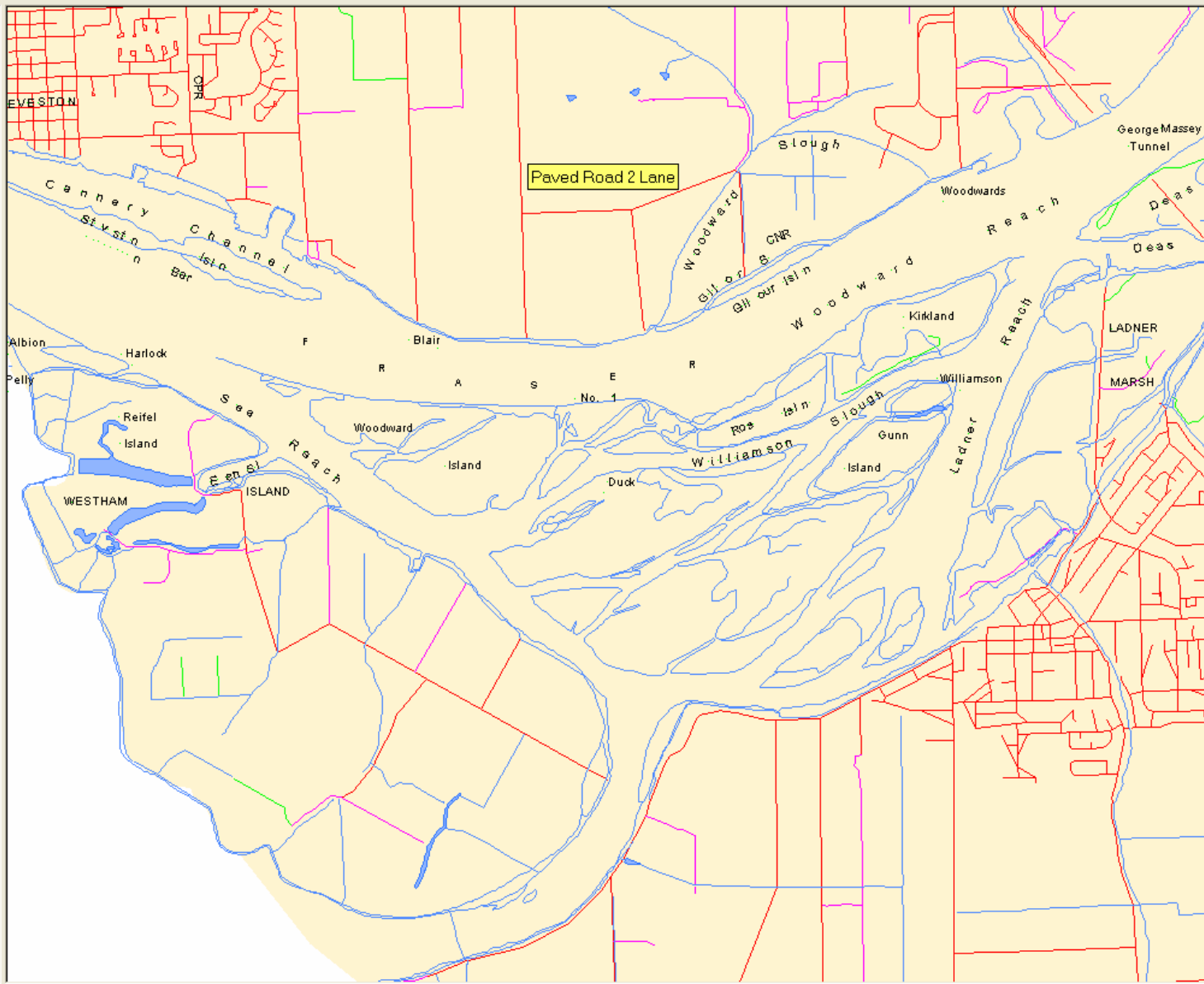
autodesk

- SDE Administrative
 - WHSE_ADMIN_BOUNDARIES.FADM_DISTRICT
 - WHSE_ADMIN_BOUNDARIES.ALC_AGRILAND_RESEF
 - WHSE_ADMIN_BOUNDARIES.ALC_AGRILAND_RESEF
 - FADM_DISTRICT_REGION
 - BC_MANMADE_LINES_500M
 - BC_MAJOR_CITIES_POINTS_500M
 - NTS_50K_GRID
 - NTS_250K_GRID
 - BCGS_20K_GRID
- SDE Environmental Assessment
 - WHSE_ENVIRONMENT_ASSESSMENT.EPIC_PROJECT
- SDE Contours
 - NTS_BC_COASTLINE_LINES_125M
- SDE Transportation
 - NTS_BC_TRANSPORT_LINES_125M
 - BC_TRANSPORT_LINES_500M
- SDE Natural Features
 - Glaciers
 - BC_WATER_POLYS_5KM
- SDE Mineral Tenure
 - WHSE_MINERAL_TENURE.MINFIL_MINERAL_FILE
 - Extraction Sites
 - WHSE_MINERAL_TENURE.EMPR_MINERAL_TENURE
 - WHSE_MINERAL_TENURE.MTA_MINERAL_PLACER_GI
- Properties for Option Layers
 - Mineral Properties by Commodity Group
 - Mineral Properties Deposit Target
 - Mineral Properties by Status
 - Mineral Properties Labels
 - Mineral Properties Labels for Plot
- Mineral Activity Layers
 - Exploration, Development, Mines & Reclamation
 - Mine/Plant/Project Labels for Printing
 - Projects & Operations by Sector
 - Development & Reclamation Constraining Issues
 - IM/Coal Projects 2002
 - Vein Projects 2002
 - Other Metal Projects 2002
 - Exploration Projects 2002
 - Operating Metal Mines (as of Jan. 2003)
 - Coal Mines (2002)
 - Industrial Mineral Operation/Mine
 - Sulphur Refining
 - Metals Refining & Smelting
 - MINFILE (Industrial Minerals)
 - MINFILE (Metals)
 - MINFILE (Coal)
- BC Administrative Area Layers

