## Information and Knowledge Base - Ireland

Dr. Eibhlín Doyle & Dr. Wayne Cox Exploration & Mining Division, DCENR.



## Who is EMD?

- Line Division of DCENR
- Small Unit (4 Geological Staff supported by administrative staff)
- Charged with:
  - Regulating the exploration and mining sectors
  - Development of minerals (and geothermal) policy and legislation.
  - Rehabilitation of certain historic mine sites
  - Promoting Ireland internationally as a favourable location to carry out mineral exploration

## What Geological Information is Held by EMD?

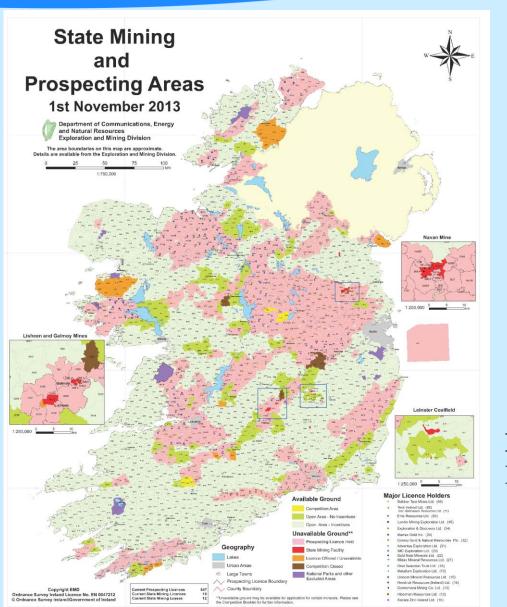
- Information submitted by exploration companies.
- Publicly available information includes:
  - Thousands of company exploration reports
  - Regional airborne geophysics datasets (>30% of Ireland)
  - Various geospatial datasets (e.g. boreholes, PL Area boundaries, mineral deposits, historic mines, etc.)
  - Administrative data on Prospecting Licence Areas
- All data is FREE and available in digital format.

## Ireland's Regulatory System for Mineral Exploration

- Must obtain a Prospecting Licence (PL) from State.
- A PL gives the holder the right to explore for certain minerals in a specified Prospecting Licence Area (approx 35km²).
- PL is initially issued for six years.
- Licensees must submit detailed work reports ("company exploration reports") every two years.

## **Exploration Company Reports**

- Work reports must contain details of <u>ALL</u> work carried out by the licensee and <u>ALL</u> results arising from their prospecting activities.
- Must be submitted in appropriate digital format (e.g. PDF, Word, shp files, excel, SEG Y format)
- A typical work report includes results of geological mapping, geochemical exploration, diamond drilling (logs and assays) & ground geophysics.
- Remain confidential for a period of 6 years or until the licence is surrendered (whatever is sooner).



#### 2013

- >650 current PLs
- 3 Mines operating and one in closure mode
- 4 other (coal, fireclay, marble)

### **Fraser Institute Survey**

Ranked 6<sup>th</sup> overall out of 92 jurisdictions



## P.L. Area Map (Detail)





# EMD's Publicly Available Digital Datasets (1)

- 1. Exploration Company Reports & Administrative Data on P.L. Areas
- 2. Airborne Geophysical Data
- 3. Web Mapping Services
- 4. Geological Survey of Ireland website



### http://www.dcenr.gov.ie

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Roinn Cumarsáide, Fuinnimh agus Acmhainní Nádúrtha Department of Communications, Energy and Natural Resources

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Radio, Television & the provision of quality broadcasting services.



Energy

Security & reliability of energy supply & to develop energy conservation



Communications

Electronic communications. radio spectrum & postal services and regulation.



Natural Resources



Minister Pat Rabbitte



Minister of State Fergus O'Dowd

#### Ouicklinks

Minister's Brief 2011

Croke Park Agreement

Management Committee

Spatial Data

Press Room

Re-use of Information

Corporate Units

Consultation on Statement of Strategy 2011-2014

Legislation

Minister's Office

Minister of State

**Publications** 

Corrib Gas Field Development

Regulation of Offshore Natural Gas Storage

Exemplar Network

#### Welcome

The Department of Communications, Energy and Natural Resources has responsibility for the Telecommunications. Broadcasting and Energy sectors. It regulates, protects and develops the Natural Resources of Ireland.

#### Latest News



Minister Rabbitte inspects cable laying works at sea in large energy interconnector project

27/10/2011 11:24:00

Minister Rabbitte visits Malahide Marina to inspect cable laying for Ireland's first electricity interconnector to Great...



