TESTQUAL
PROFICIENCY TESTING SCHEMES

INDIVIDUAL REPORT
Proficiency test: TestQualXXX

Laboratory code:	TQYY-0xxx-033	Date:	YYYY-MM-DD
Laboratory:	Lab33	Matrix:	MatrizX

	17043 Accredited?	Results	LOQ	z- Score	Z'-score	Assigned value type	Assigned value	Uncertainty of assigned value	Relative target standard deviation	Target standard deviation	Robust uncertainty
analyte1	yes	140	10	-0,4		Consens.	157,67	2,39	25	2,39	14,13
analyte2	yes	124	10	0,8		Consens.	104,29	5,91	25	5,91	32,92
analyte3	yes	190	10		2,4	Consens.	116,68	8,92	25	8,92	44,62
analyte4	yes	250	10	0		Consens.	247,67	6,23	25	6,23	35,79
analyte5	yes	59	10	-0,1		Consens.	60,13	1,07	25	1,07	6,06
analyte6	yes	43	10	-0,5		Consens.	49,4	0,92	25	0,92	5,38

TestQual S.L. ® is an accredited proficiency test provider by Spanish accreditation body, ENAC, in ISO/IEC 17043 into force.
Check our accreditation scope:
Link

If you detect any error or have any query, please, contact us through the contact data provided.
For a better interpretation of the performance and the evaluation of the proficiency test , please refer to the final/global report.

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Report validation reference:

4241226413433310004242315M7544223254 24M7544223YYYYMMDD8017327L3421133132133267266726

TESTQUAL
PROFICIENCY TESTING SCHEMES

TestQual, S.L.

(Proficiency Testing Schemes)

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ENAC
ISO 17043
Nº9 / PPI014

FINAL REPORT TestQual xxx

Multi-analysis in Matrix:

- ***Analyte1***
- ***Analyte2***
- ***Analyte3***
- ***Analyte4***
- ***Analyte5***
- ***Analyte6***

LABORATORY:	Name of laboratory
LABORATORY CODE:	TQyy-XXX-000
ISSUE DATE OF THE REPORT:	YYYY/MM/DD

José Pedro Navarro Vicente
Technical manager of TestQual, S.L.

DISCLAIMER

This document is an example of a final report from a proficiency test organized and coordinated by TestQual. The objective of this document is showing the look and feel of our reports and what information is included and how it is represented.

All the results, Laboratory codes and information are neither from a real proficiency test nor Laboratory. The statistic in section 4 of this report might have not been applied in the shown results.

0. GLOSARY AND ABREVIATIONS

Text	Abbreviation
TestQual	TQ
Proficiency test	PT / P.T.
Limit Of Quantification	LOQ
NA	Not Analysed
Decimal separator	,
tRSD	Target Relative Standard Deviation

SUMMARY

The samples from this proficiency test were sent on November of 2023 to ***35*** participant laboratories and 34 ***of them*** sent their results.

Summary TestQual xxx- Matrix results:

ANALYTE	ACCREDITED?	NUMBER OF DATA*	ASSINGED VALUE (µg/Kg)	UNCERTAINTY (µg/Kg)	%tRSD	TARGET STANDARD DEVIATION (µg/Kg)	ROBUST STANDARD DEVIATION (µg/Kg)
analyte1	Sí	35	157,67	2,39	25	39,42	14,13
analyte2	Sí	31	104,29	5,91	25	26,07	32,92
analyte3	Sí	25	116,68	8,92	25	29,17	44,62
Analyte4	Sí	33	247,67	6,23	25	61,92	35,79
Analyte5	Sí	32	60,13	1,07	25	15,03	6,06
Analyte6	Sí	34	49,40	0,92	25	12,35	5,38

**Results considered extreme outliers have not been considered*

ANALITE	Z / Z' SCORE	NUMBER OF SCORES*	% SATISFACTORY	% QUESTIONABLE	% UNSATISFACTORY
analyte1	z	35	100	0	0
analyte2	z	34	91	6	3
analyte3	Z'	35	66	29	6
Analyte4	z	34	97	3	0
Analyte5	z	35	91	3	6
Analyte6	z	35	97	0	3

**Every result has been assigned with a z-score, including the results considered as extreme outliers.*

There are PT items available from this PT as Quality Control Material and can be acquired from TestQual's website.

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1. OBJECTIVE AND CALENDAR

The aim of the **TestQual xxx Matrix** Proficiency Test is to gather information about the quality and accuracy of the results sent by the participating laboratories.

Assigned group code	Grouped analytes
A	**Analyte1, analyte2**
B	**Analyte3**
C	**Analyte4, Analyte5, Analyte6**

This proficiency test is based on the analysis of **Multi-analysis** in **Matrix**. After the evaluation of the applications (depending on the LOQ of the laboratory and the checking the participant will receive the sample correctly), **35** laboratories were accepted, and the test material was sent in **Month of YYYY**. The assigned concentration value (µg/kg) for the analyte present in the sample was calculated by consensus among participating laboratories.

The laboratory results were considered satisfactory if the z-score parameter was $|score| \leq 2$, questionable if $2 \leq |score| \leq 3$ and unsatisfactory if $|score| > 3$.

The most important dates of the proficiency test have been:

Date	Activity	Carried out by
YYYY/MM/DD	Sample delivery	TestQual
YYYY/MM/DD	Final date to submit results	Participants
YYYY/MM/DD	Final report (Email and/or client area)	TestQual

*Participants are requested in the application to submit their LOQ/LOQs, for PTs with multiple possible analytes, if participants analyse above a certain percentage (as described in our internal procedure) of present/planned analytes the participation is accepted, a LABORATORY CODE is granted and sent by email to confirm the participation acceptance to the user of the TestQual's account.

Program coordinators: José Pedro Navarro Vicente

Each laboratory was assigned a unique code to participate in the proficiency test. These codes were only

known by the laboratory and TestQual, and they were confidential during and after the proficiency test.

If any participant wants to appeal against the evaluation of their performance, their allegations must be sent by mail to jpnavarro@testqual.com.

2. TEST MATERIAL. DISTRIBUTION AND CONTROL.

TestQual xxx scheme is a proficiency test based in the analysis of **Multianalysis** in **Matrix** that has been spiked with:

STANDARD
ANALYTE1
ANALYTE2
ANALYTE3
ANALYTE4
ANALYTE5
ANALYTE6

About **10** Kg of matrix was bought in an specialized shop in Spain.

The material was triturated, dropped into liquid N2, once it was fully frozen, it was grounded into a fine powder, puree or juice, which was spiked with a solution with the analytes of the proficiency test and poured into a homogenizer with controlled temperature to ensure complete homogeneity.

Once the lot of samples was ready the sample were stored in a temperature-controlled freezer below -20ºC until the dispatch of the samples.

Each sample had approximately **180 g.** Once the lot of samples was ready the samples were stored until distribution.

The distribution of samples was subcontracted to a courier previously homologated by TestQual.

The main criteria being the courier's delivery time to ensure the receival of the sample is correct in the participant's facilities.

In addition to this, TestQual stablished other characteristics important for a courier like shipping management (tracking, notifications, exceptions), and ensuring the delivery conditions are proper (low breakage/lost ratio, keeping of cold chain, required documentation), always checking and evaluating

they are complying with TestQual's requirements.

