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NOTE BY THE DIRECTOR-GENERAL

EVALUATION OF THE RESULTS OF THE FIFTH OFFICIAL OPCW BIOMEDICAL PROFICIENCY TEST

1. The Director-General wishes to inform the Member States of the results of the Fifth Official OPCW Biomedical Proficiency Test, which was conducted by the Technical Secretariat (hereinafter “the Secretariat”) from February to September 2020. The OPCW Laboratory is accredited by the Raad voor Accreditatie (RvA), the Netherlands, to conduct proficiency testing in compliance with the criteria laid down in ISO/IEC 17043. The test was conducted according to the following quality management system documents:
 - (a) “Standard Operating Procedure for the Organisation of OPCW Biomedical Proficiency Tests” (QDOC/LAB/SOP/BioPT01 (Issue 1, Revision 4, dated 6 January 2020));
 - (b) “Work Instruction for the Preparation of Samples for OPCW Biomedical Proficiency Tests” (QDOC/LAB/WI/BioPT02 (Issue 1, Revision 4, dated 6 January 2020));
 - (c) “Work Instruction for the Evaluation of Results of OPCW Biomedical Proficiency Tests” (QDOC/LAB/WI/BioPT03 (Issue 1, Revision 4, dated 6 January 2020)); and
 - (d) “Work Instruction for the Reporting of the Results of the OPCW Biomedical Proficiency Tests” (QDOC/LAB/WI/BioPT04 (Issue 1, Revision 4, dated 6 January 2020)).
2. Designated laboratories must, in order to retain their designation, demonstrate that they have maintained their capabilities by participating in every biomedical proficiency test organised by the Secretariat, unless the additional guidelines in the annex to decision C-20/DEC.4 (dated 2 December 2015) are applicable.
3. Two laboratories offered to assist the Secretariat in conducting the Fifth Official OPCW Biomedical Proficiency Test: The Forensic Science Center, Lawrence Livermore National Laboratory, United States of America, prepared the test samples, and DGA Maîtrise NRBC, Département Analyse Chimique, France, evaluated the test results.



4. The preliminary evaluation report was discussed via online meetings between Secretariat staff and the test participants on 15 July 2020. The participants were given two weeks to comment on the results and to inform the Secretariat whether they accepted their performance evaluation.
5. The final evaluation report was prepared by the OPCW Laboratory, together with the evaluation laboratory, and sent to all of the participants on 16 September 2020.
6. The principal results of the Fifth Official OPCW Biomedical Proficiency Test can be summarised as follows:
 - (a) Twenty Member States nominated 26 laboratories, including the two assisting laboratories, to participate in the test.
 - (b) One laboratory participated in the test on a trial basis; no performance rating was provided for this participant.
 - (c) The two assisting laboratories were awarded a performance rating of A.
 - (d) Sixteen test participants identified and reported, with sufficient analytical data, all of the five spiking chemicals and received a rating of A.
 - (e) Two test participants identified and reported all of the spiking chemicals; however, not all analytical data were accepted and they received a rating of B.
 - (f) One test participant identified and reported four of the spiking chemicals; however, not all analytical data were accepted and they received a rating of D.
 - (g) One test participant identified and reported three of the spiking chemicals; however, not all analytical data were accepted and they received a rating of D.
 - (h) Two test participants did not report any spiking chemicals and received a rating of D.
 - (i) One test participant reported false positives and received a rating of F.
 - (j) There were 18 As, two Bs, four Ds, and one F in the test performance ratings for the regular participants, including the two assisting laboratories.
7. The final results for all of the laboratories participating in the test are presented in the table annexed hereto.
8. The participating laboratories are reminded that if they have made any errors or reported false positives or false negatives (arising from a failure to find a spiking chemical or to provide sufficient supporting data for a chemical that is found), they should take immediate remedial action. Before participating in the next test, each such laboratory is required to submit a detailed follow-up report to the Secretariat stating the cause of the problem and any remedial action it has taken. Any such laboratory failing to submit the required report, including details of the remedial action it has taken, will not be permitted to participate in the next biomedical proficiency test.

