

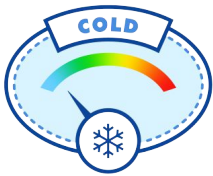
ADVANCED FOUNDATION MONITORING FOR ASRC NS BUILDING

CASE STUDY



ASRC

Alaska, USA



The community of Deadhorse, a crucial hub for oil field services, is undergoing continuous expansion and improvement. ASRC constructed a new facility close to the Deadhorse airport, providing light and heavy-duty shops, offices, and wash bays.

Application

Given the permafrost conditions in northern Alaska, monitoring the foundation's integrity is essential. Temperature monitoring from the construction phase onwards ensures the stability and safety of the ground beneath the ASRC NS facility.



Eight DTCs connected to mounted D405 satellite data loggers for seamless monitoring.

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beadedstream Solution

To address the critical need for temperature monitoring, **beadedstream** provided 8 Digital Temperature Cables (DTCs) specifically fabricated for this project. These cables, encased in PEX for durability, were strategically installed across the site footprint. Six vertical DTCs were positioned at depths of 0 ft (0 m), -1.8 ft (-0.55 m), and -3.3 ft (-1 m) to monitor various layers of the ground. Additionally, two horizontal DTCs were installed over the vertical cables to provide further vertical monitoring points, with sensors reaching up to -202 ft (-61.6 m).

In June 2015, **beadedstream** visited the site to finalize the installation. The eight DTCs were terminated and connected to mounted D405 satellite data loggers. The system was configured for automatic satellite telemetry, ensuring continuous and real-time temperature data transmission. A follow-up visit is planned to integrate the monitoring setup into the finished building's panel system. In May 2016, the loggers were removed and replaced with a panel box integrated into the newly constructed building, completing the monitoring setup.



Cables encased in PEX were strategically installed to monitor ground layers, with vertical and horizontal DTCs reaching depths up to -202 ft (-61.6 m).

beadedstream Solution Benefits

The comprehensive temperature monitoring system provided by **beadedstream** ensures the stability and safety of the ASRC NS facility's foundation. The real-time data transmission allows for immediate response to any temperature fluctuations, safeguarding the structural integrity of the building and protecting the investments made in this critical infrastructure.