

24 April 2003

Service trip to Oak Island OK gage down

4-23-03

Returned from Brunswick trip and loaded instrument, compass cal fixture and test equipment for trip to Oak Island.

4-24-03

Left for OK at 02:00 arrived at Oak Island Coast Guard Station at 07:30.

Andy and I prep'd gage and loaded on dive boat.

Left dock at 09:00, Dan on boat Andy to OK shore station

Water temp 64 degrees F.

Depth at gage 22 feet, visibility 2 feet

09:29 anchored on OK site

Diver used transponder finder to find pod (30Khz)

10:00 ADCP on board

Disconnected cable and did resistance and TDR checks

Found wire #3 bad, gives a resistance reading of 3.5Kohms and rises.

Other readings 1-2=78.3 ohms, 1-4=76.4, 1-5=77.9, 1-6=79, 1-7=78.6, 2-3=1.6K-rising

From sea end jumpered on shore 3-7=79 ohms to 2K ohms varies

TDR from sea end I could see the open and short on a good pair when it was jumpered on shore, but couldn't see any indication on wire 3 except the open at the shore end.

Cable inspection revealed a green spot about two inches from the ADCP connector. The red wire was exposed. I tried to open up the cable and splice it but the break is up in the molded part of the connector. I did a resistance check and stabbed the probe in the red wire about 1.5 inches back from the connector and the wire reads good 80 ohms. So this is the only problem with the wire and we can do a splice without having to pull up the armor cable.

We tested communication to the replacement 600 KHz gage and deployed it at 11:40

Diver found the cable ties for the Sediment trap, but the trap is lost at sea.

Installed new sediment trap. Holes on trap coated with clear antifoulant paint.

12:01 Diver up

About 12:40 we were back at the dock. Unloaded the gear and gage.

Andy got the data from the recovered gage copied to his laptop and I have the flashcards for backup.

Disassembled gage and battery pack from mount and put them in travel containers

Gave water sample bottles (2) at JN on 4-23-03 at 08:02 to Eason to take to Charlestown for Trap to pick them up there.

Returning gage is to be tested for communication problems, but I suspect it was just dead batteries and no power from shore because of the bad wire #3 which is the PWR+ lead.

Finished at Coast Guard Station at 13:30. Talked to the Station Senior Chief (Canatle sp), thanked him for allowing us to use the facility. He indicated that they will have a lot more staff and construction workers in the upcoming months, but would still try to accommodate us as best they can. Specifically he said Mon, Wed and Fri are his biggest personnel days. I told him we would call ahead of time and if there is a vehicle congestion problem we will stage the dive boat elsewhere (Sea Captain) and then just bring the boat in to transfer instruments. Everyone on the station has been very helpful to us.

Went to see Mrs. Canning to let her know we would be back in June and that we had found the problem so our visits should return to the normal 3 month frequency. She was very nice and thanked me for the update.

20-20 hind sight. We could have put new batteries in the 1200 gage and tried the communication. If good we could have redeployed it. I didn't think of it yesterday. It just came to me as I wrote this report.

4-25-03

Wrote report and traveled back to FRF.