Before the samples were distributed, for the assessment of the homogeneity of the lot of samples that was prepared, ten samples from the lot were selected randomly and analysed in duplicate by TestQual´s collaborator laboratory under repeatability conditions.

Once ensured the homogeneity of the samples, these were sent to the participants by express courier, under the proper conditions of temperature and conservation.

For stability assessment purpose, three samples are analysed, in duplicate, before, during and at the end (once all laboratories had sent their results) of the proficiency test.

The quality controls subcontracted by TestQual, including verification of adequacy of the matrix, homogeneity/stability quality controls and any other analytical study required by TestQual will be subcontracted to an accredited laboratory in ISO/IEC 17025 into force.

Later in this report can be found the conclusions of these tests, all participants of this PT have available upon request the results and calculations done.

3. ANALYSIS

Each participant had to analyse the sample, detect and quantify the presence of **Multianalysis** in the test material according to their own procedures. Then, fill in with just one result per analyte the "Results" Form of its Private Area of the website *www.testqual.com*, expressing the results in **µg/Kg**.

The techniques and analysis method used were chosen by the laboratories, and they are shown later in this report.

4. STATISTICAL RESULTS EVALUATION

The number of significant figures and the units are shown as they were submitted by the laboratories.

Any participant in this proficiency test can request further information or support about the statistical design that TestQual has developed.

TestQual consider as an **extreme outlier** any data which differs more than **50 %** to the median of all results reported by the laboratories. These extreme values are not taken into account for the calculation of the

assigned value.

If there are enough results the **assigned value (X)** was determined by consensus using the robust average of the results considered valid for statistical computing (after removing extreme outliers), according to the standard ISO/IEC 13528 into force.

The **standard uncertainty (u_x)**(consensus) was calculated using robust statistics from the following formula:

$$u_x = s^*/\sqrt{p}$$

Being s* the robust standard deviation of the data and *p* the number of results not considered as extreme outliers.
If the number of participants or the number of valid results does not reach the minimum accepted by TestQual (eleven) the evaluation of the analyte will be issued not accredited.

The following condition must be fulfilled in order to discard the contribution of the uncertainty and neglect it:

$$u_x \leq 0{,}3\ \hat{\sigma}$$

In case this condition is not fulfilled, the participants of the scheme will be informed in the report that the uncertainty of an assigned value is not negligible. For the parameters/analytes in which this situation occurs, the evaluation will be issued as z'-score according to the following calculation:

$$z'\text{-score} = (x_i - X)/\sqrt{\hat{\sigma}^2 + U_x^2}$$

Where x_i is the value reported by the laboratories, X is the assigned value, $\hat{\sigma}$ is the target standard deviation for each analyte and Ux is the uncertainty of the assigned value.
If applies and the evaluation meets the requirements of our technical annex, z'-score will is issued accredited.

The criteria for defining the z'-score values are:

	|z'|	≤2	Satisfactory
2 <	|z'|	≤3	Questionable

|z'|	>3	Unsatisfactory

The z'-score is a underestimation of the z-score, for this reason, for those analytes in which the uncertainty of the assigned value cannot be neglected and a z'-score is issued, it will be accompanied by the percentual difference against z-score, this way participants should be able to complete evaluate their performance.
The evaluation could be informative if the difference between scores surpasses the limit contemplated in our procedure. If any analyte or evaluation is informative it will be indicated in the report through marking and a legend.

The **standard deviation for proficiency assessment**, also named **target standard deviation ($\hat{\sigma}$)**, comes from following formula:

$$\hat{\sigma} = b_i \cdot X$$

Being $b_i = \%_{RSDA}/100$, and $\%_{RSDA}$ is the assigned **relative standard deviation**.

In this case, the assigned relative standard deviation is **25 %**.
This value was previously set by the organizer and informed in the protocol of the proficiency test, based on the extensive experience of TestQual organizing this and similar proficiency tests.

Proficiency assessment (z-score): This parameter shows the competence and accuracy of the laboratory. It is calculated using the following formula:

$$z = (X_i - X)/\hat{\sigma}$$

Where X_i is the value reported by the each of the laboratories, X is the assigned value, and $\hat{\sigma}$ is the target standard deviation for each analyte.

The criterion for defining the z-score values is:

	$\|Z\|$	≤ 2	Satisfactory
$2 <$	$\|Z\|$	≤ 3	Questionable
	$\|Z\|$	> 3	Unsatisfactory

False negatives: Any analyte not reported in the results that were in the sample above the limit of quantification previously established to the proficiency test established by the organization **(10 µg/Kg)**. TestQual assigns to all false negatives a result equal to half the laboratory limit of quantitation (LOQ/2). If no LOQ is provided/available, the evaluated results will be 0 µg/Kg.

False positives: Those analytes reported in the results, which were not present in the test material, and are reported by the participant at concentrations higher than the limit of quantification of the proficiency test **(10 µg/Kg).**

Testing for sufficient homogeneity:

Ten samples were chosen at random and sent to be analyzed by TestQual's subcontracted laboratory in duplicate in repeatability conditions.
Once received the results, a statistical evaluation was performed, with the homogeneity evaluation of the Harmonic Protocol published by IUPAC and based in ISO 13528 into force.

The acceptance criterion to ensure that the randomly chosen samples are homogeneous is that the square of the estimated sampling standard deviation is below the critical value for accepting proper homogeneity:

$$S_{sam}^2 < c$$

Being S_{sam}^2 the estimated sampling standard deviation, obtained from the variance of the results sums and the experimental estimate of analytical standard deviation (S_{an}), which in turn is obtained from the differences between replicates of the same sample. Lastly, *c* is the limit value, which is obtained as ISO 13528 calculations and it takes into account two constants, obtained from two significance groups, which are multiplied with a term related to the target standard deviation and the S_{an}.
If $S_{sam}^2 < c$ is true, then the lot prepared will be considered sufficiently homogeneous and only then it would be distributed. With this test what we achieve is to check if the intra-sample deviation is lower than the inter-sample deviation.

If the results from the homogeneity test did not meet the criteria TestQual would communicate any change required in the proficiency test (new lot will be prepared, new calendar, etc.).

Testing for sufficient stability:

Three samples were analysed, in duplicate, before, during and at the end (once all laboratories have submitted their results) of the proficiency test. The acceptance criteria to ensure the samples have been stable during the proficiency test are the following:

$$\left|\frac{X_{t1}-X_{t2}}{X_{t1}}\right| \cdot 100 \leq 10\%$$

$$\left|\frac{X_{t1}-X_{t3}}{X_{t1}}\right| \cdot 100 \leq 10\%$$

Being $|(X_{t1} - X_{tn})/ X_{t1}|$ the difference between the average of the samples analysed before, during and at the end of the PT.

*The conclusions of these tests are shown later in this report.

Checking unimodality of the results:

The Kernel density representation can be used to evaluate if the results employed to calculate the assigned value are from different distributions or not, this representation is a non-parametric estimation that represents the population density function versus the data results not considered as outliers. The smoothing parameter or bin width *h* was selected as h=0.75 · $\hat{\sigma}$ as referred in ISO 13528 into force. Through the evaluation of the symmetry of this distribution it is possible to evaluate the unimodality of the data set. These representations and the conclusions drawn can be found in later in this report.

