



CO₂-rich water in Gerolstein

“Gerolsteiner Mineral Water” is the well-known commercial name for the Ca-, Mg- and bicarbonate-rich water tapped in Gerolstein, in the centre of the Volcanic Eifel region. The “Gerolsteiner Sparkling” variety is sparkling from nature, due to its elevated CO₂-content (Gerolsteiner Brunnen, 2021). Many more, non-commercial, CO₂-bearing springs are found around Gerolstein (listed below).

See also

[Volcanism in the Eifel](#), [CO₂-seeps around Duppach](#)

Anomalies

Quantitative data of the CO₂-concentration in the Gerolsteiner springs is mostly not available. However, their CO₂-rich nature is recognized by the occurrence of small gas bubbles bubbling up in multiple of the springs (often referred to as “drees” in the name of the spring) and the presence of mofettes, dry CO₂-springs (Hänel, 2020). The presence of CO₂ in the Middle Devonian carbonaceous rocks in Gerolstein is associated to the nearby Quaternary volcanism, expressed by the presence of both volcanoes and maars such as the Gerolsteiner Maar (van Overmeeren, 2014), and the high flux density of mantle carbon in the Gerolstein region (May, 2005). It is not exactly known what exact geological features or processes are involved to bring the CO₂ to the surface.

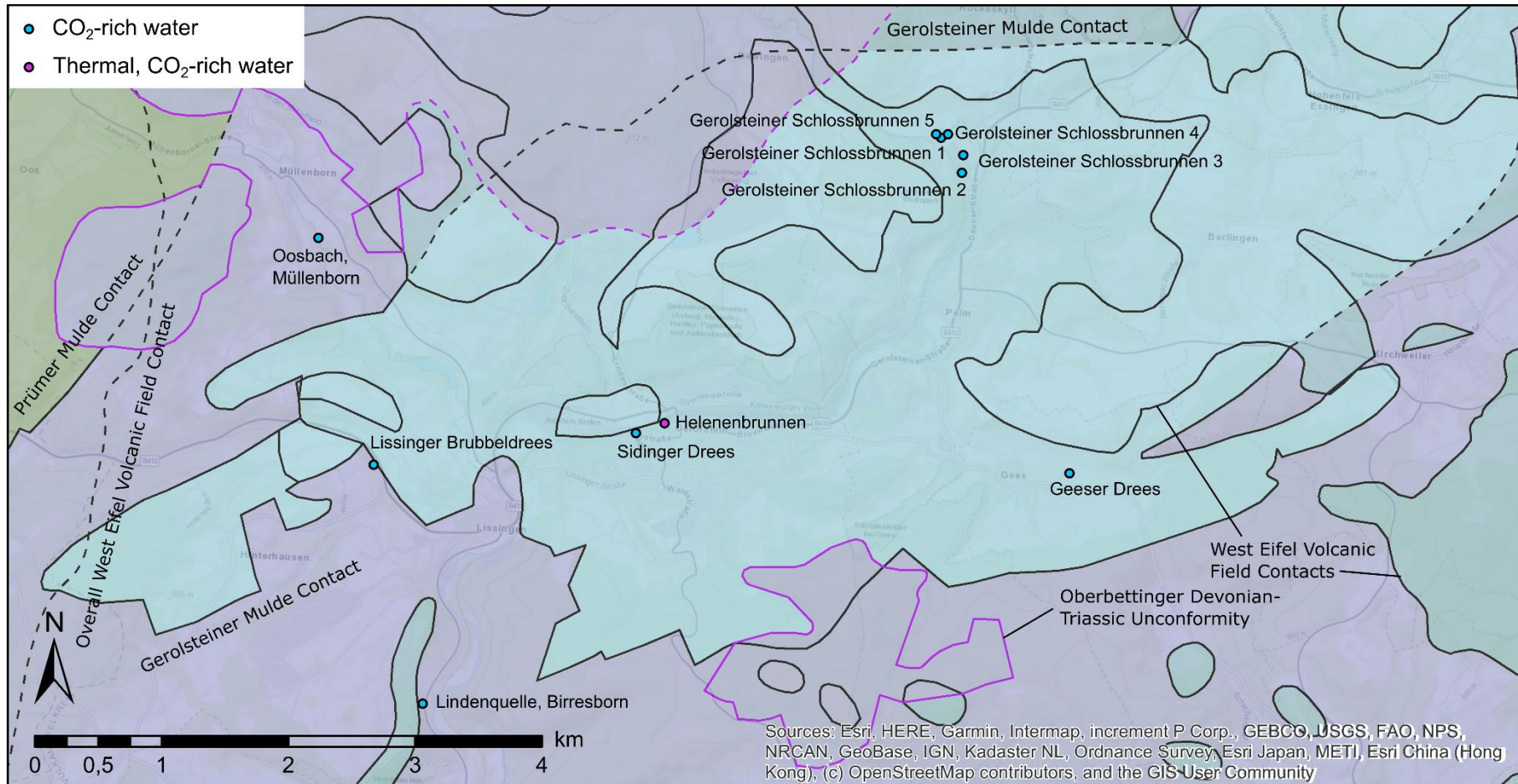


Figure 1: CO₂-rich water in Gerolstein



Data

ID	Coordinates	T	Depth	TDS°	Cl	Na	SO ₄	Free CO ₂	He	³ He/ ⁴ He	Analysis year	References
		°C	m	g/l	mg/l	mg/l	mg/l	mg/l	ppmv			
Lissingener Brubbeldrees	50°13'09" North 06°37'29" East	10.8									<2020	Hänel (2020) Datenbank der Kulturgüter in der Region Trier (2020)
Oosbach, Müllenborn	50°14'08" North 06°37'02" East											Hänel (2020); Weertz and Weertz (2018)
Sidinger Drees	50°13'20" North 06°39'16" East											May (2002); Datenbank der Kulturgüter in der Region Trier (2020)
Helenenbrunnen	50°13'23" North 06°39'28" East	13.9	98		55.4	155	38				1999	Hänel (2020)
												Köppen (1987); Langguth and Plum (1984); Datenbank der Kulturgüter in der Region Trier (2020)
Gerolsteiner Schlossbrunnen 1	50°14'42" North 06°41'16" East											Datenbank der Kulturgüter in der Region Trier (2020)
Gerolsteiner Schlossbrunnen 2	50°14'33" North 06°41'26" East											Datenbank der Kulturgüter in der Region Trier (2020)
Gerolsteiner Schlossbrunnen 3	50°14'38" North 06°41'26" East											Datenbank der Kulturgüter in der Region Trier (2020)
Gerolsteiner Schlossbrunnen 4	50°14'43" North 06°41'19" East											Datenbank der Kulturgüter in der Region Trier (2020)
Gerolsteiner Schlossbrunnen 5	50°14'43" North 06°41'14" East											Datenbank der Kulturgüter in der Region Trier (2020)
Geeser Drees	50°13'15" North 06°42'15" East	10									<2007	Weertz and Weertz (2007)
												Datenbank der Kulturgüter in der Region Trier (2020)
		11.8									<2020	Hänel (2020)

° TDS = Total Dissolved Solids



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