

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF NEW YORK**

IN RE META MATERIALS INC.  
SECURITIES LITIGATION

Case No.: 1:21-cv-07203-CBA-JRC

**CONSOLIDATED COMPLAINT**

**CLASS ACTION**

**DEMAND FOR JURY TRIAL**

Plaintiffs Kaoutar Kajjame, Philip Granite, Ricardo Joseph, Venkateswara Ramireddy, Todd Targgart, and Michael Schultheis (collectively, “Plaintiffs”), individually and on behalf of all other persons similarly situated, by Plaintiffs’ undersigned attorneys, for Plaintiffs’ Consolidated Complaint against Meta Materials Inc. f/k/a Torchlight Energy Resources, Inc. (“Meta Materials”) and certain of its current and former officers, allege the following based upon personal knowledge as to Plaintiffs and Plaintiffs’ own acts, and upon information and belief as to all other matters based on the investigation conducted by and through Plaintiffs’ attorneys, which included, among other things, a review of Meta Materials’ Securities and Exchange Commission (“SEC”) filings, public documents, announcements, press releases, as well as media and analyst reports.

Plaintiffs believe that substantial evidentiary support will exist for the allegations set forth herein after a reasonable opportunity for discovery.

**I. NATURE OF THE ACTION**

1. This is a federal class action lawsuit on behalf of a class consisting of all persons and entities who purchased Meta Materials’ publicly traded securities between September 21, 2020

and June 24, 2022 at approximately 12:59 pm EDT, inclusive (the “Class Period”), and were damaged thereby.

2. Meta Materials, as it presently exists, is the result of a reverse merger between Metamaterial Technologies Inc. (“Metamaterial”), a cash-strapped high-tech Canadian company with no commercial products, and Torchlight Energy Resources Inc. (“Torchlight”), a failed oil and gas company with no real value other than the fact it was publicly listed on the NASDAQ stock market. For Torchlight, the merger provided its officers and insiders a lucrative exit strategy from a company on the brink of insolvency. Metamaterial, meanwhile, was able to bypass the normal registration requirements and become a publicly listed company on a U.S.-based exchange with access to desperately-needed capital. The companies and their senior executives promoted the merger to no end, ensuring that their respective shareholders would support it as well as the repeated dilutive equity raises they conducted in the months that followed. What investors did not know at the time was just how *undeveloped* Metamaterial’s products were or just how much cash Metamaterial intended to raise through its newfound access to the U.S. public equity markets. The truth about Metamaterial and the merger came to light slowly over the course of the Class Period, initially in response to inquiries about the merger from the SEC and then later through dilutive equity offerings, regulatory enforcement, and analyst research reports. From an intra-Class Period high of \$21.76 per share, Meta Materials’ stock declined nearly 95% to close at \$1.17 per share at the end of the Class Period. Plaintiffs and other Meta Materials investors seek to hold Defendants accountable for these losses.

3. On September 21, 2020, at the start of the Class Period, Torchlight and Metamaterial announced their plans to merge. Meta Materials would be the surviving entity with its shares taking the place of Torchlight on the NASDAQ under the ticker “MMAT”. Pursuant to

the merger agreement, Torchlight investors would receive 25% of the surviving entity along with additional compensation if and when Meta Materials ever liquidated Torchlight's remaining oil and gas assets.

4. Defendants John Brda, Torchlight's President and Chief Executive Officer, and Greg McCabe, Torchlight's Chairman and largest shareholder, emphatically supported the transaction. They told Torchlight's shareholders at the time that the "combined entity" would "continue to service a clientele of world-class OEM customers for a range of applications in the automotive, aerospace and defense, energy, consumer electronics and medical markets" based on Metamaterial's "proprietary advanced technologies." At the same time, defendant George Palikaras, Metamaterial's Chief Executive Officer, told prospective shareholders about "partnerships" with Fortune 500 companies like Lockheed Martin and how Metamaterial was "now moving toward commercializing products" with "scalable manufacturing methods."

5. Contrary to Defendants' public representations, Metamaterial's products were in their earliest stages of development and nowhere near the point of being ready for "commercializing" or "scaling," let alone profitability. Plus, Metamaterial did not have any "partnerships" with the Fortune 500 companies Palikaras had claimed.

6. Plaintiffs and other Meta Materials investors were not given truthful, accurate, or complete information about Metamaterial or its merger with Torchlight. Instead, they were deprived of their right to the truth and precluded from accurately assessing the risks inherent in investing in Meta Materials. These risks materialized over the course of the Class Period and, in turn, caused Meta Materials' stock price to decline precipitously and investors to sustain significant losses as a result.

7. To recover their losses and the losses of other similarly situated investors, Plaintiffs bring this action under (i) Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 [15 U.S.C. §§78j, 78t] and SEC Rule 10b-5 [17 C.F.R. §240.10b-5], (ii) Sections 11 and 15 of the Securities Act of 1933 [15 U.S.C. §§77k, 77o], and (iii) Section 14(a) of the Securities Exchange Act of 1934 [15 U.S.C. §78n] and SEC Rule 14a-9 [17 C.F.R. §240.14a-9]. Defendants should be held liable under these provisions and required to compensate Meta Materials' shareholders for their losses.

## **II. JURISDICTION AND VENUE**

8. The federal law claims asserted herein arise under and pursuant to Sections 10(b) and 20(a) of the Exchange Act of 1934 [15 U.S.C. §§78j, 78t] and Rule 10b-5 promulgated thereunder by the SEC [17 C.F.R. § 240.10b-5], Sections 11 and 15 of the Securities Act of 1933 [15 U.S.C. §§77k, 77o], and Section 14(a) of the Securities Exchange Act of 1934 [15 U.S.C. §78n] and SEC Rule 14a-9 [17 C.F.R. §240.14a-9].

9. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §1331, Section 22 of the Securities Act of 1933 [15 U.S.C. §77v], and Section 27 of the Exchange Act of 1934 [15 U.S.C. §78aa].

10. This Court has jurisdiction over each Defendant named herein because each Defendant is an individual who has sufficient minimum contacts with this District so as to render the exercise of jurisdiction by the District Court permissible under traditional notions of fair play and substantial justice.

11. Venue is proper in this District pursuant to Section 27 of the Exchange Act of 1934 [15 U.S.C. §78aa], Section 22 of the Securities Act of 1933 [15 U.S.C. §77v], and 28 U.S.C. §1391(b) because certain of the acts alleged herein, including the preparation and dissemination of material false and/or misleading information, occurred in this District.

### **III. PARTIES**

#### **A. Plaintiffs**

12. Plaintiff Kaoutar Kajjame purchased Meta Materials securities within the Class Period and, as a result, was damaged thereby. Ms. Kajjame's certification evidencing her transactions is incorporated by reference herein. Dkt. No. 21-1 at 2-4.

13. Plaintiff Philip Granite is the rightful assignee of the claims in this lawsuit belonging to Michael Granite, who purchased Meta Materials securities within the Class Period and, as a result, was damaged thereby. Mr. Granite's certification evidencing his and/or Michael Granite's transactions is incorporated by reference herein. Dkt. No. 21-1 at 5-6. Mr. Granite's assignment is also incorporated by reference herein. Dkt. No. 21-1 at 7.

14. Plaintiff Ricardo Joseph purchased Meta Materials securities within the Class Period and, as a result, was damaged thereby. Mr. Joseph's certification evidencing his transactions is incorporated by reference herein. Dkt. No. 21-1 at 8-9.

15. Plaintiff Venkateswara Ramireddy purchased Meta Materials securities within the Class Period and, as a result, was damaged thereby. Mr. Ramireddy's certification evidencing his transactions is incorporated by reference herein. Dkt. No. 29-3.

16. Plaintiff Todd Targgart purchased Torchlight securities within the Class Period, which were converted into Meta Materials stock upon completion of the merger, and, as a result, was damaged thereby. Mr. Targgart's certification evidencing his transactions is filed herewith.

17. Plaintiff Michael Schultheis purchased Torchlight securities within the Class Period, which were converted into Meta Materials stock upon completion of the merger, and, as a result, was damaged thereby. Mr. Schultheis' certification evidencing his transactions is filed herewith.

18. Plaintiffs Kajjame, Granite, and Joseph are the Lead Plaintiff referred to as the “Meta Materials Investor Group” and, together with additional named plaintiffs Ramireddy, Targgart, and Schultheis, are referred to herein as “Plaintiffs”.

**B. Defendants**

19. Defendant Meta Materials’ principal executive offices are located in Dartmouth, Nova Scotia, Canada. Its stock presently trades on the Nasdaq Capital Market under the ticker “MMAT”. Meta Materials was formerly known as Metamaterial prior to its merger with Torchlight. Torchlight, prior to its merger with Meta Materials, traded on the Nasdaq Stock Market under the ticker “TRCH”. Meta Materials includes Metamaterial and/or Torchlight when referring to operations prior to the merger.

20. Defendant George Palikaras (“Palikaras”) was at all pertinent times the founder and Chief Executive Officer (“CEO”) of Meta Materials before and after its merger with Torchlight. Following the merger with Torchlight, Palikaras has served as Meta Materials’ CEO, President, and as a Director.

21. Defendant Kenneth Rice (“Rice”) was the Chief Financial Officer (“CFO”) and Executive Vice President (“EVP”) of Meta Materials. Since the merger, Defendant Rice has served as Meta Materials’ CFO and EVP.

22. Defendant Greg McCabe (“McCabe”) was the Chairman of Torchlight’s Board of Directors. McCabe resigned following Torchlight’s merger with Meta Materials.

23. Defendant John Brda (“Brda”) was Torchlight’s President, CEO, Secretary, and a member of Torchlight’s Board of Directors. Brda resigned following Torchlight’s merger with Meta Materials.

24. Defendants Palikaras, Rice, McCabe, and Brda are referred to as the “Individual

Defendants”.

25. Meta Materials, together with the Individual Defendants, are referred to as “Defendants”.

#### IV. FACTUAL BACKGROUND

##### A. Torchlight Was a Failing Oil and Gas Company with Little-to-No Prospect of Success.

26. Torchlight began operations in the oil and gas industry in 2010.<sup>1</sup> It described its business model as one “focus[ed] on drilling and working interest programs within the United States that have a short window of payback, a high internal rate of return and proven and bookable reserves. We currently have only one interest in an oil and gas project, the Marcelina Creek Field Development . . . . We anticipate being involved in multiple other oil and gas projects moving forward, pending adequate funding.”

27. Torchlight’s oil and gas operations were not profitable and, in fact, there was substantial doubt as to its ability to continue as a going concern. In its annual report on Form 10-K for fiscal 2010, Torchlight stated, in relevant part, that:

*At December 31, 2010, we had not yet achieved profitable operations, had accumulated losses of \$645,302 since our inception, and expect to incur further losses in the development of our business, all of which casts substantial doubt about our ability to continue as a going concern.* Our ability to continue as a going concern is dependent upon our ability to generate future profitable operations and/or to obtain the necessary financing to meet our obligations and repay our liabilities arising from normal business operations when they come due. Management’s plan to address our ability to continue as a going concern includes: (1) obtaining debt or equity funding from private placement or institutional sources; (2) obtaining loans from financial institutions, where possible, or (3) participating in joint venture transactions with third parties.

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<sup>1</sup> Prior to oil and gas, Torchlight operated in the health and fitness industry under the name Pole Perfect Studios, Inc. (“Pole Perfect”). Pole Perfect provided pole dancing aerobic exercise classes, which were of some popularity in the early 2000’s. Its popularity waned, however, forcing the need to pivot to another business.