5. RESULTS

5.1. RESULTS, LIMITS OF QUANTIFICATION AND Z-SCORE

Legend:

FN: Analyte no informed (not detected) by the participant (false negative).

<LOQ: Analyte in a concentration lower than the participant's limit of quantification. Possible false negative if the analyte was present.

*A: Result considered as statistically aberrant and not considered to calculate the assigned value.

Bold: Results with z-score≥|2|.

% diff.: Difference between z-score and z'-score, degree in which the latter is a underestimation of the performance.

(*) Analyte with evaluation not accredited.

Xc: Assigned value (consensus).

u_x: Uncertainty of the assigned value with 95% confidence.

X_i: Participant's reported value.

LOQ: Participant's Limit of quantification.

NA: Analyte not analysed by the participant.

$\hat{\sigma}$: Target standard deviation

Group A

	ANALYTE 1			ANALYTE 2			ANALYTE 3		
	(Xc	157,67	µg/Kg)	(Xc	104,29	µg/Kg)	(Xc	116,68	µg/Kg)
	(Ux=	2,39	µg/Kg)	(Ux=	5,91	µg/Kg)	(Ux=	8,92	µg/Kg)
	($\hat{\sigma}$=	39,42	µg/Kg)	($\hat{\sigma}$=	26,07	µg/Kg)	($\hat{\sigma}$=	29,17	µg/Kg)
	% dif.	--	z-score	% dif.	--	z-score	% dif.	4,37	z-score
LABORATORY CODE	X_i µg/Kg	LOQ µg/Kg	z-score	X_i µg/Kg	LOQ µg/Kg	z-score	X_i µg/Kg	LOQ µg/Kg	z-score
TQYY-0xxx-001	109	10	-1,2	109	10	0,2	103	10	-0,5
TQYY-0xxx-002	166	10	0,2	99	10	-0,2	68	10	-1,7
TQYY-0xxx-003	147	10	-0,3	128	10	0,9	**181*A**	**10**	**2,2**
TQYY-0xxx-004	174	10	0,4	55	10	-1,9	99	10	-0,6
TQYY-0xxx-005	140	10	-0,4	81	10	-0,9	**195*A**	**10**	**2,7**
TQYY-0xxx-006	173	10	0,4	107	10	0,1	76	10	-1,4

	ANALYTE 1			ANALYTE 2			ANALYTE 3		
	(Xc	157,67	µg/Kg)	(Xc	104,29	µg/Kg)	(Xc	116,68	µg/Kg)
	(Ux=	2,39	µg/Kg)	(Ux=	5,91	µg/Kg)	(Ux=	8,92	µg/Kg)
	($\hat{\sigma}$=	39,42	µg/Kg)	($\hat{\sigma}$=	26,07	µg/Kg)	($\hat{\sigma}$=	29,17	µg/Kg)
	% dif.	--	z-score	% dif.	--	z-score	% dif.	4,37	z-score
LABORATORY CODE	X_i µg/Kg	LOQ µg/Kg	z-score	X_i µg/Kg	LOQ µg/Kg	z-score	X_i µg/Kg	LOQ µg/Kg	z-score
TQYY-0xxx-007	170	10	0,3	114	10	0,4	151	10	1,2
TQYY-0xxx-008	159	10	0,0	**51**	**10**	**-2,0**	**176**	**10**	**2,0**
TQYY-0xxx-009	173	10	0,4	133	10	1,1	68	10	-1,7
TQYY-0xxx-010	166	10	0,2	140	10	1,4	**42*A**	**10**	**-2,6**
TQYY-0xxx-011	156	10	0,0	59	10	-1,7	79	10	-1,3
TQYY-0xxx-012	144	10	-0,3	123	10	0,7	105	10	-0,4
TQYY-0xxx-013	142	10	-0,4	126	10	0,8	**181*A**	**10**	**2,2**
TQYY-0xxx-014	148	10	-0,2	80	10	-0,9	160	10	1,1
TQYY-0xxx-015	164	10	0,2	145	10	1,6	[illegible]	10	-1,4
TQYY-0xxx-016	151	10	-0,2	130	10	1,0	**224*A**	**10**	**3,7**
TQYY-0xxx-017	170	10	0,3	66	10	-1,5	81	10	-1,2
TQYY-0xxx-018	161	10	0,1	139	10	1,3	**195*A**	**10**	**2,7**
TQYY-0xxx-019	140	10	-0,4	121	10	0,6	**50*A**	**10**	**-2,3**
TQYY-0xxx-020	168	10	0,3	119	10	0,6	**46*A**	**10**	**-2,4**
TQYY-0xxx-021	145	10	-0,3	67	10	-1,4	118	10	0,0
TQYY-0xxx-022	163	10	0,1	111	10	0,3	150	10	1,1
TQYY-0xxx-023	180	10	0,6	62	10	-1,8	70	10	-1,6
TQYY-0xxx-024	156	10	0,0	**51**	**10**	**-2,0**	167	10	1,7
TQYY-0xxx-025	152	10	-0,1	72	10	-1,2	102	10	-0,5
TQYY-0xxx-026	154	10	0,1	<LC	200	<LC	146	10	1,0
TQYY-0xxx-027	146	10	-0,3	127	10	0,9	122	10	0,2
TQYY-0xxx-028	165	10	0,2	138	10	1,3	**215*A**	**10**	**3,4**
TQYY-0xxx-029	143	10	-0,4	**<LC (NO)**	**10**	**-3,8**	93	10	-0,8
TQYY-0xxx-030	173	10	0,4	56	10	-1,9	152	10	1,2
TQYY-0xxx-031	170	10	0,3	128	10	0,9	137	10	0,7
TQYY-0xxx-032	173	10	0,4	91	10	-0,5	**184*A**	**10**	**2,3**
TQYY-0xxx-033	140	10	-0,4	124	10	0,8	**190*A**	**10**	**2,5**
TQYY-0xxx-034	164	10	0,2	78	10	-1,0	**190*A**	**10**	**2,5**
TQYY-0xxx-035	147	10	-0,3	109	10	0,2	67	10	-1,7