Minister Rabbitte welcomes EU Commission Telecoms specialists to Dublin

24/10/2011 12:28:05

Minister Rabbitte welcomes EU Commission Telecoms specialists to Dublin



Learning Waves Conference Address

Aviva Stadium Dublin

Independent Radio: A Strong Voice. Minister Rabbitte also outlines the challenges to the media in Ireland today



**EirGrid Group Annual Customer Conference** 

20/10/2011 09:14:02

EirGrid Group Annual Customer Conference Opening Speech Minister Rabbitte welcomes EU Commission proposals for the Development of European Energy and Communications Networks

19/10/2011 13:55:27

Minister Rabbitte welcomes EU Commission proposals for the Development of European Energy & Communications

Networks 2345678910.

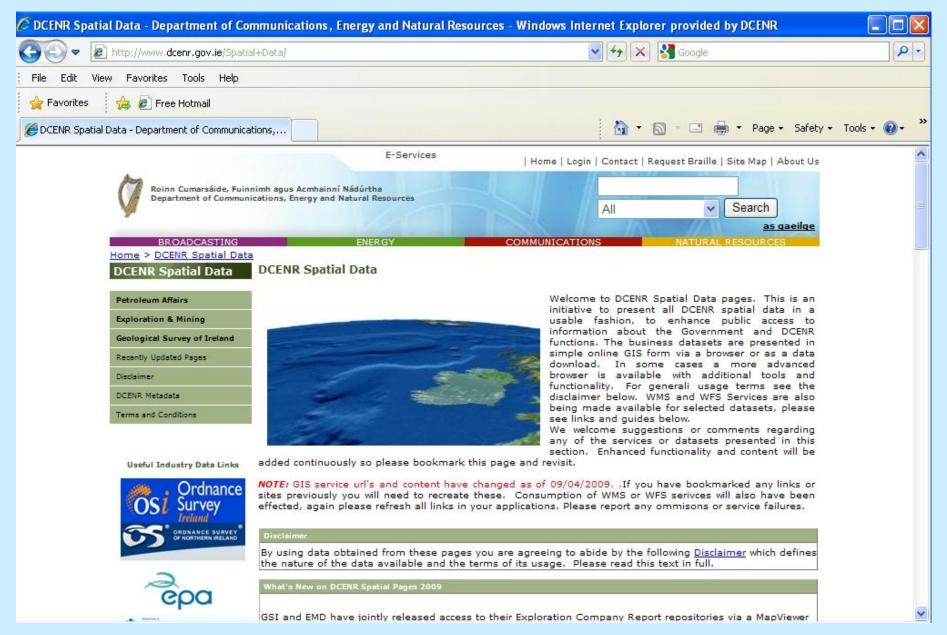
More News »





**Better Energy** 

## http://www.dcenr.gov.ie/Spatial+Data/







OpenFile PLAREA number Screen

#### **EMD and GSI Exploration Company Reports**

The Exploration and Mining Division (EMD) and the Geological Survey of Ireland (GSI) hold Exploration Company Reports (GSI Open File Records) relating to many current and historic Prospecting Licence (PL) Areas. Search for a PL Area below and choose to view a map or a Company Report.

By using the data obtained from these pages you are agreeing to abide by the following <u>Disclaimer</u> which outlines the copyright and general terms of use of the data. Please read this text in full.

Please enter valid PL Area(s) below. You may enter multiple PL Areas separated by a comma. The 'Map' link when clicked will render the selected PL Area(s) in a GIS (IMF) Viewer. The 'Company Reports' link when clicked will render the selected PL Area(s) Exploration Company Reports page.

