|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Thematic** | **Measurements** | **Description** |
| Spatial | Fluid geochemistry | Gas and water chemistry (thermomineral springwaters) | Composition in major gaseous species, noble gases, carbon isotopy, and radon activity  Physico-chemical parameters (temperature, pH, conductivity, alkalinity), composition in major cations and anions, and radon activity |
| Soil degassing | Soil CO2 measurements and associated carbon isotopy |
| Geophysical imagery | Electrical resistivity tomography | 2D profiles of shallow conductive anomalies |
| Magnetism | Mapping of magnetic anomalies (structures, mechanical heterogeneities, alteration) |
| Magnetotellurics | 1D soundings of deep conductive anomalies |
| Self-potential | Profile or mapping of shallow fluid circulations |
| Soil temperature | Profile or mapping of shallow thermal anomalies (ground and remote sensing) |
| Petro geochemistry | Sampling | Rock sampling sites and list of related analysis |
| Stratigraphy | Stratigraphic logs with legends |
| Temporal | Fluid geochemistry | Air quality | CO2 content and Rn activity in the air (together with meteorological records) |
| Gas and water chemistry (thermomineral springwaters) | Composition in major gaseous species, noble gases, carbon isotopy, and radon activity  Physico-chemical parameters (temperature, pH, conductivity, alkalinity), composition in major cations and anions, and radon activity |
| Soil degassing stations | Soil CO2, Rn, temperature, and self-potential measurements (together with meteorological records) from SOLidAIR stations |
| Water vertical profiles | Physico-chemical parameters (temperature, pH, conductivity) along vertical profiles in lakes |
| Ground deformation | GNSS stations | Stations from the Auvergne geodetic network (integrated in the IGN-RGP, RENAG, and Orphéon networks) |
| Seismicity | Seismic stations | Stations from the Auvergne seismological network (integrated in the RGP-RLBP networks of the BCSF-RéNaSS) |

**Main structure of the database**

***Nota Bene:***Only data acquired since 2021 and the structuration of PROVA2 (Pôle Régional d’Observation de l’Activité Volcano-tectonique d’Auvergne et d’Ardèche) feed the database.

**Initial dataset (data repository)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Category** | **Thematic** | **Measurements** | **Area** | **Site** | **Data format** | **Starting date** | **Ending date** | **X** | **Y** | **Operator** |
| Spatial | Fluid geochemistry | Soil degassing | Monts Dore | Beaune-le-Froid | .xlsx | 06/05/2022 | 06/05/2022 | 2.905469 | 45.595400 | Guillaume Boudoire |
| Spatial | Geophysical imagery | Magnetism | Monts Dore | Beaune-le-Froid | .txt | 08/06/2022 | 08/06/2022 | 2.905469 | 45.595400 | Lydie Gailler |
| Spatial | Geophysical imagery | Self-potential | Monts Dore | Beaune-le-Froid | .xlsx | 06/05/2022 | 06/05/2022 | 2.905469 | 45.595400 | Lydie Gailler |
| Spatial | Geophysical imagery | Magnetotellurics | Monts Dore | Bois de Maugues | .edi | 21/12/2022 | 26/12/2022 | 2.893143 | 45.608653 | Lydie Gailler |
| Spatial | Geophysical imagery | Magnetotellurics | Monts Dore | Chaudefour | .edi | 05/01/2023 | 10/01/2023 | 2.847562 | 45.537722 | Lydie Gailler |
| Spatial | Geophysical imagery | Magnetotellurics | Monts Dore | Champsiaux | .edi | 11/01/2023 | 16/01/2023 | 2.902718 | 45.578643 | Lydie Gailler |
| Spatial | Geophysical imagery | Magnetotellurics | Monts Dore | Coujat | .edi | 09/02/2023 | 14/02/2023 | 2.892736 | 45.586280 | Lydie Gailler |
| Spatial | Geophysical imagery | Magnetotellurics | Monts Dore | Peyre-Lévade | .edi | 09/02/2023 | 14/02/2023 | 2.868835 | 45.586823 | Lydie Gailler |
| Spatial | Geophysical imagery | Electrical resistivity tomography | Monts Dore | Chambon | .txt | 13/09/2023 | 13/09/2023 | 2.905469 | 45.595400 | Lydie Gailler |
| Spatial | Geophysical imagery | Electrical resistivity tomography GNSS | Monts Dore | Chambon | .txt | 13/09/2023 | 13/09/2023 | 2.905469 | 45.595400 | Lydie Gailler |
| Temporal | Seismicity | Seismic stations | Monts Dore | - | .xlsx | 15/04/2021 | 06/05/2022 | - | - | Guillaume Boudoire |
| Temporal | Ground deformation | GNSS stations | Monts Dore | - | .xlsx | 15/04/2021 | 06/05/2022 | - | - | Guillaume Boudoire |
| Temporal | Fluid geochemistry | Gas and water chemistry (thermomineral springwaters) | Monts Dore | - | .xlsx | 15/04/2021 | 06/05/2022 | - | - | Guillaume Boudoire |
| Temporal | Fluid geochemistry | Soil degassing | Monts Dore | - | .xlsx | 15/04/2021 | 06/05/2022 | - | - | Guillaume Boudoire |
| Temporal | Geophysical imagery | Soil temperature | Monts Dore | - | .xlsx | 15/04/2021 | 06/05/2022 | - | - | Guillaume Boudoire |