Group B

	ANALYTE 4			ANALYTE 5			ANALYTE 6		
	(Xc	247,67	µg/Kg)	(Xc	60,37	µg/Kg)	(Xc	49,40	µg/Kg)
	(Ux=	6,23	µg/Kg)	(Ux=	1,07	µg/Kg)	(Ux=	0,92	µg/Kg)
	($\hat{\sigma}$=	61,92	µg/Kg)	($\hat{\sigma}$=	15,09	µg/Kg)	($\hat{\sigma}$=	12,35	µg/Kg)
	% dif.	--	z-score	% dif.	--	z-score	% dif.	--	z-score
LABORATORY CODE	X_i µg/Kg	LOQ µg/Kg	z-score	X_i µg/Kg	LOQ µg/Kg	z-score	X_i µg/Kg	LOQ µg/Kg	z-score
TQYY-0xxx-001	**109*[A]**	**10**	**-2,2**	**92*[A]**	**10**	**2,1**	49	10	0,0
TQYY-0xxx-002	223	10	-0,4	62	10	0,1	42	10	-0,6
TQYY-0xxx-003	211	10	-0,6	61	10	0,1	56	10	0,5
TQYY-0xxx-004	261	10	0,2	52	10	-0,5	50	10	0,0
TQYY-0xxx-005	269	10	0,3	59	10	-0,1	55	10	0,5
TQYY-0xxx-006	225	10	-0,4	60	10	0,0	56	10	0,5
TQYY-0xxx-007	226	10	-0,3	60	10	0,0	41	10	-0,7
TQYY-0xxx-008	295	10	0,8	68	10	0,5	48	10	-0,1
TQYY-0xxx-009	200	10	-0,8	53	10	-0,5	[illegible]	10	0,0
TQYY-0xxx-010	206	10	-0,7	52	10	-0,5	[illegible]	10	0,0
TQYY-0xxx-011	257	10	0,2	64	10	[illegible]	[illegible]	10	-0,4
TQYY-0xxx-012	253	10	0,1	59	10	[illegible]	44	10	-0,4
TQYY-0xxx-013	288	10	0,7	51	10	[illegible]	52	10	0,2
TQYY-0xxx-014	229	10	-0,3	55	[illegible]	-0,3	40	10	-0,8
TQYY-0xxx-015	263	10	0,2	53	[illegible]	-0,5	52	10	0,2
TQYY-0xxx-016	224	10	-0,4	63	10	0,2	54	10	0,4
TQYY-0xxx-017	298	10	0,8	62	10	0,1	55	10	0,5
TQYY-0xxx-018	271	10	0,4	[illegible]	10	0,3	**200*[A]**	**10**	**12,2**
TQYY-0xxx-019	208	10	[illegible]	[illegible]	10	-0,7	60	10	0,9
TQYY-0xxx-020	263	10	[illegible]	65	10	0,3	51	10	0,1
TQYY-0xxx-021	201	10	[illegible]	57	10	-0,2	49	10	0,0
TQYY-0xxx-022	285	10	0,6	61	10	0,1	58	10	0,7
TQYY-0xxx-023	204	10	-0,7	68	10	0,5	49	10	0,0
TQYY-0xxx-024	[illegible]	[illegible]	0,2	68	10	0,5	51	10	0,1
TQYY-0xxx-025	[illegible]	10	-0,6	65	10	0,3	53	10	0,3
TQYY-0xxx-026	230	10	-0,3	64	10	0,3	48	10	-0,1
TQYY-0xxx-027	292	10	0,7	63	10	0,2	43	10	-0,5
TQYY-0xxx-028	268	10	0,3	61	10	0,1	49	10	0,0
TQYY-0xxx-029	293	10	0,7	59	10	-0,1	42	10	-0,6
TQYY-0xxx-030	226	10	-0,3	53	10	-0,5	47	10	-0,2
TQYY-0xxx-031	240	10	-0,1	62	10	0,1	50	10	0,0
TQYY-0xxx-032	295	10	0,8	69	10	0,6	47	10	-0,2
TQYY-0xxx-033	250	10	0,0	59	10	-0,1	43	10	-0,5
TQYY-0xxx-034	249	10	0,0	**NO**		**-4,0**	52	10	0,2
TQYY-0xxx-035	NA			**NO**	**10**	**-3,7**	52	10	0,2

5.2. PARTICIPANTS COMMENTS

If any comment was not in English it has been translated.

Laboratory	Comment
TQYY-0xxx-010	Sample analyzed on dd/mm/YYYY
TQYY-0xxx-031	Lorem empsium

5.3. FALSE POSITIVES AND FALSE NEGATIVES

5.3.1. FALSE POSITIVES:

No false positives were reported for this proficiency test.

5.3.2. FALSE NEGATIVES:

Laboratory	Analyte (µg/Kg)	LOQ (µg/Kg)	Assigned value (µg/Kg)
TQYY-0xxx-029	ANALYTE2	10	104,29
TQYY-0xxx-034	ANALYTE5	-	60,13
TQYY-0xxx-035	ANALYTE5	10	60,13

5.4. ASSIGNED VALUE AND TARGET STANDARD DEVIATION

ANALYTE	ACCREDITED?	NUMBER OF DATA*	ASSINGED VALUE (µg/Kg)	UNCERTAINTY (µg/Kg)	%tRSD	TARGET STANDARD DEVIATION (µg/Kg)	ROBUST STANDARD DEVIATION (µg/Kg)
analyte1	Sí	35	157,67	2,39	25	39,42	14,13
analyte2	Sí	31	104,29	5,91	25	26,07	32,92
analyte3	Sí	25	116,68	8,92	25	29,17	44,62
Analyte4	Sí	33	247,67	6,23	25	61,92	35,79
Analyte5	Sí	32	60,13	1,07	25	15,03	6,06
Analyte6	Sí	34	49,40	0,92	25	12,35	5,38

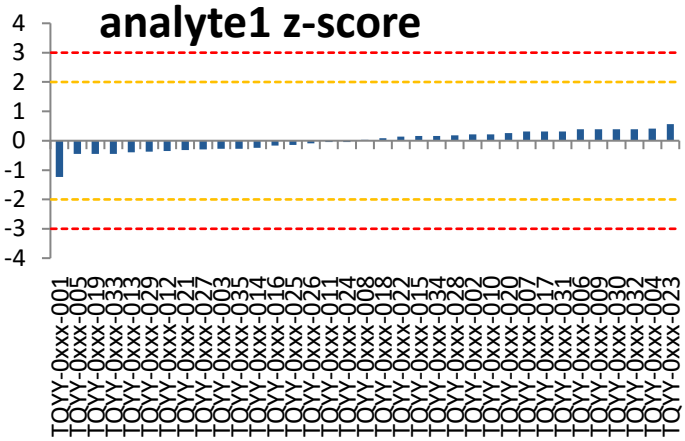
**Results considered extreme outliers have not been considered*

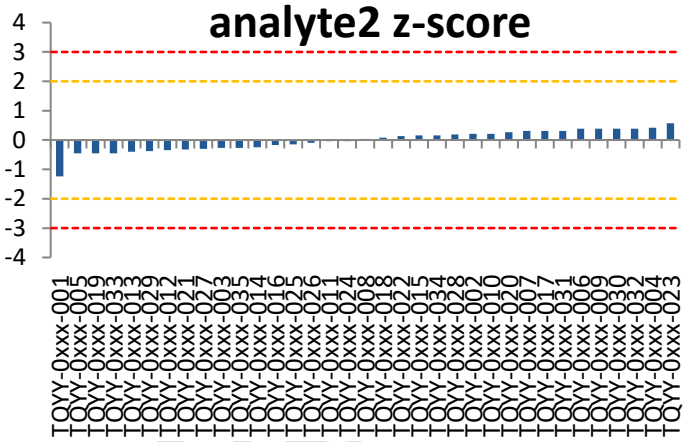
5.5. SATISFACTORY, QUESTIONABLE AND UNSATISFACTORY Z-SCORES

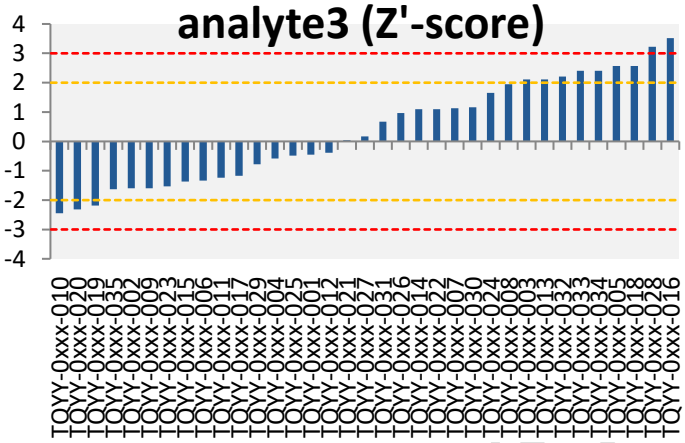
ANALITE	Z / Z' SCORE	NUMBER OF SCORES*	% SATISFACTORY	% QUESTIONABLE	% UNSATISFACTORY
analyte1	z	35	100	0	0
analyte2	z	34	91	6	3
analyte3	Z'	35	66	29	6
Analyte4	z	34	97	3	0
Analyte5	z	35	91	3	6
Analyte6	z	35	97	0	3