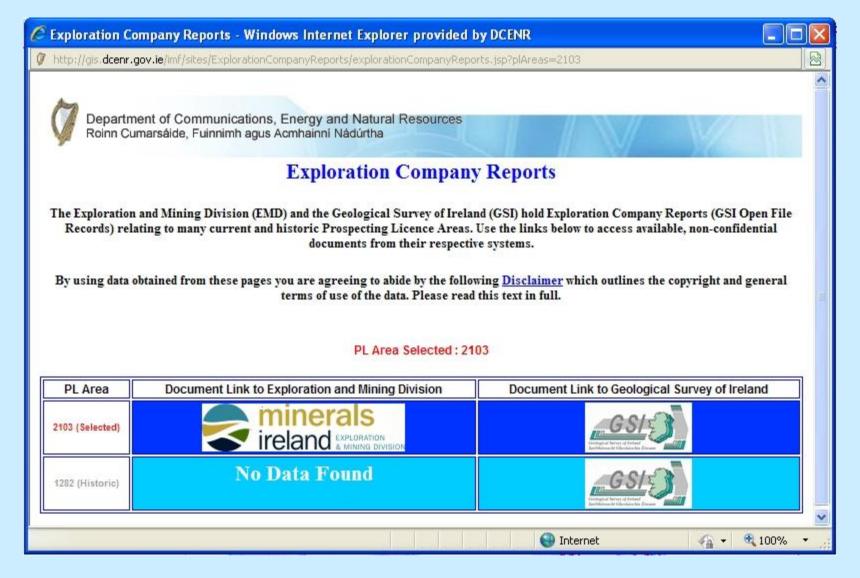
PL Area: 2103

Map Company Reports

Enter into the text box, your PL Area number of interest to access relevant company reports and administrative data

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section is updated

## **Exploration Company Reports Interface: Gateway to EMD and GSI data**



## EMD: Listing of Accessible Exploration Company Reports for PL Area 2103

Next 20 1 to 15 of 15 ✓ Next >									
Report Title	Report Type	Period, Report Size, Notes	Organisation	Public Availability					
Surrender Exploration Report for PL2103 "Teck Cominco Ireland Ltd." for the period 26/03/2007 to 25/03/2009	Exploration Report - Surrender Report		Teck Cominco Ireland Ltd.	Public Document					
Renewal Report for PL2103 to cover the 2000-2002 period	Exploration Report - Renewal Report	Exploration From: 2000 To: 2002 FileSize:0.103MB	CSA	Public Document					
Renewal Report for PL2103 to cover the 1999-2000 period	Exploration Report - Renewal Report	Exploration From: 1999 To: 2000 FileSize:1.4MB	Rio Algom	Public Document					
Renewal Report for PL2103 to cover the two year period 1997-1999	Exploration Report - Renewal Report	Exploration From: 1997 To: 1999 FileSize:1.4MB	CSA	Public Document					
Renewal report for PL2103 (County Roscommon) for the period 1995-97	Exploration Report - Renewal Report	Exploration From: 1995 To: 1997 FileSize:2.4MB	CSA	Public Document					
Summary block report for the Ballinasloe Block (PL2103, PL2105, PL3459, PL3460 and PL3474) for the period 1995-97	Exploration Report - Renewal Report	Exploration From: 1995 To: 1997 FileSize:2.4MB	CSA	Public Document					
Review Of Ballinasloe Block geophysics for PL2091, PL3474, PL3459, PL3460 and PL2103 for the period from December 1994 to February 1995	Exploration Report - Geophysics Report	Exploration From: 1994 To: 1995 FileSize:12.9MB	CSA	Public Document					
Renewal report for PL2103, County Roscommon for the one year period ending May 1995	Exploration Report - Renewal Report	Exploration From: 1994 To: 1995 FileSize:2.5MB	CSA	Public Document					
Renewal report for Ballinasloe Block Licences PL2103, PL3459 and PL3460 for the period 1993-1994	Exploration Report - Renewal Report	Exploration From: 1993 To: 1994 FileSize: 12MB	CSA	Public Document					
Renewal report for Ballinasloe Block Licences PL2103, PL3459 and PL3460 for the period 1992-1993	Exploration Report - Renewal Report	Exploration From: 1992 To: 1993 FileSize:10.6MB	CSA	Public Document					
Renewal Report for Ballinasloe Block Licences PL2103, PL3459 and PL3460 for the period 1990-1992	Exploration Report - Renewal Report	Exploration From: 1990 To: 1992 FileSize:6MB	CSA	Public Document					
Reef and Supra-Reef Stratigraphy in the Ballinasloe Area, PL2103, PL3459 and PL3460, County Galway (Consultants Report by M Philcox)	Exploration Report - Other Report	Exploration From: 1988 To: 1990 FileSize:1.9MB	Mike Philcox (Consultant)	Public Document					
Renewal Report on PL1046R County Roscommon for year ending 25th June 1985, (and PL2103, PL2104, PL2105, Co Roscommon for the year ending 2nd December 1985)	Exploration Report - Renewal Report	Exploration From: 1984 To: 1985 FileSize:7.1MB	Westland	Public Document					
Renewal Report on PL1046R County Roscommon for year ending 25 -6-84, (and PL2103, PL2104, PL2105, Co Roscommon for the two year period ending 2-12-1984)	Exploration Report - Renewal Report	Exploration From: 1983 To: 1984 FileSize: 24MB	Westland	Public Document					
Renewal Report on PL1046R, County Roscommon for the year ending 25-6-1982 (and for PL2103, PL2104, PL2105 County	Exploration Report - Renewal Report	Exploration From: 1980 To:	Irish Base Metals	Public Document					

