



## Technical Inspection of Scottish Water Sampling and Analytical Services

### Inverness Laboratory

Date 4/5 October 2010

DWQR Staff Present

Matt Bower

Scottish Water Staff Present (& Titles)

Susan Deuchars, Brenda Duncan, John Moses

#### Summary of Inspection

##### Overall Summary

All aspects of analytical services at Inverness Laboratory were very satisfactory. Collection and transportation of samples gave no cause for concern, with appropriate checks and paperwork being in order. Analysis methods were performed to a high standard, and equipment used in analysis was maintained and calibrated. Analysts were operating effectively and had an detailed understanding of both the principles and practical aspects of the method they were using. When samples failed the regulatory standard, prompt and appropriate action was taken.

Number of Findings: 5

Score (out of 6)

##### Sampling Frequency Compliance

5

Very good

Full compliance with regulatory sample frequencies was found in all assets associated with audited samples

##### Sampling

5

Very good

Sampling was undertaken in full compliance with DWTS and best practice. Record keeping was very good and no deficiencies were noted.

##### Transportation

4

Good

All samples taken by Scientific Services had a full chain of custody between sample point and laboratory. Checks on equipment and vehicles were undertaken in accordance with procedures. One operational sample was audited - this was out of hours in response to a treatment alarm and had no record of how it was transported to the laboratory.

##### Reagents and Equipment

5

Very good

Maintenance and preparation of equipment and reagents used in analysis was documented, checked and calibrated in accordance with best practice. Reagents were prepared appropriately and were within expiry dates.

##### Analysis

5

Very good

Analysis techniques were appropriate to the parameter and the regulations. Methods were performed by extremely proficient analysts in a way that minimised error and cross contamination.

##### Method and Result Recording

5

Very good

All methods were documented and controlled appropriately. Results were recorded correctly and transcribed with suitable checks in place.

##### Quality Control

5

Very good

Analytical quality control was being performed effectively on all methods audited. Control samples were prepared accurately and any issues raised by control charts were acted upon. External QC schemes were also being used to monitor method performance.

##### Staffing and Training

5

Very good

Expertise and professionalism of staff was impressive. Training records were up to date and staff had an excellent understanding of the principles behind the methods they were using.

##### Action Following Exceedences

5

Very good

In all cases audited, appropriate and timely action was taken following an exceedence of the regulatory standard, usually involving a resample from the same location.