

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA**

UNITED STATES OF AMERICA

v.

**ABU AGILA MOHAMMAD
MAS'UD KHEIR AL-MARIMI,**

Defendant.

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Case No. 22-cr-392 (DLF)

**MOTION TO EXCLUDE OR LIMIT THE TESTIMONY OF PROFFERED
METALLURGY EXPERT**

The United States of America, by and through its attorney, the United States Attorney for the District of Columbia, respectfully moves this Court to limit the proposed expert testimony of Elizabeth Buc at trial. The Court should preclude Dr. Buc's testimony because her expert notice is inadequate as to multiple of the topics on which the defense has provided notice. Additionally, Dr. Buc's testimony is irrelevant unless the government calls a metallurgy expert in its case-in-chief, which it does not presently expect to do.

BACKGROUND

As the Court knows, part of the government's evidence for the Libyan government's involvement in the bombing of Pan Am Flight 103 consists of an apparent match between (a) a fragment of printed circuit board (PCB) recovered from the crash site, known as PT/35(b), and (b) control samples provided by the Swiss company "MEBO" of PCBs used in a timer that the Libyan government commissioned and purchased from MEBO prior to the bombing.

During post-trial litigation following the Scottish conviction of alleged co-conspirator Abdelbasset Ali Al-Megrahi, Megrahi's defense team raised arguments related to the metallic composition of PT-35. Broadly speaking, Megrahi contended that the "tracking" on PT-35(b) was coated in pure tin, while the tracking on at least one control sample was coated in a tin/lead alloy.

Megrahi also relied upon a statement from an employee the manufacturer of the circuit boards, stating that the company never used pure tin in its products. These facts, if credited, could cast doubt on the conclusion that PT-35 originated from the same batch of PCBs as the control samples.

In the government's original assessment, any metallurgy-based argument by the defense in the instant case would most properly be raised during the defense case through affirmative expert testimony, to which the government would have an opportunity to respond with a rebuttal expert.

[REDACTED]

[REDACTED]

[REDACTED]. At that point, it would be too late to notice a metallurgy expert to respond, so the government deemed it prudent to provide notice of its metallurgy expert, Dr. Yu-Lung Chiu, [REDACTED]

[REDACTED] Chiu's testimony would establish that two control-sample PCBs supplied by MEBO contained a layer of pure tin on their tracking, which would support the conclusion that PT/35(b) did in fact come from the same batch of PCBs at the control samples.

[REDACTED]

[REDACTED] The government does not foresee that metallurgy could otherwise be put at issue during cross-examination of any other government witnesses, nor has the defense noticed any affirmative expert opinions about the metallic composition of any of the evidence. The government accordingly does not presently perceive any need to call Dr. Chiu in its case-in-chief. In an effort to promote the efficiency of the parties' and the Court's preparations for trial, the government has explained the above to the defense and asked whether the parties could agree that

metallurgy would not be at issue during the trial, which would obviate the need for any further litigation on these experts.

On May 6, 2026, the defense provided supplemental expert notice regarding a proffered expert in metallurgy. *See* Ex. 1, 2 (defense expert notice and supplemental notice, respectively). The proffered expert is Dr. Elizabeth Buc, who runs a forensic engineering and consulting firm. Dr. Buc's notice is styled as a response to Dr. Chiu. *See* Ex. 2 at 2 ("Dr. Buc may offer opinions responding to the testimony and analyses of the government's metallurgical expert." . . . "With regard to the methodology employed by the government's expert, Dr. Buc is specifically expected to testify to the following"). Three of the six opinions noticed by the defense do not in fact state what Dr. Buc's opinion will be. A fourth is based in part on a faulty premise, and a fifth is neither well defined nor supported by adequate bases. The notice is thus deficient on five of the six opinions listed. For the reasons above and below, responsive expert testimony on metallurgy is irrelevant at this juncture. Moreover, even if it were relevant, it should be severely limited due to insufficient notice.

