



## Technical Inspection of Scottish Water Sampling and Analytical Services

### Samples and Analysis at Edinburgh Laboratory

Date 13-15 September

DWQR Staff Present

Matt Bower, John Littlejohn

#### Summary of Inspection

##### Overall Summary

Water sample collection and analysis is being undertaken robustly in accordance with industry best practice and the Regulations. Most areas of operation were performed to a very high standard, with analysis methods themselves being especially good. Work is needed to improve the tracking of samples during transportation, as this aspect has deteriorated since previous audits and an unacceptable number of issues were identified in this respect. DWQR will closely monitor Scottish Water's efforts to correct this deficiency to ensure no further action is needed. Action following sample failures was appropriate and timely.

Number of Findings: 1

Score (out of 6)

##### Sampling Frequency Compliance

4 Good

Samples audited were being taken at the correct frequencies for those parameters. On a few occasions date taken was slightly different to date scheduled, but this had no significant impact on the spread of samples through the year.

##### Sampling

4 Good

Sampling methods and procedures were followed for all samples. Checks on equipment were undertaken and results recorded correctly.

##### Transportation

2 Weak

Records were available in most instances, but in some cases a full chain of custody was not available, and the whereabouts of a sample was unknown for a period of days - this is clearly unacceptable. Procedures appear to be in place, however they are not always being followed especially where couriers are concerned. Records of checks on samplers' and couriers' vans were being undertaken and flight numbers being recorded where air transport was used.

##### Reagents and Equipment

4 Good

Preparation and storage of reagents was generally fine, with the exception of a few instances of out of date reagents. Calibrations and maintenance records for instruments and equipment were very robust.

##### Analysis

5 Very good

Analysis techniques were appropriate and undertaken proficiently by analysts in all cases. Some examples of best practice were witnessed.

##### Method and Result Recording

5 Very good

Methods were well documented and controlled. Result recording was robust, with results being authorised on LIMS very efficiently.

##### Quality Control

4 Good

Quality control was generally appropriate to the method and undertaken correctly. Any issues were dealt with and recorded.

##### Staffing and Training

5 Very good

Staff appeared highly trained and well motivated. Training records were robust.

##### Action Following Exceedences

3 Adequate

Response to exceedences was prompt and appropriate. Care needs to be taken to ensure resamples are collected from the original (failing) property if at all practical, and where this is not the case the reason should be clearly noted.