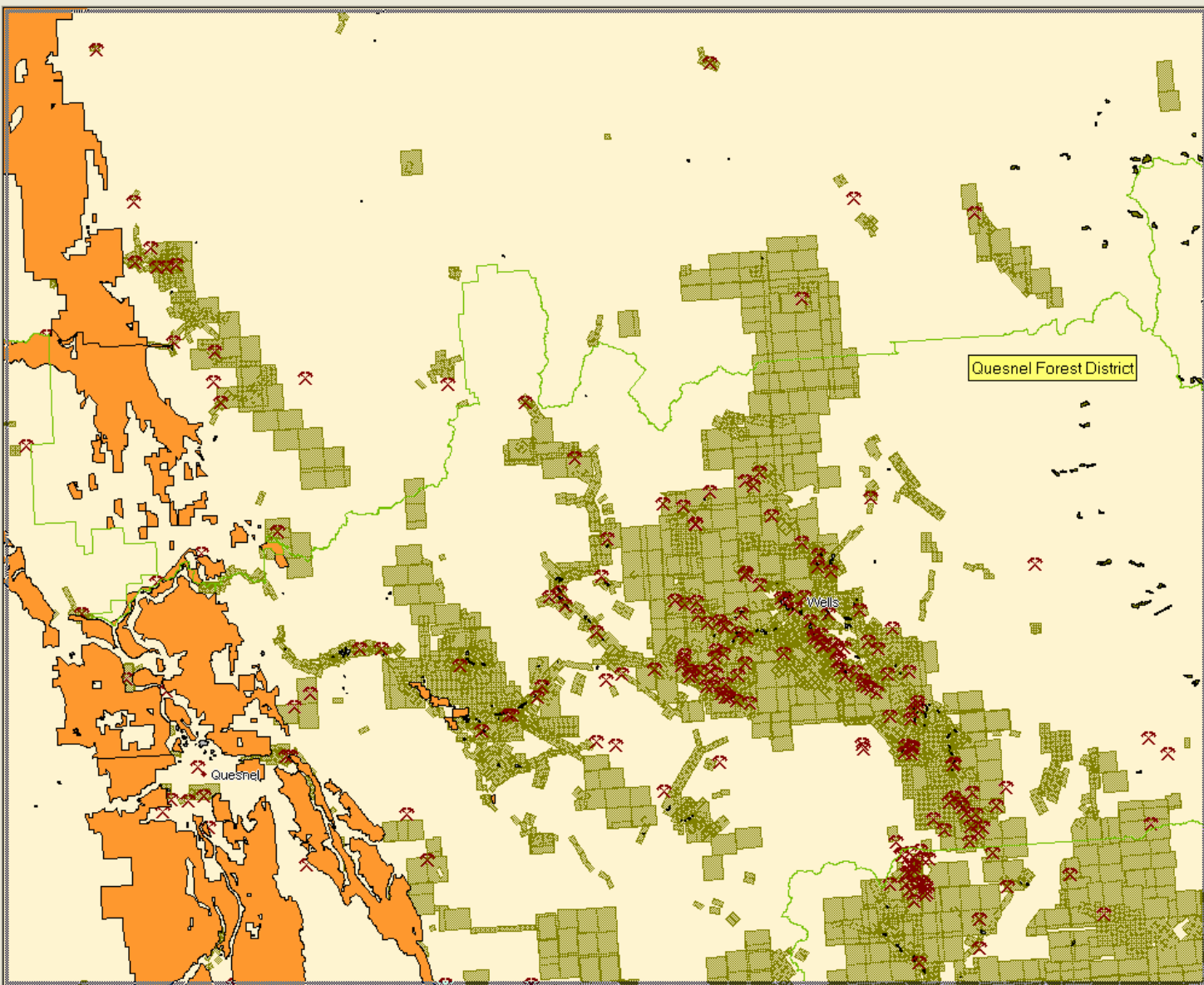


SIDE LRDW

- SDE Administrative
- SDE Trim EBM
- SDE Environmental Assessment
- SDE Contours
- SDE Transportation
- SDE Natural Features
- WHSE_BASEMAPPING.TRIM_TEX
- Abc
- TRIM_TEXT_ANNO
- Glaciers
- TRIM_EBM_WATERBODIES
- TRIM_WATER_LINES
- BC_WATER_LINES_500M
- SDE Mineral Tenure
- Properties for Option Layers
- Mineral Activity Layers
- BC Administrative Area Layers
- First Nations Layers
- Parks Layers
- Transportation
- Stations
- Transport Structures 1:20K (<100K)
- Railways Canada
- Railways 1:20K (<100K)
- Logging Roads
- Roads 1:20K (<100K)
 - Gravel Road 1 Lane
 - Gravel Road 1 Lane U/C
 - Gravel Road 2 Lane
 - Gravel Road 2 Lane U/C
 - Paved Road
 - Paved Road 1 Lane U/C
 - Paved Road 2 Lane
 - Paved Road 2 Lane U/C
 - Paved Road 2 or more Lanes
 - Paved Road 3 Lane Elevated
 - Paved Road 4 Lane Divided
 - Paved Road 4 Lane Divided U/C
 - Paved Road 4 Lane U/C
 - Paved Road 6 Lane
 - Paved Road 6 Lane Divided
 - Paved Road Elevated
 - Rough Road
- Roads 1:20K undefined
- Transmission Lines