ARGUMENT

I. Dr. Buc's Testimony is Not Relevant Unless Metallurgy is Raised in the Government's Case-in-Chief.

The proposed testimony noticed in Dr. Buc's expert disclosure will only become relevant if Dr. Chiu or some other metallurgist testifies for the government in its case-in-chief. As noted above, the government has no plans to put metallurgy at issue in its case-in-chief, [REDACTED]

[REDACTED] Federal Rule of Evidence 401 defines evidence as relevant if "(a) it has any tendency to make a fact more or less probable than it would be without the evidence; and (b) the fact is of consequence in determining the action." *See* Fed. R. Evid. 401. Relevant evidence is admissible unless otherwise provided by

the U.S. Constitution, a federal statute, the Federal Rules of Evidence, or other rules prescribed by the U.S. Supreme Court. *See* Fed. R. Evid. 402. “Irrelevant evidence is not admissible.” *Id.* Any piece of evidence that fails this test under Rule 401 is not relevant under Federal Rule of Evidence 402. *See, e.g., United States v. Doe*, 903 F.2d 16, 20 (D.C. Cir. 1990) (citing 22 C. Wright & K. Graham, *Federal Practice & Procedure* § 5202 at 237 (1978)). And expert testimony must have more than bare relevance; it must be “more likely than not” to “help the trier of fact to understand the evidence or to determine a fact in issue.” Fed. R. Evid 703(a).

Dr. Buc’s expert notice specifically states that it is in response to the government’s metallurgical expert. Ex. 2. at 2. Her opinions, as proffered by the defense, only relate to the work performed by Drs. Wright and Chiu. They do not reflect any analysis conducted by Dr. Buc, nor do they include any proffered interpretation of the raw data generated during any metallurgical testing generated by the Scottish authorities or experts working with the Scottish authorities. Dr. Buc’s notice, then, is only relevant to the extent it purports to call into question to the work of Drs. Wright and Chiu. If the government calls neither Dr. Wright nor Dr. Chiu, Dr. Buc’s notice provides no relevant information to aid the factfinder about what did or did not happen as it relates to the investigation in this case, nor does it contain any relevant information that is admissible in the absence of Dr. Wright’s or Dr. Chiu’s testimony. Because the government does not expect to call either Dr. Wright or Dr. Chiu in its case-in-chief, Dr. Buc’s proposed testimony is irrelevant.¹

¹ The government understands that the Court cannot make a final determination as to whether a defense expert’s testimony would be relevant until after the close of the government’s case in chief. We submit that the Court should treat Dr. Buc’s testimony similarly to Rebecca Murray’s – it should ask for a proffer at the close of the government’s case. If, as the government expects, the testing of Drs. Wright and Chiu were not fairly raised in the government’s case, the Court should at that point not permit Dr. Buc’s testimony.

II. The Defendant's Notice is Insufficient

Even if responsive metallurgy testimony does become relevant during the defense case, Federal Rule of Criminal Procedure 16(b)(1)(C) mandates that an expert disclosure by the defense include, among other things, “a *complete statement* of *all* opinions that the defendant will elicit from the witness in the defendant’s case-in-chief” (emphasis added). This requirement was added as part of the 2022 amendment to the Rule, imposing a higher standard than the previous version that required only “a written summary of any [expert] testimony that the defendant intends to use.” Fed. R. Crim. P. 16(b)(1)(C) (2021 ver.). The express purpose of the amendment was to “ensure that parties receive adequate information about the content of the witness’s testimony and potential impeachment.” Fed. R. Crim. Pro. 16, Notes to 2022 Amendments. Although this statement need not be “verbatim,” it must be “complete.”