## Administrative Data on PL Areas: Past & Present Licensees

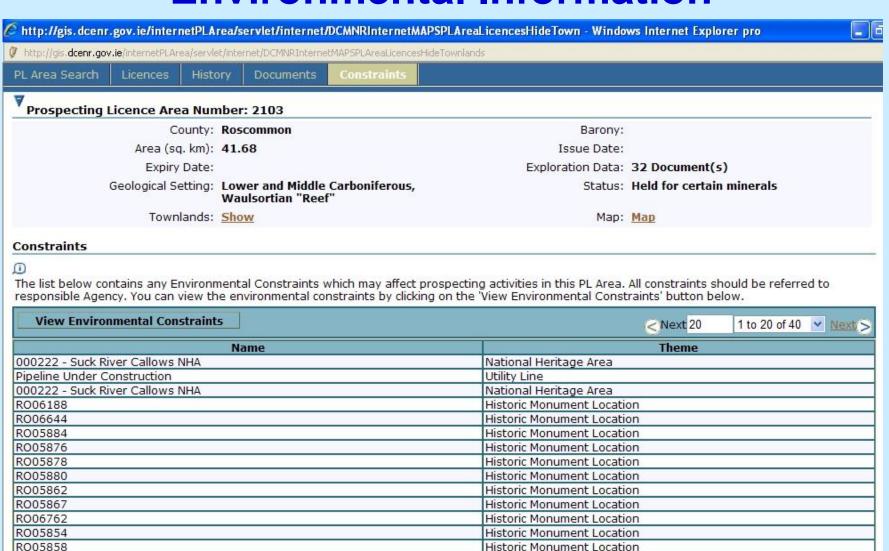


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About Internet MAPS Release Unknown



## Administrative Data on PL Areas: Environmental Information



Historic Monument Location

RO05861

RO05857

RO05834

RO05837

RO05838

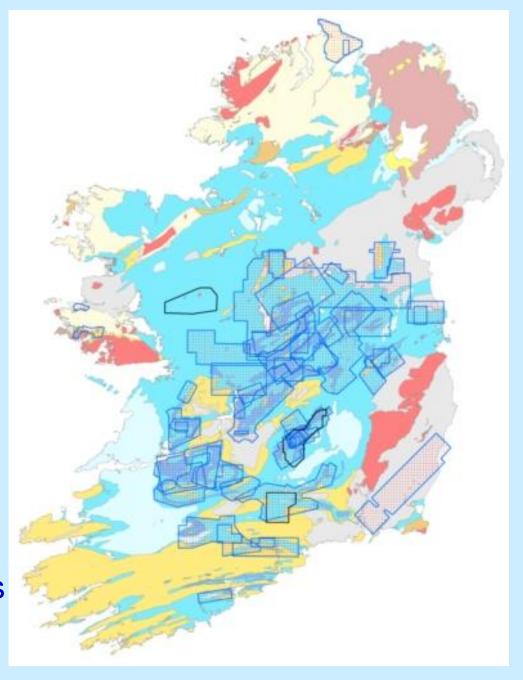
# EMD's Publicly Available Digital Datasets (2)

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- 3. Web Mapping Services
- 4. Geological Survey of Ireland website

