



Engineering Ecological Marine



October 25, 2002

ASI Group Completes Inspection of Middle Fork Hydro Electric Tunnel in California Using a Robotic Underwater Vehicle

ASI Group Ltd. (ASI), based in St. Catharines, Ontario, Canada has successfully completed an inspection of the 16 km (10 mi.) headrace tunnel for Pacific Gas and Electric Company (PG&E), from the Hell Hole Reservoir to the Middle Fork Powerhouse located on the Middle Fork American River, in Placer County, California. Using an underwater remotely operated vehicle (ROV), the ASI Mantaro, ASI surveyed 7 km (4.2 mi.) of the tunnel in "flooded conditions" at a depth of 160 m (525 ft.).

PG&E, of San Francisco, CA, operates the Middle Fork Tunnel and Powerhouse, located in the Eldorado National Forest near Lake Tahoe. The hydroelectric facility draws water from the Hell Hole Reservoir through the Middle Fork Tunnel which empties into a penstock at the powerhouse. The inspection was determined necessary to identify the source of sedimentation deposits occurring in the turbines. Water supply is critical in this remote region for power, fire protection and consumption. Inspecting the tunnel in watered conditions eliminated potential structural risk and unnecessary waste of valued water resources.

The remote inspection protocol included the ASI Mantaro, a long tunnel inspection ROV, tethered by a sophisticated umbilical that transmits sonar and video data real-time to the surface via fibre optic telemetry. ASI has completed continuous surveys of 10 km from a single access point using this robotic system, including inspections of a 120 km water supply tunnel in Finland, 9.8 km tailrace tunnel in New Zealand and an 8 km headrace tunnel in Chile.

Access to the tunnel required placement of 3 horizontal sheaves, by the ROV prior to the inspection. The sheaves were placed at tight bends in the tunnel and kept the umbilical clear of the tunnel walls; reducing drag and wear on the umbilical. The ASI Mantaro was custom fitted with a buoyancy system to allow handling and placement of the sheaves in the tunnel. The



with a buoyancy system to allow handling and placement of the sheaves in the tunnel. The buoyancy system was removed during the actual inspection to reduce overall vehicle dimensions for enhanced flexibility. Upon completion of the inspection, the ASI Mantaro was re-fitted with the buoyancy system and the 3 sheaves were removed from the tunnel. The recovery and placement of the sheaves was accomplished without diver intervention.

ASI Group was founded in 1987 as Aquatic Sciences Inc. by technical professionals committed to providing engineering, marine and ecological services to industry and utilities worldwide. The Company is widely recognized for innovative solutions and effective management of water and wastewater. ASI draws on human resources with demonstrated experience in engineering, technology development, advanced marine operations, and ecological planning.

ASI employs a full time staff of seventy engineers, technologists and commercial divers and is headquartered in St. Catharines, Ontario, Canada. A branch office is located in Sarnia, Ontario to provide 24/7 support to the petrochemical industry.

ASI Group Adds Rope Access Services

For further information: Media contacts: Barbara Laurens, Tel: 905-641-0941 ext. 246, Fax: 905-641-6825, Barbara.Laurens@asi-group.com; Carmine Sferrazza, President, ASI Group announced today that the St. Catharines based Engineering, Design, Ecological, & Services company recently completed the acquisition of CAN Access Company. "CAN Access has been a leader in the introduction of high angle/rope access technology to Ontario," stated Mr. Sferrazza, "and its addition to ASI Group expands our capability to cost effectively service Ontario industry's needs for non-destructive testing (NDT), inspection, cleaning and remediation of stacks, towers, buildings, bridges, piers, dams, penstocks and rock scaling".

The new ASI rope access team will be led by Mr. David Mitchinson, the former principal at CAN Access and an IRATA Level III certified climber. IRATA (Industrial Rope Access Trade Association) is the international authority, third party auditor and registrar for this industry. All rope access work undertaken by ASI will utilize certified IRATA climbers only and will comply with strict IRATA requirements and guidelines.

Industrial rope access applies climbing technology to the industrial workplace. Rope access provides a safe, cost effective and time sensitive alternative for accessing large vertical or high angle surfaces and structures. Meeting all industrial safety codes, man-risk hours, overall time on site and cost are minimized because only a small number of skilled trades personnel are required for a relatively short period of time. Rope access eliminates costly and time-consuming assembly and dismantling of temporary work platforms that can cause disruption of production, personnel and traffic flow. The rope access system is removed with personnel at the end of

each shift, further reducing the disruption or safety concerns caused by other access methods.

Concluded Mr. Sferrazza, "The addition of rope access to ASI expands the broad set of industrial operations and services provided by our company with the same commitment to quality and service we have demonstrated in the past. Rope access is another cost effective solution available for our client's benefit".

Founded in 1987 as Aquatic Sciences Inc. by a team of technical professionals committed to a better environment, ASI Group's addition of rope access to its list of services fits well with its current mandate to provide industry and government with cost effective, technology based solutions in the areas of water and wastewater engineering, environmental assessment and testing, commercial diving and marine services and industrial services and operations.

Today in St Catharines an internationally acclaimed engineering, environmental, marine and water services company announced it was changing its name from Aquatic Sciences Inc. to ASI Group Ltd. as part of a major corporate restructuring.

"When we founded Aquatic Sciences in 1987" explained Mr. Carmen Sferrazza, President and founder, ASI Group, "it was with the expectation that we would provide leading edge scientific and technical environmental services for industrial and government clients requiring better management and control of their interface with water in their local environment". Mr. Sferrazza continued, "Our leading edge activities in the Great Lakes basin for industrial Zebra Mussel monitoring and control and the pioneering use of remotely operated vehicles (ROV) for flooded tunnel inspections in places like Finland, Peru and New Zealand are only two of our success areas over the years. With the addition of water and wastewater engineering services and water facility operations, we have grown significantly from our early days."

The new ASI Group Ltd. consists of 3 operating divisions, all with roots in the technical service areas pioneered by Aquatic Sciences Inc. With overall management for ASI Group provided by Mr. Sferrazza, the evolution to ASI Group builds on the high quality, full set of services provided until now under the name Aquatic Sciences Inc.

Mr. Andrew Vitaterna P.Eng heads the new Engineering Services Group that offers water and wastewater design engineering consulting services along with design-build, project management and facility operations.

Mr. John Sferrazza C.E.T. heads the Ecological Services Group that includes the Biofouling monitoring and control unit (mussels, algae, etc.), the Environmental Toxicity Laboratory as well

as the Ecological Assessment unit.

Mr. Blake Goulet has responsibility for the new Marine Services Group that offers commercial diving services in support of marine civil engineering inspections, construction, repair and maintenance, in addition, to its Lloyd's of London registered marine vessel services. The Marine Services Group also includes ROV tunnel inspections, Rope Access Services for high angle or vertical inspections or repairs, and Marine Geological/Hydrographic surveys using advanced, remote sensing technologies.

For further information, please contact Ms. Barbara Laurens at ASI Group Ltd. at (905) 641-0941 Ext. 246.

Email: blaurens@asi-group.com