ID	
number	numeric (4)

Metadata	
Town	text
Well or spring name	text
Alternative name	text
Observations on water containment system	text
Coordinates [GK, R]	numeric (7)
Coordinates [GK, H]	numeric (7)
Coordinates [UTM, E]	numeric (6)
Coordinates [UTM, N]	numeric (7)
Altitude [m asl]	numeric (3.2)
Water containment system (well, spring)	text
Final depth [m bgl]	numeric (4.2)
Depth of filter screen - top [m bgl]	Numeric (4.2)
Depth of filter screen - bottom [m bgl]	Numeric (4.2)
Static water level [m asl]	numeric (3.2) or text
Hydraulic conductivity [m/s]	numeric
Rock type	text
Local stratigraphic unit	text
Period	text
Thermal water	text
Mineral water	text
Brine	text
Acidulous water	text
Cations	text
Anions	text
Water type (as defined in original work)	text

References	
Date of analysis	date (DD/MM/YYYY)
Number of analysis	numeric (2)
Institution	text
Citation	text
Observations	text

Physical-chemical (sum-)parameters	
Temperature [°C]	numeric (2.1) or text
Electric Conductivity at 25 °C [µS/cm]	numeric (6)
pH [-]	numeric (2.2)
Redox potential [mV]	numeric (3)
Density [g/cm³]	numeric (1.5)
Density measurement temperature [°C]	numeric (2.1)
Turbidity [FNU]	numeric (2.2)
Discharge [L/s]	numeric (2.3)
Total hardness [°dH]	numeric (3.2)
Carbonate hardness [°dH]	numeric (2.2)
Oxygen consumed [mg/L $KMnO_4$]	numeric (2.2)
Evaporation residue [mg/L]	numeric (6)
TDS (stated) [mg/L]	numeric (6.3)
TDS (calculated) [mg/L]	numeric (6)
Electrical balance [%]	numeric (2.2)

Chemical parameters - major elements	
Na [mg/L]	numeric (6.2)
Mg [mg/L]	numeric (6.2)
Ca [mg/L]	numeric (6.2)
Cl [mg/L]	numeric (6.2)
SO_4 [mg/L]	numeric (6.2)
HCO_3 [mg/L]	numeric (6.2)

Chemical parameters - minor elements	
Li [mg/L]	numeric (4.4)
K [mg/L]	numeric (4.4)
Sr [mg/L]	numeric (4.4)
NH_4 [mg/L]	numeric (4.4)
Fe [mg/L]	numeric (4.4)
Mn [mg/L]	numeric (4.4)
F [mg/L]	numeric (4.4)
Br [mg/L]	numeric (4.4)
I [mg/L]	numeric (4.4)
NO_3 [mg/L]	numeric (4.4)
NO_2 [mg/L]	numeric (4.4)
CO_3 [mg/L]	numeric (4.4)
H_2SiO_3 [mg/L]	numeric (4.4)
HBO_2 [mg/L]	numeric (4.4)

Chemical parameters - trace elements	
Ag [µg/L]	numeric (4.3)
Al [µg/L]	numeric (4.3)
As [µg/L]	numeric (4.3)
Ba [µg/L]	numeric (4.3)
Be [µg/L]	numeric (4.3)
Cd [µg/L]	numeric (4.3)
Co [µg/L]	numeric (4.3)
Cr [µg/L]	numeric (4.3)
Cs [µg/L]	numeric (4.3)
Cu [µg/L]	numeric (4.3)
Hg [µg/L]	numeric (4.3)
Mo [µg/L]	numeric (4.3)
Ni [µg/L]	numeric (4.3)
Pb [µg/L]	numeric (4.3)
Rb [µg/L]	numeric (4.3)
Sb [µg/L]	numeric (4.3)
Se [µg/L]	numeric (4.3)
Sn [µg/L]	numeric (4.3)
Th [µg/L]	numeric (4.3)
Ti [µg/L]	numeric (4.3)
Tl [µg/L]	numeric (4.3)
U [µg/L]	numeric (4.3)
V [µg/L]	numeric (4.3)
Zn [µg/L]	numeric (4.3)

Dissolved gases	
O_2 [mg/L]	numeric (2.2)
CO_2 [mg/L]	numeric (4.1) or text
H_2S [mg/L]	numeric (2.3)
N_2 [mg/L]	numeric (2.3)
Ar [mg/L]	numeric (2.3)

Free gases	
N_2 [Vol.-%]	numeric (2.2)
CO_2 [Vol.-%]	numeric (2.2)
O_2 [Vol.-%]	numeric (2.2)
Ar [Vol.-%]	numeric (2.2)
He [Vol.-%]	numeric (2.2)
H_2 [Vol.-%]	numeric (2.2)
CH_4 [Vol.-%]	numeric (2.2)
C_2H_6 [Vol.-%]	numeric (2.2)
C_3H_8 [Vol.-%]	numeric (2.2)
CO [Vol.-%]	numeric (2.2)

Isotopes	
Δ^2H [‰-VSMOW]	numeric (2.1)
^3H [TU]	numeric (2.2±1.2)
$^3He/^4He$ [-]	numeric (1.2)
$\Delta^{13}C$ [‰-VPDB]	numeric (2.2)
^{14}C [%-mod. C]	numeric (2.1±1.1)
$\Delta^{18}O$ [‰-VSMOW]	numeric (2.2)
$\Delta^{34}S$ [‰-VCDT]	numeric (2.1±1.1)
Rn [Bq/L]	numeric (4.1)
Ra [Bq/L]	numeric (3.3)
^{224}Ra [Bq/L]	numeric (3.3)
^{226}Ra [Bq/L]	numeric (3.3)
^{228}Ra [Bq/L]	numeric (3.3)
^{212}Pb [Bq/L]	numeric (1.1)
^{214}Pb [Bq/L]	numeric (1.1)
^{40}K [Bq/L]	numeric (1.1)
^{131}I [Bq/L]	numeric (1.1)
^{134}Cs [Bq/L]	numeric (1.1)
^{137}Cs [Bq/L]	numeric (1.1)

Fig. 1: Entity relation diagram for the database of mineral, thermal and deep groundwaters of Hesse. Black arrows mean that entries in fields at the end of the arrow depend on entries in the fields at the beginning of the arrow by formulas.