



Hydrogeological processes and geological settings over Europe controlling dissolved geogenic and anthropogenic elements in groundwater of relevance to human health and the status of dependent ecosystem

Deliverable 3-1

Database for concentrations of dissolved elements and associated parameters and harmonized terminology to define thermal and mineral water (Database and associated technical report)

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1 INTRODUCTION

This deliverable is part of the Work Package 3 (WP3) in the Horizon2020 GeoERA project HOVER running from 2018 – 2022 with the title: Hydrogeological processes and Geological settings over Europe controlling dissolved geogenic and anthropogenic elements in groundwater of relevance to human health and the status of dependent ecosystems. The HOVER project addresses groundwater management issues related to drinking water, human and ecosystem health across Europe in relation to both geogenic elements and anthropogenic pollutants by data sharing, technical and scientific exchange between European Geological Survey Organizations (GSO).

HOVER WP3 deals with Hydrogeochemistry and health: Mapping groundwater characteristics for the management of aquifers naturally enriched in dissolved elements. WP3 consists of five tasks:

- 3.1 Harmonization of terminology, inventory of available information on mineral, thermal and highly mineralized groundwater.
- 3.2 Defining lithological/geological water families based on information available at EU Scale.
- 3.3 Proposing a common methodology to calculate the national concentration of dissolved elements based on lithological/geological families taking into account possible anthropogenic influences.
- 3.4 Natural background levels and health – determination and selection of indicators for GW management.
- 3.5 Preparing and producing maps, web map service and associated explanatory Information.

An overview of participating countries/regions is found in Figure 1.

Aims of Task 3.1:

- 1- To build up a **harmonized terminology for characterising natural mineral waters and thermal waters** as there exist different national classifications.
The terminology will take account of water temperature, outflow, pressure, mineralization (also highly mineralized groundwaters) including gas content, purity, residence time and utilization.
- 2- To build an **overview on the national approaches concerning the definition of geogenic anomalies of dissolved elements in groundwater**. Herefore, parameters and data existing in each country should be listed. The result will be an inventory of available data.
- 3- To create a **harmonized nomenclature for the „GeoERA Information Platform“, WP4 „Semantic harmonization issues“ with focus on natural mineral water and thermal waters**.



Figure 1: Overview of participating countries in HOVER WP3.



2 WORK FLOW

According to the proposal, it is aimed to conduct an investigation based on sending out questionnaires and additional personal contacts in order to clarify open questions.

In detail, the following work flow is realized:

- 1- To conduct a **specific WP3 questionnaire** in addition to the WP3 general questionnaire **to investigate used terminologies and available data in participating countries/regions.**

See chapter 3, appendix 7.1 and attachment A1

- a. To **provide an overview of available information on natural mineral and thermal waters.** This will be realized from the evaluation of the specific questionnaire.

See chapter 3.1, chapter 3.2 and attachment A1

- b. To **provide an overview of available hydrochemical data (main and trace elements) for observation wells and springs.** This will be realized from the evaluation of the specific questionnaire.

See chapter 3.3 and attachment A1

- 2- To **propose a database structure for the collection of data on natural mineral waters and thermal waters** based upon the results from the specific questionnaire. Hereby, **harmonization of data is most important.** Remarks from participating surveys to the suggested database structure have to be considered
See chapter 4.1 and attachment A2.

- 3- To start **data collection on natural mineral waters and thermal waters** based on

- a. the proposed **database structure**

See chapter 4.2, appendix 7.2, 7.3 and attachment A2.

- b. and **brief written overviews** (approx. 500 words) about natural mineral water and thermal water resources in each participating country/region. Those include national definitions, quantitative and qualitative information and descriptions of hydrogeological settings.

See chapter 5



3 RESULTS FROM SPECIFIC QUESTIONNAIRE

The respond rate to the specific questionnaire was excellent, 100 % of the participating surveys contributed to the questionnaire. See Appendix 6.1. for the questions.

3.1 Natural mineral waters in participating countries

3.1.1 General information

Natural mineral waters may be distinguished from ordinary drinking water by their purity at source and their constant level of minerals. Directive 2009/54/EC ([https://eur-lex.europa.eu/legal-](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2009.164.01.0045.01.ENG&toc=OJ:L:2009:164:TOC)

[content/EN/TXT/?uri=uriserv:OJ.L_.2009.164.01.0045.01.ENG&toc=OJ:L:2009:164:TOC](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2009.164.01.0045.01.ENG&toc=OJ:L:2009:164:TOC), accessed on 26.06.2019) regulates the marketing and exploitation of natural mineral waters. Natural mineral waters may be treated at source to remove unstable elements and some undesirable constituents in compliance with the provisions laid down in Article 4 of Directive 2009/54/EC (see below). Treatments other than filtration or decanting with possible oxygenation have to be assessed and authorised at EU level prior to their use by industry. Commission Regulation (EU) No 115/2010 lays down the conditions for use of activated alumina for the removal of fluoride from natural mineral waters and spring waters.

The list of Natural mineral waters recognised by EU member states (https://ec.europa.eu/food/sites/food/files/safety/docs/labelling-nutrition_mineral-waters_list_eu-recognised.pdf, accessed on 26.06.2019) comprises the majority of Natural mineral waters in countries that participate in HOVER WP3. One Natural mineral water source recognized by Iceland is listed since Iceland belongs to the European Economic Area (EEA). Exceptions are Malta (Natural mineral waters are not found), Serbia and Ukraine. However, three sources in Serbia are recognized by United Kingdom.

Article 4 of directive 2009/54/EC

- 1) Natural mineral water, in its state at source, may not be the subject of any treatment other than:
 - a) the separation of its unstable elements, such as iron and sulphur compounds, by filtration or decanting, possibly preceded by oxygenation, in so far as this treatment does not alter the composition of the water as regards the essential constituents which give it its properties;
 - b) the separation of iron, manganese and sulphur compounds and arsenic from certain natural mineral waters by treatment with ozone-enriched air in so far as such treatment does not alter the composition of the water as regards the essential constituents which give it its properties, and provided that:
 - i) the treatment complies with the conditions for use to be laid down by the Commission following consultation of the European Food Safety Authority, established by Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (8);
 - ii) the treatment is notified to, and specifically controlled by, the competent authorities;



- c) the separation of undesirable constituents other than those specified in points (a) or (b), in so far as this treatment does not alter the composition of the water as regards the essential constituents which give it its properties, and provided that:
 - i) the treatment complies with the conditions for use to be laid down by the Commission following consultation of the European Food Safety Authority;
 - ii) the treatment is notified to, and specifically controlled by, the competent authorities;
- d) the total or partial elimination of free carbon dioxide by exclusively physical methods.

The measures referred to in points (b)(i) and (c)(i), designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 14(2).

The first subparagraph shall not constitute a bar to the utilisation of natural mineral waters and spring waters in the manufacture of soft drinks.

- 2) Natural mineral water, in its state at source, may not be the subject of any addition other than the introduction or the reintroduction of carbon dioxide under the conditions laid down in Annex I, Section III.
- 3) Any disinfection treatment by whatever means and, subject to paragraph 2, the addition of bacteriostatic elements or any other treatment likely to change the viable colony count of the natural mineral water, shall be prohibited.

Specific hydrochemical characteristics are listed in Article 9 – Annex III. The indications listed in this Annex shall be authorised if they meet the relevant criteria.

Table 1: Indications and Criteria for natural mineral waters - Annex III of Article 9 in Directive 2009/54/EC.

Indications	Criteria
Low mineral content	Mineral salt content, calculated as a fixed residue, not greater than 500 mg/l
Very low mineral content	Mineral salt content, calculated as a fixed residue, not greater than 50 mg/l
Rich in mineral salts	Mineral salt content, calculated as a fixed residue, greater than 1 500 mg/l
Contains bicarbonate	Bicarbonate content greater than 600 mg/l
Contains sulphate	Sulphate content greater than 200 mg/l
Contains chloride	Chloride content greater than 200 mg/l
Contains calcium	Calcium content greater than 150 mg/l
Contains magnesium	Magnesium content greater than 50 mg/l
Contains fluoride	Fluoride content greater than 1 mg/l
Contains iron	Bivalent iron content greater than 1 mg/l
Acidic	Free carbon dioxide content greater than 250 mg/l
Contains sodium	Sodium content greater than 200 mg/l
Suitable for the preparation of infant food	—
Suitable for a low-sodium diet	Sodium content less than 20 mg/l
May be laxative	—
May be diuretic	—



3.1.2 **National laws or rules regulating natural mineral waters in WP3 participating countries/regions**

Relevant national laws or rules regulating natural mineral waters in WP3 participating countries are listed below (investigated with WP3 specific questionnaire):

- **Austria:** Mineralwasser- und Quellwasserverordnung, BGBl. II Nr. 309/1999 idgF. *see chapter 5.1.1 for more details*
- **Belgium:** Royal decision of 8 Februari 1999 concerning natural mineral waters and source waters, adapted by Royal decision of 15 December 2003.
- **Bosnia and Herzegovina:** Waters Act - Rulebook on natural mineral water, spring water and table water (Official Gazzete of the Bosnia and Herzegovina No. 26/10, 40/10).
- **Czech Republic:** no information.
- **Denmark:** Bekendtgørelse om naturligt mineralvand, kildevand og emballeret drikkevand BEK nr 38 af 12/01/2016 (Ministerial Order on Natural mineral water, Spring. *see chapter 5.3.1 for more details*
- **France:** Decree No 2007-49 of 11 January 2007 on the safety of water intended for human consumption.
- **Hungary:** 65/2004. (IV. 27.) FVM-ESZCSM-GKM; 74/1999. (XII. 25.) EüM; 59/2006. (VIII.14.) FVM-EüM-SZMM; 2009/54/EK direktíva, 80/777/EGK tanácsi irányelv, 96/70/EK irányelv.
- **Iceland:** 2003/40/EC, "Natural mineral water is water from a groundwater resource that emerges in one or more springs and can be characterized by stable physical properties such as temperature and pH and concentrations of dissolved solids and carbondioxide"; Legislation on natural mineralwater and bottled spring water (405/2004).
- **Ireland:** European Union (Drinking Water) (Amendment) Regulations 2017 (S.I. No. 464 of 2017).
- **Italy:** Italian Legislative Decree N.176 of 8 october 2011 adopts the EU Directive 2009/54/EC. *see chapter 5.4.1 for more details*
- **Latvia:** 2015.gada 15.decembra Ministru kabineta noteikumi Nr.736 "Noteikumi par dabīgo minerālūdeni un avota ūdeni".
- **Lithuania:** Requirements for use and marketing of natural mineral and spring waters.
- **Malta:** not relevant.
- **Poland:** Rozporządzenie Ministra Zdrowia z dnia 31 marca 2011 r. w sprawie naturalnych wód mineralnych, wód źródlanych i wód stołowych (Dz.U. 2011 nr 85 poz. 466) (Regulation of the Minister of Health of 31 March 2011. on natural mineral water, spring water and table water).
- **Portugal:** Law n.º 54/2015 of 22 June ("Geological Resources Law") and specific regulations Decree-Law no. 86/90 of 16 March (natural mineral waters) and Decree-Law no. 84/90 of 16 March (spring water).
- **Romania:** GD No.1.020 of 1 September 2005 for the approval of the Technical Norms for the exploitation and marketing of natural mineral waters.
- **Serbia:** Regulation on Quality and Other Requirements for Natural mineral water, Spring Water and Bottled Drinking Water (Official Gazzete of Serbia and Montenegro, number



53/05) and Regulation on the Hygienic Acceptability of Potable Water (Official Gazette of FRY, number 42/98 and 44/99). Requirement: Mineral water is all groundwater with higher content of dissolved minerals (> 1 g/l) or higher content of certain specific components (CO_2 , H_2S , Rn, Fe, Br, J etc.) as well as groundwater with higher temperatures.

- **Slovenia:** Waters Act (Official Gazette of the Republic Slovenia No. 67/02, 2/04 – ZZdrI-A, 41/04 – ZVO-1, 57/08, 57/12, 100/13, 40/14 and 56/15)) with subordinate Rules on natural mineral water, spring water and table water (Official Gazette of the Republic Slovenia No. 50/04, 75/05 and 45/08 – ZKme-1)

See chapter 5.6.1 for more details

- **Spain:** RD 1798/2010, of December 30, regulating the exploitation and commercialization of natural mineral waters and bottled spring waters for human consumption.

See chapter 5.7.1 for more details

- **Sweden:** no information.
- **Ukraine:** The Law of Ukraine on Environmental protection, The Subsoil Code of Ukraine, The Water Code of Ukraine, The Law of Ukraine on approval the Whole-State Program for development of Mineral resource base of Ukraine for the period to the year 2030; Requirement: Natural mineral waters in Ukraine can be defined as natural groundwaters within sites (groundwater deposits) characterized by a certain and constant physico-chemical composition, biologically active components and compounds in accordance with the standards assigned for each site (groundwater deposit area) and can be consumed without special treatment that can affect chemical composition and microbiological properties.

3.1.3 Data availability of natural mineral waters in WP3 participating countries/regions

Results from the specific questionnaire showed that most involved surveys can provide data (e.g. location of sources, hydrochemistry and aquifer information) for natural mineral waters (see Figure 2).

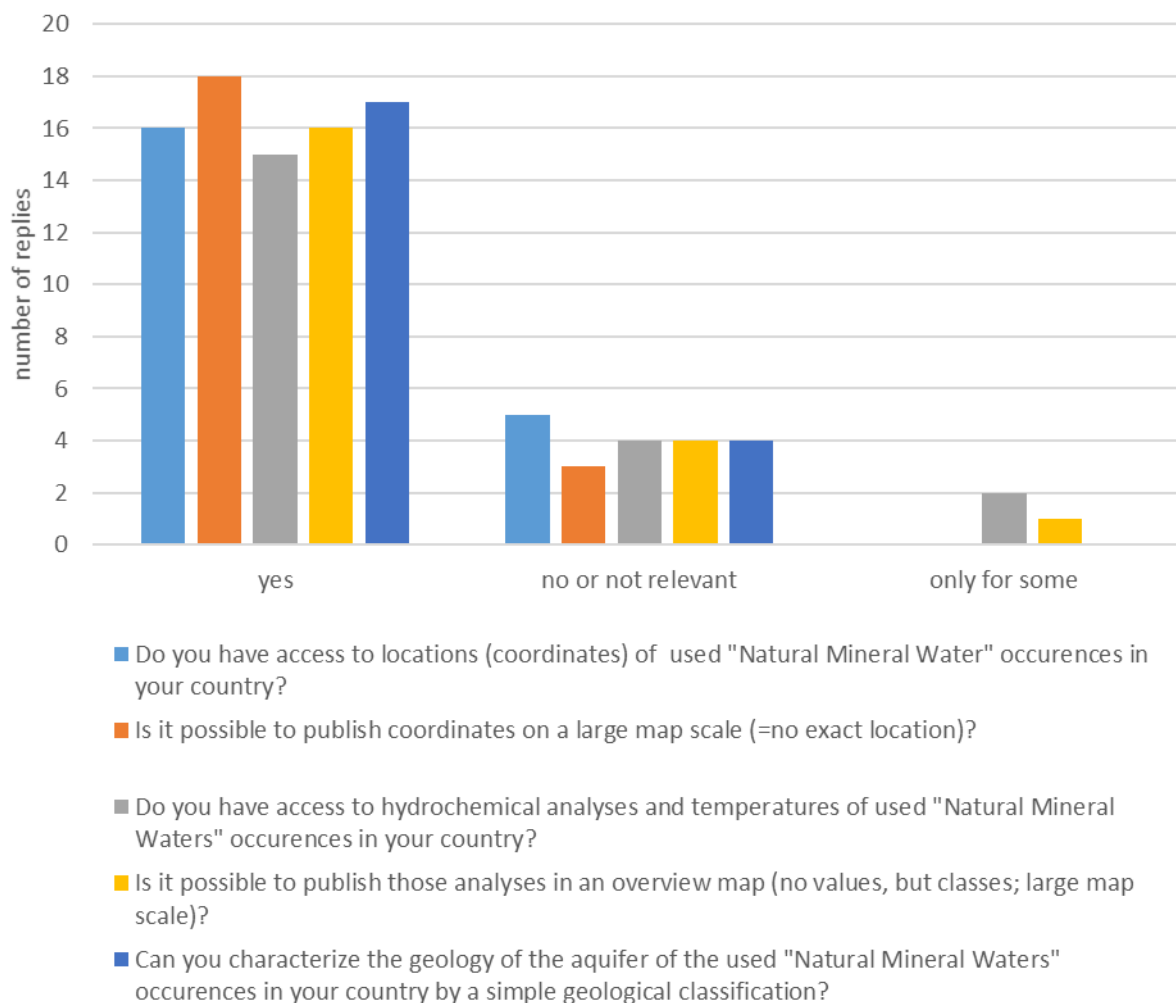


Figure 2: Availability of data on natural mineral waters in participating countries.

3.2 Thermal waters in participating countries

National laws or directives have to be considered to find a shared terminology. According to the results of the specific WP3 questionnaire, thermal waters are not relevant in 4 of 21 countries or regions. However, 10 of 17 remaining countries do have national laws or directives that regulate thermal waters and 3 of 17 don't have any (see below). It has to be mentioned that not all surveys where thermal waters are present replied to this question (4 of 17).

3.2.1 National laws or rules regulating thermal waters in WP3 participating countries/regions

National laws or directives in participating countries which regulate thermal waters:

- **Austria:** there are laws in each state of Austria except in Vorarlberg, but the definition for "thermal water" is always the same. See "Heilvorkommen- und Kurortegesetze der



Bundesländer".

see chapter 5.1.1 for more details

- **Belgium:** Not relevant in Flanders.
- **Bosnia and Herzegovina:** Waters Act - Rolebook on the categorization, classification, the budget reserve of ground water and management of records about them (Official Gazzette of the Bosnia and Herzegovina No. 47/11).
see chapter 5.2.1 for more details
- **Czech Republic:** No information.
- **Denmark:** Not relevant.
- **France:** National regulations, based on article R. 1322-52 of the Public Health Code
- **Hungary:** No information.
- **Iceland:** Not defined.
- **Ireland:** Not defined.
- **Italy:** Governmental Law N.323 of 24 October 2000
see chapter 5.4.1 for more details
- **Latvia:** No information.
- **Lithuania:** Not defined.
- **Malta:** Not relevant.
- **Poland:** Ustawa z dnia 9 czerwca 2011 r. - Prawo geologiczne i górnicze (Dz.U. 2018 poz. 1563) (Act of 9 June 2011 Geological and Mining Law)
- **Portugal:** Not defined.
- **Romania:** Governmental Decision no. 1154/2004
- **Serbia:** Regulation on Quality and Other Requirements for Natural mineral water, Spring Water and Bottled Drinking Water (Official Gazzete of Serbia and Montenegro, number 53/05)
- **Slovenia:** Waters Act (Official Gazzette of the Republic Slovenia No. 67/02, 2/04 – ZZdrI-A, 41/04 – ZVO-1, 57/08, 57/12, 100/13, 40/14 and 56/15) in its 7th article
see chapter 5.6.1 for more details
- **Spain:** Law 22/1973 of July 21, of Mines and RD 2857/1978, of August 25, which approves the General Regulation for the Mining Regime.
See chapter 5.7.1 for more details
- **Sweden:** Not relevant
- **Ukraine:** No information

3.2.2 Definition of thermal water according to the temperature

Most definitions for thermal water are based on water temperatures at the outlet. For example, JORDAN & WEDER (1988) introduced the following classification for thermal waters in Central Europe:



Table 2: Classification of thermal waters in Central Europe by JORDAN & WEDER, 1988¹)

Thermal water		Temperature (°C)
low-thermal	Warm	20-37
thermal	Hot	37-70
High-thermal	Very hot	70-100
steam-thermal	overheated	>100

Results from the conducted questionnaire show, that the majority of countries (7 of 17) define a thermal water by a minimum temperature of 20 °C. However, definitions by temperature don't exist in several countries (5 of 17), also other minimum temperatures are often present (see Figure 3).

Due to the heterogeneity of definitions, it is suggested to introduce the following detailed temperature classes at the outlet to describe thermal waters on an European level:

<15 °C, 15-20 °C, 20-30 °C, 30-40 °C, 40-50 °C, 50-60 °C, 60-70 °C, 70-80 °C, 80-90 °C, 90-100 °C, >100 °C.

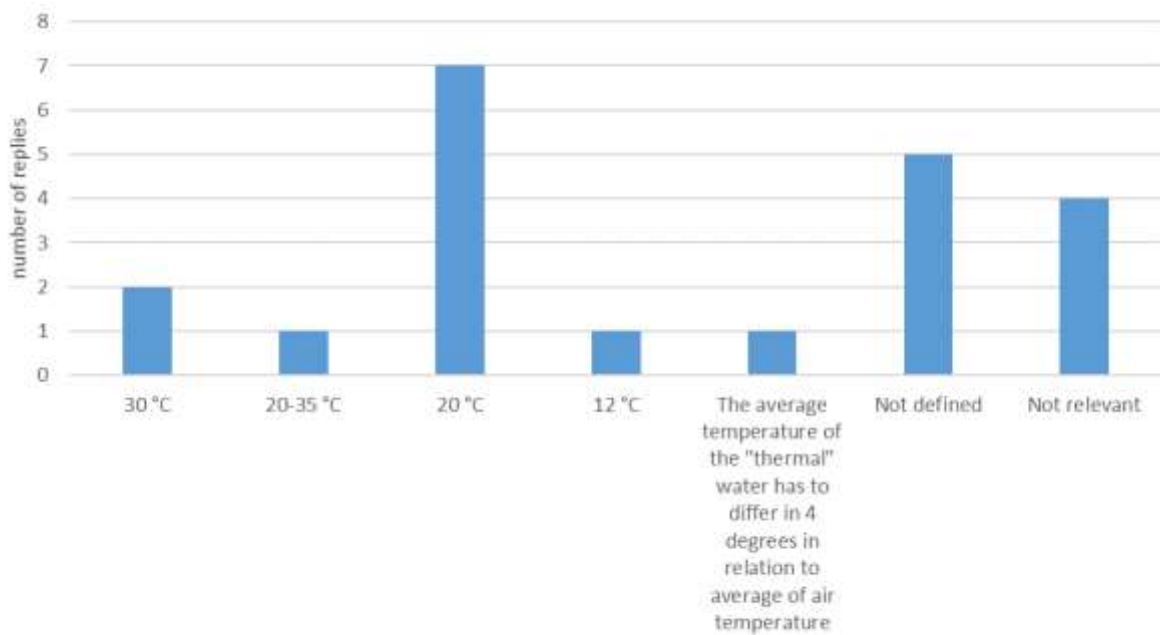


Figure 3: Minimum water temperatures (°C) to define thermal water in participating countries or regions.

3.2.3 Data availability for thermal waters in WP3 participating countries/regions

Figure 4 shows that most participating surveys can contribute data for thermal waters, especially locations of known sources can be shared. Providing aquifer information, hydrochemical analysis and technical borehole data (drilling depth) is also possible in many cases.

¹ JORDAN, H. & WEDER, H.J. (1988): Hydrogeologie. – 444 S., Leipzig.



Figure 4: Availability of data on thermal waters in participating countries or regions.

3.3 Availability of hydrochemical data for observation wells and springs

The following inventory of available hydrochemical data from participating HOVER WP3 surveys provides a valuable background information to tackle the following WP3 objectives:

- To propose a common methodology to identify the main geological factors and hydrogeological processes regulating the distribution of natural concentrations (NBL - natural background level) of selected dissolved elements including Potentially Toxic Geogenic Trace Elements (PTGTE).
- To produce pan European information layers of indicators of chemical anomalies of natural origin (natural background level determination).

Results show that general data for observation wells and springs including location of sources, depth of wells, depth to water tables, discharges during hydrochemical sampling and types of hydrochemical sampling is available in most WP3 participating countries/regions (see Figure 5).



Chosen main parameters of hydrochemical analysis except eH and oxygen are also commonly available (see Table 3). In several cases, data has to be derived from third parties (see attachment A1 for details). In some cases data might be available but can't be published (e.g. Hungary, Poland). Data availability on relevant trace elements is found in the following chapters 3.3.1 to 3.3.21.

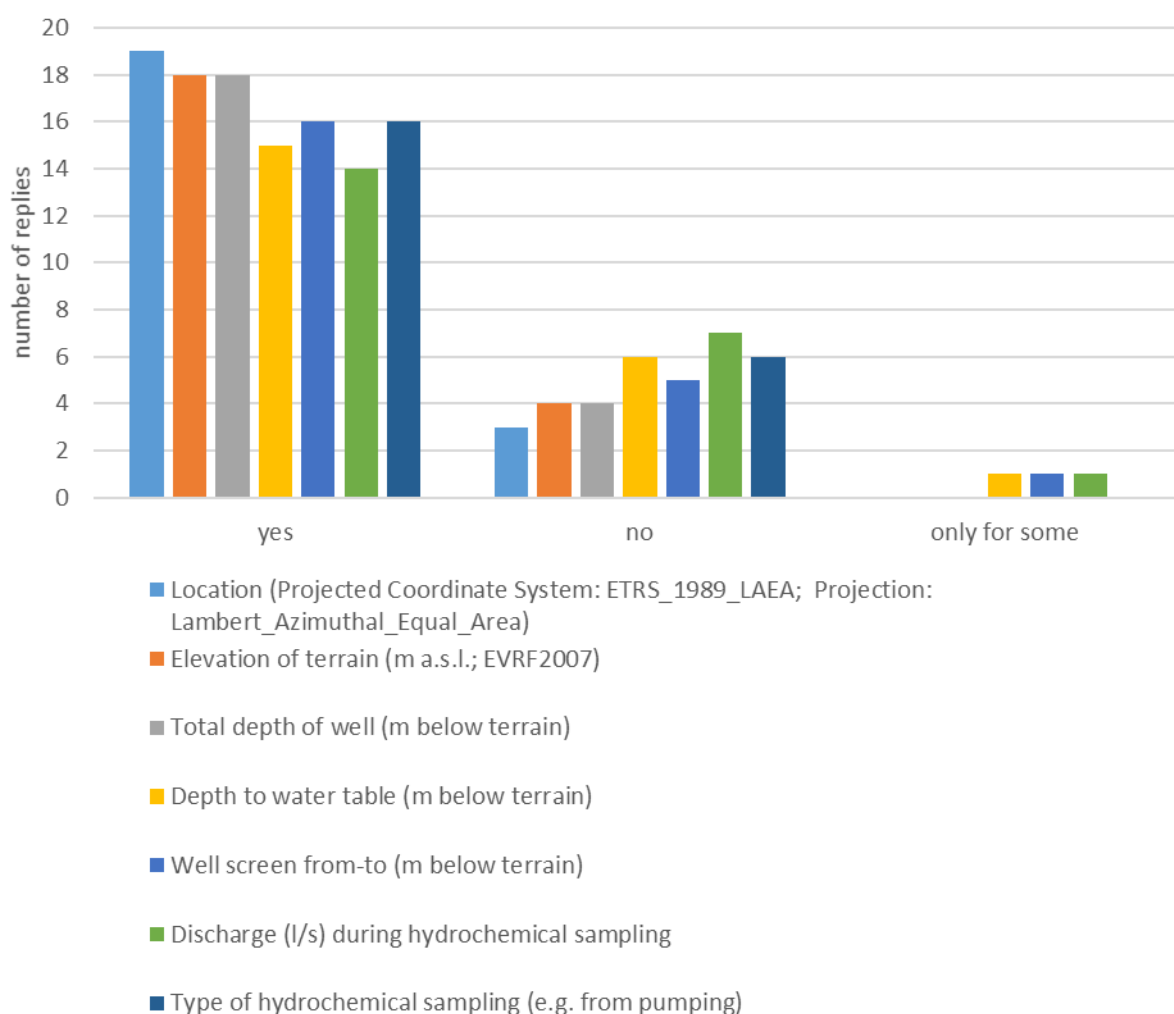


Figure 5: Available hydrochemical data from participating surveys: General information.

Table 3: Available hydrochemical data from participating surveys: Main ions and field parameters.

Number of replies	Yes	no	only for some
Groundwater temperature (°C)	20	2	-
EC (µS/cm, 25 °C)	17	5	-
eH (mV)	11	10	1
O ₂ (mg L ⁻¹)	14	8	-
Ca (mg L ⁻¹)	18	4	-



Mg (mg L ⁻¹)	missed in specific questionnaire		
K (mg L ⁻¹)	18	4	-
Na (mg L ⁻¹)	19	3	-
NH ₄ (mg L ⁻¹)	19	3	-
Cl (mg L ⁻¹)	19	3	-
HCO ₃ (mg L ⁻¹)	18	4	-
SO ₄ (mg L ⁻¹)	19	3	-
NO ₃ (mg L ⁻¹)	18	4	-
NO ₂ (mg L ⁻¹)	16	6	-

3.3.1 Aluminium

Table 4: Aluminium in groundwater – Overview of data availability in participating countries/regions.

Aluminium	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	9	11	11
some	0	2	2
not sure	0	0	1
no	5	3	3
no information provided	8	6	5

Table 5: Aluminium in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	Not set (drinking water); 0,2 (indicator parameter)	Yes	Yes	2.837	H20-fachdatenbank (third party), up to 4 measurements/year	Whole country	Yes	-
Belgium	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	0,2 drinking water	Not investigated	Yes	Little	No, there are individual studies; no systematic analyses	The entity federation of bosnia and herzegovina	No	No
Czech Rep	0,2	Yes	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	0,2	Yes	Yes	1.187	Yes, approx. Every 2-3 years	Whole country	No	-
France	0,05 (guide value) 0,2 (maximum acceptable concentration)	Yes	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	-
Hungary	DW: 0,2, but only indicator value and not threshold limit value	Not investigated, but not likely	Not applicable.	Sparse	Not for the last 5 years. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No.	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Iceland	0,2	No	In some cases	Not known	Yes, varies	No, distributed sampling points	No	-
Ireland	0,2 (indicator parameter)	Yes, 97% < threshold	No	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	0,2 mg/l from DW law Annex	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	-	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-	-
Poland	0,2 (drinking water)	Yes (drinking water)	Yes	Ca. 1300 (drinking water)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	0,2	-	Yes	The groundwater monitoring network consists of about 1.037 points and its distribution in the country is not uniform. The frequency of sampling is by-annual. The parameters monitored are not the same at all points.	The Portuguese Environment Agency is responsible for the groundwater quality monitoring network. LNEG does not currently have access to this data. However LNEG will try to obtain this data and their authorization to make them available to the project partners.	Yes. The Groundwater quality monitoring network cover the whole country	No	In the case of natural spring water (as well as water for human consumption) the levels of physical-chemical parameters are established by the Decree-Law no.152/2017. For the natural mineral water this element is not subject to maximum admissible values.
Romania	0,2 (drinking water)	Yes, in thermal water.	Yes	None	No	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water	No	Elevated concentration in some thermal water
Serbia	0,2	-	-	-	-	-	-	-
Slovenia	0,2 mg/l for drinking water	Not investigated	Yes	Little	No, unsystematic, only for research purposes	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	No
Spain	0,2 mg/l for drinking water and natural mineral water. Not set for spring water	Yes	Yes	714	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significant differences in the number of observations between regions	No	-
Spain (Catalonia)	-	Anomalous natural concentration of Al has been detected in very specific	Yes	In general, approximately 350 points with regular frequency, and other points	Yes in some of them. At the East basins of Catalonia, the network has 350 points yearly sampling. At the	No. Primarily the most productive or priority aquifer in terms of vulnerability.	No	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
		areas in the Pyrenees (> 2 ppm) where exist moderated acid waters in high-mountain lakes		not regularly sampled. Mostly yearly sampling.	West of Catalonia (Ebro basin) there is information but not regularly sampled			
Sweden	-	-	-	20.000	Yes; see comment	Yes, but few analyses from northern Sweden	No	-
Ukraine	≤0,1-0,2	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.2 Antimony

Table 6: Antimony in groundwater – Overview of data availability in participating countries/regions.

Antimony	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	6	8	10
some	1	2	2
not sure	0	0	1
no	4	4	3
no information provided	11	8	6

Table 7: Antimony in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	0,005 (drinking water)	Yes	Yes	2.844	Yes, h2o-fachdatenbank (third party), up to 4 measurements/year	Whole country	No, but data is available	-
Belgium	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	0,005 mg/l for drinking water	Not investigated	Yes	Little	No, there are individual studies data, there is no systematic testing	The entity federation of bosnia and herzegovina	No	No
Czech Rep	0,005	Yes	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it	Whole country	Yes	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
					would probably be possible to get it			
Denmark	0,005	No	-	31	Yes, approx. every 5 years	Only very few data	No	-
France	0,01 (maximum acceptable concentration) 0,005 (parametric value - Corrigendum to Official Journal of the European Union of L111 of 20 April 2001)	Yes	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Yes, maps of high natural background risk zones in traces elements	BRGM public report: Sectors identified during the national study - Delimitation of high natural background risk zones in traces elements
Hungary	0,005 (drinking water)	Not investigated, but not likely.	Not applicable.	Sparse.	Not for the last 5 years. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No	-
Iceland	0,005	No	In some cases	unknown	Yes, Varies	No. Distributed sampling points	No	-
Ireland	0,005	Yes, 97% < threshold	No	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	0,005 (drinking water)	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	-	-	-	-	-	-	-	-
Malta	Not applicable	-	-	-	-	-	-	-
Poland	0,005 (drinking water)	No	-	Ca. 1.300 (drinking water)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	0,005	-	Yes	The groundwater monitoring network consists of about 1.037 points and its distribution in the country is not uniform. The frequency of sampling is by-annual. The parameters monitored are not the same at all points.	The Portuguese Environment Agency is responsible for the groundwater quality monitoring network. LNEG does not currently have access to this data. However LNEG will try to obtain this data and their authorization to make them available to the project partners.	Yes. The Groundwater quality monitoring network cover the whole country	No	In the case of natural spring water (as well as water for human consumption) the levels of physical-chemical parameters are established by the Decree-Law no.152/2017. For the natural mineral water this element is subject to maximum admissible values Decree-law no. 72/2004.
Romania	0,005	No information	-	None	No	Only in areas with concession licenses for natural mineral water and in areas with	No	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
						monitoring wells for drinking water.		
Serbia	0.05	-	-	-	-	-	-	-
Slovenia	0.0050 mg/l for drinking and NMW	Some are suspected	Yes	Little	Thermal waters are tested in year 1, year 3 and then every 6th year (mostly years 2016-2018-2024), mineral waters can be different frequency	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	Usually it is connected to coal seams in Slovenia
Spain	0,005 mg/l for drinking water and natural mineral water. Not set for spring water	Yes	Yes	200	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significative differences in the number of observations between regions	No	-
Spain (Catalonia)	0,005 mg/l (RD 140/2003 drinking waters) 0,005 mg/l (RD 1798/2010 Natural mineral water)	-	Yes	In general, approximately 350 points with regular frequency, and other points not regularly sampled. Mostly yearly sampling.	Yes in some of them. At the East basins of Catalonia, the network has 350 points yearly sampling. At the West of Catalonia (Ebro basin) there is information but not regularly sampled	No. Primarily the most productive or priority aquifer in terms of vulnerability	No	-
Sweden	0,005	Yes	No	15000	-	Yes, but few analyses from northern Sweden	No	-
Ukraine	-	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.3 Arsenic

Table 8: Arsenic in groundwater – Overview of data availability in participating countries/regions.

Arsenic	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	13	14	12
some	2	3	2
not sure	0	0	3
no	1	2	2
no information provided	6	3	3



Table 9: Arsenic in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	0,01 (drinking water)	Yes	Yes	2.837	Yes, H20-Fachdatenbank (third party), up to 4 measurements/year	Whole country	Yes	-
Belgium	0,01 - 0,046	Yes, for example Campine region, Polders and Massif of Brabant	Sandy aquifers with acid water, clayey-sandy deposits with salty/brackish water - rich of organic matter, fissured rock aquifer	2.000 (4000 screens)	Yes, sampling frequency once or twice per year (depending on monitoring network)	Yes	Not yet	Discussion whether concentrations are natural or anthropogenic influenced
Bosnia and Herzegovina	0,010 (drinking water)	Not investigated	Yes	10-15 wells	No, there are individual studies data, is no systematic testing	the entity Federation of Bosnia and Herzegovina	No	To appear in a large number of mineral and thermomineral waters
Czech Rep	0,01	Yes	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	0,005	Yes	Yes	6.609	Yes, approx. every 3 years	Whole country	Yes	-
France	0,05 (maximum acceptable concentration) 0,01 (parametric value - Corrigendum to Official Journal of the European Union of L111 of 20 April 2001)	Yes	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Yes, maps of high natural background risk zones in traces elements	BRGM public report: Sectors identified during the national study - Delimitation of high natural background risk zones in traces elements
Hungary	0,01 (drinking water)	Yes	Yes	Few hundreds	Not for the last 5 years. If needed, probably it can be accessed through third party. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	Maps not, but values on groundwater body levels yes.	Not just monitoring data, but results of research investigations also exist (eg. Great hungarian plain).
Iceland	0,01	No	In some cases	unknown	Yes, varies	No distributed sampling points	No	-
Ireland	0,01	Yes, 97% < threshold	No, research ongoing	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	0,01 (drinking water)	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	-	-	-	-	-	-	-	-
Malta	0,0075	Yes	Yes	Three 18 groundwater quality stations from the MSL	Yes - Twice a year	Specific - North-Western Region of the Gozo MSLA Why Gozo?	No	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Poland	0,02 (drinking water)	Yes (drinking water)	Yes	Approx- 1.300 (drinking water)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	0,01	In the north of Portugal was detected some points above the threshold value.	Yes, due to interaction water/rock or associated with fracture filling, sulphide mineralisation or old abandoned mine	26 points, but only one sampling (LNEG field inventory) and groundwater monitoring network data	The Portuguese Environment Agency is responsible for the groundwater quality monitoring network. LNEG does not currently have access to this data. However LNEG will try to obtain this data and their authorization to make them available to the project partners.	Yes. The Groundwater quality monitoring network cover the whole country	No	In the case of natural spring water (as well as water for human consumption) the levels of physical-chemical parameters are established by the Decree-Law no.152/2017. For the natural mineral water this element is subject to maximum admissible values Decree-law no. 72/2004.
Romania	0,01	Some area with mineral and thermal water are suspected	Yes	None	No	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water	No	If arsenic concentration in some mineral and thermal water is elevated the water is treated before to be use
Serbia	0,01	Yes, all north part of Serbia, part of Pannonian basin	Deep sediments of Pleistocene	-	-	-	-	-
Slovenia	0,01 (drinking water)	Some are suspected	Yes	Approx. 30 sites with 50 wells	Thermal waters are tested in year 1, year 3 and then every 6th year (mostly years 2016-2018-2024), mineral waters can be different frequency	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	Is of geogenic origin in NE Slovenia
Spain	0,01 mg/l for drinking water and natural mineral water. Not set for spring water	Yes	Yes	1.281	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significant differences in the number of observations between regions	No	-
Spain (Catalonia)	0,01 mg/l (RD 140/2003 drinking waters)	Yes in some areas, with geogenetic origin where exists mineralization of sulphurs, also in areas where existed old mine activities, and in areas with	Yes	In general, approximately 350 points with regular frequency, and other points not regularly sampled. Mostly yearly sampling.	Yes in some of them. At the East basins of Catalonia, the network has 350 points yearly sampling. At the West of Catalonia (Ebro basin) there is information but not regularly sampled	No. Primarily the most productive or priority aquifer in terms of vulnerability	No	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
		hydro-geothermal manifestations.						
Sweden	0,01	-	-	20.000	Yes; see comment	Yes, but few analyses from northern Sweden	No	-
Ukraine	0,01	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.4 Barium

Table 10: Barium in groundwater – Overview of data availability in participating countries/regions.

Barium	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	3	10	9
some	0	2	2
not sure	0	0	1
no	11	3	4
no information provided	8	7	6

Table 11: Barium in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	Not set	Not relevant	Yes	2.837	Yes, h20-fachdatenbank (third party), up to 4 measurements/year	Whole country	No, but data is available	-
Belgium	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	1,00 (natural mineral water)	Not investigated	Yes	Little	No, There are individual studies data, is no systematic testing	entity Federation of Bosnia and Herzegovina	No	No
Czech Rep	Not specified	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	-	-	Yes	5.940	Yes, approx. every 3 years	Whole country	No	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
France	0,1 (guide value)	Yes	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Yes, maps of high natural background risk zones in traces elements	Brgm public report: sectors identified during the national study - delimitation of high natural background risk zones in traces elements
Hungary	1 (natural mineral water); Not set (drinking water)	Not investigated, but not likely	Not applicable	Sparse	Not for the last 5 years. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No	-
Iceland	-	No	In some cases	unknown	Yes, varies	No, distributed sampling points	No	-
Ireland	-	-	-	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	No	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	-	-	-	-	-	-	-	-
Malta	Not applicable	-	-	-	-	-	-	-
Poland	1,0 (natural mineral water)/0,7 (drinking water)	Yes (dw)	Yes	Ca 1.300 (drinking water)/a few (natural mineral water)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	Not set	Not monitored	Yes	The groundwater monitoring network consists of about 1037 points and its distribution in the country is not uniform. The frequency of sampling is by-annual. The parameters monitored are not the same at all points.	Not monitored	Yes. The groundwater quality monitoring network cover the whole country	No	No threshold value defined in portuguese legislation
Romania	1 (set for mineral natural water)	No information.	-	None	No	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water	No	-
Serbia	-	-	-	-	-	-	-	-
Slovenia	Not set for drinking water, 1,0 mg/l for natural mineral water	Not investigated	Yes	Approx. 30 sites with 50 wells	Thermal waters are tested in year 1, year 3 and then every 6th year (mostly years 2016-2018-2024), mineral waters can be different frequency	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	Very rarely analysed



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Spain	1 mg/l for natural mineral water. Not set for drinking water and spring water	Yes	Yes	68	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significative differences in the number of observations between regions	No	-
Spain (Catalonia)	Not set (RD 140/2003 drinking waters) 1 mg/l (RD 1798/2010 Natural mineral water)	-	Yes	In general, approximately 350 points with regular frequency, and other points not regularly sampled. Mostly yearly sampling.	Yes in some of them. At the East basins of Catalonia, the network has 350 points yearly sampling. At the West of Catalonia (Ebro basin) there is information but not regularly sampled	No. Primarily the most productive or priority aquifer in terms of vulnerability	No	-
Sweden	-	-	-	250	-	No	No	-
Ukraine	≤0,1	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.5 Boron

Table 12: Boron in groundwater – Overview of data availability in participating countries/regions.

Boron	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	8	12	10
some	0	2	2
not sure	0	0	1
no	7	2	3
no information provided	7	6	6

Table 13: Boron in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	1,0 (drinking water); not set (indicator parameter)	Yes	Yes	2.837	Yes, h20-fachdatenbank (third party), up to 4 measurements/year	Entire country	No, but data is available	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Belgium	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	Not set (Natural mineral water); 1.0 (drinking water)	Not investigated	Yes	Little	No, There are individual studies data, no systematic testing	No, the entity Federation of Bosnia and Herzegovina	No	No
Czech Rep	1	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	No	-
Denmark	1	Yes	Yes	6.615	Yes, approx. Every 3 years	Whole country	No	-
France	1 (guide value)	Yes	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Yes, maps of high natural background risk zones in traces elements	Brgm public report: sectors identified during the national study - delimitation of high natural background risk zones in traces elements
Hungary	Not set (Natural mineral water) 1 (drinking water)	Not investigated; Higher values might occur in thermal waters.	Yes.	Sparse.	Not for the last 5 years. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No.	-
Iceland	1	No	In some cases	unknown	Yes, varies	No. Distributed sampling points	No	-
Ireland	1	No (99.9% < threshold)	N/A	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	1 (drinking water)	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	No information	No information	No information	No information	No information	No information	No information	No information
Malta	0,6	No	-	-	-	-	-	-
Poland	Not set (Natural mineral water), 1,0 (drinking water)	Yes (drinking water)	Yes	Ca 1.300 (drinking water)/a few (Natural mineral water)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	1	-	Yes	The groundwater quality monitoring network consists of about 700 points and its distribution in the country is not uniform. The frequency of sampling is by-annual. The parameters monitored are not the same at all points.	The Portuguese Environment Agency is responsible for the groundwater quality monitoring network. LNEG does not currently have access to this data. However LNEG will try to obtain this data and their authorization to make them available to the project partners.	Yes. The Groundwater quality monitoring network cover the whole country	No	In the case of natural spring water (as well as water for human consumption) the levels of physical-chemical parameters are established by the Decree-Law no.152/2017. For the natural mineral water this element is not subject to maximum admissible values.
Romania	Not set.	No information.	-	None.	No.	Only in areas with concession	No.	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
						licenses for natural mineral water and in areas with monitoring wells for drinking water.		
Serbia	1	Yes, in drinking water of Pannonian basin and some thermal water	Deep sediments of Pleistocene; granite gress	-	-	-	-	-
Slovenia	Not set (Natural mineral water), 1,0 (drinking water)	Yes, some mineral and thermomineral waters	Yes	Approx. 30 sites with 50 wells	Thermal waters are tested in year 1, year 3 and then every 6th year (mostly years 2016-2018-2024), mineral waters can be different frequency	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	Elevated in some mineral and thermal waters
Spain	1 (drinking water), 1 (Natural mineral water), Not set (spring water)	Yes	Yes	3.495	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significative differences in the number of observations between regions	No	-
Spain (Catalonia)	1 (RD 140/2003 drinking waters) 1 (RD 1798/2010 Natural mineral water)	-	Yes	In general, approximately 350 points with regular frequency, and other points not regularly sampled. Mostly yearly sampling.	Yes in some of them. At the East basins of Catalonia, the network has 350 points yearly sampling. At the West of Catalonia (Ebro basin) there is information but not regularly sampled	No. Primarily the most productive or priority aquifer in terms of vulnerability	No	-
Sweden	1	-	-	200	-	No	No	-
Ukraine	0,5	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.6 Bromine

Table 14: Bromine in groundwater – Overview of data availability in participating countries/regions.

Bromine	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	2	10	5
some	3	3	4
not sure	0	0	2
no	7	1	3



no information provided	10	8	8
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Table 15: Bromine in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	Not set	No	Yes	Few records	No, elevated values are known	Specific areas	No, limited data available	-
Belgium	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	Not set (Natural mineral water and drinking water)	Not investigated	Yes	Little	No, There are individual studies data, is no systematic testing	No, the entity Federation of Bosnia and Herzegovina	No	No
Czech Rep	0,01	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	No	-
Denmark	No set	Unknown	Yes	146	Yes, approx. Every 3 years	Very few data, sparse coverage	No	-
France	0,01 (parametric value - Corrigendum to Official Journal of the European Union of L111 of 20 April 2001)	-	-	-	-	-	-	-
Hungary	Not set (Natural mineral water); 0,01 (drinking water)	Not investigated; Higher values might occur in thermal waters.	Yes.	Sparse.	Not for the last 5 years. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No.	Beside sparse monitoring data, some research investigations involved Br samplings in the aquifers of the Great Hungarian Plain.
Iceland	0,01	No	In some cases	?	Yes. Varies	No. Distributed sampling points	No	-
Ireland	0,01 (bromate)	None / limited records	None / limited records	None / limited records	None / limited records	None / limited records	No	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	0,01 (drinking water)	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	No information	No information	No information	No information	No information	No information	No information	No information
Malta	Not applicable	-	-	-	-	-	-	-
Poland	Not set (Natural mineral water), not set (drinking water)	-	-	Approx. 1300 (drinking water)/a few (MW)	-	-	No	-
Portugal	0,001 (bro ₂)	-	Yes	-	The Portuguese Environment	Yes. The Grounddrinking	No	No value defined for Bromine in



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking waterater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking waterater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
					Agency is responsible for the grounddrinking waterater quality monitoring network. LNEG does not currently have access to this data. However LNEG will try to obtain this data and their authorization to make them available to the project partners.	waterater quality monitoring network cover the whole country		Portuguese legislation, only for bro ₂ - 0,001 mg/L
Romania	Not set	Yes, in some therapeutic mineral water	Yes	None	No	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water.	No	Elevated concentration in some therapeutic mineral water (concentration higher than 5 mg/l ⁻¹)
Serbia	-	-	-	-	-	-	-	-
Slovenia	Not set (Natural mineral water), 0,010 (drinking water)	Yes, some mineral and thermomineral waters	Yes	Approx. 30 sites with 50 wells	Thermal waters are tested in year 1, year 3 and then every 6th year (mostly years 2016-2018-2024), mineral waters can be different frequency	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	Elevated in some mineral and thermal waters in NE Slovenia
Spain	Not set	Yes	Yes	485	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significative differences in the number of observations between regions	No	-
Spain (Catalonia)	0,01 (RD 140/2003 drinking waters) 0,003 (RD 1798/2010 Natural mineral water)	High concentration in some zones with an important geothermal water activity	Yes	A little	No, unsystematic.	No	No	-
Sweden	-	-	-	0	-	No	No	-
Ukraine	0,2	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-



3.3.7 Chromium

Table 16: Chromium in groundwater – Overview of data availability in participating countries/regions.

Chromium	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	4	10	13
some	0	3	2
not sure	0	0	1
no	5	1	2
no information provided	13	8	4

Table 17: Chromium in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	0,05 (drinking water); not set (indicator parameter)	Yes, but probably anthropogenic	Yes	2.837	Yes, h20-fachdatenbank (third party), up to 4 measurements/year	Whole country	Yes	-
Belgium	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	0.050 (drinking water and Natural mineral water)	Not investigated	Yes	Little	No, there are individual studies data, is no systematic testing	No, the entity federation of bosnia and herzegovina	No	No
Czech Rep	0,05	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	0,05	No	Yes	103	Yes, approx. Every 4 years	Very few data, sparse coverage	No	-
France	0,05 (maximum acceptable concentration)	Yes	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Yes, maps of high natural background risk zones in traces elements	Brgm public report: sectors identified during the national study - delimitation of high natural background risk zones in traces elements
Hungary	0.05 (Natural mineral water); 0.05 (drinking water)	Not investigated, but not likely.	Not applicable.	Sparse.	Not for the last 5 years. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No.	-
Iceland	0,05	No	In some cases	?	Yes. Varies	No. Distributed sampling points	No	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Ireland	0,05	No (99% < threshold)	N/A	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	0,05 (drinking water)	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	No information	No information	No information	No information	No information	No information	No information	No information
Malta	Not applicable	-	-	-	-	-	-	-
Poland	0,05 (Natural mineral water), 0,05 (drinking water)	Yes (drinking water)	Yes	Ca. 1.300 (drinking water)/a few (Natural mineral water)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	0,05	-	Yes	The grounddrinking water quality monitoring network consists of about 700 points and its distribution in the country is not uniform. The frequency of sampling is by-annual. The parameters monitored are not the same at all points.	The Portuguese Environment Agency is responsible for the grounddrinking water quality monitoring network. LNEG does not currently have access to this data. However LNEG will try to obtain this data and their authorization to make them available to the project partners.	Yes. The Grounddrinking water quality monitoring network cover the whole country	No	In the case of natural spring water (as well as water for human consumption) the levels of physical-chemical parameters are established by the Decree-Law no.152/2017. For the natural mineral water this element is subject to maximum admissible values Decree-law no. 72/2004.
Romania	0,05	No information.	-	None.	No.	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water.	No.	-
Serbia	0,05	-	-	-	-	-	-	-
Slovenia	0,05 (drinking water and Natural mineral water)	Not investigated	Yes	Approx. 30 sites with 50 wells	Thermal waters are tested in year 1, year 3 and then every 6th year (mostly years 2016-2018-2024), mineral waters can be different frequency	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	Not investigated
Spain	0,05 (drinking water, Natural mineral water and spring water)	Yes	Yes	1.494	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significative	No	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in ground drinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in ground drinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
						differences in the number of observations between regions		
Spain (Catalonia)	0.05 (RD 140/2003 drinking waters) 0.05 (RD 1798/2010 Natural mineral water)	-	Yes	In general, approximately 350 points with regular frequency, and other points not regularly sampled. Mostly yearly sampling.	Yes in some of them. At the East basins of Catalonia, the network has 350 points yearly sampling. At the West of Catalonia (Ebro basin) there is information but not regularly sampled	No. Primarily the most productive or priority aquifer in terms of vulnerability	No	-
Sweden	0,05	-	-	15.000	Yes; see comment	Yes, but few analyses from northern Sweden	No	-
Ukraine	0,05	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.8 Copper

Table 18: Copper in groundwater – Overview of data availability in participating countries/regions.

Copper	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	4	10	10
some	2	3	1
not sure	1	0	2
no	5	1	4
no information provided	10	8	5

Table 19: Copper in groundwater – Data availability in participating countries/regions.



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	2 (drinking water); not set (indicator parameter)	Yes, but probably anthropogenic	Yes	2.837	Yes, h20-fachdatenbank (third party), up to 4 measurements/year	Whole country	Yes	-
Belgium	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	2,0 (drinking water) 1,0 (Natural mineral water)	Not investigated	Little	Little	No, there are individual studies data, is no systematic testing	No, the entity federation of Bosnia and Herzegovina	No	No
Czech Rep	1	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	2	No	Yes	804	Yes, approx. Every 2 years	Whole country	No	-
France	0,1 (guide value) 3 (maximum acceptable concentration) 2 (parametric value - Corrigendum to Official Journal of the European Union of L111 of 20 April 2001)	Yes	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Yes, maps of high natural background risk zones in traces elements	BRGM public report: Sectors identified during the national study - Delimitation of high natural background risk zones in traces elements
Hungary	1 (Natural mineral water; 2 (drinking water)	Not investigated, but not likely, except former mining site.	Yes.	Sparse.	Not for the last 5 years. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No.	-
Iceland	2	No	In some cases	?	Yes. Varies	No. Distributed sampling points	No	-
Ireland	2	No (99.9% < threshold)	N/A	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	2 (drinking water)	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	No information	No information	No information	No information	No information	No information	No information	No information
Malta	2	No	-	-	-	-	-	-
Poland	1,0 (Natural mineral water), 0,2 (drinking water)	Yes (drinking water)	Yes	Approx. 1.300 (drinking water)/a few (Natural mineral water)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	2	In the north of Portugal was detected in vicinity of abandoned gold mine	Yes/abandoned gold mine	1 point, but only one sampling (LNEG field inventory) and groundwater monitoring network data	The Portuguese Environment Agency is responsible for the groundwater quality monitoring network. LNEG does not currently have access to this data. However LNEG will try to obtain this data and their authorization to make them	Yes. The groundwater quality monitoring network cover the whole country	No	In the case of natural spring water (as well as water for human consumption) the levels of physical-chemical parameters are established by the Decree-Law no.152/2017. For the natural



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
					available to the project partners.			mineral water this element is subject to maximum admissible values Decree-law no. 72/2004.
Romania	1 (Natural mineral water); 0,1 (drinking water)	No information.	-	None.	No.	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water.	No.	-
Serbia	2	-	-	-	-	-	-	-
Slovenia	1,0 (Natural mineral water), 2,0 (drinking water)	Not investigated	Yes	Little	No, unsystematic, only for research purposes	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	Not investigated
Spain	2 (drinking water and spring water). 1 (Natural mineral water)	Yes	Yes	4.303	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significant differences in the number of observations between regions	No	-
Spain (Catalonia)	2 (RD 140/2003 drinking waters) 2 (RD 1798/2010 Natural mineral water)	-	Yes	In general, approximately 350 points with regular frequency, and other points not regularly sampled. Mostly yearly sampling.	Yes in some of them. At the East basins of Catalonia, the network has 350 points yearly sampling. At the West of Catalonia (Ebro basin) there is information but not regularly sampled	No. Primarily the most productive or priority aquifer in terms of vulnerability	No	-
Sweden	2	-	-	40.000	Yes; see comment	Yes, but few analyses from northern Sweden	No	Mostly tapwater (contamination from pipes)
Ukraine	1,0	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.9 Fluorine

Table 20: Fluorine in groundwater – Overview of data availability in participating countries/regions.



Fluorine	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	9	16	12
some	2	2	2
not sure	0	0	1
no	4	0	3
no information provided	7	4	4

Table 21: Fluorine in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	1,5 (drinking water); not set (indicator parameter)	Yes	Yes	2.844	Yes, h20-fachdatenbank (third party), up to 4 measurements/year	Whole country	No	-
Belgium	0,9 - 6,9	Yes, for example deeper aquifers of West- and East-Flanders (Landenian and Massif of Brabant)	Sandy aquifer with partly salt/brackish water, fissured rock aquifer	350 (600 screens)	Yes, sampling frequency once per year	Yes	Not yet	-
Bosnia and Herzegovina	5,0 (Natural mineral water), 1,5 (drinking water)	Not investigated	Yes	Little	No, There are individual studies data, is no systematic testing	No, the entity Federation of Bosnia and Herzegovina	No	No
Czech Rep	1,5	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	1,5	Yes	Yes	5.969	Yes, approx. Every 3-4 years	Whole country	No	-
France	1,5 (maximum acceptable concentration)	Yes	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Yes, maps of high natural background risk zones in traces elements	Brgm public report: sectors identified during the national study - delimitation of high natural background risk zones in traces elements
Hungary	5 (Natural mineral water); 1,5 (drinking water)	Yes.	Yes.	Sparse.	Not for the last 5 years. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No.	Beside sparse monitoring data, some research investigations involved F samplings in the aquifers of the Great Hungarian Plain.
Iceland	1,5	No	In some cases	?	Yes. Varies	No. Distributed	No	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
						sampling points		
Ireland	0,8 / 1.5	Yes (94% < threshold)	Yes	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	1,5 (drinking water)	Yes	Yes	Not checked	Yes, not checked	Not checked	No	-
Lithuania	No information	No information	No information	No information	No information	No information	No information	No information
Malta	2,75	No	-	-	-	-	-	-
Poland	5,0 (Natural mineral water) 1,5 (drinking water)	Yes (drinking water)	Yes	Ca 1300 (drinking water)/a few (MW)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	1,5	-	Yes	The grounddrinking water quality monitoring network consists of about 700 points and its distribution in the country is not uniform. The frequency of sampling is by-annual. The parameters monitored are not the same at all points..	The Portuguese Environment Agency is responsible for the grounddrinking water quality monitoring network. LNEG does not currently have access to this data. However LNEG will try to obtain this data and their authorization to make them available to the project partners.	Yes. The Grounddrinking water quality monitoring network cover the whole country	No	In the case of natural spring water (as well as water for human consumption) the levels of physical-chemical parameters are established by the Decree-Law no.152/2017. For the natural mineral water this element is subject to maximum admissible values (5mg/L)Decree-law no. 72/2004.
Romania	1,5 (Natural mineral water).The values of 5 are also accepted with the requirement to be included on the packaging label); 1,2 (set for drinking water)	No information.	Yes.	None.	No.	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water.	No.	-
Serbia	1,5	Some thermal water	Granite, schist	-	-	-	-	-
Slovenia	5,0 mg/l for Natural mineral water, 1,5 (drinking water)	Yes, some mineral and thermomineral waters	Yes	Approx. 30 sites with 50 wells	Thermal waters are tested in year 1, year 3 and then every 6th year (mostly years 2016-2018-2024), mineral waters can be different frequency	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	Elevated in some mineral and thermal waters in NE Slovenia
Spain	1,5 (drinking water and and spring water). 5 (Natural mineral water)	Yes	Yes	2.777	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significative	No	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
						differences in the number of observations between regions		
Spain (Catalonia)	1,5 mg/l (RD 140/2003 drinking waters) 1.5 - 5 mg/l (RD 1798/2010 Natural mineral water)	Anomalies detected, in specific areas with mineralization's of philonitic or Skarn mineralization's with fluorite. High concentration in some zones with an important geothermal water activity or related to old mining activity.	Yes	A little	No, unsystematic.	No	No	-
Sweden	1,5	-	-	40.000	Yes; see comment	Yes	Yes	-
Ukraine	1,5	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.10 Iodine

Table 22: Iodine in groundwater – Overview of data availability in participating countries/regions.

Iodine	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	2	9	5
some	3	4	2
not sure	0	0	1
no	7	2	5
no information provided	10	7	9

Table 23: Iodine in groundwater – Data availability in participating countries/regions.



