

ELLSWORTH AIR FORCE BASE

TOTAL ENVIRONMENTAL RESTORATION CONTRACTS A SUCCESS STORY

The U.S. Air Force (USAF) headquarters recognized Ellsworth AFB with the 1997 Thomas D. White Award for having the best environmental restoration program in the USAF. Remedial actions at Ellsworth were completed approximately \$35 million below estimates and several years ahead of schedule.

TERC WORKS



Completed wetlands mitigation project site.

The Omaha District of the U.S. Army Corps of Engineers and its TERC contractor, Rust Environment and Infrastructure, Inc., played a significant role in this highly successful program. Faced with a short construction season, tight regulatory milestones, and the need for minimal disruption to daily base operations, the TERC team was challenged to plan and execute projects in 12 separate contamination areas.

Through effective partnering, they developed innovative solutions to meet these stringent requirements, while saving time and money and providing environmentally sound solutions.

Specific successes included the following:

- A closed landfill was capped with excess soil from an on-base wetland mitigation project instead of using a more expensive synthetic membrane. The contractor demonstrated that evapotranspiration of moisture in the cover soil would exceed precipitation in the dry climate at Ellsworth, while preventing the penetration of water into the landfill. This approach also avoided the cost for disposal of the material excavated in the



Ellsworth won top Air Force environmental award.

wetlands mitigation project.

- A portable groundwater treatment system, in lieu of a permanent system, was used to remove jet fuel floating on top of the groundwater near aircraft maintenance and apron areas. This technique saved time and money and permitted aircraft operations to continue without disruption.

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- Seismic techniques, used to map the complex subsurface geology, helped to identify groundwater flows, determine the nature and extent of contamination, and subsequently design appropriate containment and extraction systems.

Environmental cleanup program saved \$35 million.

- As an economic alternative to traditional pump-and-treat systems, the contractor implemented a pilot program using the injection of Oxygen Release Compound. ORC oxygenates the contaminated groundwater and promotes breakdown of the fuel contamination by soil microbes.
- Microbes and nutrients, applied to several thousand cubic yards of contaminated soils, rapidly reduced contamination to a level where the soils could be surface-spread at the site.

Ellsworth's award-winning environmental restoration program demonstrates that partnering, the TERC contracting mechanism, and the use of innovative, multipurpose solutions can streamline the cleanup process and provide quality solutions at a complex site.



OMAHA DISTRICT

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