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Proficiency Testing Schemes (PTS) Detailed Information (Testing Laboratories)

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1. Introduction

The Proficiency Testing Schemes (PTS), offered by the NLA – SA, are specifically applicable to the testing laboratory community.

The PTS' make use of samples which have been carefully prepared to produce predictable characteristics. These samples are distributed to all the registered participants on a pre-determined date, and they all measure their samples simultaneously. The results from all the participants are sent to the NLA – SA who then analyse the overall results and issue a combined report.

Participating laboratories pay a fee to the NLA – SA for participation in selected rounds. This includes the provision of the sample, the processing of the measurement results, calculation of the “Z-score” value, and the issuing of a report.

2. Background

Participation in organised proficiency testing schemes is one of the easiest ways that testing laboratories can objectively demonstrate their competence to perform measurements.

Since this is a requirement of both ISO/IEC 17025 and SANAS R-80, testing laboratories are obliged to participate in PT activities.

The NLA – SA through its offering of PTS, aims to provide a cost effective means for laboratories to address both the ISO 17025 as well as SANAS requirements. The fee charged will cover the planning, organisation, post result analysis as well as the issuing of a formal report, containing the participants' “z-scores” (between lab and within lab). **This is only applicable for the water microbiology scheme, the other schemes give only between lab z-scores.**

For Analytical Laboratories, a preliminary report, containing the raw data, will typically be issued within one week and then a final report within four weeks of the due date of each round.

3. Benefits of participating in NLA – SA run PTS

- The NLA – SA offers several PTSs, thereby covering a wide range of technical measurement capabilities with more being continuously developed.
- The PTS samples are typical of those tested by laboratories on a daily basis, thereby replicating the daily testing work performed by the laboratory on samples received from customers.
- The interim and final reports issued to NLA – SA PTS participants contain all the information required to fulfil the requirements of ISO/IEC 17025 as well as SANAS R-80.
- Participation in the NLA – SA run PTS eliminates the need for laboratories to plan, organise and execute PTS, as well as analyse and report the results since all these activities are taken care of by the NLA - SA.

4. How are the NLA – SA PT Schemes run?

- 4.1 These schemes are of a “closed” nature meaning they have a defined start and completion date.
- 4.2 The schemes have multiple rounds which require participation annually.
- 4.3 Laboratories register to participate, pay the required fee, and are then sent samples to measure within a defined timescale.
- 4.4 They then submit their measurement results and obtain an interim report, containing their raw data, within one week of the due date of the scheme.
- 4.5 A final report, containing the data from all the participants, is issued within four weeks of the due date of the scheme.

5. What Schemes are on offer and what costs are involved?

- 5.1 Refer to the document “**NLA-PT-I-06-PT Schemes Offering Summary (Closed, Testing)**”.

6. How do I participate?

- 6.1 Refer to the document “**NLA-PT-I-04-XX Proficiency Scheme Process Flow Chart**”.

7. How and when will I receive my results?

- 7.1 Preliminary reports are E-mailed to participants within one week of the due date of the scheme. These reports contain the results submitted by the participants. The participants can use this information to determine whether their results are in line with the majority of the other participants. The report will highlight potential problems and allow the laboratories the opportunity to take corrective action if needed before the final report is distributed.
- 7.2 A final report, containing the data from all the participants, is issued within four weeks of the due date of the scheme. These reports contain the “Z-scores” where a “Z-score” $\leq |2|$ indicates satisfactory performance, a “Z-score” between $|2|$ and $|3|$ indicates the results are questionable and a “Z-score” $> |3|$ indicates that corrective action is required.