(emphasis added)

28. Almost a decade later though, Torchlight was still struggling to stay afloat. In 2018 and 2019, Torchlight had total revenues of \$1,282,362 and \$746,263, respectively, and net losses of \$5,806,612 and \$9,839,396, respectively. In its annual report on Form 10-K for fiscal 2019, Torchlight stated in relevant part that:

At December 31, 2019, the Company had not yet achieved profitable operations. We had a net loss of \$9,839,396 for the year ended December 31, 2019 and had accumulated losses of \$99,153,701 since our inception. We expect to incur further losses in the development of our business. The Company had a working capital deficit as of December 31, 2019 of \$13,226,742. *These conditions raise substantial doubt about the Company's ability to continue as a going concern.*

(emphasis added)

29. After a decade of strategizing and implementing business plans in the oil and gas industry, Torchlight's efforts to cultivate a profitable company proved to be unsuccessful. The stark reality of Torchlight's future in the oil and gas business forced it to pivot, once again, and completely abandon its failing business model.

**B. Metamaterial Was a Dubious Canadian Company Looking for a Shortcut to Capital from the U.S. Public Equity Markets.**

30. On August 15, 2011, Metamaterial was incorporated under the name Lamda Guard Canada Inc. ("Lamda") before changing its name to Metamaterial Technologies Inc. At the time, it claimed to be an advanced materials and systems engineering company delivering nanotech solutions powered by metamaterials which were, according to Meta Materials, "composite structures, consisting of conventional materials such as metals and plastics, which are engineered by scientists to exhibit new or enhanced properties relating to reflection, refraction, diffraction, filtering, conductance and other properties that have the potential for multiple commercial applications."



31. When Metamaterial, or Lamda, initially started its business, it was purportedly focused on developing transparent thin films (“TTFs”) for the solar cells market, the LED lighting market, and the laser protection market. Its operations were divided into three segments: “Lamda Solar,” which would use TTFs to improve the absorption of solar panel cells; “Lamda Lux,” which would use TTFs to enhance the output and efficiency of LED lighting; and “Lamda Guard,” which would use TTFs on aircraft windows to protect against laser strikes that could affect pilot vision.

32. Lamda never successfully commercialized any of its products; instead, they were inconspicuously abandoned over the following years. For example, in 2014, Metamaterial claimed that it had “develop[ed] . . . a thin film that uses metamaterials . . . to dramatically increase solar cell efficiency (up to 100%) by collecting light from all angles and absorbing light over most useful spectrums,” despite any demonstrable evidence that Metamaterial was able to *double* solar cell efficiency. In 2016, according to Metamaterial’s website, the TTFs for solar cells were in the final stage of development and showed a picture of what appeared to be a car using the Lamda Solar technology (it was later discovered that the photograph was a stock photo). Then, in August 2017, even though Metamaterial had just claimed that the Lamda Solar TTFs were in the final stages of development, it substantively changed the design of the solar cells to utilize “NanoWeb technology” thereby abandoning virtually all of its prior product design, research, and development.

33. To fund operations in lieu of generating any material product revenue, Metamaterial relied almost exclusively on grants, loans, and fanciful collaboration deals. For example, in 2012, the Atlantic Canada Opportunities Agency (“ACOA”) provided Metamaterial with a C\$332,000 loan to work on its TTF technology. From 2013 through 2019, the ACOA provided Metamaterial with C\$6.8 million in loans that were nearly all interest free.

34. In 2015 and 2017, Innovacorp, a venture capital company from Nova Scotia, Canada, invested a total of C\$3.1 million in Metamaterial to “develop an R&D and pilot production facility that will allow the manufacture of thin-films for cockpit windows.”

35. In 2017, Sustainable Development Technology Canada (SDTC) agreed to invest C\$5.4 million in Metamaterial to fund an endeavor called “Enabling solar flight: a testing ground for lightweight and efficient solar panels.” The funding amount was later reduced to C\$1.99 million potentially due to the fact that Metamaterial was not upholding its end of the agreement.

36. In April 2017, Lockheed Martin and Meta Materials signed a C\$5.6 million agreement in which Metamaterial was required to “produce a prototype of the light-trapping metamaterial film.” While Metamaterial publicized the agreement as a “partnership,” the contract with Lockheed Martin explicitly stated that it was “not intended to constitute, give effect to, or otherwise create a joint venture, partnership, teaming agreement or other business entity of any kind.” In addition, Lockheed Martin did not make an investment in Metamaterial because it had any proven, effective, or viable products. Instead, Lockheed Martin’s investment was simply the execution of its own obligations under Canada’s Industrial and Technological Benefits Policy, which required defense contractors who sell equipment to the Canadian government to invest a portion of the contract into Canadian businesses.

37. In June 2017, when Metamaterial announced the investment, its press release insinuated that Lockheed Martin would be purchasing a product called “metaSOLAR,” which would be “the world’s lightest weight and highest efficiency solar panel technology, suitable for flight.” This was the first time Metamaterial ever referenced a metaSOLAR product and, again, it seemed to be another surprise deviation from Metamaterial’s previously stated business plans. To date, there is no evidence showing that Metamaterial successfully produced the solar panel

technology or the “prototype” it was supposed to deliver under the terms of its agreement with Lockheed Martin.

38. In 2020, the Business Development Bank of Canada lent Meta Materials C\$5 million, which was structured to be convertible into Metamaterial’s stock.

39. Metamaterial also obtained capital from Canada’s public equity markets. On March 5, 2020, Metamaterial completed a reverse-merger with Continental Precious Minerals Inc. (“CPM”). CPM initially operated as a multi-mineral exploration-stage company within the natural resources industry, but later became just another defunct public company shell seeking a merger partner. Once the merger was complete, Metamaterial withdrew CPM’s shares from the TSX Venture Exchange in Alberta and relisted its shares under the ticker “MMAT” on the Canadian Securities Exchange in Ontario.

40. In total, since its inception in 2011 through September 2020, Metamaterial secured an astounding C\$60 million in funding. The commercialization of its products, however, had not even come close to materializing. To the contrary, Metamaterial would routinely make bold claims about its prospects only to discontinue them. Indeed, even after Metamaterial’s reverse-merger with CPM, Metamaterial dropped Lamda Solar and Lamda Lux from its website without any explanation or evidence indicating that either segment successfully produced a single prototype.

**C. Torchlight Merges with Metamaterial.**

41. With mounting losses and no realizable profits on the horizon, Torchlight started to pursue strategic alternatives with third-parties. On June 2, 2020, during a meeting of Torchlight’s Board of Directors, Brda said that he had received inquiries from various acquaintances and large shareholders about potential opportunities for Torchlight to engage in a strategic transaction.

Torchlight's Board directed management to continue engaging in discussions regarding potential strategic alternatives for Torchlight.

42. Between May and August 2020, Torchlight participated in discussions with several entities interested in a reverse-merger. In total, Torchlight engaged in negotiations with five companies (not including Meta Materials). In each instance, the negotiations failed due to issues relating to Torchlight's disposition or sale of its oil and gas assets prior to the consummation of any transaction or disagreements over the valuation of the merging entity.

43. In September 2020, Torchlight's external investor relations representative, who had been monitoring Torchlight's efforts to pursue strategic alternatives, suggested that representatives of Torchlight have a virtual meeting with Palikaras. On September 4, 2020, Brda and McCabe held a virtual meeting with Palikaras after which they signed a confidentiality agreement and proceeded to negotiate the structure for a transaction.

44. Similar to Torchlight's previous negotiations, issues arose concerning Torchlight's oil and gas assets, specifically "[Metamaterial's] desire that Torchlight divest the O&G Assets [oil and gas assets], the anticipated impact of that divestiture on Torchlight's market capitalization prior to closing the transaction (which the parties were using to determine Torchlight's valuation), the appropriate method for valuing the O&G Assets, and how the value of the O&G Assets should be allocated between each party's legacy stockholder base." According to the definitive proxy statement for the merger, these issues were resolved as follows:

[Metamaterial] then suggested that the parties structure the transaction so that all of the value of the O&G Assets would be allocated to the legacy Torchlight stockholders, and on that basis agree on the pro forma ownership percentage of the Combined Company that would be allocated to each party's legacy stockholder base. This proposal was attractive to Torchlight because it provided Torchlight with flexibility with respect to eventual divestiture of the O&G Assets (including the ability to structure and consummate the divestiture after the closing of the transaction with [Metamaterial]), while also ensuring that the value obtained in the

divestiture would benefit investors in Torchlight's legacy oil and gas business, and providing those investors with a substantial ownership percentage of [Metamaterial's] business on an ongoing basis (which would have a large stockholder base and access to additional capital). The parties agreed to move forward on this basis, and after substantial negotiation, arrived at the 75%/25% ownership split described elsewhere in this proxy statement, with the ultimate Exchange Ratio generally subject to adjustment for shares issued by either company for its own benefit prior to the closing of the transaction to maintain the agreed ownership split.

45. Negotiations between Torchlight and Metamaterial continued through September 2020. During this time, the parties agreed upon the following capital requirements, which generally required Torchlight to raise money for Metamaterial's benefit following the merger. In pertinent part, the capital requirements were as follows:

The parties continued to negotiate other key transaction terms through the first three weeks of September 2020. During this time, the parties gave particular consideration to each party's capital requirements during the period leading up to the consummation of a strategic transaction, as well as the anticipated capital requirements of the Combined Company immediately following the consummation of a strategic transaction. In these negotiations, Torchlight agreed to provide Meta with \$1,000,000 of bridge financing to help meet its current cash needs, \$500,000 of which would be loaned upon the execution of the letter of intent, and the remaining \$500,000 of which would be loaned upon the execution of a definitive agreement for the transaction. Torchlight and Meta also agreed that while one of the key drivers for the transaction was to provide the Combined Company with access to the U.S. capital markets via a NASDAQ listing, the Combined Company would also require capital shortly after closing the business combination. To that end, the parties agreed to condition the transaction on Torchlight raising at least \$10,000,000 of capital for the benefit of the Combined Company prior to the closing of the transaction, with any Torchlight Shares issued or issuable in such financing diluting the legacy Meta shareholders and legacy Torchlight stockholders in accordance with the agreed 75%/25% pro forma post-closing ownership split. The parties also agreed that Torchlight would be required to settle all of its outstanding indebtedness (other than the Straz Debt), either via repayment in cash or conversion into Torchlight Shares, prior to the consummation of the transaction, with any Torchlight Shares issued in connection therewith diluting only the legacy Torchlight stockholders. The Straz Debt would either be repaid in cash, converted into Torchlight Shares or restructured so that the only recourse of the debtholders after the closing of the transaction would be against the O&G Assets.

46. On December 14, 2020, Meta Materials and Torchlight executed their agreement (referred to as the “Arrangement Agreement”) memorializing the terms of the merger. In substance, the Arrangement Agreement was a reverse takeover of Torchlight by Metamaterial in order to facilitate a listing on the NASDAQ and broad access to the U.S. capital markets. Pursuant to the Arrangement Agreement, once Torchlight indirectly acquired all Metamaterial shares, the combined company would be renamed “Meta Materials Inc.” and continue Metamaterial’s operations.