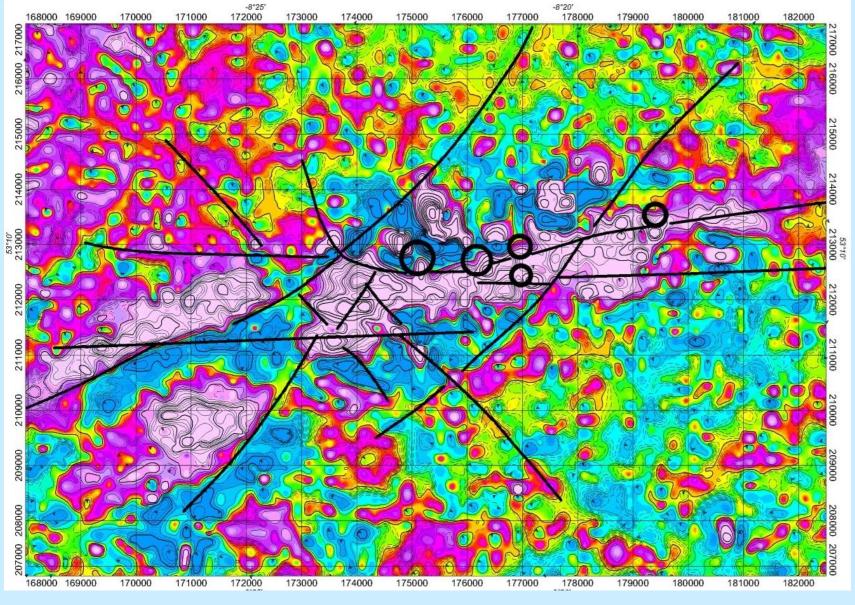


## **Available Airborne Geophysical Data**

- Approx. 40 surveys since 1985
- Majority of surveys over Lower Carboniferous
- Most common surveys are magnetics and EM
- Must lodge all raw, processed and interpreted data with EMD (ASCII and Geosoft .gdb & .grd formats
- Held confidential for 4 years after lodgement date



Available on CD



Enhanced magnetics image with structural lineaments at Tynagh

(Navan Resources Plc)

# EMD's Publicly Available Digital Datasets (3)

- Exploration Company Reports & Administrative Data on P.L. Areas
- 2. Airborne Geophysical Data
- 3. Web Mapping Services
- 4. Geological Survey of Ireland website



## **Access to EMD Web Mapping Services**

 Can be accessed via the spatial data pages of the DCENR website at

http://www.dcenr.gov.ie/Spatial+Data/Exploration+and+Mining

Also accessible from the mineralsireland.ie website at

http://www.mineralsireland.ie/Online+Services



## **EMD Map Viewer**

#### GIS functionality

Advanced tools (e.g. select, extract, annotate, measure & print tools)

#### Exploration

- Borehole data including logs
- Mineral deposit occurrences
- Geology maps
- Airborne geophysics survey areas

### Mining

- Current and expired State Mining Facilities
- Historic mines
- Shafts and adits (to be updated)

