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Service Report

SBE Job Number: 39917

Date: 26, August 2005

Customer: US Department of Commerce, NOAA

Customer Identified Problem:

1. Calibrate SBE 3 temperature sensors, S/N 031075, 031609, 031652, 031692, 031701, 03P2946 and 03P2958.
2. Calibrate SBE 4 conductivity sensors, S/N 041335, 041346, 041347, 401374, 041387, 042973 and 042980.
3. Calibrate SBE 43 DO sensors, S/N 430140, 130154, 430703 and 430730.

Problems Found:

1. SBE 4 conductivity sensor, S/N 041335.
The conductivity cell was found to be broken.
Post calibration was not possible.
2. SBE 4 conductivity sensor, S/N 041347.
The conductivity cell was found to be cracked.
3. SBE 43 DO sensor, S/N 430140.
The membrane was found to be loose.
4. SBE 43 DO sensor, S/N 130154.
The membrane was found to be loose.
The SPAR assembly was found to have failed.
5. SBE 43 DO sensor, S/N 430703.
The membrane was found to be punctured.
Post calibration was not possible.
6. SBE 43 DO sensor, S/N 430730.
The membrane was found to be punctured.
The SPAR assembly was found to have failed.
Post calibration was not possible.

Services Performed:

1. Calibrations performed on SBE 3 temperature sensors, S/N 031075, 031609, 031652, 031692, 031701, 03P2946 and 03P2958.
Post calibrated the sensors.
2. Calibrations and services performed on SBE 4 conductivity sensor, S/N 041335.
Replaced the conductivity cell.
Replaced the main piston "O"-Rings.
Performed hydrostatic pressure test.
Re-calibrated the sensor.
Performed full diagnostic evaluation.
3. Calibrations performed on SBE 4 conductivity sensors, S/N 041335 and 1346.
Post calibrated the sensors.
4. Calibrations and services performed on SBE 4 conductivity sensor, S/N 041347.
Post calibrated the sensor.
Replaced the conductivity cell.
Replaced the main piston "O"-Rings.
Performed hydrostatic pressure test.
Performed full diagnostic evaluation.
5. Calibrations performed on SBE 4 conductivity sensors, S/N 041374 and 041387.
Post calibrated the sensor.
6. Calibrations and services performed on SBE 4 conductivity sensors, S/N 042973 and 042980.
Post calibrated the sensors.
Cleaned and replatinized the conductivity cells.
Re-calibrated the sensors.
Performed full diagnostic evaluation.
7. Calibrations and services performed on SBE 43 DO sensor, S/N 430140. *
Post calibrated the sensor.
Replaced the lid and membrane assembly.
Re-backfilled the sensor's electrolyte reservoir.
Backfilled the pressure compensation bag with saline solution.
Re-calibrated the sensor.
Performed full diagnostic evaluation.
8. Calibrations and services performed on SBE 43 DO sensor, S/N 130154. *
Post calibrated the sensor.
Replaced the sensor's SPAR assembly.
Re-backfilled the sensor's electrolyte reservoir.
Backfilled the pressure compensation bag with saline solution.
Re-calibrated the sensor.
Performed full diagnostic evaluation.

9. Calibrations and services performed on SBE 43 DO sensor, S/N 430703. *
Replaced the sensor's SPAR assembly.
Re-backfilled the sensor's electrolyte reservoir.
Backfilled the pressure compensation bag with saline solution.
Re-calibrated the sensor.
Performed full diagnostic evaluation.
10. Calibrations and services performed on SBE 43 DO sensor, S/N 430730. *
Replaced the sensor's SPAR assembly.
Re-backfilled the sensor's electrolyte reservoir.
Backfilled the pressure compensation bag with saline solution.
Re-calibrated the sensor.
Performed full diagnostic evaluation.

* Services were performed at no charge.