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in ground drinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in ground drinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	Not set	No since not set	Yes	Little, not a monitoring parameter	No	Mainly for special and thermal waters	No	-
Belgium	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	Not set	Not investigated	Yes	Little	No, there are individual studies data, is no systematic testing	No, the entity federation of bosnia and herzegovina	No	No
Czech Rep	Not specified	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Not specified	-
Denmark	Not set	-	Yes	16	Yes, every 5 years	Very sparse data	No	-
France	-	-	-	-	-	-	-	-
Hungary	Not set (Natural mineral water); not set (drinking water)	No reference value.	Not applicable.	Sparse	Not for the last 5 years. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No.	Beside sparse monitoring data, some research investigations involved 1 samplings in the aquifers of the Great Hungarian Plain.
Iceland	-	No	In some cases	?	Yes. Varies	No. Distributed sampling points	No	-
Ireland	Not set	None / limited records	None / limited records	None / limited records	No	None / limited records	No	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	No	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	-	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-	-
Poland	Not set (Natural mineral water) Not set (drinking water)	-	-	-	-	-	No	-
Portugal	No value	Not monitored	Yes	-	-	-	-	No threshold value defined in portuguese legislation
Romania	Not set	Yes, in some therapeutic mineral water.	Yes	None	No	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water	No	Elevated concentration in some therapeutic mineral water (concentration in iodine higher than 1 mg l ⁻¹ for iodine water)
Serbia	Not set	Mineral water of Pannonian basin	Sediments of Pannonian basin	-	-	-	-	-
Slovenia	Not set	Yes, some mineral and thermomineral waters	Yes	Approx. 30 sites with 50 wells	Thermal waters are tested in year 1, year 3 and then every 6th year (mostly	Specific, mineral and thermal waters with concessions and some natural	No	Elevated in some mineral and thermal waters in ne slovenia



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking waterater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking waterater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
					years 2016-2018-2024), mineral waters can be different frequency	springs all over slovenia		
Spain	Not set	Yes	Yes	12	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significative differences in the number of observations between regions	No	-
Spain (Catalonia)	Not set	-	Yes	A little	No, unsystematic.	No	No	-
Sweden	-	-	-	0	-	No	No	-
Ukraine	50	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	TV is determined only for bottled water

3.3.11 Iron

Table 24: Iron in groundwater – Overview of data availability in participating countries/regions.

iron	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	8	12	11
some	3	2	3
not sure	0	0	1
no	4	2	2
no information provided	7	6	5

Table 25: Iron in groundwater – Data availability in participating countries/regions.

c	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking waterater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking waterater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	Not set (drinking water); 0,05 (indicator parameter)	Yes	Yes	2.844	Yes, h20-fachdatenbank (third party), up to 4 measurements/year	Whole country	Yes	-
Belgium	-	-	-	-	-	-	-	-



c	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundrinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundrinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Bosnia and Herzegovina	Not set (Natural mineral water), 0,2 (drinking water)	Not investigated	Yes	5-10 wells	No, There are individual studies data, is no systematic testing	No, the entity Federation of Bosnia and Herzegovina	No	To appear in a large number of mineral and thermomineral waters
Czech Rep	0,2	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	0,2	Yes	Yes	6.938	Yes, approx every 2-3 years	Whole country	No	-
France	0,05 (guide value) 0,2 (maximum acceptable concentration)	Yes, not taken into account, because of complex redox phenomena	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites
Hungary	Not set (Natural mineral water) 0,2 (drinking water, but only indicator value and not treshold limit value)	Not investigated.	Not applicable.	Few hundreds.	Not for the last 5 years. If neede, probably it can be accessed through third party. Mostly yearly sampling; for termal waters can be up to 1/6 years.	-	No	-
Iceland	0,2	No	In some cases	unknown	Yes. Varies	No. Distributed sampling points	No	-
Ireland	0,2 (indicator parameter)	Yes (75% < threshold)	No	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	0,2 (drinking water)	Yes	Yes	Not checked	Yes, not checked	Not checked	No	-
Lithuania	-	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-	-
Poland	Not set (Natural mineral water) 5 (drinking water)	Yes (drinking water)	Yes	Approx. 1.300 (drinking water)/a few Natural mineral waters	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	0,2	In the north of Portugal was detected some points above the threshold value.	Yes	21 points, but only one sampling (field inventory of LNEG) and groundwater monitoring network data	The Portuguese Environment Agency is responsible for the groundwater quality monitoring network. LNEG does not currently have access to this data. However LNEG will try to obtain this data and their authorization to make them available to the project partners.	Yes. The groundwater quality monitoring network cover the whole country	No	In the case of natural spring water (as well as water for human consumption) the levels of physical-chemical parameters are established by the Decree-Law no.152/2017. For the natural mineral water this element is not subject to maximum admissible values Decree-law no. 72/2004.
Romania	0,2 (drinking water).	Yes, in some therapeutic	Yes.	None.	No.	Only in areas with	No.	Elevated concentration in



c	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
		mineral water and thermal water.				concession licenses for natural mineral water and in areas with monitoring wells for drinking water.		some mineral water and therapeutic mineral water (concentration higher than 10 mg/l in therapeutic mineral water). Drinking water is treated before to be used.
Serbia	0.2	-	-	-	-	-	-	-
Slovenia	Not set (Natural mineral water) 0,2 (drinking water)	Yes, some mineral and thermomineral waters	Yes	Approx. 30 sites with 50 wells	Thermal waters are tested in year 1, year 3 and then every 6th year (mostly years 2016-2018-2024), mineral waters can be different frequency	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	Is of geogenic origin in NE Slovenia
Spain	0,2 drinking water and spring water. Not set for natural mineral water	Yes	Yes	3.805	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significative differences in the number of observations between regions	No	-
Spain (Catalonia)	0,2 (RD 140/2003 drinking waters) 0,2 (RD 1798/2010 Natural mineral water)	Anomalies detected, in specific areas with Miocene volcanism associated with regional faults, and in Igneous and metamorphic-rock aquifers or related to old mining activity.	Yes	In general, approximately 350 points with regular frequency, and other points not regularly sampled. Mostly yearly sampling.	Yes in some of them. At the East basins of Catalonia, the network has 350 points yearly sampling. At the West of Catalonia (Ebro basin) there is information but not regularly sampled	No. Primarily the most productive or priority aquifer in terms of vulnerability	No	-
Sweden	-	-	-	40.000	Yes; see comment	Yes, but few analyses from northern Sweden	No	-
Ukraine	1,0	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.12 Lead

Table 26: Lead in groundwater – Overview of data availability in participating countries/regions.

Lead	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple	Do you have access to concentrations in groundwater observation wells/springs in your country
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		geological classification of the aquifer?	for at least 5 recent years and what is the sampling frequency?
yes	8	9	12
some	2	3	2
not sure	0	0	1
no	7	3	3
no information provided	5	7	4

Table 27: Lead in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking waterater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking waterater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	0,01 (drinking water); not set (indicator parameter)	Yes	Yes	2.837	Yes, h20-fachdatenbank (third party), up to 4 measurements/year	Whole country	Yes	-
Belgium	0,01	Very exceptional, no specific region	-	4.000	Yes, sampling frequency once or twice per year (depending on monitoring network)	Yes	Not yet	Exceedings probably due to anthropogenic activities
Bosnia and Herzegovina	0,01 (drinking water and Natural mineral water)	Not investigated	Little	Little	No, There are individual studies data, is no systematic testing	No, the entity Federation of Bosnia and Herzegovina	No	No
Czech Rep	0,01	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	0,005	Yes	Yes	809	Yes, every 2-3 years	Whole country	No	-
France	0,05 (maximum acceptable concentration) 0,01 (parametric value - Corrigendum to Official Journal of the European Union of L111 of 20 April 2001)	Yes	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Yes, maps of high natural background risk zones in traces elements	BRGM public report: Sectors identified during the national study - Delimitation of high natural background risk zones in traces elements
Hungary	0,01 (Natural mineral water) 0,01 (drinking water)	No.	Not applicable.	Few hundreds, (varies approximately between 200 and 600 per year).	Not for the last 5 years. If needed, probably it can be accessed through third party. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	Maps not, but values on grounddrinking waterater body levels yes.	-
Iceland	0,01	No	In some cases	?	Yes. Varies	No. Distributed sampling points	No	-
Ireland	0,01	Yes (98% < threshold)	No	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
								assignments of the Geological Survey of Italy of ISPRA
Latvia	0,01 (drinking water)	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	No information	No information	No information	No information	No information	No information	No information	No information
Malta	0,01	No	-	-	-	-	-	-
Poland	0,1 (Natural mineral water) 0,01 (drinking water)	Yes (drinking water)	Yes	Approx. 1.300 (drinking water) a few (Natural mineral waters)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	0,01	In the north of Portugal was detected in vicinity of abandoned gold mine	Yes/abandoned gold mine	6 point, but only one sampling (LNEG field inventory) and groundwater monitoring network data	The Portuguese Environment Agency is responsible for the groundwater quality monitoring network. LNEG does not currently have access to this data. However LNEG will try to obtain this data and their authorization to make them available to the project partners.	Yes. The groundwater quality monitoring network cover the whole country	No	In the case of natural spring water (as well as water for human consumption) the levels of physical-chemical parameters are established by the Decree-Law no.152/2017. For the natural mineral water this element is subject to maximum admissible values (5mg/L)Decree-law no. 72/2004.
Romania	0,01	No information	-	None.	No.	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water.	No.	-
Serbia	0,01	-	-	-	-	-	-	-
Slovenia	0,01 (drinking water and Natural mineral water)	Not investigated	Yes	Little	No, unsystematic, only for research purposes	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	Not investigated
Spain	0,01 (drinking water, Natural mineral water and spring water)	Yes	Yes	1.496	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significative differences in the number of	No	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking waterater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking waterater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
						observations between regions		
Spain (Catalonia)	0,01 (RD 140/2003 drinking waters) 0,01 (RD 1798/2010 Natural mineral water)	Yes in some areas, with geogenetic origin where exists mineralization of sulphurs, also in areas where existed old mine activities, and in areas with hydro-geothermal manifestations.	Yes	In general, approximately 350 points with regular frequency, and other points not regularly sampled. Mostly yearly sampling.	Yes in some of them. At the East basins of Catalonia, the network has 350 points yearly sampling. At the West of Catalonia (Ebro basin) there is information but not regularly sampled	No. Primarily the most productive or priority aquifer in terms of vulnerability	No	-
Sweden	0,01	-	-	20.000	Yes; see comment	Yes, but few analyses from northern Sweden	No	-
Ukraine	0,01	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.13 Lithium

Table 28: Lithium in groundwater – Overview of data availability in participating countries/regions.

Lithium	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	3	5	5
some	0	3	2
not sure	0	0	1
no	10	4	5
no information	9	10	9

Table 29: Lithium in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking waterater by a simple	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking waterater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
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			geological classification of the aquifer?					
Austria	Not set	Not set	Yes	2.837	Yes, h20-fachdatenbank (third party), up to 4 measurements/year	Specific areas	No	-
Belgium	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	Not set	Not investigated	Yes	Little	No, there are individual studies data, is no systematic testing	No, the entity federation of bosnia and herzegovina	No	No
Czech Rep	Not set	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	Not set	Not known, but unlikely (Li was measured in approx. 200 drinking water samples and concentrations were max. Around 30µg/l)	-	0	No	-	Yes, but based on drinking water measurements	There has been two sampling campaigns of drinking water li in denmark (2013 and 2016). Li is assumed to originate only from natural background and maps with li levels in drinking water (i.e. Grounddrinking waterater) have been published
France	-	-	-	-	-	-	-	-
Hungary	Not set (Natural mineral water) Not set (drinking water)	No reference value.	Theoretically yes.	Sparse.	Not for the last 5 years. Mostly yearly sampling; for termal waters can be up to 1/6 years.	-	No.	-
Iceland	-	No	In some cases	?	Yes. Varies	No. Distributed sampling points	No	-
Ireland	Not set	-	-	None / limited records	No	None / limited records	No	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	Not set	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	-	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-	-
Poland	Not set (Natural mineral water) not set (drinking water)	-	-	-	-	-	No	-
Portugal	No value	Not monitored	Yes	-	-	-	-	No treshold value defined in portuguese legislation
Romania	Not set	Yes, in some therapeutic mineral water.	Yes	None	No	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water	No	Elevated concentration in some therapeutic mineral water and thermal water (concentration higher than 3 mg/l ⁻¹ in therapeutic mineral water)
Serbia	-	-	-	-	-	-	-	-
Slovenia	Not set	Yes, some mineral and thermomineral waters	Yes	Approx. 30 sites with 50 wells	Thermal waters are tested in year 1, year 3 and then every 6th year	Specific, mineral and thermal waters with	No	Elevated in some mineral and thermal waters in ne slovenia



					(mostly years 2016-2018-2024), mineral waters can be different frequency	concessions and some natural springs all over slovenia		
Spain	Not set	Yes	Yes	1.716	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significant differences in the number of observations between regions	No	-
Spain (Catalonia)	Not set	Anomalies detected in some areas, with metamorphic and granitic massifs, in areas with hydro-geothermal manifestations.	Yes	A little	No, unsystematic.	No	No	-
Sweden	-	-	-	500	-	No	No	-
Ukraine	0,03	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.14 Manganese

Table 30: Manganese in groundwater – Overview of data availability in participating countries/regions.

Manganese	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	8	10	10
some	2	2	2
not sure	0	0	1
no	4	3	3
no information provided	8	7	6

Table 31: Manganese in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	Not set (drinking water) 0,05 (indicator parameter)	Yes	Yes	2.837	Yes, h2o-fachdatenbank (third party), up to 4 measurements/year	Whole country	Yes	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking waterater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking waterater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Belgium	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	0,5 (Natural mineral waters) 0,05 (drinking water)	Not investigated	Yes	-	No, There are individual studies data, is no systematic testing	No, the entity Federation of Bosnia and Herzegovina	No	To appear in a large number of mineral waters
Czech Rep	0,05	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	0,05	Yes	Yes	6.936	Yes, every 2-3 years	Whole country	No	-
France	0,02 (Guide value) 0,05 (maximum acceptable concentration)	Yes, not taken into account, because of complex redox phenomena	-	-	-	-	-	-
Hungary	0,5 (Natural mineral water); 0,5 (drinking water)	Not investigated.	Not applicable.	Few hundreds.	Not for the last 5 years. If needed, probably it can be accessed through third party. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No.	-
Iceland	-	No	In some cases	?	Yes. Varies	No. Distributed sampling points	No	-
Ireland	0,05 (indicator parameter)	Yes (65% < threshold)	No	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	0,05 (drinking water)	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	No information	No information	No information	No information	No information	No information	No information	No information
Malta	-	-	-	-	-	-	-	-
Poland	0,5 (Natural mineral water) 1,0 (drinking water)	Yes (drinking water)	Yes	Approx. 1300 (drinking water) a few (Natural mineral waters)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	0,05	In the north of Portugal was detected some points above the threshold value.	Yes	49 points, but only one sampling (field inventory of LNEG) and groundwater monitoring network data	The Portuguese Environment Agency is responsible for the groundwater quality monitoring network. LNEG does not currently have access to this data. However LNEG will try to obtain this data and their authorization to make them available to the project partners.	Yes. The groundwater quality monitoring network cover the whole country	No	In the case of natural spring water (as well as water for human consumption) the levels of physical-chemical parameters are established by the Decree-Law no.152/2017. For the natural mineral water this element is subject to maximum



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking waterater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking waterater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
								admissible values Decree-law no. 72/2004.
Romania	0,5 (Natural mineral water) 0,05 (drinking water).	Yes, in some therapeutic mineral water.	Yes.	None.	No.	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water.	No.	Elevated concentration in some mineral water . Water is treated before to be use.
Serbia	0,05	-	-	-	-	-	-	-
Slovenia	0,50 (Natural mineral waters) 0,05 (drinking water)	Yes, some mineral and thermomineral waters	Yes	Approx. 30 sites with 50 wells	Thermal waters are tested in year 1, year 3 and then every 6th year (mostly years 2016-2018-2024), mineral waters can be different frequency	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	Is of geogenic origin in NE Slovenia
Spain	0,05 (drinking water) spring water. 0,5 (Natural mineral water)	Yes	Yes	2.999	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significative differences in the number of observations between regions	No	-
Spain (Catalonia)	0,05 mg/l (RD 140/2003 drinking water) 0,5 – 0,05 mg/l (RD 1798/2010 Natural mineral water)	Anomalies detected in some areas, with hydro-geothermal manifestations.	Yes	In general, approximately 350 points with regular frequency, and other points not regularly sampled. Mostly yearly sampling.	Yes in some of them. At the East basins of Catalonia, the network has 350 points yearly sampling. At the West of Catalonia (Ebro basin) there is information but not regularly sampled	No. Primarily the most productive or priority aquifer in terms of vulnerability	No	-
Sweden	-	-	-	40.000	Yes; see comment	Yes, but few analyses from northern Sweden	No	-
Ukraine	0,5	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.15 Mercury

Table 32: Mercury in groundwater – Overview of data availability in participating countries/regions.

Mercury	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	3	7	10
some	0	3	1



not sure	0	0	2
no	7	3	3
no information provided	12	9	6

Table 33: Mercury in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	0,001 (drinking water) not set (indicator parameter)	Yes	Yes	2.837	Yes, h20-fachdatenbank (third party), up to 4 measurements/year	Whole country	Yes	-
Belgium	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	0,001 (drinking water and Natural mineral water)	Not investigated	Little	Little	No, There are individual studies data, is no systematic testing	No, the entity Federation of Bosnia and Herzegovina	No	Not investigated
Czech Rep	0,001	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	0,001	Yes	Yes	92	Yes, approx. Every 4-5 years	Very sparse data	No	-
France	0,001 (maximum acceptable concentration)	-	-	-	-	-	-	-
Hungary	0,001 (Natural mineral water); 0,001 (drinking water)	No.	Not applicable.	Few hundreds, (varies approximately between 200 and 600 per year).	Not for the last 5 years. If needed, probably it can be accessed through third party. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	Maps not, but values on groundwater body levels yes.	-
Iceland	0,001	No	In some cases	Unknown	Yes, varies	No. Distributed sampling points	No	-
Ireland	0,001	No (99.9% < threshold)	N/A	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	0,001 (drinking water)	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	No information	No information	No information	No information	No information	No information	No information	No information
Malta	-	-	-	-	-	-	-	-
Poland	0,001 (Natural mineral water) 0,001 (drinking water)	No	-	Ca. 1.300 (drinking water) A few (Natural mineral water)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	0,001	-	Yes	The groundwater quality monitoring network consists of about 700 points and its distribution in the country is not uniform. The frequency of sampling is by-annual. The	The Portuguese Environment Agency is responsible for the groundwater quality monitoring network. LNEG does not currently have access to this data. However LNEG will try to obtain this	Yes. The groundwater quality monitoring network cover the whole country	No	In the case of natural spring water (as well as water for human consumption) the levels of physical-chemical parameters



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in ground drinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in ground drinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
				parameters monitored are not the same at all points.	data and their authorization to make them available to the project partners.			are established by the Decree-Law no.152/2017. For the natural mineral water this element is subject to maximum admissible values Decree-law no. 72/2004.
Romania	0,001	No information.	-	None.	No.	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water.	No.	-
Serbia	0,001	-	-	-	-	-	-	-
Slovenia	0,001 (drinking water and Natural mineral water)	Not investigated	Yes	Little	No, unsystematic, only for research purposes	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	Not investigated
Spain	0,001(drinking water, Natural mineral water and spring water)	Yes	Yes	1.195	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significant differences in the number of observations between regions	No	-
Spain (Catalonia)	0,001 (RD 140/2003 drinking waters) 0,001 (RD 1798/2010 Natural mineral water)	-	Yes	In general, approximately 350 points with regular frequency, and other points not regularly sampled. Mostly yearly sampling.	Yes in some of them. At the East basins of Catalonia, the network has 350 points yearly sampling. At the West of Catalonia (Ebro basin) there is information but not regularly sampled	No. Primarily the most productive or priority aquifer in terms of vulnerability	No	-
Sweden	0,001	-	-	500	Yes; see comment	No	No	-
Ukraine	0,0005	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.16 Nickel

Table 34: Nickel in groundwater – Overview of data availability in participating countries/regions.

Nickel	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5
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		geological classification of the aquifer?	recent years and what is the sampling frequency?
yes	4	11	12
some	2	2	1
not sure	0	0	2
no	8	3	3
no information provided	8	6	4

Table 35: Nickel in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	0,02 (drinking water); not set (indicator parameter)	some	Yes	2.837	Yes, h20-fachdatenbank (third party), up to 4 measurements/year	Whole country	Yes	-
Belgium	0,020 - 0,097	Yes, for example Campine region and East-Flanders	Sandy aquifers with acid water	4.000	Yes, sampling frequency once or twice per year (depending on monitoring network)	Yes	Not yet	-
Bosnia and Herzegovina	0,020 (drinking water and Natural mineral water)	Not investigated	Yes	1-2 wells	No, There are individual studies data, is no systematic testing	No, the entity Federation of Bosnia and Herzegovina	No	To appear in a little number of mineral waters
Czech Rep	0,02	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	0,02	Yes	Yes	6.636	Yes, approx. Every 3 years	Whole country	No	-
France	0,05 (maximum acceptable concentration) 0,02 (parametric value - Corrigendum to Official Journal of the European Union of L111 of 20 April 2001)	Yes	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the ADES and infoterre websites	Yes, maps of high natural background risk zones in traces elements	BRGM public report: Sectors identified during the national study - Delimitation of high natural background risk zones in traces elements
Hungary	0.02 (Natural mineral water) 0,02 (drinking water)	Not investigated.	Not applicable.	Sparse.	Not for the last 5 years. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No.	-
Iceland	0,02	No	In some cases	?	Yes. Varies	No. Distributed sampling points	No	-
Ireland	0,02	No (99% < threshold)	N/A	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in ground drinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in ground drinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Latvia	0,02 (drinking water)	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	No information	No information	No information	No information	No information	No information	No information	No information
Malta	-	-	-	-	-	-	-	-
Poland	0,02 (Natural mineral water) 0,02 (drinking water)	Yes/rare (drinking water)	Yes	Approx. 1300 (drinking water) a few (Natural mineral water)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	0,02	-	Yes	The groundwater quality monitoring network consists of about 700 points and its distribution in the country is not uniform. The frequency of sampling is by annual. The parameters monitored are not the same at all points.	The Portuguese Environment Agency is responsible for the groundwater quality monitoring network. LNEG does not currently have access to this data. However LNEG will try to obtain this data and their authorization to make them available to the project partners.	Yes. The groundwater quality monitoring network cover the whole country	No	In the case of natural spring water (as well as water for human consumption) the levels of physical-chemical parameters are established by the Decree-Law no.152/2017. For the natural mineral water this element is subject to maximum admissible values Decree-law no. 72/2004.
Romania	0,02	No information.	-	None.	No.	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water.	No.	-
Serbia	0,02	-	-	-	-	-	-	-
Slovenia	0,02 (drinking water and Natural mineral water)	Not investigated	Yes	Little	No, unsystematic, only for research purposes	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	Not investigated
Spain	0,02 (drinking water, Natural mineral water and spring water)	Yes	Yes	493	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significant differences in the number of observations between regions	No	-
Spain (Catalonia)	0,02 (RD 140/2003 drinking waters) 0,02 (RD 1798/2010 Natural mineral water)	-	Yes	In general, approximately 350 points with regular frequency, and other points not regularly sampled. Mostly yearly sampling.	Yes in some of them. At the East basins of Catalonia, the network has 350 points yearly sampling. At the West of Catalonia (Ebro basin) there is information but not regularly sampled	No. Primarily the most productive or priority aquifer in terms of vulnerability	No	-
Sweden	0,02	-	-	15.000	Yes; see comment	Yes, but few analyses from northern Sweden	No	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking waterater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking waterater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Ukraine	0,02	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.17 Selenium

Table 36: Selenium in groundwater – Overview of data availability in participating countries/regions.

Selenium	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	3	9	10
some	4	4	1
not sure	0	0	2
no	8	2	4
no information provided	7	7	5

Table 37: Selenium in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking waterater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking waterater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	0,01 (drinking water) not set (indicator parameter)	Limited records	Yes, for some areas	2.844	Yes, h20-fachdatenbank (third party), up to 4 measurements/year	Whole country	No	-
Belgium	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	0,01 (drinking water and Natural mineral water)	Not investigated	Little	Little	No, There are individual studies data, is no systematic testing	No, the entity Federation of Bosnia and Herzegovina	No	No
Czech Rep	0,01	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	0,01	No	Yes	39	Yes, approx every 5 years	Very sparse data	No	-
France	0,01 (maximum acceptable concentration) 0,01 (parametric)	Yes	Plenty of information available on the ADES and	Plenty of information available on the ADES and infoterre websites	Plenty of information available on the	Plenty of information available on the ADES and	Yes, maps of high natural background	BRGM public report: Sectors identified



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
	value - Corrigendum to Official Journal of the European Union of L111 of 20 April 2001)		infoterre websites		ADES and infoterre websites	infoterre websites	risk zones in traces elements	during the national study - Delimitation of high natural background risk zones in traces elements
Hungary	0,01 (Natural mineral water); 0,01 (drinking water)	Not investigated.	Not applicable.	Sparse.	Not for the last 5 years. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No.	-
Iceland	0,01	No	In some cases	?	Yes. Varies	No. Distributed sampling points	No	-
Ireland	0,01	None / limited records	None / limited records	None / limited records	No	None / limited records	No	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	0,01 (drinking water)	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	No information	No information	No information	No information	No information	No information	No information	No information
Malta	-	-	-	-	-	-	-	-
Poland	0,01 (Natural mineral water) 0,01 (drinking water)	Yes (drinking water)	Yes	Approx. 1300 (drinking water) a few (Natural mineral waters)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	0,01	In the north of Portugal was detected in vicinity of abandoned gold mine	Yes/abandoned gold mine	4 point, but only one sampling (LNEG field inventory) and gorundwatermonitoring network data	The Portuguese Environment Agency is responsible for the groundwater quality monitoring network. LNEG does not currently have access to this data. However LNEG will try to obtain this data and their authorization to make them available to the project partners.	Yes. The groundwater quality monitoring network cover the whole country	No	In the case of natural spring water (as well as water for human consumption) the levels of physical-chemical parameters are established by the Decree-Law no.152/2017. For the natural mineral water this element is subject to maximum admissible values Decree-law no. 72/2004.
Romania	0,01	No information.	-	None.	No.	Only in areas with concession licenses for natural mineral water and in areas	No.	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
						with monitoring wells for drinking water.		
Serbia	0,01	-	-	-	-	-	-	-
Slovenia	0,010 (drinking water and Natural mineral water)	Not investigated	Yes	Little	No, unsystematic, only for research purposes	Specific, mineral and thermal waters with concessions and some natural springs all over Slovenia	No	Not investigated
Spain	0,01 (drinking water, Natural mineral water and spring water)	Yes	Yes	955	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significative differences in the number of observations between regions	No	-
Spain (Catalonia)	0,01 (RD 140/2003 drinking waters) 0,01 (RD 1798/2010 Natural mineral water)	Anomalies detected in some areas, with hydro-geothermal manifestations.	Yes	In general, approximately 350 points with regular frequency, and other points not regularly sampled. Mostly yearly sampling.	Yes in some of them. At the East basins of Catalonia, the network has 350 points yearly sampling. At the West of Catalonia (Ebro basin) there is information but not regularly sampled	No. Primarily the most productive or priority aquifer in terms of vulnerability	No	-
Sweden	0,01	-	-	15.000	-	Yes, but few analyses from northern Sweden	No	-
Ukraine	0,01	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.18 Strontium

Table 38: Strontium in groundwater – Overview of data availability in participating countries/regions.

Strontium	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	0	7	7
some	0	2	1
not sure	0	0	1
no	13	3	4



no information provided	9	10	9
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Table 39: Strontium in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	Not set	Not set	Yes	2.844	Yes, h20-fachdatenbank (third party), up to 4 measurements/year	Whole country	No	-
Belgium	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	Not set	Not investigated	Yes	Little	No, there are individual studies data, is no systematic testing	No, the entity federation of bosnia and herzegovina	No	No
Czech Rep	Not set	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	Not set	-	Yes	1.143	Yes, approx. Every 3 years	Whole country	No	-
France	Not set	-	-	-	-	-	-	-
Hungary	Not set (Natural mineral water); Not set (drinking water)	No reference value.	Not applicable.	Sparse.	Not for the last 5 years. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No.	-
Iceland	Not set	No	In some cases	?	Yes. Varies	No. Distributed sampling points	No	-
Ireland	Not set	-	-	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	Not set	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	-	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-	-
Poland	Not set (Natural mineral water), not set (drinking water)	-	-	-	-	-	No	-
Portugal	Not set	Not monitored	-	-	-	-	-	No threshold value defined in portuguese legislation
Romania	Not set.	No information.	-	None	No.	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water.	No.	-
Serbia	-	-	-	-	-	-	-	-
Slovenia	Not set	Yes, some mineral and thermomineral waters	Yes	Approx. 30 sites with 50 wells	Thermal waters are tested in year 1, year 3 and then every 6th year (mostly years	Specific, mineral and thermal waters with	No	Elevated in some mineral and thermal



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
					2016-2018-2024), mineral waters can be different frequency	concessions and some natural springs all over slovenia		waters in ne slovenia
Spain	Not set	Yes	Yes	7	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significative differences in the number of observations between regions	No	-
Spain (Catalonia)	Not set	-	Yes	A little	No, unsystematic.	No	No	-
Sweden	-	-	-	200	-	No	No	-
Ukraine	≤7,0	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.19 Uranium

Table 40: Strontium in groundwater – Overview of data availability in participating countries/regions.

Uranium	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	4	7	7
some	1	2	1
not sure	0	0	1
no	10	4	5
no information provided	7	9	8

Table 41: Uranium in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
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Austria	0,015 (drinking water); not set (indicator parameter)	Yes	Yes	2.844	Yes, h2o-fachdatenbank (third party), up to 4 measurements/year	Whole country	Yes	-
Belgium	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	Not set	Not investigated	Yes	Little	No, there are individual studies data, no systematic testing	No, the entity federation of bosnia and herzegovina	No	No
Czech Rep	0,015	Yes	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	Not set	-	No	0	No	-	No	-
France	-	-	-	-	-	-	-	-
Hungary	Not set (Natural mineral water) Not set (drinking water)	No reference value	Not applicable.	Sparse	Not for the last 5 years. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No	-
Iceland	-	No	In some cases	Unknown	Yes. Varies	No. Distributed sampling points	No	-
Ireland	Not set	-	-	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	No	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	-	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-	-
Poland	Not set (Natural mineral water) 0,03 (drinking water)	Yes (drinking water)	Yes	Approx. 1.300 (drinking water)/a few (MW)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	No value	Not monitored	-	-	-	-	-	No threshold value defined in portuguese legislation
Romania	Not set.	No information.	-	None.	No.	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water.	No.	-
Serbia	-	-	-	-	-	-	-	-
Slovenia	Not set	Not investigated	Yes	Very little	No, unsystematic, only for research purposes	Specific, mineral and thermal waters with concessions and some natural springs all over slovenia	No	Not investigated
Spain	Not set	Yes	Yes	57	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significative differences in the number of observations between regions	No	-
Spain (Catalonia)	Not set	Anomalies detected in some areas, of granitic massifs in catalonia and in natural mineral waters	Yes	A little	No, unsystematic.	No	No	-



Sweden	-	-	-	25.000	-	Yes, but few analyses from northern Sweden	No	-
Ukraine	-	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.20 Vanadium

Table 42: Vanadium in groundwater – Overview of data availability in participating countries/regions.

Vanadium	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
yes	2	7	6
some	0	3	1
not sure	0	0	2
no	10	4	6
no information provided	10	8	7

Table 43: Vanadium in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	Not set (drinking water) not set (indicator parameter)	Not set	Yes	2.844	Yes, h20-fachdatenbank (third party), up to 4 measurements/year	Whole country	No	-
Belgium	Not set	-	-	-	-	-	-	-
Bosnia and Herzegovina	Not set	Not investigated	Very little	Very little	No, there are individual studies data, is no systematic testing	No, the entity federation of bosnia and herzegovina	No	No
Czech Rep	Not set	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	Not set	-	No	0	No	-	No	-
France	-	-	-	-	-	-	-	-
Hungary	Not set (Natural mineral water); Not set (drinking water)	No reference value.	Not applicable.	Sparse.	Not for the last 5 years. Mostly yearly sampling; for thermal waters can be up to 1/6 years.	-	No.	-
Iceland	Not set	No	In some cases	?	Yes. Varies	No. Distributed sampling points	No	-



Ireland	Not set	N/a	N/a	None / limited records	No	None / limited records	No	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	No	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	No information	No information	No information	No information	No information	No information	No information	No information
Malta	-	-	-	-	-	-	-	-
Poland	Not set (Natural mineral water) 0,05 (drinking water)	Yes (drinking water)	Yes	Ca 1300 (drinking water)/a few (MW)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-
Portugal	Not set	-	Yes	The groundwater quality monitoring network consists of about 700 points and its distribution in the country is not uniform. The frequency of sampling is by-annual. The parameters monitored are not the same at all points.	The portuguese environment agency is responsible for the groundwater quality monitoring network. Lneg does not currently have access to this data. However lneg will try to obtain this data and their authorization to make them available to the project partners.	Yes. The groundwater quality monitoring network cover the whole country	No	No treshold value defined in portuguese legislation
Romania	Not set.	No information.	-	None.	No.	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water.	No.	-
Serbia	-	-	-	-	-	-	-	-
Slovenia	Not set	Not investigated	Yes	Very little	No, unsystematic, only for research purposes	Specific, mineral and thermal waters with concessions and some natural springs all over slovenia	No	Not investigated
Spain	Not set	Yes	Yes	63	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significative differences in the number of observations between regions	No	-
Spain (Catalonia)	Not set	-	Yes	A little	No, unsystematic.	No	No	-
Sweden	-	-	-	500	Yes; see comment	No	No	-
Ukraine	0,1	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-

3.3.21 Zinc

Table 44: Zinc in groundwater – Overview of data availability in participating countries/regions.

Zinc	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?
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yes	5	9	11
some	0	4	1
not sure	0	0	2
no	9	3	4
no information provided	8	6	4

Table 45: Zinc in groundwater – Data availability in participating countries/regions.

	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking waterater by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking waterater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
Austria	Not set	Not set	Possible	2.844	Yes, h20-fachdatenbank (third party), up to 4 measurements/year	Whole country	Yes	-
Belgium	0,260 - 0,410	Yes, Campine region	Sandy aquifers with acid water	4.000	Yes, sampling frequency once or twice per year (depending on monitoring network)	Yes	Not yet	In higher concentrations due to historical industrial pollution
Bosnia and Herzegovina	Not set	Not investigated	Little	Little	No, there are individual studies data, is no systematic testing	No, the entity federation of bosnia and herzegovina	No	No
Czech Rep	Not set	-	Partly yes	Thousands of samples (archive data)	The data falls under the management of another organization, it would probably be possible to get it	Whole country	Yes	-
Denmark	3	No	Yes	802	Yes, approx. Every 2-3 years	Whole country	No	-
France	0,1 / 5 (guide values)	Yes	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Plenty of information available on the ades and infoterre websites	Yes, maps of high natural background risk zones in traces elements	Brgm public report: sectors identified during the national study - delimitation of high natural background risk zones in traces elements
Hungary	Not set (Natural mineral water); drinking water (Not set)	No reference value.	Not applicable.	Few hundreds.	Not for the last 5 years. Mostly yearly sampling; for termal waters can be up to 1/6 years.	-	No.	-
Iceland	Not set	No	In some cases	Unknown	Yes. Varies	No. Distributed sampling points	No	-
Ireland	Not set	-	-	300	Yes, 3 times per year	Whole country	Yes	-
Italy	-	-	-	-	-	-	-	This topics are not in the assignments of the Geological Survey of Italy of ISPRA
Latvia	Not set	Not checked	No	Not checked	Yes, not checked	Not checked	No	-
Lithuania	-	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-	-
Poland	Not set (Natural mineral waters)	Yes (drinking water)	Yes	Approx. 1.300 (drinking water) a few (Natural mineral waters)	Yes, sampling every 1-3 years (drinking water)	The whole country (drinking water)	No	-



	What is the threshold value in your country (mg L ⁻¹)?	Are there regions in your country where concentrations exceed the threshold value?	Can you characterize the geology of the regions with elevated concentrations in grounddrinking water by a simple geological classification of the aquifer?	For how many observation wells/springs do you have data?	Do you have access to concentrations in grounddrinking water observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	Are there existing maps of natural background values?	Comments to the specific element.
	1,0 (drinking water)							
Portugal	No value	-	Yes	The groundwater quality monitoring network consists of about 700 points and its distribution in the country is not uniform. The frequency of sampling is by-annual. The parameters monitored are not the same at all points.	The portuguese environment agency is responsible for the groundwater quality monitoring network. Ineg does not currently have access to this data. However Ineg will try to obtain this data and their authorization to make them available to the project partners.	Yes. The groundwater quality monitoring network cover the whole country	No	No treshold value defined in portuguese legislation
Romania	5	No information.	-	None.	No.	Only in areas with concession licenses for natural mineral water and in areas with monitoring wells for drinking water.	No.	-
Serbia	-	-	-	-	-	-	-	-
Slovenia	Not set	Not investigated	Yes	Little	No, unsystematic, only for research purposes	Specific, mineral and thermal waters with concessions and some natural springs all over slovenia	No	Not investigated
Spain	Not set	Yes	Yes	4.537	Yes. Sampling frequency varies depending on the region	They cover the whole country, although there are significant differences in the number of observations between regions	No	-
Spain (Catalonia)	Not set	-	Yes	A little	No, unsystematic.	No	No	-
Sweden	Not set	-	-	500	Yes; see comment	Yes, but few analyses from northern Sweden	No	-
Ukraine	1,0	Should be examined properly	Yes, if is determined	A lot of wells, the number can be determined by database sampling if necessary	Yes, at least for the period 2010-2018	Yes	No	-



4 DATABASE FOR NATURAL MINERAL WATERS AND THERMAL WATERS

The aim is to create a harmonized overview about existing natural mineral water and thermal water sources within participating countries/regions. The final product will be a WMS service for the European Geological Data Infrastructure (EGDI) (see HOVER WP3 Task 3.5).

Data collection:

- **Natural mineral waters:** The Directive 2009/54/EC regulates the marketing and exploitation of natural mineral waters in Europe. Therefore, the focus must be given to listed recognized natural mineral waters. The majority of participating countries/regions in HOVER WP3 is found in the list of natural mineral waters recognised by EU member states (see chapter 3.1.1). Sources in non-listed countries that have national definitions for natural mineral waters can be only considered, if the criteria for recognition are very similar.
- **Thermal water:** The focus will be given to in-use thermal water sources for balneology, heating and/or electricity production. Due to the inconsistency of national definitions for thermal waters, we propose to differentiate between outlet water temperature classes (<15; 15-20; 20-30; 30-40; 40-50; 50-60; 60-70; 70-80; 80-90; 90-100; >100°C). The temperature classes <15 °C and 15-20 °C are included to consider thermal waters with lower outlet temperatures recognized on national levels (e.g. Spain and Bosnia and Herzegovina; see chapter 3.2.2).

4.1 Database structure

The database structure (see Table 46) was developed based upon the results of the conducted specific questionnaire. Participating surveys were able to provide feedback to a previous draft version.

Instead of providing exact coordinates, locations of sources will be allocated to country specific EEA reference grid cells based on 1 km² (see <https://www.eea.europa.eu/data-and-maps/data/eea-reference-grids-2>). Centroids can be later calculated for the WMS and a reference scale can be chosen. To guarantee harmonization for collected data, predefined contents for fields are essential. Therefore, such predefined selection lists for specific fields are found in Table 47. Furthermore, INSPIRE code lists (see <http://inspire.ec.europa.eu/codelist>) and Geoscience Vocabularies for Linked Data (see <http://resource.geosciml.org/>) will be used to describe used aquifers. The hydrochemistry of sources will be described by a single representative hydrochemical analysis.

Results from the specific questionnaire have shown, that most participating survey do have access to a large set of relevant data that can be also shared. However, if data for specific fields can't be provided, we suggest to use the following abbreviations. In any case, it is important to avoid blank fields that may lead to misinterpretation:

- **nA:** no data available
- **nS:** data can't be shared



Table 46: Database structure for Natural mineral water and Thermal water Data collection.

	Field	unit	type	explanation
Name				
N1	name of source		text	Please provide the name of source from the list of recognized natural mineral waters, otherwise a name for the thermal water source
N2	official name of natural mineral water		text	Please provide the trade description from the list of recognized natural mineral waters; not relevant for thermal waters
N3	country		text	
General information				
G1	classification		choose from list	
G2	location		choose country specific grid cell ID	download country specific grids from https://www.eea.europa.eu/data-and-maps/data/eea-reference-grids-2
G3	type of water source		choose from list	
G4	intended use 1		choose from list	
G5	intended use 2		choose from list	
G6	intended use 3		choose from list	
G7	yield class	l/s	choose from list	extraction allowed by law regulation
Aquifer				
B1	If borehole: true vertical depth	m	number	below terrain
B2	If borehole: screen or open hole: FROM (true vertical depth)	m	number	below terrain
B3	If borehole: screen or open hole: TO (true vertical depth)	m	number	below terrain
B4	Aquifer media type		choose ID from INSPIRE code list	http://inspire.ec.europa.eu/codelist/AquiferMediaTypeValue
B5	Aquifer type		choose ID from INSPIRE code list	http://inspire.ec.europa.eu/codelist/AquiferTypeValue
B6	Lithology of the aquifer 1		choose ID from INSPIRE code list	http://inspire.ec.europa.eu/codelist/LithologyValue
B7	Proportion, lithology of the aquifer 1		choose from CGI Geoscience codelist	http://resource.geosciml.org/classifier/cgi/proportionterm
B8	Lithology of the aquifer 2		choose ID from INSPIRE code list	http://inspire.ec.europa.eu/codelist/LithologyValue



	Field	unit	type	explanation
B9	Proportion, lithology of the aquifer 2		choose from CGI Geoscience codelist	http://resource.geosciml.org/classifier/cgi/proportionterm
B10	Lithology of the aquifer 3		choose ID from INSPIRE code list	http://inspire.ec.europa.eu/codelist/LithologyValue
B11	Proportion, lithology of the aquifer 3		choose from CGI Geoscience codelist	http://resource.geosciml.org/classifier/cgi/proportionterm
B12	Aquifer, younger age		choose ID from INSPIRE code list	http://inspire.ec.europa.eu/codelist/GeochronologicEraValue/
B13	Aquifer, older age		choose ID from INSPIRE code list	http://inspire.ec.europa.eu/codelist/GeochronologicEraValue/
Groundwater age				
A1	groundwater age		choose from list	
Hydrochemistry				
H1	Temperature class	°C	choose from list	water temperature at the outlet
H2	Total dissolved solid class	g/l	choose from list	
H3	Specific conductivity	µS/cm; 25°C	number/text	representative hydrochemical analysis
H4	pH		number/text	representative hydrochemical analysis
H5	Redox potential (Eh)	mV	number/text	representative hydrochemical analysis
H6	Oxygen (O2)	mg/l	number/text	representative hydrochemical analysis
H7	Sodium (Na)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H8	Potassium (K)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H9	Calcium (Ca)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H10	Magnesium (Mg)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H11	Strontium (Sr)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H12	Barium (Ba)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H13	Iron (Fe total)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H14	Manganese (Mn total)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H15	Ammonium (NH ₄)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H16	Bicarbonate (HCO ₃)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H17	Carbonat (CO ₃)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H18	Fluoride (F)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H19	Chloride (Cl)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL



	Field	unit	type	explanation
H20	Bromide (Br)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H21	Iodide (I)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H22	Sulfate (SO ₄)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H23	Nitrate (NO ₃)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H24	Hydrogen Sulfide (HS)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H25	Aluminium (Al)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H26	Antimony (Sb)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H27	Arsenic (As)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H28	Beryllium (Be)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H29	Lead (Pb)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H30	Cadmium (Cd)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H31	Cesium (Cs)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H32	Chrome (Cr)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H33	Cobalt (Co)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H34	Copper (Cu)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H35	Lithium (Li)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H36	Molybdenum (Mo)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H37	Nickel (Ni)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H38	Mercury (Hg)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H39	Rubidium (Rb)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H40	Selenium (Se)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H41	Uranium (U)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H42	Vanadium (V)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H43	Zinc (Zn)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H44	Tin (Sn)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H45	m-Silic acid (H ₂ SiO ₃)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H46	o-Boric acid (H ₃ BO ₃)	mg/l	number/text	representative hydrochemical analysis, if under detection limit provide < + number e.g. <0,2; if not available <DL
H47	gas phase dominance	dominance	choose from list	
Comments				
C1	free comment		text	



Table 47: Predefined selection lists for specific fields.

	G1	G3	G4 to G6	G7	A1	H1	H2	H43
Field	classification	type of water source	intended use	yield class (l/s)	groundwater age (years)	temperature class	total dissolved solid class (g)	gas phase dominance
1	thermal water source	single well	bottled natural mineral water	<5	younger than 60	<15	<1	Methane (CH ₄)
2	natural mineral water (Directive 2009/54/EC)	well field	natural mineral water publicly available	5-25	older than 60	15-20	1-14,5	Carbon dioxide (CO ₂)
3	Natural mineral water (national law recognition)	single artesian well	thermal water for balneology	>25	older than 10.000	20-30	>14,5	Nitrogen (N ₂) including noble gases
4		artesian well field	thermal water for heating		older than 11.500.000	30-40		
5		single captured spring	thermal water for electricity production			40-50		
6		captured spring group				50-60		
7		single gallery				60-70		
8		gallery group				70-80		
9						80-90		
10						90-100		
11						>100		

4.2 Preliminary data collection

The data collection has started in April 2019, so far preliminary data was received from 7 countries (Austria, Bosnia and Herzegovina, Denmark, Italy, Lithuania, Spain (including Catalonia) (see Table 47 and Appendix 7.2).

Table 48: Overview of preliminary data collection: Existing sources in participation countries/regions.

Sources in countries	Classification		
	Natural mineral water (Directive 2009/54/EC)	Natural mineral water (national law recognition)	Thermal water
Austria	40		62
Bosnia and Herzegovina	28	10	
Denmark	14		



Italy			241
Lithuania	21	19	
Spain	164		57



5 NATURAL MINERAL AND THERMAL WATERS - PARTICIPATING COUNTRY PROFILES

5.1 Austria

Author: Daniel Elster

5.1.1 Relevant national definitions in Austria

Natural mineral water is defined in the mineral water and spring water regulation: Mineralwässer nach der Mineral- und Quellwasserverordnung, BGBl. II, Nr. 309/1999 (<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20000003>). Further considered has to be:

- Wasserrechtsgesetz 1959 – WRG 1959, BGBl. Nr. 215/1959 idgF. (<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10010290>)
- Trinkwasserverordnung – TWV, BGBl. II Nr. 304/2001 idgF. (<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20001483>)
- Gesundheits- und Ernährungssicherheitsgesetz – GESG, BGBl. I Nr. 63/2002 idgF. (<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20001896>)
- Lebensmittelsicherheits- und Verbraucherschutzgesetz – LMSVG, BGBl. I Nr. 13/2006 idgF. (<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20004546>)
- Lebensmittelkennzeichnungsverordnung 1993 – LMKV, BGBl. Nr. 72/1993 idgF. (<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10010723&FassungVom=2005-04-26>)

Threshold values specific for natural mineral waters are listed in Table 49.

Thermal water is defined in the following laws for each state in Austria except Vorarlberg. Groundwaters with a temperature of 20 °C or higher at the outlet are considered as thermal water.

- Burgenländisches Heilvorkommen- und Kurortegesetz - Bgld. HeiKuG, LGBl. Nr. 15/1963, zuletzt geändert durch LGBl. Nr. 79/2013 (<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrBgld&Gesetzesnummer=10000048>)
- Kärntner Heilvorkommen- und Kurortegesetz, K-HKG, LGBl. Nr. 157/1962, zuletzt geändert durch LGBl. Nr. 85/2013 (<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrK&Gesetzesnummer=10000024>)
- NÖ Heilvorkommen- und Kurortegesetz 1978, LGBl. Nr. 272/1978, zuletzt geändert durch LGBl. Nr. 219/2001 (<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrNO&Gesetzesnummer=20000627>)



- Oö. Heilvorkommen- und Kurortegesetz - Oö. HKG; LGBL. Nr. 47/1961, zuletzt geändert durch LGBL. Nr. 90/2013 (<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrOO&Gesetzesnummer=1000048>)
- Salzburger Heilvorkommen- und Kurortegesetz 1997 - HKG 1997, LGBL. Nr. 101/1997, zuletzt geändert durch LGBL. Nr. 106/2013 (<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrSbg&Gesetzesnummer=10001039>)
- Steiermärkisches Heilvorkommen- und Kurortegesetz, LGBL. Nr. 161/1962, zuletzt geändert durch LGBL. Nr. 87/2013 (<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrStmk&Gesetzesnummer=20000421>)
- Tiroler Heilvorkommen- und Kurortegesetz 2004, LGBL. Nr. 24/2004, zuletzt geändert durch LGBL. Nr. 130/2013 (<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrT&Gesetzesnummer=2000191>)
- Wiener Heilvorkommen- und Kuranstaltengesetz - WHKG, LGBL. Nr. 29/2013 (<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrW&Gesetzesnummer=20000303>)

Table 49: Threshold values specific for natural mineral waters in Austria.

Parameter	Threshold values (mg/l) Mineralwasser- und Quellwasserverordnung, BGBl. II, Nr. 309/1999 idgF.	Threshold values (mg/l) Österreichisches Lebensmittelbuch (ÖLMB), Kapitel B 17 „Abgefüllte Wässer“ (BMGF-75210/0005-II/B/13/2016))
Antimony	0,0050	0,0050
Arsenic	0,010 (insgesamt)	0,010 (insgesamt)
Barium	1,0	1
Lead	0,010	0,010
Boron		5,0
Cadmium	0,003	0,003
Chromium	0,050	0,050
Cyanid	0,070	0,070
Fluorine	5,0	5,0
Copper	1,0	1,0
Manganese	0,50	0,50
Nickel	0,020	0,020
Nitrate	50 (for natural mineral waters sourced in Austria exists a threshold of 25)	25
Nitrite	0,1	0,1
Oxidized organic compounds		3,0
Mercury	0,0010	0,0010
H ₂ S	0,05	
Selen	0,010	0,010
Uranium		0,015
Zinc		5,0
Surface active substances that react with C ₁₆ H ₁₈ ClN ₃ S (TBS)		0,2
Pesticides (sum)	0,0001	
radioactivity		See Codexkapitels B 1 „Trinkwasser“



Parameter	Threshold values (mg/l) Mineralwasser- und Quellwasserverordnung, BGBl. II, Nr. 309/1999 idgF.	Threshold values (mg/l) Österreichisches Lebensmittelbuch (ÖLMB), Kapitel B 17 „Abgefüllte Wässer“ (BMGF-75210/0005-II/B/13/2016))
Polycyclic aromatic hydrocarbons		0,0001 (Sum of concentrations of contents ; bei Benzo-(b)-fluoranthen Benzo-(k)-fluoranthen Benzo-(ghi)-perylene Inden-(1,2,3-cd)-pyren)

5.1.2 Overview of natural mineral and thermal water resources in Austria

There are 40 natural mineral waters recognized in Austria which are located in different geological settings. Consequently, this leads to variable hydrochemical compositions. Each source is described in the publication of ELSTER et al. (2018) in detail (see Figure 6).

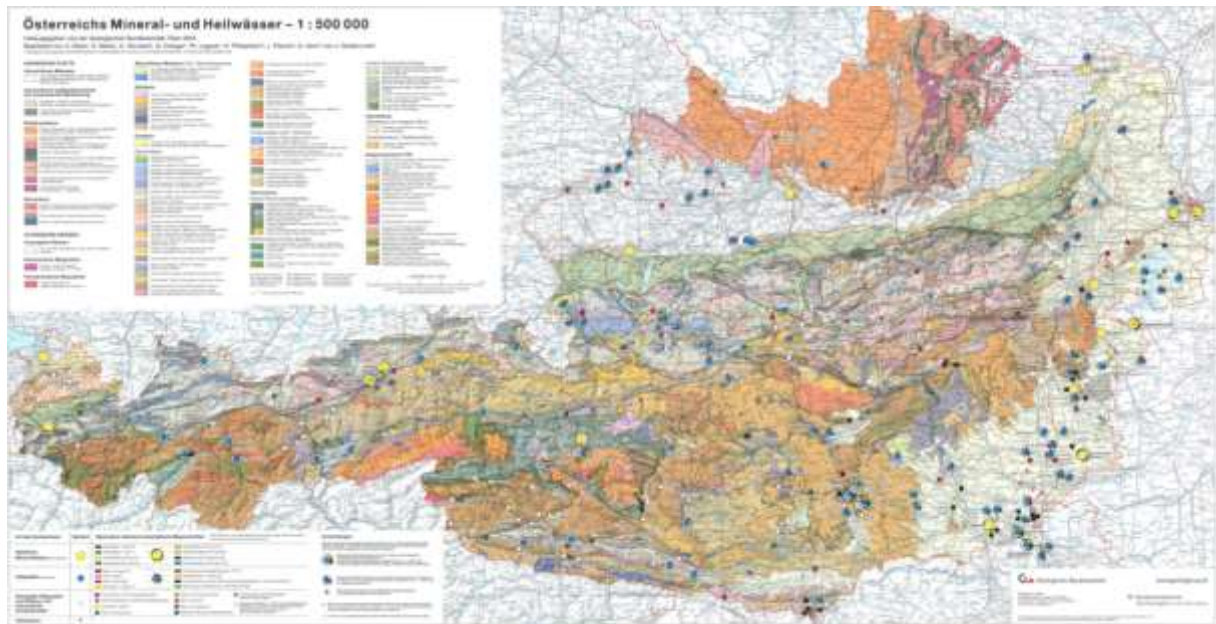


Figure 6: Natural mineral waters and therapeutic waters in Austria (ELSTER et al. 2018)

There are approximately 77 thermal water sources (spring groups and well fields summarized) known in Austria. Not all are used and a selection has been included in the proposed database. Most important sources are found in the Vienna Basin, the Styrian Basin and the Upper Austrian Molasse. Those areas bear the highest geothermal potential. Geothermal district heating plants do currently exist in Upper Austria (Molasse Zone; Upper Jurassic carbonates) and Styria (Styrian Basin; mainly Paleozoic carbonates), but recent attempts have been focusing on the Vienna Basin. Some of the plants also produce electricity (ORC), but only on a very limited level. The majority of thermal sources are used for balneology like spas and often have an old history, approximately 17 sources have been used already in the 19th century. Figure 7 provides an

overview of the known thermal water sources including drilling attempts for thermal waters that have failed.

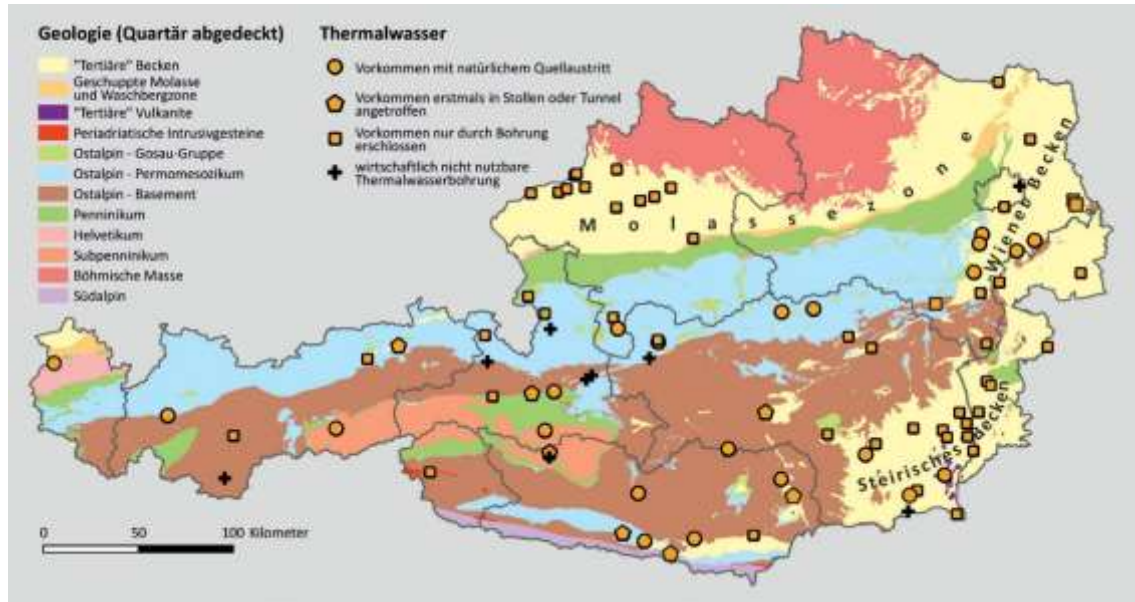


Figure 7: Overview on thermal water resources in Austria (ELSTER et al. 2016)

References

- ELSTER, D., FISCHER, L., HANN, S., GOLDBRUNNER, J., SCHUBERT, G., BERKA, R., HOBIGER, G., LEGERER, P. & PHILIPPITSCH, R. (2018): Österreichs Mineral- und Heilwässer. – 448 S., Geologische Bundesanstalt, Wien.
- ELSTER, D., GOLDBRUNNER, J., WESSELY, G., NIEDERBACHER, P., SCHUBERT, G., BERKA, R., PHILIPPITSCH, R. & HÖRHAN, T. (2016): Erläuterungen zur geologischen Themenkarte Thermalwässer in Österreich 1:500.000. – 296 S., Wien (Geologische Bundesanstalt).

5.2 Bosnia and Herzegovina

Author: Ferid Skopljak

5.2.1 Relevant national definitions in Bosnia and Herzegovina

Natural mineral waters are groundwaters whose total mineralization is > 1 g/l, as well as mineralization water < 1 g/l; which have an increased content of gases ($\text{H}_2\text{S} > 5$ mg/l, $\text{CO}_2 > 500$ mg/l, and others) or individual chemical elements ($\text{Fe} > 10$ mg/l, $\text{As} > 1.0$ mg/l, $\text{Br} > 25$ mg/l, $\text{J} > 5.0$ mg/l, $\text{F} > 5.0$ mg/l, $\text{H}_2\text{SiO}_3 > 50$ mg/l, and others) and significantly increased radionuclide content ($\text{Rn} > 133$ Bq/l, $\text{Ra} > 0.185$ Bq/l) and other chemical elements. The temperature of mineral waters is less than the mean annual air temperature of the area in which these waters appear.

Thermal waters are groundwater having a total mineralization < 1 g/l and a temperature greater than the mean annual air temperature of the area in which these waters appear.



Thermomineral waters are mineral waters whose temperature is higher than the mean annual air temperature of the site in which they occur.

Mineral, thermal and thermomineral waters in the Federation of Bosnia and Herzegovina are defined in the following regulatory frameworks and laws:

- The law on Waters ("Official Gazette of the Federation BiH" No. 70/06)
- The law on Geological Surveys ("Official Gazette of FBiH", No. 9/10)
- The law on Bottled Water in Bosnia and Herzegovina (No.45 / 04)
- The law on Concessions on Water and Public Property ("Official Gazette of the Federation BiH", No. 8/00.)
- Rulebook on natural mineral and natural spring waters (Official Gazette of BiH No. 26/10)
- Rulebook on the categorization, classification, calculation of groundwater reserves and keeping records on them ("Official Gazette of the FBiH", No. 47/11)
- Rulebook on conditions for determining sanitary protection zones and protective measures for water sources used or planned to be used for drinking ("Official Gazette of the Federation BiH", No. 51/02)
- Rulebook on minimum technical, technological and personnel requirements for the production of refreshing soft drinks, fruit juices and syrups and bottled waters (Official Gazette of the Federation BiH, no. 81/06)
- Rulebook on table water ("Official Gazette of BiH" No. 40/10.)
- Rulebook on the health safety of drinking water (Official Gazette of BiH No. 40/10)
- Rulebook on the manner of keeping records and creating Cadastre of deposits of mineral raw materials, geological phenomena and approved investigative areas (Official Gazette of the Federation of BiH, no.38 / 11)

5.2.2 Overview of natural mineral and thermal water Resources in Bosnia and Herzegovina

There are about 450 localities of mineral, thermal and thermomineral waters in the Federation Bosnia and Herzegovina which are registered.

There are more types of waters with regard to their physical and chemical composition: Mineral waters (salted, mineral waters with CO₂ and waters with combined chemical composition). Thermal waters constitute only one category, until Thermomineral waters can be with CO₂, salted with H₂S and combined chemical composition.

The present use of mineral, thermal and thermomineral waters in the Federation Bosnia and Herzegovina is the following:

- salt mineral waters near Tuzla are used in chemical industry
- mineral waters with CO₂ bottle in Kiseljak, Tešanj, Tuzla and Sarajevo
- exploitation of CO₂ gas duct in Klokoti near Sarajevo and Gračanica
- thermal waters are used in spa capacity in Fojnica, Olovo, also swimming pool in Breza and Mala Kladuša
- thermomineral waters are used in spa capacity: Gradačac, Tuzla and Ilidža Sarajevo
- using of thermomineral waters for heating ducted in Domaljevac and Sarajevo



Useful value mineral, thermal and thermomineral waters Federation Bosnia and Herzegovina are proved but they are very insufficient exposed and made use of.

5.3 Denmark

Author: Denitza Voutchkova

5.3.1 *Relevant national definitions in Denmark*

For Natural mineral water, the source/spring has to be approved by the Danish Veterinary and Food Administration under the Ministry of Environment and Food of Denmark. The official list of approved “natural mineral waters” (<https://www.foedevarestyrelsen.dk/Leksikon/Sider/Naturligt-mineralvand-godkendt-i-Danmark.aspx>, last updated on 27 feb 2019) contains the same brands as “List of natural mineral waters recognised by member states” (last update: 8 Feb 2019) with the addition of Balders Kilde.

Legislation on Natural mineral waters applied in Denmark:

- Directive 2009/54/EC of the European Parliament and of the Council of 18 June 2009 on the exploitation and marketing of natural mineral waters
- Commission Regulation (EU) No 115/2010 of 9 February 2010 laying down the conditions for use of activated alumina for the removal of fluoride from natural mineral waters and spring waters
- BEK nr 38 of 12/01/2016 Bekendtgørelse om naturligt mineralvand, kildevand og emballeret drikkevand (<https://www.retsinformation.dk/Forms/R0710.aspx?id=176930>)
- VEJ nr 9105 of 10/04/2008 Vejledning om mærkning af naturligt mineralvand, kildevand og emballeret drikkevand (<https://www.retsinformation.dk/Forms/R0710.aspx?id=116414>)

5.3.2 *Overview of natural mineral and thermal water resources in Denmark*

In general, the waters are with low mineralization (TDS < 1g), there are no thermal waters (all waters <15 °C), and only few of the sources are artesian (springs). To the best of our knowledge, there is no public access to the sources. The natural mineral waters are mostly from sandy (Quaternary, Miocene) or limestone/chalk (Danian, Maastrichtian) aquifers. There is only one exception: Boring 7, located on Bornholm, where the well is in Cambrian Sandstone.