**D. Defendants Make False Statements to Generate Hype and Support for the Merger.**

47. Contemporaneous with the internal negotiations between Torchlight and Metamaterial, promotion for the transaction was raging in the public sphere. On September 21, 2020, before market open, Meta Materials issued a press release titled, “Torchlight and Metamaterial Announce Planned Business Combination.” The press release announced the parties’ execution of a letter of intent (“LOI”) for Torchlight to acquire 100% of Metamaterial and to divest its oil and gas assets for the benefit of Torchlight’s legacy shareholders who would own 25% of the combined company. It described the terms of the LOI, but did not mention or discuss any exchange ratio. The press release also stated, in relevant part:

*The Proposed Transaction represents a strategic shift for Torchlight. It is intended to reposition Torchlight into the multi-billion-dollar Advanced Materials market as a global cleantech and technology leader. META has an extensive intellectual property portfolio, a global presence and multiple R&D and product development agreements with government agencies and private enterprises. The combined entity will continue to service a clientele of world-class OEM customers for a range of applications in the automotive, aerospace and defense, energy, consumer electronics and medical markets.*

“During the past six months the oil and gas market has softened due to the economic slowdown resulting from the pandemic,” stated John Brda, Torchlight’s CEO. “In order to unlock value potential from our national listing and access to the capital

markets, *we shifted some attention from the divestiture of our oil and gas assets to an acquisition strategy targeting proven disruptive technology companies with strong environmental, social and governance (ESG) priorities.* This Proposed Transaction is the first step in that effort, *providing our shareholders with access to the multi-billion-dollar target market and new applications that are being revolutionized with sustainable technologies,* while allowing them to participate in the future upside from our oil and gas asset divestitures.”

“META’s management, led by George Palikaras has built an extraordinary award-winning cleantech *company whose proprietary advanced technologies* address multiple markets and *improve their customer’s capabilities,*” said Greg McCabe, Torchlights Chairman. “I am excited to work with them and equally excited about the outcome for our faithful Torchlight shareholders. *Not only will their loyalty be rewarded with ownership in Metamaterials,* they will also retain full value in our oil and gas assets through the Special Dividend.”

“We recognize the significant value in having a national exchange listing in the United States that will provide META with better access to the capital markets,” commented George Palikaras, Metamaterial’s President and Chief Executive Officer. “NASDAQ is the world’s premier technology exchange, providing us with the best platform to expand awareness of META on the global stage and *fully realize the value of our portfolio of innovative sustainable products.* This transaction will enhance our ability to pursue a broad range of opportunities and attract additional world-class talent.

“We look forward to driving significant value for shareholders in our mission to make every product smarter and more sustainable by utilizing the power of light and advanced materials.”

Many of META’s functional materials and metamaterials are designed to increase the efficient use of light and other energy forms. META’s innovations have been reported in popular technology magazines such as Wired.com “Bizarre New Materials Could Make Bendy Phones That Work” and the Financial Times which listed the category of metamaterials in their “50 Ideas To Change The World” in a special annual report.

META’s products are designed and manufactured with environmental sustainability as a high priority. As a result, META has won a number of industry awards and federal government grants for its pioneering work, including being named among the “2019 Global Cleantech 100”, by Cleantech Group. The Global Cleantech 100 is an annual guide to the leading companies and themes in sustainable innovation and features companies that are best positioned to solve tomorrow’s clean technology challenges. In 2018 META was awarded “Best New Product in Commercial Aviation” by Aviation Week Network at the 63rd Annual Laureate Awards, for metaAIR®, a Laser Strike Protection solution to protect pilots from harmful laser attacks without interfering with visibility. *META partnered*

*with Airbus to develop and commercialize this technology.* In 2013 Metamaterial Technologies USA, Inc (formerly Rolith Inc and now META's subsidiary in Silicon Valley) received "Best Manufacturing Technology" award at the tenth annual IDTechEx printed electronics industry event. *META has also partnered with Lockheed Martin and the Canadian Government's Sustainable Development Technology Canada (SDTC) fund to develop metaSOLAR™ a new solar energy product suitable for the transportation industry.*

Since 2011, approximately CAD \$60MM has been invested in META, yielding a sizable IP portfolio. In 2020 to date, META has been granted 11 new patents. META has a total of 52 granted and 37 pending patent applications, including 26 in the United States and 63 in 18 other countries around the world. META's portfolio comprises 28 patent families, 19 of which are granted.

...

Torchlight has engaged Roth Capital Partners as financial advisor in connection with the transaction. META has engaged Hamilton Clark as financial advisor on its behalf. Additional details will be announced if and when a Definitive Agreement is reached.

(emphasis added)

48. In this press release, Meta Materials misleadingly portrayed itself as a cutting-edge technology company with the patents, world-class clientele, know-how, *and products* to usher Torchlight into an era of profitability. Defendants touted a "partnership" with Lockheed Martin that was, in truth, simply an investment that did not constitute or create any kind of partnership or joint venture, as previously described herein. Defendants also misrepresented that Metamaterial partnered with Airbus to commercialize metaAIR as the actual distribution agreement was made with Satair, an Airbus subsidiary. In addition, by thoroughly discussing the awards and accolades that Metamaterial received, Defendants further added to the false perception that Metamaterial was an advanced company with proven products just a step away from disruption and profitability.

49. The market was skeptical of the transaction due to the fact that Metamaterial had not been successful in bringing any products to market and had, in fact, cultivated a long list of product and development failures. Notwithstanding and contrary to the fact that all three of



Metamaterial's business segments failed to materialize into anything, Defendants claimed that Metamaterial was a proven innovative and disruptive technology company.

50. In 2021, Meta Materials' description of its solar business stated that, "META is at the early stage of developing new solar films that will have the potential to increase solar cell efficiency by collecting and absorbing light." After almost a decade and a C\$5.6 million investment, Meta Materials still had absolutely no commercialized or viable product for the solar market and returned to calling its endeavors "early stage." But, in contrast to these statements, Metamaterial's SEDAR filing in connection with the CPM reverse merger stated that Lamda Solar had no activity in the last three years, *i.e.*, there had been no activity for the three years prior to March 5, 2020. Moreover, to appear as if it had steady revenues, Metamaterial booked the C\$5.6 million investment as deferred revenue, which accounted for about 70% of Meta Materials' revenue from 2017-2020. In sum, Meta Materials' conduct related to the solar business alone was highly questionable and entirely misleading, precisely illustrating why the market was skeptical of the Torchlight transaction in the first place.

51. In reference to Lamda Lux, Metamaterial originally claimed that it was developing TTFs for the LED lighting market. In 2013, Metamaterial said the Lamda Lux segment "designs advanced light sources using nanocavities, which enhance light output (power & efficiency)." In 2014, however, it was described as designing "optically transparent thin film that drastically increases the light output of LEDs by up to 10 times." This is the same general description that stayed on Metamaterial's website until the CPM reverse merger in 2020. At that time, the entire Lamda Lux segment was removed from the website. Similar to Lamda Solar, Metamaterial's disclosures revealed that Lamda Lux had no activity in the three years prior to March 5, 2020. Currently, Metamaterial's website references a research program seeking interns, which includes

efficient LEDs as one of five research areas in the program. Like the solar business, after several years and multiple cash injections into the company, Metamaterial has absolutely nothing to show for its LED lighting business.

52. In reference to Lamda Guard, this is the only segment in which Metamaterial's pivot eventually resulted in an actual, usable product. Unfortunately for investors, the product quality was equivocal, and Metamaterial was not able to scale or commercialize its only reasonable hope for profitability. In 2011, the Lamda Guard segment was developing laser glare protected ("LGP") airplane windshields. In essence, Metamaterial was developing a TTF that would be placed over aircraft windshields in order to protect pilots from laser strikes, which can temporarily debilitate pilots. In 2013, Metamaterial's website claimed that it had "developed an optically transparent thin film that selectively blocks narrow light frequencies . . . and can be adhesively applied on existing surfaces such as cockpit windows or windshields." In June 2014, fueling the market's hope in this product, Metamaterial announced a signed agreement with Airbus to test its design.

53. In February 2017, Airbus executed another agreement for Metamaterial to "validate, certify, and commercialize" the LGP technology. Following this, Metamaterial was able to raise \$8.3 million in equity through Radar Capital in order to "support commercialization of the windscreen film and to add needed staff." In June 2017, just a few months later, Metamaterial announced an executed memorandum of understanding ("MOU") with Satair for it to act as Metamaterial's exclusive distributor of the windscreen film technology called "metaAIR." Satair is a subsidiary of Airbus that handles parts and equipment distribution. Metamaterial also announced that they expected to receive regulatory certification from the FAA, EASA, and TCCA in early 2018.

54. On October 17, 2018, in direct contradiction to Metamaterial’s previous statements, Metamaterial executed a \$1 million agreement with Satair to exclusively distribute “metaAIR® laser glare protection [LGP] *eyewear and visors* to all aviation and military markets” (emphasis added). At a time when Metamaterial should have already received regulatory certification for its LGP aircraft windshields, Metamaterial was changing strategies and pivoting towards LGP glasses and visors. Without warning to the market, Metamaterial decided to pivot away from TTFs for aircraft windshields and focus its efforts on developing holographic LGP glasses. Just five years after Metamaterial claimed to have developed LGP aircraft windshields and about one year after executing an MOU with Airbus’ subsidiary, Metamaterial completely abandoned its business plans, ceased its development and testing efforts, and announced an entirely new segment.

55. The September 21, 2020 press release touted a metaAIR award for “Best New Product in Commercial Aviation” from Aviation Week Network (“AWN”). The AWN award was specifically given for Metamaterial’s “flexible optical filter applied to the inner surface of cockpit windows.” However, at the time of this press release, Metamaterial had already abandoned its development and commercialization efforts related to LGP aircraft windshields. Therefore, when Metamaterial proceeded to then tout its partnership with Airbus “to develop and commercialize *this technology*,” it materially misled the investing public to believe the previously abandoned iteration of metaAIR would continue to be commercialized with Airbus (emphasis added). Metamaterial was no longer pursuing the commercialization of the metaAIR product for aircraft windshields, which was the basis of the June 2014 and February 2017 agreements with Airbus. In fact, at the time of this press release, Metamaterial’s only active commercialization agreement was for the later developed metaAIR LGP glasses with *Satair* not Airbus. As a result, Defendants created a false impression in the market as to the true state of its metaAIR product in addition to

creating a false impression that its current commercialization efforts for metaAIR involved Airbus as opposed to Satair.

56. While Metamaterial was able to produce a small number of LGP glasses, it did not commercialize the product. The metaAIR glasses lacked peripheral vision protection, scratch-resistance, and did not protect against blue and red wavelength lasers as competitive products did. At \$1,800 each, the LGP glasses were also not competitively priced with higher quality products in the market and production scaling issues only exacerbated Metamaterial's problems. Other manufactures, such as Gentex, Revision, Iridian, and PerriQuest, offer better and more durable protection from potential laser strikes and at 10-15% of the price of Metamaterial's LGP glasses. Metamaterial ultimately sold less than 100 LGP glasses over a period of four years for a revenue of about \$62,000.

57. Metamaterial also claimed a "lithography" segment. Lithography is a process used in the fabrication of integrated circuits, in which a light-sensitive polymer, photoresist, is exposed and developed to form 3D relief images on the substrate, typically a silicon wafer of up to 11.8 inches in diameter. Metamaterial's lithography segment focuses on a TTF technology called NanoWeb. NanoWeb is a conductive TTF that has the potential to be used in multiple applications, such as touch screens, car windshields, and transparent antennas. NanoWeb was prototyped by a group of optical scientists at the company Rolith. But, after running out of cash and not being able to secure additional funding, Rolith's founding scientists were forced to sell the company. In mid-2016, Metamaterial acquired the NanoWeb technology through its acquisition of Rolith for \$2.5 million.