- SDE Administrative
 - WHSE_ADMIN_BOUNDARIES.FAC
 - WHSE_ADMIN_BOUNDARIES.ALC
 - WHSE_ADMIN_BOUNDARIES.ALC
 - FADM_PROV_FOREST
 - FADM_DISTRICT_REGION
 - BC_MANMADE_LINES_500M
 - BC_MAJOR_CITIES_POINTS_500M
 - NTS_50K_GRID
 - NTS_250K_GRID
 - BCGS_20K_GRID
- SDE Trim EBM
 - WHSE_BASEMAPPING.TRIM_EBM
- SDE Environmental Assessment
 - WHSE_ENVIRONMENT_ASSESSM
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 - TRIM_CONTOUR_POINTS
 - NTS_BC_COASTLINE_LINES_125M
- SDE Transportation
 - NTS_BC_TRANSPORT_LINES_125M
- SDE Natural Features
 - Glaciers
 - BC_WATER_LINES_500M
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 - WHSE_MINERAL_TENURE.MINFIL
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 - Development & Reclamation Constr
 - IM/Coal Projects 2002
 - Vein Projects 2002
 - Other Metal Projects 2002
 - Exploration Projects 2002



autodesk

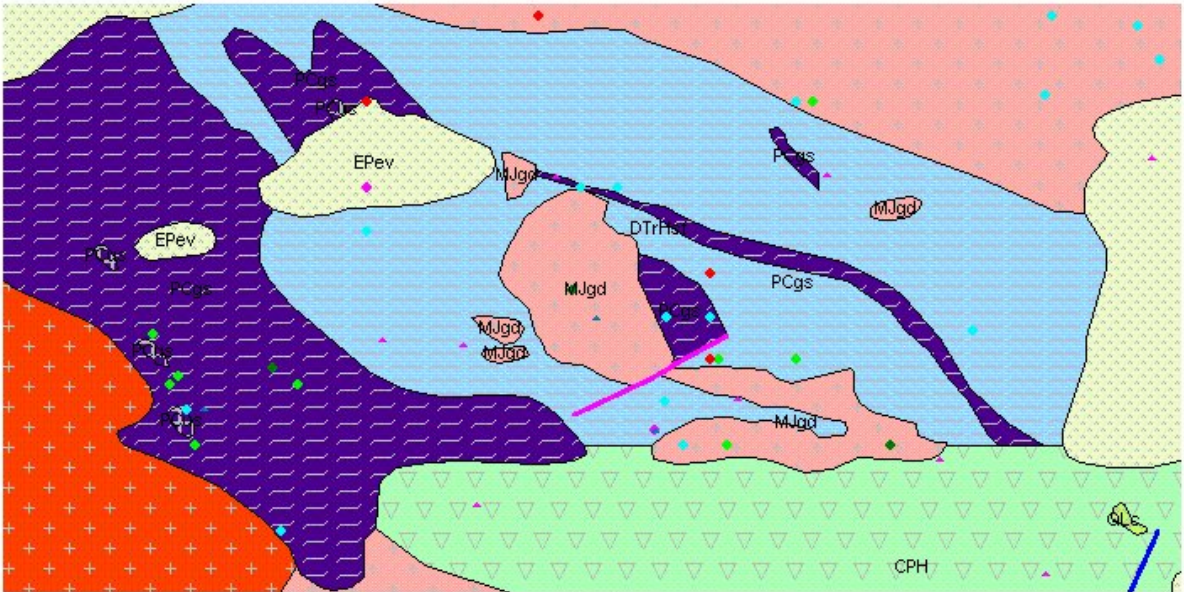
OGC Web Map Service & Viewer

MapPlace WMS Viewer - Microsoft Internet Explorer provided by CITS

File Edit View Favorites Tools Help Address <http://webmap.em.gov.bc.ca:8080/mapplacewms/servlet/com.autodesk.wmsviewer.WmsViewer?request=startviewer>

MapPlace.ca Server URL: Go

MapPlace OGC WMS 1.1.1 Compliant Server (ver 1.1.1)