Even under the old, less-rigorous standard, a mere “list of testimony topics” was insufficient notice under Rule 16. *United States v. Rogers*, 2006 WL 5249745, at *3 (D.D.C. 2006) (string citations omitted). “Rule 16(b)(1)(C) of the Federal Rules of Criminal Procedure requires the defendant to provide, at the government’s request, ‘a written summary of any testimony the defendant intends to use’ as evidence at trial under Rules 702, 703 or 705 of the Federal Rules of Evidence.” *United States v. Naegele*, 468 F. Supp. 2d 175, 176 (D.D.C. 2007) (quoting Fed. R. Crim. P. 16(b)(1)(C)); *see also United States v. Rogers*, 2006 WL 5249745, at *2 (D.D.C. July 17, 2006).

A mere “list of testimony topics” is insufficient notice under Rule 16. *Rogers*, 2006 WL 5249745 at *3 (string citations omitted); *United States v. Duvall*, 272 F.3d 825, 828 (7th Cir. 2001) (“The Rule requires a summary of the expected testimony, not a list of topics”); *see also United States v. Beavers*, 756 F.3d 1044, 1054 (7th Cir. 2014) (noting that expert notice was “insufficient[]” as it provided only a “general list of examination topics” and one sentence, conclusory in nature,

about one opinion the witness would offer at trial); *United States v. Concessi*, 38 F. App'x 866, 868 (4th Cir. 2002) (upholding district court decision to exclude expert testimony where notice was provided late and “failed to describe the witnesses['] opinions or provide the bases and reasons for the witnesses’ opinions”); *United States v. Ulbricht*, 858 F.3d 71, 115 (2d Cir. 2017) (affirming that expert notices were “plainly inadequate” because they “merely listed general and in some cases extremely broad topics on which the experts might opine”), *abrogated on other grounds by Carpenter v. United States*, 138 S. Ct. 2206 (2018).

Proper expert notice must “describe the witness’s opinions” and describe “the bases and reasons for these opinions.” *Naegle*, 468 F. Supp. 2d at 176 (quoting Fed. R. Crim. P. 16(b)(1)(C)). The primary purpose of Rules 16(b)(1)(B) and (C) is to prevent unfair surprise at trial and to permit each party “to prepare rebuttal reports and to prepare for cross-examination at trial.” *Id.* “Rule 16(b)(1)(C) is ‘intended to minimize surprise that often results from unexpected expert testimony, reduce the need for continuances, and to provide the opponent with a fair opportunity to test the merit of the expert’s testimony through focused cross-examination.’” *Id.* (quoting Fed. R. Crim. P. 16 advisory committee’s note). A defendant is “not entitled to surprise the government with ill-defined expert testimony.” *Beavers*, 756 F.3d at 1054.

“A failure to comply with these Rules may result in the exclusion of the proffered evidence.” *Naegle*, 468 F. Supp. 2d at 176 (citing Fed. R. Crim. P. 16(d); *United States v. Barile*, 286 F.3d 749, 758–59 (4th Cir. 2002); *United States v. Day*, 433 F. Supp. 2d 54, 57 (D.D.C. 2006)).

Even if responsive metallurgy testimony becomes relevant, the defense notice is deficient on five of the six opinions provided, as they do not sufficiently describe Dr. Buc’s opinions or the bases therefor. For example, in Opinion 1, “Independence of Analysis and Confirmation Bias,” the notice states that “Dr. Buc may offer opinions regarding whether the analyses performed by

the government's expert was conducted in a manner consistent with” expectations regarding independence and confirmation bias. Ex. 2 at 2. The notice does not state what that opinion is, however.

In the second opinion noticed, the defense notes that Dr. Buc may “further testify that additional analytical options exist that were not employed” in testing done by Scottish authorities, but it does not state whether she would expect those methods to produce different or even clearer results. *See id.*

In the third listed opinion, the defense states, “Dr. Buc may offer opinions regarding the extent to which the government's exclusive reliance on non-destructive techniques limited the quality and completeness of the resulting data and the reliability of the conclusions drawn therefrom.” *Id.* at 2-3. The notice does not state what those opinions are. How specifically does she believe the data were limited? To what extent does she believe they were limited? For example, if her opinion is that other techniques could have improved data collection by .01 percent, that would be a markedly different opinion than if she believes that other techniques could have improved data collection by 75 percent.