**How to quote the data?**

The use of the data from the OPGC-PROVA2 is conditional on the quotation of two DOIs:

1. **Observatoire de Physique du Globe de Clermont-Ferrand**. (2021). *Pôle de Recherche de l’Activité Volcano-tectonique d’Auvergne et d’Ardèche (PROVA²)* (Version 1) [Data set]. Observatoire de Physique du Globe de Clermont-Ferrand (OPGC), Laboratoire Magmas et Volcans (LMV), Université Clermont Auvergne (UCA), Centre National de la Recherche Scientifique (CNRS), Institut de Recherche pour le Développement (IRD). https://doi.org/10.25519/PROVA2

&

1. For spatial surveys :

**Gailler, L.**, **Grace, C.**, **Boudoire, G.**, Grunberg, M., **Battaglia, J.**, **Merciecca, C.**, **Labazuy, P.**, **Souriot, T.**, **Douchain, J.-M.**, **Cluzel, N.**, **Guillard, R.**, **Fréret Lorgevil, V.**, **Aumar, C.**, **Rafflin, V.**, Boulenger, V., **Buvat, S.**, **Kuzamba, J.**, & **Thébault, E.** (2025). Scientific response to the 2021-2022 seismic swarm in the Monts-Dore volcanic province (France): structural insights from punctual surveys (1/2). Comptes Rendus de l’Académie des Sciences – Géosciences.

For temporal surveys :

**Boudoire, G.**, **Gailler, L.**, **Battaglia, J.**, Beauger, A., **Bontemps, M.**, **Bosse, V.**, Breton, V., **Briot, D.**, **Cacault, P.**, **Cayol, V.**, **Cluzel, N.**, **Delage, E.**, **Del Campo, G.**, **Deniel, C.**, **Devidal, J.-L.**, **Douchain, J.-M.**, **Faissal, A.**, **Freville, P.**, Frondini, F., **Gauthier, P.-J.**, Genzano, N., **Grace, C.**, Grassa, F., Grunberg, M., **Guéhenneux, Y.**, **Gurioli, L.**, **Harris, A.**, **Labazuy, P.**, **Laporte, D.**, Longo, M., Marchese, F., Mazet-Roux, G., **Médard, E.**, **Merciecca, C.**, Métois, M., Pergola, N., **Pouget, M.**, **Rafflin, V.**, **Régis, E.**, Ricci, L., Rizzo, A. L., **Souriot, T.**, Terray, L., Tramutoli, V., Trull-Hernandis, C., **van Wyk de Vries, B.**, Voldoire, O., & **Thebault, E.** (2025). Scientific response to the 2021-2022 seismic swarm in the Monts-Dore volcanic province (France): dynamic insights from temporal surveys (2/2). Comptes Rendus de l’Académie des Sciences – Géosciences.