58. In the six years since Metamaterial acquired Rolith, the market has seen numerous competitive technologies commercialized and mass produced, yet Metamaterial seems to have

completely reversed its own course. Instead of making any progress towards marketing NanoWeb, Metamaterial actually terminated its license for a key patent on NanoWeb, which completely eliminated any possibility of its future commercialization. The NanoWeb production process required a critical patent from the University of Michigan, but for years Metamaterial had stopped paying for the license and failed to disclose this fact to investors.

59. Metamaterial's last segment was "wireless sensing." The wireless sensing business segment started in July 2018 with the C\$4.7 million acquisition of London-based medtech company MediWise. In 2010, MediWise was founded by George Palikaras, the CEO of Meta Materials. MediWise's prized product was "glucoWise," a non-invasive, "glucose-sensing platform" touted as being able to sense blood glucose wirelessly, *i.e.*, it was able to read blood glucose levels through the skin barrier without the need for any blood. MediWise even went as far as saying that glucoWISE was "more accurate than the average blood glucose monitor." To the contrary, at the time of its acquisition, MediWise had no proven products, no approved medical devices, and no revenues. In addition, data from overly simplified, or primitive, biology experiments were misrepresented to further tout the efficacy and future prospects of glucoWise.

60. In the press release announcing the MediWise acquisition, MediWise was highly esteemed as having made "significant advancements in non-invasive glucose monitoring" with its "new product called glucoWISE, [which] has the potential to safely detect the concentration of glucose in the blood stream, without having to draw blood or use test strips." However, Meta Materials failed to disclose: (1) the purchase price it paid for MediWise; (2) that Meta Materials also gave MediWise a C\$700,000 intercompany loan, which was ultimately forgiven in the course of the transaction in addition to the purchase price; (3) that George Palikaras and his wife owned about 50% of MediWise; and (4) that glucoWise did not actually exist. Although the MediWise

acquisition was characterized as a strategic one, the truth of the details behind the transaction suggest a nepotistic bailout. Moreover, clinical literature suggests that the mechanism used to develop the “non-invasive glucose monitor” is literally impossible.

61. The development status of Meta Materials’ products did not advance materially towards commercialization at any point during the Class Period, according to a former employee of Meta Materials (referred to herein as “FE1”). FE1 was a Production Technician who worked in Meta Materials’ production facility in Halifax, Nova Scotia, from August 2021 through May 2022. FE1’s job responsibilities included production and quality oversight for Meta Materials’ products, including the metaAIR. According to FE1, Meta Materials could manufacture small batches or samples of products for “small-value sales” but was not equipped for commercial production. The facility that Meta Materials had consisted of several “bays,” including a clean room set in one of the bays, that was being rented from a “start-up incubator kind of space.” The clean room in the existing facility was just a “temporary set-up” and could not be modified. Meta Materials did not have the ability to manufacture products at commercial levels during FE1’s tenure at Meta Materials and, according to FE1, would not have the ability to manufacture products at commercial levels until it obtained a new production facility which Meta Materials had not done as of May 2022 when FE1 stopped working for Meta Materials.

62. As such, Meta Materials held itself out to be a company on the forefront of major technological advances that could disrupt the aerospace, solar, healthcare, and other markets. On the surface, Meta Materials appeared to be a thriving, cutting-edge company that any investor would want to be a part of. Over time though, the reality behind Meta Materials proved to be a company with an extremely long history of repeatedly overpromising, under-delivering, and hiding the truth about its operations and prospects for success. Consequently, in order to generate support

for the merger, Defendants made materially misleading statements and omissions about Meta Materials' business and products.

**E. The SEC Starts to Examine the Merger.**

63. Skepticism over the transaction grew when, on March 3, 2021, after market close, the SEC issued a letter to Torchlight regarding its inadequate disclosures related to the merger. First, the SEC noted that the exchange ratio between Meta Materials shares and Torchlight shares was not fixed, but instead based on a formula that included adjustments that could impact the 25% Torchlight shareholders might expect to receive. In regards to this issue, the SEC required that Torchlight “include a risk factor detailing any material risks related to uncertainty regarding the exchange ratio. Depending on the potential decrease to the percentage below 25%, it may be appropriate to provide a corresponding explanation with quantification where you describe the ratio.”

64. Second, the SEC requested that Torchlight revise the section of the proxy statement titled, “Background of the Arrangement,” to provide greater detail as to the key issues that were subject to substantial negotiation. As an example, the SEC said, “expand your disclosure to discuss how the Exchange Ratio was determined and to address why the Torchlight board agreed to an asset sale in this situation when the board previously rejected that possibility in negotiations with other interested parties.”

65. Third, the SEC requested that Torchlight provide additional details regarding which comparable transactions were used by Roth Capital in their analysis summarized in the Fairness Opinion. Specifically, the SEC asked Torchlight to “[i]dentify the particular transactions it selected from the larger pool of 67 to derive the results shows for the analysis, including the dates, the transaction values, and the parties involved.”

66. Fourth, the SEC requested that Torchlight disclose the material assumptions underlying the projections presented in the section titled, “Meta Standalone Projections.”

67. And, fifth, the SEC noted that depreciation and amortization were excluded from the cost of goods sold and “should not be presented in the income statement in a manner in which results in reporting gross profit before depreciation.” Thus, the SEC asked Torchlight to revise its restated consolidated statements of loss and comprehensive loss to include applicable depreciation and amortization in the cost of goods sold.

68. On March 4, 2021, in response to the SEC’s letter to Torchlight, Meta Materials’ stock price immediately declined from \$5.02 per share to close at \$4.24 per share for an intraday loss of 15.53% or \$0.78 per share.

**F. Meta Materials Immediately Begins to Abuse Its Access to the U.S. Public Equity Markets with Repeated Excessive Capital Raises.**

69. After the announcement of the merger, Meta Materials immediately began to exercise its newfound access to the U.S. public equity markets. It conducted excessive capital raises in the form of public offerings and at-the-market (“ATM”) equity offerings.

70. On February 10, 2021, Torchlight announced the closing of an underwritten public offering for gross proceeds of \$27.6 million, pursuant to its merger agreement with Meta Materials. The offering was for 23 million shares, including the underwriter’s over-allotment option for 3 million shares, at a price of \$1.20 per share. Roth Capital acted as the sole manager for the offering. Torchlight “intend[ed] to use the net proceeds for general business purposes and to provide \$5 million of additional bridge financing to [Meta Materials] in connection with the previously announced Arrangement Agreement . . . between Torchlight and Meta pursuant to which Torchlight and Meta will complete a business combination.” At the time of this offering,



Torchlight had \$131,327 in cash, but net losses of \$2,055,688 and accumulated losses of \$113,991,285 since their inception, according to SEC Form 10-Q for Q1 2021. In addition, Torchlight's total operating expenses were \$1,723,226 for the three months ended March 31, 2021.

71. On June 16, 2021 Torchlight entered into a sales agreement with Roth Capital Partners, LLC, to conduct an ATM equity offering with an aggregate price of up to \$100 million. On June 21, 2021, Torchlight and Roth Capital Partners, LLC, entered into an amended and restated sales agreement increasing the ATM equity offering from \$100 million up to \$250 million. On June 28, 2021, when Meta Materials announced the closing of the reverse merger, it stated that, “[a]s a result of the transaction and our recent offerings, META now has over \$160 million in cash and a virtually debt free balance sheet . . . .” At the time of this offering, Meta Materials had \$13,154,580 in cash, but had net losses of \$5,181,393 and total operating expenses of \$5,077,892, according to SEC Form 10-Q for Q2 2021.

**G. The SEC Takes Notice of Meta Materials’ Conduct and Issues a Subpoena from Its Enforcement Division.**

72. On November 15, 2021, after market hours, Meta Materials filed its quarterly report on Form 10-Q for the third quarter of fiscal 2021 with certifications signed by Palikaras and Rice attesting to the accuracy of the financial reporting, the disclosures of material changes to Meta's internal control over financial reporting, and the disclosure of fraud. The filing disclosed an SEC subpoena stating, in relevant part:

*In September 2021, the Company received a subpoena from the Securities and Exchange Commission, Division of Enforcement, in a matter captioned In the Matter of Torchlight Energy Resources, Inc. The subpoena requests that the Company produces certain documents and information related to, among other things, the merger involving Torchlight Energy Resources, Inc. and Metamaterial Inc. The Company is cooperating and intends to continue to*

cooperate with the SEC's investigation. The Company can offer no assurances as to the outcome of this investigation or its potential effect, if any, on the Company or its results of operation.

(emphasis added)

73. In response to this news, Meta Materials' stock price fell 3.9% to close at \$4.77 per share on November 16, 2021.

74. The SEC subpoena revealed to investors that the merger was seriously problematic from a regulatory standpoint and the issues raised by the SEC in its March 2021 letter had barely scratched the surface of Meta Materials' disclosure failures.

**H. Investor Suspicion Grows Amidst Revelations from Kerrisdale Capital's Research Report.**

75. On December 14, 2021, during market hours, Kerrisdale Capital ("Kerrisdale") published a research report that dug deeply into Meta Materials' long, meandering history of product and development failures and, ultimately, exposed countless misrepresentations and omissions to the investing public. The report discussed how each of Meta Materials' business segments and development efforts habitually changed making the company "a collection of disjointed and failed laboratory experiments designed, in our opinion, to fuel a stock promotion scheme." For unsuspecting investors, the Kerrisdale report thoroughly documented exactly how Meta Materials consistently and materially misled the investing public. However, for investors who were already skeptical of Meta Materials and the merger, the Kerrisdale report simply reaffirmed how Meta Materials "habitually made outlandish and misleading claims about the feasibility, development, and commercial potential of various technologies only to repeatedly move the goalposts or retrospectively alter its claims, often just quietly dropping entire projects

they had previously touted as pivotal.” What the Kerrisdale report ultimately revealed was that these investors were completely justified in their skepticism of Meta Materials and the merger.

76. The Kerrisdale report tracked and highlighted Meta Materials’ conduct from its inception in 2011 as a mining company to its days touting Lamda segment products, to its foray with LGP aircraft windshields, to its non-existent medical devices, and, finally, to its SEC subpoena stating: “Disappearing segments, misleading product claims, fake medical devices, research funding for subsidiaries that don’t exist, and circumstances so questionable around a penny stock reverse merger that it’s now the subject of an SEC Enforcement subpoena. It’s poetic that an optics company can be entirely made up of smoke and mirrors.” The report concluded that:

Almost every stage of Meta’s journey, from its founding to its recent acquisition of Nanotech, has been marked by plentiful red flags. It deceptively promoted its early endeavors, seemingly in the pursuit of funding that almost certainly would not have been forthcoming if the truth were known to Meta’s counterparties. The company’s current operations range from the dismal failure of LGP glasses to the empty husk of the once-interesting NanoWeb to the outright falsehoods being told to promote non-existent medical devices. If that weren’t enough, the questionable circumstances around its reverse merger with Torchlight – tainted by a dubious CFO appointment, promotional social media buzz, and purposely muddled disclosures around suspiciously successful capital raises – make our assessment that much more damning. We don’t believe Meta is worth any more than the cash on its books – 25¢ a share – though there’s a good chance that the company will squander even that. Holograms and thin films are a fitting metaphor for Meta: a company that looks interesting at first glance but turns out to be a hollow illusion behind a flimsy veneer of aggressive promotion.