Dr. Buc’s fourth listed opinion rests at least in part on a faulty premise: It states, “focused ion beam removal of surface material was performed on the subject board but not on the comparison boards.” *Id.* at 3. However, as a report of the testing Dr. Chiu participated in makes clear, ion beam milling was carried out on both PT/35(b) and control samples. *See* HS-USAO-139077 at 14-20 (describing ion beam milling conducted on DP/347(a) and DP/344 (control samples), as well as PT/35(b)).

Dr. Buc’s fifth opinion does not adequately describe what that opinion is or the bases for it. Although it alleges that the government’s analysis did not contain a sufficient number of data

points, the notice does not identify, for example, whether there is a scientifically accepted benchmark for the number of data points necessary to render an opinion. *See* Ex. 2 at 3. It does not state whether the number of data points used by Drs. Chiu and Wright deprived their conclusions of any scientific weight. Instead, the notice states that a “more robust and reliable analysis” would have included a greater number of data points, but without a statement of how any additional data points would have made the results more reliable or how the data points used fell short of some bench mark, the opinion does not provide adequate notice of Dr. Buc’s opinion or the bases therefor.

In sum, as to listed opinions one through three, the defense has failed to describe the witness’s opinions. The defense has also failed to provide any of the bases and reasons for the witness’s opinions. “[E]xperts’ opinions are worthless without data and reasons.” *United States v. Mamah*, 332 F.3d 475, 478 (7th Cir. 2003) (quoting *Kenosha v. Heublein*, 895 F.2d 418, 420 (7th Cir. 1990)). There is no indication what, if anything, Dr. Buc would say about the processes and procedures followed by the forensic scientists in this case as it pertains to topics one through three, other than the fact that she would offer opinions. Accordingly, the defense’s expert notice is deficient as to topics one through three.

As noted above, the opinion in topic four of Dr. Buc’s notice is premised on the notion that focused ion beam milling was not carried out on control samples, but focused ion beam milling was in fact carried out on control samples. The defense bears the burden of demonstrating to the Court that Dr. Buc’s opinions are based on sufficient facts or data, and that the opinion reflects a reliable application of the expert’s principles and methods to the facts of the case. *See* Fed. R. Evid. 702(b) & (d). It cannot do so with respect to an opinion based on an unsupported premise.

The opinion expressed in topic five of Dr. Buc's notice is unsupported by any stated bases. It relates the commonsense notion that more data can supply a more reliable picture in general, but it does not list or cite to any scientific benchmark for number of data points that the government's expert failed to meet. It does not even allege that their conclusions are unreliable for any alleged insufficiency in the number of data points. The most it alleges is that their work may have been *more* robust and reliable if they had used additional data points, but it falls short of alleging that the work they did carry out was scientifically deficient or unreliable. To the extent it does so allege, the notice does not state on what basis Dr. Buc came to that conclusion.

CONCLUSION

For the foregoing reasons, the Court should GRANT the government's motion to exclude or limit the testimony of Elizabeth Buc.

Respectfully submitted,

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By: /s/ Erik M. Kenerson

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March 5, 2026

Via E-mail

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Re: *United States v. Abu Agila Mohammad Mas'ud Kheir Al-Marimi*
Case No. 1:22CR392

Dear Counsel:

This letter is to formally advise you that, on behalf of Mr. Al-Marimi, we expect to call Dr. Elizabeth Buc as an expert witness at trial in this case. The attached documents set forth her extensive credentials, lists her publications, and outline all other cases in which she has testified in the past four years. Dr. Buc has been qualified as an expert witness in United States courts in both criminal and civil matters. She has testified in federal and state courts. She has been qualified as an expert in metallurgy and materials science.

