

GENERAL INFORMATION	
Parameter name	Critical chemical composition of groundwater
Name of the layer in EGD Map Viewer	Critical chemical composition of groundwater, Cork
Original name of the layer uploaded to EGD database	PP07_GSI_gwchemistry.shp
Category	Limitation of use
Definition	Groundwater zones of problematic chemistry related to shallow geothermal energy
Harmonized unit	none
Relevance for shallow geothermal energy	Polygons defining zones inside groundwater bodies or groundwater bodies potentially leading to operational problems for shallow geothermal energy use due to their chemical composition.
Data type	Discrete labels
Data format	vector: point
Projection	EPSG: 3034
Dataset selected for pilot area	Ljubljana, Vienna, Bratislava, Cork , Zaragoza, Cardiff (TBC), Glasgow (TBC)

ATTRIBUTES	
Chemical_Risk_Type	Discrete data classes based on a joint legend: no chemical risk risk of manganese and iron scaling risk of carbonate scaling risk of metal corrosion risk of concrete corrosion multiple risks lack of chemical analysis of groundwater - Undetermined
Chemical_Risk_Type_URI	Link to definitions, e.g., INSPIRE, project vocabulary, etc.
linkdataurl	Link to data or additional information about the data, e.g., link to national databases (text)
remark	Free text for additional information (text)
repositoryurl	Link to this factsheet (text)

DATA SOURCE	
Pilot area	Cork
Data source	derived from chemical analyses of groundwater sampled from boreholes
Contact data owner	taly.hunterwilliams@gsi.ie
Last Update	20/05/2021

Explanatory text English

Groundwater chemistry, Cork. This dataset displays the outcome of hydrochemical risk assessments for the Cork pilot area. The data are derived from chemical analyses of groundwater sampled from various boreholes in the pilot area, and also from academia.

N.B. Results from Hemmingway and Long (2011) provide information for the data point in the Cork Docklands area. Please follow the link below for more details:

<https://researchrepository.ucd.ie/bitstream/10197/3725/1/Geothermal%20energy%20settlement%20and%20water%20chemistry%20-%20UCD%20OA.pdf>

DISCLAIMER

The Geological Survey Ireland makes no representations, warranties, or undertakings about any of the information provided on these maps including, without limitation, their accuracy, their completeness or their quality or fitness for any particular purpose.

REFERENCE

Hemmingway, P. and Long, M. 2011. Geothermal energy: settlement and water chemistry in Cork, Ireland. Proceedings of the Institution of Civil Engineers, Engineering Sustainability, 164 (3): 213-224.