INTRODUCTION

Borehole Camera Inspections offer a quick, effective and comparatively inexpensive way to inspect, investigate and verify downhole conditions at depths not easily reachable by other means. Ideal for:

- Well inspections
- Pendulum anchorage inspections
- Inclinometer casing inspections
- Verification of instrument construction and functionality
- Investigation of casing and screen integrity
- Verification of water levels and instrumentation for monitoring wells
- Investigation of downhole geology and rock characteristics

SOLUTIONS

Canary Systems® rugged Borehole cameras are capable of inspections up to a depth of 650’ with lighted video, a microphone, and an automatic depth encoder integrated in the display. The camera diameter is only ¾", allowing use in boreholes as small as 1”.

Camera footage can be integrated with instrumentation readings, maps and other data in MultiLogger® Suite, and stored and displayed as MP4 video file via web browser directly from MLWeb®.
BOREHOLE CAMERA INSPECTIONS

Case Study – Data Verification (Tailings Dam)

A mine site was experiencing movement on a tailings impoundment and concerns were raised about the structure’s actual hydrostatic pressure. A Borehole Camera was deployed to verify that the automated system that was monitoring standpipes was reporting valid pressures.

- Verified sounding levels of monitoring wells and piezometer pressure readings
- Identified piezometers that needed replacement
- Identified mudded in instruments
- Investigated damage in inclinometer casing

Case Study – Pendulum Anchorage (Concrete Dam)

An inverted pendulum deployed at a concrete dam was showing limited displacement monitoring range. It was suspected that the lower wire anchor was not centered properly in the metal casing.

Visual inspection with the camera was able to confirm that the wire anchorage was against the casing wall at the bottom of the casing. It was possible to tie off the old wire to the side wall and a new anchor and wire were installed, resulting in salvaging the instrument.

Borehole Camera Specifications

- **Depth**
  - Up to 650’
  - Cable marked sequentially (in Feet)

- **Diameter**
  - 3/4” (suitable for 1” borehole)

- **Pressure**
  - Rated for use up to 1000 psi

- **Illumination**
  - Built-in

- **Audio**
  - Built-in microphone

- **Depth Encoder**
  - Automatic (on video display)

- **Video**
  - Digital video
  - Recorded with SD storage card

- **Power**
  - 110 VAC or 12V power source using inverter

Verification of piezometer data & reporting with visual camera inspection that can be viewed directly in MLWeb.