Available Layers

SRS:

ARIS reports by year
MINFILE status
BC Border (<200K)
BC Border (<300K)
BC Border (<1.5M)

Visible Layers

BC Geology

Bounding Box

Formats

Image:

Feature info:

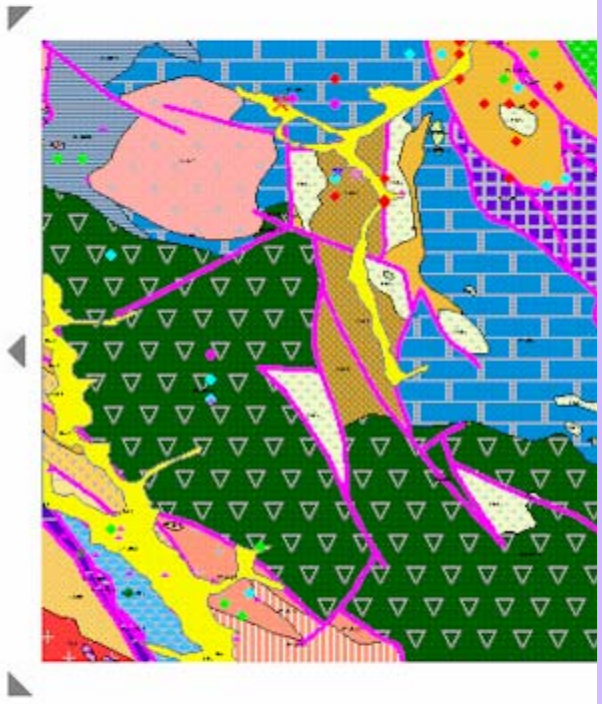
Get Map

Click on the map to:

Zoom Window Zoom In Zoom Out Recenter Identify

Map navigation icons: Home, Back, Forward, Stop, Refresh, Print, Full Screen, Close.

<http://webmap.em.gov.bc.ca/mapplacewms/wmsviewer.htm>



Capsule Geology and Bibliography Printable Report

092INW104

Name	ASH	Mining Division	Kamloops
Status	Producer	NTS	092I11E NAD 27
Latitude	30.4318N	UTM	10 5620150 625075
Longitude	121.1341W	Deposit Types	R15 : Crushed rock
Commodities	Aggregate	Terranes	Quesnel
Tectonic Belt	Intemontane		

Capsule Geology
 The Ash property is underlain by Upper Triassic Nicola Group volcanic rocks. In the most prospective southern part of the property, lithologies encountered in outcrop and drillholes include black mafic tuff (andesitic ash tuff), mafic lapilli tuff breccia and minor dacitic crystal tuff (Husak, August 12, 1998, Application for a Mine Development Certificate, Proposed Roofing Granule Quarry, Ashcroft, British Columbia, I.G. Machine & Fibers Ltd.)

I.G. Machine & Fibers Ltd. (a subsidiary of IKO Industries Ltd.) has applied for a permit to mine 24,900 tonnes per year of volcanic rock to produce roofing granules. The product would supply an existing shingle plant in Calgary and a soon-to-be-built plant in Sumas, Washington. This source would replace the supply from Grand Forks which is currently supplying material to the Calgary plant.

The Ash claim was staked in 1997 and is held by W. Husak. In 1997, nine BQ holes were drilled totalling 917 metres and 32 test pits were dug. A small bulk sample was taken in 1998.