5.4 Italy

Authors: Lucio Martarelli, Barbara Dessi

5.4.1 *Relevant national definitions in Italy*

Mineral water is not defined within a specific Act. In any case, the Italian Legislative Decree N.176 of 8 October 2011, which adopts the EU Directive 2009/54/EC and deals with natural mineral water, reports (Article 12.2) the following classification of natural mineral waters according to their mineralization values expressed as fixed residue in: 1) oligomineral waters



(fixed residue between 50 and 500 mg/l); 2) medium mineral waters (between 500 and 1500 mg/l); 3) waters rich in mineral salts (above 1500 mg/l).

Thermal water is mentioned in the Italian Governmental Law N.323 of 24 October 2000 but this act deals only with the exploitation permits and not with technical-scientific issues.

Thermomineral water is not defined within a specific Act.

Natural mineral water is defined in the Italian Legislative Decree N.176 of 8 October 2011, which adopts the EU Directive 2009/54/EC. Article 2.1 defines it as water which originated from a groundwater body, crops out at one or more natural or artificial springs and has peculiar purity conditions and health relevant properties. Article 2.2 defines that it must have properties which clearly distinguish it from drinking water, due to conservation of its original purity, content of dissolved solids, trace elements or other components and may have certain nutritional and physiological effects.

Article 12.2 distinguishes natural mineral waters, based on the values of fixed residue, in:

- 1- oligomineral waters (fixed residue between 50 and 500 mg/l);
- 2- medium mineral waters (between 500 and 1500 mg/l);
- 3- waters rich in mineral salts (above 1500 mg/l).

The same article provides the following classification based on the predominant and qualifying chemical elements:

- 1- bicarbonate waters
- 2- sulfuric acid waters
- 3- chlorinated waters
- 4- calcium waters
- 5- magnesium water
- 6- fluorinated waters
- 7- ferruginous waters
- 8- sodium waters
- 9- hyposodic waters

5.4.2 Overview of natural mineral and thermal water resources in Italy

A great variety of geological, morphological and climatic environments characterizes the Italian territory transmitting to groundwater unique and special properties. Concerning groundwater resources, alluvial and coastal plains, calcareous rocks and volcanic rocks usually host quite large amounts of groundwater. Instead, magmatic and metamorphic rocks and the large areas with mainly terrigenous sediments display only minor amounts of groundwater. The presence of active volcanoes witnesses uplift processes of hot vapor and gas from deep levels along fractures and faults. These vapor and gas interact with both host rocks and groundwater and lead to cropping out of thermal-mineral sources.

As concerns the hydrogeological settings of the terrains which those sources emerge in, the hydrogeological complexes having a high infiltration rank (e.g. carbonate rocks, calcareous-dolomitic successions) may act as groundwater recharge areas and/or fissured medium for hydrothermal ascending fluids in favorable structural settings. The low permeability complexes (e.g., clayey-marly terrains, terrigenous successions) may serve as a cover for buried geothermal reservoirs. Furthermore, the metamorphic and plutonic rock complexes represent the



crystalline basement from which hydrothermal fluids may potentially originate. Finally, the volcanic complexes, mostly aligned along the Tyrrhenian margin, host the most of thermal-mineral sources originated by hydrothermal fluids related to magma ascent processes.

From the point of view of use, Italy is the country in Europe where more bottled water is consumed, reflecting the large number and variety of available resource and awareness of the benefits. Other than drinking purpose, it is relevant a widespread and extensive use of waters at different temperatures (e.g. hydropinotherapy, breathing, bathing, mud-bathing). The presence of substances such as sulfur, iodine, chlorine, bromide, arsenic, lithium, calcium, gas and radioactive elements may give water therapeutic virtues. When water yield and temperature are high, thermal-mineral waters may be also used for building heating and electric power production.

In a scenario considering the main Italian thermal-mineral sources having water temperature higher than 20°C, it is possible to evidence that they are drawn by 72% from springs and 28% from wells. The distribution of these sources throughout the Italian territory is not homogeneous, since six regions out of twenty (Tuscany, 25% of total sources; Latium, 16%; Campania, 13%; Sicily, 12%; Sardinia, 9%; Veneto, 8%) cover in total the 83% of the exploited thermal-mineral water resource. In these regions, mostly aligned along the Tyrrhenian-Apenninic margin and in the Italian islands, the most relevant active or quiescent magmatic bodies occur.

As regards water temperature, about 70% of thermal-mineral sources have values between 20-40°C, about 20% exhibit between 40-60°C and about 10% display temperature >60°C. Concerning total dissolved solids (TDS), about 25% of sources have TDS<1000 ppm, about 40% have TDS between 1000-3000 ppm, about 20% between 3000-5000 ppm and the remaining 15% display TDS >5000 ppm. Considering source yields (reliable information is not always available), about 30% of sources have yields <1 l/s, about 35% have 1-5 l/s, about 15% exhibit 5-25 l/s, about 10% are between 25-100 l/s and the remaining 10% show yields >100 l/s.

5.5 Lithuania

Author: Jurga Arustienė

5.5.1 Overview of natural mineral and thermal water resources in Lithuania

Natural mineral water and Thermal water resources

Natural mineral water (TDS 1-35 g/l) resources are found in aquifers of slower or slow water exchange zones and in anomaly zones of deep water discharge. Lithuania is situated in the central part of Baltic artesian basin, the most of pre-Quaternary aquifers have inclination from north-north east to south west, so mineralisation of groundwater increases naturally with depth. There are 11 major aquifer and aquifer complexes, starting from Jurassic to crystal foundation, where mineral water of different mineralization and composition is found. The local hydrochemical anomalies are found in areas where deep saline water is discharging to fresh active water exchange zone through tectonically deformed zones (faultlines and paleovalley). Such type of hydroinjection mineral water is mostly found in valley of river Nemunas. There salty water from lower triassic aquifer ascends through tectonic faults zone to upper aquifers. Mineral water domes have quite clear boundaries, mineralisation decreases sharply from center to edges in plane. Such mineral water sources are sensitive to groundwater abstraction.



Based on the data from the Register of Underground there are 41 wellfields (source) of mineral water in Lithuania, 24 of them currently exploited. The wellfield (source) is considered as mineral water, when it is officially recognised as natural mineral water or contains groundwater with a TDS higher than 1 mg/l and resources are investigated and approved based on local legal requirements.

Natural mineral waters with low content of dissolved solids < 1 g/l, mostly contain bicarbonates, are currently extracted and used for bottling.

Natural mineral water with concentration of dissolved solids from 1 to 10 g/l contain sulfates, chlorides, calcium and sodium. Such type of mineral water is mostly used for drinking as natural mineral water in sanatoriums and SPA and bottled.

Mineral water with TDS higher than 15 g/l contain chlorides and sodium, often bromides. Such mineral water is used for balneology.

Geothermal resources

The underground temperatures increase from north east to south west and with depth. The geothermal anomaly can be traced from middle Lithuania. The highest temperatures 80-85 °C are found in the western part of Lithuania at the depth of 2.000 m. At the depth of 1.500 m, highest temperatures range from 50 to 75 °C, at the depth of 1.000 m – from 30 to 55 °C and in the depth of 500 m – from 20 to 35 °C. Geothermal energy, extracted from 40 °C warm groundwater, was used for heating only in a power plant situated near Klaipėda.

5.6 Slovenia

Author: Nina Rman

5.6.1 Relevant national definitions in Slovenia

Mineral water is defined in the Waters Act (Official Gazette of Rep. Of Slovenia No. 67/02, 2/04 – ZZdrI-A, 41/04 – ZVO-1, 57/08, 57/12, 100/13, 40/14, 56/15). Row 5. of the article 7 defines the mineral water as a groundwater which fulfills the written criteria, and originates from a well, a spring or a capture. The issue is that the criteria are NOT listed anywhere.

Thermal water is defined in the Waters Act (Official Gazette of Rep. Of Slovenia No. 67/02, 2/04 – ZZdrI-A, 41/04 – ZVO-1, 57/08, 57/12, 100/13, 40/14, 56/15). Row 6. of the article 7 defines it as a groundwater from a well, spring or a capture which is heated in geothermal processes in Earth's crust and has the temperature at the spring or wellhead at least of 20 °C.

Thermomineral water is defined in the Waters Act (Official Gazette of Rep. Of Slovenia No. 67/02, 2/04 – ZZdrI-A, 41/04 – ZVO-1, 57/08, 57/12, 100/13, 40/14, 56/15). Row 7. of the article 7 defines it as the thermal water with properties of mineral water.

Natural mineral water is defined in the Rules on natural mineral water, spring water and table water (Official Gazette of Rep. Of Slovenia No. 50/04, 75/05 in 45/08 – ZKme-1). Article 4 defines it as water which beside microbiological requirements from the 5th article also: has a source in a subsurface water source (is groundwater), protected from any possibility of



contamination, and springs or is pumped at a spring from one or more natural outflows or wells; has properties which clearly distinguish it from drinking water and may be connected to content of dissolved solids, trace elements or other ingredients, and may have certain nutritional and physiological effects; has the same purity as at the source... and the deviation from the mean annual measured values for the main constituents specific to the individual natural mineral water, may not exceed $\pm 20\%$.

5.6.2 Overview of natural mineral and thermal water resources in Slovenia

There are nine brands of natural mineral waters recognized in Slovenia. The historical ones in Radenci and Rogaška Slatina produce high mineralized water with lots of free mantle CO_2 . Radenska® has a Na-Ca-Mg- HCO_3 water type and outflows from Miocene siliciclastic sediments near the Raba Fault Zone. Donat Mg® water of Mg-Na- HCO_3 - SO_4 type outflows from Oligocene andesite and tuf along the Donat Fault Zone. Newer brands produce mostly low mineralized Ca-Mg- HCO_3 waters from the dolomite.

Thermal water with temperature of above 20°C has been identified in 51 places in Slovenia and in 18 of these cases water is thermomineral, e.g. containing above 1,000 mg/l of total dissolved solids or 250 mg/l of free CO_2 . Three types of geothermal reservoirs store thermal water:

a) In low temperature geothermal systems with warm springs and fracture porosity thermal springs emerge at the intersection of fault zones at eight sites. Aquifers consist mostly of carbonate rocks, which results in low mineralization of thermal water. The general water type is Ca-(Mg)- HCO_3 , but sulphate ions may predominate locally due to gypsum or anhydrite dissolution. The occurrence of this system is indicated by thermal springs, which were first captured with wells and afterwards with boreholes moving away from the springs. The characteristic temperature of thermal water at the surface is 20 - 50°C . Similar fracture systems are common at the margins of Tertiary sedimentary basins at the boundary between carbonate and clastic rocks. The latter have low permeability and low thermal conductivity. Thermal water of this type springs at 16 sites with water temperature up to 48°C .

b) Low temperature geothermal systems with aquifers in sedimentary basins and of intergranular porosity are located in Neogene clastic sediments and sedimentary rocks in north-eastern Slovenia. They were discovered during oil and gas drilling research between the 1950's and 1970's. The water-bearing Pliocene sand and sandy gravel deepen to the east and store Pleistocene rainwater. These aquifers have temperature and mineralization zones as their values increase with depth. The predominant water type is Na- HCO_3 . Mineralization changes from around 1 g/l at the shallow parts to a few g/l in deeper ones. As an exception, thermomineral water in Radenci consists of up to 11 g/l of TDS due to a high mantle CO_2 content. Produced water temperatures at 13 sites reach up to 75°C .

c) Low temperature geothermal systems with aquifers in the basement of sedimentary basins and with fracture porosity are identified throughout Slovenia. In the east, two types of thermomineral waters are stored in metamorphic and sedimentary Paleozoic and Mesozoic rocks beneath sediments of the Mura-Zala basin. The northern and shallower Radgona-Vaš sub-basin withholds thermal water of up to 10 g/l TDS and the Na- HCO_3 type, but spatially limited dolomitic rocks in the deeper and southern lying Haloze-Ljutomer sub-basin bear a brine of the Na-Cl type. This is the warmest thermomineral water in Slovenia which contains up to 27 g/l of TDS and considerable quantities of CO_2 . This is not the case in other places where basement

[illegible]

Figure 8: Overview of mineral and thermal waters in Slovenia.

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- RMAN N., LAPANJE, A., MEZGA, K. 2016: Mineralne in termalne vode ter mofete = Mineral waters, thermal waters and mofettes. In: Novak, M., Rman, N. (eds.): Geološki atlas Slovenije = Geological atlas of Slovenia. Ljubljana: Geološki zavod Slovenije. 44-45.



5.7 Spain (Catalonia included)

Authors: Georgina Arnó, Elena Giménez Forcada

5.7.1 *Relevant national definitions in Spain*

Natural Mineral and **Thermal waters** in Spain are regulated by the following legislation:

- Law of Mines 22/1973, 21 of July (BOE number 189, de 24-07-1973) <https://www.boe.es/buscar/doc.php?id=BOE-A-1973-1018>
- Royal Law 2857/1978, 25 of August (BOE number 295, de 11-12-1978) <https://www.boe.es/buscar/doc.php?id=BOE-A-1978-29905>

According to the Article 23.1 and 23.2 of the 22/173 Law of Mines and the Article 38.1 of the 2857/1978 Royal Law, Mineral and Thermal waters are defined as a Natural Resource and are classified into:

1- **Mineral Waters**

- Mineral-medicinal Waters are those that naturally or artificially reach the topographic surface with certain characteristics and curative qualities that would permit be declared of public utility.
- Mineral and Industrial Waters are those that allow the sustainable exploitation and utilisation of the substances they contain.

- 2- Mineral Water is considered as **Thermal water** when the outlet water temperature is 4°C (Celsius degrees) greater than the mean annual air temperature in the same location where the water source is located.

Furthermore **Natural mineral waters** are also regulated by the Royal Law 1798/2010 regarding the exploitation and commercialization of bottled drinking Natural mineral waters and spring waters. From the interpretation of this legislation, it can be understood that depending on the use or destination, Mineral-medicinal waters could be classified into:

- **Natural mineral waters:** Those are microbiologically-free and with a constant chemical composition over time regardless of the water flow. They have a specific mineral and trace elements composition and are characterized for its original purity.
- **Spring waters:** Those are microbiologically-free but no constant chemical composition over time is required.

5.7.2 *Overview of natural mineral and thermal water resources in Spain*

Spain has more than 160 **natural mineral waters** recognized by the European Commission in compliance of the Directive 2009/54/EC. Numerous Thermal water sources are also found in characteristic hydrogeological settings due to geothermal anomalies.

Natural mineral and **thermal water exploitation** is regulated in Spanish legislation (Articles 24 and 25 of the 22/173 Law of Mines) and can be summarized, in terms of use and protection of this natural resource, in two main points:



First, a *National official recognition* of Natural Mineral and/or thermal water by resolution of the Ministry of Industry of the Spanish Government is mandatory to obtain the exploitation authorisation.

An extensive hydrogeological study has to be carried out. It includes a geological and hydrogeological characterization of the study area, a conceptual hydrogeological model, a description and hydraulic characterization of the water source, representative pumping tests and a detailed hydrochemical characterization of water. Regarding hydrochemical analyses, they have to be done during twelve consecutive months. For **natural mineral waters** it has to be ensuring that water chemical composition is stable and results are in compliance with legal regulations of bottled drinking natural mineral waters (Royal Law 1798/2010 and DE 2009/54). Analyses of the first and the last month have to include measurements of temperature, pH, electric conductivity, alkalinity, main anions and cations, nitrates, nitrites, microbiological and metal compounds, hydrocarbons, pesticides, trihalomethanes, radioactive compounds and isotopes. The other ten analyses are simplified and include measurements of temperature, pH, electric conductivity, alkalinity, main anions and cations, nitrates, nitrites, and microbiological and metal compounds. No quantitative specifications are established.

If Natural mineral water is going to be used also for medical purposes a pharmacologic, physiologic and clinical study has to be also reported specifying the water health qualities and the potential application for balneotherapy. Often a list of non-recommended uses is included as well.

For **thermal waters**, the outlet water temperature has to be measured during twelve consecutive months, and the obtained data have to be compared with the air temperature at the nearest official meteorological station. If the outlet water temperature is always 4°C above the mean annual air temperature at the meteorological station of reference, then it can be recognized as thermal water.

Once the *national official recognition* has been obtained, additional information has to be reported to obtain the authorization for its exploitation. A general exploitation project has to include the description of facilities, the exploitation flow rates and an economic feasibility plan. Finally, a delimitation of protection area has to be proposed for the declared Mineral Water.

At the end, the recognition of Mineral Water and the delimitation of protection area are officially published in the BOE (Official Gazette of the Spanish Government).

A list of Natural mineral waters and/or Thermal waters officially recognized in Spain has been included (see database), although no complete hydrochemical data of Natural Mineral and/or Thermal waters has been provided because of data privacy restrictions.



6 PERSPECTIVES AND PROPOSED WORKFLOW

- This technical report comprises an inventory of available data needed to describe anomalies of natural origin of dissolved elements in groundwater. Involved surveys made investigations on the availability of own data including natural mineral waters, thermal waters, hydrochemical data for observation wells/springs including a large set of trace elements and geological backgrounds.

see chapter 3

- Furthermore a harmonized terminology for characterizing natural mineral water and thermal water was proposed and a database structure for data collection was developed.

see chapter 4

- Data collection for natural mineral waters and thermal has started and preliminary data collection is available in this deliverable.

see chapters 4.2, 5 and 7.2

see attachment A2 – Database with preliminary data on natural mineral waters and thermal waters

Natural mineral water and thermal water

The next step will be to continue with data collection for natural mineral waters and thermal waters by using the developed database structure. Experience from preliminary data collection has shown, that an iterative process of co-reviewing delivered data is needed to meet the goal of producing a harmonized dataset with a high quality standard for a pan-European level product. Producing a web map service will be an aim of upcoming Task 3-5. However we highly suggest to involve the GeoERA Information Platform earlier during data collection to receive important inputs on developing the planned WMS data model (Deliverable 3.5a).

Pan-European information layers of indicators of chemical anomalies of natural origin

D3.1 provides an important background information for the compilation of analyses of possible use at a pan-European scale. The overall aim will be the development of European exposure maps of selected elements and indicators. See Task 3.3 for indicators and Task 3.4 for compilations of analyses and indicators. Experiences from Task 3.1 und also Task 3.2 have shown that data collection is challenging in some cases and we are looking forward to receive support from participating surveys.



7 APPENDIX

7.1 Specific Questionnaire for WP3

Table 50: Inventory of Natural mineral waters and Thermal waters in Austria: Names of sources and general information.

WP3 specific questionnaire	
question code	question
GENERAL QUESTIONS	
Q_WP3_1	Organisation
Q_WP3_2	Name
Q_WP3_3	E-Mail
Q_WP3_4	Do you have special investigation areas (pilot areas) in your country with high observation density of ground water quality? If yes, which ones?
Q_WP3_5	Does the EU Directive 2009/54/EC ("natural mineral waters") apply to your country?
Q_WP3_6	If no, which law regulates "natural mineral waters" in your country?
Q_WP3_7	If no, what are the requirements to define a "natural mineral water" in your country?
Q_WP3_8	If yes, is there a national law in your country which regulates "natural mineral waters"?
Q_WP3_9	If yes, name of the national law which regulates "natural mineral waters"
Q_WP3_10	Do you have access to locations (coordinates) of used "natural mineral water" occurrences in your country? ¹
Q_WP3_11	Is it possible to publish coordinates on a large map scale (=no exact location)? ¹
Q_WP3_12	Do you have access to hydrochemical analyses and temperatures of used "natural mineral waters" occurrences in your country?
Q_WP3_13	Is it possible to publish those analyses in an overview map (no values, but classes; large map scale)?
Q_WP3_14	Can you characterize the geology of the aquifer of the used "natural mineral waters" occurrences in your country by a simply geological classification?
Q_WP3_15	Which law regulates the definition of "thermal water" in your country? ¹
Q_WP3_16	What is the minimum temperature (°C) to define a "thermal water" in your country?
Q_WP3_17	Do you have access to the coordinates of locations of "thermal waters" occurrences in your country? ¹
Q_WP3_18	Is it possible to publish locations on a large map scale map (no exact location)?
Q_WP3_19	Do you have access to hydrochemical analyses and temperatures of used "thermal water" occurrences in your country? ¹
Q_WP3_20	Can you deliver the true vertical drilling depth (minimum, maximum) of the "thermal water" occurrences in your country?
Q_WP3_21	Is it possible to publish those analyses in an overview map (no values, but classes; large map scale)?
Q_WP3_22	Can you characterize the geology of the aquifer of the "thermal water" occurrences in your country by a simply geological classification?
FIELD DATA & MAIN IONS	
Q_WP3_23	Location (Projected Coordinate System: ETRS_1989_LAEA; Projection: Lambert_Azimuthal_Equal_Area)
Q_WP3_24	Elevation of terrain (m a.s.l.; EVRF2007)
Q_WP3_25	Total depth of well (m below terrain)
Q_WP3_26	Depth to water table (m below terrain)
Q_WP3_27	Well screen from-to (m below terrain)
Q_WP3_28	Discharge (L s ⁻¹) during hydrochemical sampling
Q_WP3_29	Type of hydrochemical sampling (e.g. from pumping)
Can you provide the following data for observation wells and springs in your country?	
Q_WP3_30	Groundwater temperature (°C)
Q_WP3_31	EC (µS/cm, 25 °C)
Q_WP3_32	eH (mV)
Q_WP3_33	O ₂ (mg L ⁻¹)
Q_WP3_34	Ca (mg L ⁻¹)
Q_WP3_35	K (mg L ⁻¹)
Q_WP3_36	Na (mg L ⁻¹)
Q_WP3_37	NH ₄ (mg L ⁻¹)
Q_WP3_38	Cl (mg L ⁻¹)
Q_WP3_39	HCO ₃ (mg L ⁻¹)
Q_WP3_40	SO ₄ (mg L ⁻¹)
Q_WP3_41	NO ₃ (mg L ⁻¹)



Q_WP3_42	NO2 (mg L ⁻¹)
TRACE ELEMENTS The following questions were asked for each element. The list of elements comprised: Al, Sb, As, Ba, B, Br, Cd, Cr, Cu, F, I, Fe, Pb, Li, Mn, Hg, Ni, Se, Sr, U, V, Zn, Question codes Q_WP3_43 to Q_WP3_218	
What is the threshold value in your country (mg L ⁻¹)?	
Are there regions in your country where concentrations exceed the threshold value?	
Can you characterize the geology of the regions with elevated concentrations in groundwater by a simple geological classification of the aquifer?	
For how many observation wells/springs do you have data?	
Do you have access to concentrations in groundwater observation wells/springs in your country for at least 5 recent years and what is the sampling frequency?	
Do the observations cover the whole country or specific areas only? If only specific areas: which ones?	
Are there existing maps of natural background values?	
Comments to the specific element.	

7.2 Preliminary Inventory of Natural mineral waters and Thermal waters in Participating Countries

7.2.1 Austria

Table 51: Inventory of Natural mineral waters and Thermal waters in Austria: Names of sources and general information.

N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Bad Gastein, Kristallquelle	Gasteiner kristallklar	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4558N2 674	single well	bottled natural mineral water	nA	nA	5-25
Bad Gastein, Tauernquelle	Tauernquelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4558N2 674	single well	bottled natural mineral water	nA	nA	5-25
Bad Radkersburg, Stadtquelle	long life	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4778N2 638	single artesian well	bottled natural mineral water	nA	nA	<5
Bad Tatzmannsdorf, Jormannsdorf B7	Bad Tatzmannsdorfer	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4791N2 712	single artesian well	bottled natural mineral water	nA	nA	<5
Bad Vöslau, Bohrbrunnen VI/2	Vöslauer	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4785N2 781	single artesian well	bottled natural mineral water	nA	nA	>25
Bad Vöslau, Bohrbrunnen VII	Vöslauer	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4784N2 781	single artesian well	bottled natural mineral water	nA	nA	>25
Bad Vöslau, Ursprungsquellen	Vöslauer	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4784N2 781	captured spring group	bottled natural mineral water	nA	nA	>25
Brixlegg, Montesquelle	Montes	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4462N2 704	single artesian well	bottled natural mineral water	nA	nA	5-25
Brixlegg, Silberquelle	SilberQuelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4462N2 704	single artesian well	bottled natural mineral water	nA	nA	5-25
Brixlegg, Wellnessquelle	Wellness	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4767N2 643	single artesian well	bottled natural mineral water	nA	nA	5-25
Deutsch Goricz, Peterquelle Brunnen II	Peterquelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4767N2 643	single well	bottled natural mineral water	nA	nA	<5



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Deutsch Goritz, Peterquelle Brunnen III	Peterquelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4767N2 643	single well	bottled natural mineral water	nA	nA	<5
Deutsch Goritz, SteirerQuell	Minaris	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4767N2 643	single well	bottled natural mineral water	nA	nA	<5
Deutschkreutz , Juvinaquelle II	Juvina	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4818N2 745	single artesian well	bottled natural mineral water	nA	nA	<5
Edelstal, BON (Bon)	Bon-aqua	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4840N2 800	single artesian well	bottled natural mineral water	nA	nA	<5
Edelstal, Römerquelle 1	Römerquelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4841N2 800	single well	bottled natural mineral water	nA	nA	<5
Edelstal, Römerquelle 15	Römerquelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4841N2 800	single artesian well	bottled natural mineral water	nA	nA	5-25
Edelstal, Römerquelle 17	Römerquelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4839N2 799	single well	bottled natural mineral water	nA	nA	5-25
Enns, Limesquelle	Limesquelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4652N2 800	single well	bottled natural mineral water	nA	nA	5-25
Frankenmarkt , Brunnen 2	Frankenmarkt er	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4577N2 769	single well	bottled natural mineral water	nA	nA	5-25
Frankenmarkt , Brunnen 4 (Lebensquell)	LebensQuell	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4577N2 769	single well	bottled natural mineral water	nA	nA	5-25
Gerersdorf- Sulz, Güssingerbru nnen I	Güssinger	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4796N2 681	single well	bottled natural mineral water	nA	nA	nA
Gerersdorf- Sulz, Güssingerbru nnen II	Güssinger	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4796N2 681	single well	bottled natural mineral water	nA	nA	nA
Gerersdorf- Sulz, Güssingerbru nnen III	Güssinger	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4796N2 681	single well	bottled natural mineral water	nA	nA	nA
Gerersdorf- Sulz, Vita Brunnen 12	VitaQuelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4796N2 681	single well	bottled natural mineral water	nA	nA	nA
Kobersdorf, Naturquelle	Naturquelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4801N2 741	single well	bottled natural mineral water	nA	nA	nA
Kobersdorf, Urquelle	Urquelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4801N2 741	single well	bottled natural mineral water	nA	nA	nA
Kobersdorf, Waldquelle 3	Waldquelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4802N2 740	single well	bottled natural mineral water	nA	nA	nA
Kobersdorf, Waldquelle 6	Waldquelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4802N2 740	single well	bottled natural mineral water	nA	nA	nA
Kobersdorf, Waldquelle 9	Waldquelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4802N2 740	single well	bottled natural mineral water	nA	nA	nA
Laa a. d. Thaya, Vitusbrunnen II	Vitus-Quelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4790N2 865	single well	bottled natural mineral water	nA	nA	<5



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Lauterach, Bohrung Pfanner IV	Hofsteigquelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4300N2 706	single well	bottled natural mineral water	nA	nA	5-25
Münster, Alpquellquelle	Alpquell	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4461N2 702	single captured spring	bottled natural mineral water	nA	nA	<5
Münster, Astoriaquelle	Astoria	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4461N2 702	single captured spring	bottled natural mineral water	nA	nA	<5
Münster, Tiroler Quelle	Tiroler Quelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4461N2 702	single captured spring	bottled natural mineral water	nA	nA	<5
Nüziders, Tiefbrunnen 3	Sonnenberg Quelle	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4304N2 673	single well	bottled natural mineral water	nA	nA	<5
Pötsching, Markusquelle Neu	nA	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4798N2 763	single well	bottled natural mineral water	nA	nA	nA
Prebl, Auenquelle	Preblauer	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4688N2 654	single captured spring	bottled natural mineral water	nA	nA	<5
Prebl, Paracelsusquelle	Preblauer	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4686N2 657	single captured spring	bottled natural mineral water	nA	nA	<5
Sulzegg, Styrianquelle	Sulzegger	AUSTRIA	natural mineral water (Directive 2009/54/EC)	1kmE4754N2 645	single well	bottled natural mineral water	nA	nA	<5
Altheim, Thermal 1a	nA	AUSTRIA	thermal water source	1kmE4560N2 798	single artesian well	thermal water for heating	nA	nA	>25
Bad Bleiberg, Rudolfstherme, 5. Lauf	nA	AUSTRIA	thermal water source	1kmE4602N2 619	single gallery	thermal water for balneology	nA	nA	5-25
Bad Blumau, Blumau 2	nA	AUSTRIA	thermal water source	1kmE4781N2 685	single artesian well	thermal water for balneology	nA	nA	>25
Bad Blumau, Blumau 3	nA	AUSTRIA	thermal water source	1kmE4780N2 686	single artesian well	thermal water for balneology	nA	nA	5-25
Bad Gastein, Elisabethquelle (8-12)	nA	AUSTRIA	thermal water source	1kmE4559N2 671	gallery group	thermal water for balneology	nA	nA	>25
Bad Gastein, Franz Josefsquelle	nA	AUSTRIA	thermal water source	1kmE4559N2 671	gallery group	thermal water for balneology	nA	nA	<5
Bad Gastein, Rudolfquelle	nA	AUSTRIA	thermal water source	1kmE4559N2 671	gallery group	thermal water for balneology	nA	nA	5-25
Bad Gleichenberg, Mariannenquelle	V	AUSTRIA	thermal water source	1kmE4771N2 657	single artesian well	thermal water for balneology	nA	nA	<5
Bad Gleichenberg, Maxquelle		AUSTRIA	thermal water source	1kmE4771N2 657	single artesian well	thermal water for balneology	nA	nA	<5
Bad Kleinkirchheim, Bohrung 1/99		AUSTRIA	thermal water source	1kmE4609N2 640	single well	thermal water for balneology	nA	nA	5-25
Bad Kleinkirchheim, Gewinnungsbrunnen 1/74		AUSTRIA	thermal water source	1kmE4609N2 640	single well	thermal water for balneology	nA	nA	5-25
Bad Kleinkirchheim, Gewinnungsbrunnen 2/74		AUSTRIA	thermal water source	1kmE4609N2 640	single well	thermal water for balneology	nA	nA	5-25
Bad Mitterndorf, Heilbrunn B2		AUSTRIA	thermal water source	1kmE4617N2 721	single artesian well	thermal water for balneology	nA	nA	<5
Bad Mitterndorf, Thermal 1		AUSTRIA	thermal water source	1kmE4616N2 722	single well	thermal water for balneology	nA	nA	<5



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Bad Pirawarth, Thermal 1		AUSTRIA	thermal water source	1kmE4808N2 837	single well	thermal water for balneology	nA	nA	<5
Bad Radkersburg, Radkersburg II		AUSTRIA	thermal water source	1kmE4778N2 637	single artesian well	thermal water for balneology	nA	nA	5-25
Bad Radkersburg, Radkersburg IIIa		AUSTRIA	thermal water source	1kmE4778N2 637	single artesian well	thermal water for balneology	nA	nA	5-25
Bad Sauerbrunn, Gemeindeque lle Neu		AUSTRIA	thermal water source	1kmE4794N2 760	single well	thermal water for balneology	nA	nA	<5
Bad Sauerbrunn, Thermal 1		AUSTRIA	thermal water source	1kmE4795N2 761	single well	thermal water for balneology	nA	nA	<5
Bad Schallerbach, S1		AUSTRIA	thermal water source	1kmE4612N2 798	single artesian well	thermal water for balneology	nA	nA	>25
Bad Schallerbach, S2		AUSTRIA	thermal water source	1kmE4611N2 797	single artesian well	thermal water for balneology	nA	nA	>25
Bad Tatzmannsdorf, Thermal 1		AUSTRIA	thermal water source	1kmE4791N2 708	single artesian well	thermal water for balneology	nA	nA	5-25
Bad Vigaun, Barbaraquelle		AUSTRIA	thermal water source	1kmE4556N2 733	single artesian well	thermal water for balneology	nA	nA	<5
Bad Waltersdorf, Waltersdorf 2/2a		AUSTRIA	thermal water source	1kmE4776N2 690	single well	thermal water for heating	nA	nA	5-25
Bad Waltersdorf, Waltersdorf 4		AUSTRIA	thermal water source	1kmE4775N2 692	single artesian well	nA	nA	nA	<5
Bad Waltersdorf, Waltersdorf 1		AUSTRIA	thermal water source	1kmE4777N2 691	single artesian well	thermal water for heating	nA	nA	5-25
Bad Weißenbach, Franz Kahlerquelle		AUSTRIA	thermal water source	1kmE4685N2 651	single artesian well	thermal water for balneology	nA	nA	<5
Bad Weißenbach, Heinz Sabinequelle		AUSTRIA	thermal water source	1kmE4685N2 651	single artesian well	thermal water for balneology	nA	nA	<5
Bad Weißenbach, Thomas Miriamquelle		AUSTRIA	thermal water source	1kmE4685N2 651	single artesian well	thermal water for balneology	nA	nA	<5
Baden, Marienquelle		AUSTRIA	thermal water source	1kmE4785N2 785	single captured spring	thermal water for balneology	nA	nA	5-25
Baden, Römerquelle		AUSTRIA	thermal water source	1kmE4785N2 786	single captured spring	thermal water for balneology	nA	nA	<5
Fohnsdorf, Gabelhofen Thermal 1		AUSTRIA	thermal water source	1kmE4675N2 686	single artesian well	thermal water for balneology	nA	nA	<5
Frauenkirchen, Seewinkel Thermal 1		AUSTRIA	thermal water source	1kmE4838N2 768	single artesian well	thermal water for balneology	nA	nA	5-25
Gallspach, Thermal 1		AUSTRIA	thermal water source	1kmE4604N2 795	single artesian well	thermal water for balneology	nA	nA	<5
Geinberg, Thermal 2		AUSTRIA	thermal water source	1kmE4565N2 800	single artesian well	thermal water for heating	thermal water for balneology	nA	>25
Graz, Puntigam I		AUSTRIA	thermal water source	1kmE4734N2 672	single artesian well	nA	nA	nA	5-25
Haag, Thermal 1		AUSTRIA	thermal water source	1kmE4591N2 791		thermal water for balneology	nA	nA	5-25
Hintertux, Quelle 5 und 6		AUSTRIA	thermal water source	1kmE4448N2 668	captured spring group	thermal water for balneology	nA	nA	5-25
Ilz, Thermal 1 (Badenium)		AUSTRIA	thermal water source	1kmE4769N2 681	single well	nA	nA	nA	5-25
Köflach, Thermal 1		AUSTRIA	thermal water source	1kmE4708N2 676	single well	thermal water for balneology	nA	nA	<5
Laa a. d. Thaya,		AUSTRIA	thermal water source	1kmE4790N2 866	single artesian well	thermal water for balneology	nA	nA	<5



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Thermal Nord 1									
Längenfeld, Thermal 2		AUSTRIA	thermal water source	1kmE4394N2 661	single artesian well	thermal water for balneology	nA	nA	<5
Leppersdorf, Heilquelle		AUSTRIA	thermal water source	1kmE4620N2 803		thermal water for balneology	nA	nA	<5
Linsberg, Thermal 1b		AUSTRIA	thermal water source	1kmE4786N2 755	single artesian well	thermal water for balneology	nA	nA	<5
Loipersdorf b. Fürstenfeld, Binderberg 1		AUSTRIA	thermal water source	1kmE4786N2 671	single well	thermal water for balneology	nA	nA	<5
Loipersdorf b. Fürstenfeld, Grieselstein Th1		AUSTRIA	thermal water source	1kmE4787N2 670	single well	thermal water for balneology	nA	nA	<5
Loipersdorf b. Fürstenfeld, Lautenberg 1		AUSTRIA	thermal water source	1kmE4785N2 671	single well	thermal water for balneology	nA	nA	<5
Lutzmannsburg, Thermal 1		AUSTRIA	thermal water source	1kmE4822N2 728	single well	thermal water for balneology	nA	nA	5-25
Oberlaa, Thermal 1		AUSTRIA	thermal water source	1kmE4796N2 801	single artesian well	thermal water for balneology	nA	nA	>25
Oberlaa, Thermal 2		AUSTRIA	thermal water source	1kmE4797N2 802	single artesian well	thermal water for balneology	nA	nA	>25
Obernberg, Oberfeld 1		AUSTRIA	thermal water source	1kmE4568N2 807	single artesian well	thermal water for heating	nA	nA	5-25
Reichersberg, Reichersberg 2		AUSTRIA	thermal water source	1kmE4569N2 808	single artesian well	thermal water for heating	nA	nA	<5
Simbach-Braunau, Thermal 2		AUSTRIA	thermal water source	1kmE4546N2 796	single artesian well	thermal water for heating	nA	nA	>25
St. Jakob in Deferegggen, Thermal 1		AUSTRIA	thermal water source	1kmE4499N2 647	single well	thermal water for balneology	nA	nA	<5
St. Martin b. Lofer, Saalachtal Thermal 1		AUSTRIA	thermal water source	1kmE4525N2 720	single artesian well	thermal water for balneology	nA	nA	5-25
St. Martin im Innkreis, Thermal 1a		AUSTRIA	thermal water source	1kmE4574N2 801	single artesian well	thermal water for heating	nA	nA	>25
Steeg am Hallstätter See, Warmes Wasser		AUSTRIA	thermal water source	1kmE4594N2 729	single gallery	nA	nA	nA	<5
Stegersbach, Thermal 1		AUSTRIA	thermal water source	1kmE4787N2 692	single artesian well	thermal water for balneology	nA	nA	5-25
Stegersbach, Thermal 2		AUSTRIA	thermal water source	1kmE4787N2 692	single artesian well	thermal water for balneology	nA	nA	<5
Wildbad Einöd, Georgsquelle II		AUSTRIA	thermal water source	1kmE4656N2 666	single well	thermal water for balneology	nA	nA	<5
Wildbad Einöd, Ignazquelle		AUSTRIA	thermal water source	1kmE4656N2 666	single artesian well	thermal water for balneology	nA	nA	<5
Wildbad Einöd, Michaelquelle		AUSTRIA	thermal water source	1kmE4656N2 666	single artesian well	thermal water for balneology	nA	nA	<5

Table 52: Inventory of Natural mineral waters and Thermal waters in Austria: Names of sources and aquifer information.

N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
Bad Gastein, Kristallquelle	22	15	22	porous	confined SubArtesian	clasticSediment	all	nA	nA	nA	nA	quaternary	quaternary
Bad Gastein, Tauernquelle	19,4	13,45	18,45	porous	confined SubArtesian	clasticSediment	all	nA	nA	nA	nA	quaternary	quaternary
Bad Radkersburg, Stadtquelle	280	195,4	225	porous	confined Artesian	clasticSediment	all	nA	nA	nA	nA	serravallian	serravallian



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
Bad Tatzmanndorf, Jormannsdorf B7	188	80	174	porous	confined Artesian	clasticSediment	all	nA	nA	nA	nA	serravallian	serravallian
Bad Vöslau, Bohrbrunnen VI/2	705	623	643	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	all	nA	nA	nA	nA	upperTriassic	upperTriassic
Bad Vöslau, Bohrbrunnen VII	465	306	465	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	all	nA	nA	nA	nA	upperTriassic	upperTriassic
Bad Vöslau, Ursprungsquellen	nA	nA	nA	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	all	nA	nA	nA	nA	upperTriassic	upperTriassic
Brixlegg, Montesquuelle	202	66	75	porous	confined Artesian	clasticSediment	all	nA	nA	nA	nA	quaternary	quaternary
Brixlegg, Silberquelle	78	59	61	porous	confined Artesian	clasticSediment	all	nA	nA	nA	nA	quaternary	quaternary
Brixlegg, Wellnessquelle	nA	nA	nA	porous	confined Artesian	clasticSediment	all	nA	nA	nA	nA	quaternary	quaternary
Deutsch Goritz, Peterquelle Brunnen II	102	46,6	94,4	porous	unconfined	clasticSediment	all	nA	nA	nA	nA	serravallian	serravallian
Deutsch Goritz, Peterquelle Brunnen III	86,1	56,7	81,2	porous	unconfined	clasticSediment	all	nA	nA	nA	nA	serravallian	serravallian
Deutsch Goritz, SteirerQuell	52	44	50	porous	unconfined	clasticSediment	all	nA	nA	nA	nA	serravallian	serravallian
Deutschkreutz, Juvinaguelle II	115,2	59	69	porous	confined Artesian	clasticSediment	all	nA	nA	nA	nA	langhian	serravallian
Edelstal, BON (Bon)	136,6	85	115	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	all	nA	nA	nA	nA	mesozoic	mesozoic
Edelstal, Römerquelle 1	22,7	21	22,7	karsticAndFractured	confined SubArtesian	carbonateSedimentaryRock	all	nA	nA	nA	nA	mesozoic	mesozoic
Edelstal, Römerquelle 15	50,7	46,7	50,7	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	all	nA	nA	nA	nA	mesozoic	mesozoic
Edelstal, Römerquelle 17	251,4	180,5	213,5	fractured	confined SubArtesian	quartzite	all	nA	nA	nA	nA	mesozoic	mesozoic
Enns, Limesquelle	291	223,7	281	porous	confined SubArtesian	clasticSediment	all	nA	nA	nA	nA	oligocene	miocene
Frankenmarkt, Brunnen 2	112	42	110	porous	confined SubArtesian	clasticSediment	all	nA	nA	nA	nA	burdigalian	burdigalian
Frankenmarkt, Brunnen 4 (Lebensquelle)	70	59	68	porous	confined SubArtesian	clasticSediment	all	nA	nA	nA	nA	burdigalian	burdigalian
Gerersdorf-Sulz, Güssingbrunnen I	15	10	15	porous	confined SubArtesian	clasticSediment	all	nA	nA	nA	nA	quaternary	quaternary



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
Gerersdorf-Sulz, Güssingbrunnen II	15	10	15	porous	confined SubArtesian	clasticSediment	all	nA	nA	nA	nA	quaternary	quaternary
Gerersdorf-Sulz, Güssingbrunnen III	15	10	15	porous	confined SubArtesian	clasticSediment	all	nA	nA	nA	nA	quaternary	quaternary
Gerersdorf-Sulz, Vita Brunnern 12	21,2	10	21,2	porous	confined SubArtesian	clasticSediment	all	nA	nA	nA	nA	quaternary	quaternary
Kobersdorf, Naturquelle	nA	nA	nA	porous	nA	clasticSediment	all	nA	nA	nA	nA	neogene	neogene
Kobersdorf, Urquelle	nA	nA	nA	porous	nA	clasticSediment	all	nA	nA	nA	nA	neogene	neogene
Kobersdorf, Waldquelle 3	nA	nA	nA	porous	nA	clasticSediment	all	nA	nA	nA	nA	neogene	neogene
Kobersdorf, Waldquelle 6	nA	nA	nA	porous	nA	clasticSediment	all	nA	nA	nA	nA	neogene	neogene
Kobersdorf, Waldquelle 9	nA	nA	nA	porous	nA	clasticSediment	all	nA	nA	nA	nA	neogene	neogene
Laa a. d. Thaya, Vitusbrunnen II	260	198,2	248,2	porous	confined Artesian	clasticSediment	all	nA	nA	nA	nA	burdigalian	burdigalian
Lauterach, Bohrung Pfanner IV	245	172	245	porous	confined SubArtesian	clasticSediment	all	nA	nA	nA	nA	quaternary	quaternary
Münster, Alpquellquelle	nA	nA	nA	karsticAndFractured	nA	carbonateSedimentaryRock	all	nA	nA	nA	nA	triassic	triassic
Münster, Astoriaquelle	nA	nA	nA	karsticAndFractured	nA	carbonateSedimentaryRock	all	nA	nA	nA	nA	triassic	triassic
Münster, Tirolerquelle	nA	nA	nA	karsticAndFractured	nA	carbonateSedimentaryRock	all	nA	nA	nA	nA	triassic	triassic
Nüziders, Tiefbrunnen 3	111,5	96	96	porous	nA	clasticSediment	all	nA	nA	nA	nA	quaternary	quaternary
Pötsching, Markusquelle Neu	138	120,4	127,5	porous	confined SubArtesian	clasticSediment	all	nA	nA	nA	nA	neogene	neogene
Prebl, Auenquelle	nA	nA	nA	karsticAndFractured	nA	marble	all	nA	nA	nA	nA	paleozoic	paleozoic
Prebl, Paracelsusquelle	nA	nA	nA	karsticAndFractured	nA	marble	all	nA	nA	nA	nA	paleozoic	paleozoic
Sulzegg, Styrianquelle	149,5	59,3	146,5	porous	confined SubArtesian	clasticSediment	all	nA	nA	nA	nA	langhian	serravallian
Altheim, Thermal 1a	2306	2146	2306	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	dominant	nA	nA	nA	nA	upperJurassic	upperJurassic
Bad Bleiberg, Rudolfstherme, 5. Lauf	nA	nA	nA	karsticAndFractured	unconfined	limestone	dominant	nA	nA	nA	nA	upperTriassic	middleTriassic



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
Bad Blumau, Blumau 2	2840	2362,5	2840	karsticAndFractured	confined Artesian	dolomite	dominant	nA	nA	nA	nA	paleozoic	paleozoic
Bad Blumau, Blumau 3	1150	643,6	1134,2	porous	confined Artesian	clasticSediment	dominant	nA	nA	nA	nA	serravallian	serravallian
Bad Gastein, Elisabethquelle (8-12)	nA	nA	nA	fractured	nA	gneiss	all	nA	nA	nA	nA	carboniferous	carboniferous
Bad Gastein, Franz Josefsquelle	nA	nA	nA	fractured	nA	gneiss	all	nA	nA	nA	nA	carboniferous	carboniferous
Bad Gastein, Rudolfquelle	nA	nA	nA	fractured	nA	gneiss	all	nA	nA	nA	nA	carboniferous	carboniferous
Bad Gleichenberg, Mariannenquelle	1043	234	420	fractured	confined Artesian	fineGrainedIgneousRock	dominant	nA	nA	nA	nA	miocene	miocene
Bad Gleichenberg, Maxquelle	1503	620	1490	fractured	confined Artesian	fineGrainedIgneousRock	dominant	nA	nA	nA	nA	miocene	miocene
Bad Kleinkirchheim, Bohrung 1/99	200	104	109	karsticAndFractured	confined SubArtesian	dolomite	dominant	nA	nA	nA	nA	upperTriassic	middleTriassic
Bad Kleinkirchheim, Gewinnungsbrunnen 1/74	96	nA	nA	karsticAndFractured	confined SubArtesian	dolomite	dominant	nA	nA	nA	nA	upperTriassic	middleTriassic
Bad Kleinkirchheim, Gewinnungsbrunnen 2/74	126	nA	nA	karsticAndFractured	confined SubArtesian	dolomite	dominant	nA	nA	nA	nA	upperTriassic	middleTriassic
Bad Mitterndorf, Heilbrunn B2	674	450	510	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	dominant	nA	nA	nA	nA	upperTriassic	upperTriassic
Bad Mitterndorf, Thermal 1	2413	1680	2413	karsticAndFractured	confined SubArtesian	carbonateSedimentaryRock	dominant	nA	nA	nA	nA	upperTriassic	upperTriassic
Bad Pirawarth, Thermal 1	997	797	928	porous	confined SubArtesian	clasticSediment		nA	nA	nA	nA	serravallian	langhian
Bad Radkersburg, Radkersburg II	1930	1787	1930	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	dominant	clasticSediment	minor	nA	nA	miocene	mesozoic
Bad Radkersburg, Radkersburg IIIa	1932	1795,7	1965	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	dominant	nA	nA	nA	nA	mesozoic	mesozoic
Bad Sauerbrunn, Gemeindequelle Neu	85	76,5	81,5	fractured	confined SubArtesian	metamorphicRock	dominant	nA	nA	nA	nA	paleozoic	paleozoic



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
Bad Sauerbrunn, Thermal 1	1100	903	1055	fractured	confined SubArtesian	gneiss	present	schist	present	nA	nA	paleozoic	paleozoic
Bad Schallerbach, S1	479	421,5	474,5	porous	confined Artesian	sand	dominant	nA	nA	nA	nA	oligocene	oligocene
Bad Schallerbach, S2	713	571,4	583,5	porous	confined Artesian	sand	dominant	nA	nA	nA	nA	oligocene	oligocene
Bad Tatzmannsdorf, Thermal 1	896	696,7	884,3	porous	confined Artesian	clasticSediment	dominant	nA	nA	nA	nA	miocene	miocene
Bad Vigaun, Barbaraquelle	1354	1266	1354	karsticAndFractured	confined Artesian	dolomite	dominant	nA	nA	nA	nA	upperTriassic	upperTriassic
Bad Waltersdorf, Waltersdorf 2/2a	1420	1125,8	1420	karsticAndFractured	confined SubArtesian	dolomite	dominant	nA	nA	nA	nA	paleozoic	paleozoic
Bad Waltersdorf, Waltersdorf 4	1063	474	498	porous	confined Artesian	clasticSediment	dominant	nA	nA	nA	nA	serravallian	serravallian
Bad Waltersdorf, Waltersdorf 1	1533	1067,5	1258,3	karsticAndFractured	confined Artesian	dolomite	dominant	nA	nA	nA	nA	paleozoic	paleozoic
Bad Weißenbach, Franz Kahlerquelle	40	19,6	39,6	karsticAndFractured	confined Artesian	marble	dominant	nA	nA	nA	nA	devonian	ordovician
Bad Weißenbach, Heinz Sabinequelle	50	11	50	karsticAndFractured	confined Artesian	marble	dominant	nA	nA	nA	nA	devonian	ordovician
Bad Weißenbach, Thomas Miriamquelle	93	28,7	90	karsticAndFractured	confined Artesian	marble	dominant	nA	nA	nA	nA	devonian	ordovician
Baden, Marienquelle	nA	nA	nA	karsticAndFractured	confined Artesian	dolomite	dominant	nA	nA	nA	nA	upperTriassic	middleTriassic
Baden, Römerquelle	nA	nA	nA	karsticAndFractured	confined Artesian	dolomite	dominant	nA	nA	nA	nA	upperTriassic	middleTriassic
Fohnsdorfer, Gabelhofen Thermal 1	2000	1074,5	2000	fractured	confined Artesian	metamorphicRock	dominant	nA	nA	nA	nA	paleozoic	paleozoic
Frauenkirchen, Seewinkel Thermal 1	1087	827	864	porous	confined Artesian	sand	dominant	nA	nA	nA	nA	tortonian	tortonian
Gallspach, Thermal 1	930	913,8	930	karsticAndFractured	confined Artesian	sandstone	dominant	nA	nA	nA	nA	eocene	cenomanian
Geinberg, Thermal 2	2225	nA	nA	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	dominant	sandstone	minor	nA	nA	cenomanian	upperJurassic



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
Graz, Puntigam I	204	121	196	porous	confined Artesian	clasticSediment	dominant	nA	nA	nA	nA	miocene	miocene
Haag, Thermal 1	2056	1898	253	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	dominant	sandstone	minor	nA	nA	cenomanian	upperJurassic
Hintertux, Quelle 5 und 6	nA	nA	nA	karsticAndFractured	nA	marble	dominant	nA	nA	nA	nA	jurassic	jurassic
Ilz, Thermal 1 (Badenium)	1906	720,5	808	porous	confined SubArtesian	clasticSediment	dominant	nA	nA	nA	nA	serravallian	langhian
Köflach, Thermal 1	1039	766	1032,4	karsticAndFractured	confined SubArtesian	carbonateSedimentaryRock	dominant	nA	nA	nA	nA	paleozoic	paleozoic
Laa a. d. Thaya, Thermal Nord 1	1448	1125,3	1448	fractured	confined Artesian	carbonateSedimentaryRock	dominant	nA	nA	nA	nA	upperJurassic	upperJurassic
Längenfeld, Thermal 2	1800	811	1800	fractured	confined Artesian	metamorphicRock	dominant	nA	nA	nA	nA	paleozoic	paleozoic
Leppersdorf, Heilquelle	185	143,5	185	porous	confined Artesian	sand	dominant	nA	nA	nA	nA	oligocene	oligocene
Linsberg, Thermal 1b	892	840	892	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	dominant	nA	nA	nA	nA	triassic	permian
Loipersdorf b. Fürstenfeld, Binderberg 1	1730	1047	1117	porous	confined SubArtesian	clasticSediment	dominant	nA	nA	nA	nA	serravallian	serravallian
Loipersdorf b. Fürstenfeld, Grieselstein Th1	1730	1020	1060	porous	confined SubArtesian	clasticSediment	dominant	nA	nA	nA	nA	serravallian	serravallian
Loipersdorf b. Fürstenfeld, Lautenberg 1	1178	1097,5	1172,5	porous	confined SubArtesian	clasticSediment	dominant	nA	nA	nA	nA	serravallian	serravallian
Lutzmannsburg, Thermal 1	951	456,7	904	porous	confined SubArtesian	clasticSediment	dominant	nA	nA	nA	nA	miocene	miocene
Oberlaa, Thermal 1	418	nA	nA	karsticAndFractured	confined Artesian	dolomite	major	limestone	minor	nA	nA	upperTriassic	upperTriassic
Oberlaa, Thermal 2	933	559	933	karsticAndFractured	confined Artesian	dolomite	major	limestone	minor	nA	nA	upperTriassic	upperTriassic
Obernberg, Oberfeld 1	1560	1521	1560	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	dominant	nA	nA	nA	nA	upperJurassic	upperJurassic
Reichersberg, Reichersberg 2	1630	1410,5	1630	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	dominant	sandstone	minor	nA	nA	cenomanian	upperJurassic
Simbach-Braunau, Thermal 2	1941,7	1907,6	1941,7	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	dominant	nA	nA	nA	nA	upperJurassic	upperJurassic
St. Jakob in Defereggan, Thermal 1	1882	1564	1882	fractured	confined SubArtesian	metamorphicRock	dominant	nA	nA	nA	nA	paleozoic	paleozoic



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
St. Martin b. Lofer, Saalach Thermal 1	2236	1734	2236	karsticAndFractured	confined Artesian	dolomite	dominant	nA	nA	nA	nA	upperTriassic	upperTriassic
St. Martin im Innkreis. Thermal 1a	2060	nA	nA	karsticAndFractured	confined Artesian	carbonateSedimentaryRock	dominant	nA	nA	nA	nA	upperJurassic	upperJurassic
Steeg am Hallstätter See, Warmes Wasser	nA	nA	nA	karsticAndFractured	nA	carbonateSedimentaryRock	dominant	nA	nA	nA	nA	upperTriassic	middleTriassic
Stegersbach, Thermal 1	3200	832	1476	porous	confined Artesian	clasticSediment	dominant	nA	nA	nA	nA	serravallian	serravallian
Stegersbach, Thermal 2	1201	792	857	porous	confined Artesian	clasticSediment	dominant	nA	nA	nA	nA	serravallian	serravallian
Wildbad Einöd, Georgsquelle II	53	41,1	51,1	porous	confined Artesian	clasticSediment	dominant	nA	nA	nA	nA	quaternary	quaternary
Wildbad Einöd, Ignazquelle	8	3	8	porous	confined Artesian	clasticSediment	dominant	nA	nA	nA	nA	quaternary	quaternary
Wildbad Einöd, Michaelquelle	8	2	8	porous	confined Artesian	clasticSediment	dominant	nA	nA	nA	nA	quaternary	quaternary

Table 53: Inventory of Natural mineral waters and Thermal waters in Austria: Names of sources, groundwater age and hydrochemical information.