Dr. Buc is a materials scientist and forensic engineer with extensive experience in metallurgy, materials characterization, and failure analysis. She holds a Bachelor of Science degree in Chemistry from Rochester Institute of Technology, a Master of Science degree in Chemistry from McMaster University, and both a Master of Science degree and a Ph.D. in Materials Science and Engineering from Wayne State University. She is a licensed Professional Engineer

in Metallurgical Engineering in the States of Michigan and Texas and is a Certified Fire Investigator through the International Association of Arson Investigators.

Dr. Buc is the founder and principal of Fire and Materials Research Laboratory, LLC, a forensic engineering consulting firm located in Livonia, Michigan. In that role, she conducts forensic examinations and scientific analyses involving the performance and failure of metals, polymers, composites, and other engineered materials. Her work routinely involves the examination of fracture surfaces, corrosion, deformation, thermal damage, and other material changes in order to determine the mechanisms and causes of component failures. Her laboratory is equipped with analytical instrumentation used for materials characterization and forensic examination, including the analysis of metals, plastics, electronic components, and other products that have been subjected to mechanical stress, environmental exposure, or elevated temperatures.

Dr. Buc has conducted extensive research and testing involving the performance of materials under thermal and mechanical conditions, including the behavior of metals, electrical conductors, batteries, electronic components, and consumer products when exposed to heat, stress, or other environmental factors. Her work has included the design and execution of laboratory testing, materials characterization, and hazard analysis of a wide range of products and materials. She has authored and presented numerous technical publications and conference papers addressing issues related to materials performance, failure mechanisms, and scientific methods used in forensic engineering investigations.

In addition to her consulting and research work, Dr. Buc has participated in technical and scientific committees addressing materials hazards, combustible materials, and industrial processes. She has authored and contributed to technical publications and reference materials addressing the properties and classification of reactive materials and oxidizers and regularly participates in professional organizations related to materials science, chemistry, and engineering.

Dr. Buc has testified numerous times in depositions and at trial in matters involving materials failures, metallurgical analysis, and related forensic engineering issues and has been qualified as an expert in materials science, metallurgy, chemistry, and failure analysis in both state and federal courts.

Dr. Buc is expected to testify regarding matters within her expertise in metallurgy, materials science, and failure analysis. Specifically, she may offer opinions concerning the physical and chemical properties of metals and other engineered materials, and the scientific methods used to examine and interpret

physical evidence relating to materials performance. Dr. Buc may also testify regarding the forensic examination and analysis of materials evidence.

In addition, Dr. Buc may offer opinions responding to the testimony and analyses of the government's metallurgical expert, including the expert's use and interpretation of analytical instruments and testing methods such as scanning electron microscopy (SEM), environmental scanning electron microscopy (ESEM), x-ray fluorescence (XRF), and dual-beam focused ion beam/scanning electron microscopy systems (FIB/SEM). Dr. Buc may address the scientific principles underlying these analytical techniques, the manner in which such instruments are used to examine and compare materials evidence, the interpretation of microstructural or compositional data generated by those techniques, and the limitations or reliability of conclusions drawn from such analyses. Her testimony may include opinions regarding whether the testing methods employed were appropriate, whether the data supports the conclusions offered, and whether alternative explanations or interpretations of the materials evidence are consistent with accepted principles of metallurgy and materials science.

Her opinions will be based upon her education, training, experience, and review of the materials produced in this case. In addition, Dr. Buc may offer opinions in response to, or in rebuttal of, opinions offered by government experts, Dr. Chiu and Dr. Wright, and may comment on the methodologies, analyses, and conclusions reflected in their reports or testimony.

The defense reserves the right to supplement or amend this disclosure as additional materials are produced, as further expert disclosures are made by the government, or as Dr. Buc completes her review of the evidence and expert opinions in this matter.

In accordance with Federal Rule of Criminal Procedure 16(b)(1)(c)(v), I approve this disclosure:



Elizabeth Buc

Please feel free to call me should you have any questions.

