

Umwelt- und Ingenieurtechnik GmbH Dresden

»Milestones Mineral Resources«

Year	Project	Specification
Since 1995	Application of numerical reactive transport models of post-mining scenarios and remediation	Development of optimized, site-specific models and software solutions to mining projects (natural attenuation NA / ENA, in situ remediation, mine water treatment, licensing procedures)
1995 - 1997	Uranium separation from mine flood water	Development of a new, highly efficient technology for uranium recovery and processing to a marketable product (by-product of the remediation)
Since 1997	Environmental monitoring in mining projects including remediation	Planning and implementation of monitoring networks in numerous national and international projects (combination of hydrological, geophysical, hydrological, radiological and other parameters)
1998 - 2001	EBRD — Shelter Implementation Plan Chernobyl (within consortium)	Characterization of fuel containing materials in the destroyed nuclear reactor and conception of a technology for its recovery and conditioning
1998 - 2003	Remediation of former uranium sites of WISMUT GmbH	Engineering, construction management and commissioning of mine water treatment plants at several WISMUT sites
Since 1998	In-situ leaching technology and uranium processing	Australia - diverse consulting and engineering services for development and optimization of uranium recovery at minimized environmental impact
Since 2008	Extraction and processing of technology metals (chemical digestion, IX, SX, IEX, RIP, NORM removal, etc.)	Diverse consulting services for leading international mining companies

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2009	In-situ satellite plant for uranium recovery	Australia - engineering of a satellite-IX-plant for uranium recovery (360 m ³ /h) by in-situ technology
2008 — 2011	Geophysical borehole probes	Development and test of a radiological borehole probe prototype with pulsed neutron generator for logging of geophysical and mineralogical data (including high-precision determination of uranium ore grade)
Since 2012	Formation evaluation and (pre-) feasibility studies of mine remediation projects	3D modeling and evaluation of mineral resources/reserves, technological design of ore extraction and economic assessment, special expertise in in-situ recovery
Since 2012	Production of geophysical borehole probes	Advanced radiological wireline logging tools
Since 2012	Near-surface seismic exploration	Development, optimization and application of high-resolution seismic systems and advanced data processing and interpretation for near-surface applications (primarily sedimentary basins, depth <500 m)
Since 2014	Hydrological modeling of mining projects	FEFLOW simulation of mining scenarios, including detailed design/planning of in-situ operation by well fields, simulation and evaluation of environmental impacts
2014	Construction and commissioning of a hydrometallurgical pilot plant	Specialized tests (mechanical processing, chemical digestion, separation and purification), in particular for radioactive mineral samples (NORM removal)
Since 2015	Operation of UIT's hydrometallurgical test center for the development of new mining projects	Extensive hydrometallurgical testing for recovery and treatment of (radioactive) mineral samples (focus on technology metals including rare earths)