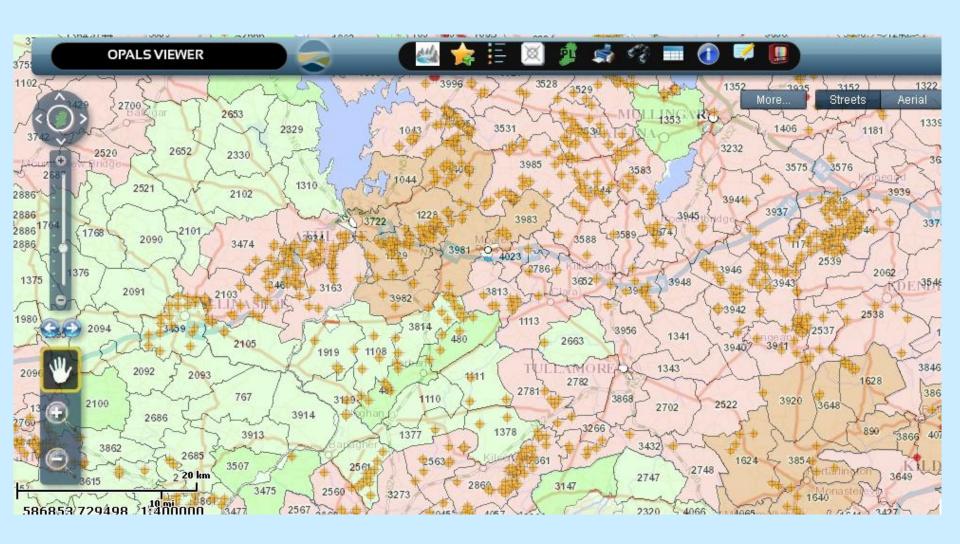
#### Environmental Information

- National Parks
- NPWS Data (SAC, SPA and NHAs)
- National/Historic Monuments



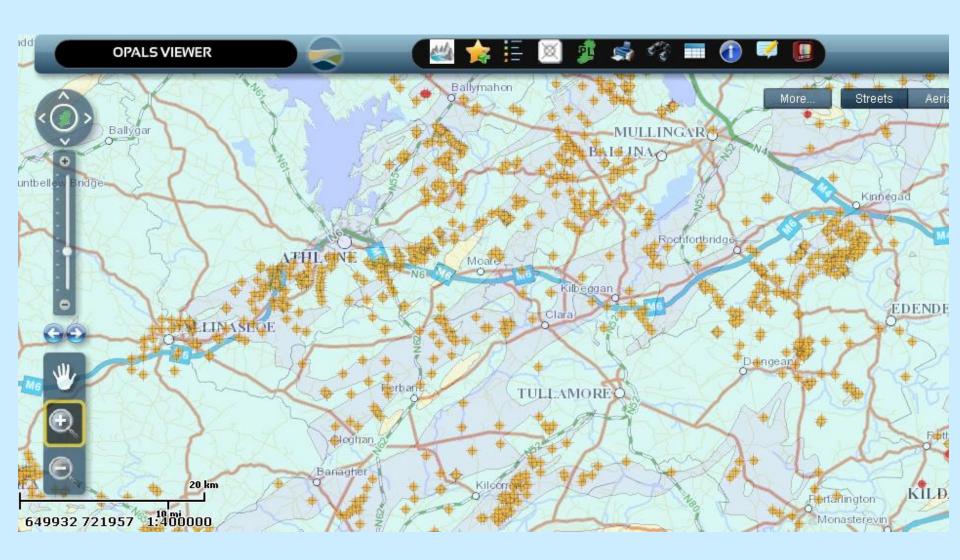


### PL Areas and drillhole information, OSi map backdrop



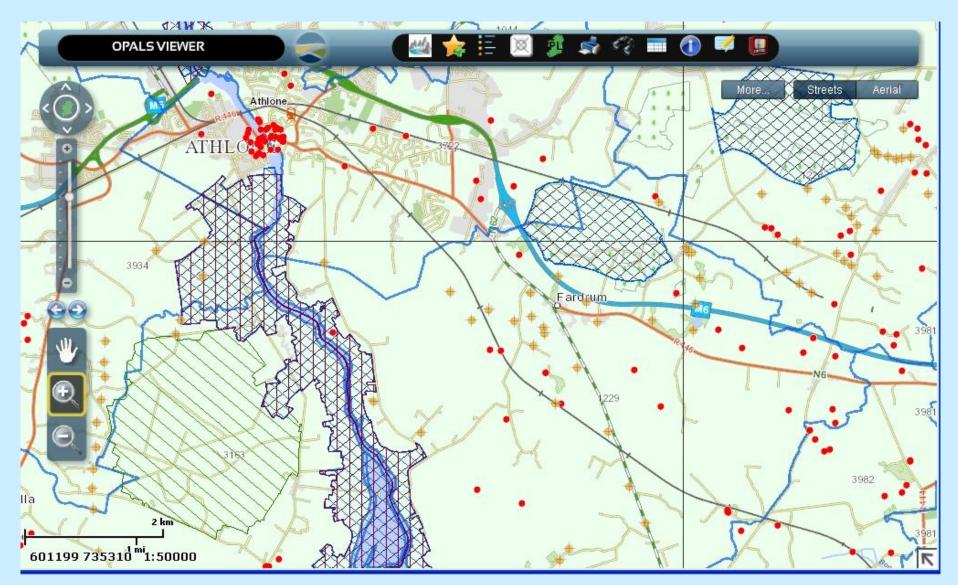


### **Drillholes on geological backdrop**



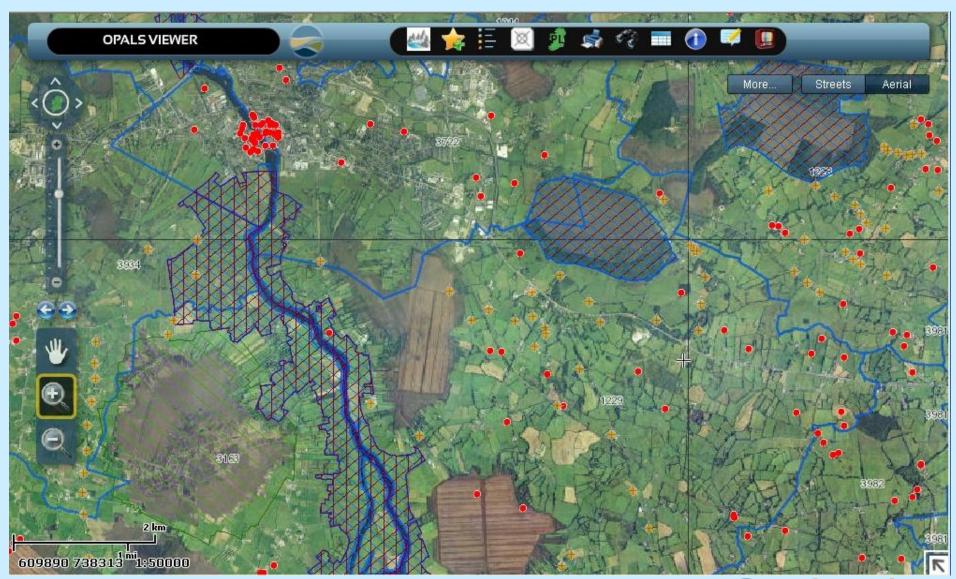