N1	A1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19
Bad Gastein, Kristallquelle	younger than 60	<15	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Bad Gastein, Tauernquelle	younger than 60	<15	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Bad Radkersburg, Stadtquelle	older than 10.000	15-20	1-14,5	2460	6,43	nA	nA	117	7,7	288	188	7,33	1,12	5,01	0,03	3,17	2137	nA	<0,2	42
Bad Tatzmannsdorf, Jormannsdorf B7	older than 10.000	<15	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bad Vöslau, Bohrbunnen VI/2	older than 10.000	30-40	<1	848	7,27	nA	nA	14,32	2,01	101,97	41,45	2,95	0,046	<0,001	0,0001	nA	245,8	nA	0,83	20,38
Bad Vöslau, Bohrbunnen VII	older than 10.000	30-40	<1	856	7,07	nA	nA	14,06	1,88	99,52	40,51	2,96	0,045	0,002	0,1	nA	246,3	nA	0,85	20,65
Bad Vöslau, Ursprungsquelle n	older than 10.000	20-30	<1	745	7,19	nA	nA	9,53	1,71	94,07	37,75	1,75	0,05	0,006	0,1	nA	298,5	nA	0,51	14,92
Brixlegg, Montesquelle	older than 60	<15	<1	nA	nA	nA	nA	31,3	4,5	117,4	55	nA	nA	nA	nA	nA	229,9	nA	0,4	18,4
Brixlegg, Silberquelle	older than 60	<15	<1	nA	nA	nA	nA	8,8	1,8	79,9	30,5	nA	nA	nA	nA	nA	241,1	nA	0,30	17,5
Brixlegg, Wellnessquelle	older than 60	<15	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Deutsch Goritz, Peterquelle Brunnen II	nA	<15	1-14,5	nA	6,36	nA	nA	663,5	nA	182,8	51,5	nA	nA	2,8	nA	1,6	2160	nA	nA	249,0
Deutsch Goritz, Peterquelle Brunnen III	nA	<15	1-14,5	nA	6,31	nA	nA	443,2	nA	129,9	31,6	nA	nA	1,4	nA	1,4	1463	nA	nA	154,3
Deutsch Goritz, SteirerQuell	nA	<15	<1	nA	7,25	nA	nA	21,0	0,6	45,0	13,8	nA	nA	<0,005	<0,005	<0,001	207,4	nA	0,2	14,6
Deutschkreutz, Juvinquelle II	older than 10.000	15-20	1-14,5	nA	6,47	nA	nA	315	18,4	252,5	59,4	2,06	0,14	0,386	0,228	nA	1690	nA	0,55	53,7



N1	A1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19
Edelstal, BON (Bon)	older than 10.000	<15	<1	909	7,38	-10	nA	9,7	3	131	47,3	0,51	0,015	0,024	<0,005	<0,02	394	<3	0,28	5
Edelstal, Römerquelle 1	older than 10.000	<15	1-14,5	1170	7,29	-5	nA	20,3	2,7	147	72,4	0,46	0,016	0,014	<0,005	<0,02	427	<3	0,36	25
Edelstal, Römerquelle 15	older than 10.000	<15	1-14,5	nA	nA	nA	nA	12,5	2,1	169,3	67,8	nA	nA	nA	nA	nA	451,5	nA	nA	35,2
Edelstal, Römerquelle 17	older than 10.000	<15	<1	1020	7,39	-11	nA	23	2,6	126	57,5	0,48	0,022	0,08	0,037	0,19	426	<3	0,42	4,5
Enns, Limesquelle	nA	15-20	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Frankenmarkt, Brunnen 2	nA	<15	<1	nA	7,41	nA	nA	4,6	0,9	44,2	16,8	nA	<0,1	<0,005	<0,005	<0,05	207	nA	0,1	0,6
Frankenmarkt, Brunnen 4 (Lebensquell)	nA	<15	<1	nA	7,52	nA	nA	4,5	0,8	34	13,5	nA	<0,1	<0,005	<0,005	<0,05	163	nA	0,1	<0,6
Gerersdorf-Sulz, Güssingerbrunnen I	nA	<15	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Gerersdorf-Sulz, Güssingerbrunnen II	nA	<15	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Gerersdorf-Sulz, Güssingerbrunnen III	nA	<15	1-14,5	nA	6,1	nA	nA	838,7	37,1	222,8	37,4	5,26	nA	6,14	0,07	2,3	251,1	nA	1,78	381,8
Gerersdorf-Sulz, Vita Brunnern 12	nA	<15	<1	430	6,5	nA	nA	41,5	2,89	42	14,4	nA	0,16	15,5	0,19	0,8	317	nA	0,2	15,5
Kobersdorf, Naturquelle	nA	<15	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Kobersdorf, Urquelle	nA	<15	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Kobersdorf, Waldquelle 3	nA	<15	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Kobersdorf, Waldquelle 6	nA	<15	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Kobersdorf, Waldquelle 9	nA	<15	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Laa a. d. Thaya, Vitusbrunnen II	nA	<15	<1	nA	8,45	nA	nA	230	1,9	3,2	4,8	nA	nA	<1	nA	3,4	508	9,6	nA	7,7
Lauterach, Bohrung Pfanner IV	younger than 60	<15	<1	nA	7,73	nA	nA	3,1	0,6	54,4	20,5	nA	0,121	0,0362	0,008	<0,05	235	nA	<0,1	3,9
Münster, Alpquellquelle	younger than 60	<15	1-14,5	1127	7,66	nA	2	nA	nA	246,8	41,8	nA	nA	0,41	nA	nA	248,4	nA	0,58	3,2
Münster, Astoriaquelle	younger than 60	<15	<1	1033	7,79	nA	5,9	nA	nA	218	40,8	nA	nA	0,07	nA	nA	244,7	nA	0,48	3,2
Münster, Tirolerquelle	younger than 60	<15	1-14,5	1178	7,66	nA	nA	2,2	3,5	227,6	40,8	nA	nA	nA	nA	0,008	263,8	nA	<0,5	5,1
Nüziders, Tiefbrunnen 3	younger than 60	<15	<1	935	7,5	nA	3,7	4,5	2,3	140	39	nA	nA	<0,005	<0,005	<0,010	200	nA	nA	3,1
Pötsching, Markusquelle Neu	older than 10.000	15-20	<1	nA	7,55	nA	nA	55,3	5	80,9	33	nA	nA	0,2	0,1	3,5	439	nA	0,1	13,7
Prebl, Auquelle	nA	<15	1-14,5	3124	5,3	nA	nA	512	47	266,1	132,9	2,06	0,289	4,8	0,48	nA	266,6	nA	0,57	138,5
Prebl, Paracelsusquelle	nA	<15	1-14,5	3825	5,5	nA	1,394	916,2	48,94	144,3	23,79	0,41	0,045	1,71	0,34	nA	282,8	nA	1,2	71,12
Sulzegg, Styrianquelle	older than 10.000	<15	nA	nA	nA	nA	nA	243	16,8	40,8	6,4	nA	nA	0,33	nA	1,58	756,6	nA	5,1	29,6
Altheim, Thernal 1a	older than 10.000	>100	1-14,5	1395	7,48	-264	0,8	293,08	21,83	8,6	1,42	0,0005	0,0001	0,0261	1	nA	543,1	nA	0,004	174,38
Bad Bleiberg, Rudolfstherme, S. Lauf	younger than 60	20-30	<1	335	7,91	nA	nA	0,4	0,3	40,3	21,6	nA	nA	<0,002	<0,001	<0,027	197,1	nA	<0,05	0,4
Bad Blumau, Blumau 2	older than 10.000	>100	>14,5	23500	6,85	nA	<0,6	8000	229,6	11,4	25	nA	0,32	0,078	nA	0,1	704,6	nA	nA	7600
Bad Blumau, Blumau 3	older than 10.000	40-50	1-14,5	nA	nA	nA	nA	365,6	2,2	2,2	1,8	0,5	0,02	0,15	0,02	1,5	902,7	nA	0,1	52,4
Bad Gastein, Elisabethquelle (8-12)	older than 60 years	40-50	<1	521	8,21	123	2,27	68,7	3,93	20,4	0,3	0,67	0,00053	<QL	0,00255	nA	73,7	nA	6,4	24,1
Bad Gastein, Franz Josefquelle	older than 60 years	40-50	<1	498	7,68	nA	1,8	74,1	3,9	21,4	0,5	0,7059	0,0075	0,47	0,042	nA	67,9	nA	4,01	25,2
Bad Gastein, Rudolfquelle	older than 60 years	40-50	<1	521	7,88	nA	4,4	78,7	3,8	20,6	0,5	0,7176	0,0062	0,704	0,048	nA	71,03	nA	4,21	27,5
Bad Gleichenberg, Mariannenquelle	older than 10.000	20-30	1-14,5	7270	6,63	nA	<1	1556	31,1	147,2	125,4	nA	nA	0,20	nA	4,1	3949	nA	0,09	781
Bad Gleichenberg, Maxquelle	older than 10.000	30-40	1-14,5	10140	6,8	nA	<1	2769	52,5	107,4	91,4	nA	<0,01	0,05	nA	5,6	5753	nA	0,12	1204



N1	A1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19
Bad Kleinkirchheim, Bohrung 1/99	older than 10.000	30-40	<1	280	7,82	201	4,81	2,88	1,47	31,2	11,4	0,17	0,079	0,002	<0,001	nA	122,8	nA	0,9	1,9
Bad Kleinkirchheim, Gewinnungsbrunnen 1/74	older than 10.000	30-40	<1	309	7,65	nA	nA	5,1	1,65	40,68	14,96	nA	<0,020	0,053	nA	<0,010	137,3	nA	0,6	4,1
Bad Kleinkirchheim, Gewinnungsbrunnen 2/74	older than 10.000	30-40	<1	291	7,65	nA	nA	4,1	1,48	38,12	13,92	nA	<0,020	0,083	nA	0,007	133,6	nA	0,33	2,85
Bad Mitterndorf, Heilbrunn B2	older than 10.000	20-30	<1	956	7,48	nA	nA	8,4	1,1	139,3	44,2	2,7104	0,0202	0,003	0,0003	nA	161,83	nA	0,68	8,7
Bad Mitterndorf, Thermal 1	older than 10.000	20-30	1-14,5	2070	7,17	209	0,05	17,5	2	356	110	6,8	0,03	0,014	<0,01	<0,1	110	nA	2,9	19,2
Bad Pirawarth, Thermal 1	older than 10.000	20-30	>14,5	4040	6,8	nA	nA	nA	nA	392	254	nA	nA	0,76	nA	65,9	nA	nA	nA	14900
Bad Radkersburg, Radkersburg II	older than 10.000	70-80	1-14,5	nA	6,9	nA	<0,002	2238	170,1	78,2	42,2	nA	nA	0,2	nA	5,9	5534,3	nA	0,59	347,4
Bad Radkersburg, Radkersburg IIIa	older than 10.000	70-80	1-14,5	nA	7,2	nA	nA	2082	nA	106,2	38,9	nA	nA	0,2	nA	5,5	5140	nA	nA	229,5
Bad Sauerbrunn, Gemeindequelle Neu	older than 10.000	<15	1-14,5	2620	6,01	nA	nA	177,5	28,32	260	211,5	3,02	nA	7,23	0,376	0,94	1836,6	nA	0,67	33,37
Bad Sauerbrunn, Thermal 1	older than 10.000	30-40	1-14,5	3680	6,55	nA	<0,02	781	25	78	58	5,4	0,043	<0,05	0,02	3,1	1058	0,53	1,1	52
Bad Schallerbach, S1	older than 10.000	30-40	<1	nA	8,29	nA	nA	155,7	3,6	2,9	0,55	0,04	0,0047	0,01	0,06	0,2	363,3	nA	0,6	25,6
Bad Schallerbach, S2	older than 10.000	30-40	<1	nA	8,19	nA	nA	223,4	6,1	0,8	0,3	0,02	0,0032	<0,01	0,02	0,3	433,2	nA	1,5	86,3
Bad Tatzmannsdorf, Thermal 1	older than 10.000	30-40	1-14,5	2780	7,66	nA	nA	629	8,2	15,5	16,6	0,7	0,0229	0,5	nA	4,6	1068	nA	0,35	285,5
Bad Vigaun, Barbaquelle	older than 10.000	20-30	1-14,5	11350	7,45	nA	<0,02	1800	18	570	210	16	0,017	0,3	0,04	0,24	11	2	2568	/58
Bad Waltersdorf, Waltersdorf 2/2a	older than 10.000	60-70	1-14,5	nA	nA	nA	nA	410	14,2	31,1	8,87	nA	nA	nA	nA	1,21	823,73	nA	nA	233
Bad Waltersdorf, Waltersdorf 4	older than 10.000	30-40	<1	870	8,48	nA	nA	220	3,9	1,8	0,37	43	9	nA	nA	1,5	454	33,8	0,88	40,1
Bad Waltersdorf, Waltersdorf 1	older than 10.000	60-70	1-14,5	nA	nA	nA	nA	430	13,7	10,1	2,88	nA	nA	nA	nA	1,42	884,75	nA	nA	186
Bad Weißenbach, Franz Kahlerquelle	younger than 60	30-40	1-14,5	1939	6,1	nA	nA	237,1	30,96	225,5	33,2	2,19	nA	<0,1	0,017	0,19	1142,6	nA	0,5	113,7
Bad Weißenbach, Heinz Sabinequelle	younger than 60	20-30	1-14,5	2390	6,2	nA	nA	281,7	34,6	232	35,9	2,5	nA	<0,1	0,01	0,24	1224,6	nA	0,5	131,8
Bad Weißenbach, Thomas Miriamquelle	younger than 60	30-40	1-14,5	2069	6,1	nA	nA	267,8	35,1	232,2	34,5	2,4	nA	<0,1	0,012	0,22	1210,4	nA	0,5	128,3
Baden, Marienquelle	older than 10.000	30-40	1-14,5	2310	7,1	nA	nA	173,76	9,28	242,5	67,4	6,57	0,03	0,005	<0,001	nA	244,9	nA	2,28	272,38
Baden, Römerquelle	older than 10.000	30-40	1-14,5	2280	7,2	nA	nA	168,54	8,42	243,5	66,26	6,54	0,03	0,002	<0,001	nA	251,7	nA	2,24	266,36
Fohnsdorf, Gabelhofen Thermal 1	older than 10.000	40-50	1-14,5	nA	6,63	nA	<0,02	2792	200	150	113	11,20	1,20	5,2	0,14	5,1	4083	3,3	2,26	2863
Frauenkirchen, Seewinkel Thermal 1	older than 10.000	40-50	1-14,5	1375	7,9	nA	nA	320	4,2	7,6	4,5	0,53	0,16	0,48	0,01	4,9	701	0,004	0,68	117
Gallspach, Thermal 1	older than 10.000	30-40	1-14,5	2460	7,78	-240	nA	594	6,1	3	1,1	0,11	0,041	0,26	0,01	3,1	985	<3	11	317
Geinberg, Thermal 2	older than 10.000	>100	1-14,5	1357	7,24	-211	nA	286	17,6	9,2	1,8	0,5	0,17	0,063	<0,03	2,2	536	nA	3	161,5
Graz, Puntigam I	older than 10.000	20-30	<1	nA	6,78	nA	<0,1	9,3	2,5	80	28,5	20,5	nA	0,18	0,007	<0,02	241	nA	nA	5,6
Haag, Thermal 1	older than 10.000	80-90	1-14,5	1875	nA	nA	nA	394,6	16,25	14,85	3,4	360	740	380	nA	1,5	678,5	nA	3,75	235,8
Hintertux, Quelle 5 und 6	older than 60	20-30	<1	nA	7,2	nA	nA	57,7	nA	3,8	0,4	nA	nA	nA	nA	nA	107,4	nA	nA	8,8
Ilz, Thermal 1 (Badenium)	older than 10.000	40-50	1-14,5	nA	6,98	nA	<0,02	1400	36	10	3	0,3	0,19	0,1	0,004	4,60	3243,8	4	9,9	313,6
Köflach, Thermal 1	older than 10.000	20-30	<1	nA	7,63	nA	<0,02	9,48	2	58,3	17,7	0,73	0,038	0,4	nA	nA	195,4	0,8	0,25	2,5



N1	A1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19
Laa a. d. Thaya, Thermal Nord 1	older than 10.000	40-50	1-14,5	nA	7,36	nA	nA	347,6	79,26	191,31	90,49	10,23	2,74	8,43	0,12	25,2	579,5	nA	6,95	571,8,1
Längenfeld, Thermal 2	older than 60	40-50	<1	646	9,47	nA	<0,1	140,7	1,72	5,58	0,2	nA	<0,5	0,06	<0,01	0,8	24,9	2,38	7,33	112,67
Leppersdorf, Heilquelle	older than 10.000	20-30	<1	470	8,65	nA	nA	104,1	1,5	5,5	1,6	nA	nA	nA	nA	nA	289,2	nA	nA	7,5
Linsberg, Thermal 1b	older than 10.000	20-30	1-14,5	nA	7,09	nA	4,6	45,5	8,1	428,5	144,5	11,53	<0,02	1,38	0,05	nA	238	nA	1,5	66,6
Loipersdorf b. Fürstenfeld, Binderberg 1	older than 10.000	60-70	1-14,5	8290	6,67	nA	nA	2017	48,2	22,7	5,3	<0,1	4,7	0,31	nA	9,8	3322	nA	16,2	1260
Loipersdorf b. Fürstenfeld, Grieselstein Th1	older than 10.000	50-60	1-14,5	nA	7,27	nA	nA	674,3	22,5	9,5	2,4	0,1	0,2	0,4	nA	3,4	1603,8	nA	11,9	112,1
Loipersdorf b. Fürstenfeld, Lautenberg 1	older than 10.000	60-70	1-14,5	9020	6,87	nA	nA	2173	46,2	15	3,2	<0,1	3,8	0,15	nA	10,13	2943	nA	10,7	1710
Lutzmannsburg, Thermal 1	older than 10.000	30-40	1-14,5	nA	nA	nA	nA	132,83	9,41	78,04	21,27	0,69	0,29	1,45	nA	0,83	607,7	nA	0,46	57,3
Oberlaa, Thermal 1	older than 10.000	40-50	1-14,5	4760	6,72	-135	nA	550	23,8	476	136	14,1	0,035	<0,01	<0,01	1,31	260	nA	2,9	840
Oberlaa, Thermal 2	older than 10.000	40-50	1-14,5	4930	6,7	-153	<0,2	531	46,8	400	133	12,9	0,15	<0,02	0,024	1,45	289	<3	2,6	840
Obernberg, Oberfeld 1	older than 10.000	80-90	1-14,5	nA	7,3	nA	nA	299	17,5	11,8	2,07	nA	nA	0,017	<0,005	2,1	590,5	nA	nA	161
Reichersberg, Reichersberg 2	older than 10.000	50-60	1-14,5	nA	7,4	nA	nA	300	14,8	22,9	5,2	0,407	0,093	0,21	0,03	1,95	591,9	nA	6,1	180,7
Simbach-Braunau, Thermal 2	older than 10.000	80-90	1-14,5	7,1	nA	nA	nA	292	23,2	16,3	4,9	630	560	nA	nA	nA	551	nA	6,7	215
St. Jakob in Deferegg, Thermal 1	older than 10.000	20-30	>14,5	34100	8,1	-301	<0,1	6860	66,1	561	104	76,6	4,3	2,04	0,6	2,45	37,3	nA	0,83	11850
St. Martin b. Lofer, Saalachthal Thermal 1	older than 10.000	30-40	1-14,5	nA	7,17	nA	<0,02	18	9,1	597	173	12	<0,001	2,4	nA	1,5	87,9	0,59	3,5	13,9
St. Martin im Innkreis, Thermal 1a	older than 10.000	80-90	1-14,5	nA	7,6	nA	nA	294	15	7,6	1,4	nA	nA	nA	nA	2	578	nA	7,7	154
Steeg am Hallstätter See, Warmes Wasser	younger than 60	20-30	<1	627	8,24	143	4,65	63,3	1,8	34,6	9,5	0,45	0,009	nA	nA	nA	106,78	nA	0,2	103,3
Stegersbach, Thermal 1	older than 10.000	30-40	1-14,5	nA	7,97	nA	nA	650	4,4	1,5	1,3	0,27	0,1	0,06	0,0025	3,9	1712	nA	3,09	36,7
Stegersbach, Thermal 2	older than 10.000	40-50	1-14,5	nA	8,15	nA	nA	270	3,52	1,77	18	0,19	0,051	0,04	0,002	1,8	738	nA	0,55	4,6
Wildbad Einöd, Georgsquelle II	younger than 60	20-30	<1	2100	6,26	nA	nA	96,2	34,2	400	53,2	nA	nA	2,06	1,16	0,31	nA	nA	nA	56,9
Wildbad Einöd, Ignazquelle	younger than 60	20-30	1-14,5	nA	6,2	nA	2,4	127	48,3	441	61,2	nA	nA	0,65	0,79	0,09	1009,55	nA	2,2	95
Wildbad Einöd, Michaelquelle	younger than 60	20-30	1-14,5	nA	6,1	nA	1,2	113	44,5	428	58,1	nA	nA	0,96	0,88	0,26	991,25	nA	2	65,4

Table 54: Inventory of Natural mineral waters and Thermal waters in Austria: Names of sources and hydrochemical information.

N1	H20	H21	H22	H23	H24	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35	H36	H37	H38
Bad Gastein, Kristallquelle	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Bad Gastein, Tauernquelle	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Bad Radkersburg, Stadtquelle	nA	nA	8	<0,5	nA	0,006	nA	<0,002	<0,0010	<0,001	<0,001	nA	<0,005	<0,001	<0,001	0,22	<0,001	<0,001	nA
Bad Tatzmannsdorf, Jormannsdorf B7	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bad Vöslau, Bohrbrunnen VI/2	nA	nA	201,32	0,78	nA	0,001	nA	0,005	nA	<0,0005	<0,0001	nA	0,00032	nA	0,0012	0,02	nA	nA	nA
Bad Vöslau, Bohrbrunnen VII	nA	nA	204,87	0,78	nA	0,001	nA	0,004	nA	<0,0005	<0,0001	nA	0,00027	nA	0,0012	0,019	nA	nA	nA
Bad Vöslau, Ursprungsquellen	nA	nA	119,73	5,5	nA	0,001	nA	0,003	nA	<0,0005	<0,0001	nA	0,0002	nA	0,0012	0,013	nA	nA	nA



N1	H20	H21	H22	H23	H24	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35	H36	H37	H38
Brixlegg, Montesquelle	nA	nA	362,4	<0,3	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Brixlegg, Silberquelle	nA	nA	113,7	7,3	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Brixlegg, Wellnessquelle	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Deutsch Goritz, Peterquelle Brunnen II	nA	0,2	0,4	0,06	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Deutsch Goritz, Peterquelle Brunnen III	nA	0,2	6,5	0,76	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Deutsch Goritz, SteirerQuell	nA	<0,05	14,4	11,8	nA	<0,0010	<0,0005	<0,0001	nA	<0,0010	<0,0003	nA	<0,0005	nA	<0,0005	nA	nA	<0,0001	<0,0001
Deutschkreutz, Juvinquelle II	nA	nA	101	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Edelstal, BON (Bon)	0,02	<0,005	200	5	nA	<0,0005	<0,0001	<0,0001	<0,0005	<0,0005	<0,0002	0,008	<0,0001	<0,0001	<0,0001	0,046	<0,0001	0,001	<0,0001
Edelstal, Römerquelle 1	0,047	<0,005	315	4,7	<0,0005	<0,0005	<0,0001	<0,0001	<0,0005	<0,0005	<0,0002	0,006	<0,0001	<0,0001	<0,0001	0,028	<0,0001	0,001	<0,0001
Edelstal, Römerquelle 15	nA	nA	297,8	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Edelstal, Römerquelle 17	0,026	<0,005	247	<0,3	nA	<0,0005	<0,0001	0,001	<0,0005	<0,0005	<0,0002	<0,0005	<0,0001	<0,0001	<0,0001	0,029	0,001	0,001	<0,0001
Enns, Limesquelle	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Frankenmarkt, Brunnen 2	nA	<0,1	9,5	<0,5	nA	<0,0020	<0,0001	<0,0001	nA	<0,0001	<0,00003	nA	<0,0005	nA	0,015	nA	nA	<0,00002	<0,0001
Frankenmarkt, Brunnen 4 (Lebensquelle)	nA	<0,1	10,6	nA	nA	<0,0020	<0,0001	<0,0001	nA	<0,0001	<0,00003	nA	<0,0005	nA	0,015	nA	nA	<0,00002	<0,0001
Gerersdorf-Sulz, Güssingerbrunnen I	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Gerersdorf-Sulz, Güssingerbrunnen II	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Gerersdorf-Sulz, Güssingerbrunnen III	0,16	0,051	1,78	0,08	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,048	0,21	nA	nA	nA
Gerersdorf-Sulz, Vita Brunnern 12	nA	nA	4,5	1,5	nA	nA	nA	0,06	nA	<0,002	<0,0005	nA	0,004	nA	<0,0001	nA	nA	nA	<0,0002
Kobersdorf, Naturquelle	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Kobersdorf, Urquelle	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Kobersdorf, Waldquelle 3	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Kobersdorf, Waldquelle 6	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Kobersdorf, Waldquelle 9	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Laa a. d. Thaya, Vitusbrunnen II	nA	nA	81,7	0,22	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Lauterach, Bohrung Pfanner IV	<0,2	<0,1	21,8	1,4	nA	<0,0020	<0,0005	0,00126	nA	<0,0001	<0,0003	nA	<0,0005	nA	<0,00100	nA	nA	<0,0002	<0,0001
Münster, Alpquelle	nA	nA	571,5	1,3	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Münster, Astoriaquelle	nA	nA	476,7	2	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Münster, Tirolerquelle	nA	nA	495,5	3,1	nA	0,008	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Nüziders, Tiefbrunnen 3	nA	nA	337	2	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Pötsching, Markusquelle Neu	nA	nA	79,9	<0,5	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Prebl, Auenquelle	0,6	0,011	27,7	nA	nA	0,23	nA	0,02	nA	<0,0001	<0,0001	nA	<0,00020	<0,00020	0,029	2,1	<0,0050	<0,0050	<0,0005
Prebl, Paracelsusquelle	0,09	0,002	101,3	nA	nA	0,09	nA	0,0013	nA	0,008	0,0003	nA	<0,00020	<0,00020	0,021	1,5	<0,0050	<0,0050	<0,0005



N1	H20	H21	H22	H23	H24	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35	H36	H37	H38
Sulzegg, Styrianquelle	nA	nA	7,2	0,14	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,4	nA	nA	nA
Altheim, Thermal 1a	0,00 09	0,00 04	4,85	<0,5	nA	<QL	<QL	0,00 062	nA	<QL	<QL	nA	<QL	<QL	<QL	0,26 658	0,00 012	<QL	0,00 0002 8
Bad Bleiberg, Rudolfstherme, 5. Lauf	nA	nA	15,7	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bad Blumau, Blumau 2	18	1,7	648, 7	<10	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	2,9	nA	nA	nA
Bad Blumau, Blumau 3	nA	nA	6,2	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,5	nA	nA	nA
Bad Gastein, Elisabethquelle (8-12)	0,2	<0,0 2	122, 4	<0,5	nA	0,00 335	<QL	0,00 494	0,00 014	<QL	0,00 016	nA	<QL	<QL	<QL	0,35 4	0,02 91	<QL	<QL
Bad Gastein, Franz Josefquelle	nA	nA	127, 5	0,3	nA	0,37 56	0,00 15	nA	nA	0,00 27	<0,0 001	0,04 14	0,00 09	nA	0,00 66	0,30 2	0,02 97	0,00 08	0,00 07
Bad Gastein, Rudolfquelle	nA	nA	131, 6	0,4	nA	0,54 75	0,00 15	nA	nA	0,00 29	<0,0 001	0,04 44	0,00 12	nA	0,00 85	0,32 8	0,02 83	0,00 41	0,00 07
Bad Gleichenberg, Mariannenquelle	nA	nA	26,9	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bad Gleichenberg, Maxquelle	nA	nA	80,8	<1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bad Kleinkirchheim, Bohrung 1/99	0,01	<0,0 2	31,1	1	nA	0,00 23	<QL	0,00 315	<QL	0,00 165	0,00 047	nA	0,00 017	<QL	0,00 241	0,00 521	0,07 87	0,00 598	0,00 0028
Bad Kleinkirchheim, Gewinnungsbrunnen 1/74	nA	0,06	52,9 5	nA	nA	0,03 2	nA	nA	nA	0,00 42	nA	nA	0,00 31	nA	0,01 14	nA	nA	nA	nA
Bad Kleinkirchheim, Gewinnungsbrunnen 2/74	nA	<0,0 1	44,5 8	nA	nA	0,02 1	nA	nA	nA	0,00 138	nA	nA	0,00 27	nA	0,00 57	nA	nA	nA	nA
Bad Mitterndorf, Heilbrunn B2	nA	nA	394, 1	1,3	nA	0,00 52	nA	0,00 41	nA	<0,0 001	<0,0 001	nA	0,00 1	0,00 07	0,00 1	0,00 62	0,00 19	0,00 44	nA
Bad Mitterndorf, Thermal 1	<0,1	<0,0 5	1240	<0,5	nA	0,01 5	<0,0 01	0,00 82	0,00 1	<0,0 01	<0,0 01	<0,0 01	<0,0 05	0,00 13	<0,0 010	0,01 5	0,00 35	<0,0 05	<0,0 0005
Bad Pirawarth, Thermal 1	nA	nA	<1	<1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bad Radkersburg, Radkersburg II	1,4	0,28	422, 7	nA	nA	0,19	nA	0,07 7	nA	nA	nA	nA	nA	nA	nA	1,96	nA	nA	nA
Bad Radkersburg, Radkersburg IIIa	nA	nA	414	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bad Sauerbrunn, Gemeindequelle Neu	nA	nA	388	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,53	nA	nA	nA
Bad Sauerbrunn, Thermal 1	0,04	0,05	1190	nA	0,26	<0,0 05	<0,0 01	0,00 6	<0,0 01	<0,0 01	<0,0 01	nA	0,00 7	<0,0 01	0,00 2	0,34	nA	<0,0 01	<0,0 05
Bad Schallerbach, S1	1,3	0,2	6,7	0,9	4,1	<0,0 001	nA	0,00 05	nA	<0,0 005	<0,0 005	nA	0,00 1	nA	0,00 24	0,02	nA	<0,0 005	nA
Bad Schallerbach, S2	0,9	0,15	7,2	nA	4,6	0,00 1	nA	0,00 21	nA	<0,0 005	<0,0 005	nA	0,00 2	nA	0,00 12	0,02	nA	<0,0 005	nA
Bad Tatzmannsdorf, Thermal 1	1,1	0,3	220, 6	nA	0,12 7	nA	nA	nA	nA	nA	nA	nA	0,01 7	0	0	0,29	nA	nA	nA
Bad Vigaun, Barbaraquelle	1,3	<0,0 5	2529	<0,5	2,1	<0,0 05	<0,0 01	0,07	<0,0 01	<0,0 01	<0,0 01	nA	<0,0 05	<0,0 01	0,00 8	0,18	nA	<0,0 05	<0,0 01
Bad Waltersdorf, Waltersdorf 2/2a	nA	nA	7,9	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bad Waltersdorf, Waltersdorf 4	nA	nA	0,25	nA	0,00 04	0,00 012	na	0,00 2	nA	0,00 1	nA	nA	nA	nA	0,00 3	0,06	nA	nA	nA



N1	H20	H21	H22	H23	H24	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35	H36	H37	H38
Bad Waltersdorf, Waltersdorf 1	nA	nA	18	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bad Weißenbach, Franz Kählerquelle	nA	nA	151,5	0,18	nA	nA	nA	0,16	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bad Weißenbach, Heinz Sabinequelle	nA	nA	184	0,23	nA	nA	nA	0,27	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bad Weißenbach, Thomas Miriamquelle	nA	nA	167,9	0,09	nA	nA	nA	0,153	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Baden, Marienquelle	nA	nA	665,98	0,6	nA	<0,001	nA	0,003	nA	<0,001	<0,001	nA	<0,001	nA	<0,001	0,342	nA	nA	nA
Baden, Römerquelle	nA	nA	663,85	0,62	nA	<0,001	nA	0,004	nA	<0,001	<0,001	nA	<0,001	nA	<0,001	nA	nA	nA	nA
Fohnsdorf, Gabelhofen Thermal 1	3,9	0,2	135,4	nA	0,25	0,002	<0,001	0,01	<0,005	<0,001	<0,001	nA	0,01	<0,001	0,01	5,6	nA	<0,0010	<0,0001
Frauenkirchen, Seewinkel Thermal 1	0,52	0,13	0,5	<0,5	0,13	<0,005	nA	nA	nA	<0,001	nA	nA	<0,005	nA	<0,005	0,049	nA	nA	nA
Gallsbach, Thermal 1	2	0,67	29	<0,3	0,16	0,013	<0,001	0,003	nA	<0,005	<0,002	nA	<0,001	nA	nA	0,12	nA	<0,001	<0,0001
Geinberg, Thermal 2	nA	0,06	4,5	0,2	2,17	0,019	nA	0,0057	nA	<0,001	<0,0005	nA	0,0009	0,0013	<0,0007	0,27	nA	0,0024	<0,0001
Graz, Puntigam I	nA	nA	151	<0,5	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,017	nA	nA	nA
Haag, Thermal 1	0,38	nA	40,5	nA	0,272	12,4	nA	nA	nA	nA	nA	nA	0,0006	nA	nA	0,00275	nA	nA	nA
Hintertux, Quelle 5 und 6	nA	nA	34,5	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Ilz, Thermal 1 (Badenium)	nA	<0,1	0,31	nA	0,04	<0,005	<0,005	<0,005	<0,001	<0,001	<0,001	nA	0,045	<0,001	0,004	0,43	nA	<0,005	<0,0001
Köflach, Thermal 1	nA	0,1	74,4	0,49	0,02	<0,005	<0,001	<0,001	<0,001	<0,001	<0,001	nA	<0,005	<0,001	<0,001	7	nA	<0,005	<0,0001
Laa a. d. Thaya, Thermal Nord 1	23,45	9,05	5,5	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,97	nA	nA	nA
Längenfeld, Thermal 2	2,88	0,11	83,97	0,1	4,56	<0,0010	nA	nA	nA	<0,0040	<0,0001	nA	<0,0050	nA	nA	0,22	nA	<0,0001	<0,0002
Leppersdorf, Heilquelle	nA	nA	5,7	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Linsberg, Thermal 1b	0,08	<0,005	1396,3	0,43	8,9	<0,001	<0,001	nA	<0,001	<0,001	<0,0005	nA	0,013	nA	<0,005	nA	nA	<0,0001	<0,00001
Loipersdorf b. Fürstenfeld, Binderberg 1	nA	nA	2,7	1,4	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,59	nA	nA	nA
Loipersdorf b. Fürstenfeld, Grieselstein Th1	0,4	0,1	0,9	0,5	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Loipersdorf b. Fürstenfeld, Lautenberg 1	nA	nA	3,2	4,1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,86	nA	nA	nA
Lutzmannsburg, Thermal 1	0,212	0,01	9,67	0,13	nA	0,004	nA	nA	nA	nA	nA	nA	0,00187	nA	0,00115	0,125	nA	nA	nA
Oberlaa, Thermal 1	0,74	0,2	1380	<0,5	6,1	nA	nA	0,007	nA	nA	nA	nA	nA	nA	nA	0,87	nA	nA	nA
Oberlaa, Thermal 2	0,9	0,2	1180	<0,2	64	<0,0020	0,009	0,007	nA	0,003	<0,0003	nA	<0,0005	<0,0005	<0,0005	0,82	<0,0005	<0,0002	0,00019
Obernberg, Oberfeld 1	nA	nA	5,4	<1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Reichersberg, Reichersberg 2	0,81	0,48	1,55	<0,1	0,1	nA	nA	0,001	nA	0,0023	0,0005	nA	nA	nA	0,011	0,32	nA	nA	<0,0001
Simbach-Braunau, Thermal 2	0,87	0,47	2,2	nA	2,9	0,41	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,00025	nA	nA	nA
St. Jakob in Defereggen, Thermal 1	109	2,1	34,5	<0,2	nA	0,005	<0,001	0,006	<0,0001	<0,0001	<0,0002	0,043	<0,0001	<0,0001	0,003	11,9	0,012	<0,0001	<0,0002
St. Martin b. Lofen, Saalachthal Thermal 1	nA	<0,1	2085	<0,2	0,31	<0,0005	nA	0,006	<0,0001	<0,0001	<0,0001	nA	<0,0005	0,002	<0,0001	0,05	nA	<0,0001	nA



N1	H20	H21	H22	H23	H24	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35	H36	H37	H38
St. Martin im Innkreis, Thermal 1a	nA	nA	7	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Steeg am Hallstätter See, Warmes Wasser	0,056	nA	44,245	1,605	nA	nA	0,000179	nA	nA	nA	nA	nA	nA	nA	nA	0,0098	0,00024	nA	0,000678
Stegersbach, Thermal 1	0,2	<1	36	<0,1	0,07	0,065	nA	0,00025	nA	0,00017	<0,0001	nA	0,009	<0,0001	0,011	0,13	nA	0,00019	0,00063
Stegersbach, Thermal 2	<0,1	<0,1	<0,1	<0,1	<0,1	0,008	nA	0,0014	nA	0,00009	<0,0001	nA	0,005	<0,0001	0,004	0,3	nA	0,00011	0,00167
Wildbad Einöd, Georgsquelle II	nA	nA	546	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Wildbad Einöd, Ignazquelle	nA	nA	710	nA	nA	<0,0090	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Wildbad Einöd, Michaelquelle	nA	nA	660	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA

Table 55: Inventory of Natural mineral waters and Thermal waters in Austria: Names of sources, hydrochemical information and comments.

N1	H39	H40	H41	H42	H43	H44	H45	H46	H47	C1
Bad Gastein, Kristallquelle	nS	nS	nS	nS	nS	nS	nS	nS	nS	nA
Bad Gastein, Tauernquelle	nS	nS	nS	nS	nS	nS	nS	nS	nS	nA
Bad Radkersburg, Stadtquelle	0,0073	<0,0010	nA	<0,001	0,11	nA	100	0,7	Carbon dioxide (CO ₂)	nA
Bad Tatzmannsdorf, Jormannsdorf B7	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bad Vöslau, Bohrbrunnen VI/2	nA	nA	nA	nA	0,003	nA	nA	nA	nA	nA
Bad Vöslau, Bohrbrunnen VII	nA	nA	nA	nA	0,004	nA	nA	nA	nA	nA
Bad Vöslau, Ursprungsquellen	nA	nA	nA	nA	0,003	nA	nA	nA	nA	nA
Brixlegg, Montesquelle	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Brixlegg, Silberquelle	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Brixlegg, Wellnessquelle	nS	nS	nS	nS	nS	nS	nS	nS	nS	nA
Deutsch Goritz, Peterquelle Brunnen II	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Deutsch Goritz, Peterquelle Brunnen III	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Deutsch Goritz, SteirerQuell	nA	<0,001	0,0005	nA	<0,0050	nA	17,8	nA	nA	nA
Deutchkreutz, Juvinquelle II	nA	nA	nA	nA	nA	nA	nA	6,17	nA	nA
Edelstal, BON (Bon)	0,014	0,001	0,0024	<0,001	0,005	<0,001	23,9	0,28	nA	nA
Edelstal, Römerquelle 1	0,009	<0,001	0,0032	<0,001	<0,005	<0,001	23,1	nA	nA	nA
Edelstal, Römerquelle 15	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Edelstal, Römerquelle 17	0,01	1	0,0027	<0,001	0,005	<0,001	33,4	0,17	nA	nA
Enns, Limesquelle	nS	nS	nS	nS	nS	nS	nS	nS	nS	nA
Frankenmarkt, Brunnen 2	nA	<0,001	nA	nA	<0,00100	nA	27,3	1,14	nA	nA
Frankenmarkt, Brunnen 4 (Lebensquell)	nA	<0,001	nA	nA	<0,00100	nA	29,8	<0,00DL	nA	nA
Gerersdorf-Sulz, Güssingerbrunnen I	nS	nS	nS	nS	nS	nS	nS	nS	nS	nA
Gerersdorf-Sulz, Güssingerbrunnen II	nS	nS	nS	nS	nS	nS	nS	nS	nS	nA
Gerersdorf-Sulz, Güssingerbrunnen III	nA	nA	nA	nA	0,06	nA	59	3,2	nA	nA
Gerersdorf-Sulz, Vita Brunnen 12	nA	<0,001	nA	nA	<0,0015	nA	27,5	1,2	nA	nA
Kobersdorf, Naturquelle	nS	nS	nS	nS	nS	nS	nS	nS	nS	nA
Kobersdorf, Urquelle	nS	nS	nS	nS	nS	nS	nS	nS	nS	nA
Kobersdorf, Waldquelle 3	nS	nS	nS	nS	nS	nS	nS	nS	nS	nA
Kobersdorf, Waldquelle 6	nS	nS	nS	nS	nS	nS	nS	nS	nS	nA
Kobersdorf, Waldquelle 9	nS	nS	nS	nS	nS	nS	nS	nS	nS	nA



N1	H39	H40	H41	H42	H43	H44	H45	H46	H47	C1
Laa a. d. Thaya, Vitusbrunnen II	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Lauterach, Bohrung Pfanner IV	nA	<0,001	0,0007	nA	<0,0050	<0,0010	8	<0,00057	nA	nA
Münster, Alpquellquelle	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Münster, Astoriaquelle	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Münster, Tirolerquelle	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Nüziders, Tiefbrunnen 3	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Pötsching, Markusquelle Neu	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Prebl, Auenquelle	nA	nA	0,00006	<0,0050	<0,00005	nA	58,4	6,7	nA	nA
Prebl, Paracelsusquelle	nA	nA	0,00008	<0,0050	<0,00050	nA	71,68	6,44	nA	nA
Sulzegg, Styrianquelle	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Altheim, Thermal 1a	0,047	0,00995	<QL	<QL	0,00866	<QL	99,69	9,72	nA	nA
Bad Bleiberg, Rudolfstherme, 5. Lauf	nA	<0,001	nA	nA	nA	nA	nA	nA	nA	mix of old and young water
Bad Blumau, Blumau 2	nA	nA	nA	nA	nA	nA	105	318,83	Carbon dioxide (CO ₂)	nA
Bad Blumau, Blumau 3	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bad Gastein, Elisabethquelle (8-12)	0,0394	<QL	0,0076	0,00011	0,0075	<QL	56,38	1,16	nA	highly elevated content of Radon-222
Bad Gastein, Franz Josefsquelle	0,0388	nA	0,0009	0,0005	0,01	nA	67,29	nA	nA	highly elevated content of Radon-222
Bad Gastein, Rudolfquelle	0,0419	nA	0,0004	0,0007	0,0222	nA	70,83	nA	nA	highly elevated content of Radon-222
Bad Gleichenberg, Mariannenquelle	nA	nA	nA	nA	nA	nA	90,9	12,6	Carbon dioxide (CO ₂)	nA
Bad Gleichenberg, Maxquelle	nA	nA	nA	nA	nA	nA	122,5	16,9	Carbon dioxide (CO ₂)	nA
Bad Kleinkirchheim, Bohrung 1/99	0,0041	<QL	0,00215	0,00022	0,0163	<QL	23,02	0,06	Nitrogen (N ₂) including noble gases	nA
Bad Kleinkirchheim, Gewinnungs-brunnen 1/74	nA	nA	nA	nA	nA	nA	29,2	0,28	Nitrogen (N ₂) including noble gases	nA
Bad Kleinkirchheim, Gewinnungs-brunnen 2/74	nA	nA	nA	nA	nA	nA	25,9	0,17	Nitrogen (N ₂) including noble gases	nA
Bad Mitterndorf, Heilbrunn B2	0,0013	nA	0,0057	0,0006	0,0104	nA	nA	nA	Nitrogen (N ₂) including noble gases	nA
Bad Mitterndorf, Thermal 1	0,0025	<0,001	0,0078	0,0078	0,046	<0,003	11	0,48	Nitrogen (N ₂) including noble gases	nA
Bad Pirawarth, Thermal 1	nA	nA	nA	nA	nA	nA	nA	nA	Methane (CH ₄)	nA
Bad Radkersburg, Radkersburg II	nA	nA	nA	nA	0,02	nA	59,8	19	Carbon dioxide (CO ₂)	nA
Bad Radkersburg, Radkersburg IIIa	nA	nA	nA	nA	nA	nA	nA	nA	Carbon dioxide (CO ₂)	nA
Bad Sauerbrunn, Gemeindequelle Neu	nA	nA	nA	nA	nA	nA	121,2	0,9	Carbon dioxide (CO ₂)	nA
Bad Sauerbrunn, Thermal 1	0,048	<0,005	nA	<0,005	0,015	<0,005	35,6	5,2	Carbon dioxide (CO ₂)	nA
Bad Schallerbach, S1	nA	nA	<0,0005	nA	nA	nA	28,2	0,91	Nitrogen (N ₂) including noble gases	nA
Bad Schallerbach, S2	nA	nA	<0,0005	nA	nA	nA	25,9	2,57	Nitrogen (N ₂)	nA



N1	H39	H40	H41	H42	H43	H44	H45	H46	H47	C1
									including noble gases	
Bad Tatzmannsdorf, Thermal 1	nA	nA	nA	nA	nA	nA	56,7	0,5	nA	nA
Bad Vigaun, Barbaraquelle	nA	<0,0010	nA	<0,005	0,02	<0,001	29,8	2,1	Nitrogen (N ₂) including noble gases	nA
Bad Waltersdorf, Waltersdorf 2/2a	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bad Waltersdorf, Waltersdorf 4	nA	nA	nA	nA	nA	nA	22	1,43	Nitrogen (N ₂) including noble gases	nA
Bad Waltersdorf, Waltersdorf 1	nA	nA	nA	nA	nA	nA	nA	nA	Nitrogen (N ₂) including noble gases	nA
Bad Weißenbach, Franz Kahlerquelle	nA	nA	nA	nA	nA	nA	58,3	16	Carbon dioxide (CO ₂)	mix of old and young water
Bad Weißenbach, Heinz Sabinequelle	nA	nA	nA	nA	nA	nA	61,2	19	Carbon dioxide (CO ₂)	mix of old and young water
Bad Weißenbach, Thomas Miriamquelle	nA	nA	nA	nA	nA	nA	60,24	17,9	Carbon dioxide (CO ₂)	mix of old and young water
Baden, Marienquelle	nA	nA	nA	nA	0,02	nA	29,2	nA	Nitrogen (N ₂) including noble gases	nA
Baden, Römerquelle	nA	nA	nA	nA	0,01	nA	27,7	nA	Nitrogen (N ₂) including noble gases	nA
Fohnsdorf, Gabelhofen Thermal 1	nA	0,04	nA	nA	0,23	<0,001	38,35	120,11	Carbon dioxide (CO ₂)	nA
Frauenkirchen, Seewinkel Thermal 1	nA	0,004	nA	nA	nA	nA	30,8	4	Methane (CH ₄)	nA
Gallspach, Thermal 1	nA	<0,001	nA	nA	nA	nA	44,5	14,3	Methane (CH ₄)	nA
Geinberg, Thermal 2	nA	<0,0001	nA	nA	<0,006	nA	91,7	10,6	Methane (CH ₄)	nA
Graz, Puntigam I	nA	nA	nA	nA	nA	nA	nA	nA	Nitrogen (N ₂) including noble gases	nA
Haag, Thermal 1	nA	nA	nA	nA	nA	nA	129	15,8	Methane (CH ₄)	nA
Hintertux, Quelle 5 und 6	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Ilz, Thermal 1 (Badenium)	nA	0,004	<0,000018	nA	<0,005	<0,001	28,21	48,61	Nitrogen (N ₂) including noble gases	nA
Köflach, Thermal 1	nA	<0,001	nA	nA	<0,005	<0,001	20,41	0,28	Nitrogen (N ₂) including noble gases	nA
Laa a. d. Thaya, Thermal Nord 1	nA	nA	nA	nA	nA	nA	22,59	66,77	Nitrogen (N ₂) including noble gases	nA
Längenfeld, Thermal 2	nA	<0,001	nA	nA	<0,00100	nA	28,2	5,27	Nitrogen (N ₂) including noble gases	nA
Leppersdorf, Heilquelle	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Linsberg, Thermal 1b	nA	<0,001	0,00143	nA	<0,001	nA	19,3	nA	Nitrogen (N ₂) including noble gases	nA
Loipersdorf b. Fürstenfeld, Binderberg 1	nA	nA	nA	nA	nA	nA	36	57,19	Carbon dioxide (CO ₂)	nA
Loipersdorf b. Fürstenfeld, Grieselstein Th1	nA	nA	nA	nA	nA	nA	40,1	14,87	nA	nA



N1	H39	H40	H41	H42	H43	H44	H45	H46	H47	C1
Loipersdorf b. Fürstenfeld, Lautenberg 1	nA	nA	nA	nA	nA	nA	44	62,91	Carbon dioxide (CO ₂)	nA
Lutzmannsburg, Thermal 1	nA	nA	nA	nA	nA	nA	78,6	1,7	Nitrogen (N ₂) including noble gases	nA
Oberlaa, Thermal 1	nA	nA	<0,0001	nA	nA	nA	42	11	Nitrogen (N ₂) including noble gases	nA
Oberlaa, Thermal 2	0,06	<0,001	<0,0001	<0,001	<0,00100	0,021	44,8	12	Nitrogen (N ₂) including noble gases	nA
Obernberg, Oberfeld 1	nA	nA	nA	nA	nA	nA	nA	nA	Methane (CH ₄)	nA
Reichersberg, Reichersberg 2	nA	<0,0001	<0,00004	nA	0,189	nA	50,9	8,6	Methane (CH ₄)	nA
Simbach-Braunau, Thermal 2	nA	nA	nA	nA	nA	nA	47	9,55	nA	nA
St. Jakob in Deferegggen, Thermal 1	0,087	<0,001	0,024	0,013	0,025	<0,001	1,2	2,35	Methane (CH ₄)	nA
St. Martin b. Lofer, Saalachtal Thermal 1	nA	nA	nA	nA	0,006	nA	28,1	0,52	Nitrogen (N ₂) including noble gases	nA
St. Martin im Innkreis, Thermal 1a	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Steeg am Hallstätter See, Warmes Wasser	2,4	nA	nA	0,00011	nA	nA	6,94	0,096	nA	mix of old and young water
Stegersbach, Thermal 1	nA	<0,0001	<0,0020	nA	<0,0001	nA	11,9	12,9	Methane (CH ₄)	nA
Stegersbach, Thermal 2	nA	<0,0001	<0,0020	nA	0,00033	nA	9,62	1,95	Nitrogen (N ₂) including noble gases	nA
Wildbad Einöd, Georgsquelle II	nA	nA	nA	nA	nA	nA	nA	nA	Carbon dioxide (CO ₂)	nA
Wildbad Einöd, Ignazquelle	nA	nA	nA	nA	nA	nA	37,8	15,2	Carbon dioxide (CO ₂)	nA
Wildbad Einöd, Michaelquelle	nA	nA	nA	nA	nA	nA	37	15,2	Carbon dioxide (CO ₂)	nA

7.2.2 Bosnia and Herzegovina

Table 56: Inventory of Natural mineral waters and Thermal waters in Bosnia and Herzegovina: Names of sources and general information.

N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Borehole B-1 Blažuj	Ilidžanski dijamant	Bosnia and Herzegovina	thermomineral	18.270763 43.834838	borehole	bottling	nA	nA	11,5
Borehole B-1, Dolac, Tešanj	Celvik kiseljak	Bosnia and Herzegovina	thermomineral	17.967358 44.595468	borehole	bottling	nA	nA	0,54
Borehole IB-1 Ilidža	nA	Bosnia and Herzegovina	thermomineral	18.307273 43.825609	borehole	Heating (Hotel Terme)	nA	nA	75
Borehole IB-2 Ilidža	nA	Bosnia and Herzegovina	thermomineral	18.308063 43.826876	borehole	Heating (Termalna rivijera)	nA	nA	76
Borehole IT-1, Tičići, Kakanj	nA	Bosnia and Herzegovina	thermomineral	18.048023 44.136542	borehole	recreation	nA	nA	35
Borehole MUKI-Moševac, Maglaj	nA	Bosnia and Herzegovina	thermomineral	18.093796 44.589483	borehole	is not being use	nA	nA	0,7
Borehole SB-1, Gata, Bihać	nA	Bosnia and Herzegovina	thermomineral	15.810645 44.930878	borehole	physikal medicine and rehabilitation	nA	nA	14
Borehole B-6 Gradačac	nA	Bosnia and Herzegovina	thermomineral	18.415097 44.887343	borehole	balneology and recreation	nA	nA	20
Borehole Do-1, Domaljevac	nA	Bosnia and Herzegovina	thermomineral	18.608177 45.060988	borehole	is not being use	nA	nA	22,2



Borehole KŽ-1"NB1-Curić Bistrica, Žepče	nA	Bosnia and Herzegovina	thermomineral	18.071808 44.420021	borehole	is not being use	nA	nA	6,6
Borehole PEB-4 Gračanica	nA	Bosnia and Herzegovina	thermomineral	18.298444 44.680351	Borehole	recreation	nA	nA	80
Borehole SB2, Tomina, Sanska Ilidža	nA	Bosnia and Herzegovina	thermomineral	16.779184 44.682569	borehole	balneology and recreation	nA	nA	27
Borehole SL-1 Slavinovići, Tuzla	nA	Bosnia and Herzegovina	thermomineral	18.715189 44.527749	borehole	is not being use	nA	nA	5
Borehole Tr-167, Tuzla	nA	Bosnia and Herzegovina	thermomineral	18.679975 44.541861	borehole	is not being use	nA	nA	6
Spring Ilidža ili Svetinja, Račić, Bihać	nA	Bosnia and Herzegovina	thermomineral	15.929393 44.740984	not captured spring	is not being use	nA	nA	0,1
Spring Kiseljak Dabrovine, Vareš	nA	Bosnia and Herzegovina	thermomineral	18.292650 44.062729	captured spring	is not being use	nA	nA	0,03
Spring Rasol Sniježnica	nA	Bosnia and Herzegovina	thermomineral	18.951283 44.597798	captured spring	is not being use	nA	nA	2
Spring Sedra Breza	nA	Bosnia and Herzegovina	thermomineral	18.280378 44.038594	captured spring	balneology and recreation	uzgoj ribe	nA	30
Spring Slanac Ljeskovica, Žepče	nA	Bosnia and Herzegovina	thermomineral	18.105282 44.410329	captured spring	is not being use	nA	nA	0,7
Spring Vruća voda, Bugojno	nA	Bosnia and Herzegovina	thermomineral	17.547338 44.087419	captured spring	balneology and recreation	nA	nA	1
A group of wells EB-1, EB-2, EB-3, EB-4, Toplice Živinice	nA	Bosnia and Herzegovina	thermal	18.729637 44.415383	bunar	water supply	nA	nA	250
Borehole B-2, Kruščića, Vitez	nA	Bosnia and Herzegovina	thermal	17.746198 44.087806	borehole	water supply	nA	nA	170
Borehole BV-1 Odžak	nA	Bosnia and Herzegovina	thermal	18.262936 45.078381	borehole	water supply	nA	nA	20
Borehole CC WELL Coca-Cola Blažuj Olimpija	nA	Bosnia and Herzegovina	thermal	18.237513 43.847513	borehole	bottling	nA	nA	14
Borehole Barake, Velika Kladuša	nA	Bosnia and Herzegovina	thermal	15.839586 45.142598	borehole	nA	nA	nA	6,00
Borehole SB-1 Banja Olovo	nA	Bosnia and Herzegovina	thermal	18.576353 44.125047	borehole	balneology and recreation	nA	nA	25
Spring Banja Kreševo	nA	Bosnia and Herzegovina	thermal	18.042758 43.863056	captured spring	water supply	rekreacija	fiaširanje	15,2
Spring Orlija Olovo	nA	Bosnia and Herzegovina	thermal	18.510129 44.115084	captured spring	recreation	nA	nA	2
Borehole B-4 Kiseljak-Park	Sarajevski kiseljak	Bosnia and Herzegovina	mineral	18.079417 43.943594	borehole	bottling	nA	nA	21,6
Borehole BK-1 Kiseljak, Tuzla	nA	Bosnia and Herzegovina	mineral	18.569811 44.488744	borehole	bottling	nA	nA	2,5
Borehole BOP-1, Orašje Planje, Tešanj	Prirodna mineralna voda Princes	Bosnia and Herzegovina	mineral	17.921751 44.622428	borehole	bottling	nA	nA	0,17
Borehole BT-1 Tukovillidža	nA	Bosnia and Herzegovina	mineral	18.283589 43.8336	borehole	is not being use	nA	nA	8,5
Borehole TD -17 Tetima, Tuzla	nA	Bosnia and Herzegovina	mineral	18.758605 44.586904	borehole	is not being use	nA	nA	0,3
Spring Crni vrh, Tešanj	Oaza	Bosnia and Herzegovina	mineral	18.001214 44.568922	captured spring	bottling	nA	nA	0,01
Spring Jezero Hutovo blato	nA	Bosnia and Herzegovina	mineral	17.752494 43.071785	not captured spring	nA	nA	nA	nA
Spring Klokun Ljubuški	nA	Bosnia and Herzegovina	mineral	17.430061 43.281843	not captured spring	nA	nA	nA	3600-19400
Spring Petrak Lukavac	nA	Bosnia and Herzegovina	mineral	18.530291 44.532582	captured spring	publik drinking fountain	nA	nA	0,05
Spring Kiseljak Srebrenik	nA	Bosnia and Herzegovina	mineral	18.495548 44.700587	nA	is not being use	nA	nA	0,05

Table 57: Inventory of Natural mineral waters and Thermal waters in Bosnia and Herzegovina: Names of sources, aquifer information.

N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	A1
Borehole B-1 Blažuj	105	63	105	karstic and fractured	nA	limestone	nA	nA	nA	nA	nA	nA	triassic	nA



Borehole B-1, Dolac, Tešanj	40	24,5	36,5	fractured	nA	diabase-chert formation	nA	nA	nA	nA	nA	nA	jurassic	nA
Borehole IB-1 Ilidža	43,7	22,4	43,7	karstic and fractured	nA	dolomitic limestone	nA	nA	nA	nA	nA	nA	triassic	37 000
Borehole IB-2 Ilidža	246,1	112	246,1	karstic and fractured	nA	dolomitic limestone	nA	nA	nA	nA	nA	nA	triassic	14 000
Borehole IT-1, Tičići, Kakanj	300,6	81	300,6	karstic and fractured	nA	carbonates	nA	limestone	nA	nA	nA	cretaceous	triassic	17 500
Borehole MUKI-Moševac, Maglaj	9+5	nA	nA	fractured	nA	diabase-chert formation	nA	nA	nA	nA	nA	nA	jurassic	nA
Borehole SB-1, Gata, Bihać	352	120	352	karstic and fractured	nA	dolomite, limestone	nA	dolomite, limestone	nA	nA	nA	jurassic, cretaceous	triassic	nA
Borehole B-6 Gradačac	95	nA	nA	karstic and fractured	nA	limestone	nA	nA	nA	nA	nA	nA	miocene	18 600
Borehole Do-1, Domaljevac	1275,42	1165	1275,42	karstic and fractured	nA	limestone	nA	nA	nA	nA	nA	nA	cretaceous	nA
Borehole KŽ-1 "NB"-Čurić Bistrica, Žepče	96,3	47	93,3	fractured	nA	serpentine and peridotite	nA	nA	nA	nA	nA	nA	jurassic	nA
Borehole PEB-4 Gračanica	336,61	240	336,61	karstic and fractured	nA	silicified dolomites in quartz carbonate rocks and cavernous dolomite breeze	nA	nA	nA	nA	nA	nA	jurassic	nA
Borehole SB2, Tomina, Samski Ilidža	228	34	228	karstic and fractured	nA	dolomite, limestone	nA	dolomite, limestone	nA	nA	nA	triassic	permian	18 100
Borehole SL-1 Slavinovići, Tuzla	2025	886	2025	fractured	nA	sandstones	nA	nA	nA	nA	nA	nA	eocene	nA
Borehole Tr-167, Tuzla	450	nA	nA	fractured	nA	dolomite, slices and stalks with layered layers of stone salt	nA	nA	nA	nA	nA	nA	miocene	nA
Spring Ilidža ili Svetinja, Račić, Bihać	nA	nA	nA	karstic and fractured	nA	limestone	nA	limestone	nA	nA	nA	triassic, jurassic	permian-triassic	nA
Spring Kiseljak Dabrovine, Vareš	nA	nA	nA	fractured	nA	flysch (limestone, breccias, shales, sandstones)	nA	nA	nA	nA	nA	nA	cretaceous	nA
Spring Rasol Sniježnica	nA	nA	nA	fractured	nA	carbonates and clasts	nA	nA	nA	nA	nA	nA	eocene	nA
Spring Sedra Breza	nA	nA	nA	fractured	nA	carbonates	nA	limestone	nA	nA	nA	cretaceous	triassic	nA



Spring Slanac Ljeskovica, Žepče	nA	nA	nA	fractured	nA	serpentine and peridotite	nA	nA	nA	nA	nA	nA	jurassic	nA
Spring Vruća voda, Bugojno	nA	nA	nA	karstic and fractured	nA	clastics and evaporate	nA	clastics and evaporate	nA	nA	nA	triassic	permian	nA
A group of wells EB-1, EB-2, EB-3, EB-4, Toplice Živnice	25	nA	nA	karstic and fractured	nA	limestone	nA	nA	nA	nA	nA	nA	triassic	nA
Borehole B-2, Kruščica, Vitez	52	5	44	karstic and fractured	nA	dolomite, limestone	nA	nA	nA	nA	nA	nA	silurian-devonian	nA
Borehole BV-1 Odžak	62	nA	nA	karstic and fractured	nA	carbonates	nA	limestone	nA	nA	nA	miocene	cretaceous	nA
Borehole CC WELL Coca-Cola Blažuj	198	190,45	192	karstic and fractured	nA	cracked dolomite limestone	nA	nA	nA	nA	nA	nA	triassic	nA
Borehole Barake, Velika Kladuša	276,9	nA	nA	karstic and fractured	nA	dolomite, limestone	nA	dolomite, limestone	nA	nA	nA	triassic	nA	nA
Borehole SB-1 Banja Olovo	172	nA	nA	karstic and fractured	nA	limestone	nA	nA	nA	nA	nA	nA	triassic	nA
Spring Banja Kreševo	nA	nA	nA	karstic and fractured	nA	marble, marble limestone, dolomite	nA	nA	nA	nA	nA	nA	silurian-devonian	nA
Spring Orija Olovo	nA	nA	nA	karstic and fractured	nA	limestone	nA	nA	nA	nA	nA	nA	triassic	nA
Borehole B-4 Kiseljak-Park	124	107,3	124	karstic and fractured	nA	clastics and evaporate	nA	carbonates	nA	nA	nA	triassic	permian	nA
Borehole BK-1 Kiseljak, Tuzla	37,8	nA	nA	fractured	nA	limestone	nA	nA	nA	nA	nA	nA	triassic	nA
Borehole BOP-1, Orašje Planje, Tešanj	65,5	61,6	65,5	fractured	nA	diabase-chert formation	nA	nA	nA	nA	nA	nA	jurassic	nA
Borehole BT-1 Tukoviliđža	237	nA	nA	karstic and fractured	nA	limestone	nA	nA	nA	nA	nA	nA	triassic	>45000
Borehole TD - 17 Tetima, Tuzla	499,6	nA	nA	fractured	nA	limestone	nA	nA	nA	nA	nA	nA	miocene	32 000
Spring Crni vrh, Tešanj	nA	nA	nA	fractured	nA	diabase-chert formation	nA	nA	nA	nA	nA	nA	jurassic	nA
Spring Jezero Hutovo blato	nA	nA	nA	intergranular	nA	lake sediments	nA	nA	nA	nA	nA	nA	quaternary	nA
Spring Klokun Ljubuški	nA	nA	nA	karstic and fractured	nA	dolomite, limestone	nA	nA	nA	nA	nA	nA	triassic	nA
Spring Petrak Lukavac	nA	nA	nA	fractured	nA	stone formation	nA	nA	nA	nA	nA	nA	srednji miocen	nA
Spring Kiseljak Srebrenik	nA	nA	nA	fractured	nA	ofiolite melancoly	nA	nA	nA	nA	nA	nA	jurassic	nA



Table 58: Inventory of Natural mineral waters and Thermal waters in Bosnia and Herzegovina: hydrochemical information.