77. Kerrisdale’s report was thorough, including information from numerous non-public sources. To the surprise of investors, the non-public information that was revealed contradicted prior statements that Meta Materials disseminated to the market and/or directly exposed material information the company failed to disclose. As for the NanoWeb technology, non-public information revealed that Meta Materials “ceased licensing from the University of Michigan a patent critical to the NanoWeb production process, which suggests that Meta is either not really

invested in commercializing the product, or that it doesn't know how to – or both, considering that Rolith's founding scientists left the company within two years of its acquisition by Meta.”

78. Investors were now confronted with the reality that, based on non-public information, Meta Materials' statements related to NanoWeb were false and/or materially misleading. With the termination of the patent license, Meta Materials would not be able to commercialize NanoWeb despite the company's positive statements about future prospects. Confirming the validity of Kerrisdale's claim that Meta Materials no longer maintained the patent that was critical to NanoWeb's production, the report stated that, in relevant part:

Even if Meta wanted to commercialize NanoWeb, and knew how to do it, one notable obstacle laying in its path relates to intellectual property. In late 2012, Rolith licensed a critical patterning method patent from the University of Michigan that was meant to be used in its lithography process. We discussed this with members of Jay Guo's lab, and they told us that when they inquired with the university's office that arranges IP licenses, they were told that Meta stopped paying for the license “years ago.” The fact pattern – zero development of NanoWeb, acquisition that has nothing to do with NanoWeb, and cessation of a critical patent license – leads us to believe that Meta's management has no intention of ever commercializing NanoWeb at all, and is using the same promotional playbook it's used in the rest of its business since 2012. It's no wonder Rolith's key founding scientists resigned from Meta in 2018.

79. Kerrisdale forced the market to reckon with the fact that Meta Materials would not be able to further develop NanoWeb as there was no longer a valid patent license in place and the very scientists who created the technology resigned from Meta Materials.

80. Furthermore, the progress the market believed Meta Materials made with NanoWeb proved to be developments that were made by Rolith's founding scientists years earlier. In addition, Rolith's founding scientists made it clear that Meta Materials' new purpose for NanoWeb would not work. Kerrisdale stated, in relevant part:

As of March 2020, Meta stated that its “labs in Pleasanton, California can produce a meter long sample of NanoWeb for a variety of applications.” Those meter-long

samples were the subject of the Rolith scientists' 2014 paper referenced above, so it's clear that not much has changed in the intervening 6 years.

Most recently, Meta used \$72 million of the \$140 million in cash on its balance sheet to buy Nanotech, a Canadian penny-stock company that manufactures anti-counterfeit films that can be used with paper currency or luxury consumer goods. Meta has tried to claim that there are synergies between the lithography capabilities possessed by Nanotech and the lithography technology needed to scale and commercialize Nanoweb. But we spoke with several of NanoWeb's founding scientists, none of whom have remained at Meta since the 2016 acquisition, and they explained that they're extremely familiar with Nanotech's rudimentary technology and that it would make no sense to even try to repurpose any of Nanotech's manufacturing methods for the purpose of commercializing NanoWeb. Meta's pronouncements conflating the two production processes are indicative of Meta's management team either misleading investors or having no idea about what's involved in commercializing NanoWeb and manufacturing it at scale.

81. In regard to Lamda Solar, which was claimed to be “in the final stage development” in 2016, Kerrisdale revealed that the very pictures Meta Materials used to depict the technology being used on a car were actually stock photos that were available on the internet. Specifically, Kerrisdale said that, “[i]n the solar business, Meta started by pretending it could double solar cell efficiency, proceeded to deceptively use stock photos to depict products ‘in the final stage of development,’ and then took investment funding from Lockheed Martin through a segment it later disclosed had already ceased activity at the time.” The report went on to say, in pertinent part:

Strangely, Meta's regulatory listing statement in connection with its reverse merger with CPM – dated March 5th, 2020 – discloses that the Lamda Solar subsidiary *has had no activity in the last 3 years*. If that's the case, why was the Lamda Solar segment still presented on the company's website? What exactly is the solar business presented on the website *now*? Worse, it turns out that Meta signed a “partnership” with Lockheed in *April of 2017*, when, according to the 2020 listing statement, the solar segment had already ceased activity. That also calls into question the legality of Lockheed's ITB investment and begs the question of whether Meta was exploiting Lockheed's legal requirement to get funding for a ***business that in fact didn't exist anymore.***

(emphasis added)

82. This signaled to investors that Lamda Solar had not been in the final stage of development and may not even have existed, contradicting the publicly available information previously disseminated to investors.

83. While Meta Materials announced the acquisition of MediWise along with its glucoWISE technology, the Kerrisdale report revealed that George Palikaras and his wife owned roughly 50% of MediWise, which raised questions as to the strategic nature of the acquisition. Kerrisdale also exposed the fact that glucoWISE did not actually exist at the time the device was touted as being “more accurate than the average blood glucose monitor” and no non-invasive glucose sensing system existed at the time of Kerrisdale’s report, raising additional questions as to the existence, viability, and commercial prospects of glucoWISE. In fact, Kerrisdale said the non-invasive glucose monitor was still being developed “using a mechanism that the clinical literature suggests is actually impossible.” Kerrisdale added, in relevant part, that:

John L. Smith, an accomplished research scientist and medtech executive has, for the last 15 years, updated his synopsis of the quest to invent a non-invasive glucose monitor. Smith documents close to a dozen different proposed modalities and dozens of different companies’ attempts. While Smith is agnostic as to whether such a feat is possible, his research makes it clear that it’s never been done and, as of the present time, there’s no sign that anyone is even close to the achievement. glucoWISE is actually just a bit player in the long history of exaggerated claims of having developed a non-invasive glucose monitor. Smith recounts how MediWise originally said they expected to begin taking “pre-orders” for glucoWISE in late 2016, but of course nothing ever came of that. Smith shows how this is a common pattern in the field, as these sorts of announcements by small companies have “perennially...been premature and meant to generate hype.”

The “clinical literature” around glucoWISE, meanwhile, is comical. One study from 2018 that was sponsored by MediWise described how pigs were injected with enough glucose to bring their blood sugar levels to more than 10x the normal levels found in humans, and 2-3x levels that could quickly kill someone. Using the radio-frequency detection method that would hypothetically underlie a glucoWISE prototype, the researchers found that the resulting measurements *correlated* to the measurements being taken by actual blood glucose monitors, but no numerical results were published. The “glucoWISE” method also detected phantom spikes in blood sugar that were never present in the actual blood samples. So the method

could only vaguely detect the direction of change in blood glucose, and only when the changes were large enough to kill someone, and on top of that, it would detect phantom changes that weren't even happening.

...

While “wireless sensing” may not seem like one of the more prominent parts of Meta Materials, we think that Palikaras’ track record here is reflective of the same general approach we described with holography: the products being promoted either don’t exist or are grossly overstated, the underlying scientific effort is a sham, and all of it is enmeshed in a complicated series of financial transactions that seem more related to enriching management than developing any profitable business.

84. Contradicting Meta Materials’ representations to the market about MediWise and the non-invasive glucose sensing technology, Kerrisdale’s expansive coverage of the company’s affairs enabled investors to see the reality behind its business operations, product developments, and commercial potential. While the clinical literature was publicly available, the investing public had not been able to connect these dots in order to ascertain the truth that glucoWISE or any other non-invasive glucose monitoring using the same mechanism would never reach commercialization. Moreover, to the chagrin of investors, Kerrisdale revealed a C\$700,000 intercompany loan from Meta Materials to MediWise, which was forgiven in the course of the transaction in addition to the purchase price. For a company with significant losses, high development expenses, no commercialized products, and no revenues, the news of a forgiven intercompany loan was implausible. Overall, the Kerrisdale report slammed investors with various types of non-public information that contradicted Meta Materials’ prior statements or exposed the company’s disclosure failures. Meta Materials was revealed to be a company far from what it purported itself to be and investors that recognized the gravity of these revelations headed for the door.

85. Immediately following the publication of the Kerrisdale report, Meta Materials’ stock price plummeted 5.8% to close at \$2.91 per share on December 14, 2021.

**I. Instead of Disputing Kerrisdale's Accusations, Meta Materials Launches another Dilutive Capital Raise.**

86. Investors who remained with the company in spite of the Kerrisdale report suffered further damage when, on June 24, 2022, Meta Materials conducted yet another highly dilutive offering.

87. On June 24, 2022, Meta Materials filed a supplemental prospectus relating to its at-the-market offering from the previous year. The supplemental prospectus revealed that Meta Materials had sold yet an additional \$37.5 million or 4.4 million shares. At the time, Meta Materials had \$29,749,773 in cash and cash equivalents, but net losses were \$20,982,758 and total operating expenses were \$22,087,758.

88. With minimal cash on hand and significant losses, it became clear that Meta Materials needed capital to continue its operations. However, Meta Materials' true motives became clear as it engaged in unreasonably excessive capital raises. Investors who did not believe the revelations in the Kerrisdale report changed their minds after Meta Materials continued to engage in the same conduct it had been accused of, demonstrating to the public once and for all that its previous statements and intentions were not to be trusted.

**V. MATERIAL MISTATEMENTS AND OMISSIONS**

89. Defendants issued a series of pervasive and material misstatements and omitted material facts in Meta Materials' public communications. These material misstatements and omissions created the false impression that Meta Materials' operations were more valuable than they were and, in turn, Torchlight's merger with Meta Materials was a positive development. This false impression caused Meta Materials' stock price to be artificially inflated throughout the Class Period.



**September 21, 2020 – Press Release**

90. On September 21, 2020, before market hours, Meta Materials issued a press release titled “Torchlight and Metamaterial Announce Planned Business Combination.”

91. The press release misrepresented the development status of Meta Materials’ products. In pertinent part, the press release stated that:

The Proposed Transaction represents a strategic shift for Torchlight. It is intended to reposition Torchlight into the multi-billion-dollar Advanced Materials market as a global cleantech and technology leader. META has an extensive intellectual property portfolio, a global presence and multiple R&D and product development agreements with government agencies and private enterprises. ***The combined entity will continue to service a clientele of world-class OEM customers for a range of applications in the automotive, aerospace and defense, energy, consumer electronics and medical markets.***

“During the past six months the oil and gas market has softened due to the economic slowdown resulting from the pandemic,” stated John Brda, Torchlight’s CEO. “In order to unlock value potential from our national listing and access to the capital markets, we shifted some attention from the divestiture of our oil and gas assets to an acquisition strategy targeting proven disruptive technology companies with strong environmental, social and governance (ESG) priorities. This Proposed Transaction is the first step in that effort, providing our shareholders with access to the multi-billion-dollar target market and new applications that are being revolutionized with sustainable technologies, while allowing them to participate in the future upside from our oil and gas asset divestitures.”

“META’s management, led by George Palikaras has built an extraordinary award-winning cleantech company whose ***proprietary advanced technologies address multiple markets*** and improve their customer’s capabilities,” said Greg McCabe, Torchlights Chairman. “I am excited to work with them and equally excited about the outcome for our faithful Torchlight shareholders. Not only will their loyalty be rewarded with ownership in Metamaterials, they will also retain full value in our oil and gas assets through the Special Dividend.”

...