### **Environmental Information on OSi base maps**



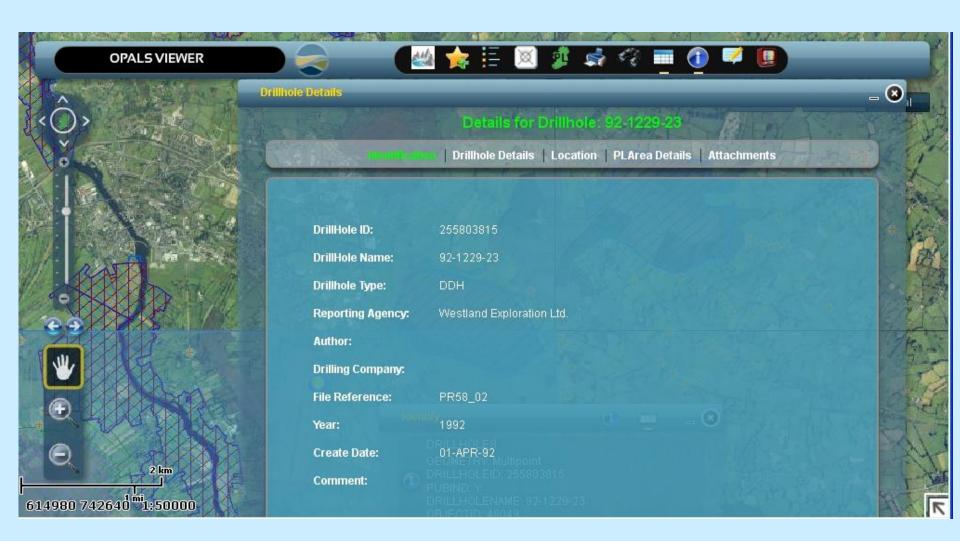


### **Environmental Information on Aerial Photos**





### **Attribute Information on Drillholes**





## **Drillhole logs**



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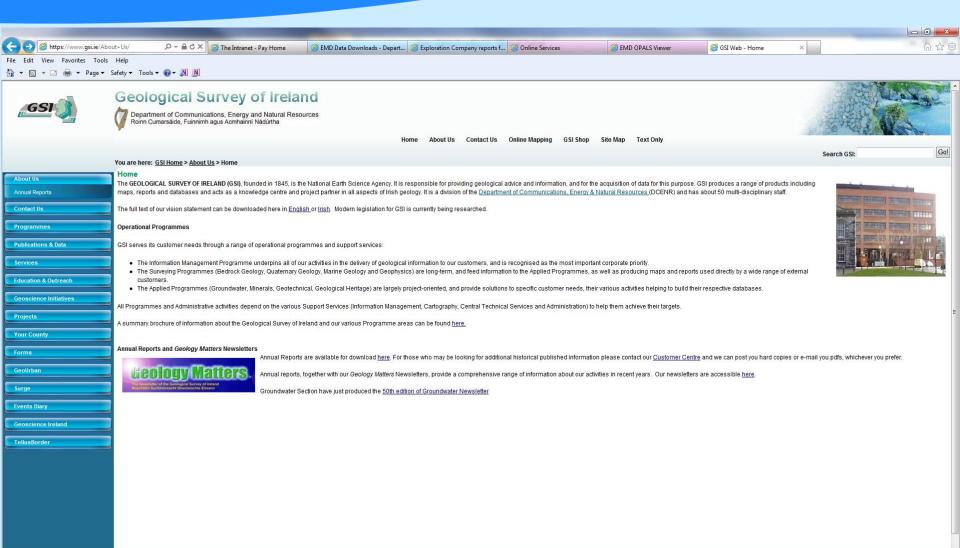
## **3D Rendering Tools**



