

Case study

# Storage Tanks



## SAFETY

The Ca-Zoom HD removed the necessity for confined space entry and rope access in a hazardous atmosphere with breathing apparatus



## DATA QUALITY

High-definition imaging enables inspectors to detect defects and deliver precise information. Data collection with the Ca-Zoom significantly enhances traditional RVI methods



## SAVINGS

Reduced administrative efforts for entry permits, scaffoldings cost (300k\$), and the utilization of a specialized rope access and rescue team, ultimately minimizing downtime and process costs

### Client Expectations

The customer aimed to find a safer, more cost-effective and faster method for inspecting their 12 meters Ethylene Oxide storage sphere using an industrial inspection camera. Previously, inspections involved human entry using rope access or scaffolding. Nitrogen blanket forced people to use respiratory air, slowing down the inspection.

To address these challenges, the customer engaged the Waygate Team for a Proof of Concept on one sphere, aiming to establish a new, safer inspection standard that eliminated confined space entry while enhancing data accuracy and overall efficiency.

## Our Solution

The Ca-Zoom HD system integrated advanced technologies to enable safe, efficient inspections of confined assets. Its full HD camera, featuring 30x optical zoom, was mounted on extendable fiber poles and deployed through the manway using an adjustable tripod. Combined with the camera's Pan-Tilt functionality, this setup allowed inspectors to assess all critical areas within the sphere.

Given the asset's large size, additional lights were mounted on the camera to ensure bright pictures could be taken even from far distances.

## The Outcome

The primary goal of sphere inspection was to assess overall asset integrity and identify potential defects that could pose immediate risks. Additionally, the customer wanted to determine whether data from the Ca-Zoom would be sufficient for routine preventative maintenance without rope access and costly scaffolding.

Waygate successfully delivered these results. The combination of extended fiber poles and an adjustable tripod allowed for a comprehensive inspection using a single configuration. The entire process, including system setup, was completed in under 4 hours, with all necessary perspectives and areas easily assessed.

The client confirmed that Waygate's systems provide a viable alternative to traditional confined space entry. By utilizing the Ca-Zoom, inspectors remained safely outside hazardous areas, reducing risk while also saving time and costs. This solution not only improves efficiency but also enhances workplace safety, reinforcing the value of remote inspection technology.