Annex: Final Results of the Fifth Official OPCW Biomedical Proficiency Test

Annex

**FINAL RESULTS OF THE FIFTH OFFICIAL
OPCW BIOMEDICAL PROFICIENCY TEST**

Laboratory (Participant Code)	No. of Spiking Chemicals Reported¹	No. of Chemicals Scored	Rating	Comments
Australia Defence Science and Technology Group (14)	5	5	A	-
Chile SERVITOX Ltda (19)	0	0	F	False positives reported
China Laboratory of Toxicant Analysis, Academy of Military Medical Sciences (35)	5	5	A	-
China Laboratory of Analytical Chemistry, Research Institute of Chemical Defence (17)	5	5	A	-
Czech Republic Katedra toxikologie a vojenskéfarmacie (12)	3	2	D	Data provided for one chemical were insufficient for scoring
Finland VERIFIN, Finnish Institute for Verification of the Chemical Weapons Convention (07)	5	5	A	-
France DGA Maîtrise NRBC, Département Analyse Chimique (06)	-	-	A	Evaluating Laboratory
Hungary Hungarian Defence Forces Medical Centre (32)	4	0	D	Data provided for four chemicals were insufficient for scoring

¹ The spiking chemicals were as follows: P551, P552 – O-n-Butyl S-2-diethylaminoethyl methylphosphonothiolate, CVX; P554 – O-Isobutyl S-2-diethylaminoethyl methylphosphonothiolate, RVX; U555 – n-Butyl methylphosphonic acid; and U557 – Isobutyl methylphosphonic acid.

Laboratory (Participant Code)	No. of Spiking Chemicals Reported¹	No. of Chemicals Scored	Rating	Comments
India Vertox-Biochemistry Division, Defence Research and Development Establishment (34)	5	5	A	-
Iran (Islamic Republic of) Defense Chemical Research Laboratory (04)	5	5	A	-
Japan National Research Institute of Police Science (09)	5	5	A	-
Netherlands TNO Defence, Security and Safety (31)	5	5	A	-
Republic of Korea Chemical Analysis Laboratory, CB Department, Agency for Defense Development (08)	5	5	A	-
Republic of Korea CBRN Research Center, ROK CBRN Command (16)	5	5	A	-
Russian Federation Laboratory for the Chemical and Analytical Control of Military Research Centre (11)	5	5	A	-
Russian Federation Laboratory of Chemical Analytical Control and Biotesting, "Research Institute of Hygiene, Occupational Pathology and Human Ecology" (37)	5	5	A	-

Laboratory (Participant Code)	No. of Spiking Chemicals Reported¹	No. of Chemicals Scored	Rating	Comments
Singapore Verification Laboratory, Defence Medical and Environmental Research Institute, DSO National Laboratories (28)	5	5	A	-
Spain LAVEMA (Laboratorio de Verificación de Armas Químicas), INTA Campus La Marañosa (30)	1	1	-	Trial participant
Sweden FOI, Swedish Defence Research Agency (27)	5	4	B	Data provided for one chemical were insufficient for scoring
Turkey University of Health Sciences, Department of Medical CBRN Defense, CBRN Analysis Laboratory (10)	0	0	D	None of the spiking chemicals were reported
United Kingdom of Great Britain and Northern Ireland Defence Science and Technology Laboratory, Porton Down (23)	5	5	A	-
United Republic of Tanzania Government Chemist Laboratory Authority (22)	0	0	D	None of the spiking chemicals were reported
United States of America Centers for Disease Control and Prevention (20)	5	5	A	-
United States of America Combat Capabilities Development Command, Chemical Biological Center (CBC), Forensic Analytical Laboratory (02)	5	5	A	-

Laboratory (Participant Code)	No. of Spiking Chemicals Reported¹	No. of Chemicals Scored	Rating	Comments
United States of America Lawrence Livermore National Laboratory (03)	-	-	A	Sample preparation laboratory
United States of America U.S. Army Medical Research Institute of Chemical Defense (36)	5	4	B	Data provided for one chemical were insufficient for scoring