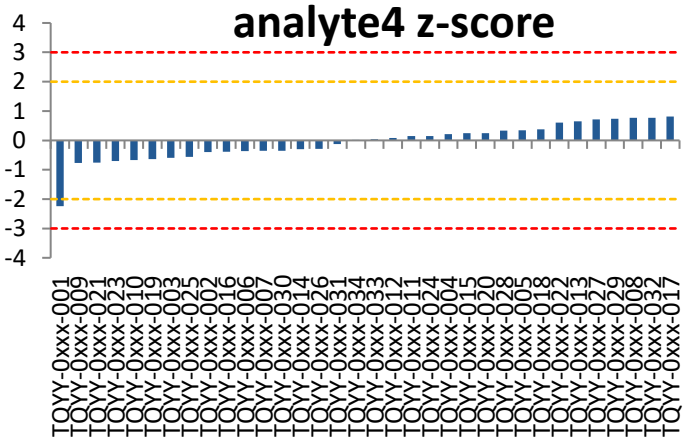
**Every result has been assigned with a z-score, including the results considered as extreme outliers.*

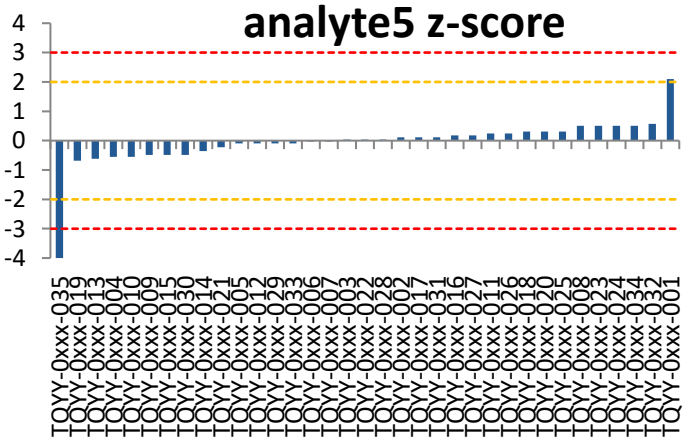
6. GRAPHICAL REPRESENTATION OF ASSIGNED Z-SCORES VALUES

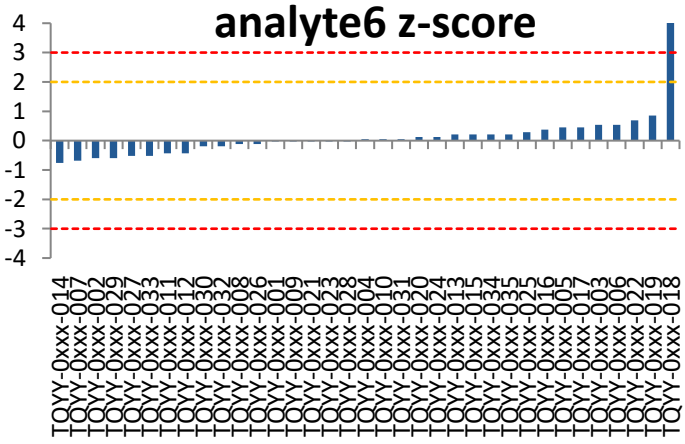










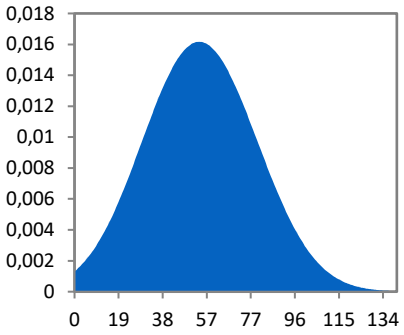


7. RESULTS DISTRIBUTION (KERNEL DENSITY):

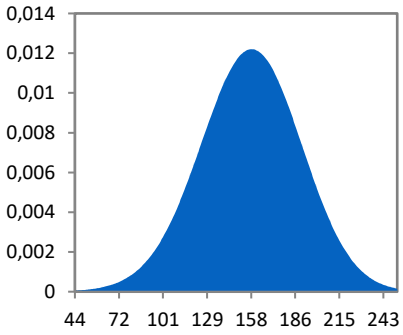
For this proficiency test **all analytes have shown an adequate symmetry to be considered unimodal.**

We have at the participant's disposal this same graphics with more detail and size.
X axis: Results (µg/Kg) ; and axis: Density

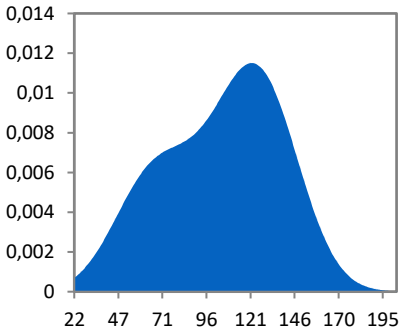
analyte3
Fixed h=21,9



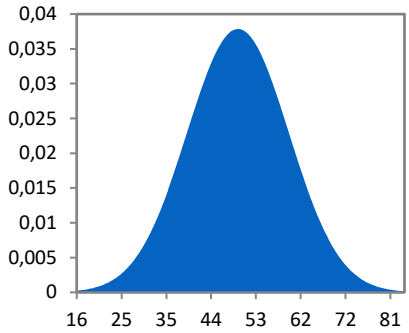
analyte1
Fixed h=29,6



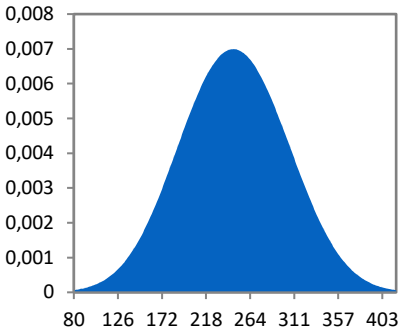
analyte2
Fixed h=19,6



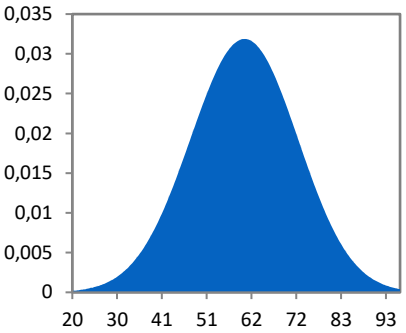
analyte6
Fixed h=9,3



analyte4
Fixed h=46,4



analyte5
Fixed h=11,3



8. HOMOGENEITY AND STABILITY OF THE TEST MATERIAL

To ensure the evaluation issued is useful, the lot of samples goes through two different kind of quality controls:

1. The homogeneity check to ensure the difference between-sample is not greater than the in-between variation of a single sample.
2. The stability check, used to ensure any change in the concentration does not affect, or affects below a certain point, the score obtained by each participant. The analysis of the stability is done before and after sending the samples to the participants plus a last time after all results have been received.