# GSI's Publicly Available Digital Datasets (4)

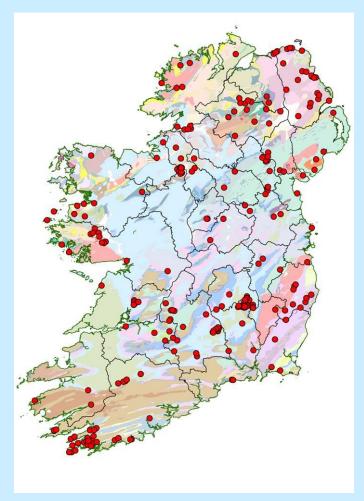
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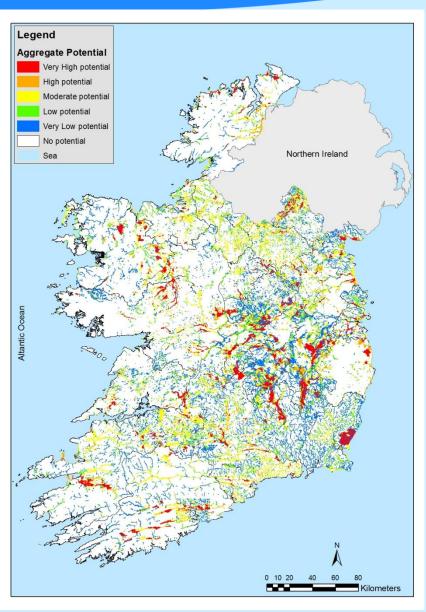
minerals
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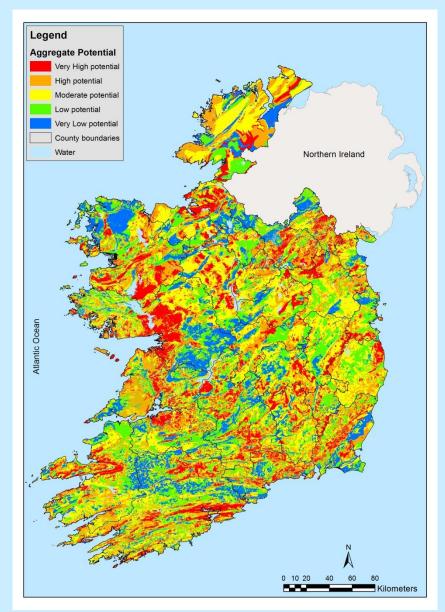
# Irish Mineral Deposits

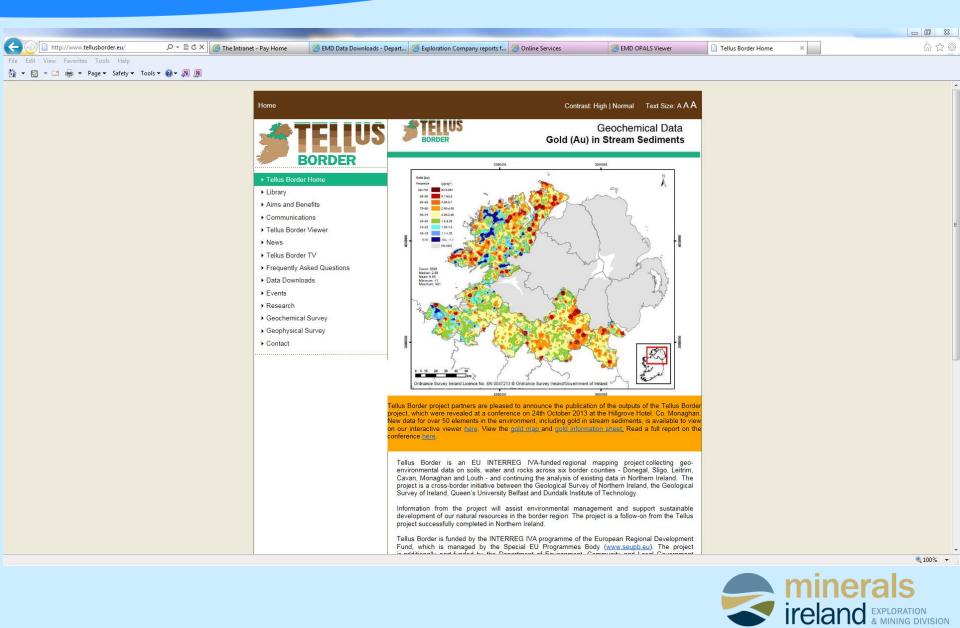




## **Aggregate Potential Mapping**







## Want more information?

#### **Contact:**

Eibhlin.doyle@dcenr.gov.ie

Wayne.cox@dcenr.gov.ie

Gerry.Stanley@gsi.ie

#### Or visit:

www.mineralsireland.ie

www.dcenr.gov.ie/Spatial+Data/

www.gsi.ie

