



On-line Geophysical Data Using DAP

Canada's Natural Resources

9 August 2004



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Consolidating Canada's Geoscience Knowledge

Geoscience Data Repository for ESS Geophysical and Geochemical Data



Geoscience Data Repository for ESS Geophysical Data

- web mapping application
- WMS-based interface
 - data discovery and evaluation
- data delivery mechanism provides access



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**Geoscience Data Repository
for ESS Geophysical and Geochemical Data**



Consolidating Canada's Geoscience Knowledge

- to provide the infrastructure for efficient and effective discovery, access and management of Canada's geoscience data, information and knowledge and develop a prioritized implementation plan for the Cooperative Geological Mapping Strategies (CGMS) which reflect social, economic, environmental and policy sector needs and priorities.
- to provide online access to ESS geoscience information through the delivery of coordinated information services titled "Geoscience Data Repository".



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Geoscience Data Repository for ESS Geophysical and Geochemical Data



Geoscience Data Repository Information Services for ESS Geophysical and Geochemical Data

- NRCan's Earth Science Sector holdings of aeromagnetic, gravity, radioactivity, seismic, magnetotelluric, geochemical and rock properties data
- improve the information management framework
- generate and deliver metadata
- provide on-line data access demonstrating ESS capacity to deliver geoscience data in a timely and efficient manner

On-line, interoperable access to ESS, provincial, and territorial data will be promoted and delivered through the Canadian Geoscience Knowledge Network (CGKN). This access will increase Canada's competitiveness in attracting investment in mineral and energy exploration.



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Geoscience Data Repository for ESS Geophysical and Geochemical Data



Geoscience Data Repository for ESS Geophysical and Geochemical Data - Microsoft Internet Explorer

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Address http://jgdr.agg.nrcan.gc.ca/wms/index_e.html

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Legend Active Layer

- Coastlines - Côtes
- Canada 200 m : Residual Total Field - Champ total résiduel

[All Layers](#) [Layers In View](#)

Data Stores

- Geoscience Data Repository-Entrepôt
 - Geophysical Data - Données géophysiques
 - Aeromagnetic - Aéromagnétiques
 - [Canada 1 km : Residual Total F](#)
 - [Canada 200 m : Residual Total](#)
 - Gravity - Gravimétriques
 - [Canada 2 km : Gravity anomaly](#)
 - Radioactivity - Radioactivité
 - [Canada 2 km : eThorium - eTho](#)
 - [Canada 2 km : eUranium - eUrs](#)
 - [Canada 2 km : ePotassium - ePot](#)

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Existing WMS/data delivery system for 1km magnetic grid of Canada

- interface functionality high
- limited formats, no reprojection

Client needs study indicated existing clients require:

- gridded data
- point data
- reprojection
- reformatting



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GEOSOFT Inc. - Data Access Protocol (DAP)

- data discovery, evaluation and delivery tool
- WMS-based interface for data discovery, evaluation
- data delivery system based on GEOSOFT's Oasis Montaj software
- available via thin-client web-browser
- seamlessly through thick-clients Oasis montaj
 - plug-ins for ArcMap and MapInfo
- data delivery aspect is well developed



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Major work to date

- development of GDR website
- intro page - disclaimers, terms, client feedback
- WMS interface
 - translation of the DAP help text
 - translation of user spec pages
 - translation of the interface and icons
 - development of extract extents tool
- loading of national geophysical data sets



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Major issues

- data discovery search tool
- processing and delivery of bitmap images
- point data representation



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Geoscience Data Repository for Earth Sciences Sector Geophysical Data

Free Viewing and Downloading of Gridded Aeromagnetic, Gravity, and Radioactivity Data

The gridded geophysical datasets listed above are available, free of charge, for viewing and downloading using this Web Map Server and data delivery tool. The gridded data can be reprojected to your specifications and downloaded in many standard formats.

[Begin viewing and downloading data](#)

- [System requirements](#)
- [Help documentation](#)
- [Frequently asked questions](#)

More information

http://www.nrcan.gc.ca/gsc/index_e.html Internet



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 - Canada 2 km : eThorium - eThorium

Current Map View

North	102.5
West	-142
East	-42
South	27.5

Zoom to Area (W, S, E, N)

0, 0, 0, 0

Zoom Reset

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Continental Geoscience Division
(RGS) Regional Geophysics Section

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[Catalogue of products and services](#)
[Get info: search data coverage](#)
[Ordering Products On-line](#)

Client Information

Please provide the following information before proceeding. All fields are mandatory. (The personal information collected below is for statistical purposes only, in order to support this service. See also [NRCan's privacy policy](#).)

Name:

Organization:

Address:

Phone:

Email:

General Terms and Conditions:

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Disclaimer: Although every attempt has been made to ensure that the contents of this web-site are as accurate as possible, the data are provided on an 'as is' basis. Reprocessing, application of interpretive techniques, and appropriate presentation will enhance the utility of these data.

Done 



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Extract Layers

Layers to Extract

Canada 200 m : Residual Total Field - Champ total résiduel

Format:

Projection:

Resolution: Width: Height:

File size estimate: MB

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Projection

Datum: NAD83
WGS84

Projection: UTM zone 13N
UTM zone 14N
UTM zone 15N
UTM zone 16N
UTM zone 17N
UTM zone 18N
UTM zone 19N
UTM zone 20N

Ok Cancel

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Extract Layers

Layers to Extract

Canada 200 m: Residual Total Field - Champ total résiduel

Format: GEOSOF/COMPRESSED

Projection: GEOSOF/UNCOMPRESSED

Resolution: [input field]

File size estimate: [input field] Height: 2345

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Planned developments

- derivative grids and interpretive products
- improved interface functionality
- additional projections
- image and point data

Seismic, magnetotelluric, geochemical and rock properties data will also be made available on-line through this project.



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The development of the WMS interface and the web-site is entirely the work of Greg Boyce and Zoltan Bardossy, in consultation with project participants and clients. Greg and Zoltan are also simultaneously developing the aeromagnetic and airborne radiation geophysics data base systems.

