

Low Background Counting at the LBNL Low Background Facility

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The Low Background Facility (LBF) at Lawrence Berkeley National Laboratory in Berkeley, California operates within two unique facilities—locally within a carefully-constructed, low background cave; and remotely at an underground location (over 500 m.w.e) nearby in Oroville, CA. These facilities provide a variety of gamma spectroscopy services to low background experiments primarily in the form of passive material screening for primordial radioisotopes (U, Th, K) or common cosmogenic/anthropogenic products, as well as active screening via Neutron Activation Analysis for specific applications. The LBF is also provides hosting services for general R&D testing in low background environments on the surface or underground for background testing of detector systems or similar prototyping. A general overview of the facilities, services, and sensitivities will be displayed. Recent activities and upgrades will also be presented, such as the completion of a 3π muon veto at the surface station and environmental monitoring of Fukushima fallout. The LBF is open to any users for counting services or collaboration on a wide variety of experiments.

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