



## Utah Hill AFB

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### ***Facility and Location***

Hill Air Force Base (AFB) is located in northern Utah. Active since the early 1940s, it is home to many operational and support missions. The Ogden Air Logistics Center serves as the host organization. The base performs depot maintenance of the F-16 Fighting Falcon, A-10 Thunderbolt, and C-130 Hercules aircraft. Hill AFB overhauls and repairs landing gear, wheels, and brakes, rocket and intercontinental ballistic missile motors, air munitions and guided bombs, photonics equipment, training devices, avionics instruments, hydraulics, software, and other aerospace related components. Historic activities at Hill AFB include missile/rocket testing and munitions manufacturing sites and missile testing/washout operations (Zones 1500 and 1900, respectively). There is some evidence that open burn/open detonation (OB/OD) sites may exist (in the North Range area). In addition, the logistics for all conventional air munitions, solid propellants, and explosive devices used throughout the Air Force are managed at Hill AFB. The base also administers environmental activities at the Utah Test and Training Range (UTTR) and Little Mountain Test Annex facilities.

### ***Media Sampled and Findings***

**Drinking Water** — Prior to 2007, samples taken under EPA's Unregulated Contaminant Monitoring Rule at Well 2 (Building 782), Well 8 (Building 1570), and Well 9 (Building 727) reported no detection.

**Groundwater** — In 2011, 30 of 38 samples detected perchlorate from 0.24 to 39.6 ppb. In 2010, 42 of 47 samples detected perchlorate from 0.28 to 36 ppb. In 2009, two of six samples detected perchlorate at 8.9 and 16 ppb. In 2008, 49 of 65 samples detected perchlorate from 0.15 to 39.9 ppb. In 2007, 165 of 291 samples detected perchlorate from 0.02 to 35.8 ppb. Prior to 2007, five of six samples detected perchlorate from 0.02 to 0.2 ppb. In addition, samples from 23 different monitoring wells at Zone 1500 (taken on an annual, semi-annual, or quarterly basis) reported perchlorate from non-detect to 70 ppb. At Zone 1900, the Air Force initially identified one groundwater monitoring well containing perchlorate. As a result, 11 adjacent monitoring wells were sampled and reported perchlorate from non-detect to 16.6 ppb. At the Little Mountain Facility, samples from two monitoring wells detected perchlorate from 85 ppb to 1,900 ppb.

**Soil** — In 2011, 11 of 11 samples detected perchlorate from 65 to 14,000 ppb. In 2010, 11 of 11 samples detected perchlorate from 2 to 18,000 ppb. In 2009, 23 of 59 samples detected perchlorate from 0.31 to 9,430 ppb. In 2008, 43 of 64 samples detected perchlorate from 0.22 to 61,000 ppb. In 2007, 274 of 330 samples detected perchlorate from 0.22 to 86,000 ppb. Prior to 2007, samples from the North Range area of UTTR, detected perchlorate with a high of 255 ppb. Perchlorate has been detected at significant levels in surface and subsurface soils at the Thermal Treatment Unit (TTU).

### ***Appropriate Actions***



Groundwater samples were found above the EPA and DoD Preliminary Remediation Goal of 15 ppb. There are no state or regional advisory levels for perchlorate in soils. The Air Force has identified several perchlorate areas of concern and has collected and analyzed drinking water, groundwater, and soil samples for perchlorate. Zone 1500 is a historic missile/rocket testing and munitions manufacturing site. Zone 1900 is an area where missile testing and 'hog-out' or washout operations were conducted. The Little Mountain Facility has sludge drying beds where anecdotal evidence suggests that prior open burning of missile and rocket motors occurred.

Groundwater concentrations (including OU5) are small plumes whose sources are a 1940s to 1970s rocket motor test stand. The plume is delineated and there are no off base detections of perchlorate above levels of concern. The plume has not impacted drinking water and groundwater concentrations will continue to be monitored.

UTTR has miscellaneous historic OB/OD sites across the North Range area. The Air Force has detected perchlorate in the shallow groundwater aquifer in Zones 1500 and 1900, in the groundwater below the sludge drying beds at the Little Mountain Facility, and in the shallow soils at one of the four locations sampled at the UTTR.

Annual groundwater and soil sampling for perchlorate at UTTR Landfill 5 and TTU are under a Resource Conservation and Recovery Act (RCRA) Part B Permit.

Soil samples were collected at the Solid Waste Management Unit (SWMU) for risk assessment purposes. The SWMU is an active rocket motor test facility and is currently monitored under a Site Management Plan. Samples taken at the TTU are part of the annual compliance sampling performed for this active RCRA permitted facility. Levels of perchlorate found in soil are significantly lower than the site specific risk based concentration level.