The data employed to check the homogeneity are 20 results, all obtained in repeatability conditions from a set of randomized samples from the lot prepared, while the stability check is obtained from a total of 6 results, 2 from the initial concentration, 2 after sending the samples to the participants and the last 2 results after all results have been received. All the results used to check the criteria were not taken into account as absolute concentrations, only as relative data for the criteria calculation.

These results were analysed according to calculations on section 4 of this report, and these are the conclusion reached:

Quality Control	Analyte	ANALYTE1	ANALYTE2	ANALYTE3
HOMOGENEITY	$c < 0.3*\sigma$	Satisfies criteria	Satisfies criteria	Satisfies criteria
STABILITY	$\lvert Difference \rvert \leq 10\%$ t_2 vs t_1	Satisfies criteria	Satisfies criteria	Satisfies criteria
	$\lvert Difference \rvert \leq 10\%$ t_3 vs t_1	Satisfies criteria	Satisfies criteria	Satisfies criteria

Quality Control	Analyte	ANALYTE4	ANALYTE5	ANALYTE6
HOMOGENEITY	$c < 0.3*\sigma$	Satisfies criteria	Satisfies criteria	Satisfies criteria
STABILITY	$\lvert Difference \rvert \leq 10\%$ t_2 vs t_1	Satisfies criteria	Satisfies criteria	Satisfies criteria
	$\lvert Difference \rvert \leq 10\%$ t_3 vs t_1	Satisfies criteria	Satisfies criteria	Satisfies criteria

Therefore, homogeneity and stability of the batch of prepared samples have undergone thorough scrutiny and have met the required standards. Allowing to evaluate the performance without needing to include these uncertainties (homogeneity nor stability) in the calculations of the score.

9. ANALYTICAL METHODS USED BY THE LABORATORIES

If any data was not in English, it has been translated. Data that might help identify the laboratory might have been removed.

ANALYTE1						
LABORATORY CODE	ACREDITATED METHOD?	WEIGHT (g)	EXTRACTION SOLVENT	EXTRACTION TECHNIQUE	CALIBRATION	ANALYSIS TECHNIQUE
TQYY-0xxx-001	YES	5	-	QuEChERS	Matrix matched - Internal standard	-
TQYY-0xxx-002	YES	10	ACN	QuEChERS	Solvent matched - Internal standard	Other. LC-MS/MS
TQYY-0xxx-003	YES	5	ACN	QuEChERS	Matrix matched - External standard	GC-MS/MS.
TQYY-0xxx-004	YES	10	ACN	Solid phase extraction	-	HPLC-MS/MS.
TQYY-0xxx-005	YES	5	ACN	QuEChERS	-	-
TQYY-0xxx-006	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	GC-MS/MS.
TQYY-0xxx-007	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-008	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-009	YES	5	ACN	QuEChERS	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-010	YES	10	ACN	Solid phase extraction	Solvent matched - Internal standard	LC/MS/MS
TQYY-0xxx-011	YES	5	ACN	Solid phase extraction	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-012	YES	10	ACN	Solid phase extraction	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-013	YES	5	ACN	Solid phase extraction	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-014	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-015	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	LC-MS/MS
TQYY-0xxx-016	YES	10	QuEchERS.	QuEChERS	Matrix matched	GC MS/MS.
TQYY-0xxx-017	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-018	YES	10	ACN + 1% CH3COOH	Quechers	Solvent matched - External standard	LC-MS/MS
TQYY-0xxx-019	YES	5	-	-	Solvent matched - Internal standard	-
TQYY-0xxx-020	YES	10	-	-	Solvent matched - Internal standard	-
TQYY-0xxx-021	YES	5	ACN	QuEchERS	Matrix matched - External standard	GC MS/MS.

ANALYTE1						
LABORATORY CODE	ACREDITATED METHOD?	WEIGHT (g)	EXTRACTION SOLVENT	EXTRACTION TECHNIQUE	CALIBRATION	ANALYSIS TECHNIQUE
TQYY-0xxx-022	YES	10	ACN	QuEchERS	Matrix matched - External standard	GC MS/MS.
TQYY-0xxx-023	YES	5	ACN	QuEchERS	Solvent matched - External standard	HPLC-MS/MS
TQYY-0xxx-024	YES	10	-	-	-	-
TQYY-0xxx-025	YES	5	MeCN	QuEchERS	Matrix matched	Other. LC-QTOF
TQYY-0xxx-026	YES	10	-	-	-	-
TQYY-0xxx-027	YES	5	ACN	QuEchERS	Matrix matched - External standard	HPLC-MS/MS
TQYY-0xxx-028	YES	10	Acetonitrile 1% acetic acid	QuEchERS	Solvent matched	Other.
TQYY-0xxx-029	YES	5	ACN	Solvent extraction	Matrix matched - External standard	HPLC-MS/MS.
TQYY-0xxx-030	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-031	YES	5	-		-	-
TQYY-0xxx-032	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-033	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-034	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-035	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.

ANALYTE2						
LABORATORY CODE	ACREDITATED METHOD?	WEIGHT (g)	EXTRACTION SOLVENT	EXTRACTION TECHNIQUE	CALIBRATION	ANALYSIS TECHNIQUE
TQYY-0xxx-001	YES	5	-	QuEChERS	Matrix matched - Internal standard	-
TQYY-0xxx-002	YES	10	ACN	QuEChERS	Solvent matched - Internal standard	Other. LC-MS/MS
TQYY-0xxx-003	YES	5	ACN	QuEChERS	Matrix matched - External standard	GC-MS/MS.
TQYY-0xxx-004	YES	10	ACN	Solid phase extraction	-	HPLC-MS/MS.
TQYY-0xxx-005	YES	5	ACN	QuEChERS	-	-
TQYY-0xxx-006	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	GC-MS/MS.
TQYY-0xxx-007	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.