Bibliography

EM EXPL 1999-33-39
 EMPR ASS RPT [#25484](#)
 EMPR BULL 56; 62
 EMPR FIELDWORK 1974, pp. 27-34; 1981, pp. 270,271
 EMPR MAP 7; 30
 GSC MAP 1010A; 1386A; 42-1989
 GSC MEM 262
 GSC OF 165; 866; 980
 GSC P 46-8; 47-10; 69-23; 73-1A, p. 212; 74-49; 82-1A, pp. 293-297;
 85-1A, pp. 349-358
 CIES Vol 15, No.1 (January 1978), pp. 99-116
 Northcote, K.E. (1968): Geology and Geochronology of the Guichon Creek Batholith, British Columbia, Ph.D. Thesis, University of British Columbia

Autodesk MapGuide Liteview OGC WMS 1.1.1 Compliant Server

List of selected features bounded by: -121.2345174,50.7171685 -121.2243904,50.7258953 (SRS : EPSG:4326)

MWF Name	Layer Name	Key	Name	Feature URL
BCGS_OGC_GEOLOGY	OGC_GEOLOGY	092INW104	ASH	http://webmap.em.gov.bc.ca/mapplacewms/servlet/com.autodesk.wmsviewer.WmsViewer?request=startviewer&requestid=092INW104

including URL link to database in some cases.

OGC Web Map Service

URL address for the WMS service:

<http://webmap.em.gov.bc.ca/liteview6.5/servlet/MapGuideLiteView>

GetCapabilities URL request:

<http://webmap.em.gov.bc.ca/liteview6.5/servlet/MapGuideLiteView?VERSION=1.1.1&Request=GetCapabilities>

GetMap URL request example:

http://webmap.em.gov.bc.ca/liteview6.5/servlet/MapGuideLiteView?REQUEST=GetMap&VERSION=1.1.1&BBOX=-121.4781,50.604,-121.1083,50.789&WIDTH=900&HEIGHT=450&STYLES=&SRS=EPSG:4326&LAYERS=BCGS_OGC_GEOLOGY.MWF&FORMAT=image/png

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Canadian geomatics organizations offering
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Application Developers

Web Services, application programming
interface (API) guide, training resources, free
tools

<http://GeoConnections.org>

British Columbia Geological Survey OGC Web Map Service (BCGS OGC WMS)

Web Service Summary

<http://geodiscover.cgdi.ca/gdp>



Description

The British Columbia Geological Survey Web Map Service offers access to most of the geospatial data that [MapPlace.ca](#) offers, such as BC Geology, Mineral Occurrences, Assessment Reports and Mineral Tenure. Some of the layers are scale dependant, such as the geology layers which are set to display below 1:1.5M scale. Layers are available as single layers and as groups of layers. The BC Geology Layer group includes several scale-dependant layers, such as Terranes, rock types, labels, contacts and faults, mineral occurrences and assessment reports. The Base Map Layer group includes the BC border, map grids, UTM grid, rivers and lakes. The BC Administrative Layer group includes mineral titles, parks, mining regions, communities and cities.

The URL address for the WMS service, which can be used in other WMS compliant viewers, is:
<http://webmap.em.gov.bc.ca/liteview6.5/servlet/MapGuideLiteView>. The MapPlace Lite WMS Viewer application is also available.

DEF2

Discovery Portal

Access Information

Cost: Gratuit-Free

User or Access Constraints: None

Access Mechanism: On-Line Addressable

Web site for more information: http://www.em.gov.bc.ca/Mining/GeolSurv/MapPlace/MoreDetails/ogc_wms.htm

Capabilities document: <http://webmap.em.gov.bc.ca/liteview6.5/servlet/MapGuideLiteView?VERSION=1.1.1&Request=GetCapabilities>

Service Type Description	Service Category Description	Theme
OGC Web Map Service	Geophysical Surveys and Mapping Surveys and Mapping (non Geophysical) > Thematic Mapping	Land > Geology Natural Resources > Metals and Minerals

Metadata Contact	Technical Contact
Larry Jones British Columbia Geological Survey PO Box 9333 Stn. Prov. Govt. Victoria British Columbia CANADA V8W 9N3 Phone number: +01-250-952-0386 Fax number: +01-250-952-0381 Email address: Larry.Jones@gov.bc.ca	Larry Jones British Columbia Geological Survey PO Box 9333 Stn. Prov. Govt. Victoria British Columbia CANADA V8W 9N3 Phone number: +01-250-952-0386 Fax number: +01-250-952-0381 Email address: Larry.Jones@gov.bc.ca

