ST-50-R Basic *SONARtrac*® Installation and Commissioning Refresher Training Course Outline

SYNOPSIS:

This course is a follow-on to those who have gone through the "train the trainer program" of ST-100. This course largely consists of 'hands-on" training at the customer's site, with both installed equipment and CiDRA supplied equipment. A certified trainer from Wallingford, CT, with field experience, will be provided. Class size is limited to 2 people per session.

This one day course is designed to refresh and review the technical background and hands-on experience necessary to install, set-up, and configure the *SONARtrac* flow monitoring system in an intensive, one-day course.

OBJECTIVES:

Students will review the comprehensive, full range of skill sets they learned in ST-100 to perform installation, set-up, troubleshooting, as well as data retrieval from *SONARtrac* systems.

TOPICS INCLUDE:

- Principles of Operation
- Sensor Head Installation Training
- Transmitter Training
- Sensor Head Removal & Storage Procedure
- Sensor Head Rework Procedures
- Stainless Steel Sensor Head Cover Installation
- Troubleshooting
- SONARstick (USB Memory Stick) Training
- Secure Website Introduction

PREREQUISITES:

All attendees must **read** the *SONARtrac* Installation Manual prior to the start of training. Manuals can be accessed through CiDRA's website at

http://www.cidra.com/document library/20822-01TAB SONARtrac Manual Firmware 04-01-16 and Above.pdf

CiDRA will provide a hard copy of the SONARtrac Installation Manual at time of course **LENGTH**:

1 day

FOR MORE INFORMATION (Costs and Scheduling), please contact Aja Garner, Client Services, +1.203.626.3492





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CiDRA Oilsands Ltd. *SONARtrac*[®] Training Agenda Course: ST-50-R (One Day) Basic *SONARtrac* Installation Training Refresher Course

Day 1:	
	Review Course Objectives, CiDRA Overview
	SONARtrac Sensor Head Installation Training
	Module Goal: Students will review how to install the <i>SONARtrac</i> sensor assembly. They will learn how to select the best installation how to install sensor assembly using <i>SONARtrac</i> hardware on a training spool piece of pipe
Morning	SONARtrac Transmitter Training
	Module Goal: Students will learn how to install and start up the SONARtrac transmitter assembly.
	Students will learn how to select the best installation site for the transmitter. They will also learn how to install the sensor head to transmitter cable assembly, power cable and output cables. Students will learn how to access and navigate the transmitter menus in order to configure the system as well as to perform system diagnostics and troubleshooting using the onboard transmitter capabilities.
	SONARtrac Sensor Head Removal and Storage Procedures
	Module Goal: Students will learn how to and be able to safely remove equipment from pipes and properly store it for later re-installation. This is extremely important for those applications that require removal for pipe rotation.
	SONARtrac Sensor Head Rework Procedures
	Module Goal: Students will learn how to properly rework and replace SONARtrac sensor head components.
	Students will replace the cover seals on the fiberglass enclosure and will learn how to replace the stainless steel cover flange gaskets. They will learn how to replace the pre-amplifier module unit found in the cover assembly.
	SONARtrac Stainless Steel Sensor Head Cover Installation Training
	Module Goal: Students will learn how to install stainless steel sensor head covers.
	Students will learn the differences between installation of fiberglass and stainless sensor head covers. They will perform an installation on a process pipe spool piece.
Afternoon	SONARtrac HD-Series Sensor Installation Training
	Module Goal: Students will learn how to and be able to install the HD series of sensors.
	SONARtrac Troubleshooting Procedures
	Module Goal: Students will learn how to and be able to perform basic troubleshooting and identify problems with the <i>SONARtrac</i> family of products.
	SONARtrac SONARstick (USB Memory Stick) Training
	Module Goal: Students will gain the knowledge to enable the use of the USB port and memory stick. Students will learn how to download data from the transmitter, install system configuration files, and how to re-program the transmitter using a memory stick.
	CiDRA Secure Website
	Module Goal: Students will learn how to and be able to upload and download data from the CiDRA Secure Website. They will also learn where to find the latest System Manuals, Technical Bulletins, Rework Procedures, etc.
	Students will be given access codes and passwords for use on the Secure Website.





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