N1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19
Borehole B-1 Blažuj	20-30	nA	2600	6,3	447	0,07	100	6,5	390	92	1,1	0,03	0,1	0,03	<0,03	1400	nA	<1	140
Borehole B-1,Dolac,Tešanj	15-20	nA	5380	6,5	nA	nA	785	78,2	312,62	284,31	1,158	<0,1	18,5	0,486	5,82	3550,2	0	0,02	621
Borehole IB-1 Ilidža	50-60	nA	2100	6,6	nA	5,1	260	14	470	79,3	3,25	nA	0	0,12	0	1342	0	1,05	320
Borehole IB-2 Ilidža	50-60	nA	3000	6,7	nA	3,84	273	10,5	460	105	2,25	nA	0	0,01	0	1317,6	nA	1,12	337,2
Borehole IT-1,Tičići,Kakanj	50-60	nA	1050	6,9	nA	9,8	50	12,3	250	30,5	2,75	nA	0,1	0,06	0	488	nA	2,33	56,8
Borehole MUKI-Moševac,Maglaj	<15	14	1435	7,2	nA	nA	nA	nA	80	118,2	nA	nA	0,201	0,3	nA	933,3	nA	nA	4,1
Borehole SB-1,Gata,Bihać	30-40	nA	nA	8,6	nA	nA	116,61	3,8	182,4	70,04	2,57	nA	nA	0,02	nA	164,7	3	1,12	227,2
Borehole B-6 Gradačac	20-30	nA	nA	7,1	100	1,75	287	7,9	50	6	2,1	0,014	0,1	0,02	0,5	671	nA	2,25	35
Borehole Do-1,Domaljevac	90-100	nA	nA	8	nA	nA	3600	246,89	112,23	19,36	3,875	nA	0	nA	nA	3778,2	nA	nA	3750
Borehole KŽ-1"NBİ-Curic" Bistrica,Žepče	15-20	2750	4520	6,41	nA	1,24	98	7,9	106	734	0,35	nA	7,8	0,16	nA	4087	nA	nA	115
Borehole PEB-4 Gračanica	30-40	nA	3260	7	nA	nA	260	45	390	110	2,5	0,4	<0,1	0,2	3,1	2199	nA	<5	170
Borehole SB2,Tomina,Sanska Ilidža	30-40	nA	nA	8,25	nA	nA	57,5	8,5	555,51	59,58	nA	nA	nA	nA	nA	149,5	15	nA	78,1
Borehole SL-1 Slavinovići,Tuzla	20-30	nA	nA	8,2	nA	0,4	2322,47	nA	72,15	0	0,525	nA	0	nA	0,05	2688,4	nA	nA	2075
Borehole Tr-167,Tuzla	15-20	nA	nA	nA	nA	nA	119867	nA	697	158	nA	nA	nA	nA	nA	793	0	nA	184553
Spring Ilidža ili Svetinja,Račić,Bihac	15-20	nA	130	7,1	110	nA	89,5	5,6	190	54,9	5,08	nA	nA	0	0,1	274,5	0	1,21	170,4
Spring Kiseljak Dabravine,Vareš	15-20	nA	1540	6,4	nA	nA	23	3,91	488,97	31,59	0,62	nA	3,1	0,478	0,06	1708	0	1,12	31,95
Spring Rasol Snježnica	20-30	nA	nA	6,8	nA	nA	1126	nA	38,8	14,6	1,8	nA	4,08	nA	0,25	947,7	nA	13,7	699,6
Spring Sedra Breza	15-20	nA	1300	6,9	60	6,5	67	6,6	240	26,8	2,67	nA	0,1	0,01	0,2	488	0	0,96	113,6
Spring Slanac Ljeskovic,Žepče	20-30	nA	10760	6,31	nA	nA	1541	32,06	288,57	651,24	nA	nA	nA	nA	1,6	3928,4	nA	nA	2287,62
Spring Vruća voda,Bugojno	20-30	nA	nA	6,5	nA	nA	6,1	0,8	195,5	56,5	1,96	nA	nA	<0,01	<0,08	156,2	nA	0,2	14,2
A group of wells EB-1,EB-2,EB-3,EB-4,Toplice Živinice	20-30	454	467	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Borehole B-2,Kruštica,Vitez	15-20	nA	nA	6,6	nA	nA	nA	nA	63,73	nA	0,693	0,429	0,33	0,1056	nA	281,17	nA	0,1	21,62
Borehole BV-1 Odžak	15-20	270	542	7,36	nA	nA	25,4	1,07	124	12,8	nA	nA	0,062	0,02	0	420	nA	nA	7,9
Borehole CC WELL Coca-Cola Blažuj	15-20	nA	380	7,44	210	4,2	1,7	0,6	58,2	28	0,15	0,082	0,005	<0,002	0,02	308	<3	0,06	1,3
Borehole Barake,Velika Kladuša	15-20	nA	nA	8,5	nA	nA	1,7	5,6	54,26	30,61	nA	nA	nA	nA	nA	308,05	6	nA	10,65
Borehole SB-1 Banja Olovo	30-40	nA	270	7,1	85	7,49	5,1	1,3	78,3	17,8	0,34	nA	0	0	0	323	0	0,14	7,1
Spring Banja Kreševo	15-20	186	372	7,01	nA	nA	2,76	nA	45	30,3	0,05	nA	0,01	nA	nA	274,95	nA	nA	10,34
Spring Orlja Olovo	20-30	180	nA	366	nA	nA	1,36	0,49	49,1	2,8	nA	nA	0,036	0,012	nA	164	nA	nA	3,7
Borehole B-4 Kiseljak-Park	<15	nA	3000	6,3	115	1,5	183,5	23,8	470	115,9	2,67	nA	0,1	0,22	0,2	1830	nA	0,8	78,1
Borehole BK-1 Kiseljak,Tuzla	<15	nA	4220	6,4	nA	nA	186,2	11,4	56,05	650,3	0,085	<0,12	6	0,029	nA	3706	nA	0,1	411,8
Borehole BOP-1,Orašje Planje,Tešanj	<15	nA	2110	6,2	nA	nA	276	15,19	102,2	122,71	2,34	0,162	0,01	0,09	0,18	1510,7	0	0,78	104,37
Borehole BT-1 Tukoviliđža	nA	3780	3780	6	nA	nA	386,23	nA	352,7	208,98	0,0019	0,0202	8,7	0,164	8,96	2013	nA	0,51	349,32
Borehole TD-17 Tetima,Tuzla	<15	nA	nA	nA	nA	14,2	497,24	nA	38	497,24	nA	nA	nA	nA	nA	576	62	nA	7



N1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19
Spring Crni vrh, Tešanj	<1,5	nA	nA	6,3	nA	nA	414	39,1	88,17	172,55	1,48	nA	0,52	0,2	nA	1732,4	nA	0,51	56,8
Spring Jezero Hutovo blato	<1,5	nA	nA	7	nA	nA	112,3	nA	91,78	17,63	nA	nA	nA	nA	nA	276,42	nA	nA	200,29
Spring Klokun Ljubuški	<1,5	nA	1110	7,5	140	8,32	2,7	0,6	310	12,2	3,2	nA	0	0	0	237,9	0	0,38	7
Spring Petrak Lukavac	<1,5	nA	nA	8,2	nA	nA	210,4	nA	34,9	30,35	4,831	0,0541	3,483	0,0774	nA	336,05	27	0,43	262,4
Spring Kiseljak Srebrenik	<1,5	1556	1600	6,19	nA	nA	142,8	7,81	236,47	46,17	nA	nA	2,2	0,78	5,24	1098	nA	nA	nA

Table 59: Inventory of Natural mineral waters and Thermal waters in Bosnia and Herzegovina: hydrochemical information (continued).

N1	H20	H21	H22	H23	H24	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35	H36	H37
Borehole B-1 Blažuj	nA	nA	310	<1	nA	0,8	0,02	<0,01	<0,001	0,01	<0,001	nA	nA	nA	0,03	0,31	<0,01	0,06
Borehole B-1, Dolac, Tešanj	nA	nA	0	5,31	nA	nA	nA	nA	nA	<0,05	<0,005	nA	<0,05	0	<0,1	0,548	nA	nA
Borehole IB-1 Ilidža	0,5	0,1	500	3,44	nA	nA	nA	0,01	nA	0	0	nA	0,01	nA	0	0,66	nA	nA
Borehole IB-2 Ilidža	0,07	0,03	600	4,12	nA	0,12	nA	0,02	nA	0	0,001	nA	0	nA	nA	0,75	nA	nA
Borehole IT-1, Tičići, Kakaniž	0,05	0,02	375	0,34	nA	0,08	nA	0,01	nA	0	0	nA	0	0	0	0,2	nA	nA
Borehole MUKI-Moševac, Magla	nA	nA	28,861	0,0285	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Borehole SB-1, Gata, Bihać	0,1	0,03	643,59	0,52	nA	0,32	nA	0,01	nA	0	0	nA	0	nA	0	0,02	nA	nA
Borehole B-6 Gradačac	0,06	0,02	170	3,44	0,05	0,004	nA	0,0002	nA	0,001	0,0005	0,01	0,002	nA	0,001	0,24	nA	0,001
Borehole Do-1, Domaljevac	13	6,5	126	0	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	1,63	nA	nA
Borehole KZ-1 "NB-Čurčić" Bistrica, Žepče	nA	nA	46	1,2	nA	0,0757	0,0082	0,00124	nA	0,014	0,00104	nA	0,0178	nA	0,00268	nA	nA	0,31
Borehole PEB-4 Gračanica	<5	nA	<5	<5	nA	<0,1	<0,1	nA	nA	<0,1	<0,1	nA	<0,1	nA	<0,1	2,4	<0,1	<0,1
Borehole SB2, Tomina, Sanska Ilidža	nA	nA	1472,35	1,48	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Borehole SL-1 Slavinovići, Tuzla	nA	nA	84	0	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,284	nA	nA
Borehole Tr-167, Tuzla	nA	nA	8560	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Spring Ilidža ili Svetinja, Račić, Bihać	0	0,03	436	0	nA	0,2	nA	nA	nA	0	nA	nA	0	nA	0	0,02	nA	nA
Spring Kiseljak Dabrovine, Vareš	nA	nA	1	0,44	nA	nA	nA	nA	nA	<0,01	<0,005	nA	<0,05	0	0	0,54	nA	nA
Spring Rasol Sniježnica	nA	0,015	862	nA	nA	7,148	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Spring Sedra Breza	0,04	0,02	288	0	nA	0,08	nA	nA	nA	0	nA	nA	0	0	0	0,21	nA	nA
Spring Slanac Ljeskovica, Žepče	nA	nA	330	0,16	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Spring Vruća voda, Bugojno	nA	nA	585	1,3	nA	nA	nA	<0,01	nA	<0,005	nA	nA	nA	nA	nA	<0,01	nA	nA
A group of wells EB-1, EB-2, EB-3, EB-4, Toplice Živinice	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Borehole B-2, Krušćica, Vitez	0	0,09	24,01	nA	nA	0,43	nA	nA	nA	0	nA	nA	0,029	nA	0,0069	nA	nA	nA
Borehole BV-1 Odžak	nA	nA	38,2	0,17	nA	0,0351	nA	0,0062	nA	0,0082	0,0013	nA	0,00062	nA	0,0221	nA	nA	0,01449
Borehole CC WELL Coca-Cola Blažuj	<0,05	<0,005	4,8	3,7	0,012	<0,005	<0,001	0,002	<0,001	<0,002	<0,0005	<0,0005	nA	<3	<0,002	<0,005	<0,002	<0,002



N1	H20	H21	H22	H23	H24	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35	H36	H37
Borehole Barake, Velika Kladuša	nA	nA	41,15	0,59	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Borehole SB-1 Banja Olovo	0,06	0,02	5	4,15	nA	0,14	nA	nA	nA	0	nA	nA	0	nA	0	0,1	nA	nA
Spring Banja Kreševo	nA	0,11	4,8	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,005	0,0027	nA	0,0033
Spring Orlija Olovo	nA	nA	5,06	0,41	0	0,01835	nA	0,00097	nA	0,00044	0,00002	nA	0,001	nA	0,00222	nA	nA	0,00123
Borehole B-4 Kiseljak-Park	0,02	0,01	488	3,78	nA	0,14	nA	nA	nA	0,06	nA	nA	nA	nA	0,03	0,4	nA	nA
Borehole BK-1 Kiseljak, Tuzla	nA	nA	<0,1	0,08	nA	<0,1	nA	<0,00064	<0,005	<0,05	<0,005	nA	<0,03	nA	0,01636	nA	<0,1	nA
Borehole BOP-1, Orašje Planje, Tešanj	nA	nA	1	0,88	nA	nA	nA	nA	nA	<0,05	<0,005	nA	<0,05	0	0,03	0,293	nA	nA
Borehole BT-1 Tukovillidža	nA	nA	420	1,69	nA	nA	nA	0,2154	nA	0,0004	0	nA	0,0015	nA	0,0008	nA	nA	0,02
Borehole TD - 17 Tetima, Tuzla	nA	nA	576	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Spring Crni vrh, Tešanj	nA	nA	333,81	24,36	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,03	0,5	nA	nA
Spring Jezero Hutovo blato	nA	nA	45,63	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Spring Klokun Ljubuški	0,03	0,02	595,2	8,3	nA	0,14	nA	nA	nA	0	nA	nA	0	nA	0	0,01	nA	nA
Spring Petrak Lukavac	0	0,012	32,66	1,03	nA	7,71	nA	nA	nA	nA	0	nA	3,096	27	0,0092	nA	nA	0,2012
Spring Kiseljak Srebrenik	nA	nA	96	1,09	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA

Table 60: Inventory of Natural mineral waters and Thermal waters in Bosnia and Herzegovina: hydrochemical information (continued) and comments.

N1	H38	H39	H40	H41	H42	H43	H44	H45	H46	H47	H48	C1
Borehole B-1 Blažuj	<0,001	nA	<0,01	nA	<0,01	0,06	0,15	23,4	nA	nA	2439	Tritium: ;
Borehole B-1, Dolac, Tešanj	nA	nA	nA	nA	nA	0,45	nA	nA	nA	CO2=2410,00mg/l	5639,47	Tritium: ;
Borehole IB-1 Ilidža	0	0,28	0	nA	nA	0,01	nA	nA	nA	CO2=260mg/l	3057	Tritium: <1,0; Ra=0,28 Bq/l U=0,4µg/l
Borehole IB-2 Ilidža	0,001	0,14	0	nA	nA	0,01	nA	nA	nA	CO2=400mg/l	3092	Tritium: <0,19; Ra=0,22 Bq/l U=0,3 µg/l
Borehole IT-1, Tičići, Kakanj	0	0,06	0	0,2	nA	0,01	nA	nA	nA	CO2=190,00mg/l	1312	Tritium: 9,2;
Borehole MUKI-Moševac, Maglaj	nA	nA	nA	nA	nA	nA	nA	nA	nA	CO2=228mg/l	nA	Tritium: ;
Borehole SB-1, Gata, Bihać	0	0,03	0	nA	nA	0,01	nA	nA	nA	nA	1508	Tritium: 12,4;
Borehole B-6 Gradačac	0,0002	0,11	0,002	nA	nA	0,002	nA	nA	nA	CO2=52mg/l	nA	Tritium: 11,6; Ra=1,4 Pci/l U=0,6Pci/l Rn=194Pci/l
Borehole Do-1, Domaljevac	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	11642,68	Tritium: <1,7; Ra=0,35 Bq/l U=0,2 µg/l Rn=0,09 Bq/l
Borehole KŽ-1"NB"-Čurić Bistrica, Žepče	nA	nA	0,0018	nA	nA	0,01	nA	nA	nA	nA	5205	Tritium: ;



N1	H38	H39	H40	H41	H42	H43	H44	H45	H46	H47	H48	C1
Borehole PEB-4 Gračanica	nA	nA	nA	nA	<0,1	<0,1	nA	nA	nA	nA	nA	Tritium: ;
Borehole SB2, Tomina, Sanska Ilidža	nA	nA	nA	nA	nA	nA	nA	nA	nA	CO2=14 mg/l, N2=16,40mg/l	2396	Tritium: 1,15; Rn=11,89 Bq/l
Borehole SL-1 Slavinovići, Tuzla	nA	nA	nA	nA	nA	nA	nA	nA	nA	CO2=20 mg/l	7242,02	Tritium: <1,7;
Borehole Tr-167, Tuzla	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	314628	Tritium: ;
Spring Ilidža ili Svetinja, Račić, Bihać	nA	0,1	nA	nA	nA	0,01	nA	nA	nA	CO2=15,40 mg/l	1224	Tritium: ; Rn=148,75 +/-3,89 Bq/l
Spring Kiseljak Dabrovine, Vareš	<0,001	nA	nA	nA	nA	0,023	nA	8,5	11,43	CO2=1056 mg/l	2288	Tritium: ; Ra=2,1 Bq/l U=0,98 µg/l Rn=0,165 Bq/l
Spring Rasol Sniježnica	nA	nA	nA	nA	nA	nA	nA	41,9	nA	CO2=1700 mg/l	3794	Tritium: ;
Spring Sedra Breza	nA	0,11	nA	nA	nA	0,01	nA	nA	nA	CO2=101,00 mg/l	1246	Tritium: ; Rn=2,849 Bq/l U=0,3 µg/l
Spring Slanac Ljeskovica, Žepče	nA	nA	nA	nA	nA	nA	nA	nA	nA	CO2=704,00 mg/l	9060,65	Tritium: ;
Spring Vruća voda, Bugojno	<0,001	<0,02	<0,005	0,0005	nA	0,02	nA	nA	nA	nA	1040	Tritium: ; Rn=44,44 Bq/l
A group of wells EB-1, EB-2, EB-3, EB-4, Toplice Živinice	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	Tritium: 7,7;
Borehole B-2, Krušćica, Vitez	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	490	Tritium: ;
Borehole BV-1 Odžak	0,00004	nA	nA	nA	nA	0,01	nA	nA	nA	nA	629	Tritium: ;
Borehole CC WELL Coca-Cola Blažuj	<0,0001	<0,005	<0,001	0,0002	<0,002	0,02	<0,001	13	<0,11	CO2=22 mg/l	420	Tritium: 1,2; tritij 1,2 T.U.
Borehole Barake, Velika Kladuša	nA	nA	nA	nA	nA	nA	nA	nA	nA	CO2=39,6 vol%	473,32	Tritium: 6,4;
Borehole SB-1 Banja Olovo	nA	0,01	nA	nA	nA	0,05	nA	nA	nA	CO2=79 mg/l	523	Tritium: ; Ra=0,056 Bq/l U=0,7 µg/l Rn=1,28 Bq/l
Spring Banja Kreševo	nA	nA	nA	nA	nA	0,082	nA	nA	nA	CO2=14 mg/l	370,17	Tritium: ; Rn=0,1 emana U=0,25 µg/l tritij 0,62 T.U.
Spring Orlja Olovo	0,00042	nA	nA	nA	nA	0,000047	nA	nA	nA	nA	nA	Tritium: ;
Borehole B-4 Kiseljak-Park	nA	0,26	nA	nA	nA	0,23	nA	nA	nA	CO2=844,80 mg/l	3203	Tritium: 6; Ra=0,1 Bq/l U=1,0 µg/l
Borehole BK-1 Kiseljak, Tuzla	<0,0001	nA	nA	nA	<0,5	0,25472	nA	nA	1,14	CO2=2300 mg/l	4081	Tritium: ;
Borehole BOP-1, Orašje Planje, Tešanj	nA	nA	nA	nA	nA	0,016	nA	nA	nA	CO2=3680,00 mg/l	2601	Tritium: ;
Borehole BT-1 Tukovillidža	0,0002	nA	0,002	nA	nA	nA	nA	10,14	0	dissolved CO2=550 mg/l	nA	Tritium: ;
Borehole TD -17 Tetima, Tuzla	nA	nA	nA	nA	nA	nA	nA	nA	nA	CO2=21,7 mg/l	1757,24	Tritium: <1,7;
Spring Crni vrh, Tešanj	nA	nA	nA	nA	nA	0,38	nA	nA	nA	CO2=880,00 mg/l dry matterC	2866,8	Tritium: ;



N1	H38	H39	H40	H41	H42	H43	H44	H45	H46	H47	H48	C1
										O2=2950 mg/l		
Spring Jezero Hutovo blato	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	744,05	Tritium: ;
Spring Klokun Ljubuški	nA	0,02	nA	nA	nA	0	nA	nA	nA	nA	1154	Tritium: ; Ra=0,48 Bq/l U=0,5 µg/l
Spring Petrak Lukavac	nA	nA	nA	nA	0,0116	nA	nA	nA	nA	nA	961,552	Tritium: ; Ra=0,3 Bq/l U=0,3 µg/l
SpringKiseljak Srebrenik	nA	nA	nA	nA	nA	nA	nA	nA	nA	CO2=572 mg/l	1708,98	Tritium: ;

7.2.3 Denmark

Table 61: Inventory of Natural mineral waters in Denmark: Names of sources and general information.

N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Aqua d'or-kilden	Aqua d'or	Denmark	natural mineral water (Directive 2009/54/EC)	1kmE4268N3655	single well	bottled natural mineral water	-	-	5-25
Denicekilden	Denice	Denmark	natural mineral water (Directive 2009/54/EC)	1kmE4268N3655	single well	bottled natural mineral water	-	-	5-25
Arnakke Kilde	Carlsberg Kurvand	Denmark	natural mineral water (Directive 2009/54/EC)	1kmE4291N3672	single well	bottled natural mineral water	-	-	nA
Vinten-Kilden	Kærspringeren	Denmark	natural mineral water (Directive 2009/54/EC)	1kmE4305N3645	single artesian well	bottled natural mineral water	-	-	nA
Iskilden	Iskilde	Denmark	natural mineral water (Directive 2009/54/EC)	1kmE4308N3657	single well	bottled natural mineral water	-	-	<5
AQUA-WELL- Kilden	AQUA-WELL	Denmark	natural mineral water (Directive 2009/54/EC)	1kmE4403N3572	well field	bottled natural mineral water	-	-	nA
Egekilde	Egekilde	Denmark	natural mineral water (Directive 2009/54/EC)	1kmE4454N3576, 1kmE4453N3576, 1kmE4453N3575	well field	bottled natural mineral water	-	-	nA
Kildevæld	Kildevæld	Denmark	natural mineral water (Directive 2009/54/EC)	1kmE4302N3796, 1kmE4303N3796	well field	bottled natural mineral water	-	-	nA
Nornir	Nornir	Denmark	natural mineral water (Directive 2009/54/EC)	1kmE4267N3647	single well	bottled natural mineral water	-	-	nA
Krusmølle Kilde	Krusmølle Kilde	Denmark	natural mineral water (Directive 2009/54/EC)	1kmE4288N3544	single artesian well	bottled natural mineral water	-	-	nA
Holk	Holk	Denmark	natural mineral water (Directive 2009/54/EC)	1kmE4333N3713	single well	bottled natural mineral water	-	-	nA
Fruenskilde	Fruenskilde	Denmark	natural mineral water (Directive 2009/54/EC)	1kmE4290N3629	single well	bottled natural mineral water	-	-	nA
Boring 7	Boring 7	Denmark	natural mineral water (Directive 2009/54/EC)	1kmE4648N3562	single well	bottled natural mineral water	-	-	nS
Balders Kilde	Balders Kilde	Denmark	natural mineral water	1kmE4252N3614	single artesian well	bottled natural	-	-	5-25



N1	N2	N3	G1 (Directive 2009/54/EC)	G2	G3	G4 mineral water	G5	G6	G7

Table 62: Inventory of Natural mineral waters and Thermal waters in Denmark: Names of sources and aquifer information.

N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
Aqua d'or-kilden	180	64	76	porous	confined subartesian	sand	all	-	-	-	-	Miocene	Miocene
Denicekilden	180	64	76	porous	confined subartesian	sand	all	-	-	-	-	Miocene	Miocene
Arnakke Kilde	17	11	15	porous	confined subartesian	sand	all	-	-	-	-	Quaternary	Quaternary
Vinten-Kilden	21	nA	nA	nA	confined artesian	nA	nA	-	-	-	-	nA	nA
Iskilden	52	46	52	porous	confined subartesian	sand	all	-	-	-	-	Quaternary	Quaternary
AQUA-WELL-Kilden	nA	nA	nA	porous	unconfined	sand	all	-	-	-	-	Quaternary	Quaternary
Egekilde	nA	nA	nA	fractured OR porous and fractured	confined subartesian	limestone	all	-	-	-	-	Danian	Danian
Kildevæld	nA	nA	nA	fractured OR porous and fractured	confined subartesian	sand	dominant	chalk	minor	-	-	Quaternary	Maastrichtian
Nornir	115	100	115	porous	confined subartesian	sand	all	-	-	-	-	Miocene	Miocene
Krusmølle Kilde	nA	nA	nA	nA	confined artesian	nA	nA	-	-	-	-	nA	nA
Holk	40	23,5	40	fractured OR porous and fractured	confined subartesian	chalk	dominant	limestone	minor	-	-	Danian	Danian
Fruenskilde	64	54	60	porous	confined subartesian	sand	all	-	-	-	-	Miocene	Miocene
Boring 7	76,4	1,4	76,4	fractured	unconfined	sandstone	all	-	-	-	-	Cambrian	Cambrian
Balders Kilde	155	141	153	porous	confined subartesian	sand	all	-	-	-	-	Miocene	nA

Table 63: Inventory of Natural mineral waters in Denmark: Names of sources, groundwater age and hydrochemical information.

N1	A1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19
Aqua d'or-kilden	older than 60	<15	<1	nA	7	nA	nA	10	nA	36	3	nA	nA	nA	nA	nA	120	nA	nA	nA
Denicekilden	older than 60	<15	<1	nA	7	nA	nA	10	3	22	13	nA	nA	nA	nA	nA	140	nA	nA	11
Arnakke Kilde	nA	<15	<1	350	6,7	nA	0,2	25	1,3	32	3,9	nA	0,045	3,2	0,23	0,037	81,6	nA	0,079	46
Vinten-Kilden	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Iskilden	younger than 60	<15	<1	nS	nS	nA	nS	nS	nS	nS	nS	nA	nA	nS	nS	nS	nS	nA	nS	nS
AQUA-WELL-Kilden	nA	<15	<1	990	7,6	nA	9,5	72	4,3	110	50	nA	nA	0,026	0,007	0,022	348	nA	0,55	99
Egekilde	nA	<15	<1	625	7,6	nA	9,21	nA	nA	nA	nA	nA	nA	0,034	<0,005	0,01	nA	nA	0,62	28
Kildevæld	nA	<15	<1	570	7,3	nA	9,4	25	3,5	72	12	nA	nA	<0,01	<0,002	0,0052	216	nA	0,23	48
Nornir	nA	<15	<1	210	6,8	nA	<0,1	7,57	0,86	32,2	2,33	nA	0,018	1,67	0,125	0,04	99	nA	<0,1	12
Krusmølle Kilde	nA	<15	<1	530	7,4	nA	13,6	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Holk	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fruenskilde	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Boring 7	nS	<15	<1	nS	nS	nA	nS	36	6	92	23	nA	nS	nS	nS	nS	335	nA	1,2	43
Balders Kilde	older than 60	<15	<1	388	8,3	- 174,2	0,01	16	5,7	32	22	1,1	0,013	<0,01	0,026	0,4	235	<5	0,089	12

Table 64: Inventory of Natural mineral waters in Denmark: Names of sources and hydrochemical information (continued).



N1	H20	H21	H22	H23	H24	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35	H36
Aqua d'orkilden	nA	nA	3	<1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Denicekilden	nA	nA	3	<1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Arnakke Kilde	nA	nA	29	<0.3	nA	nA	nA	0,00064	nA	nA	nA	nA	nA	0,00054	nA	nA	nA
Vinten-Kilden	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Iskilden	nA	nA	nS	nS	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
AQUA-WELL-Kilden	nA	nA	90	2,1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Egekilde	nA	nA	14	2,1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Kildevæld	nA	nA	43	0,88	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Nornir	nA	nA	8,1	<0.5	nA	nA	nA	<DL	nA	nA	nA	nA	nA	<DL	nA	nA	nA
Krusmølle Kilde	nA	nA	nA	nA	nA	nA	nA	<DL	nA	nA	nA	nA	nA	<DL	nA	nA	nA
Holk	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fruenskilde	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Boring 7	nA	nA	63	nS	nA	nA	nS	nS	nA	nS	nS	nA	nS	nS	nS	nA	nA
Balders Kilde	0,031	0,0018	1,2	<0.3	<0.02	0,0006	0,00032	0,000034	<0.02/100	0,000065	<0.004/1000	nA	<0.04/1000	nA	0,00047	nA	nA

Table 65: Inventory of Natural mineral waters in Denmark: Names of sources, hydrochemical information (continued) and comments.

N1	H37	H38	H39	H40	H41	H42	H43	H44	H45	H46	H47	C1
Aqua d'orkilden	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	Carbon dioxide (CO ₂)	identification number in JUPITER database: DGUnr 95. 2730
Denicekilden	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	Carbon dioxide (CO ₂)	identification number in JUPITER database: DGUnr 95. 2730
Arnakke Kilde	0,0019	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	identification number in JUPITER database: DGUnr 87. 1102
Vinten-Kilden	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	identification number in JUPITER database: DGUnr 106. 1524
Iskilden	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	identification number in JUPITER database: DGUnr 98. 1082
AQUA-WELL-Kilden	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	identification number in JUPITER database: multiple wells; Anlægsid: 103807
Egekilde	0,037	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	identification number in JUPITER database: multiple wells; Anlægsid: 55508



N1	H37	H38	H39	H40	H41	H42	H43	H44	H45	H46	H47	C1
Kildevæld	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	identification number in JUPITER database: multiple wells; Anlægsid: 70769
Nornir	<DL	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	identification number in JUPITER database: DGUnr 104. 2689
Krusmølle Kilde	0,00048	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	identification number in JUPITER database: Anlægsid 176917
Holk	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	identification number in JUPITER database: DGUnr 59. 425
Fruenskilde	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	identification number in JUPITER database: DGUnr 116. 1707
Boring 7	nS	nS	nA	nS	nA	nA	nA	nA	nA	nA	nA	identification number in JUPITER database: DGU 247. 2E
Balders Kilde	<0.03/1000	0,0000022	nA	<0.05/1000	nA	nA	0,0014	nA	6,2	0,031	Methane (CH ₄)	identification number in JUPITER database: DGU 123.1542

7.2.4 Italy

Table 66: Inventory of Thermal waters in Austria: Names of sources and general information.

N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
A.Calda di S.Lorenzo	nA	Italy	thermal water source	1kmE4597N1 646	single captured spring	nA	nA	nA	>25
Abba Meiga	nA	Italy	thermal water source	1kmE4186N1 964	single captured spring	nA	nA	nA	<5
Abba Meiga	nA	Italy	thermal water source	1kmE4288N1 914	single captured spring	nA	nA	nA	5-25
Abbarghente	nA	Italy	thermal water source	1kmE4201N1 929	single captured spring	natural mineral water publicly available	nA	nA	<5
Acqua Acetosa	nA	Italy	thermal water source	1kmE4481N2 128	single captured spring	nA	nA	nA	nA
Acqua Appia	nA	Italy	thermal water source	1kmE4535N2 082	single captured spring	nA	nA	nA	nA
Acqua Bolle	nA	Italy	thermal water source	1kmE4408N2 284	single captured spring	nA	nA	nA	nA
Acqua Borra	nA	Italy	thermal water source	1kmE4437N2 245	captured spring group	natural mineral water publicly available	nA	nA	nA



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Acqua Calda	nA	Italy	thermal water source	1kmE4582N1 629	single captured spring	thermal water for balneology	nA	nA	>25
Acqua Calda	nA	Italy	thermal water source	1kmE4640N1 666	single captured spring	nA	nA	nA	nA
Acqua Calena	nA	Italy	thermal water source	1kmE4662N2 019	single captured spring	nA	nA	nA	nA
Acqua Claudia	nA	Italy	thermal water source	1kmE4512N2 110	well field	thermal water for balneology	nA	nA	<5
Acqua dei Bagni	nA	Italy	thermal water source	1kmE4460N2 204	captured spring group	thermal water for balneology	nA	nA	nA
Acqua del Doccio	nA	Italy	thermal water source	1kmE4425N2 229	captured spring group	natural mineral water publicly available	nA	nA	nA
Acqua della Gora	nA	Italy	thermal water source	1kmE4360N2 340	single captured spring	nA	nA	nA	nA
Acqua della Gora	nA	Italy	thermal water source	1kmE4475N2 197	captured spring group	thermal water for balneology	nA	nA	<5
Acqua di Sillene	nA	Italy	thermal water source	1kmE4469N2 216	captured spring group	thermal water for balneology	nA	nA	nA
Acqua Fitusa	nA	Italy	thermal water source	1kmE4648N1 626	single captured spring	natural mineral water publicly available	nA	nA	nA
Acqua Livia	nA	Italy	thermal water source	1kmE4495N2 097	single captured spring	nA	nA	nA	<5
Acqua Montalceto	nA	Italy	thermal water source	1kmE4452N2 235	captured spring group	nA	nA	nA	nA
Acqua Salata	nA	Italy	thermal water source	1kmE4355N2 327	single captured spring	nA	nA	nA	<5
Acqua Solfa Ardea	nA	Italy	thermal water source	1kmE4534N2 059	single captured spring	nA	nA	nA	nA
Acqua Solfurea	nA	Italy	thermal water source	1kmE4527N2 188	single captured spring	nA	nA	nA	<5
Acqua Solfurea	nA	Italy	thermal water source	1kmE4515N2 127	single captured spring	nA	nA	nA	5-25
Acqua Zolfa	nA	Italy	thermal water source	1kmE4646N2 029	single captured spring	nA	nA	nA	nA
Acquacallente	nA	Italy	thermal water source	1kmE4210N1 785	single captured spring	nA	nA	nA	nA
Acquaforse	nA	Italy	thermal water source	1kmE4465N2 164	single captured spring	nA	nA	nA	nA
Acquaforse	nA	Italy	thermal water source	1kmE4477N2 150	captured spring group	natural mineral water publicly available	nA	nA	<5
Acquasanta	nA	Italy	thermal water source	1kmE4222N2 373	single captured spring	thermal water for balneology	nA	nA	nA
Acquasanta	nA	Italy	thermal water source	1kmE4600N2 191	captured spring group	thermal water for balneology	nA	nA	nA
Acque Sante	nA	Italy	thermal water source	1kmE4866N1 708	captured spring group	thermal water for balneology	nA	nA	nA
Acque Sinuessane	nA	Italy	thermal water source	1kmE4646N2 012	captured spring group	thermal water for balneology	nA	nA	nA
Acquedotto 3	nA	Italy	thermal water source	1kmE4226N1 805	well field	nA	nA	nA	5-25
Alcovia	nA	Italy	thermal water source	1kmE4749N1 601	well field	nA	nA	nA	nA
Aphrodite	nA	Italy	thermal water source	1kmE4651N1 964	well field	thermal water for balneology	nA	nA	5-25
Aronna	nA	Italy	thermal water source	1kmE4392N2 211	single captured spring	nA	nA	nA	nA
Baccanello	nA	Italy	thermal water source	1kmE4519N2 109	single well	nA	nA	nA	nA
Bagnaccio	nA	Italy	thermal water source	1kmE4491N2 153	captured spring group	thermal water for balneology	nA	nA	nA



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Bagnarello	nA	Italy	thermal water source	1kmE4483N2 116	single captured spring	natural mineral water publicly available	nA	nA	nA
Bagnarello	nA	Italy	thermal water source	1kmE4490N2 114	captured spring group	thermal water for balneology	nA	nA	<5
Bagnetti Agnano	nA	Italy	thermal water source	1kmE4360N2 290	captured spring group	thermal water for balneology	nA	nA	nA
Bagni	nA	Italy	thermal water source	1kmE4370N2 268	single captured spring	thermal water for balneology	nA	nA	nA
Bagni	nA	Italy	thermal water source	1kmE4628N1 657	single captured spring	natural mineral water publicly available	nA	nA	nA
Bagni	nA	Italy	thermal water source	1kmE4647N1 664	single captured spring	thermal water for balneology	nA	nA	nA
Bagni	nA	Italy	thermal water source	1kmE4662N1 647	single captured spring	natural mineral water publicly available	nA	nA	nA
Bagni di Levante	nA	Italy	thermal water source	1kmE4356N2 295	captured spring group	thermal water for balneology	nA	nA	>25
Bagni Galleriaie	nA	Italy	thermal water source	1kmE4404N2 232	single captured spring	thermal water for balneology	nA	nA	nA
Bagni I-2A	nA	Italy	thermal water source	1kmE4087N2 357	captured spring group	thermal water for balneology	nA	nA	<5
Bagni Petrolio	nA	Italy	thermal water source	1kmE4427N2 220	single captured spring	thermal water for balneology	nA	nA	nA
Bagni San Cataldo	nA	Italy	thermal water source	1kmE4800N1 979	single captured spring	thermal water for balneology	nA	nA	<5
Bagni San Michele	nA	Italy	thermal water source	1kmE4392N2 240	single captured spring	thermal water for balneology	nA	nA	nA
Bagni Saturnia	nA	Italy	thermal water source	1kmE4445N2 173	captured spring group	thermal water for balneology	nA	nA	>25
Bagni Termali	nA	Italy	thermal water source	1kmE4493N2 199	single captured spring	thermal water for balneology	nA	nA	<5
Bagni Triponzi	nA	Italy	thermal water source	1kmE4562N2 197	single captured spring	thermal water for balneology	nA	nA	nA
Bagniacchio	nA	Italy	thermal water source	1kmE4453N2 226	single captured spring	thermal water for balneology	nA	nA	nA
Bagno Barbarano	nA	Italy	thermal water source	1kmE4443N2 477	captured spring group	thermal water for balneology	thermal water for heating	nA	nA
Bagno dell'Acqua	nA	Italy	thermal water source	1kmE4498N1 530	single well	thermal water for balneology	nA	nA	nA
Bagno di Equi	nA	Italy	thermal water source	1kmE4333N2 340	single captured spring	thermal water for balneology	nA	nA	>25
Bagno di Roselle	nA	Italy	thermal water source	1kmE4414N2 190	captured spring group	thermal water for balneology	nA	nA	nA
Bagno Grande	nA	Italy	thermal water source	1kmE4474N2 198	captured spring group	thermal water for balneology	nA	nA	5-25
Bagno Lagoncico	nA	Italy	thermal water source	1kmE4392N2 231	captured spring group	thermal water for balneology	nA	nA	nA
Bagno Montioni	nA	Italy	thermal water source	1kmE4382N2 211	single captured spring	thermal water for balneology	nA	nA	nA
Bagno Musignano	nA	Italy	thermal water source	1kmE4462N2 150	single captured spring	thermal water for balneology	nA	nA	nA
Bagno Nord	nA	Italy	thermal water source	1kmE4450N2 465	captured spring group	thermal water for balneology	nA	nA	nA
Bagno Regina	nA	Italy	thermal water source	1kmE4376N2 255	single captured spring	nA	nA	nA	nA
Bagno Regina	nA	Italy	thermal water source	1kmE4521N2 105	captured spring group	thermal water for balneology	nA	nA	<5
Bagno Vignoni	nA	Italy	thermal water source	1kmE4453N2 214	single captured spring	thermal water for balneology	nA	nA	nA



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Bagnoli	nA	Italy	thermal water source	1kmE4448N2 197	single captured spring	nA	nA	nA	nA
Bagnolo	nA	Italy	thermal water source	1kmE4389N2 227	captured spring group	thermal water for balneology	nA	nA	nA
Banzu Mannu	nA	Italy	thermal water source	1kmE4245N1 925	captured spring group	thermal water for balneology	nA	nA	<5
Boiola	nA	Italy	thermal water source	1kmE4368N2 487	single captured spring	thermal water for balneology	nA	nA	nA
Bolle Malvizza	nA	Italy	thermal water source	1kmE4747N2 032	single captured spring	natural mineral water publicly available	nA	nA	nA
Bollori	nA	Italy	thermal water source	1kmE4399N2 269	single captured spring	nA	nA	nA	nA
Bongiovanni	nA	Italy	thermal water source	1kmE4765N1 588	single well	nA	nA	nA	nA
Bonvicino	nA	Italy	thermal water source	1kmE4768N1 602	well field	nA	nA	nA	nA
Borgo Pantano	nA	Italy	thermal water source	1kmE4466N2 117	single captured spring	nA	nA	nA	nA
Brennerbad	nA	Italy	thermal water source	1kmE4434N2 652	single captured spring	nA	nA	nA	>25
Bruciarello	nA	Italy	thermal water source	1kmE4913N1 814	single captured spring	thermal water for balneology	nA	nA	<5
Buonriposo	nA	Italy	thermal water source	1kmE4499N2 263	single captured spring	nA	nA	nA	nA
Caddas	nA	Italy	thermal water source	1kmE4218N1 878	captured spring group	thermal water for balneology	nA	nA	>25
Cala Tramontana	nA	Italy	thermal water source	1kmE4505N1 528	captured spring group	natural mineral water publicly available	nA	nA	nA
Caldana	nA	Italy	thermal water source	1kmE4202N2 395	single captured spring	natural mineral water publicly available	nA	nA	<5
Caldana	nA	Italy	thermal water source	1kmE4411N2 254	single captured spring	natural mineral water publicly available	nA	nA	nA
Caldana	nA	Italy	thermal water source	1kmE4871N1 884	single captured spring	thermal water for balneology	nA	nA	nA
Caldanelle	nA	Italy	thermal water source	1kmE4409N2 194	single captured spring	thermal water for balneology	nA	nA	5-25
Caldara	nA	Italy	thermal water source	1kmE4495N2 112	single captured spring	natural mineral water publicly available	nA	nA	nA
Canalette	nA	Italy	thermal water source	1kmE4472N2 211	single captured spring	thermal water for balneology	nA	nA	nA
Capasso	nA	Italy	thermal water source	1kmE4766N1 969	captured spring group	thermal water for balneology	nA	nA	nA
Capodaquas	nA	Italy	thermal water source	1kmE4200N1 800	single captured spring	nA	nA	nA	nA
Caputacquas	nA	Italy	thermal water source	1kmE4191N1 793	captured spring group	nA	nA	nA	5-25
Carabollace	nA	Italy	thermal water source	1kmE4599N1 609	captured spring group	natural mineral water publicly available	nA	nA	nA
Cardia-Capoterra	nA	Italy	thermal water source	1kmE4230N1 786	single well	nA	nA	nA	nA
Caronte	nA	Italy	thermal water source	1kmE4839N1 841	captured spring group	thermal water for balneology	nA	nA	nA
Caronte	nA	Italy	thermal water source	1kmE4866N1 787	captured spring group	thermal water for balneology	nA	nA	>25
Carta Romana	nA	Italy	thermal water source	1kmE4656N1 967	single well	nA	nA	nA	nA



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Cartiera Marras	nA	Italy	thermal water source	1kmE4202N1 805	single captured spring	nA	nA	nA	<5
Casale Acquadoro	nA	Italy	thermal water source	1kmE4492N2 110	single well	nA	nA	nA	nA
Cassiodora	nA	Italy	thermal water source	1kmE4348N2 597	captured spring group	thermal water for balneology	nA	nA	5-25
Casteldoria	nA	Italy	thermal water source	1kmE4227N1 978	single well	thermal water for balneology	nA	nA	5-25
Cava dei Selci	nA	Italy	thermal water source	1kmE4539N2 079	single captured spring	nA	nA	nA	nA
Cestelia	nA	Italy	thermal water source	1kmE4698N1 973	well field	nA	nA	nA	nA
Cucco	nA	Italy	thermal water source	1kmE4754N1 600	well field	nA	nA	nA	nA
Doccione A	nA	Italy	thermal water source	1kmE4367N2 322	captured spring group	thermal water for balneology	nA	nA	<5
Donzelle	nA	Italy	thermal water source	1kmE4398N2 338	captured spring group	thermal water for balneology	nA	nA	nA
Faccio Bianco	nA	Italy	thermal water source	1kmE4744N1 595	well field	nA	nA	nA	nA
Fedita	nA	Italy	thermal water source	1kmE5045N1 923	single captured spring	thermal water for balneology	nA	nA	nA
Fonte Calda	nA	Italy	thermal water source	1kmE4204N1 777	captured spring group	nA	nA	nA	5-25
Fonte Vittoria	nA	Italy	thermal water source	1kmE4275N2 453	single captured spring	thermal water for balneology	nA	nA	<5
Fontiloro	nA	Italy	thermal water source	1kmE4493N2 121	captured spring group	nA	nA	nA	nA
Fosso Lupara	nA	Italy	thermal water source	1kmE4453N2 152	single well	nA	nA	nA	<5
Fosso Treia	nA	Italy	thermal water source	1kmE4519N2 123	single captured spring	nA	nA	nA	nA
Fulco	nA	Italy	thermal water source	1kmE4778N1 762	well field	nA	nA	nA	nA
Gelsomina 1	nA	Italy	thermal water source	1kmE4649N1 966	well field	thermal water for balneology	nA	nA	nA
Gorga 1	nA	Italy	thermal water source	1kmE4577N1 659	captured spring group	thermal water for balneology	nA	nA	>25
Grotta Giusti	nA	Italy	thermal water source	1kmE4386N2 308	captured spring group	thermal water for balneology	nA	nA	nA
Grotta Sataria	nA	Italy	thermal water source	1kmE4496N1 526	single captured spring	natural mineral water publicly available	nA	nA	nA
Hotel Plaza	nA	Italy	thermal water source	1kmE4526N2 092	single captured spring	nA	nA	nA	nA
Ibsen	nA	Italy	thermal water source	1kmE4652N1 969	single well	nA	nA	nA	nA
Il Piano	nA	Italy	thermal water source	1kmE4474N2 165	single well	nA	nA	nA	nA
La Boia	nA	Italy	thermal water source	1kmE4445N2 474	single captured spring	thermal water for heating	nA	nA	nA
La Bollente	nA	Italy	thermal water source	1kmE4198N2 397	captured spring group	thermal water for balneology	nA	nA	5-25
La Caldara	nA	Italy	thermal water source	1kmE4503N2 098	single captured spring	nA	nA	nA	nA
La Cava	nA	Italy	thermal water source	1kmE4460N2 464	single captured spring	nA	nA	nA	nA
La Grotta	nA	Italy	thermal water source	1kmE4461N2 465	captured spring group	thermal water for balneology	nA	nA	nA
La Mensa	nA	Italy	thermal water source	1kmE4395N2 238	captured spring group	thermal water for balneology	nA	nA	nA
La Pescara	nA	Italy	thermal water source	1kmE4512N2 113	single well	nA	nA	nA	nA
Laghetto	nA	Italy	thermal water source	1kmE4512N2 156	captured spring group	natural mineral water publicly available	nA	nA	nA
Laghi del Vescovo	nA	Italy	thermal water source	1kmE4582N2 044	single captured spring	natural mineral water	nA	nA	nA



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
						publicly available			
Lago dei Palici	nA	Italy	thermal water source	1kmE4740N1595	single well	nA	nA	nA	>25
Lago Regina	nA	Italy	thermal water source	1kmE4547N2098	captured spring group	thermal water for balneology	nA	nA	nA
Lendinara	nA	Italy	thermal water source	1kmE4409N2476	single well	nA	nA	nA	<5
Leopoldina	nA	Italy	thermal water source	1kmE4383N2308	captured spring group	thermal water for balneology	nA	nA	nA
Lungari	nA	Italy	thermal water source	1kmE4839N1672	single captured spring	nA	nA	nA	<5
M.te Palla	nA	Italy	thermal water source	1kmE4216N1868	single well	nA	nA	nA	nA
Magnadorsa	nA	Italy	thermal water source	1kmE4561N2273	single captured spring	nA	nA	nA	nA
Maladroxia	nA	Italy	thermal water source	1kmE4185N1769	single captured spring	natural mineral water publicly available	nA	nA	nA
Marino 2	nA	Italy	thermal water source	1kmE4800N1675	captured spring group	thermal water for balneology	nA	nA	nA
Mattagiana	nA	Italy	thermal water source	1kmE4195N1915	single captured spring	nA	nA	nA	<5
Mattarghentù	nA	Italy	thermal water source	1kmE4180N1953	single captured spring	nA	nA	nA	<5
Mefite d'Ansanto	nA	Italy	thermal water source	1kmE4754N2000	captured spring group	natural mineral water publicly available	nA	nA	nA
Menegolli 11	nA	Italy	thermal water source	1kmE4460N2473	well field	thermal water for balneology	nA	nA	nA
Miano	nA	Italy	thermal water source	1kmE4328N2375	single well	thermal water for heating	nA	nA	nA
Mola di Bassano	nA	Italy	thermal water source	1kmE4504N2127	single well	nA	nA	nA	<5
Molino del Tifo	nA	Italy	thermal water source	1kmE4421N2221	single captured spring	thermal water for electricity production	nA	nA	<5
Monte Bischerò	nA	Italy	thermal water source	1kmE4488N2104	captured spring group	nA	nA	nA	<5
Monte Doganella	nA	Italy	thermal water source	1kmE4460N2153	captured spring group	nA	nA	nA	<5
n. 32	nA	Italy	thermal water source	1kmE4691N1978	single well	nA	nA	nA	nA
Naftia	nA	Italy	thermal water source	1kmE4740N1596	single well	nA	nA	nA	nA
Nuraxi Figus	nA	Italy	thermal water source	1kmE4185N1793	single captured spring	nA	nA	nA	5-25
Oddini	nA	Italy	thermal water source	1kmE4240N1912	single captured spring	natural mineral water publicly available	nA	nA	<5
P. Cicerone	nA	Italy	thermal water source	1kmE4794N2075	single well	nA	nA	nA	nA
P.zo Milo	nA	Italy	thermal water source	1kmE4549N1663	single well	nA	nA	nA	nA
Paglieto	nA	Italy	thermal water source	1kmE4458N2150	single captured spring	nA	nA	nA	<5
Palagio	nA	Italy	thermal water source	1kmE4391N2265	captured spring group	nA	nA	nA	nA
Palmas di Arborea	nA	Italy	thermal water source	1kmE4205N1866	single well	nA	nA	nA	nA
Panarea 1	nA	Italy	thermal water source	1kmE4765N1743	single captured spring	nA	nA	nA	nA
Perdu Mannu	nA	Italy	thermal water source	1kmE4230N1787	single captured spring	nA	nA	nA	<5
Pietre Bianche	nA	Italy	thermal water source	1kmE4757N1717	single captured spring	thermal water for balneology	nA	nA	nA
Pisana	nA	Italy	thermal water source	1kmE4745N1538	single well	nA	nA	nA	nA



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Pisciarelli	nA	Italy	thermal water source	1kmE4671N1 979	captured spring group	thermal water for balneology	nA	nA	nA
Podere Montaldo	nA	Italy	thermal water source	1kmE4230N1 789	single well	nA	nA	nA	nA
Poggetti Vecchi	nA	Italy	thermal water source	1kmE4408N2 190	single captured spring	thermal water for balneology	nA	nA	5-25
Poggio Cavaliere	nA	Italy	thermal water source	1kmE4502N2 135	single well	nA	nA	nA	nA
Ponte di ferro II	nA	Italy	thermal water source	1kmE4778N1 639	single captured spring	nA	nA	nA	nA
Pozzo	nA	Italy	thermal water source	1kmE4494N2 116	single well	nA	nA	nA	nA
Pozzo	nA	Italy	thermal water source	1kmE4507N2 120	single well	nA	nA	nA	nA
Pozzo Cinquare 2	nA	Italy	thermal water source	1kmE4489N2 108	well field	nA	nA	nA	nA
Pozzo Colombo 5	nA	Italy	thermal water source	1kmE4215N1 828	well field	nA	nA	nA	nA
Pozzo Fogliano	nA	Italy	thermal water source	1kmE4499N2 138	single well	nA	nA	nA	nA
Pozzo Laurentina	nA	Italy	thermal water source	1kmE4527N2 078	single well	nA	nA	nA	nA
Pozzo n ¹	nA	Italy	thermal water source	1kmE4557N2 511	well field	thermal water for balneology	nA	nA	<5
Pozzo n ⁷	nA	Italy	thermal water source	1kmE4559N2 514	well field	thermal water for balneology	nA	nA	<5
Pozzo Pantelleria	nA	Italy	thermal water source	1kmE4495N1 531	single well	natural mineral water publicly available	nA	nA	nA
Pra di Lama	nA	Italy	thermal water source	1kmE4354N2 335	single captured spring	natural mineral water publicly available	nA	nA	<5
Pre-Saint-Didier	nA	Italy	thermal water source	1kmE4086N2 521	single captured spring	thermal water for balneology	nA	nA	<5
Principale	nA	Italy	thermal water source	1kmE4833N1 908	captured spring group	thermal water for balneology	nA	nA	nA
Rann 1	nA	Italy	thermal water source	1kmE4759N1 599	well field	nA	nA	nA	5-25
Rio Cannas	nA	Italy	thermal water source	1kmE4193N1 787	single captured spring	nA	nA	nA	<5
Rio Murtas	nA	Italy	thermal water source	1kmE4208N1 788	captured spring group	nA	nA	nA	<5
Roba Vecchia	nA	Italy	thermal water source	1kmE4764N1 623	single well	nA	nA	nA	nA
S. Angelo	nA	Italy	thermal water source	1kmE4650N1 964	single captured spring	nA	nA	nA	nA
S. Margherita Tramatza	nA	Italy	thermal water source	1kmE4205N1 879	single well	nA	nA	nA	nA
S. Maria di Pollina	nA	Italy	thermal water source	1kmE4685N1 663	single captured spring	nA	nA	nA	<5
S. Martino A	nA	Italy	thermal water source	1kmE4208N1 955	single captured spring	nA	nA	nA	nA
Sa Canna 1	nA	Italy	thermal water source	1kmE4222N1 795	single captured spring	natural mineral water publicly available	nA	nA	<5
Sa Guardia 1	nA	Italy	thermal water source	1kmE4227N1 796	captured spring group	nA	nA	nA	5-25
S'Acquacotta	nA	Italy	thermal water source	1kmE4219N1 813	single captured spring	bottled natural mineral water	nA	nA	5-25
San Giovanni	nA	Italy	thermal water source	1kmE4450N2 243	captured spring group	thermal water for balneology	nA	nA	nA
San Lorenzo 1	nA	Italy	thermal water source	1kmE4650N1 970	well field	thermal water for balneology	nA	nA	5-25
San Nazzario	nA	Italy	thermal water source	1kmE4775N2 099	single captured spring	natural mineral water publicly available	nA	nA	nA



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
San Pellegrino	nA	Italy	thermal water source	1kmE4294N2 526	single captured spring	thermal water for balneology	nA	nA	nA
San Teodoro 2	nA	Italy	thermal water source	1kmE4752N2 000	captured spring group	thermal water for balneology	nA	nA	<5
Santa Maria dell'Aquila	nA	Italy	thermal water source	1kmE4461N2 176	single captured spring	nA	nA	nA	nA
Santa Maria is Aquas	nA	Italy	thermal water source	1kmE4215N1 836	captured spring group	thermal water for balneology	nA	nA	5-25
Santa Venera	nA	Italy	thermal water source	1kmE4780N1 629	single captured spring	thermal water for balneology	nA	nA	nA
Sant'Elia	nA	Italy	thermal water source	1kmE4858N1 730	single captured spring	thermal water for balneology	nA	nA	<5
Santo Stefano	nA	Italy	thermal water source	1kmE4536N2 059	single well	nA	nA	nA	nA
Selinuntine	nA	Italy	thermal water source	1kmE4596N1 608	captured spring group	thermal water for balneology	nA	nA	nA
Serravalle	nA	Italy	thermal water source	1kmE4752N1 597	well field	nA	nA	nA	nA
Siponto	nA	Italy	thermal water source	1kmE4813N2 072	single captured spring	natural mineral water publicly available	nA	nA	nA
Solfatara Alta	nA	Italy	thermal water source	1kmE4532N2 070	single captured spring	natural mineral water publicly available	nA	nA	nA
Solforata	nA	Italy	thermal water source	1kmE4511N2 128	single captured spring	nA	nA	nA	nA
Solforosa	nA	Italy	thermal water source	1kmE4725N2 003	single captured spring	nA	nA	nA	nA
Sorgente	nA	Italy	thermal water source	1kmE4571N2 104	single captured spring	nA	nA	nA	nA
Sorgente del Cimitero	nA	Italy	thermal water source	1kmE4451N2 244	captured spring group	thermal water for balneology	nA	nA	nA
Sorgente della Lepre	nA	Italy	thermal water source	1kmE4913N1 818	single captured spring	thermal water for balneology	nA	nA	<5
Sorgente delle Grazie	nA	Italy	thermal water source	1kmE4862N1 866	single captured spring	thermal water for balneology	nA	nA	nA
Sorgente Terme Tommasi	nA	Italy	thermal water source	1kmE4648N2 032	well field	thermal water for balneology	nA	nA	nA
Soro Uras	nA	Italy	thermal water source	1kmE4209N1 846	single well	nA	nA	nA	nA
Sos Bagnos	nA	Italy	thermal water source	1kmE4238N1 915	single captured spring	natural mineral water publicly available	nA	nA	<5
Stufe Nerone	nA	Italy	thermal water source	1kmE4666N1 979	captured spring group	thermal water for balneology	nA	nA	nA
Su Campu	nA	Italy	thermal water source	1kmE4237N1 809	single well	nA	nA	nA	nA
Sulfurea Castelpoto	nA	Italy	thermal water source	1kmE4716N2 015	single captured spring	nA	nA	nA	nA
Talamonaccio	nA	Italy	thermal water source	1kmE4417N2 161	single captured spring	nA	nA	nA	nA
Temo-Cuga	nA	Italy	thermal water source	1kmE4190N1 937	single captured spring	nA	nA	nA	5-25
Terme	nA	Italy	thermal water source	1kmE4205N2 560	single captured spring	thermal water for balneology		nA	<5
Terme Apollinari	nA	Italy	thermal water source	1kmE4504N2 120	single captured spring	thermal water for balneology	nA	nA	<5
Terme di Caldana	nA	Italy	thermal water source	1kmE4369N2 214	single captured spring	thermal water for balneology	nA	nA	nA



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Terme di Comano	nA	Italy	thermal water source	1kmE4389N2 548	single captured spring	thermal water for balneology	nA	nA	nA
Terme di Cretone	nA	Italy	thermal water source	1kmE4544N2 113	single captured spring	thermal water for balneology	nA	nA	>25
Terme di Giunone	nA	Italy	thermal water source	1kmE4414N2 478	single captured spring	thermal water for balneology	nA	nA	5-25
Terme di Pompeo	nA	Italy	thermal water source	1kmE4594N2 070	single captured spring	nA	nA	nA	5-25
Terme di Traiano	nA	Italy	thermal water source	1kmE4473N2 113	captured spring group	thermal water for balneology	nA	nA	nA
Terme Il-4	nA	Italy	thermal water source	1kmE4102N2 348	captured spring group	thermal water for balneology	nA	nA	<5
Terme Militari	nA	Italy	thermal water source	1kmE4655N1 969	well field	thermal water for balneology	nA	nA	nA
Terme Romane	nA	Italy	thermal water source	1kmE4598N2 526	single captured spring	thermal water for balneology	nA	nA	nA
Terme Sant'Agnese	nA	Italy	thermal water source	1kmE4479N2 305	single captured spring	thermal water for balneology	nA	nA	>25
Terme Sibarite 3	nA	Italy	thermal water source	1kmE4864N1 877	captured spring group	thermal water for balneology	nA	nA	>25
Terme Telese	nA	Italy	thermal water source	1kmE4702N2 025	single captured spring	nA	nA	nA	>25
Terme Vigliatore	nA	Italy	thermal water source	1kmE4777N1 688	single captured spring	nA	nA	nA	nA
Tiria podere 60	nA	Italy	thermal water source	1kmE4210N1 863	single well	nA	nA	nA	nA
Tito	nA	Italy	thermal water source	1kmE4803N1 961	single captured spring	nA	nA	nA	nA
Torrente Mignone	nA	Italy	thermal water source	1kmE4493N2 117	single well	nA	nA	nA	nA
Tramutola	nA	Italy	thermal water source	1kmE4812N1 933	single captured spring	nA	nA	nA	nA
Uliveto Terme	nA	Italy	thermal water source	1kmE4363N2 287	single captured spring	thermal water for balneology	nA	nA	nA
Valle di Baccano	nA	Italy	thermal water source	1kmE4515N2 116	single captured spring	nA	nA	nA	nA
Valle Orientina	nA	Italy	thermal water source	1kmE4461N2 173	captured spring group	thermal water for balneology	nA	nA	nA
Venamartello	nA	Italy	thermal water source	1kmE4601N2 193	single captured spring	thermal water for balneology	nA	nA	nA
Venelle	nA	Italy	thermal water source	1kmE4391N2 215	single captured spring	nA	nA	nA	nA
Vogliacasi	nA	Italy	thermal water source	1kmE4757N1 596	well field	nA	nA	nA	nA
Ziningas	nA	Italy	thermal water source	1kmE4214N1 796	single captured spring	bottled natural mineral water	nA	nA	<5

Table 67: Inventory of Thermal waters in Italy: Names of sources and aquifer information.

