

FOR IMMEDIATE RELEASE

Knudsen Engineering & Chesapeake Technologies Demonstrate “PINGER” Sub-Bottom Profiling System

Middlebury VT. July 9, 2011. Knudsen Engineering put their new 15 kHz “Pinger” sub-bottom profiling system through its paces on Lake Champlain Vermont with the support of Middlebury College on their research vessel R/V Baldwin. Data processing was performed with Chesapeake Technologies SonarWiz 5 software.

The Pinger features chirp transmission and a large aperture receiver using the latest PVDF technology that provides higher directivity while remaining lightweight. Another advantage of the Pinger SBP receive array is its wide bandwidth. The same receive array can be used simultaneously for multiple frequencies. Designed to be very portable and lightweight the Pinger is well suited for small boats and shallow water applications that have been problematic with traditional SBP’s on the market. During the demonstration the Pinger was operated in water as shallow as 1.5 meters. Shallow water has always been a problem for conventional SBP’s because of transmission pulse ringing.

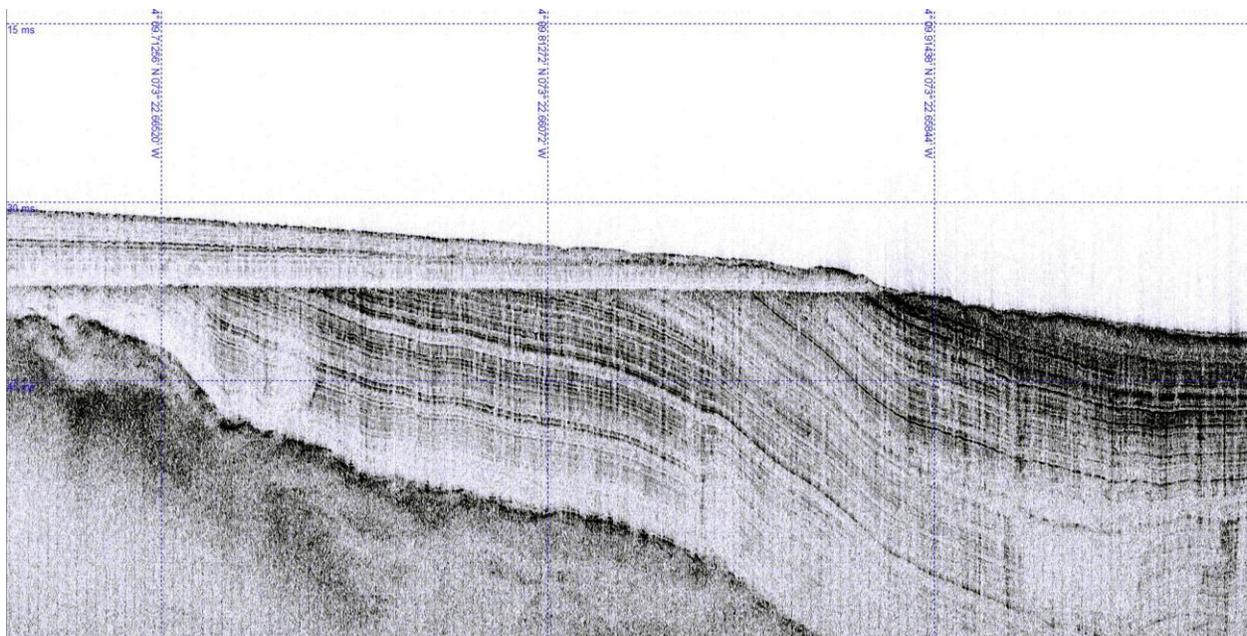
SonarWiz 5 SBP software was used to process and display the data collected with the Pinger SBP. Chesapeake is the leading producer of software for the real-time acquisition and post processing of sidescan sonar and sub-bottom profiler data. SonarWiz 5 has become the standard for Navies, government agencies, survey companies and universities around the world. The software is designed to be very user friendly and fast at processing the data.

The results from the Pinger were exceptionally good with very high resolution mapping of the layers, and bedrock as well as depth of penetration. Two very experienced observers onboard during the demonstration, Tom Manley and Garry Kozak both agreed the data was very good and produced results that rivaled conventional large heavy SBP systems. The lightweight system will open up new possibilities in shallow water for surveyors.

For more information on Pinger contact Judith Knudsen at Knudsen Engineering at 613 267-1165 or e-mail judith@knudsenengineering.com or visit www.knudsenengineering.com

For more information on SonarWiz 5 software contact Eileen Gann at Chesapeake Technologies at 650-967-2045 or e-mail etgann@chesapeaketech.com or visit www.chesapeaketech.com

Figure caption: During a low stand in Lake Champlain some 9000 years ago, sediments that were previously deposited during the last glacial retreat during the Lake Vermont stage (14000 – 13000 yBP; dark area in the lower left-hand corner) as well as those deposited during a time when this region was an extension of the Atlantic Ocean and known as the Champlain Sea (13000 – 9600 yBP; well-defined dipping laminated sediments) were truncated to form a well-defined sub-marine terrace (est. 8700 yBP). As the connection to the Atlantic Ocean was terminated due to isostatic rebound, the lake soon returned to freshwater conditions and higher lake levels during the Lake Champlain phase (9600 yBP - present). As lake levels rose, recent Lake Champlain sediments were deposited as the uppermost sequence of layered sediments.



About Knudsen Engineering Limited (KEL):

KNUDSEN, a familiar face to the oceanographic and survey research community, has a world reputation for innovative high performance echosounders used in numerous diverse applications including survey, navigation, dredging, sub-bottom profiling, ocean research and headless AUV sensors. KEL's introduction of two revolutionary product approaches to survey in the mid 90's - the first 'all-digital' echosounder, and the world's first "blackbox" echosounder - quickly established KNUDSEN as a technology leader in underwater acoustics. Product pioneering continues today with its progressive low-cost product solutions for demanding sub-bottom survey requirements. KEL, an ISO certified manufacturer, is located in Perth, Ontario, Canada.

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