Sincerely,

Whitney E.C. Minter
Laura J. Koenig
Brooke S. Rupert
Assistant Federal Public Defenders
Counsel for Mr. Al-Marimi

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May 6, 2026

Via E-mail

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Washington, DC 20530

Re: *United States v. Abu Agila Mohammad Mas'ud Kheir Al-Marimi*
Case No. 1:22CR392

Dear Counsel:

This letter supplements and updates the defense's prior expert notice regarding Dr. Buc, dated March 5, 2026. That notice set forth Dr. Buc's credentials, publications, and prior testimony history, and provided a general outline of her anticipated opinions. This supplemental notice is provided in accordance with the defenses' agreement to provide a supplemental expert disclosure on or before May 6, 2026. It reiterates the scope of her anticipated testimony as previously disclosed and provides additional and more specific opinions formed following her review of the government's expert disclosures, expert reports, and the underlying raw data. To the extent any opinion stated herein is inconsistent with or expands upon the prior notice, this supplemental notice controls. The defense continues to reserve the right to further supplement this disclosure as circumstances warrant.

As previously stated, Dr. Buc is expected to testify regarding matters within her expertise in metallurgy, materials science, and failure analysis. Specifically, she may offer opinions concerning the physical and chemical properties of metals and other engineered materials, and the scientific methods used to examine and interpret physical evidence relating to materials performance. Dr. Buc may also testify regarding the forensic examination and analysis of materials evidence.

In addition, as outlined earlier, Dr. Buc may offer opinions responding to the testimony and analyses of the government's metallurgical expert, including the expert's use and interpretation of analytical instruments and testing methods such as scanning electron microscopy (SEM), environmental scanning electron microscopy (ESEM), x-ray fluorescence (XRF), and dual-beam focused ion beam/scanning electron microscopy systems (FIB/SEM). Dr. Buc may address the scientific principles underlying these analytical techniques, the manner in which such instruments are used to examine and compare materials evidence, the interpretation of microstructural or compositional data generated by those techniques, and the limitations or reliability of conclusions drawn from such analyses. Her testimony may include opinions regarding whether the testing methods employed were appropriate, whether the data supports the conclusions offered, and whether alternative explanations or interpretations of the materials evidence are consistent with accepted principles of metallurgy and materials science.

With regard to the methodology employed by the government's expert, Dr. Buc is specifically expected to testify to the following:

1. **Independence of Analysis and Confirmation Bias.** Forensic analyses of physical evidence should be conducted independently and without presupposition of a particular result. Dr. Buc may offer opinions regarding whether the analyses performed by the government's expert was conducted in a manner consistent with this principle, and whether the analytical approach, sequence, or reporting reflects confirmation bias rather than objective scientific inquiry.
2. **Limitations of Analytical Equipment and Non-Destructive Evidence Handling.** The limitations of analytical equipment and evidence-handling constraints, including the exclusive use of non-destructive techniques, should be clearly identified and disclosed, and conclusions should be appropriately qualified in light of those limitations. Dr. Buc may testify that data obtained through SEM/EDS is generally more reliable and carries greater evidentiary weight than XRF data, and that SEM/EDS analyses are spatially limited to physically small areas; accordingly, analysis of a greater number of areas yields more data and supports more reliable average compositional determinations. She may further testify that additional analytical options exist that were not employed, including x-ray dot mapping using SEM/EDS over larger surface areas, and high-resolution computed tomography (CT) — a three-dimensional x-ray technique that represents an accepted and increasingly utilized forensic method for the non-destructive preservation and examination of physical evidence, including printed circuit boards (PCBs).
3. **Limitations of Exclusively Non-Destructive Analysis.** A more complete and reliable dataset is obtained through a combination of non-destructive and destructive analytical techniques. Destructive analyses, while consuming a portion of the evidence, yield significantly more information — including data concerning the thickness and composition of traces, coatings, and material

layers — that cannot be obtained through non-destructive methods alone. For example, preparation of a metallurgical mount, though considered destructive, would clearly reveal a layered material structure and permit direct thickness measurements. Similarly, the preparation and examination of polished cross-sections is a standard and accepted forensic analytical method, including in the analysis of printed circuit boards. Dr. Buc may offer opinions regarding the extent to which the government's exclusive reliance on non-destructive techniques limited the quality and completeness of the resulting data and the reliability of the conclusions drawn therefrom.