ANALYTE2						
LABORATORY CODE	ACREDITATED METHOD?	WEIGHT (g)	EXTRACTION SOLVENT	EXTRACTION TECHNIQUE	CALIBRATION	ANALYSIS TECHNIQUE
TQYY-0xxx-008	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-009	YES	5	ACN	QuEChERS	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-010	YES	10	ACN	Solid phase extraction	Solvent matched - Internal standard	LC/MS/MS
TQYY-0xxx-011	YES	5	ACN	Solid phase extraction	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-012	YES	10	ACN	Solid phase extraction	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-013	YES	5	ACN	Solid phase extraction	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-014	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-015	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	LC-MS/MS
TQYY-0xxx-016	YES	10	QuEchERS.	QuEChERS	Matrix matched	GC MS/MS.
TQYY-0xxx-017	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-018	YES	10	ACN + 1% CH3COOH	Quechers	Solvent matched - External standard	LC-MS/MS
TQYY-0xxx-019	YES	5	-	-	Solvent matched - Internal standard	-
TQYY-0xxx-020	YES	10	-	-	Solvent matched - Internal standard	-
TQYY-0xxx-021	YES	5	ACN	QuEchERS	Matrix matched - External standard	GC MS/MS.
TQYY-0xxx-022	YES	10	ACN	QuEchERS	Matrix matched - External standard	GC MS/MS.
TQYY-0xxx-023	YES	5	ACN	QuEchERS	Solvent matched - External standard	HPLC-MS/MS
TQYY-0xxx-024	YES	10	-	-	-	-
TQYY-0xxx-025	YES	5	MeCN	QuEchERS	Matrix matched	Other. LC-QTOF
TQYY-0xxx-026	YES	10	-	-	-	-
TQYY-0xxx-027	YES	5	ACN	QuEchERS	Matrix matched - External standard	HPLC-MS/MS
TQYY-0xxx-028	YES	10	Acetonitrile 1% acetic acid	QuEchERS	Solvent matched	Other.
TQYY-0xxx-029	YES	5	ACN	Solvent extraction	Matrix matched - External standard	HPLC-MS/MS.
TQYY-0xxx-030	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-031	YES	5	-		-	-
TQYY-0xxx-032	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-033	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-034	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-035	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.

ANALYTE3						
LABORATORY CODE	ACREDITATED METHOD?	WEIGHT (g)	EXTRACTION SOLVENT	EXTRACTION TECHNIQUE	CALIBRATION	ANALYSIS TECHNIQUE
TQYY-0xxx-001	YES	5	-	QuEChERS	Matrix matched - Internal standard	-
TQYY-0xxx-002	YES	10	ACN	QuEChERS	Solvent matched - Internal standard	Other. LC-MS/MS
TQYY-0xxx-003	YES	5	ACN	QuEChERS	Matrix matched - External standard	GC-MS/MS.
TQYY-0xxx-004	YES	10	ACN	Solid phase extraction	-	HPLC-MS/MS.
TQYY-0xxx-005	YES	5	ACN	QuEChERS	-	-
TQYY-0xxx-006	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	GC-MS/MS.
TQYY-0xxx-007	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-008	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-009	YES	5	ACN	QuEChERS	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-010	YES	10	ACN	Solid phase extraction	Solvent matched - Internal standard	LC/MS/MS
TQYY-0xxx-011	YES	5	ACN	Solid phase extraction	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-012	YES	10	ACN	Solid phase extraction	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-013	YES	5	ACN	Solid phase extraction	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-014	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-015	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	LC-MS/MS
TQYY-0xxx-016	YES	10	QuEchERS.	QuEChERS	Matrix matched	GC MS/MS.
TQYY-0xxx-017	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-018	YES	10	ACN + 1% CH3COOH	Quechers	Solvent matched - External standard	LC-MS/MS
TQYY-0xxx-019	YES	5	-	-	Solvent matched - Internal standard	-
TQYY-0xxx-020	YES	10	-	-	Solvent matched - Internal standard	-
TQYY-0xxx-021	YES	5	ACN	QuEchERS	Matrix matched - External standard	GC MS/MS.
TQYY-0xxx-022	YES	10	ACN	QuEchERS	Matrix matched - External standard	GC MS/MS.
TQYY-0xxx-023	YES	5	ACN	QuEchERS	Solvent matched - External standard	HPLC-MS/MS
TQYY-0xxx-024	YES	10	-	-	-	-

ANALYTE3						
LABORATORY CODE	ACREDITATED METHOD?	WEIGHT (g)	EXTRACTION SOLVENT	EXTRACTION TECHNIQUE	CALIBRATION	ANALYSIS TECHNIQUE
TQYY-0xxx-025	YES	5	MeCN	QuEchERS	Matrix matched	Other. LC-QTOF
TQYY-0xxx-026	YES	10	-	-	-	-
TQYY-0xxx-027	YES	5	ACN	QuEchERS	Matrix matched - External standard	HPLC-MS/MS
TQYY-0xxx-028	YES	10	Acetonitrile 1% acetic acid	QuEchERS	Solvent matched	Other.
TQYY-0xxx-029	YES	5	ACN	Solvent extraction	Matrix matched - External standard	HPLC-MS/MS.
TQYY-0xxx-030	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-031	YES	5	-		-	-
TQYY-0xxx-032	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-033	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-034	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-035	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.

ANALYTE4						
LABORATORY CODE	ACREDITATED METHOD?	WEIGHT (g)	EXTRACTION SOLVENT	EXTRACTION TECHNIQUE	CALIBRATION	ANALYSIS TECHNIQUE
TQYY-0xxx-001	YES	5	-	QuEChERS	Matrix matched - Internal standard	-
TQYY-0xxx-002	YES	10	ACN	QuEChERS	Solvent matched - Internal standard	Other. LC-MS/MS
TQYY-0xxx-003	YES	5	ACN	QuEChERS	Matrix matched - External standard	GC-MS/MS.
TQYY-0xxx-004	YES	10	ACN	Solid phase extraction	-	HPLC-MS/MS.
TQYY-0xxx-005	YES	5	ACN	QuEChERS	-	-
TQYY-0xxx-006	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	GC-MS/MS.
TQYY-0xxx-007	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-008	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-009	YES	5	ACN	QuEChERS	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-010	YES	10	ACN	Solid phase extraction	Solvent matched - Internal standard	LC/MS/MS

ANALYTE4						
LABORATORY CODE	ACREDITATED METHOD?	WEIGHT (g)	EXTRACTION SOLVENT	EXTRACTION TECHNIQUE	CALIBRATION	ANALYSIS TECHNIQUE
TQYY-0xxx-011	YES	5	ACN	Solid phase extraction	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-012	YES	10	ACN	Solid phase extraction	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-013	YES	5	ACN	Solid phase extraction	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-014	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-015	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	LC-MS/MS
TQYY-0xxx-016	YES	10	QuEchERS.	QuEChERS	Matrix matched	GC MS/MS.
TQYY-0xxx-017	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-018	YES	10	ACN + 1% CH3COOH	Quechers	Solvent matched - External standard	LC-MS/MS
TQYY-0xxx-019	YES	5	-	-	Solvent matched - Internal standard	-
TQYY-0xxx-020	YES	10	-	-	Solvent matched - Internal standard	-
TQYY-0xxx-021	YES	5	ACN	QuEchERS	Matrix matched - External standard	GC MS/MS.
TQYY-0xxx-022	YES	10	ACN	QuEchERS	Matrix matched - External standard	GC MS/MS.
TQYY-0xxx-023	YES	5	ACN	QuEchERS	Solvent matched - External standard	HPLC-MS/MS
TQYY-0xxx-024	YES	10	-	-	-	-
TQYY-0xxx-025	YES	5	MeCN	QuEchERS	Matrix matched	Other. LC-QTOF
TQYY-0xxx-026	YES	10	-	-	-	-
TQYY-0xxx-027	YES	5	ACN	QuEchERS	Matrix matched - External standard	HPLC-MS/MS
TQYY-0xxx-028	YES	10	Acetonitrile 1% acetic acid	QuEchERS	Solvent matched	Other.
TQYY-0xxx-029	YES	5	ACN	Solvent extraction	Matrix matched - External standard	HPLC-MS/MS.
TQYY-0xxx-030	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-031	YES	5	-		-	-
TQYY-0xxx-032	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-033	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-034	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-035	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.