N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
A.Calda di S.Lorenzo	nA	nA	nA	compound	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
Abba Meiga	nA	nA	nA	compound	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
Abba Meiga	nA	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Abbarghente	nA	nA	nA	fractured	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
Acqua Acetosa	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Acqua Appia	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Acqua Bolle	nA	nA	nA	compound	nA	carbonate rich mudstone	predominant	nA	nA	nA	nA	nA	nA
Acqua Borra	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Acqua Calda	nA	nA	nA	compound	nA	limestone	predominant	nA	nA	nA	nA	nA	nA
Acqua Calda	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Acqua Calena	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
Acqua Claudia	34	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Acqua dei Bagni	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Acqua del Doccio	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Acqua della Gora	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Acqua della Gora	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Acqua di Sillene	nA	nA	nA	compound	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
Acqua Fitusa	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Acqua Livia	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Acqua Montalceto	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Acqua Salata	nA	nA	nA	compound	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
Acqua Solfa Ardea	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Acqua Solfurea	nA	nA	nA	porous	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
Acqua Solfurea	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Acqua Zolfà	nA	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Acquacallente	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Acquaforse	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Acquaforse	nA	nA	nA	compound	nA	Pyroclastic rock	predominant	nA	nA	nA	nA	nA	nA
Acquasanta	nA	nA	nA	fractured	nA	Serpentinite	predominant	nA	nA	nA	nA	nA	nA
Acquasanta	nA	nA	nA	porous	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
Acque Sante	nA	nA	nA	compound	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Acque Sinuassane	nA	nA	nA	fractured	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Acquedotto 3	nA	nA	nA	fractured	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
Alcova	310	nA	nA	compound	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Aphrodite	100	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Aronna	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Baccanello	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Bagnaccio	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Bagnarello	nA	nA	nA	compound	nA	Acidic igneous material	predominant	nA	nA	nA	nA	nA	nA
Bagnarello	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Bagnetti Agnano	nA	nA	nA	fractured	nA	Metamorphic rock	predominant	nA	nA	nA	nA	nA	nA
Bagni	nA	nA	nA	porous	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
Bagni	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Bagni	nA	nA	nA	compound	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
Bagni	nA	nA	nA	compound	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
Bagni di Levante	nA	nA	nA	fractured	nA	Metamorphic rock	predominant	nA	nA	nA	nA	nA	nA
Bagni Galleriaie	nA	nA	nA	compound	nA	ultramafic igneous rock	predominant	nA	nA	nA	nA	nA	nA
Bagni I-2A	nA	nA	nA	fractured	nA	Gneiss	predominant	nA	nA	nA	nA	nA	nA
Bagni Petrolino	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Bagni San Cataldo	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Bagni San Michele	nA	nA	nA	compound	nA	Serpentinite	predominant	nA	nA	nA	nA	nA	nA
Bagni Saturnia	nA	nA	nA	porous	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
Bagni Termali	nA	nA	nA	fractured	nA	limestone	predominant	nA	nA	nA	nA	nA	nA
Bagni Tripunzi	nA	nA	nA	compound	nA	limestone	predominant	nA	nA	nA	nA	nA	nA
Bagnaccio	nA	nA	nA	porous	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
Bagno Barbarano	nA	nA	nA	compound	nA	Acidic igneous material	predominant	nA	nA	nA	nA	nA	nA
Bagno dell'Acqua	72	nA	nA	compound	nA	Acidic igneous material	predominant	nA	nA	nA	nA	nA	nA
Bagno di Equi	nA	nA	nA	fractured	nA	Marble	predominant	nA	nA	nA	nA	nA	nA
Bagno di Roselle	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Bagno Grande	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Bagno Lagoncico	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Bagno Montioni	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Bagno Musignano	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Bagno Nord	nA	nA	nA	compound	nA	Acidic igneous material	predominant	nA	nA	nA	nA	nA	nA
Bagno Regina	nA	nA	nA	fractured	nA	Acidic igneous material	predominant	nA	nA	nA	nA	nA	nA
Bagno Regina	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Bagno Vignoni	nA	nA	nA	porous	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
Bagnoli	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Bagnolo	nA	nA	nA	compound	nA	Syenitic rock	predominant	nA	nA	nA	nA	nA	nA
Banzu Mannu	nA	nA	nA	fractured	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Boiola	nA	nA	nA	fractured	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
Bolle Malvizza	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Bollori	nA	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Bongiovanni	nA	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Bonvicino	320	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Borgo Pantano	nA	nA	nA	porous	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
Brennerbad	nA	nA	nA	compound	nA	Gneiss	predominant	nA	nA	nA	nA	nA	nA
Bruciarello	nA	nA	nA	fractured	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Buonriposo	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Caddas	nA	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Cala Tramontana	nA	nA	nA	compound	nA	Acidic igneous material	predominant	nA	nA	nA	nA	nA	nA
Caldana	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Caldana	nA	nA	nA	compound	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
Caldana	nA	nA	nA	fractured	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Caldanelle	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Caldara	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Canalette	nA	nA	nA	compound	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
Capasso	nA	nA	nA	fractured	nA	Dolomite	predominant	nA	nA	nA	nA	nA	nA



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
Capodaquas	nA	nA	nA	compound	nA	metamorphic rock	predominant	nA	nA	nA	nA	nA	nA
Caputacuas	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Carabollace	nA	nA	nA	compound	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
Cardia- Capoterra	nA	nA	nA	compound	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Caronte	nA	nA	nA	fractured	nA	Gneiss	predominant	nA	nA	nA	nA	nA	nA
Caronte	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Carta Romana	nA	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Cartiera Marras	nA	nA	nA	fractured	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Casale Acquadoro	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Cassiodora	nA	nA	nA	fractured	nA	Dolomite	predominant	nA	nA	nA	nA	nA	nA
Casteldoria	nA	nA	nA	fractured	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Cava dei Selci	nA	nA	nA	compound	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Cestelia	nA	nA	nA	compound	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Cucco	200	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Doccione A	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Donzelle	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Faccio Bianco	300	nA	nA	compound	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Fedita	nA	nA	nA	fractured	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
Fonte Calda	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Fonte Vittoria	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Fontiloro	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Fosso Lupara	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Fosso Treia	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Fulco	nA	nA	nA	compound	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
Gelsomina 1	125	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Gorga 1	nA	nA	nA	porous	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
Grotta Giusti	nA	nA	nA	porous	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
Grotta Sataria	nA	nA	nA	compound	nA	Acidic igneous material	predominant	nA	nA	nA	nA	nA	nA
Hotel Plaza	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Ibsen	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Il Piano	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
La Boia	nA	nA	nA	compound	nA	Acidic igneous material	predominant	nA	nA	nA	nA	nA	nA
La Bollente	nA	nA	nA	compound	nA	carbonate rich mudstone	predominant	nA	nA	nA	nA	nA	nA
La Caldara	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
La Cava	nA	nA	nA	compound	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
La Grotta	nA	nA	nA	compound	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
La Mensa	nA	nA	nA	compound	nA	Syenitic rock	predominant	nA	nA	nA	nA	nA	nA
La Pescara	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Laghetto	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Laghi del Vescovo	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Lago dei Palici	100	nA	nA	compound	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Lago Regina	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Lendinara	60	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Leopoldina	nA	nA	nA	porous	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
Lungari	nA	nA	nA	compound	nA	Gneiss	predominant	nA	nA	nA	nA	nA	nA
M.te Palla	nA	nA	nA	compound	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Magnadorsa	nA	nA	nA	fractured	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Maladroxia	nA	nA	nA	compound	nA	Acidic igneous material	predominant	nA	nA	nA	nA	nA	nA
Marino 2	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Mattagiana	nA	nA	nA	fractured	nA	Acidic igneous material	predominant	nA	nA	nA	nA	nA	nA
Mattarghentù	nA	nA	nA	compound	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
Mefite d'Ansanto	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Menegolli 11	405	nA	nA	porous	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
Miano	1047	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Mola di Bassano	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Molino del Tifo	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Monte Bischero	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Monte Doganella	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
n. 32	nA	nA	nA	compound	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Naftia	nA	nA	nA	compound	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Nuraxi Figus	nA	nA	nA	fractured	nA	Acidic igneous material	predominant	nA	nA	nA	nA	nA	nA
Oddini	nA	nA	nA	fractured	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
P. Cicerone	nA	nA	nA	compound	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
P.zo Milo	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Paglieto	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Palagio	nA	nA	nA	compound	nA	Serpentinite	predominant	nA	nA	nA	nA	nA	nA
Palmas di Arboreal	nA	nA	nA	compound	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
Panarea 1	nA	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Perdu Mannu	nA	nA	nA	fractured	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Pietre Bianche	nA	nA	nA	compound	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Pisana	nA	nA	nA	compound	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
Pisciarelli	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Podere Montaldo	nA	nA	nA	compound	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Poggetti Vecchi	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Poggio Cavaliere	nA	nA	nA	compound	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Ponte di ferro II	nA	nA	nA	fractured	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
Pozzo	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
Pozzo	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Pozzo Cinquare 2	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Pozzo Colombo 5	nA	nA	nA	compound	nA	metamorphic rock	predominant	nA	nA	nA	nA	nA	nA
Pozzo Fogliano	nA	nA	nA	compound	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Pozzo Laurentina	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Pozzo n° 1	421	nA	nA	compound	nA	Peat	predominant	nA	nA	nA	nA	nA	nA
Pozzo n° 7	410	nA	nA	compound	nA	Peat	predominant	nA	nA	nA	nA	nA	nA
Pozzo Pantelleria	nA	nA	nA	compound	nA	Acidic igneous material	predominant	nA	nA	nA	nA	nA	nA
Pra di Lama	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Pre-Saint-Didier	nA	nA	nA	fractured	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Principale	nA	nA	nA	fractured	nA	ultramafic igneous rock	predominant	nA	nA	nA	nA	nA	nA
Rann 12	280	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Rio Cannas	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Rio Murtas	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Roba Vecchia	207	nA	nA	fractured	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
S. Angelo	nA	nA	nA	compound	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
S. Margherita Tramatzia	nA	nA	nA	fractured	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
S. Maria di Pollina	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
S. Martino A	nA	nA	nA	compound	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
Sa Canna 1	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Sa Guardia 1	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
S'Acquacotta	nA	nA	nA	compound	nA	metamorphic rock	predominant	nA	nA	nA	nA	nA	nA
San Giovanni	nA	nA	nA	porous	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
San Lorenzo 1	105	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
San Nazzario	nA	nA	nA	fractured	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
San Pellegrino	nA	nA	nA	compound	nA	Dolomite	predominant	nA	nA	nA	nA	nA	nA
San Teodoro 2	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Santa Maria dell'Aquila	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Santa Maria is Aquas	nA	nA	nA	compound	nA	metamorphic rock	predominant	nA	nA	nA	nA	nA	nA
Santa Venera	nA	nA	nA	fractured	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
Sant'Elia	nA	nA	nA	compound	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Santo Stefano	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Selinuntine	nA	nA	nA	compound	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
Serravalle	120	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Siponto	nA	nA	nA	fractured	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
Solfatara Alta	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Solforata	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Solfiorosa	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Sorgente	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Sorgente del Cimitero	nA	nA	nA	porous	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
Sorgente della Lepre	nA	nA	nA	fractured	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Sorgente delle Grazie	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Sorgente Terme Tommasi	nA	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Soro Uras	nA	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Sos Bagnos	nA	nA	nA	fractured	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Stufe Nerone	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Su Campu	nA	nA	nA	compound	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
Sulfurea Castelpoto	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Talamonaccio	nA	nA	nA	compound	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
Temo-Cuga	nA	nA	nA	fractured	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
Terme	nA	nA	nA	compound	nA	Gneiss	predominant	nA	nA	nA	nA	nA	nA
Terme Apollinari	nA	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Terme di Caldana	nA	nA	nA	compound	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Terme di Comano	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Terme di Cretone	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Terme di Giunone	100	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Terme di Pompeo	nA	nA	nA	porous	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Terme di Traiano	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Terme II-4	nA	nA	nA	compound	nA	Gneiss	predominant	nA	nA	nA	nA	nA	nA
Terme Militari	20	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Terme Romane	nA	nA	nA	compound	nA	Limestone	predominant	nA	nA	nA	nA	nA	nA
Terme Sant'Agnes	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Terme Sibarite 3	nA	nA	nA	fractured	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA
Terme Telesse	nA	nA	nA	porous	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Terme Vigliatore	nA	nA	nA	fractured	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Tiria potere 60	nA	nA	nA	compound	nA	Intermediate composition igneous material	predominant	nA	nA	nA	nA	nA	nA
Tito	nA	nA	nA	compound	nA	clastic sedimentary rock	predominant	nA	nA	nA	nA	nA	nA
Torrente Mignone	nA	nA	nA	compound	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Tramutola	nA	nA	nA	compound	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Uliveto Terme	nA	nA	nA	fractured	nA	Metamorphic rock	predominant	nA	nA	nA	nA	nA	nA
Valle di Baccano	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Valle Orientina	nA	nA	nA	compound	nA	Pyroclastic material	predominant	nA	nA	nA	nA	nA	nA
Venamartello	nA	nA	nA	porous	nA	Travertine	predominant	nA	nA	nA	nA	nA	nA
Venelle	nA	nA	nA	compound	nA	Granitoid	predominant	nA	nA	nA	nA	nA	nA
Vogliacasi	150	nA	nA	fractured	nA	Basic igneous material	predominant	nA	nA	nA	nA	nA	nA
Ziningas	nA	nA	nA	compound	nA	phyllite	predominant	nA	nA	nA	nA	nA	nA



Table 68: Inventory of Thermal waters in Italy: Names of sources and hydrochemical information.

N1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20
A. Calda di S. Lorenzo	30-40	<1	760	7,30	nA	nA	32	3,9	72	32,8	nA	nA	nA	nA	nA	262,0	nA	3,8	42,0	nA
Abba Meiga	20-30	1-14,5	nA	7,00	nA	nA	128,0	6,3	144,5	29,7	nA	nA	nA	nA	nA	482,3	nA	0.1	230,5	nA
Abba Meiga	30-40	<1	nA	7,50	nA	nA	25,0	2,7	54,2	18,0	nA	nA	nA	nA	nA	250,2	nA	0.1	44,3	nA
Abbarghente	20-30	1-14,5	nA	6,40	nA	nA	855,0	34,4	48,0	24,5	nA	nA	nA	nA	nA	1873,2	nA	nA	317,3	nA
Acqua Acetososa	20-30	1-14,5	nA	6,30	nA	nA	460,0	45,0	324,7	78,0	nA	nA	nA	nA	nA	1930,0	nA	nA	246,0	nA
Acqua Appia	20-30	<1	959	6,20	nA	nA	52	66	110	22	1	nA	nA	nA	nA	529,0	nA	1	34,0	0,9
Acqua Bolle	20-30	1-14,5	nA	6,20	nA	nA	62,0	2,7	361,0	146,0	nA	nA	nA	nA	nA	1708,0	nA	nA	92,0	nA
Acqua Borra	30-40	1-14,5	nA	5,40	nA	nA	3703,0	226,0	641,0	115,5	nA	nA	nA	nA	nA	3295,0	nA	2.8	4645,0	nA
Acqua Calda	30-40	1-14,5	nA	6,90	nA	nA	154,0	12,0	162,0	68,0	nA	nA	nA	nA	nA	244,0	nA	nA	270,0	nA
Acqua Calda	20-30	<1	nA	6,90	nA	nA	51,0	4,0	46,0	28,0	nA	nA	nA	nA	nA	299,0	nA	nA	43,0	nA
Acqua Calena	20-30	1-14,5	nA	nA	nA	nA	55,3	25,2	254,9	76,5	nA	nA	nA	nA	nA	1171,5	nA	nA	60,2	nA
Acqua Claudia	20-30	1-14,5	nA	5,70	nA	nA	77,4	79,0	136,0	28,2	nA	nA	nA	nA	nA	732,2	nA	1.9	49,7	nA
Acqua dei Bagni	40-50	1-14,5	nA	6,50	nA	nA	25,3	9,8	862,0	195,0	nA	nA	nA	nA	nA	1769,0	nA	3	21,3	nA
Acqua del Doccio	30-40	1-14,5	nA	6,10	nA	nA	782,0	33,6	721,0	94,8	nA	nA	nA	nA	nA	1098,0	nA	2.7	1312,0	nA
Acqua della Gora	20-30	1-14,5	nA	7,30	nA	nA	552,0	25,0	361,0	113,1	nA	nA	nA	nA	nA	244,0	nA	1.2	993,0	nA
Acqua della Gora	40-50	1-14,5	nA	7,50	nA	nA	63,0	4,0	422,0	120,0	nA	nA	nA	nA	nA	249,0	nA	nA	99,0	nA
Acqua di Sillene	30-40	1-14,5	nA	6,30	nA	nA	20,2	5,1	601,0	170,0	nA	nA	nA	nA	nA	732,0	nA	2.8	18,8	nA
Acqua Fitusa	20-30	1-14,5	nA	7,30	nA	nA	920,0	19,5	60,0	18,0	nA	nA	nA	nA	16	933,0	nA	nA	745,0	nA
Acqua Livia	20-30	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Acqua Montalceto	30-40	1-14,5	nA	6,30	nA	nA	147,2	18,8	601,0	146,0	nA	nA	nA	nA	nA	1708,0	nA	1.7	131,2	nA
Acqua Salata	20-30	1-14,5	nA	nA	nA	nA	710,0	36,0	384,0	181,0	nA	nA	nA	nA	nA	96,0	nA	nA	1136,0	nA
Acqua Solfa Ardea	30-40	<1	nA	5,60	nA	nA	58	62	50	2	nA	nA	nA	nA	0,09	293	nA	nA	28	nA
Acqua Solfurea	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Acqua Solfurea	20-30	<1	nA	5,70	nA	nA	27,0	80,0	80,0	28,0	nA	nA	nA	nA	0.2	474,0	nA	nA	25,0	nA
Acqua Zolfa	30-40	1-14,5	nA	6,00	nA	nA	45,0	13,7	357,0	89,0	nA	nA	nA	nA	nA	1470,0	nA	1.3	40,6	nA
Acquacallente	20-30	<1	nA	7,00	nA	nA	75,9	3,5	76,2	43,4	nA	nA	nA	nA	0.1	350,8	nA	0.4	132,3	nA
Acquaforte	20-30	1-14,5	nA	6,20	nA	nA	172,5	198,0	307,0	51,5	nA	nA	nA	nA	nA	1322,0	nA	nA	26,3	nA
Acquaforte	20-30	1-14,5	nA	6,20	nA	nA	815,0	260,0	100,0	42,0	nA	nA	nA	nA	nA	1182,0	nA	nA	426,0	nA
Acquasanta	20-30	nA	nA	0,00	nA	nA	nA	nA	59,0	6,0	nA	nA	nA	nA	nA	nA	nA	nA	26,0	nA
Acquasanta	30-40	1-14,5	nA	6,60	nA	nA	1028,0	47,1	336,6	70,0	nA	nA	nA	nA	nA	356,0	nA	nA	1569,0	nA
Acque Sante	30-40	1-14,5	nA	7,50	nA	nA	3651,0	21,0	560,0	6,0	nA	nA	nA	nA	nA	61,0	nA	nA	3096,0	nA
Acque Sinuessane	40-50	1-14,5	nA	6,20	nA	nA	662,5	66,7	545,0	96,0	nA	nA	nA	nA	nA	1574,0	nA	2.6	1002,1	nA
Acquedotto 3	20-30	<1	nA	7,80	nA	nA	197,6	3,5	34,1	19,8	nA	nA	nA	nA	0.1	184,3	nA	0.4	221,3	nA
Alcovia	30-40	<1	nA	8,70	nA	nA	263,5	4,0	4,0	1,0	nA	nA	nA	nA	nA	225,5	42,0	nA	245,0	nA
Aphrodite	90-101	1-14,5	nA	7,50	nA	nA	4390,0	160,0	72,0	29,0	nA	nA	nA	nA	nA	326,0	nA	nA	6700,0	nA
Aronna	20-30	1-14,5	nA	6,60	nA	nA	10,6	2,7	441,0	105,0	nA	nA	nA	nA	nA	280,7	nA	1.2	18,4	nA



N1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20
Baccanello	20-30	1-14,5	nA	6,10	nA	nA	300,0	358,0	359,0	86,0	nA	nA	nA	nA	nA	1597,0	nA	2,7	359,0	nA
Bagnaccio	60-70	1-14,5	nA	6,30	nA	nA	36,0	29,0	577,0	152,0	nA	nA	nA	nA	nA	977,0	nA	nA	6,4	nA
Bagnarello	40-50	1-14,5	nA	5,50	nA	nA	34,5	10,6	655,1	118,6	nA	nA	nA	nA	nA	608,2	nA	nA	36,5	nA
Bagnarello	50-60	1-14,5	nA	6,60	nA	nA	157,5	32,0	645,0	149,0	nA	nA	nA	nA	28	989,0	nA	nA	155,0	nA
Bagnetti Agnano	20-30	1-14,5	nA	6,40	nA	nA	236,0	16,0	462,0	105,0	nA	nA	nA	nA	nA	1146,0	nA	nA	458,0	nA
Bagni	30-40	1-14,5	nA	6,70	nA	nA	22,3	3,1	601,0	146,0	nA	nA	nA	nA	nA	439,3	nA	2,8	28,0	nA
Bagni	30-40	<1	nA	7,10	nA	nA	34,0	4,0	62,0	18,0	nA	nA	nA	nA	4	268,0	nA	nA	43,0	nA
Bagni	40-50	1-14,5	nA	6,80	nA	nA	4243,0	168,0	519,0	340,0	nA	nA	nA	nA	11	2,9	nA	nA	7823,0	nA
Bagni	30-40	1-14,5	nA	6,50	nA	nA	3307,0	55,0	271,0	198,0	nA	nA	nA	nA	99	427,0	nA	nA	6099,0	nA
Bagni di Levante	40-50	1-14,5	nA	6,60	nA	nA	53,0	3,0	466,0	106,0	nA	nA	nA	nA	nA	440,0	nA	nA	103,0	nA
Bagni Galleriaie	30-40	1-14,5	nA	6,20	nA	nA	9,9	1,6	761,0	94,8	nA	nA	nA	nA	nA	793,0	nA	1,8	14,2	nA
Bagni I-2A	50-60	<1	nA	9,00	nA	nA	253,0	14,0	3,9	nA	nA	nA	nA	nA	nA	nA	19,0	nA	355,0	nA
Bagni Petrolio	40-50	1-14,5	nA	6,30	nA	nA	119,6	19,5	762,0	158,0	nA	nA	nA	nA	nA	1403,0	nA	2,5	205,0	nA
Bagni San Cataldo	20-30	nA	nA	nA	nA	nA	nA	nA	nA	961,0	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bagni San Michele	20-30	<1	nA	9,90	nA	nA	55,2	1,7	38,1	0,2	nA	nA	nA	nA	nA	48,8	nA	0,1	117,0	nA
Bagni Saturnia	30-40	1-14,5	nA	6,30	nA	nA	85,8	11,1	588,4	126,0	nA	nA	nA	nA	7,8	543,6	nA	nA	70,9	nA
Bagni Termali	20-30	1-14,5	nA	6,40	nA	nA	230,0	13,0	260,0	29,0	nA	nA	nA	nA	nA	854,0	nA	nA	230,0	nA
Bagni Triponzi	20-30	1-14,5	nA	6,80	nA	nA	115,0	13,6	292,5	71,5	nA	nA	nA	nA	nA	231,9	nA	2,7	170,0	nA
Bagniacchio	20-30	1-14,5	nA	6,10	nA	nA	73,6	14,9	704,1	207,0	nA	nA	nA	nA	nA	1220,0	nA	2,8	63,8	nA
Bagno Barbarano	30-40	<1	nA	6,90	nA	nA	94,5	16,2	112,0	46,2	nA	nA	nA	nA	nA	273,0	nA	nA	126,0	nA
Bagno dell'Acqua	60-70	1-14,5	nA	nA	nA	nA	2898,0	195,0	104,0	110,0	nA	nA	nA	nA	nA	1696,0	39,0	nA	3752,0	nA
Bagno di Equi	20-30	1-14,5	nA	7,10	nA	nA	1196,0	27,0	281,0	68,1	nA	nA	nA	nA	nA	244,0	nA	1,3	1950,0	nA
Bagno di Roselle	30-40	1-14,5	nA	6,90	nA	nA	29,9	3,7	601,0	122,0	nA	nA	nA	nA	nA	286,7	nA	1,2	39,0	nA
Bagno Grande	40-50	1-14,5	nA	6,80	nA	nA	74,0	nA	421,0	1,1	nA	nA	nA	nA	nA	2,9	nA	nA	113,0	nA
Bagno Lagoncico	40-50	<1	nA	6,30	nA	nA	14,0	3,0	128,0	19,0	nA	nA	nA	nA	nA	306,0	nA	nA	20,0	nA
Bagno Montioni	20-30	1-14,5	nA	7,20	nA	nA	nA	nA	740,0	110,0	nA	nA	nA	nA	nA	390,0	nA	nA	nA	nA
Bagno Musignano	40-50	1-14,5	nA	6,30	nA	nA	77,9	24,7	392,3	74,8	nA	nA	nA	nA	nA	657,6	nA	nA	58,3	nA
Bagno Nord	30-40	<1	nA	6,90	nA	nA	115,0	15,4	85,1	31,0	nA	nA	nA	nA	nA	222,7	nA	nA	170,1	nA
Bagno Regina	20-30	<1	nA	7,30	nA	nA	25,3	1,2	108,2	48,6	nA	nA	nA	nA	nA	463,7	nA	nA	30,1	nA
Bagno Regina	20-30	1-14,5	nA	6,10	nA	nA	230,0	370,0	410,0	71,0	nA	nA	nA	nA	nA	1284,0	nA	nA	200,0	nA
Bagno Vignoni	30-40	1-14,5	nA	6,80	nA	nA	64,4	19,5	701,0	207,0	nA	nA	nA	nA	nA	1037,0	nA	2,5	63,8	nA
Bagnoli	20-30	<1	nA	6,90	nA	nA	10,6	4,3	10,0	4,1	nA	nA	nA	nA	nA	48,8	nA	0,4	8,5	nA
Bagnolo	30-40	<1	nA	7,70	nA	nA	23,0	11,3	84,2	20,7	nA	nA	nA	nA	nA	396,6	nA	1,1	23,8	nA
Banzu Mannu	40-50	<1	nA	9,60	nA	nA	165,0	3,6	11,0	0,2	nA	nA	nA	nA	nA	27,5	nA	8	216,3	nA
Boiola	60-70	1-14,5	nA	6,60	nA	nA	586,5	68,0	211,0	30,2	nA	nA	nA	nA		329,4	nA	4,3	1123,0	nA
Bolle Malvizza	20-30	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bollori	20-30	1-14,5	nA	5,20	nA	nA	39,0	4,0	521,0	117,0	nA	nA	nA	nA	nA	nA	nA	nA	46,0	nA
Bongiovanni	20-30	<1	1000	8,62	nA	nA	217	9	4	4	nA	nA	nA	nA	nA	305,0	nA	1	103,0	0,6
Bonvicino	20-30	<1	nA	7,70	nA	nA	243,5	11,0	20,0	13,5	nA	nA	nA	nA	nA	360,0	nA	nA	165,0	nA



N1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20
Borgo Pantano	30-40	1-14,5	nA	6,60	nA	nA	462	58	772	77	nA	nA	nA	nA	0,3	1830,0	nA	nA	589,0	nA
Brennerbad	20-30	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bruciarello	30-40	1-14,5	nA	nA	nA	nA	1533,0	170,0	747,0	15,0	nA	nA	nA	nA	nA	40,0	nA	nA	2754,0	nA
Buonriposo	20-30	1-14,5	nA	6,20	nA	nA	8,6	1,2	248,0	40,0	nA	nA	nA	nA	3,2	1036,0	nA	0,3	9,5	nA
Caddas	50-60	<1	nA	8,50	nA	nA	195,0	3,3	13,5	0,2	nA	nA	nA	nA	nA	30,5	nA	nA	315,9	nA
Cala Tramontana	50-60	1-14,5	nA	6,30	nA	nA	2786,0	144,0	68,0	92,0	nA	nA	nA	nA	nA	1171,0	nA	13	3545,0	nA
Caldana	30-40	1-14,5	nA	7,50	nA	nA	667,0	18,0	126,0	nA	nA	nA	nA	nA	nA	nA	27,3	nA	994,0	nA
Caldana	20-30	1-14,5	nA	6,60	nA	nA	32,2	2,1	281,0	70,5	nA	nA	nA	nA	nA	427,0	nA	1	53,2	nA
Caldana	20-30	<1	nA	nA	nA	nA	142,1	6,6	109,6	15,8	nA	nA	nA	nA	nA	232,5	nA	nA	197,9	nA
Caldanelle	30-40	1-14,5	nA	5,80	nA	nA	34,5	3,1	480,9	145,8	nA	nA	nA	nA	0,1	280,5	nA	1,4	42,5	nA
Caldara	20-30	<1	nA	5,50	nA	nA	28,0	49,0	56,8	10,6	nA	nA	nA	nA	nA	248,0	nA	3,5	28,0	nA
Canalette	20-30	1-14,5	nA	6,70	nA	nA	7,1	1,8	361,0	86,3	nA	nA	nA	nA	nA	451,5	nA	1,3	12,8	nA
Capasso	40-50	1-14,5	nA	6,60	nA	nA	715,0	115,0	350,0	142,0	nA	nA	nA	nA	0,9	1841,0	nA	0,8	1026,0	nA
Capodaquas	20-30	<1	nA	6,40	nA	nA	89,2	3,5	117,4	38,4	nA	nA	nA	nA	0,1	442,3	nA	0,1	167,4	nA
Caputacquas	20-30	1-14,5	nA	6,60	nA	nA	125,8	3,9	111,8	50,7	nA	nA	nA	nA	nA	475,9	nA	0,1	248,9	nA
Carabollace	50-60	>14,5	nA	5,70	nA	nA	6000,0	360,0	1234,0	399,0	nA	nA	nA	nA	6,8	277,0	nA	1,9	12230,0	nA
Cardia- Capoterra	20-30	<1	840	6,94	379	nA	130	6,3	28	11,4	0,1	nA	nA	nA	0,04	157	nA	nA	150	nA
Caronte	40-50	1-14,5	nA	6,30	nA	nA	1205,0	65,0	390,0	85,0	nA	nA	nA	nA	nA	494,0	nA	nA	1472,0	nA
Caronte	30-40	1-14,5	nA	7,10	nA	nA	133,2	7,8	345,1	116,0	nA	nA	nA	nA	nA	192,2	nA	nA	141,8	nA
Carta Romana	20-30	>14,5	26600	6,40	nA	nA	7000	267	320	903	3,84	nA	nA	nA	2	268,0	nA	nA	12900,0	29,6
Cartiera Marras	20-30	<1	nA	6,40	nA	nA	20,7	1,2	40,9	15,9	nA	nA	nA	nA	nA	145,2	nA	0,2	41,5	nA
Casale Acquadoro	40-50	1-14,5	3310	6,08	155	nA	35	5,8	747	157,6	12,2	nA	nA	nA	nA	720,0	nA	2,2	27,0	nA
Cassiodora	40-50	1-14,5	nA	7,00	nA	nA	25,6	nA	242,9	61,8	nA	nA	nA	nA	nA	163,5	nA	nA	64,0	nA
Casteldoria	70-80	1-14,5	nA	7,20	nA	nA	1140,0	71,0	653,0	1,7	nA	nA	nA	nA	nA	36,6	nA	nA	2832,9	nA
Cava dei Selci	20-30	1-14,5	nA	3,50	nA	nA	94,0	75,5	236,4	42,6	nA	nA	nA	nA	nA	335,6	nA	nA	42,5	nA
Cestelia	30-40	1-14,5	nA	3,00	nA	nA	461,9	924,0	144,7	262,9	nA	nA	nA	nA	nA	2413,1	nA	nA	930,6	nA
Cucco	20-30	<1	nA	7,90	nA	nA	231,5	5,0	17,5	11,0	nA	nA	nA	nA	nA	158,5	nA	nA	270,0	nA
Doccione A	50-60	1-14,5	nA	7,20	nA	nA	359,0	26,0	499,0	71,0	nA	nA	nA	nA	nA	163,0	nA	nA	259,0	nA
Donzelle	30-40	1-14,5	nA	7,30	nA	nA	1908,0	70,0	26,1	8,3	nA	nA	nA	nA	nA	854,0	nA	3,8	2624,0	nA
Faccio Bianco	30-40	<1	nA	7,80	nA	nA	191,5	7,0	6,0	3,5	nA	nA	nA	nA	nA	323,5	nA	nA	43,0	nA
Fedita	20-30	>14,5	nA	nA	nA	nA	9253,0	337,0	1068,0	961,0	nA	nA	nA	nA	nA	218,0	nA	nA	17637,0	nA
Fonte Calda	20-30	1-14,5	nA	6,90	nA	nA	154,8	4,7	104,2	77,8	nA	nA	nA	nA	nA	561,9	nA	0,6	260,3	nA
Fonte Vittoria	20-30	1-14,5	nA	8,20	nA	nA	890,0	5,8	57,0	50,0	nA	nA	nA	nA	nA	231,0	nA	nA	1559,0	nA
Fontiloro	20-30	1-14,5	nA	7,00	nA	nA	47,5	45,0	623,0	172,0	nA	nA	nA	nA	nA	1476,0	nA	nA	18,5	nA
Fosso Lupara	20-30	1-14,5	nA	7,00	nA	nA	95,0	18,3	729,0	145,0	nA	nA	nA	nA	nA	1001,0	nA	nA	71,0	nA
Fosso Treia	40-50	1-14,5	nA	6,50	nA	nA	35,0	11,0	640,0	132,0	nA	nA	nA	nA	nA	623,0	nA	nA	32,3	nA
Fulco	40-50	1-14,5	15500	6,46	nA	nA	2921	266,5	367	473,4	nA	nA	nA	nA	nA	787	nA	nA	5738	20,77
Gelsomina 1	90-100	1-14,5	nA	7,00	nA	nA	318,0	24,0	18,0	2,0	nA	nA	nA	nA	nA	400,0	nA	nA	236,0	nA
Gorga 1	40-50	1-14,5	nA	6,90	nA	nA	366,0	20,0	234,0	83,0	nA	nA	nA	nA	5	262,0	nA	nA	699,0	nA



N1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20
Grotta Giusti	30-40	1-14,5	nA	6,70	nA	nA	203,0	14,0	390,0	76,0	nA	nA	nA	nA	nA	600,0	nA	nA	312,0	nA
Grotta Salaria	40-50	1-14,5	nA	6,30	nA	nA	3011,0	152,0	122,0	107,0	nA	nA	nA	nA	nA	1305,0	nA	11	4130,0	nA
Hotel Plaza	20-30	1-14,5	nA	6,60	nA	nA	399	177,8	210	56,4	nA	nA	nA	nA	nA	1415,0	nA	nA	452,0	nA
Ibsen	20-30	1-14,5	7050	7,00	nA	nA	1438	150	87	25	0,55	nA	nA	nA	2	1250,0	nA	nA	1661,0	10,8
Il Piano	30-40	1-14,5	nA	6,10	nA	nA	86,8	122,0	422,0	60,0	nA	nA	nA	nA	nA	1166,7	nA	nA	14,3	nA
La Boia	20-30	<1	nA	7,20	nA	nA	115,0	15,8	64,5	45,7	nA	nA	nA	nA	nA	155,0	nA	nA	165,0	nA
La Bollente	70-80	1-14,5	nA	8,40	nA	nA	764,0	20,0	133,0	33,0	nA	nA	nA	nA	nA	nA	55,0	nA	1171,0	nA
La Caldara	20-30	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
La Cava	30-40	1-14,5	nA	7,20	nA	nA	270,0	24,9	120,6	40,9	nA	nA	nA	nA	nA	296,0	nA	nA	384,8	nA
La Grotta	70-80	1-14,5	nA	6,90	nA	nA	638,0	53,5	150,0	34,2	nA	nA	nA	nA	nA	278,2	nA	nA	979,5	nA
La Mensa	40-50	1-14,5	nA	nA	nA	nA	20,0	3,0	281,0	59,0	nA	nA	nA	nA	nA	486,0	nA	nA	15,0	nA
La Pescara	20-30	1-14,5	nA	5,90	nA	nA	137,0	112,0	158,0	34,0	nA	nA	nA	nA	nA	700,0	nA	nA	45,0	nA
Laghetto	30-40	1-14,5	nA	2,10	nA	nA	95,7	126,5	543,6	275,6	nA	nA	nA	nA	27,4	2805,3	nA	nA	76,5	nA
Laghi del Vescovo	20-30	1-14,5	nA	6,50	nA	nA	530,3	248,2	266,5	90,0	nA	nA	nA	nA	nA	793,2	nA	nA	1159,0	nA
Lago dei Palici	20-30	1-14,5	nA	6,80	nA	nA	115,5	4,0	174,5	64,0	nA	nA	nA	nA	nA	561,0	nA	nA	142,0	nA
Lago Regina	20-30	1-14,5	nA	6,20	nA	nA	116,4	24,1	562,1	114,9	nA	nA	nA	nA	nA	1479,2	nA	nA	142,8	nA
Lendinara	20-30	<1	nA	7,40	nA	nA	28,8	6,0	73,0	35,2	nA	nA	nA	nA	nA	262,0	nA	nA	44,7	nA
Leopoldina	30-40	>14,5	nA	6,90	nA	nA	6026,0	165,0	687,0	6026,0	nA	nA	nA	nA	nA	645,0	nA	nA	9606,0	nA
Lungari	20-30	1-14,5	nA	7,30	nA	nA	315,0	7,0	105,0	49,0	nA	nA	nA	nA	nA	354,0	nA	nA	159,0	nA
M.te Palla	20-30	1-14,5	3130	7,15	187	nA	497	5,9	114	39,2	1,82	nA	nA	nA	0,17	488	nA	nA	662	nA
Magnadorsa	20-30	1-14,5	nA	7,10	nA	nA	74,8	5,7	645,0	63,0	nA	nA	nA	nA	nA	408,8	nA	1.2	125,0	nA
Maladroxia	40-50	>14,5	nA	6,90	nA	nA	10532,0	406,6	974,9	1108,3	nA	nA	nA	nA	nA	173,4	nA	0.9	19532,0	nA
Marino 2	30-40	>14,5	nA	6,00	nA	nA	10051,0	391,0	1321,0	726,0	nA	nA	nA	nA	19,8	1574,0	nA	nA	17766,0	nA
Mattagiana	20-30	<1	nA	7,20	nA	nA	162,5	8,4	32,5	29,8	nA	nA	nA	nA	nA	103,7	nA	0.2	333,3	nA
Mattarghentù	20-30	<1	nA	6,80	nA	nA	76	3	142	32	nA	nA	nA	nA	nA	497	nA	nA	159	nA
Mefite d'Ansanto	20-30	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Menegolli 11	80-90	1-14,5	nA	6,60	nA	nA	1482,5	94,0	405,0	70,7	nA	nA	nA	nA	7,6	35,4	nA	nA	2632,0	nA
Miano	30-40	1-14,5	nA	7,60	nA	nA	1550,0	22,0	38,0	7,3	nA	nA	nA	nA	nA	649,0	nA	nA	2194,0	nA
Mola di Bassano	20-30	<1	nA	5,40	nA	nA	32,0	35,0	62,3	15,2	nA	nA	nA	nA	nA	311,0	nA	1.9	20,3	nA
Molino del Tifo	30-40	1-14,5	nA	6,90	nA	nA	10,8	4,5	513,0	83,0	nA	nA	nA	nA	nA	201,0	nA	nA	18,0	nA
Monte Bischerò	20-30	1-14,5	nA	6,50	nA	nA	558,0	14,0	446,0	199,0	nA	nA	nA	nA	23	1999,0	nA	nA	212,0	nA
Monte Doganella	40-50	nA	nA	6,10	nA	nA	nA	2,7	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
n. 32	20-30	1-14,5	2510	7,10	8	nA	322	257	72	79	0,49	nA	nA	nA	nA	1064,0	nA	nA	243,0	nA
Naftia	20-30	<1	3000	6,03	nA	nA	657	15	134	105,1	nA	nA	nA	nA	nA	1618	nA	0,2	374	2,9
Nuraxi Figus	40-50	1-14,5	nA	7,44	nA	nA	545	15	22	9	0,92	nA	nA	nA	nA	464	nA	7	660	nA
Oddini	30-40	<1	nA	9,60	nA	nA	190,0	3,7	10,6	0,1	nA	nA	nA	nA	nA	39,7	nA	4.7	258,8	nA
P. Cicerone	20-30	1-14,5	3320	6,83	315	nA	387	27	269	93	3,2	nA	nA	nA	nA	438,0	nA	nA	986,0	nA
P.zo Milo	40-50	1-14,5	6400	7,25	nA	nA	1260	68,6	157	68,3	nA	nA	nA	nA	nA	409,0	nA	nA	1868,0	nA
Paglieto	30-40	1-14,5	nA	6,50	nA	nA	132,0	6,9	505,0	98,0	nA	nA	nA	nA	nA	487,0	nA	nA	82,0	nA



N1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20
Palagio	20-30	1-14,5	nA	6,30	nA	nA	96,6	7,0	481,0	815,0	nA	nA	nA	nA	nA	3966,0	nA	0,3	49,6	nA
Palmas di Arboreal	20-30	<1	739	7,82	307	nA	151	5,5	13	7,3	0,01	nA	nA	nA	0,04	225	nA	nA	136	nA
Panarea 1	70-80	>14,5	nA	5,50	nA	nA	13600	411,1	1132	1401,2	nA	nA	nA	nA	3,2	110	nA	5,4	25571	79,7
Perdu Mannu	20-30	<1	950	6,90	nA	nA	68	3,5	83	30	nA	nA	nA	nA	nA	320	nA	0,54	104	nA
Pietre Bianche	50-60	>14,5	nA	4,70	nA	nA	11346,0	536,0	548,0	1589,0	nA	nA	nA	nA	nA	nA	nA	0,9	21144,0	nA
Pisana	20-30	<1	1000	7,39	nA	nA	146	5	43	34	nA	nA	nA	nA	nA	390	nA	1,4	157	0,1
Pisciarelli	90-100	1-14,5	nA	3,00	nA	nA	526,5	444,4	141,0	65,0	nA	nA	nA	nA	67,8	nA	nA	nA	204,0	nA
Podere Montaldo	20-30	1-14,5	2090	7,10	382	nA	426	11	45	8,9	0,3	nA	nA	nA	0,04	763	nA	nA	213	nA
Poggetti Vecchi	30-40	1-14,5	nA	6,60	nA	nA	36,8	3,4	541,0	116,7	nA	nA	nA	nA	nA	244,0	nA	1,3	46,1	nA
Poggio Cavaliere	20-30	1-14,5	nA	6,60	105	nA	120	180	150	62,2	1,85	nA	nA	nA	120	180	nA	150,0	62,2	1,85
Ponte di ferro II	20-30	1-14,5	1999	6,08	nA	nA	230	43,1	71	97,4	0,2	nA	nA	nA	nA	844	nA	nA	91	nA
Pozzo	20-30	<1	nA	3,40	nA	nA	32,4	18,0	22,0	11,0	nA	nA	nA	nA	nA	nA	nA	nA	29,0	nA
Pozzo	50-60	1-14,5	nA	6,50	nA	nA	880,0	160,0	200,8	35,7	nA	nA	nA	nA	nA	1376,0	nA	nA	706,0	nA
Pozzo Cinquare 2	40-50	1-14,5	nA	6,00	nA	nA	32,0	5,0	654,8	175,8	nA	nA	nA	nA	nA	610,0	nA	4	43,5	nA
Pozzo Colombo 5	20-30	1-14,5	nA	7,10	nA	nA	742,9	9,0	35,1	34,2	nA	nA	nA	nA	nA	1726,7	nA	0,4	277,0	nA
Pozzo Fogliano	30-40	1-14,5	1511	6,30	280	nA	124,0	100,3	86	47	1,66	nA	nA	nA	nA	805	nA	2,9	14,0	nA
Pozzo Laurentina	20-30	1-14,5	nA	6,10	nA	nA	110,7	133,3	245,0	42,8	nA	nA	nA	nA	nA	1294,0	nA	1,4	9,7	nA
Pozzo n°1	40-50	<1	nA	nA	nA	nA	91,0	5,7	7,7	2,1	nA	nA	nA	nA	nA	272,0	nA	nA	7,2	nA
Pozzo n°7	40-50	<1	nA	8,40	nA	nA	190,9	5,4	3,9	1,5	nA	nA	nA	nA	nA	515,0	nA	nA	12,5	nA
Pozzo Pantelleria	20-30	1-14,5	nA	6,20	nA	nA	2391,0	138,0	138,0	233,0	nA	nA	nA	nA	nA	1006,0	nA	3	3652,0	nA
Pra di Lama	40-50	1-14,5	nA	7,10	nA	nA	1265,0	54,7	661,0	146,0	nA	nA	nA	nA	nA	262,4	nA	1,3	2093,0	nA
Pre-Saint-Didier	30-40	<1	nA	0,00	nA	nA	nA	1,0	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Principale	20-30	<1	nA	7,30	nA	nA	22,8	5,9	91,6	14,5	nA	nA	nA	nA	nA	235,5	nA	nA	40,1	nA
Rann 1	30-40	1-14,5	nA	7,10	nA	nA	334,5	16,0	76,0	18,0	nA	nA	nA	nA	nA	219,5	nA	nA	72,0	nA
Rio Cannas	20-30	1-14,5	nA	7,20	nA	nA	137,1	4,3	100,4	77,7	nA	nA	nA	nA	0,2	488,1	nA	0,1	238,7	nA
Rio Murtas	30-40	<1	nA	6,60	nA	nA	63,9	3,5	76,6	34,3	nA	nA	nA	nA	0,3	339,8	nA	0,9	106,0	nA
Roba Vecchia	20-30	1-14,5	nA	8,00	nA	nA	513,0	32,0	18,5	12,0	nA	nA	nA	nA	nA	225,5	22,0	nA	550,0	nA
S. Angelo	80-90	>14,5	22200	6,41	33	nA	4679	196	193	379	nA	nA	nA	nA	0,02	290,0	nA	nA	7651,0	nA
S. Margherita Tramatza	20-30	1-14,5	1845	6,95	281	nA	291	7	56	42,6	0,02	nA	nA	nA	nA	339	nA	nA	371	nA
S. Maria di Pollina	20-30	1-14,5	4000	7,40	240	nA	220	31,3	123	52,3	1,22	nA	nA	nA	nA	525,0	nA	nA	163,0	nA
S. Martino A	20-30	1-14,5	nA	6,41	nA	nA	904	95,8	207	54,5	4,19	nA	nA	nA	nA	2594	nA	0,86	323	nA
Sa Canna 1	20-30	<1	nA	6,90	nA	nA	108,1	4,3	28,1	17,6	nA	nA	nA	nA	0,1	251,4	nA	1,9	103,2	nA
Sa Guardia 1	30-40	1-14,5	nA	6,80	nA	nA	276,0	13,3	37,5	9,5	nA	nA	nA	nA	nA	506,4	nA	4	187,2	nA
S'Acquacotta	40-50	1-14,5	nA	6,90	nA	nA	558,9	21,5	36,1	9,0	nA	nA	nA	nA	0,7	915,2	nA	7,1	326,2	nA
San Giovanni	30-40	1-14,5	nA	6,70	nA	nA	391,0	43,0	922,0	231,0	nA	nA	nA	nA	nA	2990,0	nA	2,1	344,0	nA
San Lorenzo 1	80-90	>14,5	nA	7,50	nA	nA	8500,0	292,0	231,0	170,0	nA	nA	nA	nA	nA	327,0	nA	nA	14010,0	nA
San Nazzario	20-30	nA	nA	7,00	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	409,0	nA	nA	766,0	nA
San Pellegrino	20-30	1-14,5	nA	7,20	nA	nA	44,0	4,1	203,2	59,4	nA	nA	nA	nA	nA	225,6	nA	0,6	67,3	nA
San Teodoro 2	20-30	1-14,5	nA	6,80	nA	nA	49,0	6,5	188,8	62,7	nA	nA	nA	nA	nA	914,0	nA	1,8	40,2	nA



N1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20
Santa Maria dell'Aquila	20-30	1-14,5	3800	6,50	nA	nA	8,0	47,0	530,0	122,7	nA	nA	nA	nA	nA	397,0	nA	3	11,0	nA
Santa Maria is Aquas	50-60	1-14,5	nA	6,60	nA	nA	966,0	43,4	23,0	5,7	nA	nA	nA	nA	0.2	1690,0	nA	11.4	498,2	nA
Santa Venera	20-30	1-14,5	nA	7,50	nA	nA	2438,0	6,0	102,0	193,0	nA	nA	nA	nA	387	830,0	nA	nA	3989,0	nA
Sant'Elia	30-40	<1	nA	7,40	nA	nA	239,0	33,0	57,0	0,1	nA	nA	nA	nA	nA	nA	16,0	nA	154,0	nA
Santo Stefano	20-30	1-14,5	nA	6,30	nA	nA	160,0	67,0	100,0	36,0	nA	nA	nA	nA	nA	874,0	nA	nA	49,0	nA
Selinuntine	50-60	>14,5	nA	6,00	nA	nA	5713,0	360,0	1272,0	439,0	nA	nA	nA	nA	83	525,0	nA	nA	13482,0	nA
Serravalle	20-30	<1	nA	7,20	nA	nA	46,0	7,0	38,5	16,0	nA	nA	nA	nA	nA	219,5	nA	nA	43,0	nA
Siponto	30-40	1-14,5	nA	7,00	nA	nA	1125,0	50,0	212,0	114,0	nA	nA	nA	nA	nA	389,0	nA	nA	2060,0	nA
Solfatara Alta	40-50	1-14,5	nA	5,00	nA	nA	119,5	37,7	118,6	51,4	nA	nA	nA	nA	0.1	225,7	nA	nA	194,9	nA
Solforata	20-30	<1	nA	3,30	nA	nA	31,0	23,0	44,0	11,0	nA	nA	nA	nA	nA	nA	nA	nA	24,6	nA
Solforosa	20-30	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Sorgente	20-30	1-14,5	nA	6,40	nA	nA	6,8	33,1	384,8	107,9	nA	nA	nA	nA	nA	1696,2	nA	nA	8,5	nA
Sorgente del Cimitero	30-40	1-14,5	nA	6,30	nA	nA	391,0	43,0	802,0	219,0	nA	nA	nA	nA	nA	2563,0	nA	2.3	355,0	nA
Sorgente della Lepre	30-40	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Sorgente delle Grazie	20-30	1-14,5	nA	7,40	nA	nA	1873,0	25,0	100,6	66,8	nA	nA	nA	nA	nA	507,0	nA	nA	2902,5	nA
Sorgente Terme Tommasi	50-60	1-14,5	nA	6,30	nA	nA	257,2	74,3	350,0	111,9	nA	nA	nA	nA	nA	1562,1	nA	3.2	209,9	nA
Soro Uras	20-30	1-14,5	1450	7,25	396	nA	197	12,9	51	37,3	0,2	nA	nA	nA	0,04	527	nA	nA	159	nA
Sos Bagnos	20-30	<1	nA	9,70	nA	nA	109,0	0,9	5,8	213,0	nA	nA	nA	nA	nA	27,5	nA	nA	213,0	nA
Stufe Nerone	80-90	>14,5	nA	6,70	nA	nA	9074,0	308,0	385,0	67,8	nA	nA	nA	nA	20.1	48,5	nA	nA	14568,0	nA
Su Campu	40-50	1-14,5	9005	8,01	-10	nA	1148	8,6	603	0,4	1,89	nA	nA	nA	0,43	31	nA	nA	2464	nA
Sulfurea Castelpoto	20-30	<1	736	8,25	46	nA	136	3	18	15	0,2	nA	nA	nA	nA	381,0	nA	nA	39,0	nA
Talamonaccio	30-40	1-14,5	nA	6,70	nA	nA	nA	nA	1050,0	440,0	nA	nA	nA	nA	nA	480,0	nA	nA	nA	nA
Temo-Cuga	30-40	<1	nA	8,10	nA	nA	220,0	4,0	28,9	5,8	nA	nA	nA	nA	nA	103,0	nA	nA	330,1	nA
Terme	20-30	<1	nA	9,10	nA	nA	65,0	1,6	19,3	nA	nA	nA	nA	nA	nA	nA	13,2	nA	3,6	nA
Terme Apollinari	40-50	1-14,5	nA	6,20	nA	nA	210,0	48,0	205,0	31,0	nA	nA	nA	nA	nA	894,0	nA	nA	21,0	nA
Terme di Caldana	30-40	1-14,5	nA	6,80	nA	nA	27,6	3,9	341,0	86,3	nA	nA	nA	nA	nA	244,0	nA	1.4	33,3	nA
Terme di Comano	20-30	<1	nA	7,20	nA	nA	2,0	0,5	48,9	12,1	nA	nA	nA	nA	nA	196,5	nA	0.4	0,8	nA
Terme di Cretone	20-30	1-14,5	nA	6,20	nA	nA	230,5	82,0	773,0	166,0	nA	nA	nA	nA	nA	1846,0	nA	nA	327,0	nA
Terme di Giunone	20-30	<1	nA	7,50	nA	nA	29,6	5,5	82,2	33,5	nA	nA	nA	nA	nA	299,0	nA	nA	40,3	nA
Terme di Pompeo	20-30	1-14,5	2000	6,00	nA	nA	8	4	326	50,5	0,7	nA	nA	nA	7,2	1129	nA	nA	16	nA
Terme di Traiano	50-60	1-14,5	nA	5,90	nA	nA	41,4	6,5	581,0	87,0	nA	nA	nA	nA	nA	656,0	nA	2.7	40,1	nA
Terme II-4	40-50	<1	nA	8,30	nA	nA	66,7	2,4	7,6	0,1	nA	nA	nA	nA	nA	nA	41,0	nA	27,0	nA
Terme Militari	50-60	1-14,5	nA	7,90	nA	nA	2120,0	184,0	70,0	99,0	nA	nA	nA	nA	3	721,0	nA	nA	3083,0	nA
Terme Romane	30-40	1-14,5	nA	7,20	nA	nA	3622,0	98,0	324,0	426,0	nA	nA	nA	nA	nA	156,0	nA	nA	6526,0	nA
Terme Sant'Agnese	40-50	1-14,5	nA	8,50	nA	nA	299,0	4,7	2,6	0,8	nA	nA	nA	nA	nA	793,0	nA	nA	27,3	nA
Terme Sibarite 3	20-30	<1	nA	7,00	nA	nA	45,1	3,9	123,8	54,0	nA	nA	nA	nA	nA	267,2	nA	nA	55,0	nA
Terme Telesse	20-30	1-14,5	nA	6,40	nA	nA	90	16,2	421	78	nA	nA	nA	nA	nA	1677,0	nA	nA	149,0	nA
Terme Vigliatore	30-40	1-14,5	4400	6,72	nA	nA	1100	30,1	132	201,2	nA	nA	nA	nA	nA	4079,0	nA	4	123,0	0,2
Tiria podere 60	20-30	<1	1192	7,82	296	nA	161	12,1	24	19,8	0,04	nA	nA	nA	0,04	173	nA	nA	253	nA



N1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20
Tito	20-30	<1	816	8,10	nA	nA	150	4	28	19	nA	nA	nA	nA	nA	464,0	nA	nA	60,0	nA
Torrente Mignone	20-30	1-14,5	nA	8,06	nA	nA	644	10,1	19	3,6	0,17	nA	nA	nA	nA	1135,0	nA	3,1	78,0	nA
Tramutola	20-30	1-14,5	2490	8,10	nA	nA	622	9	10	7	nA	nA	nA	nA	nA	1150,0	nA	13	272,0	8,0
Uliveto Terme	20-30	1-14,5	nA	6,30	nA	nA	275,0	32,0	401,0	45,0	nA	nA	nA	nA	nA	1260,0	nA	nA	281,0	nA
Valle di Baccano	20-30	1-14,5	nA	6,20	nA	nA	82,0	150,0	778,0	87,0	nA	nA	nA	nA	nA	1497,0	nA	nA	23,5	nA
Valle Orientina	30-40	1-14,5	nA	6,60	nA	nA	6,8	2,6	554,4	134,2	nA	nA	nA	nA	nA	352,0	nA	nA	12,8	nA
Venamartello	20-30	1-14,5	nA	7,80	nA	nA	773,0	42,6	327,0	106,0	nA	nA	nA	nA	nA	570,1	nA	2,8	1295,0	nA
Venelle	20-30	1-14,5	nA	7,30	nA	nA	nA	nA	430,0	100,0	nA	nA	nA	nA	nA	300,0	nA	nA	nA	nA
Vogliacasi	30-40	<1	nA	8,20	nA	nA	9,0	3,2	1,7	105,0	nA	nA	nA	nA	nA	24,0	9,0	nA	170,0	nA
Ziningas	20-30	<1	nA	7,40	nA	nA	55,2	3,1	45,7	16,0	nA	nA	nA	nA	0,1	209,9	nA	0,7	63,1	nA

Table 69: Inventory of Thermal waters in Italy: Names of sources and hydrochemical information.