META’s products are designed and manufactured with environmental sustainability as a high priority. As a result, META has won a number of industry awards and federal government grants for its pioneering work, including being named among the “2019 Global Cleantech 100”, by Cleantech Group. The Global Cleantech 100 is an annual guide to the leading companies and themes in sustainable innovation and features companies that are best positioned to solve

tomorrow's clean technology challenges. In 2018 META was awarded "Best New Product in Commercial Aviation" by Aviation Week Network at the 63rd Annual Laureate Awards, for metaAIR®, a Laser Strike Protection solution to protect pilots from harmful laser attacks without interfering with visibility. ***META partnered with Airbus to develop and commercialize this technology.*** In 2013 Metamaterial Technologies USA, Inc (formerly Rolith Inc and now META's subsidiary in Silicon Valley) received "Best Manufacturing Technology" award at the tenth annual IDTechEx printed electronics industry event. ***META has also partnered with Lockheed Martin*** and the Canadian Government's Sustainable Development Technology Canada (SDTC) fund to develop metaSOLAR™ a new solar energy product suitable for the transportation industry.

(emphasis added)

92. The above statements, including the portions identified in emphasis, were false and/or materially misleading because they represented that Meta Materials had "proven disruptive technology" and was actively "servic[ing] . . . world-class OEM customers," meaning that its products were fully designed, developed, and being commercialized. By making this claim, Brda and McCabe materially downplayed and concealed the then-existing risk and uncertainty surrounding Meta Materials' nascent and unproven technology.

93. Meta Materials had not materially advanced the development of its products let alone to a point where it was accurate to refer to them as "servic[ing]" or "address[ing]" any customer needs. As of the date of the above statement, Meta Materials' holography, lithography, and wireless sensing products were still in their infancy and unproven in terms of real-world application or profitability: Meta Materials had failed to manufacture its metaAIR glasses at scale or sell them to anyone in any meaningful amounts; its glucoWISE system remained unproven, scientifically; and it has failed to materially develop NanoWeb past where it existed since first acquiring it in 2016. Meta Materials did not even have a production facility capable of producing its products at "commercial[]" levels or have any ability to "scale" production during the Class

Period, according to FE1. Thus, Brda and McCabe materially misled investors when representing that Meta Materials had commercial-ready products with “advanced technologies.”

94. Further, the press release touted a “partnership” with Lockheed Martin that was, in truth, simply an investment that did not constitute or create any kind of partnership or joint venture. Meta Materials and Lockheed Martin entered into an agreement in April 2017. Through the agreement, Lockheed Martin was able to satisfy various investment requirements under Canada’s Industrial and Technological Benefits policy, meaning that Lockheed Martin entered into the contract with Meta Materials for reasons other than Meta Materials’ specific product offerings at the time which consisted of a now-defunct product called metaSOLAR. The contract between Meta Materials and Lockheed Martin stated explicitly that it was “not intended to constitute, give effect to, or otherwise create a joint venture, *partnership*, teaming agreement or other business entity of any kind” (emphasis added). Thus, Lockheed Martin was not Meta Materials’ partner, contrary to the above statement. In addition, the press release misrepresented that Meta Materials partnered with Airbus to commercialize metaAIR, given that the actual distribution agreement was made with Satair, an Airbus subsidiary.

95. In addition, the press release touted a metaAIR award for “Best New Product in Commercial Aviation” from AWN. The AWN award was specifically given for Meta Materials’ “flexible optical filter applied to the inner surface of cockpit windows.” However, at the time of this press release, Meta Materials had already abandoned its development and commercialization efforts related to LGP aircraft windshields. Therefore, when Meta Materials proceeded to then tout its partnership with Airbus “to develop and commercialize *this technology*,” it materially misled the investing public to believe the previously abandoned iteration of metaAIR would continue to be commercialized with Airbus (emphasis added). Defendants failed to disclose the fact that Meta

Materials was no longer pursuing the commercialization of the metaAIR product for aircraft windshields, which was the basis of the June 2014 and February 2017 agreements with Airbus. In fact, at the time of this press release, Meta Materials' only active commercialization agreement was for the later developed metaAIR LGP glasses with *Satair* not Airbus. As a result, Defendants created a false impression in the market as to the true state of its metaAIR product in addition to creating a false impression that its current commercialization efforts for metaAIR involved Airbus as opposed to Satair.

#### **November 30, 2020 – Shareholder Letter**

96. On November 30, 2020, Meta Materials published a letter to its shareholders discussing *inter alia* recent accomplishments and its operations during the third quarter of fiscal 2020. Palikaras signed the letter.

97. The shareholder letter misrepresented Meta Materials' corporate partners when discussing what its strategy for bringing its products to market. In pertinent part, the shareholder letter stated that:

Our corporate partners, some of whom have also invested in META, include world-class companies, such as Airbus, *Lockheed Martin*, and Samsung. We have received non-dilutive research funding from the Atlantic Canada Opportunities Agency (a Canadian Government agency responsible for promoting economic growth in the Atlantic Provinces), Sustainable Development Technology Canada (SDTC), an arm's length foundation to "demonstrate new technologies to promote sustainable development," and Innovate UK (part of UK Research and Innovation), a non-departmental public body funded by a grant-in-aid from the UK government.

(emphasis added)

98. The above statement, including the portion identified in emphasis, was false and/or materially misleading because it misrepresented Meta Materials' relationship with Lockheed Martin.

99. Meta Materials and Lockheed Martin entered into an agreement in April 2017. Through the agreement, Lockheed Martin was able to satisfy various investment requirements under Canada's Industrial and Technological Benefits policy, meaning that Lockheed Martin entered into the contract with Meta Materials for reasons other than Meta Materials' specific product offerings at the time which consisted of a now-defunct product called metaSOLAR. The contract between Meta Materials and Lockheed Martin stated explicitly that it was "not intended to constitute, give effect to, or otherwise create a joint venture, *partnership*, teaming agreement or other business entity of any kind" (emphasis added). Thus, Lockheed Martin was not Meta Materials' partner, contrary to the above statement.

100. The above statement identified in emphasis was also false and/or materially misleading because it misrepresented Meta Materials' relationship with Airbus. In June 2014, Meta Materials executed an agreement with Airbus to test the design of its LGP aircraft windshields. Following this, in February 2017, Airbus executed another agreement for Meta Materials to "validate, certify, and commercialize" the LGP technology. Meta Materials then proceeded to raise \$8.3 million to "support commercialization of the windscreen film," which affirmed the parties' desire to move forward with the LGP technology for aircraft windshields. Meta Materials also said that they expected to receive regulatory certification from the FAA, EASA, and TCCA in early 2018, but this never occurred. Accordingly, at the time the above statement was made, Meta Materials had already abandoned commercialization efforts related to LGP windshields and had developed an entirely new product, the LGP glasses, which were being commercialized with Satair, not Airbus. Thus, Meta Materials was no longer corporate partners with Airbus as the above statement insinuated.

**December 14, 2020 – Press Release**

101. On December 14, 2020, before market hours, Meta Materials issued a press release titled “Metamaterial and Torchlight Sign Definitive Agreement for Business Combination.”

102. The press release misrepresented the development status of Meta Materials’ products. In pertinent part, the press release stated that:

“We are very excited to sign the definitive agreement with Metamaterial,” stated John Brda, Torchlight’s CEO. “We believe this Transaction provides our shareholders with the best opportunity moving forward. Metamaterial offers *proven disruptive technology* with strong environmental, social and governance (ESG) priorities. This Transaction provides our shareholders with *access to the multi-billion-dollar markets that Metamaterial serves* and new applications that are being revolutionized with their sustainable technologies, while still allowing our Shareholders at closing of the Transaction to participate in the proceeds of our oil and gas asset divestitures.”

“META’s management, led by George Palikaras, has built an extraordinary award-winning cleantech company whose *proprietary advanced technologies* address multiple markets and improve their customers’ capabilities,” said Greg McCabe, Torchlight’s Chairman. “I am excited to work with the META team and equally excited about the outcome for our faithful Torchlight shareholders.”

(emphasis added)

103. The above statement, including the portions identified in emphasis, was false and/or materially misleading because it represented that Meta Materials possessed “proven” technology, meaning that its products were fully designed, developed, and ready for commercialization. By making this claim, Brda and McCabe materially downplayed and concealed the then-existing risk and uncertainty surrounding Meta Materials’ nascent and unproven technology.

104. Meta Materials had not materially advanced the development of its products let alone to a point where it was accurate to refer to them as “proven” or “address[ing] multiple markets and improv[ing] their *customers’* capabilities” (emphasis added). As of the date of the above statement, Meta Materials’ holography, lithography, and wireless sensing products were

still in their infancy and unproven in terms of real-world application or profitability: Meta Materials had failed to manufacture its metaAIR glasses at scale or sell them to anyone in any meaningful amounts; its glucoWISE system remained unproven, scientifically; and it has failed to materially develop NanoWeb past where it existed since first acquiring it in 2016. Meta Materials did not even have a production facility capable of producing its products at “commercial[]” levels or have any ability to “scale” production during the Class Period, according to FE1. In addition, Meta Materials’ *only* contractual customer at the time of these statements was Satair and Meta Materials could not even fulfill its C\$2 million purchase order for LGP glasses to truthfully say that Meta Materials was “address[ing] multiple markets and improv[ing] their customers’ capabilities.” Thus, Brda and McCabe materially misled investors when representing that Meta Materials had “proven” its technology and was “serv[ing]” companies with its “advanced technologies.”

#### February 2, 2021 – Press Release

105. On February 2, 2021, before market hours, Meta Materials issued a press release titled “Metamaterial Acquires Assets and IP of Swiss Lens Manufacturer Interglass.”

106. The press release misrepresented the commercialization status of Meta Materials’ metaAIR product. In pertinent part, the press release stated that:

“One of the challenges in augmented reality (AR) eyeglasses, which Mark Zuckerberg so eloquently pointed out as a category killer, is to ensure that light from the AR display does not make the wearer look like an automaton, due to user-display-lit eye glow – especially at night. ***META successfully pioneered laser and security eyeglass filtering, to combat powerful pen pointers, for our customers like Airbus.*** Under a new brand name, ARfusion™, we are now applying that proven technology and other functionality directly encapsulated into eyeglasses, to compliment waveguide-based displays similar to HoloLens®,” noted Jonathan Waldern, Chief Technology Officer. “The AR eyeglass display is one of the most complex engineering challenges of our time, and only advanced metamaterials, incorporated into the eyeglass lenses, will likely provide an acceptable solution.”

(emphasis added)

107. The above statement, including the portion identified in emphasis, was false and/or materially misleading because it misrepresented the developmental status of Meta Materials' metaAIR product. As of the date of the press release, Meta Materials had a distribution agreement with Satair, which was a subsidiary of Airbus. Meta Materials sold just 50 units of its metaAIR product to its distributor Satair and not, as represented, for use by Airbus. By identifying Airbus as a "customer," Meta Materials falsely represented that it had achieved commercialization of its metaAIR product when, in fact, that was not true.

#### **February 8, 2021 – Prospectus and Prospectus Supplement**

108. On February 8, 2021, Meta Materials (through Torchlight) filed a Prospectus and Prospectus Supplement with the SEC in connection with its offering of 20 million shares of common stock.

109. The prospectus misrepresented the development status of Meta Materials' products. In pertinent part, the prospectus stated that:

Meta has generated a portfolio of intellectual property and is *now moving toward commercializing products* at a performance and price point combination that has the potential to be disruptive in multiple market verticals. Meta's platform technology includes holography, lithography and medical wireless sensing. The underlying approach that powers all of Meta's platform technologies comprises advanced materials, metamaterials and functional surfaces. These materials include structures that are patterned in ways that manipulate light, heat and electromagnetic waves in unusual ways. Meta's advanced structural design technologies and *scalable manufacturing methods* provide a path to broad commercial opportunities in aerospace, medical, automotive, energy and other industries.