4. **Failure to Validate Limited Analyses Using Comparison Samples.** Where non-destructive analytical constraints limit the data obtainable from subject evidence, those limitations should be verified or validated through more thorough analysis of available comparison samples, which are not subject to the same preservation constraints. Dr. Buc may testify that the government's expert failed to adequately exploit the comparison PCBs for this purpose. For instance, focused ion beam removal of surface material was performed on the subject board but not on the comparison boards, and the comparison boards were not subjected to additional or more thorough testing — such as examination of the effects of heat or fire exposure — that could have validated findings or interpretations derived from the more limited analysis of the evidence. Dr. Buc may further testify that differences between hand-applied and electrolytically deposited layers of solder on PCB traces is a relevant analytical consideration that should have been explored using the comparison boards.
5. **Insufficiency of Data Points.** Sound forensic materials analysis requires the collection of a sufficient number of data points across all relevant analytical dimensions. Dr. Buc may testify that the government's analysis was deficient in this respect, and that a more robust and reliable analysis would have included a greater number of measurements and observations across multiple parameters, including but not limited to component population, solder composition, board composition, and dimensional analysis.
6. **Lack of Specificity in Comparative Conclusions.** Meaningful forensic materials analysis requires that comparative conclusions be stated with sufficient specificity and quantitative support to carry scientific weight. Dr. Buc may testify that the government expert's conclusion that the fragment sample and control samples have "similar" copper layer thicknesses and "similar" tin layer thicknesses and morphologies is not scientifically informative as stated. The use of the term "similar" without accompanying quantitative data and without a defined standard against which similarity is assessed, renders the conclusion of limited analytical value. Dr. Buc may further testify that a rigorous comparative analysis would identify and report specific measured values across multiple sample locations, characterize the degree and significance of any variation, and explain whether observed

similarities or differences are meaningful in light of known manufacturing processes, material specifications, or the specific analytical question at issue. A conclusion of "similarity" unsupported by such data does not meaningfully advance the forensic inquiry and may obscure distinctions that are analytically significant.

Her opinions will be based upon her education, training, experience, and review of the materials produced in this case. In addition, Dr. Buc may offer opinions in response to, or in rebuttal of, testimony offered by government expert, Dr. Chiu.

The defense reserves the right to supplement or amend this disclosure as additional materials are produced, as further expert disclosures are made by the government, or as Dr. Buc completes her review of the evidence and expert opinions in this matter.

In accordance with Federal Rule of Criminal Procedure 16(b)(1)(c)(v), I approve this disclosure:

A handwritten signature in cursive script, appearing to read "Elizabeth Buc", written in black ink.

Elizabeth Buc

Please feel free to call me should you have any questions.

Sincerely,

Whitney E.C. Minter
Laura J. Koenig
Brooke S. Rupert
Assistant Federal Public Defenders
Counsel for Mr. Al-Marimi

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA**

UNITED STATES OF AMERICA

v.

**ABU AGILA MOHAMMAD
MAS'UD KHEIR AL-MARIMI**

Defendant.

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Case No. 22-cr-392 (DLF)

UNDER SEAL

ORDER

Having considered the government's motion to exclude or limit testimony of proffered metallurgy expert, and for good cause stated therein, the Court GRANTS the motion. The testimony of Elizabeth Buc shall be presumptively excluded unless the defense proffers relevance after the government's case-in-chief.

Date: _____, 2026

DABNEY L. FRIEDRICH
UNITED STATES DISTRICT JUDGE

cc: Erik Kenerson
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