N1	H31	H32	H33	H34	H35	H36	H37	H38	H39	H40	H41	H42	H43	H44	H45	H46	H47	C1
A.Calda di S.Lorenzo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	22,4	54,7	nA	nA
Abba Meiga	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	17,8	nA	nA	nA
Abba Meiga	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	21,9	nA	nA	nA
Abbarghente	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	63,6	nA	nA	nA
Acqua Acetososa	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	21,1	40,3	nA	nA
Acqua Appia	nA	nA	nA	nA	0,02	nA	nA	nA	nA	nA	nA	nA	nA	nA	129,0	nA	nA	nA
Acqua Bolle	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	27,6	nA	nA	nA
Acqua Borra	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	21,3	208,8	nA	nA
Acqua Calda	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	82,9	nA	nA	nA
Acqua Calda	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	23,7	nA	nA	nA
Acqua Calena	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	52,0	nA	nA	nA
Acqua Claudia	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	138,9	nA	nA	nA
Acqua dei Bagni	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	55,4	1,4	nA	nA
Acqua del Doccio	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	61,0	54,7	nA	nA
Acqua della Gora	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	7,4	7,9	nA	nA
Acqua della Gora	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	23,7	nA	nA	nA
Acqua di Sillene	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	36,3	0,7	nA	nA
Acqua Fitusa	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	71,2	nA	nA	nA
Acqua Livia	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Acqua Montalceto	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	16,6	23,0	nA	nA
Acqua Salata	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	17,1	nA	nA	nA
Acqua Solfa Ardea	nA	nA	nA	nA	0,02	nA	nA	nA	nA	nA	nA	nA	nA	nA	118,5	7,2	nA	nA
Acqua Solfurea	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	missing information
Acqua Solfurea	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	85,6	nA	nA	nA
Acqua Zolfia	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	25,4	nA	nA	nA
Acquacallente	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	21,3	nA	nA	nA
Acquaforse	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	89,8	57,6	nA	nA
Acquaforse	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	123,1	144,0	nA	nA
Acquasanta	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Acque Sante	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	31,6	nA	nA	nA
Acque Sinuessane	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	55,3	nA	nA	nA
Acquedotto 3	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	25,7	1,4	nA	nA
Alcovia	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	36,9	nA	nA	nA
Aphrodite	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	208,0	432,0	nA	HCO3 plus a CO3
Aronna	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	12,6	7,2	nA	nA
Baccanello	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	144,8	115,2	nA	nA
Bagnaccio	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	69,8	nA	nA	nA
Bagnarello	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	44,2	nA	nA	nA
Bagnarello	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	36,9	208,8	nA	nA
Bagnetti Agnano	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	35,5	nA	nA	nA



N1	H3 1	H3 2	H3 3	H3 4	H35	H3 6	H3 7	H3 8	H3 9	H4 0	H4 1	H4 2	H4 3	H4 4	H45	H46	H4 7	C1
Bagni	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	39,5	0,7	nA	nA
Bagni	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bagni	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	31,7	nA	nA	nA
Bagni	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	23,7	nA	nA	nA
Bagni di Levante	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	36,9	nA	nA	nA
Bagni Galleraie	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	33,2	12,2	nA	nA
Bagni I-2A	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	92,2	3,6	nA	nA
Bagni Petrollo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	33,2	39,6	nA	nA
Bagni San Cataldo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bagni San Michele	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	2,6	4,3	nA	nA
Bagni Saturnia	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	22,4	151, 2	nA	nA
Bagni Termali	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bagni Triponzi	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	22,5	nA	nA	nA
Bagniaccio	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	21,3	4,3	nA	nA
Bagno Barbarano	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	18,2	nA	nA	nA
Bagno dell'Acqua	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bagno di Equi	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	20,5	5,8	nA	nA
Bagno di Roselle	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	40,3	1,4	nA	nA
Bagno Grande	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bagno Lagoncico	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bagno Montioni	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	TDS calculated
Bagno Musignano	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	36,3	40,3	nA	nA
Bagno Nord	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	47,3	7,2	nA	nA
Bagno Regina	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	39,5	0,7	nA	nA
Bagno Regina	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	1,4	32,4	nA	nA
Bagno Vignoni	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	4,3	nA	nA
Bagnoli	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	94,9	nA	nA	nA
Bagnolo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	70,4	3,6	nA	nA
Banzu Mannu	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	50,7	nA	nA	nA
Boiola	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	79,9	50,4	nA	nA
Bolle Malvizza	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bollori	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	64,5	0,7	nA	nA
Bongiovanni	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	56,6	nA	nA	nA
Bonvicino	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	31,6	nA	nA	nA
Borgo Pantano	nA	nA	nA	nA	4,76	nA	nA	nA	nA	nA	nA	nA	nA	nA	32,9	nA	nA	nA
Brennerbad	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	missing information
Bruciarello	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	22,4	nA	nA	nA
Buonriposo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	21,7	nA	nA	TDS calculated
Caddas	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	68,7	nA	nA	nA
Cala Tramontana	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	414, 7	15,1	nA	nA
Caldana	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	61,9	46,1	nA	nA
Caldana	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	11,8	0,7	nA	nA
Caldana	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Caldanelle	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,7	nA	nA
Caldara	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	135, 6	nA	nA	nA
Canalette	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	15,8	nA	nA	nA
Capasso	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	51,6	nA	nA	nA
Capodaquas	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	21,2	2,2	nA	nA
Caputacquas	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	21,9	nA	nA	nA
Carabollace	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	43,4	151, 2	nA	nA
Cardia- Capoterra	nA	nA	nA	nA	0,15	nA	nA	nA	nA	nA	nA	nA	nA	nA	52,7	0,3	nA	nA
Caronte	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	57,9	nA	nA	nA
Caronte	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	43,6	nA	nA	nA
Carta Romana	nA	nA	nA	nA	0,1	nA	nA	nA	nA	nA	nA	nA	nA	nA	47,4	183, 6	nA	nA
Cartiera Marras	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	16,7	nA	nA	nA
Casale Acquadoro	nA	nA	nA	nA	0,1	nA	nA	nA	nA	nA	nA	nA	nA	nA	34,2	20,9	nA	nA
Cassiodora	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	32,9	nA	nA	Na= Na+K
Casteldoria	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	92,6	nA	nA	nA
Cava dei Selci	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	131, 9	nA	nA	nA
Cestelia	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Cucco	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	35,5	nA	nA	nA
Doccione A	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	67,1	nA	nA	nA
Donzelle	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	37,1	201, 6	nA	nA
Faccio Bianco	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	18,4	nA	nA	nA
Fedita	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fonte Calda	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	21,1	31,0	nA	nA
Fonte Vittoria	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	21,1	nA	nA	nA
Fontiloro	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	26,3	7,2	nA	nA
Fosso Lupara	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	25,7	41,0	nA	nA
Fosso Treia	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,7	nA	nA



N1	H3 1	H3 2	H3 3	H3 4	H35	H3 6	H3 7	H3 8	H3 9	H4 0	H4 1	H4 2	H4 3	H4 4	H45	H46	H4 7	C1
Fulco	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Gelsomina 1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	385, 8	432, 0	nA	HCO3 plus CO3
Gorga 1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	91,0	nA	nA	There is S 7 ppm
Grotta Giusti	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	19,7	nA	nA	nA
Grotta Sataria	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	284, 4	15,1	nA	nA
Hotel Plaza	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Ibsen	nA	nA	nA	nA	0,43	nA	nA	nA	nA	nA	nA	nA	nA	nA	160, 6	126, 0	nA	nA
Il Piano	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	139, 6	2,2	nA	nA
La Boia	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	19,7	nA	nA	nA
La Bollente	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	65,8	52,6	nA	nA
La Caldara	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
La Cava	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	42,0	16,6	nA	nA
La Grotta	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	52,3	37,4	nA	nA
La Mensa	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
La Pescara	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	39,5	7,2	nA	nA
Laghetto	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	152, 5	2,2	nA	There is HSO4 4808 PPM
Laghi del Vescovo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	9,2	nA	nA	nA
Lago dei Palici	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	46,1	nA	nA	nA
Lago Regina	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	34,2	nA	nA	nA
Lendinara	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	26,3	nA	nA	nA
Leopoldina	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	22,4	nA	nA	nA
Lungari	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	34,2	nA	nA	nA
M.te Palla	nA	nA	nA	nA	0,12	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Magnadorsa	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	24,0	nA	nA	nA
Maladroxia	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	28,8	31,0	nA	nA
Marino 2	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	There is S 56 ppm
Mattagiana	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	30,0	nA	nA	nA
Mattarghentù	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	14,5	nA	nA	nA
Mefite d'Ansanto	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Menegolli 11	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	109, 2	63,4	nA	nA
Miano	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	32,9	nA	nA	nA
Mola di Bassano	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	146, 1	2,2	nA	Q from dr Arnone's publication
Molino del Tifo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	22,4	nA	nA	nA
Monte Bischero	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	14,5	1,4	nA	nA
Monte Doganella	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	missing information
n. 32	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	86,9	17,1	nA	nA
Naftia	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	134, 3	nA	nA	nA
Nuraxi Figus	nA	nA	nA	nA	0,47 5	nA	nA	nA	nA	nA	nA	nA	nA	nA	25,0	1,7	nA	nA
Oddini	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	54,9	nA	nA	nA
P. Cicerone	nA	nA	nA	nA	0,1	nA	nA	nA	nA	nA	nA	nA	nA	nA	26,3	3,5	nA	nA
P.zo Milo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	26,3	nA	nA	nA
Paglieto	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	158, 0	108, 0	nA	nA
Palagio	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	118, 5	5,8	nA	nA
Palmas di Arboreal	nA	nA	nA	nA	0,02	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Panarea 1	nA	nA	nA	nA	3,2	nA	nA	nA	nA	nA	nA	nA	nA	nA	164, 6	871, 1	nA	nA
Perdu Mannu	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	25,0	nA	nA	nA
Pietre Bianche	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	89,5	719, 9	nA	Sorgente nell'isola di Vulcano
Pisana	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	53,9	nA	nA	nA
Pisciarelli	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	338, 4	388, 8	nA	There is HSO4 58 PPM
Podere Montaldo	nA	nA	nA	nA	2,05	nA	nA	nA	nA	nA	nA	nA	nA	nA	44,8	3,0	nA	nA
Poggetti Vecchi	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	32,4	nA	nA	nA
Poggio Cavaliere	nA	nA	nA	nA	0,69 1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	43,3	nA	nA
Ponte di ferro II	nA	nA	nA	nA	0,04 8	nA	nA	nA	nA	nA	nA	nA	nA	nA	92,2	4,8	nA	nA
Pozzo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	123, 8	nA	nA	There is HSO4 116 PPM
Pozzo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	164, 6	55,4	nA	nA
Pozzo Cinquare 2	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	38,2	1,4	nA	nA
Pozzo Colombo 5	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	47,1	28,1	nA	nA
Pozzo Fogliano	nA	nA	nA	nA	0,36	nA	nA	nA	nA	nA	nA	nA	nA	nA	225, 1	50,2	nA	nA



N1	H3 1	H3 2	H3 3	H3 4	H35	H3 6	H3 7	H3 8	H3 9	H4 0	H4 1	H4 2	H4 3	H4 4	H45	H46	H4 7	C1
Pozzo Laurentina	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	67,0	nA	nA	nA
Pozzo n° 1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	32,9	nA	nA	nA
Pozzo n° 7	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	25,7	nA	nA	nA
Pozzo Pantelleria	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	233,0	7,2	nA	nA
Pra di Lama	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	42,0	10,1	nA	nA
Pre-Saint-Didier	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Principale	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	21,9	nA	nA	nA
Rann H	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	50,0	nA	nA	nA
Rio Cannas	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	22,4	2,9	nA	nA
Rio Murtas	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	26,3	0,7	nA	nA
Roba Vecchia	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	29,0	nA	nA	nA
S. Angelo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	198,5	29,7	nA	nA
S. Margherita Tramatzia	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	0,3	nA	nA
S. Maria di Pollina	nA	nA	nA	nA	0,074	nA	nA	nA	nA	nA	nA	nA	nA	nA	15,8	nA	nA	nA
S. Martino A	nA	nA	nA	nA	0,922	nA	nA	nA	nA	nA	nA	nA	nA	nA	30,3	4,0	nA	nA
Sa Canna 1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	49,6	nA	nA	nA
Sa Guardia 1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	64,0	nA	nA	Total Q 12,5
S'Acquacotta	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	63,5	4,3	nA	nA
San Giovanni	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	25,3	64,8	nA	nA
San Lorenzo 1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	313,4	360,0	nA	HCO3 plus CO3
San Nazzario	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
San Pellegrino	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	15,7	nA	nA	nA
San Teodoro 2	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	40,2	nA	nA	nA
Santa Maria dell'Aquila	nA	nA	nA	nA	0,01	nA	nA	nA	nA	nA	nA	nA	nA	nA	26,3	0,7	nA	nA
Santa Maria is Aquas	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	89,5	17,3	nA	nA
Santa Venera	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	35,7	nA	nA	nA
Sant'Elia	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	30,3	nA	nA	nA
Santo Stefano	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	116,9	nA	nA	nA
Selinuntine	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	51,5	nA	nA	There is S 337 ppm
Serravalle	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	30,3	nA	nA	nA
Siponto	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	18,4	nA	nA	nA
Solfatara Alta	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	118,4	nA	nA	nA
Solforata	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	96,1	nA	nA	HSO4 plus SO4
Solforosa	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Sorgente	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	31,3	nA	nA	nA
Sorgente del Cimitero	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	22,9	61,9	nA	nA
Sorgente della Lepre	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Sorgente delle Grazie	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	36,9	nA	nA	nA
Sorgente Terme Tommasi	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	107,0	nA	nA	nA
Soro Uras	nA	nA	nA	nA	0,02	nA	nA	nA	nA	nA	nA	nA	nA	nA	56,6	0,1	nA	nA
Sos Bagnos	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	46,3	nA	nA	nA
Stufe Nerone	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	229,1	365,7	nA	nA
Su Campu	nA	nA	nA	nA	0,3	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Sulfurea Castelpoto	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	14,5	4,3	nA	nA
Talamonaccio	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Temo-Cuga	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	33,4	nA	nA	nA
Terme	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	43,4	nA	nA	nA
Terme Apollinari	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	113,2	5,8	nA	nA
Terme di Caldana	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	22,1	2,2	nA	nA
Terme di Comano	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	6,5	nA	nA	nA
Terme di Cretone	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	23,7	nA	nA	nA
Terme di Giunone	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	22,4	nA	nA	nA
Terme di Pompeo	nA	nA	nA	nA	0,06	nA	nA	nA	nA	nA	nA	nA	nA	nA	17,1	18	nA	nA
Terme di Traiano	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	33,3	nA	nA	nA
Terme II-4	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	73,1	nA	nA	nA
Terme Militari	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	68,5	57,6	nA	HCO3 plus CO3
Terme Romane	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	25,0	7,2	nA	nA
Terme Sant'Agnese	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Terme Sibarite 3	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	23,7	nA	nA	nA
Terme Telese	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	23,7	nA	nA	nA
Terme Vigliatore	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	134,3	nA	nA	nA
Tiria podere 60	nA	nA	nA	nA	0,02	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Tito	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Torrente Mignone	nA	nA	nA	nA	0,1	nA	nA	nA	nA	nA	nA	nA	nA	nA	14,5	12,8	nA	nA
Tramutola	nA	nA	nA	nA	0,9	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Uliveto Terme	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	47,4	nA	nA	nA



N1	H3 1	H3 2	H3 3	H3 4	H3 5	H3 6	H3 7	H3 8	H3 9	H4 0	H4 1	H4 2	H4 3	H4 4	H4 5	H4 6	H4 7	C1
Valle di Baccano	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	151,4	13,7	nA	nA
Valle Orientina	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	28,2	nA	nA	nA
Venamartello	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	25,3	nA	nA	nA
Venelle	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	TDS calculated
Vogliacasi	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Ziningas	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	44,8	nA	nA	nA

7.2.5 Lithuania

Table 70: Inventory of Natural mineral waters and Thermal waters in Lithuania: Names of sources and general information.

N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
AB "Eglės sanatorija" (Druskininkai)	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5233N3 524	artesian well field	natural mineral water publicly available	nA	nA	<5
AB Birštono sanatorija "Versmė"	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5221N3 587	single artesian well	natural mineral water publicly available	nA	nA	<5
Abromiškių reabilitacijos ligoninės	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5260N3 614	artesian well field	natural mineral water publicly available	nA	nA	<5
Abromiškių reabilitacijos ligoninės	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5260N3 614	artesian well field	natural mineral water publicly available	nA	nA	<5
Druskininkų AQUA	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5230N3 523	artesian well field	natural mineral water publicly available	nA	nA	<5
Druskininkų AQUA	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5230N3 523	artesian well field	natural mineral water publicly available	nA	nA	<5
Druskininkų AQUA	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5230N3 523	artesian well field	natural mineral water publicly available	nA	nA	<5
Kauno gręž. Nr. 9397	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5287N3 754	single artesian well	natural mineral water publicly available	nA	nA	<5
Likėnų mineralinio vandens	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5222N3 769	artesian well field	natural mineral water publicly available	nA	nA	<5
Likėnų mineralinio vandens	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5222N3 769	artesian well field	natural mineral water publicly available	nA	nA	<5
UAB "Anšilas" Šilėlis	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5266N3 700	single artesian well	natural mineral water publicly available	nA	nA	<5
UAB "Draugystės sanatorija"	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5231N3 522	single artesian well	natural mineral water publicly available	nA	nA	<5
UAB "Geoterma" (Klaipėda)	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5022N3 674	single artesian well	thermal water for heating	nA	nA	<5
UAB "Raminora" (Druskininkų m.)	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5230N3 522	single artesian well	natural mineral water publicly available	nA	nA	<5
UAB SC "Radnyčėlė"	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5230N3 522	single artesian well	natural mineral water publicly available	nA	nA	<5
Vaidilute	nA	Lithuania	Natural mineral water	1kmE5221N3 587	artesian well field	natural mineral water	nA	nA	<5



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
			(national law recognition)			publicly available			
Viešb. „Palanga“ (gręž. Nr. 47543)	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5009N3 698	single artesian well	natural mineral water publicly available	nA	nA	<5
VšĮ Sanatorija "Belorus"	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5230N3 523	single artesian well	natural mineral water publicly available	nA	nA	<5
Vytautas (17106)	nA	Lithuania	Natural mineral water (national law recognition)	1kmE5221N3 587	artesian well field	natural mineral water publicly available	nA	nA	<5
Akvilė	Akvilė	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5234N3 527	single artesian well	bottled natural mineral water	nA	nA	<5
AQUA VOS	AQUA VOS	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5277N3 600	single artesian well	bottled natural mineral water	nA	nA	<5
Aras	Aras	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5229N3 521	artesian well field	bottled natural mineral water	nA	nA	<5
Birštonas	Birutė I	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5219N3 588	artesian well field	bottled natural mineral water	nA	nA	<5
Birutė	Birutė	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5219N3 588	artesian well field	bottled natural mineral water	nA	nA	<5
D1	D1	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5230N3 521	artesian well field	bottled natural mineral water	nA	nA	<5
Elite	Elite	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5211N3 628	single artesian well	bottled natural mineral water	nA	nA	<5
Fuldataler	Fuldataler	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5230N3 521	artesian well field	bottled natural mineral water	nA	nA	5-25
Hermis	Hermis	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5229N3 522	single artesian well	bottled natural mineral water	nA	nA	<5
Iamate	Gerdašių	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5225N3 514	artesian well field	bottled natural mineral water	nA	nA	<5
Neptūnas	Neptūnas	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5265N3 551	artesian well field	bottled natural mineral water	nA	nA	<5
Neptūnas Unique	Neptūnas I	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5265N3 551	artesian well field	bottled natural mineral water	nA	nA	<5
Rasa	Rasa	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5229N3 521	artesian well field	bottled natural mineral water	nA	nA	<5
Rasa Light Minerals	Rasa Light Minerals	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5230N3 521	artesian well field	bottled natural mineral water	nA	nA	<5
Rytas	Rytas	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5304N3 636	single artesian well	bottled natural mineral water	nA	nA	<5
Saguaro	D2	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5230N3 521	artesian well field	bottled natural mineral water	nA	nA	5-25
TICHÉ	TICHÉ	Lithuania	natural mineral water	1kmE5080N3 719	single artesian well	bottled natural mineral water	nA	nA	<5



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
			(Directive 2009/54/EC)						
Vaiva	Vaiva	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5287N3 754	single artesian well	bottled natural mineral water	nA	nA	<5
Vytautas	Vytautas 7	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5221N3 587	artesian well field	bottled natural mineral water	nA	nA	<5
Vytautas ANNO 1942	Vytautas 8	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5221N3 587	artesian well field	bottled natural mineral water	nA	nA	<5
nA	Nr. 27089	Lithuania	natural mineral water (Directive 2009/54/EC)	1kmE5230N3 523	artesian well field	bottled natural mineral water	nA	nA	<5

Table 71: Inventory of Natural mineral waters and Thermal waters in Austria: Names of sources, aquifer information and age of groundwater.

N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	A1
AB "Eglės sanatorija" (Druskininkai)	311	276	289	porous	confinedArtesian	clastic sediment	all	nA	nA	nA	nA	lowerTriassic	lowerTriassic	older than 10.000 years
AB Birštono sanatorija "Versmė"	315	245	257	porous	confinedArtesian	clastic sediment	all	nA	nA	nA	nA	lowerTriassic	lowerTriassic	older than 10.000 years
Abromiškių reabilitacijos ligoninė	580	547	588	porous	confinedArtesian	clastic sediment	all	nA	nA	nA	nA	Cambrian	Cambrian	older than 10.000 years
Abromiškių reabilitacijos ligoninė	348	288	348	porous and fractured	confinedArtesian	calcareous carbonate sediment	all	nA	nA	nA	nA	Silurian	Silurian	older than 10.000 years
Druskininkų AQUA	223	198	218	porous	confinedArtesian	clastic sediment	all	nA	nA	nA	nA	lowerCretaceous	lowerCretaceous	older than 10.000 years
Druskininkų AQUA	111	73	110	porous and fractured	confinedArtesian	calcareous carbonate sediment	all	nA	nA	nA	nA	upperCretaceous	upperCretaceous	older than 10.000 years
Druskininkų AQUA	327,6	273	298,4	porous	confinedArtesian	clastic sediment	all	nA	nA	nA	nA	lowerTriassic	lowerTriassic	older than 10.000 years
Kauno gręž. Nr. 9397	836	800	836	porous	confinedArtesian	clastic sediment	all	nA	nA	nA	nA	Cambrian	Cambrian	older than 10.000 years
Likėnų mineralinio vandens	434,5	408	432,5	porous	confinedArtesian	clastic sediment	all	nA	nA	nA	nA	Middle Devonian	Middle Devonian	older than 10.000 years
Likėnų mineralinio vandens	1010,9	989,5	991,9	porous	confinedArtesian	clastic sediment	all	nA	nA	nA	nA	Cambrian	Cambrian	older than 10.000 years
UAB "Anšilas" Šilelis	360	269	336	porous	confinedArtesian	clastic sediment	all	nA	nA	nA	nA	Middle Devonian	lowerDevonian	older than 10.000 years
UAB "Draugystės sanatorija"	318	269	317	porous	confinedArtesian	clastic sediment	all	nA	nA	nA	nA	lowerTriassic	lowerTriassic	older than 10.000 years
UAB "Geoterma" (Klaipėda)	1128	1002,6	1115,1	porous	confinedArtesian	clastic sediment	all	nA	nA	nA	nA	lowerDevonian	lowerDevonian	older than 10.000 years



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	A1
UAB "Raminora" (Druskininkų m.)	306,5	275	306,5	porous	confined Artesian	clastic sediment	all	nA	nA	nA	nA	lowerT riassic	lowerT riassic	older than 10.000 years
UAB SC "Radnyčėlė"	228	207	224	porous	confined Artesian	clastic sediment	all	nA	nA	nA	nA	lowerC retaceous	lowerC retaceous	older than 10.000 years
Vaidilute	306	273,5	304	porous	confined Artesian	sandstone	dominant	nA	nA	nA	nA	Triassic	Triassic	older than 60 years
Viešb. „Palanga“ (gręž. Nr. 47543)	522	481	522	porous	confined Artesian	clastic sediment	all	nA	nA	nA	nA	middle Devonian	lowerD evonian	older than 10.000 years
VšĮ Sanatorija "Belorus"	232	210	225	porous	confined Artesian	clastic sediment	all	nA	nA	nA	nA	lowerC retaceous	lowerC retaceous	older than 10.000 years
Vytautas (17106)	125	77,5	125	porous	confined Artesian	sand	dominant	nA	nA	nA	nA	upperC retaceous	upperC retaceous	older than 60 years
Akvilė	140	120	127	porous	confined Artesian	clastic sediment	all	nA	nA	nA	nA	pleistocene	pleistocene	older than 60 years
AQUA VOS	165	116	165	porous	confined Artesian	clastic sediment	all	nA	nA	nA	nA	pleistocene	pleistocene	older than 60 years
Aras	238	208	220	porous	confined Artesian	clastic sediment	all	nA	nA	nA	nA	cenomanian	cenomanian	older than 10.000 years
Birštonas	100	86	100	porous and fractured	confined Artesian	calcareous carbonate sediment	all	nA	nA	nA	nA	upperC retaceous	upperC retaceous	older than 10.000 years
Birutė	54	44	54	porous and fractured	confined Artesian	calcareous carbonate sediment	all	nA	nA	nA	nA	upperC retaceous	upperC retaceous	older than 60 years
D1	115	91	115	porous and fractured	confined Artesian	calcareous carbonate sediment	all	nA	nA	nA	nA	upperC retaceous	upperC retaceous	older than 60 years
Elite	111	88	96	porous	confined Artesian	clastic sediment	all	nA	nA	nA	nA	cenomanian	lowerC retaceous	older than 10.000 years
Fuldatale	235	220	235	porous	confined Artesian	clastic sediment	all	nA	nA	nA	nA	lowerC retaceous	lowerC retaceous	older than 60 years
Hermis	150	94,5	127	porous and fractured	confined Artesian	calcareous carbonate sediment	all	nA	nA	nA	nA	upperC retaceous	upperC retaceous	older than 10.000 years
Iamata	272	219	236	porous	confined Artesian	clastic sediment	all	nA	nA	nA	nA	lowerC retaceous	lowerC retaceous	older than 60 years
Neptūnas	60	36	50	porous	confined Artesian	clastic sediment	all	nA	nA	nA	nA	pleistocene	pleistocene	younger than 60 years
Neptūnas Unique	225	186	225	porous	confined Artesian	clastic sediment	all	nA	nA	nA	nA	lowerC retaceous	lowerC retaceous	older than 60 years
Rasa	231	209	231	porous	confined Artesian	clastic sediment	all	nA	nA	nA	nA	cenomanian	lowerC retaceous	older than



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	A1
					artesian									10.000 years
Rasa Light Minerals	114	90	114	porous and fractured	confined artesian	calcareous carbonate sediment	all	nA	nA	nA	nA	upperCretaceous	upperCretaceous	older than 60 years
Rytas	83	74	83	porous	confined artesian	clastic sediment	all	nA	nA	nA	nA	pleistocene	pleistocene	older than 60 years
Saguaro	243	221	237	porous	confined artesian	clastic sediment	all	nA	nA	nA	nA	lowerCretaceous	lowerCretaceous	older than 60 years
TICHÉ	715	676	689	porous	confined artesian	clastic sediment	all	nA	nA	nA	nA	middle Devonian	middle Devonian	older than 10.000 years
Vaiva	440	373,6	433	porous	confined artesian	clastic sediment	all	nA	nA	nA	nA	upperDevonian	middle Devonian	older than 10.000 years
Vytautas	60	36	60	porous	confined artesian	clastic sediment	all	nA	nA	nA	nA	pleistocene	pleistocene	older than 10.000 years
Vytautas ANNO 1942	46	31,2	46	porous	confined artesian	clastic sediment	all	nA	nA	nA	nA	pleistocene	pleistocene	older than 10.000 years
nA	107	78	100	porous	confined artesian	clastic sediment	all	nA	nA	nA	nA	upperCretaceous	lowerCretaceous	older than 10.000 years

Table 72: Inventory of Natural mineral waters and Thermal waters in Lithuania: Names of sources and hydrochemical information.

N1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
AB "Eglės sanatorija" (Druskininkai)	<1,5	>14,5	61,300	6,47	-73	nA	99,20	65,8	36,00	14,80	55,1	0,11	41,5	0,458	2,11	67,8	0,01	0,05	24,600	95	nA	19,20	<0,05	nA
AB Birštono sanatorija "Versmė"	<1,5	>14,5	33,700	7,6	nA	nA	40,22	82,1	23,50	14,60	nA	0,06	0,22	0,66	2,94	36,8	0,02	0,62	13,130	49,7	nA	19,93	<0,05	nA
Abromiškių reabilitacijos ligoninės	15-20	>14,5	20,0	6,48	nA	nA	64,6	18,7	21,66	47,2	nA	0,047	9,02	0,325	0,05	17,3	0,085	0,11	24,928	0,189	nA	22,40	<0,05	nA
Abromiškių reabilitacijos ligoninės	<1,5	1-14,5	11,55	7,2	nA	nA	19,64	61,17	46,5	15,8	nA	0,012	5,001	0,231	0,05	21,5	0,106	2,12	36,46	0,057	nA	92,8	<0,05	nA
Druskininkų AQUA	<1,5	1-14,5	49,20	7,21	nA	nA	75,1	9,8	15,4	63,1	0,047	nA	6,87	0,071	0,59	25,7	0,07	0,3	14,30	4,2	nA	1,2	<0,05	nA
Druskininkų AQUA	<1,5	1-14,5	13,28	6,1	nA	nA	17,60	15,4	78,8	20,8	nA	nA	5,7	0,311	0,49	18,916	0,01	0,16	43,151	14,27	nA	14,44	<0,05	nA
Druskininkų AQUA	<1,5	>14,5	74,400	6,09	nA	nA	15,240	11,0	32,55	12,80	0,0612	nA	38,7	0,057	2,16	31,2	0,01	0,05	31,600	83,5	nA	22,00	<0,05	nA
Kauno grėž. Nr. 9397	15-20	>14,5	14,5600	6,06	nA	nA	35,430	39,0	84,98	23,20	nA	nA	9,9	2,191	1,5	76	0,037	2,79	72,770	<0,2	nA	19,98	<0,05	nA
Likėnų mineralinio vandens	<1,5	1-14,5	98,10	7,54	nA	nA	14,80	42,2	77,2	15,8	nA	nA	9,3	0,42	0,798	82,4	0,05	0,57	23,00	9,1	nA	20,50	<0,05	nA
Likėnų mineralinio vandens	15-20	>14,5	08,00	6,53	nA	nA	32,450	30,8	77,80	27,00	nA	nA	26,6	3,1	7,98	38,3	0,01	0,32	69,600	20,8	2,68	16,30	<0,05	nA
UAB "Anšilas" Šilėlis	<1,5	>14,5	80,0	7,38	nA	nA	52,10	11,9,5	62,92	6,52	21	0,055	2,74	nA	1,29	68,9	0,07	0,78	17,5	19,4	0,85	35,00	<0,05	nA
UAB "Draugystės sanatorija"	<1,5	>14,5	75,800	7,03	-15	nA	15,520	10,0	35,49	13,72	55	0,14	16	2,6	2,16	63,9	0,01	0,18	33,060	10,5	nA	21,63	<0,05	nA



N1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
UAB "Geoterma" (Klaipėda)	40-50	>14,5	127000	6,48	nA	nA	27623	637	9060	2678	nA	0,051	6,44	nA	28,003	42	0,021	2,67	66979	60,62	nA	1313	<0,05	nA
UAB "Raminora" (Druskininkų m.)	<15	>14,5	74500	6,21	-38	nA	15300	115	3500	1500	0,092	0,102	20	0,27	4,17	45,1	0,01	1,09	31550	70,852	<0,25	2618	<0,05	nA
UAB SC "Radnyčėlė"	<15	1-14,5	22500	7,19	nA	0,5	2510	33,5	1845	510	nA	0,82	2,03	nA	2,06	199	11,4	0,39	8264	25,6	nA	296	<0,05	0,05
Vaidilute	<15	>14,5	42950	7,2	-35	nA	5600	116	1760	1760	nA	0,052	1,83	0,44	3,61	124	nA	0,27	16461	67	nA	2500	<0,05	0,1
Viešb. „Palanga“ (grėž. Nr. 47543)	15-20	>14,5	30800	7,33	nA	nA	4890	135	1267,33	570,5	22,98	nA	1,3	0,672	2,3	105	0,04	nA	10880	53,2	nA	2170	<0,05	nA
VšĮ Sanatorija "Belorus"	<15	1-14,5	6370	7,36	nA	nA	983	12,7	230	84,8	1,653	0,121	0,14	0,032	0,659	338	0,12	0,45	1840	5,5	nA	63	<0,05	0,05
Vytautas (17106)	<15	1-14,5	8969	7,68	-14	nA	2030	30	771	334	nA	0,085	8	0,28	1,29	298	nA	0,18	4532	12,9	nA	1111	<0,05	nA
Akvilė	<15	<14	334	7,78	50	nA	21	1	545	5,9	nA	0,036	0,47	0,082	0,116	166	0,27	0,23,7	3,7	nA	nA	1,4	0,05	<0,05
AQUA VOS	<15	<14	410	7,94	nA	nA	3,1	1,2	758	17	nA	0,16	0,92	0,08	0,052	281	0,39	0,22	3,8	nA	nA	231	<0,05	nA
Aras	<15	1-14,5	12880	7,26	8	nA	1220	24,6	1443	265	2,3	0,41	1	0,31	1,83	288	0,08	0,36	4860	12	<0,2	174	<0,05	nA
Birštonas	<15	1-14,5	14960	7,38	nA	nA	2256	32	692	312	nA	0,068	16,1	0,59	1,51	236	0,07	0,07	4646	10,5	nA	1188	<0,05	nA
Birutė	<15	1-14,5	4750	7,79	nA	nA	650	6	186	81	nA	0,037	7,55	0,14	1,55	243	0,16	0,22	1204	2,9	nA	375	<0,05	nA
D1	<15	<14	340	7,51	74	2,5	7,5	2,4	575	9,4	0,425	0,016	0,71	0,022	0,258	197	0,19	0,39	12	<0,2	0,33	6,5	<0,05	<0,05
Elite	<15	1-14,5	2000	7,35	-20	nA	160	8	210	79	3,18	0,062	1,72	0,1	1,03	357	0,16	0,55	237	1	0,29	508	<0,05	nA
Fuldataler	<15	<14	875	7,43	27	2,3	685	5	878	21,2	1,7	0,034	0,04	0,013	0,002	213	0,09	0,42	170	0,35	0,28	143	<0,05	<0,05
Hermis	<15	1-14,5	2000	7,5	-25	1,3	324	5	856	13,7	0,585	0,024	0,94	0,029	1,78	356	0,18	0,18	466	1,6	nA	12,4	<0,05	nA
Iamate	<15	<14	664	6,95	nA	nA	143	2,7	18	1,1	67	0,034	0,134	0,025	0,676	384	0,19	0,23	324	nA	0,947	1	<1	nA
Neptūnas	<15	<14	233	7,38	116	nA	2,23	1	59,1	8,91	0,05	0,062	0,32	0,082	0,02	142	0,07	0,13	<0,005	<0,005	5,53	<1	nA	
Neptūnas Unique	<15	<14	667	7,17	-18	nA	89,23	3,64	69,67	16,93	0,27	0,136	0,69	0,032	0,02	342	0,168	0,18	28,6	0,06	0,05	18,4	2,1	nA
Rasa	<15	1-14,5	3500	7,46	185	<0,35	351	9,4	305	71	1,9	0,13	1,12	0,08	0,667	271	0,13	0,37	1090	4,1	0,25	40	<0,05	0,1
Rasa Light Minerals	<15	<14	330	7,33	52	0,9	7,7	2,6	56	9,1	0,5	0,015	1,74	0,015	0,22	199	0,07	0,31	10,2	<0,2	5,5	<0,05	<0,05	
Rytas	<15	<14	600	7,73	20	nA	5,9	1,3	96,6	24,8	0,153	0,038	0,8	0,242	0,140	402	0,35	0,19	nA	0,12	8,7	0,05	<0,05	
Saguaro	<15	<14	565	7,73	27	2,08	33,4	4,6	68,8	14,8	0,864	0,034	0,07	0,02	0,3	215	0,19	0,44	80,6	<0,2	0,3	1,9	<0,05	<0,05
TICHÉ	15-20	1-14,5	4996	7,66	44	nA	75	13	490	149	2,88	0,046	0,01	0,21	0,43	137	0,11	0,32	<0,2	<0,005	814	<0,24	0,08	
Vaiva	<15	1-14,5	7780	7,55	nA	0,6	74,45	33,75	981,16	54,74	3,9	0,116	2,31	0,033	0,6	110	0,05	0,7	1999	6	nA	2594	<0,05	<0,05
Vytautas	<15	1-14,5	1205	7,4	nA	nA	1727	32	552	240	0,12	0,094	4,3	0,19	1,01	300	0,13	0,32	3480	7,8	nA	989	<0,05	nA
Vytautas ANNO 1942	<15	1-14,5	1070	7,6	nA	nA	1554	29	496	217	nA	0,049	3,5	0,19	0,985	318	0,16	0,26	3104	7,1	<0,002	902	<0,05	nA
nA	<15	1-14,5	5480	7,16	-14	nA	670	9,8	380	90	5,03	0,13	1,87	0,033	0,773	201	0,05	0,26	1750	3,4	0,24	56	<0,05	nA



Table 73: Inventory of Natural mineral waters and Thermal waters in Lithuania: Names of sources and hydrochemical information (continued).

N1	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35	H36	H37	H38	H39	H40
AB "Eglės sanatorija" (Druskininkai)	nA	<0.001	<0.003	nA	<0.01	<0.005	nA	<0.002	nA	<0.001	nA	nA	<0.001	0,000017	nA	<0.001
AB Birštono sanatorija "Versmė"	0,009	<0.001	<0.001	nA	0,012	<0.003	nA	<0.0001	0,005	<0.0001	nA	nA	nA	nA	nA	nA
Abromiškių reabilitacijos ligoninės	0,088	<0.001	<0.001	<0.001	<0.001	<0.0003	<0.001	0,007	<0.001	0,067	0,003	<0.001	<0.009	0,000019	nA	<0.001
Abromiškių reabilitacijos ligoninės	0,103	<0.001	<0.001	<0.001	<0.001	<0.0003	<0.001	<0.001	<0.001	0,016	<0.001	<0.001	<0.001	0,000032	nA	<0.001
Druskininkų AQUA	0,007	nA	nA	nA	0,0015	<0.0002	nA	<0.0003	0,005	<0.001	nA	nA	0,021	0,000012	nA	<0.001
Druskininkų AQUA	0,0204	nA	nA	nA	0,0018	<0.0002	nA	<0.0001	0,005	0,0051	nA	nA	<0.0005	nA	nA	nA
Druskininkų AQUA	0,004	nA	nA	nA	0,005	<0.0002	nA	0,0006	<0.02	<0.001	nA	nA	<0.0005	0,000042	nA	nA
Kauno grėž. Nr. 9397	nA	<0.001	<0.003	nA	<0.003	<0.0003	nA	<0.005	nA	nA	nA	nA	<0.004	<0.00025	nA	<0.003
Likėnų mineralinio vandens	nA	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.001	nA	<0.001	nA	nA	<0.002	<0.0001	nA	<0.001
Likėnų mineralinio vandens	nA	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.001	nA	<0.001	nA	nA	<0.002	<0.0001	nA	<0.001
UAB "Anšilas" Šilėlis	0,72	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.001	<0.001	<0.001	nA	<0.001	0,014	<0.0001	nA	<0.002
UAB "Draugystės sanatorija"	0,16	<0.001	<0.001	nA	<0.001	<0.0003	nA	nA	nA	0,018	nA	0,044	<0.002	<0.0001	nA	<0.001
UAB "Geoterma" (Klaipėda)	nA	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.001	nA	<0.002	nA	nA	<0.002	<0.0001	nA	<0.001
UAB "Raminora" (Druskininkų m.)	0,005	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.001	nA	<0.0002	0,00058	nA	<0.001	<0.0003	nA	<0.001
UAB SC "Radnyčėlė"	nA	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.001	<0.001	nA	nA	nA	<0.002	<0.0001	nA	nA
Vaidilute	nA	<0.001	<0.002	nA	<0.001	<0.0003	nA	<0.001	nA	0,006	nA	nA	<0.001	<0.0001	nA	<0.001
Viešb. „Palanga“ (grėž. Nr. 47543)	0,041	0,0013	<0.001	nA	<0.002	<0.0001	nA	0,013	<0.001	<0.03	nA	<0.004	<0.03	<0.0003	nA	<0.001
VšĮ Sanatorija "Belorus"	0,015	<0.001	<0.001	nA	<0.001	<0.0003	<0.001	<0.001	<0.001	<0.001	0,004	<0.001	<0.001	0,000038	nA	<0.001
Vytautas (17106)	nA	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.001	nA	0,002	nA	nA	<0.002	<0.0001	nA	<0.001
Akvilė	nA	<0.002	<0.001	nA	<0.001	<0.0001	nA	<0.005	nA	<0.01	nA	nA	<0.002	<0.0001	nA	<0.001
AQUA VOS	nA	nA	<0.001	nA	<0.001	<0.0003	nA	<0.001	nA	<0.001	nA	nA	<0.002	<0.0001	nA	<0.001
Aras	0,12	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.001	nA	<0.001	nA	nA	<0.002	<0.0001	nA	<0.001
Birštonas	<0.02	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.003	<0.001	<0.001	0,00014	nA	<0.002	<0.0001	nA	<0.001
Birutė	nA	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.001	nA	<0.001	nA	nA	<0.002	<0.0001	nA	nA
D1	0,025	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.001	nA	0,001	<0.05	nA	<0.002	<0.0001	nA	<0.001
Elite	<0.01	<0.001	<0.003	nA	<0.001	<0.0003	nA	<0.002	nA	0,001	nA	<0.002	<0.001	<0.0001	nA	<0.001
Fuldataler	<0.02	<0.001	0,0013	nA	<0.001	<0.0002	nA	<0.001	nA	0,002	<0.05	nA	<0.002	<0.0001	nA	0,0022
Hermis	nA	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.001	nA	<0.003	nA	nA	<0.001	0,000032	nA	nA
Iamate	0,031	<0.005	<0.001	<0.001	<0.001	<0.0003	<0.001	<0.001	nA	<0.001	<0.05	<0.001	<0.003	<0.0001	nA	<0.001
Neptūnas	<0.01	<0.005	0,003	nA	<0.001	<0.0003	nA	<0.001	nA	<0.001	<0.005	<0.001	<0.001	0,000025	nA	<0.003
Neptūnas Unique	<0.01	<0.001	<0.001	nA	<0.003	<0.0003	<0.001	<0.005	nA	0,002	0,012	<0.001	<0.001	0,000025	nA	<0.003
Rasa	0,035	<0.001	<0.001	nA	0,001	<0.0003	nA	<0.001	nA	<0.041	nA	nA	<0.002	<0.0001	nA	<0.001
Rasa Light Minerals	<0.005	<0.001	<0.001	nA	0,0028	<0.0002	nA	<0.005	nA	<0.001	nA	nA	0,0039	0,00001	nA	<0.001
Rytas	<0.01	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.001	<0.001	<0.001	<0.05	<0.001	<0.002	<0.0001	nA	<0.001
Saguaro	0,02	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.001	nA	<0.001	<0.05	nA	<0.002	<0.0001	nA	<0.001
TICHĖ	0,008	<0.001	<0.003	<0.001	<0.001	<0.0001	nA	<0.001	<0.001	<0.001	0,036	<0.001	0,006	<0.0001	nA	<0.001
Vaiva	0,041	<0.001	<0.001	nA	<0.001	<0.0003	nA	<0.001	<0.001	<0.001	0,25	nA	<0.001	<0.0002	nA	<0.001



N1	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35	H36	H37	H38	H39	H40
Vytautas	0,014	<0.001	<0.001	nA	<0.001	<0.003	nA	<0.003	0,0029	<0.001	0,132	0,0061	<0.003	<0.0001	nA	<0.001
Vytautas ANNO 1942	0,024	<0.001	<0.001	nA	<0.002	<0.001	nA	0,007	0,0036	<0.001	0,096	0,0032	<0.001	<0.0001	nA	<0.001
nA	0,11	<0.001	<0.001	nA	<0.001	<0.003	nA	<0.001	<0.001	<0.001	nA	<0.001	<0.001	<0.0001	nA	<0.001

Table 74: Inventory of Natural mineral waters and Thermal waters in Lithuania: Names of sources and hydrochemical information (continued) and comments.

N1	H41	H42	H43	H44	H45	H46	H47	C1
AB "Eglės sanatorija" (Druskininkai)	nA	nA	<0.02	nA	nA	0,66	nA	well number: 26418 wellfield: Tichė utility: bottling
AB Birštono sanatorija "Vermė"	nA	nA	nA	nA	nA	nA	nA	well number: 8669 wellfield: UAB "Akvavita" mineralinis bottling utility:
Abromiškių reabilitacijos ligoninės	<0.001	0,022	0,031	<0.01	nA	13,202	nA	well number: 39820 wellfield: Druskininkų šilo (Rasa High) utility: bottling
Abromiškių reabilitacijos ligoninės	<0.0001	0,007	0,029	<0.01	nA	0,233	nA	well number: 56445 wellfield: UAB "Andasta" (Trakų r.) utility: bottling
Druskininkų AQUA	nA	0,0055	0,0047	nA	nA	nA	nA	well number: 10601 wellfield: Birštono utility: bottling
Druskininkų AQUA	nA	<0.001	0,025	nA	nA	nA	nA	well number: 18773 wellfield: Birštono utility: bottling
Druskininkų AQUA	nA	0,0056	0,018	nA	nA	nA	nA	well number: 59682 wellfield: Šviežumėlio (Rasa Light) utility: bottling
Kauno grėž. Nr. 9397	nA	nA	nA	nA	nA	5,03	nA	well number: 25785 wellfield: Lapių -mineralinis (Kauno r.) utility: bottling
Likėnų mineralinio vandens	nA	nA	<0.04	nA	nA	4,43	nA	well number: 39072 wellfield: Šviežumėlio (Rasa Light) utility: bottling
Likėnų mineralinio vandens	nA	nA	<0.04	nA	nA	7,48	nA	well number: 25311 wellfield: UAB "Elmera" (Druskininkų m.) utility: bottling
UAB "Anšilas" šilėlis	nA	<0.0003	<0.04	nA	7,7	nA	nA	well number: 55684 wellfield: Gerdašių (gr.55684) utility: bottling
UAB "Draugystės sanatorija"	nA	nA	nA	nA	nA	nA	nA	well number: 30850 wellfield: UAB "Neptūno vandenys" utility: bottling
UAB "Geoterma" (Klaipėda)	nA	nA	nA	nA	nA	4,78	nA	well number: 31787 wellfield: UAB "Neptūno vandenys" utility: bottling
UAB "Raminora" (Druskininkų m.)	nA	nA	nA	nA	9,6	nA	nA	well number: 43442 wellfield: Druskininkų šilo (Rasa High) utility: bottling
UAB SC "Radnyčėlė"	nA	nA	nA	nA	34,3	0,11	nA	well number: 29705 wellfield: Šviežumėlio (Rasa Light) utility: bottling
Vaidilutė	nA	nA	<0.04	nA	nA	2,81	nA	well number: 26497 wellfield: UAB "Nartida ir Ko" (Vilniaus r.) utility: bottling
Viešb. „Palanga" (grėž. Nr. 47543)	<0.002	<0.006	<0.001	nA	nA	nA	nA	well number: 60636 wellfield: Šviežumėlio (Rasa Light) utility: bottling
VšĮ Sanatorija "Belorus"	nA	0,009	0,014	<0.001	37	0,57	nA	well number: 12349 wellfield: UAB "Lamikara" (Rokiškio r.) utility: bottling
Vytautas (17106)	nA	nA	nA	nA	nA	0,98	nA	well number: 16266 wellfield: Birštono utility: bottling
Akvilė	nA	nA	nA	nA	nA	nA	nA	well number: 26580 wellfield: Birštono utility: bottling
AQUA VOS	nA	nA	<0.04	nA	nA	0,1	nA	well number: 27089 wellfield: Druskininkų Rasos utility: bottling
Aras	nA	nA	<0.005	nA	32,9	0,92	nA	well number: 4715 wellfield: Abromiškių reabilitacijos ligoninės utility: rehabilitation hospital
Birštonas	nA	nA	<0.003	nA	nA	0,89	nA	well number: 5614 wellfield: Abromiškių reabilitacijos ligoninės utility: rehabilitation hospital
Birutė	nA	nA	nA	nA	nA	0,34	nA	well number: 44867 wellfield: UAB SC "Radnyčėlė" utility: sanatorium
D1	nA	nA	<0.04	nA	38,7	0,29	nA	well number: 12350 wellfield: UAB "Anšilas" šilėlis utility: sanatorium
Elite	<0.001	<0.001	<0.003	nA	nA	0,53	nA	well number: 54342 wellfield: UAB "Draugystės sanatorija" utility: sanatorium
Fuldataler	nA	nA	<0.02	nA	nA	nA	nA	well number: 25871 wellfield: UAB "Geoterma" (Klaipėda) utility: Heat plant
Hermis	nA	<0.001	0,002	nA	nA	nA	nA	well number: 9397 wellfield: Kauno grėž. Nr. 9397 utility: rehabilitation hospital
Iamutė	<0.001	<0.02	<0.04	<0.005	nA	0,15	nA	well number: 11978 wellfield: Likėnų mineralinio vandens utility: sanatorium
Neptūnas	nA	nA	<0.005	<0.001	nA	0,173	nA	well number: 21965 wellfield: Likėnų mineralinio vandens utility: sanatorium
Neptūnas Unique	nA	nA	<0.005	<0.001	nA	0,25	nA	well number: 47543 wellfield: Viešb. „Palanga" (grėž. Nr. 47543) utility: SPA
Rasa	nA	nA	0,1	nA	35	0,63	nA	well number: 18778 wellfield: AB Birštono sanatorija "Vermė" utility: sanatorium
Rasa Light Minerals	nA	nA	0,014	nA	36,6	0,8	nA	well number: 11751 wellfield: UAB "Raminora" (Druskininkų m.) utility: SPA
Rytas	<0.001	<0.001	0,009	nA	nA	<0.01	nA	well number: 84 wellfield: Druskininkų AQUA utility: sanatorium
Saguaro	nA	0,0012	<0.02	nA	32,6	0,55	nA	well number: 10791 wellfield: Druskininkų AQUA utility: sanatorium



N1	H41	H42	H43	H44	H45	H46	H47	C1
TICHÉ	<0.001	<0.001	<0.003	nA	nA	nA	nA	well number: 10794 wellfield: Druskininkų AQUA utility: sanatorium
Vaiva	nA	0,0003	<0.005	nA	nA	nA	nA	well number: 25035 wellfield: AB "Eglės sanatorija" (Druskininkai utility: sanatorium
Vytautas	nA	nA	0,065	<0.01	nA	0,98	nA	well number: 46519 wellfield: VŠJ Sanatorija "Belorus" utility: sanatorium
Vytautas ANNO 1942	nA	nA	0,093	<0.01	nA	0,87	nA	well number: 1723 wellfield: Vaidilute utility: sanatorium
nA	<0.001	<0.001	<0.002	nA	nA	<0.01	nA	well number: 17106 wellfield: Vytautas (17106) utility: sanatorium

7.2.6 Spain (Catalonia included)

Table 75: Inventory of Natural mineral waters and Thermal waters in Spain: Names of sources and general information.

N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
A Granya/La Granja	Aguasana	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2777N2 301	well field	bottled natural mineral water	nA	nA	<5
Abelleira	Abelleira	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3174N2 126	single well	bottled natural mineral water	nA	nA	nA
Agua de Rocallaura	Rocallaura	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3581N2 088	single captured spring	bottled natural mineral water	nA	nA	nA
Agua del Rosal	Agua del Rosal	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3298N2 024	well field	bottled natural mineral water	nA	nA	>25
Aguadoy	Aguadoy	Spain	natural mineral water (Directive 2009/54/EC)	1kmE1609N1 128	single well	bottled natural mineral water	nA	nA	5-25
Aguas de Sierra	Font Sol	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3372N1 816	single well	bottled natural mineral water	nA	nA	nA
Aigua del Montseny	Aigua del Montseny	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3690N2 099	single well	bottled natural mineral water	nA	nA	<5
Aiguaneu	Aiguaneu	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3690N2 115	well field	bottled natural mineral water	nA	nA	<5
Albarcin	Agua de Albarcin	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3154N1 679	single well	bottled natural mineral water	nA	nA	nA
Alzola	Alzola	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3316N2 319	single captured spring	bottled natural mineral water	nA	nA	nA
Ama-Iturri	Betelu	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3346N2 290	captured spring group	bottled natural mineral water	nA	nA	nA
Antigua Fuente del Caño	Babilafuente	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3025N2 121	single captured spring	bottled natural mineral water	nA	nA	nA
Aqua Nevada	Aqua Nevada	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3152N1 675	single well	bottled natural mineral water	nA	nA	<5
Aquadomus	Aquadomus	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3115N2 276	single well	bottled natural mineral water	nA	nA	5-25
Aquarel-Avets	Aquarel	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3690N2 113	well field	bottled natural mineral water	nA	nA	<5



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Aquaservice Cogollos de Guadix	Aquaservice	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3150N1 675	well field	bottled natural mineral water	nA	nA	<5
Ballanes	Font Agudes	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3698N2 110	well field	bottled natural mineral water	nA	nA	<5
Barbazano	Aguas de la Palma	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3040N1 993	single gallery	bottled natural mineral water	nA	nA	<5
Bastida	Bastida	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3698N1 876	single captured spring	bottled natural mineral water	nA	nA	nA
Bezoya	Bezoya	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3128N2 078	captured spring group	bottled natural mineral water	nA	nA	nA
Bezoya Trescasas	Bezoya Trescasas	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3150N2 091	captured spring group	bottled natural mineral water	nA	nA	>25
Bronchales-3	Agua de Bronchales	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3338N2 008	single well	bottled natural mineral water	nA	nA	5-25
Bronchales-5	Agua de Bronchales	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3338N2 008	single well	bottled natural mineral water	nA	nA	5-25
Cabreiroá	Cabreiroá	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2885N2 258	single well	bottled natural mineral water	nA	nA	5-25
Cabreiroá 3	Cabreiroá	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2885N2 258	single well	bottled natural mineral water	nA	nA	<5
Calabor	Calabor	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2942N2 248	single captured spring	bottled natural mineral water	nA	nA	nA
Cantalar	Cantalar	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3252N1 759	single captured spring	bottled natural mineral water	nA	nA	nA
Captación Paraño 87.1	Aguas do Paraño	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2834N2 336	single well	bottled natural mineral water	nA	nA	nA
Carrizal	Carrizal	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3046N2 300	single well	bottled natural mineral water	nA	nA	nA
Carrizal II	Carrizal II	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3043N2 310	single captured spring	bottled natural mineral water	nA	nA	nA
Casarabonela	Sierra Bonela	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2994N1 653	single well	bottled natural mineral water	nA	nA	nA
Castillo de Gormaz	Agua Encaja Mejor	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3238N2 136	single well	bottled natural mineral water	nA	nA	nA
Cautiva	Cautiva	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2909N2 356	single well	bottled natural mineral water	nA	nA	nA
Corconte	Corconte	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3194N2 318	well field	bottled natural mineral water	nA	nA	<5
El Cañar	El Cañar	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3325N2 088	single well	bottled natural mineral water	nA	nA	5-25



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
El Chumacero	Sierra Fria	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2835N1 979	well field	bottled natural mineral water	nA	nA	<5
El Pilar	Fontarel	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3059N1 682	single well	bottled natural mineral water	nA	nA	5-25
El Portell	El Portell, MP	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3403N1 873	single well	bottled natural mineral water	nA	nA	5-25
El Salvador	Aguas de Manzanera	Spain	natural mineral water (Directive 2009/54/EC)	1kmE1609N1 128	single captured spring	bottled natural mineral water	nA	nA	nA
El Subirà	Font del Subirà	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3703N2 120	well field	bottled natural mineral water	nA	nA	<5
Eliqua	Liviana	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3418N1 813	well field	bottled natural mineral water	nA	nA	5-25
Eliqua 2	Eliqua 2	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3415N1 813	single well	bottled natural mineral water	nA	nA	nA
Estrella I	Estrella I	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3693N2 115	single well	bottled natural mineral water	nA	nA	nA
Estrella M	Estrella M	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3275N2 130	single well	bottled natural mineral water	nA	nA	5-25
Estrella V	Estrella V	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3692N2 111	well field	bottled natural mineral water	nA	nA	<5
Fondetal	Fondetal	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3014N1 910	single well	bottled natural mineral water	nA	nA	nA
Fonsana	Fonsana	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3176N2 078	well field	bottled natural mineral water	nA	nA	nA
Font de Sa Senyora	Font de Sa Senyora	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3689N1 881	single captured spring	bottled natural mineral water	nA	nA	nA
Font del Boix	Fontboix	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3568N2 207	single captured spring	bottled natural mineral water	nA	nA	<5
Font del Bou	Caldes de Bohi	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3568N2 207	single captured spring	bottled natural mineral water	nA	nA	<5
Font del Regàs	Font del Regàs	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3692N2 111	well field	bottled natural mineral water	nA	nA	<5
Font d'Elca	Eliqua	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3415N1 813	single captured spring	bottled natural mineral water	nA	nA	<5
Font Des Pedregaret y Binifaldó	Binifaldó	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3712N1 888	single gallery	bottled natural mineral water	nA	nA	nA
Font des Teix	Font des Teix	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3704N1 887	single well	bottled natural mineral water	nA	nA	<5
Font Major	Font Major	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3704N1 887	single gallery	bottled natural mineral water	nA	nA	nA



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Font Natura	Font Natura	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3063N1 681	single captured spring	bottled natural mineral water	nA	nA	>25
Font Nova del Pla	Font Nova del Pla	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3596N2 068	well field	bottled natural mineral water	nA	nA	nA
Font S'Aritja	Font S'Aritja	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3691N1 879	single gallery	bottled natural mineral water	nA	nA	<5
Font Sorda-Son Cocó	Font Sorda-Son Cocó	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3703N1 878	single captured spring	bottled natural mineral water	nA	nA	nA
Font Vella Sacalm	Font Vella	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3697N2 117	well field	bottled natural mineral water	nA	nA	>25
Font Vella Sigüenza	Font Vella	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3253N2 080	well field	bottled natural mineral water	nA	nA	>25
Fontaga	Aigua de Ribes	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3673N2 163	captured spring group	bottled natural mineral water	nA	nA	<5
Fontalegre	Viladrau	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3690N2 113	well field	bottled natural mineral water	nA	nA	5-25
Fontcristall	Fontcristall	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3673N2 163	single well	bottled natural mineral water	nA	nA	<5
Fontdalt	Fontdalt	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3548N2 044	single gallery	bottled natural mineral water	nA	nA	<5
Fontdor	Fontdor	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3693N2 115	well field	bottled natural mineral water	nA	nA	>25
Fonte Forte	Lanjarón con gas	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3115N1 645	single well	bottled natural mineral water	nA	nA	nA
Fontecabras	Fontecabras	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3324N2 087	single captured spring	bottled natural mineral water	nA	nA	nA
Fontecelta	Fontecelta	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2909N2 356	well field	bottled natural mineral water	nA	nA	nA
Fonteide	Fonteide	Spain	natural mineral water (Directive 2009/54/EC)	1kmE1722N1 044	single gallery	bottled natural mineral water	nA	nA	nA
Fontemilla	Fontemilla	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3253N2 080	single captured spring	bottled natural mineral water	nA	nA	<5
Fontenova Verín	Fontenova	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2884N2 260	well field	bottled natural mineral water	nA	nA	nA
Fonter	Fonter	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3705N2 132	gallery group	bottled natural mineral water	nA	nA	<5
Fontoira	Aquabona Fontoira	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2904N2 403	well field	bottled natural mineral water	nA	nA	5-25
Fonxesta	Fonxesta	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2913N2 365	single well	bottled natural mineral water	nA	nA	nA



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Fuencaliente de Solares	Solares	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3212N2 355	single captured spring	bottled natural mineral water	nA	nA	nA
Fuencisla	Fuencisla	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3362N1 898	well field	bottled natural mineral water	nA	nA	<5
Fuen-Mayor	Aquabona Fuen-Mayor	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3422N2 027	well field	bottled natural mineral water	nA	nA	<5
Fuensanta de Buyer	Fuensanta	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3072N2 378	well field	bottled natural mineral water	nA	nA	5-25
Fuente Agria de Teror	Agua de Teror	Spain	natural mineral water (Directive 2009/54/EC)	1kmE1802N9 80	single captured spring	bottled natural mineral water	nA	nA	nA
Fuente Arquillo	Aquadeus	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3245N1 828	well field	bottled natural mineral water	nA	nA	5-25
Fuente Blanca	Sierra de Segura	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3192N1 775	single captured spring	bottled natural mineral water	nA	nA	5-25
Fuente de Cuevas	Agua de Cuevas	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3067N2 350	well field	bottled natural mineral water	nA	nA	nA
Fuente de la Higuera	Fuente de la Higuera	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3304N1 724	single captured spring	bottled natural mineral water	nA	nA	nA
Fuente del Arca	Sierra Natura	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3299N2 019	well field	bottled natural mineral water	nA	nA	5-25
Fuente del Cañar	Manantial de Almedijar	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3325N2 090	single well	bottled natural mineral water	nA	nA	5-25
Fuente del Fraile	Fuente de la Higuera	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3283N1 871	single captured spring	bottled natural mineral water	nA	nA	nA
Fuente del Val 2	Fuente del Val	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2809N2 312	well field	bottled natural mineral water	nA	nA	nA
Fuente en Segures	Fuente en Segures	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3458N1 978	single captured spring	bottled natural mineral water	nA	nA	nA
Fuente Madre	Fuente Madre	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3068N1 964	single well	bottled natural mineral water	nA	nA	<5
Fuente Primavera	Fuente Primavera	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3363N1 899	well field	bottled natural mineral water	nA	nA	5-25
Fuentebruma	Fuentebruma	Spain	natural mineral water (Directive 2009/54/EC)	1kmE1794N9 82	single well	bottled natural mineral water	nA	nA	nA
Fuente de la Jara	Fuente de la Jara	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3042N1 975	single well	bottled natural mineral water	nA	nA	<5
Fuente de la Viana	Fuente de la Viana	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3324N1 972	well field	bottled natural mineral water	nA	nA	nA
Fuente de la Roca	Fuente de la Roca	Spain	natural mineral water (Directive 2009/54/EC)	1kmE1802N9 80	single well	bottled natural mineral water	nA	nA	5-25



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Fuentevera	Fuentevera	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3051N2 387	well field	bottled natural mineral water	nA	nA	5-25
Galea	Galea	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3051N2 387	well field	bottled natural mineral water	nA	nA	5-25
Guadalvida	Fuente Pinar	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3192N1 775	single captured spring	bottled natural mineral water	nA	nA	<5
Imperial	Imperial	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3722N2 110	single captured spring	bottled natural mineral water	nA	nA	nA
Insalus	Insalus	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3342N2 301	single captured spring	bottled natural mineral water	nA	nA	nA
La Cueva	Lebanza	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3140N2 321	captured spring group	bottled natural mineral water	nA	nA	nA
La Ermitica	Sierra de Mijas	Spain	natural mineral water (Directive 2009/54/EC)	Sierra de Mijas	single well	bottled natural mineral water	nA	nA	nA
La Hoz	Lahoz	Spain	natural mineral water (Directive 2009/54/EC)	nA	single well	bottled natural mineral water	nA	nA	nA
La Ideal I	La Ideal I	Spain	natural mineral water (Directive 2009/54/EC)	1kmE1802N9 84	single well	bottled natural mineral water	nA	nA	<5
La Ideal II (El Rapador)	La Ideal II	Spain	natural mineral water (Directive 2009/54/EC)	1kmE1801N9 83	single well	bottled natural mineral water	nA	nA	<5
La Majuela	Sierra del Aguila	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3383N2 098	well field	bottled natural mineral water	nA	nA	5-25
La Paz	La Paz	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3073N1 779	single captured spring	bottled natural mineral water	nA	nA	<5
La Serreta	La Serreta	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3369N1 813	single well	bottled natural mineral water	nA	nA	<5
Landín	Landín	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2808N2 310	single well	bottled natural mineral water	nA	nA	5-25
Las Higueras	Las Higueras	Spain	natural mineral water (Directive 2009/54/EC)	1kmE1803N9 72	single well	bottled natural mineral water	nA	nA	nA
Las Jaras	Aquarel	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3026N1 922	well field	bottled natural mineral water	nA	nA	5-25
Les Creus	Les Creus	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3722N2 171	well field	bottled natural mineral water	nA	nA	<5
Los Cloticos	Agua de Bejís	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3401N1 936	single captured spring	bottled natural mineral water	nA	nA	<5
Los Riscos de la Higüela	Los Riscos	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2854N1 948	single captured spring	bottled natural mineral water	nA	nA	5-25
Lunares	Lunares	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3324N2 088	single well	bottled natural mineral water	nA	nA	nA



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Malavella	Malavella	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3722N2 110	single well	bottled natural mineral water	nA	nA	<5
Manantial Chóvar	Agua de Chovar	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3436N1 922	well field	bottled natural mineral water	nA	nA	5-25
Manantial de Quess	Agua de Quess	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3076N2 378	well field	bottled natural mineral water	nA	nA	nA
Manantial La Victoria	Borines	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3086N2 381	single captured spring	bottled natural mineral water	nA	nA	nA
Mondariz IV	Mondariz	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2809N2 312	single well	bottled natural mineral water	nA	nA	nA
Monssalus	Monssalus	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3152N1 675	single well	bottled natural mineral water	nA	nA	nA
Montepinos	Montepinos	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3275N2 130	well field	bottled natural mineral water	nA	nA	nA
Natura	Natura	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3101N1 729	captured spring group	bottled natural mineral water	nA	nA	<5
Nature Montes de León	Nature Montes de León	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2989N2 313	single well	bottled natural mineral water	nA	nA	nA
Neval	Neval	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3289N1 777	single well	bottled natural mineral water	nA	nA	nA
Nuestra Señora de Avellà	L'Avellà	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3472N1 990	single captured spring	bottled natural mineral water	nA	nA	nA
Numen	Numen Premium Water	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3146N1 900	single well	bottled natural mineral water	nA	nA	<5
Orotana	Orotana	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3439N1 924	well field	bottled natural mineral water	nA	nA	<5
Palatín	Fonter	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3705N2 132	well field	bottled natural mineral water	nA	nA	<5
Peña Umbria	Aquabona Peña Umbria	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3363N1 900	single well	bottled natural mineral water	nA	nA	5-25
Peñaclara	Peñaclara	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3287N1 789	single captured spring	bottled natural mineral water	nA	nA	5-25
Penyagolosa	Cortes	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3422N1 962	well field	bottled natural mineral water	nA	nA	5-25
Pineo	Pineo	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3624N2 178	captured spring group	bottled natural mineral water	nA	nA	nA
Pirinea	Pirinea	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3540N2 201	single well	bottled natural mineral water	nA	nA	5-25
Ribagorza	Aguas de Ribagorza	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3522N2 168	well field	bottled natural mineral water	nA	nA	nA



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Salud	Lanjarón Salud	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3115N1 645	well field	bottled natural mineral water	nA	nA	>25
San Agustín	Panticosa	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3483N2 240	single captured spring	bottled natural mineral water	nA	nA	nA
San Andrés	San Andrés	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3046N2 300	single well	bottled natural mineral water	nA	nA	nA
San Andrés II	San Andrés II	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3043N2 310	single captured spring	bottled natural mineral water	nA	nA	nA
San Antón II	San Antón II	Spain	natural mineral water (Directive 2009/54/EC)	nA	nA	bottled natural mineral water	nA	nA	nA
San Joaquín	San Joaquín	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3007N2 141	well field	bottled natural mineral water	nA	nA	5-25
San Millán	Manantial San Millán	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3282N2 215	single well	bottled natural mineral water	nA	nA	5-25
San Narciso	San Narciso	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3722N2 110	single captured spring	bottled natural mineral water	nA	nA	nA
San Vicente	San Vicente	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3116N1 645	single captured spring	bottled natural mineral water	nA	nA	nA
Sant Aniol	Sant Aniol	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3706N2 140	well field	bottled natural mineral water	nA	nA	nA
Sant Hilari	Sant Hilari	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3692N2 111	single well	bottled natural mineral water	nA	nA	<5
Santolín	Aquabona Santolín	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3219N2 261	well field	bottled natural mineral water	nA	nA	5-25
Sanxínés	Sanxínés	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2797N2 362	single well	bottled natural mineral water	nA	nA	nA
Sierra Cazorla	Sierra de Cazorla	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3192N1 775	single well	bottled natural mineral water	nA	nA	<5
Sierra del Búho	Sierra del Búho	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3289N1 776	single well	bottled natural mineral water	nA	nA	nA
Sierra Dúrcal	Sierra Dúrcal	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3111N1 653	single well	bottled natural mineral water	nA	nA	5-25
Sierras de Jaén	Sierras de Jaén	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3101N1 729	captured spring group	bottled natural mineral water	nA	nA	<5
Soceo	Soceo	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2990N2 313	single well	bottled natural mineral water	nA	nA	5-25
Soceo II	Soceo II	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2990N2 313	single well	bottled natural mineral water	nA	nA	nA
Solán de Cabras	Solán de Cabras	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3293N2 017	single captured spring	bottled natural mineral water	nA	nA	>25