Address <http://www.wmsviewer.com/main.asp>

OGC WMS Viewer

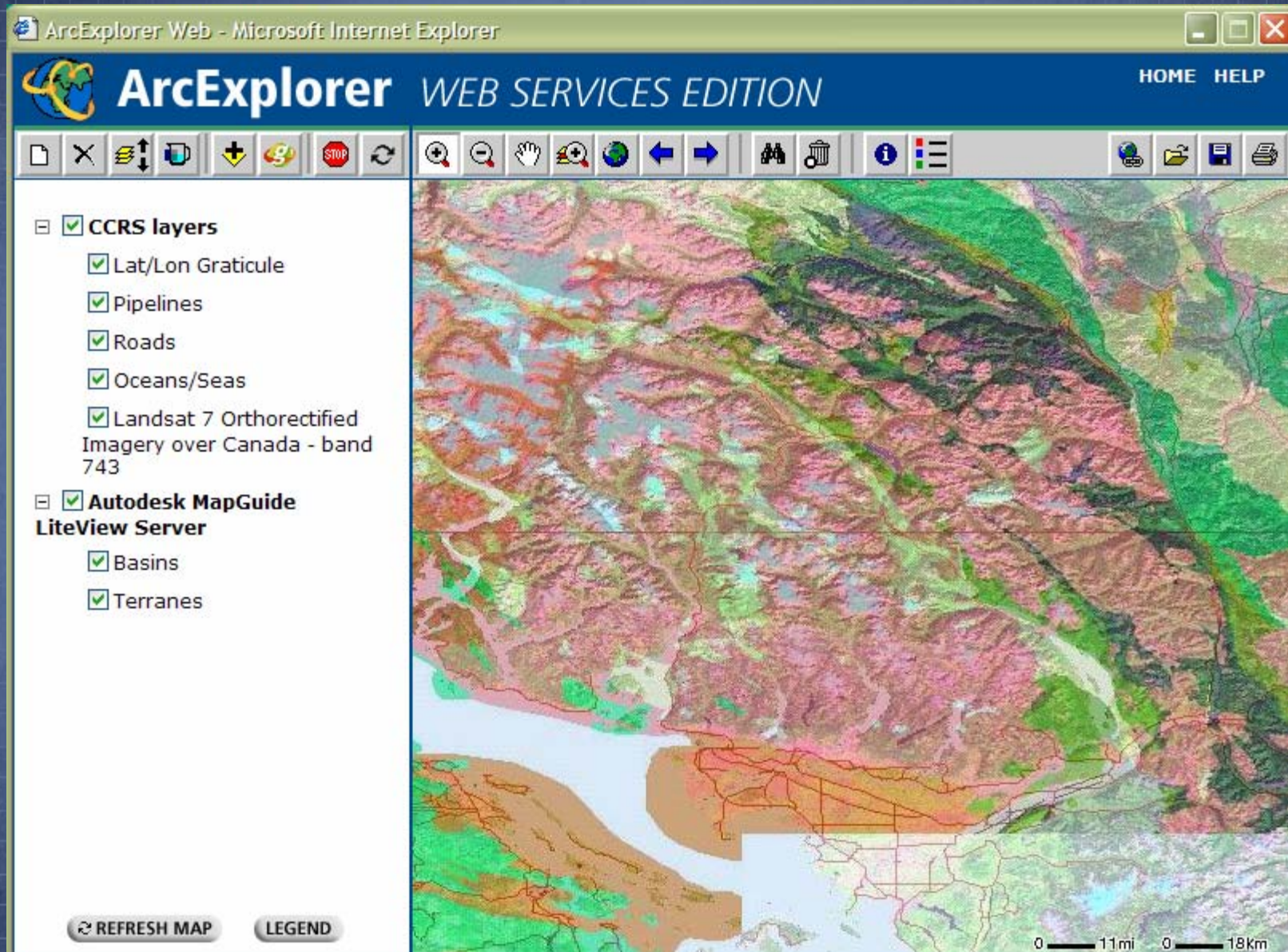
DISCOVERY CATALOG EDIT SERVERS EDIT LAYERS EDIT CONTEXT

LAYERS **LEGEND**

- MAPPLACE OGC WMS 1.1.1 COMPLIANT SERVER:**
 - MTO (LRDW) (<3M)
 - BC GEOLOGY
- INTERGRAPH WORLD MAP:**
 - CAPITALS
 - OCEAN LABEL
 - LAKES
 - COUNTRY
- DEMIS WORLD MAP SERVER:**
 - TOPOGRAPHY (GRID)
 - COUNTRIES (AREA)
 - OCEAN DEPTH (GRID)

INTERGRAPH
OGC
Strategic Member

Example using BCGS WMS Service with another web viewer:
<http://www.wmsviewer.com/main.asp>



*Example using BCGS and CCRS WMS Service
<http://www.geographynetwork.com/arcexplorer/>*

B.C. Home

Land Information BC

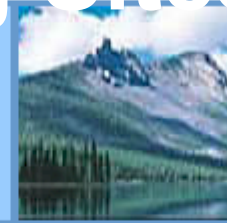
CONTENTS

- [Air Photo Inventory](#)
- [Aquifers and Water Wells \(Replaced by Water Resources Atlas\)](#)
- [Coastal Resource Information](#)
- [Columbia Basin Biodiversity Atlas - 1:6,000,000](#)
- [Columbia Basin Biodiversity Atlas - Large Scale](#)
- [Cowichan Valley](#)
- [Electronic Project Information Centre](#)
- [Forest Fires](#)
- [Forest Mapview](#)
- [Forest Protection Branch Weather Stations](#)
- [Forest Seedmap](#)
- [Forest Recreational Sites](#)
- [Land and Resource Data Warehouse Catalogue](#)
- [Online Cadastre](#)
- [Provincial Basemap](#)
- [Recreation Resources Inventory](#)
- [Southern Interior Region](#)

Home > LIT > Public Mapping Sites

Ministry of Sustainable Resource Management

Internet Mapping Sites