ANALYTE5						
LABORATORY CODE	ACREDITATED METHOD?	WEIGHT (g)	EXTRACTION SOLVENT	EXTRACTION TECHNIQUE	CALIBRATION	ANALYSIS TECHNIQUE
TQYY-0xxx-001	YES	5	-	QuEChERS	Matrix matched - Internal standard	-
TQYY-0xxx-002	YES	10	ACN	QuEChERS	Solvent matched - Internal standard	Other. LC-MS/MS
TQYY-0xxx-003	YES	5	ACN	QuEChERS	Matrix matched - External standard	GC-MS/MS.
TQYY-0xxx-004	YES	10	ACN	Solid phase extraction	-	HPLC-MS/MS.
TQYY-0xxx-005	YES	5	ACN	QuEChERS	-	-
TQYY-0xxx-006	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	GC-MS/MS.
TQYY-0xxx-007	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-008	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-009	YES	5	ACN	QuEChERS	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-010	YES	10	ACN	Solid phase extraction	Solvent matched - Internal standard	LC/MS/MS
TQYY-0xxx-011	YES	5	ACN	Solid phase extraction	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-012	YES	10	ACN	Solid phase extraction	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-013	YES	5	ACN	Solid phase extraction	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-014	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-015	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	LC-MS/MS
TQYY-0xxx-016	YES	10	QuEchERS.	QuEChERS	Matrix matched	GC MS/MS.
TQYY-0xxx-017	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-018	YES	10	ACN + 1% CH3COOH	Quechers	Solvent matched - External standard	LC-MS/MS
TQYY-0xxx-019	YES	5	-	-	Solvent matched - Internal standard	-
TQYY-0xxx-020	YES	10	-	-	Solvent matched - Internal standard	-
TQYY-0xxx-021	YES	5	ACN	QuEchERS	Matrix matched - External standard	GC MS/MS.
TQYY-0xxx-022	YES	10	ACN	QuEchERS	Matrix matched - External standard	GC MS/MS.
TQYY-0xxx-023	YES	5	ACN	QuEchERS	Solvent matched - External standard	HPLC-MS/MS
TQYY-0xxx-024	YES	10	-	-	-	-
TQYY-0xxx-025	YES	5	MeCN	QuEchERS	Matrix matched	Other. LC-QTOF
TQYY-0xxx-026	YES	10	-	-	-	-

ANALYTE5						
LABORATORY CODE	ACREDITATED METHOD?	WEIGHT (g)	EXTRACTION SOLVENT	EXTRACTION TECHNIQUE	CALIBRATION	ANALYSIS TECHNIQUE
TQYY-0xxx-027	YES	5	ACN	QuEchERS	Matrix matched - External standard	HPLC-MS/MS
TQYY-0xxx-028	YES	10	Acetonitrile 1% acetic acid	QuEchERS	Solvent matched	Other.
TQYY-0xxx-029	YES	5	ACN	Solvent extraction	Matrix matched - External standard	HPLC-MS/MS.
TQYY-0xxx-030	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-031	YES	5	-		-	-
TQYY-0xxx-032	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-033	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-034	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-035	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.

ANALYTE6						
LABORATORY CODE	ACREDITATED METHOD?	WEIGHT (g)	EXTRACTION SOLVENT	EXTRACTION TECHNIQUE	CALIBRATION	ANALYSIS TECHNIQUE
TQYY-0xxx-001	YES	5	-	QuEChERS	Matrix matched - Internal standard	-
TQYY-0xxx-002	YES	10	ACN	QuEChERS	Solvent matched - Internal standard	Other. LC-MS/MS
TQYY-0xxx-003	YES	5	ACN	QuEChERS	Matrix matched - External standard	GC-MS/MS.
TQYY-0xxx-004	YES	10	ACN	Solid phase extraction	-	HPLC-MS/MS.
TQYY-0xxx-005	YES	5	ACN	QuEChERS	-	-
TQYY-0xxx-006	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	GC-MS/MS.
TQYY-0xxx-007	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-008	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-009	YES	5	ACN	QuEChERS	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-010	YES	10	ACN	Solid phase extraction	Solvent matched - Internal standard	LC/MS/MS
TQYY-0xxx-011	YES	5	ACN	Solid phase extraction	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-012	YES	10	ACN	Solid phase extraction	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-013	YES	5	ACN	Solid phase extraction	Matrix matched - Internal standard	HPLC-MS/MS.

ANALYTE6						
LABORATORY CODE	ACREDITATED METHOD?	WEIGHT (g)	EXTRACTION SOLVENT	EXTRACTION TECHNIQUE	CALIBRATION	ANALYSIS TECHNIQUE
TQYY-0xxx-014	YES	10	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-015	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	LC-MS/MS
TQYY-0xxx-016	YES	10	QuEchERS.	QuEChERS	Matrix matched	GC MS/MS.
TQYY-0xxx-017	YES	5	ACN	QuEChERS	Matrix matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-018	YES	10	ACN + 1% CH3COOH	Quechers	Solvent matched - External standard	LC-MS/MS
TQYY-0xxx-019	YES	5	-	-	Solvent matched - Internal standard	-
TQYY-0xxx-020	YES	10	-	-	Solvent matched - Internal standard	-
TQYY-0xxx-021	YES	5	ACN	QuEchERS	Matrix matched - External standard	GC MS/MS.
TQYY-0xxx-022	YES	10	ACN	QuEchERS	Matrix matched - External standard	GC MS/MS.
TQYY-0xxx-023	YES	5	ACN	QuEchERS	Solvent matched - External standard	HPLC-MS/MS
TQYY-0xxx-024	YES	10	-	-	-	-
TQYY-0xxx-025	YES	5	MeCN	QuEchERS	Matrix matched	Other. LC-QTOF
TQYY-0xxx-026	YES	10	-	-	-	-
TQYY-0xxx-027	YES	5	ACN	QuEchERS	Matrix matched - External standard	HPLC-MS/MS
TQYY-0xxx-028	YES	10	Acetonitrile 1% acetic acid	QuEchERS	Solvent matched	Other.
TQYY-0xxx-029	YES	5	ACN	Solvent extraction	Matrix matched - External standard	HPLC-MS/MS.
TQYY-0xxx-030	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-031	YES	5	-		-	-
TQYY-0xxx-032	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-033	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-034	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.
TQYY-0xxx-035	YES	10	ACN	QuEchERS.	Solvent matched - Internal standard	HPLC-MS/MS.

10. REFERENCES

TestQual Proficiency Testing Schemes are based on the following standards:

UNE-EN ISO/IEC 17043, into force. Conformity assessment- General requirements for proficiency testing.

ISO13528 into force, second edition 2015-08-01. Statistical methods for use in proficiency testing by interlaboratory comparison.

THE INTERNATIONAL HARMONIZED PROTOCOL FOR THE PROFICIENCY TESTING OF ANALYTICAL CHEMISTRY LABORATORIES

Relevant regulation

Where to find it and links: ES // EN

END OF THE REPORT