(emphasis added)

110. The above statement, including the portions identified in emphasis, was false and/or materially misleading because it represented that Meta Materials was now in the process of "moving towards commercializing" and had already developed "scalable manufacturing



methods.” By making this claim, Meta Materials implied that it had completed the design and development phase of its products and was in the process of scaling production and distributing its products when, in reality, this was not the case.

111. Meta Materials had not materially advanced the development of its products let alone to a point where it was ready to begin “commercializing” them. As of the date of the above statement, Meta Materials’ holography, lithography, and wireless sensing products were still in their infancy and unproven in terms of real-world application or profitability: Meta Materials had failed to manufacture its metaAIR glasses at scale or sell them to anyone in any meaningful amounts; its glucoWISE system remained unproven, scientifically; and it has failed to materially develop NanoWeb past where it existed since first acquiring it in 2016. Meta Materials did not even have a production facility capable of producing its products at “commercial[.]” levels or have any ability to “scale” production during the Class Period, according to FE1. Thus, Meta Materials materially misled investors when representing that it had completed its design and development and was “now moving towards commercializing [these] products” or had already developed any “scalable manufacturing method[.]”

#### **May 7, 2021 – Definitive Proxy Statement**

112. On May 7, 2021, Meta Materials (through Torchlight) filed its definitive proxy statement in connection with the merger between Meta Materials and Torchlight. Brda signed the proxy statement.

113. The proxy statement misrepresented the development status of Meta Materials’ products. In pertinent part, the proxy statement stated that:

Meta has generated a portfolio of intellectual property and is *now moving toward commercializing products* at a performance and price point combination that has the potential to be disruptive in multiple market verticals. Meta’s platform technology includes holography, lithography and medical wireless sensing. The

underlying approach that powers all of Meta’s platform technologies comprises advanced materials, metamaterials and functional surfaces. These materials include structures that are patterned in ways that manipulate light, heat and electromagnetic waves in unusual ways. Meta’s advanced structural design technologies and *scalable manufacturing methods* provide a path to broad commercial opportunities in aerospace, medical, automotive, energy and other industries.

(emphasis added)

114. The above statement, including the portions identified in emphasis, was false and/or materially misleading because it represented that Meta Materials was now in the process of “moving towards commercializing” and had already developed “scalable manufacturing methods.” By making this claim, Meta Materials implied that it had completed the design and development phase of its products and was in the process of scaling production and distributing its products when, in reality, this was not the case.

115. Meta Materials had not materially advanced the development of its products let alone to a point where it was ready to begin “commercializing” them. As of the date of the above statement, Meta Materials’ holography, lithography, and wireless sensing products were still in their infancy and unproven in terms of real-world application or profitability: Meta Materials had failed to manufacture its metaAIR glasses at scale or sell them to anyone in any meaningful amounts; its glucoWISE system remained unproven, scientifically; and it has failed to materially develop NanoWeb past where it existed since first acquiring it in 2016. Meta Materials did not even have a production facility capable of producing its products at “commercial[.]” levels or have any ability to “scale” production during the Class Period, according to FE1. Thus, Meta Materials materially misled investors when representing that it had completed its design and development and was “now moving towards commercializing [these] products” or had already developed any “scalable manufacturing method[.]”

### June 21, 2021 – Prospectus and Prospectus Supplement

116. On June 21, 2021, Meta Materials (through Torchlight) filed a Prospectus and Prospectus Supplement with the SEC in connection with its at-the-market offering.

117. The prospectus misrepresented the development status of Meta Materials' products.

In pertinent part, the prospectus stated that:

Meta has generated a portfolio of intellectual property and is *now moving toward commercializing products* at a performance and price point combination that has the potential to be disruptive in multiple market verticals. Meta's platform technology includes holography, lithography and medical wireless sensing. The underlying approach that powers all of Meta's platform technologies comprises advanced materials, metamaterials and functional surfaces. These materials include structures that are patterned in ways that manipulate light, heat and electromagnetic waves in unusual ways. Meta's advanced structural design technologies and *scalable manufacturing methods* provide a path to broad commercial opportunities in aerospace, medical, automotive, energy and other industries.

(emphasis added)

118. The above statement, including the portions identified in emphasis, was false and/or materially misleading because it represented that Meta Materials was now in the process of "moving towards commercializing" and had already developed "scalable manufacturing methods." By making this claim, Meta Materials implied that it had completed the design and development phase of its products and was in the process of scaling production and distributing its products when, in reality, this was not the case.

119. Meta Materials had not materially advanced the development of its products let alone to a point where it was ready to begin "commercializing" them. As of the date of the above statement, Meta Materials' holography, lithography, and wireless sensing products were still in their infancy and unproven in terms of real-world application or profitability: Meta Materials had failed to manufacture its metaAIR glasses at scale or sell them to anyone in any meaningful amounts; its glucoWISE system remained unproven, scientifically; and it has failed to materially

develop NanoWeb past where it existed since first acquiring it in 2016. Meta Materials did not even have a production facility capable of producing its products at “commercial[.]” levels or have any ability to “scale” production during the Class Period, according to FE1. Thus, Meta Materials materially misled investors when representing that it had completed its design and development and was “now moving towards commercializing [these] products” or had already developed any “scalable manufacturing method[.]”

### **June 28, 2021 – Shareholder Letter**

120. On June 28, 2021, Meta Materials published a letter to its shareholders discussing *inter alia* recent accomplishments. Palikaras signed the letter.

121. The shareholder letter materially misrepresented the development status of Meta Materials’ key products and technology. In pertinent part, the letter stated as follows:

META *delivers previously unachievable performance*, across a range of applications, by inventing, designing, developing, and manufacturing sustainable, highly functional smart materials. Our technology platform encompasses *three core capabilities*, holography, lithography, and wireless sensing, and is software and AI-design driven. We believe this allows us to develop a library of solutions and prototypes much faster and at lower cost than traditional chemical synthesis. We enable leading global brands to deliver breakthrough products to customers in consumer electronics, 5G communications, health and wellness, aerospace, automotive, and clean energy.

(emphasis in original)

122. The above statement, including in particular the portions Meta Materials emphasized in its shareholder letter, was false and/or materially misleading because they misrepresented each of Meta Materials’ holography, lithography, and wireless sensing “capabilities.”

123. Meta Materials’ holography consisted largely of its metaAIR glasses. The metaAIR glasses were designed to protect against green-wavelength lasers only unlike other products in the

market that, in fact, blocked light from blue and red wavelengths as well (*e.g.*, dye-based lenses and non-holographic thin-film options). Thus, by providing investors with a picture of red, green, and blue light on the slide (upper left), Meta Materials misrepresented the capabilities of its metaAIR glasses.

124. Meta Materials also misrepresented its NanoWeb product which it advertised for use in connection with 5G antennas. Meta Materials acquired the technology underlying its NanoWeb product in 2016, but did not materially advance its development thereafter or continue to maintain the licensing allowing for use of the technology despite increased demand and competition in the market. Instead, Meta Materials acquired Nanotech in 2021 but Nanotech's technology was incompatible with NanoWeb's intended uses.

125. Meta Materials' representation of its wireless sensing capabilities was also materially misleading. Its wireless sensing product was the glucoWISE. While the glucoWISE could potentially detect changes in glucose concentrations in water using concentrations of glucose ranging from 2x-50x normal blood-glucose levels, it had not demonstrated any accuracy or effectiveness when testing it with blood or through skin (contrary to the picture it provided in the slide above). Similarly, Meta Materials had not demonstrated that its radiWISE worked in any pre-clinical or clinical studies.

126. Given that these products were still in early development, Meta Materials materially misled investors when referring to them as "capabilities" which indicated that the products had been proven scientifically and that the design and development phases had been completed. Further, Meta Materials had not as of the time of this fact sheet "deliver[ed] previously unachievable performance" or enabled its customers to "deliver breakthrough products to their customers" in light of the fact that Meta Materials' products were not ready for commercialization

and its LGP glasses were not a breakthrough product as it only protected against one of three wavelengths that competitive products protected against at 85%-90% less than the cost of metaAIR.

**July 6, 2021 – Press Release**

127. On July 6, 2021, before market hours, Meta Materials issued a press release titled “META Completes UK-Funded Project towards Developing Non-Invasive Glucose Sensing System.”

128. The press release materially misrepresented the development status of Meta Materials’ glucoWISE product. In pertinent part, the press release stated as follows:

Meta Materials Inc. (the “Company” or “META®”) (NASDAQ:MMAT) a developer of high-performance functional materials and nanocomposites, today announced the conclusion of a 27-month long project to develop a non-invasive glucose sensing prototype, which combined radio wave and optical sensors to improve accuracy in predicting glucose level changes. . . .

. . .

During the project, several prototypes of the system were developed, designed for use by diabetes patients in point of care settings such as homes and clinics. The system consists of a “Home Hub” along with a wearable element for overnight trend monitoring. It uses multiwavelength biosensing technology, which combines optical and radio wave sensors along with machine learning processing. The project demonstrated in a laboratory environment that the system improves the accuracy in predicting glucose level changes, compared to using standalone sensors. Preliminary results of the project, using an early prototype system, were published in the journal *Sensors* (<https://doi.org/10.3390/s21093275>), which may also be found on META’s website under Applications / Medical Applications. . . .

. . .

“This successful research project led by META, to develop a non-invasive blood monitoring device, was a great and unique opportunity for Brunel University London to apply its modern signal acquisition and processing techniques, with advanced AI algorithms in the healthcare field. Brunel University London took care of the hardware and software developments for data acquisition in the infrared band, as well as of Artificial Intelligence algorithms that allow data fusion and

prediction of glucose concentration,” said Jamil Kanfoud, Head of Brunel Innovation Centre.

To measure glucose non-invasively, glucoWISE® transmits signals through the web of skin between the thumb and forefinger. *During previous published human studies, wearable metamaterial films have been demonstrated to help boost these signals by up to 240%, significantly enhancing the accuracy of the system. The team aims to continue the development and is in discussions with strategic partners who can accelerate the commercialization.*

(emphasis added)

129. The above statement, including the portions identified in emphasis, was false and/or materially misleading because it misrepresented the developmental status of Meta Materials’ glucoWISE product. As of the date of the above statement, Meta Materials relied on studies to support the glucoWISE product showing that it could detect changes in glucose concentrations in water (not in blood and/or through skin) using concentrations of glucose ranging from 2x-50x normal blood-glucose levels. These were not the “published human studies” mentioned later in the press release. Contrary to Meta Materials’ statements in the press release, it had not performed any testing capable of demonstrated the effectiveness of its technology. Therefore, Meta Materials was not ready for “commercialization” of its product, contrary to what was represented in the press release.

#### **August 13, 2021 – Quarterly Report**

130. On August 13, 2021, during market hours, Meta Materials filed its quarterly report on Form 10-Q for the second quarter of fiscal 2021. Palikaras and Rice signed the report.

131. The quarterly report misrepresented the development status of Meta Materials’ products. In pertinent part, the quarterly report stated that:

*The Company has generated a portfolio of intellectual property and is now moving toward commercializing products at a performance and price point combination that has the potential to be disruptive in multiple market verticals. The Company’s platform technology includes holography, lithography, and*

medical wireless sensing. The underlying approach that powers all of the Company's platform technologies comprises advanced materials, metamaterials and functional surfaces. These materials include structures that are patterned in ways that manipulate light, heat, and electromagnetic waves in unusual ways. ***The Company's advanced structural design technologies and scalable manufacturing methods provide a path to broad commercial opportunities in aerospace and defense, automotive, energy, healthcare, consumer electronics, and data transmission.***

(emphasis added)

132. The above statement, including the portions identified in emphasis, was false and/or materially misleading because it represented that Meta Materials was now in the process of "moving towards commercializing" and had already developed "scalable manufacturing methods." By making this claim, Meta Materials implied that it had completed the design and development phase of its products and was in the process of scaling production and distributing its products when, in reality, this was not the case.