Public Mapping Sites

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CAUTION: Maps obtained using this site are not designed to assist in navigation. These maps may be generalized and may not reflect current conditions. Uncharted hazards may exist. **DO NOT USE THESE MAPS FOR NAVIGATIONAL PURPOSES.**

HELP: The Internet Mapping Help & Tutorial System can be viewed [here](#).

NOTE: Anti-popup software may prevent applications from launching

Web Map Service: For information about this service, see: http://libcwms.gov.bc.ca/wmsconnector/com.esri.wsit.WMSServlet/ogc_layer_service?request=getcapabilities.

LIBC Web Map Service Capabilities:

http://libcwms.gov.bc.ca/wmsconnector/com.esri.wsit.WMSServlet/ogc_layer_service?request=getcapabilities

→ Other Provincial Links

- [BC Energy and Mines MapPlace](#)
- [BC Fish Wizard](#)
- [BC Forests Recreation Sites](#)
- [BC Mineral Titles Online](#)
- [BC Mineral Titles - PDF Maps](#)

→ Other Links

- [Atlas of Canada](#)
- [Canadian GeoBase](#)
- [Canadian Trail Data](#)
- [CRD Natural Areas Atlas, Vancouver Island, BC](#)
- [Fisheries and Oceans Canada](#)
- [Geography Network](#)
- [Mapserver users and on-line applications](#)
- [National Forest Information System](#)
- [National Geographic](#)
- [New Brunswick](#)
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- [US Maps & Data at Geodata.gov](#)

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