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Sousas II	Agua de Sousas	Spain	natural mineral water (Directive 2009/54/EC)	1kmE2885N2 259	well field	bottled natural mineral water	nA	nA	nA
Teleno	Teleno	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3014N2 275	single well	bottled natural mineral water	nA	nA	5-25
Valtorre	Valtorre	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3042N1 975	single well	bottled natural mineral water	nA	nA	5-25
Veri 1	Veri 1	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3540N2 201	single well	bottled natural mineral water	nA	nA	5-25
Veri 5	Veri 5	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3537N2 205	single well	bottled natural mineral water	nA	nA	<5
Vichy Catalán	Vichy Catalán	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3722N2 110	single captured spring	bottled natural mineral water	nA	nA	nA
Vilajuïga	Aigua de Vilajuïga	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3750N2 161	well field	bottled natural mineral water	nA	nA	nA
Vilas	Vilas del Turbón	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3540N2 193	single well	bottled natural mineral water	nA	nA	<5
Virgen del Camino	Virgen del Camino	Spain	natural mineral water (Directive 2009/54/EC)	1kmE3039N2 296	well field	bottled natural mineral water	nA	nA	<5
Agua de Panticosa (San Agustín)	nA	Spain	thermal water source	1kmE3483N2 241	single captured spring	thermal water for balneology	nA	nA	nA
Alicun de las Torres	nA	Spain	thermal water source	1kmE3159N1 703	captured spring group	thermal water for balneology	nA	nA	>25
Archena	nA	Spain	thermal water source	1kmE3327N1 745	well field	thermal water for balneology	nA	nA	nA
Arnedillo	nA	Spain	thermal water source	1kmE3311N2 204	captured spring group	thermal water for balneology	nA	nA	nA
Balneari Fornis	nA	Spain	thermal water source	1kmE3666N2 093	single captured spring	thermal water for balneology	nA	nA	nA
Balneario A Toxa	nA	Spain	thermal water source	1kmE2784N2 347	well field	thermal water for balneology	nA	nA	nA
Balneario Caldas de Oviedo	nA	Spain	thermal water source	1kmE3037N2 384	single captured spring	thermal water for balneology	nA	nA	nA
Balneario Davila	nA	Spain	thermal water source	1kmE2804N2 355	captured spring group	thermal water for balneology	nA	nA	nA
Balneario de Acuña 1	nA	Spain	thermal water source	1kmE2804N2 355	single well	thermal water for balneology	nA	nA	nA
Balneario de Acuña 2	nA	Spain	thermal water source	1kmE2804N2 355	single well	thermal water for balneology	nA	nA	nA
Balneario de Arteixo 1	nA	Spain	thermal water source	1kmE2832N2 428	single well	thermal water for balneology	nA	nA	<5
Balneario de Arteixo 2	nA	Spain	thermal water source	1kmE2832N2 428	single well	thermal water for balneology	nA	nA	<5
Balneario de Beran	nA	Spain	thermal water source	1kmE2837N2 317	captured spring group	thermal water for balneology	nA	nA	nA
Balneario de Blancafort	nA	Spain	thermal water source	1kmE3677N2 097	single well	thermal water for balneology	nA	nA	<5
Balneario de Broquetas	nA	Spain	thermal water source	1kmE3666N2 093	single well	thermal water for balneology	nA	nA	nA
Balneario de Caldas D'Estrac	nA	Spain	thermal water source	1kmE3696N2 083	single well	thermal water for balneology	nA	nA	nA
Balneario de Caldelas de Tuy	nA	Spain	thermal water source	1kmE2796N2 295	well field	thermal water for balneology	nA	nA	nA
Balneario de Cantarero	nA	Spain	thermal water source	1kmE3325N2 100	captured spring group	thermal water for balneology	nA	nA	nA
Balneario de Carballino	nA	Spain	thermal water source	1kmE2844N2 326	single captured spring	thermal water for balneology	nA	nA	nA



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Balneario de Fuente Amarga	nA	Spain	thermal water source	1kmE2871N1 634	single well	thermal water for balneology	nA	nA	5-25
Balneario de Graena	nA	Spain	thermal water source	1kmE3147N1 682	single captured spring	thermal water for balneology	nA	nA	5-25
Balneario de Panticosa (Estomago)	nA	Spain	thermal water source	1kmE3483N2 241	single captured spring	thermal water for balneology	nA	nA	nA
Balneario de Panticosa (Higado)	nA	Spain	thermal water source	1kmE3483N2 241	single captured spring	thermal water for balneology	nA	nA	nA
Balneario de Panticosa (Sondeo del Carmen)	nA	Spain	thermal water source	1kmE3483N2 241	single well	thermal water for balneology	nA	nA	nA
Balneario de Panticosa (Tiberio)	nA	Spain	thermal water source	1kmE3483N2 241	single gallery	thermal water for balneology	nA	nA	nA
Balneario de Retortillo	nA	Spain	thermal water source	1kmE2941N2 116	single captured spring	thermal water for balneology	nA	nA	nA
Balneario de San Andrés	nA	Spain	thermal water source	1kmE3135N1 768	single well	thermal water for balneology	nA	nA	<5
Balneario de Villavieja	nA	Spain	thermal water source	1kmE3447N1 921	single well	thermal water for balneology	nA	nA	nA
Balneario Titus	nA	Spain	thermal water source	1kmE3697N2 083	single gallery	thermal water for balneology	nA	nA	nA
Balneario Vila de Caldes	nA	Spain	thermal water source	1kmE3696N2 083	single well	thermal water for balneology	nA	nA	nA
Baños de Benasque	nA	Spain	thermal water source	1kmE3549N2 221	captured spring group	thermal water for balneology	nA	nA	nA
Baños de Benasque (Fuentes Frías)	nA	Spain	thermal water source	1kmE3549N2 221	single captured spring	thermal water for balneology	nA	nA	nA
Baños de Montemayor Manantial Arqueta	nA	Spain	thermal water source	1kmE2977N2 055	single captured spring	thermal water for balneology	nA	nA	<5
Baños Viejos de Carballo	nA	Spain	thermal water source	1kmE2815N2 423	single well	thermal water for balneology	nA	nA	5-25
Caldas de Boi Capellans	nA	Spain	thermal water source	1kmE3568N2 207	single captured spring	thermal water for balneology	nA	nA	nA
Caldas de Boi Estufa	nA	Spain	thermal water source	1kmE3568N2 207	single captured spring	thermal water for balneology	nA	nA	<5
Caldas de Boi Tartera	nA	Spain	thermal water source	1kmE3568N2 207	single captured spring	thermal water for balneology	nA	nA	<5
Fitero (Becquer)	nA	Spain	thermal water source	1kmE3336N2 184	single captured spring	thermal water for balneology	nA	nA	nA
Fitero (Palafox)	nA	Spain	thermal water source	1kmE3336N2 184	single captured spring	thermal water for balneology	nA	nA	nA
Fuencaliente	nA	Spain	thermal water source	1kmE3071N1 820	single captured spring	thermal water for balneology	nA	nA	nA
Las Caldas	nA	Spain	thermal water source	1kmE3183N2 350	captured spring group	thermal water for balneology	nA	nA	nA
Ledesma	nA	Spain	thermal water source	1kmE2990N2 137	well field	thermal water for balneology	nA	nA	nA
Molgas (M.Caliente)	nA	Spain	thermal water source	1kmE2872N2 297	single captured spring	thermal water for balneology	nA	nA	nA
Molgas (M.Charca)	nA	Spain	thermal water source	1kmE2872N2 297	single captured spring	thermal water for balneology	nA	nA	nA
Puente Viesgo	nA	Spain	thermal water source	1kmE3192N2 349	single captured spring	thermal water for balneology	nA	nA	nA
San Nicolás	nA	Spain	thermal water source	1kmE3197N1 635	well field	thermal water for balneology	nA	nA	nA
San Roque (Jaraba)	nA	Spain	thermal water source	nA	single captured spring	thermal water for balneology	nA	nA	nA
Termas de Lugo	nA	Spain	thermal water source	1kmE2899N2 377	well field	thermal water for balneology	nA	nA	5-25



N1	N2	N3	G1	G2	G3	G4	G5	G6	G7
Termas la Garriga	nA	Spain	thermal water source	1kmE3677N2 097	well field	thermal water for balneology	nA	nA	nA
Termas Orión	nA	Spain	thermal water source	1kmE3710N2 113	well field	thermal water for balneology	nA	nA	nA
Termas Pallarés (Cascada)	nA	Spain	thermal water source	1kmE3325N2 100	captured spring group	thermal water for balneology	nA	nA	nA
Termas Pallarés (Rey)	nA	Spain	thermal water source	1kmE3325N2 100	single captured spring	thermal water for balneology	nA	nA	nA
Termas San Roque (Alhama)	nA	Spain	thermal water source	1kmE3325N2 100	captured spring group	thermal water for balneology	nA	nA	nA
Termas Victoria	nA	Spain	thermal water source	1kmE3667N2 093	single well	thermal water for balneology	nA	nA	nA
Valdefernando	nA	Spain	thermal water source	1kmE3007N1 930	single well	thermal water for balneology	nA	nA	nA
Verche	nA	Spain	thermal water source	1kmE3384N1 913	single captured spring	thermal water for balneology	nA	nA	nA
Villa Termal de Arnoia	nA	Spain	thermal water source	1kmE2834N2 308	well field	thermal water for balneology	nA	nA	<5

Table 76: Inventory of Natural mineral waters and Thermal waters in Austria: Names of sources and aquifer information.

N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
A Granxa/La Granja	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Abelleira	91	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Agua de Rocallaura	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Agua del Rosal	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Aguadoy	250	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Aguas de Sierra	260	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Aigua del Montseny	8,5	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Aiguaneu	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Albarcin	25	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Alzola	nA	nA	nA	karstic and Fractured	nA	calcareous Carbonate Sedimentary Rock	nA	nA	nA	nA	nA	nA	nA
Ama-Iturri	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Antigua Fuente del Caño	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Aqua Nevada	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Aquadomus	100	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Aquarel-Avets	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Aquaservice Cogollos de Guadix	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Ballanes	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Barbuzano	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bastida	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bezoya	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bezoya Trescasas	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bronchales-3	203	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Bronchales-5	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Cabreiroá	45	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Cabreiroá 3	130	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Calabor	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Cantalar	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Captación Paraño 87.1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Carrizal	136	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Carrizal II	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Casarabonela	12	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Castillo de Gormaz	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Cautiva	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Corconte	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
El Cañar	150	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
El Chumacero	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
El Pilar	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
El Portell	150	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
El Salvador	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
El Subirà	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Eligua	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Eligua 2	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Estrella I	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Estrella M	239	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Estrella V	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fondetal	70	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fonsana	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Font de Sa Senyora	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Font del Boix	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Font del Bou	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Font del Regàs	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Font d'Elca	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Font Des Pedregaret y Binifaldó	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Font des Teix	12	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Font Major	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Font Natura	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Font Nova del Pla	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Font S'Aritja	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Font Sorda-Son Cocó	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Font Vella Sacalm	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Font Vella Sigüenza	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fontaga	nA	nA	nA	karsticA ndFractu red	nA	calcareo usCarbo nateSedi mentary Rock	nA	nA	nA	nA	nA	nA	nA
Fontalegre	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fontcristall	73	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fontdalt	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fontdor	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fonte Forte	55	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fontecabras	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fontecelta	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fonteide	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fontemilla	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fontenova Verín	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fonter	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fontoira	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fonxesta	40	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuencaliente de Solares	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuencisla	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuen-Mayor	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuensanta de Buyer	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuente Agria de Teror	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuente Arquillo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuente Blanca	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuente de Cuevas	nA	nA	nA	karsticA ndFractu red	nA	calcareo usCarbo nateSedi mentary Rock	nA	nA	nA	nA	nA	nA	nA
Fuente de la Higuera	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuente del Arca	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuente del Cañar	150	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuente del Fraile	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuente del Val 2	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
Fuente en Segures	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuente Madre	47	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuente Primavera	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuentebruma	280	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuentelajara	180	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuenteliviana	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuenteror	200	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuentevera	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Galea	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Guadalvida	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Imperial	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Insalus	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
La Cueva	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
La Ermitica	184	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
La Hoz	150	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
La Ideal I	238	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
La Ideal II (El Rapador)	113	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
La Majuela	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
La Paz	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
La Serreta	350	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Landín	88	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Las Higueras	200	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Las Jaras	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Les Creus	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Los Clóticos	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Los Riscos de la Higüela	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Lunares	110	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Malavella	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Manantial Chóvar	nA	nA	nA	nA	porous	Arenisca	nA	nA	nA	nA	nA	nA	nA
Manantial de Quess	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Manantial La Victoria	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Mondariz IV	92	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Monssalus	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Montepinos	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Natura	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Nature Montes de León	140	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Neval	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Nuestra Señora de Avellà	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Numen	180	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Orotana	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Palatín	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Peña Umbría	232	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Peñaclara	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Penyagolosa	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Pineo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Pirinea	380	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Ribagorza	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Salud	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
San Agustín	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
San Andrés	340	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
San Andrés II	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
San Antón II	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
San Joaquín	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
San Millán	198	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
San Narciso	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
San Vicente	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Sant Aniol	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Sant Hilari	138	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Santolín	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Sanxínés	39	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Sierra Cazorla	150	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Sierra del Búho	103	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Sierra Dúrcal	211	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Sierras de Jaén	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Soceo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Soceo II	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
Solán de Cabras	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Sousas II	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Teleno	96	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Valtorre	120	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Veri 1	120	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Veri 5	33	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Vichy Catalán	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Vilajuiga	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Vilas	145	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Virgen del Camino	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Aguas de Panticosa (San Agustín)	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Alicun de las Torres	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Archena	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Arnedillo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneari Forns	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario A Toxa	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario Caldas de Oviedo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario Davila	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Acuña 1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Acuña 2	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Arteixo 1	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Arteixo 2	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Beran	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Blancafort	103	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Broquetas	200	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Caldas D'Estrac	200	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Caldelas de Tuy	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Cantarero	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Carballino	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Fuente Amarga	12	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Graena	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Panticosa (Estomago)	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Panticosa (Higado)	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Panticosa (Sondeo del Carmen)	182	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Panticosa (Tiberio)	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Retortillo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de San Andrés	55	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario de Villavieja	20	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario Titus	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Balneario Vila de Caldes	200	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA



N1	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13
Baños de Benasque	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Baños de Benasque (Fuentes Frías)	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Baños de Montemayor Manantial Arqueta	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Baños Viejos de Carballo	90	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Caldas de Boi Capellans	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Caldas de Boi Estufa	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Caldas de Boi Tartera	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fitero (Becquer)	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fitero (Palafox)	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Fuencaliente	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Las Caldas	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Ledesma	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Molgas (M.Caliente)	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Molgas (M.Charca)	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Puente Viesgo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
San Nicolás	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
San Roque (Jaraba)	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Termas de Lugo	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Termas la Garriga	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Termas Orión	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Termas Pallarés (Cascada)	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Termas Pallarés (Rey)	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Termas San Roque (Alhama)	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Termas Victoria	190	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Valdefernando	88	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Verche	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA
Villa Termal de Arnoia	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA	nA

Table 77: Inventory of Natural mineral waters and Thermal waters in Spain: Names of sources, groundwater age and hydrochemical information.

N1	A1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19
A Granja/La Granja	nA	<15	88	42	5,00	nS	nS	8,4	0,0	3,3	0,3	nS	nS	0,0	nS	0	12	0	0,0	10,9
Abelleira	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Agua de Rocallaura	nA	15-20	107 1	142 3	7,40	nS	nS	64	4,0	180, 0	89,0	nS	nS	0,0	0,0	0	370	0	0,6	74,0
Agua del Rosal	nA	nA	338	539	7,55	nS	nS	46,6 3	1,3	65,1	13,6	nS	nS	nS	nS	0	293	nS	0,6	37,7
Aguadoy	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Aguas de Sierra	nA	nA	822	111 3	7,50	nS	nS	77	3,0	120, 0	51,0	nS	nS	nS	nS	0	235	0	nS	123, 6
Aigua del Montseny	nA	15-20	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Aiguaneu	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Albarcín	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Alzola	nA	nA	271	499	7,93	nS	nS	44,3	1,0	58,1	5,8	nS	nS	nS	nS	0	178	nS	0,2	68,1
Ama-Iturri	nA	nA	809	nS	nS	nS	nS	157	6,5	100, 8	23,3	nS	nS	nS	nS	nS	252	nS	nS	265, 5
Antigua Fuente del Caño	nA	nA	194	nS	nS	nS	nS	13,3	0,6	45,7	5,1	nS	nS	0,0	0,0	0	165	0	0,1	4,4
Aqua Nevada	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS



N1	A1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19
Aquadomus	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Aquarel-Avets	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Aquaservice Cogollos de Guadix	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Ballanes	nA	nA	314	476	7,80	nS	nS	42,7	2,6	51,3	15,1	nS	nS	nS	nS	0	244	nS	1,2	18,0
Barbuzano	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Bastida	nA	nA	463	752	7,81	nS	nS	33,7	1,5	104,2	25,3	nS	nS	nS	nS	0	362	nS	0,0	76,1
Bezoya	nA	<15	27	22	6,20	nS	nS	2,3	0,0	2,7	0,3	nS	nS	0,0	0,0	0	10	0	0,0	0,4
Bezoya Trescasas	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Bronchales-3	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Bronchales-5	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Cabreiroá	nA	15-20	1749	2280	6,90	nS	nS	580	52,0	21,6	15,4	nS	nS	0,0	nS	0	1952	0	3,9	30,8
Cabreiroá 3	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Calabor	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Cantalar	nA	nA	353	nS	7,29	nS	nS	17,17	0,0	59,9	26,5	nS	nS	0,0	0,0	nS	317	0	nS	26,6
Captación Paraño 87.1	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Carrizal	nA	nA	155	205	7,81	nS	nS	1,1	0,4	29,3	5,0	nS	nS	0,1	nS	0,015	138	nS	0,2	3,0
Carrizal II	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Casarabonella	nA	15-20	536	616	7,70	nS	nS	13	3,0	82,0	43,0	nS	nS	0,0	0,0	0,02	253	0	0,0	36,0
Castillo de Gormaz	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Cautiva	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Corconte	nA	nA	747	1072	6,70	nS	nS	181,05	4,4	25,0	5,0	nS	nS	0,3	0,1	0	79	0	0,0	292,0
El Cañar	nA	20-30	541	869	7,31	nS	nS	32	nS	104,0	38,9	nS	nS	nS	nS	0	295	0	nS	79,7
El Chumacero	nA	nA	59	45	5,00	nS	nS	4,5	0,8	2,7	0,9	nS	nS	0,0	0,0	0,1	7	0	0,1	11,4
El Pilar	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
El Portell	nA	nA	345	nA	7,30	nS	nS	11	5,0	75,8	29,2	nS	nS	0,0	nS	0	336	0	0,0	17,7
El Salvador	nA	<15	10710	14130	6,89	nS	nS	2885,5	31,9	697,4	145,9	nS	nS	0,9	0,1	0	251	0	0,9	4441,5
El Subirà	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Eliqua	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Eliqua 2	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Estrella I	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Estrella M	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Estrella V	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fondetal	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fonsana	nA	nA	49	78	6,88	nS	nS	7,1	0,6	8,1	0,9	nS	nS	nS	nS	0	41	nS	0,2	2,3
Font de Sa Senyora	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Font del Boix	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Font del Bou	nA	20-30	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Font del Regàs	nA	<15	126	nS	7,70	nS	nS	12,4	nS	28,5	2,6	nS	nS	nS	nS	nS	113	nS	nS	5,6
Font d'Elca	nA	<15	282	434	7,65	nS	nS	7	0,9	69,0	16,0	nS	nS	0,0	0,0	0	236	0	1,0	17,0
Font Des Pedregaret y Binifaldó	nA	nA	nS	297	8,10	nS	nS	10,4	0,6	52,9	3,4	nS	nS	nS	nS	0	143	nS	0,0	17,4
Font des Teix	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Font Major	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Font Natura	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Font Nova del Pla	nA	15-20	480	602	8,10	nS	nS	6,8	0,9	76,0	35,3	nS	nS	12,0	0,0	0	281	0	0,5	19,5
Font S'Aritja	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Font Sorda-Son Cocó	nA	nA	347	638	7,30	nS	nS	30	1,5	81,7	31,1	nS	nS	0,0	nS	0	342	nS	0,2	63,9
Font Vella Sacalm	nA	<15	192	280	6,70	nS	nS	13,1	1,3	40,9	7,8	0,1	nS	0,0	0,0	0	153	0	0,2	10,9
Font Vella Sigüenza	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fontaga	nA	<15	189	278	7,89	nS	nS	5,4	0,7	47,7	8,5	nS	nS	nS	nS	0	148	nS	0,1	3,4
Fontalegre	nA	<15	131	177	7,08	nS	nS	8,8	1,6	25,7	3,4	nS	nS	0,0	0,0	0	91	0	0,3	7,5
Fontcristall	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fontdalt	nA	<15	225	344	7,85	nS	nS	4,9	0,5	51,3	15,1	nS	nS	0,0	0,0	0	170	0	0,1	10,5
Fontdor	nA	<15	82	nS	7,70	nS	nS	8,3	nS	24,0	3,9	nS	nS	nS	nS	nS	62	nS	nS	4,6
Fonte Forte	nA	<5	480	675	5,36	nS	nS	108,5	14,5	80,6	19,9	nS	nS	2,9	0,2	0,11	206	0	0,3	236,2



N1	A1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19
Fontecabras	nA	20-30	645	751	7,30	nS	nS	21	2,0	97,0	40,0	nS	nS	0,0	0,0	0	290	0	nS	60,0
Fontecelta	nA	20-30	363	323	8,60	nS	nS	55,3	2,3	46,9	14,2	nS	nS	0,0	nS	0	299	0	7,8	18,5
Fonteide	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fontemilla	nA	nA	359	511	5,72	nS	nS	5,3	1,0	81,0	23,3	nS	nS	nS	nS	0	311	nS	0,2	11,4
Fontenova Verin	nA	20-30	346	476	6,72	nS	nS	113,2	8,6	7,0	2,7	0,1	nS	0,0	0,0	0,5	308	0	2,0	12,4
Fonter	nA	nA	155	229	5,13	nS	nS	10,2	5,4	23,6	9,0	0,1	nS	0,0	0,2	0	101	0	0,1	11,2
Fontoira	nA	<15	154	299	7,70	nS	nS	8,9	1,7	37,0	6,0	nS	nS	0,1	nS	0,01	120	0	0,1	14,4
Fonxesta	nA	<15	148	175	6,40	nS	nS	15,6	1,5	32,5	11,8	nS	nS	0,0	nS	0	133	0	0,0	37,6
Fuencaliente de Solares	nA	nA	507	801	7,95	nS	nS	82,8	2,0	72,9	16,1	nS	nS	nS	nS	0	244	nS	0,1	143,5
Fuencisla	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fuen-Mayor	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fuensanta de Buyeres	nA	<15	265	349	6,98	nS	nS	9,9	2,5	63,3	8,3	nS	nS	0,0	0,0	0	198	0	1,1	8,3
Fuente Agría de Teror	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fuente Arquillo	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fuente Blanca	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fuente de Cuevas	nA	<15	260	360	7,80	nS	nS	1	0,0	50,0	21,0	nS	nS	0,0	0,0	0,01	233	nS	0,0	2,0
Fuente de la Higuerica	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fuente del Arca	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fuente del Cañar	nA	20-30	189	304	7,40	nS	nS	7,04	1,0	23,5	26,8	nS	nS	nS	nS	0	201	0	nS	8,1
Fuente del Fraile	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fuente del Val 2	nA	<15	148	234	6,28	nS	nS	23,1	1,7	21,1	5,8	0,2	nS	1,2	0,3	0	123	0	0,3	13,4
Fuente en Segures	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fuente Madre	nA	15-20	334	503	7,00	nS	nS	7,7	2,3	66,5	28,7	0,2	nS	0,0	0,0	0	288	0	0,2	32,6
Fuente Primavera	nA	nA	395	594	7,37	nS	nS	19,4	1,2	86,6	23,3	nS	nS	nS	nS	0	299	nS	0,1	35,1
Fuentebruma	nA	nA	129	183	7,80	nS	nS	12,09	2,4	7,0	14,0	nS	nS	0,0	0,0	0	78	0	0,0	18,0
FuenteLajara	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
FuenteLiviana	nA	nA	276	nS	nS	nS	nS	0,8	0,5	64,9	17,0	nS	nS	0,0	0,0	0	253	0	0,1	1,8
Fuenteror	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Fuentevera	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Galea	nA	15-20	247	372	7,94	nS	nS	9	5,8	56,1	15,1	nS	nS	0,0	0,0	0	225	0	0,3	14,8
Guadalvida	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Imperial	nA	40-50	3140	4340	6,80	nS	nS	1138	52,7	55,7	9,2	1,7	nS	0,2	0,0	0	2196	0	7,6	602,0
Insalus	nA	nA	700	nS	nS	nS	nS	11,2	nS	161,9	20,9	nS	nS	nS	nS	nS	153	nS	nS	15,4
La Cueva	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
La Ermitica	nA	15-20	385	553	7,60	nS	nS	7,1	1,4	70,5	36,5	nS	nS	nS	nS	0	338	nS	0,0	15,9
La Hoz	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
La Ideal I	nA	nA	587	837	7,83	nS	nS	63,1	9,4	76,9	43,3	nS	nS	nS	nS	0	508	nS	0,3	46,4
La Ideal II (El Rapador)	nA	nA	492	614	5,80	nS	nS	40,9	9,5	59,3	32,6	0,5	nS	0,0	0,2	0	403	0	0,2	23,9
La Majuela	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
La Paz	nA	15-20	403	566	7,35	nS	nS	9,4	1,6	103,4	14,9	nS	nS	nS	nS	0	326	nS	0,2	21,1
La Serreta	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Landín	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Las Higueras	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Las Jaras	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Les Creus	nA	15-20	136	nS	7,30	nS	nS	11,8	nS	24,8	7,5	nS	nS	nS	nS	nS	118	nS	nS	4,9
Los Cloticos	nA	nA	nS	221	8,11	nS	nS	3,3	0,5	45,3	5,8	nS	nS	nS	nS	0	141	nS	0,0	5,5
Los Riscos de la Higüela	nA	nA	nS	117	5,69	nS	nS	15,1	1,4	2,8	2,3	nS	nS	nS	nS	0	12	nS	0,0	23,8
Lunares	nA	30-40	697	817	7,30	nS	nS	25	2,0	102,0	42,0	nS	nS	0,0	0,0	0	288	0	0,0	74,0
Malavella	nA	50-60	2787	nS	7,00	nS	nS	1113	48,0	48,0	9,0	nS	nS	nS	nS	nS	2136	nS	7,7	594,2



N1	A1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19
Manantial Chóvar	nA	nA	nS	346	7,70	nS	nS	8,5	1,0	21,5	27,0	nS	nS	0,0	0,0	0	202	0	0,0	17,0
Manantial de Quess	nA	<15	32	37	7,00	nS	nS	4	0,0	1,0	3,0	nS	nS	0,3	0,0	0	12	nS	0,0	5,0
Manantial La Victoria	nA	<15	116	171	7,30	nS	nS	42	0,0	3,0	3,0	nS	nS	0,0	0,0	0	95	nS	0,5	7,0
Mondariz IV	nA	15-20	315	378	5,20	nS	nS	20,8	4,3	58,5	9,8	nS	nS	0,0	nS	0	244	0	0,6	10,5
Monssalus	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Montepinos	nA	nA	285	400	7,52	nS	nS	2,1	1,2	90,6	3,4	nS	nS	nS	nS	0	277	nS	0,0	4,2
Natura	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Nature Montes de León	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Neval	nA	15-20	618	919	7,59	nS	nS	90	2,8	60,1	45,1	nS	nS	0,0	0,0	0	244	0	0,2	144,7
Nuestra Señora de Avellà	nA	<15	223	354	8,00	nS	nS	2,6	0,0	73,7	7,8	nS	nS	0,0	0,0	0	234	0	0,0	6,9
Numen	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Orotana	nA	15-20	211	333	7,79	nS	nS	25,2	1,0	32,5	15,6	nS	nS	0,0	0,0	0	209	0	0,2	12,5
Palatín	nA	<15	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Peña Umbría	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Peñaclara	nA	nA	552	840	7,44	nS	nS	14	1,3	145,9	31,6	nS	nS	nS	nS	0	229	nS	0,9	13,1
Penyagolosa	nA	nA	303	420	7,40	nS	nS	7,1	nS	87,4	5,9	nS	nS	nS	nS	0	268	nS	nS	9,4
Pineo	nA	<15	272	357	8,00	nS	nS	1	0,0	60,0	6,0	nS	nS	0,0	0,0	0	204	0	0,0	1,0
Pirinea	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Ribagorza	nA	20-30	270	554	7,57	nS	nS	23,1	3,2	69,7	24,8	nS	nS	0,0	0,0	0	332	0	0,3	28,1
Salud	nA	15-20	188	270	5,85	nS	nS	6,8	0,8	38,1	11,4	nS	nS	0,1	0,0	0	146	0	0,2	3,9
San Agustín	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
San Andrés	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
San Andrés II	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
San Antón II	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
San Joaquín	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
San Millán	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
San Narciso	nA	50-60	3128	4310	6,90	nS	nS	1138	53,4	55,7	9,0	1,6	nS	0,4	0,0	0	2196	0	7,7	595,7
San Vicente	nA	15-20	112	126	6,80	nS	nS	5,9	0,8	22,0	7,3	nS	nS	0,0	0,0	0	81	0	0,2	3,3
Sant Aniol	nA	<15	369	508	5,32	nS	nS	6,7	1,6	95,4	14,1	nS	nS	nS	nS	0	345	nS	0,1	6,2
Sant Hilari	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Santolin	nA	<15	226	374	7,23	nS	nS	2,3	0,0	89,0	2,4	nS	nS	0,0	0,0	0	270	0	0,0	4,8
Sanxinés	nA	15-20	82	85,2	5,83	nS	nS	9	1,0	3,8	2,0	nS	nS	0,0	0,0	0	9	0	0,1	13,5
Sierra Cazorla	nA	15-20	380	560	7,70	nS	nS	1,9	1,0	72,1	40,2	nS	nS	nS	nS	0	387	0	0,0	3,9
Sierra del Búho	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Sierra Dúrcal	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Sierras de Jaén	nA	<15	206	324	8,04	nS	nS	2,5	0,2	48,2	14,6	nS	nS	0,0	nS	0	173	nS	nS	6,9
Soceo	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Soceo II	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Solán de Cabras	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Sousas II	nA	20-30	325	460	6,90	nS	nS	47,5	2,9	0,7	0,0	nS	nS	0,0	nS	0	118	0	0,8	3,8
Telero	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Valtorre	nA	20-30	251	nS	nS	nS	nS	30,5	3,0	25,6	23,6	nS	nS	0,0	0,0	nS	191	0	0,0	39,7
Veri 1	nA	<15	145	314	7,87	nS	nS	0,5	0,3	69,2	2,1	nS	nS	0,0	0,0	0	207	0	0,0	1,0
Veri 5	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Vichy Catalán	nA	50-60	2792	nS	7,50	nS	nS	1110	48,0	47,0	9,0	nS	nS	nS	nS	nS	2135	nS	7,3	601,5
Vilajuiga	nA	nA	1758	nS	6,39	nS	nS	568	48,0	83,4	46,7	2,2	nS	nS	nS	nS	1562	nS	2,5	236,9
Vilas	nA	<15	108	218	7,94	nS	nS	0,6	0,0	47,7	1,5	nS	nS	0,0	0,0	0	146	0	0,1	0,6
Virgen del Camino	nA	nA	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS	nS
Aguas de Panticosa (San Agustín)	nA	20-30	29	110	9,30	nS	nS	17,0	0,0	4,0	1,0	nS	nS	0	0	0	21	8	0,60	3,0
Alicun de las Torres	nA	30-40	1946	2100	7,70	nS	nS	52,0	6,0	395,0	108,0	nS	nS	0,04	0,009	0	207	0	2,10	89,0



N1	A1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19
Archena	nA	50-60	2560	5341	6,83	nS	nS	930,0	132,0	298,0	76,0	nS	nS	1,05	0,31	nS	329	0	2,20	1778,0
Arnedillo	nA	50-60	7479	9825,9	7,35	nS	nS	2140,0	18,8	464,9	72,0	nS	nS	1,1	0	0	179	0	2,40	3209,1
Balneari Fornes	nA	50-60	1451	2068	8,40	nS	nS	414,0	19,0	26,0	6,0	nS	nS	0,06	0,054	0	188	0	nS	568,0
Balneario A Toxa	nA	40-50	35263	nS	6,10	nS	nS	8080,0	1095,0	1040,0	104,0	nS	nS	0	nS	2,5	307	0	3,20	15414,0
Balneario Caldas de Oviedo	nA	30-40	232	383	8,00	nS	nS	7,0	2,0	58,0	16,0	nS	nS	0	0	0	230	0	0,00	10,0
Balneario Davila	nA	40-50	619	1052	6,80	nS	nS	194,0	7,0	14,5	1,8	nS	nS	0	nS	0	151	0	13,90	215,5
Balneario de Acuña 1	nA	20-30	712	1010	6,70	nS	nS	289,0	23,0	69,0	11,1	nS	nS	0	nS	0,3	148	0	13,00	441,2
Balneario de Acuña 2	nA	30-40	595	933	8,30	nS	nS	201,0	7,0	1,1	0,0	nS	nS	0	nS	0	163	0	12,50	194,0
Balneario de Arteixo 1	nA	20-30	1664	3130	7,90	nS	nS	676,0	28,0	47,7	0,3	nS	nS	0	nS	0,4	115	0	9,60	1047,0
Balneario de Arteixo 2	nA	30-40	2009	3150	7,90	nS	nS	675,0	28,0	47,7	0,3	nS	nS	0	nS	0	109	0	6,30	1042,0
Balneario de Beran	nA	20-30	135	279	7,73	nS	nS	58,0	1,0	5,0	0,0	nS	nS	0,5	nS	0,16	89	0	8,50	16,2
Balneario de Blancafort	nA	50-60	386	594	8,70	nS	nS	146	3	5,0	4,0	nS	nS	0	0	0	230	7	15,00	82,0
Balneario de Broquetas	nA	50-60	1462	2058	8,40	nS	nS	405	19	32,0	11,0	nS	nS	0	0	0,07	199	0	nS	556,0
Balneario de Caldas D'Estrac	nA	30-40	808	1145	7,80	nS	nS	229	5	32,0	9,0	nS	nS	0	0	0	195	0	0,00	252,0
Balneario de Caldelas de Tuy	nA	40-50	659	989	7,80	nS	nS	190,0	9,0	22,0	7,5	nS	nS	0	nS	0	144	0	13,70	222,8
Balneario de Cantarero	nA	30-40	734	1097	7,30	nS	nS	64,0	2,0	111,0	49,0	nS	nS	0	0	0	292	0	0,50	94,0
Balneario de Carballino	nA	20-30	124	264	9,10	nS	nS	28,3	0,6	15,5	4,7	nS	nS	0	nS	0	113	0	5,70	5,1
Balneario de Fuente Amarga	nA	15-20	29740	32800	7,00	nS	nS	7260,0	30,0	831,0	188,0	nS	nS	0,25	0,07	1,46	305	0	0,80	11500,0
Balneario de Graena	nA	40-50	1832	1900	7,20	nS	nS	22,0	8,0	554,0	99,0	nS	nS	0,07	0,1	0,05	119	0	3,00	14,0
Balneario de Panticosa (Estomago)	nA	20-30	85	148	9,60	nS	nS	29,0	0,0	7,0	0,0	nS	nS	0,01	0	0,03	23	18	1,00	7,0
Balneario de Panticosa (Higado)	nA	20-30	66	106	9,20	nS	nS	17,0	0,0	3,0	1,0	nS	nS	0,02	0	0	21	8	0,00	3,0
Balneario de Panticosa (Sondeo del Carmen)	nA	30-40	35	140	9,60	nS	nS	28,0	0,0	5,0	0,0	nS	nS	0	0	0,01	21	18	0,60	6,0
Balneario de Panticosa (Tiberio)	nA	40-50	92	152	9,60	nS	nS	27,0	0,0	5,0	0,0	nS	nS	0,02	0	0	28	20	1,00	10,0
Balneario de Retortillo	nA	nA	154	457	8,20	nS	nS	112,1	2,9	7,3	0,3	nS	nS	0	nS	2,1	250	nS	10,50	9,7
Balneario de San Andrés	nA	15-20	580	830	7,10	nS	nS	78,0	15,0	37,0	31,0	nS	nS	0,01	0	0	262	0	0,00	47,0
Balneario de Villavieja	nA	30-40	929	1547	nS	nS	nS	nS	252,5	41,3	nS	nS	nS	nS	0,03	1	1	nS	127,8	
Balneario Titus	nA	30-40	863	1210	8,20	nS	nS	252	6	18,0	4,0	nS	nS	0	0	0	179	2	0,00	300,0
Balneario Vila de Caldes	nA	50-60	1402	2108	8,40	nS	nS	411,0	18,0	34,0	4,0	nS	nS	0	0,037	0,39	188	0	nS	622,0
Baños de Benasque	nA	30-40	61	115	9,60	nS	nS	23,0	0,0	6,0	0,0	nS	nS	0	0	0,01	23	20	1,00	4,0
Baños de Benasque (Fuentes Frías)	nA	<15	39	61	8,10	nS	nS	1,0	0,0	7,0	2,0	nS	nS	0	0	0	24	0	0,00	1,0
Baños de Montemayor Manantial Arqueta	nA	40-50	264	427	8,40	nS	nS	75,7	3,4	10,2	0,3	nS	nS	nS	nS	0,7	132	nS	15,60	16,0
Baños Viejos de Carballo	nA	30-40	461	602	8,70	nS	nS	79,8	2,1	10,0	0,3	nS	nS	0	nS	8	170	4	15,20	34,3
Caldas de Boi Canellans	nA	<15	21	25	7,40	nS	nS	1	0	8,0	4,0	nS	nS	0,1	0	0	44	0	0,00	0,0



N1	A1	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19
Caldas de Boi Estufa	nA	50-60	278	387	9,30	nS	nS	78	3	7,0	4,0	nS	nS	0	0	0,38	64	19	3,50	63,0
Caldas de Boi Tartera	nA	40-50	240	374	9,40	nS	nS	77	2	7,0	4,0	nS	nS	0	0	0,39	65	16	3,50	63,0
Fitero (Becquer)	nA	40-50	3163	5831	7,43	nS	nS	1001,7	30,9	485,3	98,3	nS	nS	0,33	0,04	nS	218	0	0,85	1601,9
Fitero (Palafox)	nA	40-50	3179	5871	7,54	nS	nS	998,1	29,6	497,0	96,2	nS	nS	0,3	0,03	nS	210	0	0,74	1576,4
Fuencaliente	nA	30-40	40	150	6,69	nS	nS	10,0	3,0	9,0	6,0	nS	nS	0,2	0,41	0	122	nS	0,11	54,0
Las Caldas	nA	nA	2469	nS	nS	nS	nS	1186,0	21,0	195,0	30,0	nS	nS	nS	nS	nS	205	nS	1,70	1900,0
Ledesma	nA	40-50	380	627	8,22	nS	nS	105,0	5,9	5,2	0,2	nS	nS	0,012	0	0,37	244	0	14,89	122,0
Molgas (M. Caliente)	nA	40-50	678	1016	nS	nS	nS	226,8	11,2	21,7	1,5	nS	nS	nS	nS	nA	681	nS	0,19	14,1
Molgas (M. Charca)	nA	20-30	716	1448	nS	nS	nS	216,3	12,3	25,0	1,7	nS	nS	nS	nS	nA	662	nS	0,19	14,8
Puente Viesgo	nA	nA	1278	2296	7,40	nS	nS	214,0	6,3	106,0	11,8	nS	nS	nS	nS	nS	262	nS	nS	588,0
San Nicolás	nA	50-60	565	nS	nS	nS	nS	17,0	3,0	116,0	50,0	nS	nS	nS	nS	nS	329	6	nS	25,0
San Roque (Jaraba)	nA	20-30	577	729	7,30	nS	nS	19,0	1,0	97,0	38,0	nS	nS	0,02	0	0	284	0	0,00	56,0
Termas de Lugo	nA	40-50	481	586	8,00	nS	nS	128,0	11,0	6,8	0,3	nS	nS	0	nS	0	168	0	18,50	37,6
Termas la Garriga	nA	40-50	505	736	8,50	nS	nS	163	4	18,0	9,0	nS	nS	0	0	0	230	6	11,60	89,0
Termas Orión	nA	40-50	305	512	7,5	nS	nS	118	3	14,0	4,0	nS	nS	0	0,11	0	233	0	1,80	60,0
Termas Pallarés (Cascada)	nA	30-40	728	1095	7,80	nS	nS	64,0	2,0	106,0	49,0	nS	nS	0	0	0	291	0	0,00	95,0
Termas Pallarés (Rey)	nA	30-40	749	1097	7,20	nS	nS	60,0	2,0	112,0	50,0	nS	nS	0	0	0	289	0	0,00	96,0
Termas San Roque (Alhama)	nA	30-40	807	1100	7,20	nS	nS	62,0	2,0	112,0	50,0	nS	nS	0	0	0	288	0	0,00	96,0
Termas Victoria	nA	40-50	1606	2308	8,30	nS	nS	400	19	28,0	1,0	nS	nS	0,1	0,054	0,57	176	3	8,80	576,0
Valdefernando	nA	20-30	33	39,4	5,30	nS	nS	4,5	0,5	4,2	1,3	nS	nS	0,1	nS	nS	7	0	0,05	8,5
Verche	nA	nA	480	820	7,30	nS	nS	13,0	6,3	108,0	43,0	nS	nS	0	0	0	310	nA	nA	22,0
Villa Termal de Arnoia	nA	15-20	200	275	7,90	nS	nS	38,0	0,7	23,0	1,0	nS	nS	0,1	0	0	139	0	8,00	13,0

Table 78: Inventory of Natural mineral waters and Thermal waters in Spain: Names of sources and hydrochemical information.

N1	H20	H21	H22	H23	H24	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35
A Granja/La Granja	nA	nS	2,7	0	0,0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Abelleira	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Agua de Rocallaura	nA	nS	414	90	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Agua del Rosal	nA	nS	6,8	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Aguaduy	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Aguas de Sierra	nA	nS	266,5	18,2	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Aigua del Montseny	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Aiguaneu	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Albarcin	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Alzola	nA	nS	23,6	1,4	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Ama-Iturri	nA	nS	111,1	0,8	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Antigua Fuente del Caño	nA	nS	8,3	16,8	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Aqua Nevada	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Aquadomus	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Aquarel-Avets	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Aquaservice Cogollos de Guadix	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Ballanes	nA	nS	45,6	5,1	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA



N1	H20	H21	H22	H23	H24	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35
Barbuzano	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Bastida	nA	nS	24,8	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Bezoya	nA	nS	0	2,8	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Bezoya Trescasas	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Bronchales-3	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Bronchales-5	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Cabreiroá	nA	nS	14,4	0	0,1	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Cabreiroá 3	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Calabor	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Cantalar	nA	nS	9,02	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Captación Paraño 87.1	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Carrizal	nA	nS	9	2	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Carrizal II	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Casarabonela	nA	nS	65	85	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Castillo de Gormaz	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Cautiva	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Corconte	nA	nS	25	3	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
El Cañar	nA	nS	163	3,4	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
El Chumacero	nA	nS	0,123	7,2	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
El Pilar	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
El Portell	nA	nS	31,2	3,1	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
El Salvador	nA	nS	2101,7	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,2
El Subirà	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Elíqua	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Elíqua 2	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Estrella I	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Estrella M	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Estrella V	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fondetal	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fonsana	nA	nS	5,3	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Font de Sa Senyora	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Font del Boix	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Font del Bou	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Font del Regàs	nA	nS	7,6	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Font d'Elca	nA	nS	27	1	0,0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Font Des Pedregaret y Binifaldó	nA	nS	21	1,9	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Font des Teix	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Font Major	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Font Natura	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Font Nova del Pla	nA	nS	104,3	12	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Font S'Aritja	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Font Sorda- Son Cocó	nA	nS	22,6	2,6	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Font Vella Sacalm	nA	nS	13,8	3,6	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Font Vella Sigüenza	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fontaga	nA	nS	29,6	8,1	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fontalegre	nA	nS	7,1	6,1	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Fontcristall	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fontdalt	nA	nS	43,2	1,9	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Fontdor	nA	nS	14,8	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fonte Forte	nA	nS	37,4	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,5
Fontecabras	nA	nS	142	16	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Fontecelta	nA	nS	9,2	0,2	0,5	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fonteide	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fontemilla	nA	nS	23,9	12,6	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fontenova Verín	nA	nS	10,6	11,2	0,0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,4
Fonter	nA	nS	17,1	9,5	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Fontoira	nA	nS	11,5	8	0,0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fonxesta	nA	nS	3,8	0	0,0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Fuencaliente de Solares	nA	nS	37,2	3,8	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fuencisla	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fuen-Mayor	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fuensanta de Buyeres	nA	nS	38,4	1,3	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Fuente Agria de Teror	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA



N1	H20	H21	H22	H23	H24	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35
Fuente Arquillo	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fuente Blanca	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fuente de Cuevas	nA	nS	24	1	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Fuente de la Higuera	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fuente del Arca	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fuente del Cañar	nA	nS	4,17	3,5	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fuente del Fraile	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fuente del Val 2	nA	nS	2,6	9,9	0,0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,1
Fuente en Segures	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fuente Madre	nA	nS	9,2	6,9	0,0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Fuente Primavera	nA	nS	45	16,3	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fuentebruma	nA	nS	6	14	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fuentelejara	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
FuenteLiviana	nA	nS	19,5	2	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Fuenteror	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Fuentevera	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Galea	nA	nS	19,4	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Guadalvida	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Imperial	nA	nS	53,7	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	1,3
Insalus	nA	nS	367,4	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
La Cueva	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
La Ermitica	nA	nS	29,2	1,6	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
La Hoz	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
La Ideal I	nA	nS	28,6	3,5	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
La Ideal II (El Rapador)	nA	nS	7,8	16,6	0,0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
La Majuela	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
La Paz	nA	nS	21,3	34,3	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
La Serreta	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Landin	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Las Higueras	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Las Jaras	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Les Creus	nA	nS	13	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Los Cloticos	nA	nS	15,2	2,4	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Los Riscos de la Higüela	nA	nS	4,8	12,5	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Lunares	nA	nS	160	15	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Malavella	nA	nS	47,3	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	1,3
Manantial Chóvar	nA	nS	5,3	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Manantial de Quess	nA	nS	5	3	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Manantial La Victoria	nA	nS	17	3	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Mondariz IV	nA	nS	24,2	0	0,0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Monssalus	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Montepinos	nA	nS	1,9	1,7	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Natura	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Nature Montes de León	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Neval	nA	nS	120	4	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Nuestra Señora de Avellà	nA	nS	14,4	5,3	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Numen	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Orotana	nA	nS	13,1	5,3	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Palatin	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Peña Umbria	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Peñaclara	nA	nS	306,8	1,4	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Penyagolosa	nA	nS	17,68	7,1	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Pineo	nA	nS	9	2	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Pirinea	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Ribagorza	nA	nS	18	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Salud	nA	nS	25,9	5,8	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
San Agustín	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
San Andrés	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
San Andrés II	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
San Antón II	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA



N1	H20	H21	H22	H23	H24	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35
San Joaquín	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
San Millán	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
San Narciso	nA	nS	53,8	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	1,3
San Vicente	nA	nS	19,4	8,8	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Sant Aniol	nA	nS	15,9	1,4	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Sant Hilari	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Santolín	nA	nS	6,1	5,3	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Sanxín	nA	nS	6,7	7,9	0,0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Sierra Cazorla	nA	nS	23,4	6,7	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Sierra del Búho	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Sierra Dúrcal	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Sierras de Jaén	nA	nS	29,2	5,7	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Soceo	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Soceo II	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Solán de Cabras	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Sousas II	nA	nS	1,8	2,9	0,0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Telero	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Valtorre	nA	nS	16,2	4	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Veri 1	nA	nS	12,3	1,5	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Veri 5	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Vichy Catalán	nA	nS	47,3	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	1,3
Vilajuiga	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,8
Vilas	nA	nS	3,7	1,3	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,0
Virgen del Camino	nA	nS	nS	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Aguas de Panticosa (San Agustín)	nA	nS	14	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0
Alicun de las Torres	nA	nS	1226	3	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Archena	nA	nS	449	0,9	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,83
Arnedillo	nA	nS	1400	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Balneiro Forns	nA	nS	44	3	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	1,83
Balneiro A Toxa	nA	nS	74,7	46,5	0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Balneiro Caldas de Oviedo	nA	nS	20	2	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0
Balneiro Davila	nA	nS	16,4	0	0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Balneiro de Acuña 1	nA	nS	20,6	0,7	0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Balneiro de Acuña 2	nA	nS	16,7	0	0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Balneiro de Arteixo 1	nA	nS	39,7	0	0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Balneiro de Arteixo 2	nA	nS	39,8	12,8	0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Balneiro de Beran	nA	nS	18,7	0	2	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Balneiro de Blancafort	nA	nS	15	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,22
Balneiro de Broquetas	nA	nS	40	4	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	1,81
Balneiro de Caldas D'Estrac	nA	nS	29	8	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,33
Balneiro de Caldelas de Tuy	nA	nS	47,3	0	0,3	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Balneiro de Cantarero	nA	nS	240	15	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0
Balneiro de Carballino	nA	nS	9,9	0	5,5	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Balneiro de Fuente Amarga	nA	nS	1990	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,2
Balneiro de Graena	nA	nS	1696	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nS
Balneiro de Panticosa (Estomago)	nA	nS	21	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0
Balneiro de Panticosa (Higado)	nA	nS	14	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0



N1	H20	H21	H22	H23	H24	H25	H26	H27	H28	H29	H30	H31	H32	H33	H34	H35
Balneario de Panticosa (Sondeo del Carmen)	nA	nS	20	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0
Balneario de Panticosa (Tiberio)	nA	nS	24	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0
Balneario de Retortillo	nA	nS	7,4	0,83	1,5	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Balneario de San Andrés	nA	nS	78	42	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,13
Balneario de Villavieja	nA	nS	446	37,4	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Balneario Titus	nA	nS	44	1	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,46
Balneario Vila de Caldes	nA	nS	51	2	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	1,86
Baños de Benasque	nA	nS	11	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0
Baños de Benasque (Fuentes Frías)	nA	nS	4	2	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0
Baños de Montemayor Manantial Arqueta	nA	nS	37,6	0,2	5,8	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,6
Baños Viejos de Carballo	nA	nS	8,7	0	3	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Caldas de Boi Capellans	nA	nS	3	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0
Caldas de Boi Estufa	nA	nS	46	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,51
Caldas de Boi Tartera	nA	nS	46	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0
Fitero (Becquer)	nA	nS	1339,6	2,35	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,11
Fitero (Palafox)	nA	nS	1390,2	1,83	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,09
Fuencaliente	nA	nS	102	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,1
Las Caldas	nA	nS	346	16	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,4
Ledesma	nA	nS	43	0,18	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Molgas (M. Caliente)	nA	nS	2,46	0	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	1,41
Molgas (M. Charca)	nA	nS	2,88	0,57	0,3	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	1,26
Puente Viesgo	nA	nS	133	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
San Nicolás	nA	nS	151	nS	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
San Roque (Jaraba)	nA	nS	126	16	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0
Termas de Lugo	nA	nS	77,3	0	0,5	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Termas la Garriga	nA	nS	90	10	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,3
Termas Orión	nA	nS	17	1	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,07
Termas Pallarés (Cascada)	nA	nS	235	14	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0
Termas Pallarés (Rey)	nA	nS	244	13	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0
Termas San Roque (Alhama)	nA	nS	236	14	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0
Termas Victoria	nA	nS	42	3	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	1,85
Valdefernando	nA	nS	0,1	2,2	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Verche	nA	nS	172	2	nA	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	nA
Villa Termal de Arnoia	nA	nS	6	1	0	nS	nS	nS	nS	nS	nS	nA	nS	nS	nS	0,6

Table 79: Inventory of Natural mineral waters and Thermal waters in Spain: Names of sources, hydrochemical information and comments.

N1	H36	H37	H38	H39	H40	H41	H42	H43	H44	H45	H46	H47	C1
A Granja/La Granja	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Abelleira	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA



N1	H36	H37	H38	H39	H40	H41	H42	H43	H44	H45	H46	H47	C1
Agua de Rocallaura	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Agua del Rosal	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Aguadoy	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Aguas de Sierra	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Aigua del Montseny	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Aiguaneu	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Albarcin	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Alzola	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Ama-Iturri	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Antigua Fuente del Caño	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Aqua Nevada	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Aquadomus	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Aquarel-Avets	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Aquaservice Cogollos de Guadix	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Ballanes	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Barbuzzano	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Bastida	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Bezoya	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Bezoya Trescasas	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Bronchales-3	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Bronchales-5	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Cabreiroá	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Cabreiroá 3	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Calabor	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Cantalar	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Captación Paraño 87.1	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Carrizal	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Carrizal II	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Casarabonela	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Castillo de Gormaz	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Cautiva	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Corconte	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
El Cañar	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
El Chumacero	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
El Pilar	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
El Portell	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
El Salvador	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
El Subirà	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Eliqua	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Eliqua 2	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Estrella I	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Estrella M	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Estrella V	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fondetal	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fonsana	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Font de Sa Senyora	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Font del Boix	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Font del Bou	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Font del Regàs	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Font d'Elca	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Font Des Pedregaret y Binifaldó	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Font des Teix	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Font Major	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Font Natura	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Font Nova del Pla	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Font S'Aritja	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Font Sorda-Son Cocó	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Font Vella Sacalm	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Font Vella Sigüenza	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fontaga	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fontalegre	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA



N1	H36	H37	H38	H39	H40	H41	H42	H43	H44	H45	H46	H47	C1
Fontcristall	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fontdalt	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fontdor	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fonte Forte	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fontecabras	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fontecelta	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fonteide	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fontemilla	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fontenova Verín	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fonter	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fontoira	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fonxesta	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuencaliente de Solares	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuencisla	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuen-Mayor	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuensanta de Buyerres	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuente Agria de Teror	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuente Arquillo	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuente Blanca	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuente de Cuevas	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuente de la Higuera	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuente del Arca	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuente del Cañar	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuente del Fraile	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuente del Val 2	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuente en Segures	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuente Madre	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuente Primavera	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuentebruma	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuentelejara	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
FuenteLiviana	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuenteror	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuentevera	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Galea	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Guadalvida	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Imperial	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Insalus	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
La Cueva	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
La Ermitica	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
La Hoz	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
La Ideal I	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
La Ideal II (El Rapador)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
La Majuela	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
La Paz	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
La Serreta	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Landín	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Las Higuera	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Las Jaras	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Les Creus	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Los Cloticos	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Los Riscos de la Higüela	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Lunares	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Malavella	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Manantial Chóvar	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Manantial de Quess	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Manantial La Victoria	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Mondariz IV	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Monssalus	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Montepinos	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Natura	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA



N1	H36	H37	H38	H39	H40	H41	H42	H43	H44	H45	H46	H47	C1
Nature Montes de León	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Neval	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Nuestra Señora de Avellà	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Numen	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Orotana	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Palatín	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Peña Umbría	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Peñaclara	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Penyagolosa	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Pineo	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Pirinea	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Ribagorza	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Salud	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
San Agustín	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
San Andrés	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
San Andrés II	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
San Antón II	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
San Joaquín	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
San Millán	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
San Narciso	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
San Vicente	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Sant Aniol	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Sant Hilari	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Santolín	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Sanxínés	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Sierra Cazorla	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Sierra del Búho	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Sierra Dúrcal	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Sierras de Jaén	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Soceo	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Soceo II	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Solán de Cabras	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Sousas II	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Telero	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Valtorre	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Veri 1	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Veri 5	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Vichy Catalán	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Vilajuiga	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Vilas	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Virgen del Camino	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Aguas de Panticosa (San Agustín)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Alicun de las Torres	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Archena	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Arnedillo	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneari Forns	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario A Toxa	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario Caldas de Oviedo	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario Davila	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Acuña 1	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Acuña 2	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Arteixo 1	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Arteixo 2	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Beran	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Blancafort	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Broquetas	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA



N1	H36	H37	H38	H39	H40	H41	H42	H43	H44	H45	H46	H47	C1
Balneario de Caldas D'Estrac	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Caldelas de Tuy	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Cantarero	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Carballino	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Fuente Amarga	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Graena	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Panticosa (Estomago)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Panticosa (Higado)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Panticosa (Sondeo del Carmen)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Panticosa (Tiberio)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Retortillo	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de San Andrés	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario de Villavieja	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario Titus	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Balneario Vila de Caldes	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Baños de Benasque	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Baños de Benasque (Fuentes Frías)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Baños de Montemayor Manantial Arqueta	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Baños Viejos de Carballo	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Caldas de Boi Capellans	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Caldas de Boi Estufa	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Caldas de Boi Tartera	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fitero (Becquer)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fitero (Palafox)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Fuencaliente	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Las Caldas	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Ledesma	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Molgas (M. Caliente)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Molgas (M. Charca)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Puente Viesgo	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
San Nicolás	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
San Roque (Jaraba)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Termas de Lugo	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Termas la Garriga	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Termas Orión	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Termas Pallarés (Cascada)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Termas Pallarés (Rey)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA



N1	H36	H37	H38	H39	H40	H41	H42	H43	H44	H45	H46	H47	C1
Termas San Roque (Alhama)	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Termas Victoria	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Valdefernando	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Verche	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA
Villa Termal de Arnoia	nA	nS	nS	nA	nS	nA	nS	nS	nA	nA	nA	nA	nA

7.3 Remarks on data collection

7.3.1 Denmark

Most of the data provided in the Questionnaire (WP 3.1) is from the national database on groundwater and drinking water (JUPITER), hosted by GEUS. We also contacted all brand-owners by e-mail to request official information on “representative” geochemical analysis and approved daily yield. Next to questions on the chemistry, we also asked the brand owners, if we could use the information available in JUPITER. Unfortunately, we received responses for only five brands (Aqua d’Or, Denice, Boring 7, Iskilde, and Balders kilde) out of 14.

Representative geochemical analysis is a problematic definition in the context of this questionnaire. The documentation for approval of natural mineral waters must include information on water chemistry, but those documents are not publically accessible and are not available within GEUS. The bottle labels contain the necessary information as per Danish and EU regulations; however, the regular quality check at the boreholes/sources may vary around these values.

Notes on specific Questionnaire sections

G2: For well fields, when the wells are in different 1km grid-cells, we provide all relevant grid-cell codes:

- Egekilde: five wells are listed as industrial/process water and they fall in 3 grid-cells: 2 in 1kmE4454N3576, 2 in 1kmE4453N3576, and one in 1kmE4453N3575; the locations of the wells is different from the location of the waterworks (official address, associated with the brand)
- Kildevæld: the official address is also the location of the waterworks (brewery), but the well field is located in two 1km grid-cells: 1kmE4302N3796, 1kmE4303N3796

G7: yield class is not provided in the JUPITER database; there is however information on approved annual extraction volumes for each well/well field and waterworks/plant. The data comes from the brand-owners’ responses.

Aquifer (from B1 to B13): the information on borehole and filter depths, as well as lithology and aquifer age is from the JUPITER database. If the source is a single well, the identification number of the well is provided in C1 (Comments section), where DGU is the ID number used in JUPITER. When there were multiple wells (well field), the lithology and age of the aquifer were determined after checking all relevant borehole reports.

A1 (Groundwater age): only the information provided from the brand owners is used; no groundwater age available in Jupiter. Balders kilde is 3397 years old, based on Radio Noble Gas Dating (2012), conducted by Physics Institute, University of Bern. Iskilden is younger than 60



years, while Aqua d'Or and Denice are older than 60 years, but no details on dating methods were provided by the brand owners of these 3 brands.

Hydrogeochemistry (H1: H47): priority has been given to the responses from the brand owners (when available). If hydrogeochemical analysis were available in JUPITER for specific well/borehole, the latest most complete sample was used (sample with most of the requested elements). In that case, the sample ID and the date of sampling are provided as C2 and C3 comments. For the well fields, the sample(s) that we chose are for “exit waterworks”, and not from a specific borehole. For Denice and Aqua d'Or, we supplemented with data published on the brand label.

Comments section

C1: identification number in JUPITER; all boreholes have an ID number (DGU); for multiple wells, or when the spring is not associated with a borehole number, the “Anlægsid” (plant ID) is also provided; The geological and geochemical data can be accessed freely through the “DGU” and “Anlægsid” numbers

C2: sample ID; the most recent and most complete sample has been used for the chemical composition when information was not provided by the brand-owners.

C3: sampling date (corresponds to the sample ID); C2 and C3 help identifying the specific analysis in the JUPITER database.

C4: feedback provided from the trademark owner (logical field): yes/no; if yes, the chemical analysis are the ones provided by the brand-owners



8 ATTACHMENTS

- **A1 – Specific questionnaire results**
File: HOVER_WP3_TASK3-1_Specific_Questionnaire_Results.xls
- **A2 – Database with preliminary data on natural mineral waters and thermal waters**
File: HOVER_WP3_TASK3-1_DB.accdb