133. Meta Materials had not materially advanced the development of its products let alone to a point where it was ready to begin "commercializing" them. As of the date of the above statement, Meta Materials' holography, lithography, and wireless sensing products were still in their infancy and unproven in terms of real-world application or profitability: Meta Materials had failed to manufacture its metaAIR glasses at scale or sell them to anyone in any meaningful amounts; its glucoWISE system remained unproven, scientifically; and it has failed to materially develop NanoWeb past where it existed since first acquiring it in 2016. Meta Materials did not even have a production facility capable of producing its products at "commercial[]" levels or have any ability to "scale" production during the Class Period, according to FE1. Thus, Meta Materials materially misled investors when representing that it had completed its design and development and was "now moving towards commercializing [these] products" or had already developed any "scalable manufacturing method[]."



134. In addition, the quarterly report also falsely stated that:

Meta's principal products that employ holography technology are its METAIR® laser glare protection eyewear, METAIR® laser protection films for law enforcement and metaOPTIX™ notch filters. ***Meta co-developed its METAIR® laser protection eyewear product with Airbus S.A.S. that has been engineered to provide laser glare protection for pilots, military and law enforcement using Meta's holography technology. METAIR® is a holographic optical filter developed using nano-patterned designs that block and deflect specific colors or wavelengths of light.*** Meta launched METAIR® with strategic and exclusive distribution partner, Satair, a wholly owned Airbus company and started producing and selling METAIR® in April 2019. The scale-up and specification for the raw photopolymer material used to produce the eyewear was successfully finalized in late 2019 and commercialized in 2020. Meta launched its laser protection films for law enforcement use in late 2020. These films are designed to be applied to face shields and helmet visors providing the wearer with the same type of laser eye protection afforded to pilots by METAIR® glasses while preserving peripheral vision critical to law enforcement duties. ...

...

#### Holography Market-Aviation Industry

The Company launched its first product, a laser protection eyewear, named METAIR®, in March 2019, with a primary focus on the aviation market. The product offers unique performance and benefits over the competition and is the only industry-approved solution to date. ***The Company has co-developed this product with Airbus through a strategic partnership.*** Airbus further extended its support by introducing the Company to Satair, an Airbus owned company, which became the global distribution partner for METAIR® to the aviation market. ***Since 2016, Airbus and Satair invested a total of \$2,000,000 for the product development and exclusive distribution rights.*** Since the launch of METAIR® in March 2019, the Company has sold fifty units to its distributor Satair. The Company is currently in the process of increasing its marketing and sales capacity.

***Despite the Company's close collaboration with the Airbus Group,*** with the impact of COVID-19 there can be no assurance that the aviation market will accept the METAIR® product at the expected market penetration rates and a slower than forecasted market acceptance may have a material adverse effect on the Holography laser protection related products and the Company's financial position. The Company is pursuing ancillary markets outside of the Aviation Industry for its METAIR® laser protection eyewear such as in law enforcement and defense.

(emphasis added)

135. The above statements, including the portions identified in emphasis, were also false and/or materially misleading because they misrepresented Meta Materials' business relationship with Airbus by touting that it "co-developed its METAIR® laser protection *eyewear* product with *Airbus*" and that "*Airbus* and Satair *invested a total of \$2,000,000 for the product development and exclusive distribution rights*" (emphasis added). In 2013, Meta Materials' website claimed that it had "developed an optically transparent thin film that selectively blocks narrow light frequencies . . . and can be adhesively applied on existing surfaces such as cockpit windows or windshields." Following this, in June 2014, Meta Materials announced a signed agreement with Airbus to test its design. Then, in February 2017, Airbus executed a second agreement for Meta Materials to "validate, certify, and commercialize" the LGP technology. Subsequently, Meta Materials raised \$8.3 million in equity to "support commercialization of the windscreen film and to add needed staff." Just a few months later, in June 2017, Meta Materials executed an MOU with Satair for the exclusive distribution of the metaAIR windscreen film technology. On October 17, 2018, however, Meta Materials executed a \$1 million agreement *with Satair to exclusively distribute "metaAIR® laser glare protection [LGP] eyewear and visors* to all aviation and military markets" (emphasis added). Therefore, at no point in time was Airbus ever affiliated with, let alone co-developing, the metaAIR eyewear. In addition, Airbus had nothing to do with the exclusive distribution rights agreement for metaAIR eyewear. Meta Materials' business relationship with Airbus was solely related to Meta Materials' now defunct LGP technology for *aircraft windshields*. Accordingly, Meta Materials materially misled the investing public to falsely believe that the company "co-developed its metaAIR laser protection eyewear product with Airbus," which was Meta Materials' only tangible product at the time. By making

the above statements, Meta Materials wrongfully used Airbus' name and reputation to misleadingly impute prestige, quality, and relevance to its metaAIR eyewear.

136. The above statements, including the portions identified in emphasis, were also false and/or materially misleading because they misrepresented Meta Materials' metaAIR product by touting that it could "block and deflect specific *colors or wavelengths* of light" (emphasis added). However, metaAIR was specifically designed to only protect against *one color or wavelength*, i.e., metaAIR was designed to only protect against the green wavelength and not the red or blue wavelengths, as previously discussed herein. Thus, in direct contradiction of the metaAIR product specifications, Meta Materials materially misled the investing public to believe that metaAIR provided protection against multiple "colors or wavelengths of light." By making the above claim, Meta Materials created a false impression in the market as to the breadth of metaAIR's capabilities and, ultimately, its financial prospects.

#### **November 15, 2021 – Quarterly Report**

137. On November 15, 2021, after market hours, Meta Materials filed its quarterly report on Form 10-Q for the third quarter of fiscal 2021. Palikaras and Rice signed the report.

138. The quarterly report misrepresented the development status of Meta Materials' products. In pertinent part, the quarterly report stated that:

*The Company has generated a portfolio of intellectual property and is now moving toward commercializing products at a performance and price point combination that has the potential to be disruptive in multiple market verticals. The Company's platform technology includes holography, lithography, and medical wireless sensing. The underlying approach that powers all of the Company's platform technologies comprises advanced materials, metamaterials and functional surfaces. These materials include structures that are patterned in ways that manipulate light, heat, and electromagnetic waves in unusual ways. The Company's advanced structural design technologies and scalable manufacturing methods provide a path to broad commercial opportunities in aerospace and defense, automotive, energy, healthcare, consumer electronics, and data transmission.*

(emphasis added)

139. The above statement, including the portions identified in emphasis, was false and/or materially misleading because it represented that Meta Materials was now in the process of “moving towards commercializing” and had already developed “scalable manufacturing methods.” By making this claim, Meta Materials implied that it had completed the design and development phase of its products and was in the process of scaling production and distributing its products when, in reality, this was not the case.

140. Meta Materials had not materially advanced the development of its products let alone to a point where it was ready to begin “commercializing” them. As of the date of the above statement, Meta Materials’ holography, lithography, and wireless sensing products were still in their infancy and unproven in terms of real-world application or profitability: Meta Materials had failed to manufacture its metaAIR glasses at scale or sell them to anyone in any meaningful amounts; its glucoWISE system remained unproven, scientifically; and it has failed to materially develop NanoWeb past where it existed since first acquiring it in 2016. Meta Materials did not even have a production facility capable of producing its products at “commercial[.]” levels or have any ability to “scale” production during the Class Period, according to FE1. Thus, Meta Materials materially misled investors when representing that it had completed its design and development and was “now moving towards commercializing [these] products” or had already developed any “scalable manufacturing method[.]”

#### **March 1, 2022 – Annual Report**

141. On March 1, 2022, after market hours, Meta Materials filed its annual report on Form 10-K for fiscal 2021. Palikaras and Rice signed the report.

142. The amended annual report misrepresented the development status of Meta Materials' products. In pertinent part, the annual report stated that:

***The Company has generated a portfolio of intellectual property and is now moving toward commercializing products at a performance and price point combination that has the potential to be disruptive in multiple market verticals. The Company's platform technology includes holography, lithography, and medical wireless sensing. The underlying approach that powers the Company's platform technologies comprises advanced materials, metamaterials and functional surfaces. These materials include structures that are patterned in ways that manipulate light, heat, and electromagnetic waves in unusual ways. The Company's advanced structural design technologies and scalable manufacturing methods provide a path to broad commercial opportunities in aerospace and defense, automotive, energy, healthcare, consumer electronics, and data transmission.***

(emphasis added)

143. The above statement, including the portions identified in emphasis, was false and/or materially misleading because it represented that Meta Materials was now in the process of "moving towards commercializing" and had already developed "scalable manufacturing methods." By making this claim, Meta Materials implied that it had completed the design and development phase of its products and was in the process of scaling production and distributing its products when, in reality, this was not the case.

144. Meta Materials had not materially advanced the development of its products let alone to a point where it was ready to begin "commercializing" them. As of the date of the above statement, Meta Materials' holography, lithography, and wireless sensing products were still in their infancy and unproven in terms of real-world application or profitability: Meta Materials had failed to manufacture its metaAIR glasses at scale or sell them to anyone in any meaningful amounts; its glucoWISE system remained unproven, scientifically; and it has failed to materially develop NanoWeb past where it existed since first acquiring it in 2016. Meta Materials did not even have a production facility capable of producing its products at "commercial[]" levels or have

any ability to “scale” production during the Class Period, according to FE1. Thus, Meta Materials materially misled investors when representing that it had completed its design and development and was “now moving towards commercializing [these] products” or had already developed any “scalable manufacturing method[.]”

#### April 25, 2022 – Fact Sheet

145. On April 25, 2022, Meta Materials released a two-page fact sheet discussing *inter alia* recent accomplishments.


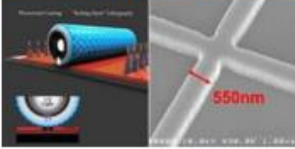


146. The fact sheet provided a false and/or materially misleading representation of Meta Materials’ product capabilities at the time. The fact sheet stated, in pertinent part, that:

Meta Materials Inc. (META) (NASDAQ: MMAT) is a developer of high-performance functional materials and nanocomposites. ***META delivers previously unachievable performance, across a range of applications, by inventing, designing, developing, and manufacturing sustainable, highly functional materials.*** Our extensive technology platform is software and AI-design driven. ***Core capabilities include, holography, lithography, wireless sensing,*** ARfusion, and PLASMAfusion (high-speed coating, any solid on any substrate).

This allows us to develop a library of solutions and functional prototypes much faster and at lower cost than traditional chemical synthesis. ***We enable leading global brands to deliver breakthrough products to their customers in consumer electronics, 5G communications, health and wellness, aerospace, automotive, and clean energy.*** Our nano-optic technology provides security features for government documents and currencies and authentication for brands. Meta owns a broad, growing portfolio of intellectual property. Our achievements have been widely recognized, including being named a Lux Research Innovator of the Year in 2021.

(emphasis added)

147. The fact sheet also contained the following:

Technology Platform Capabilities			
HOLOGRAPHY	LITHOGRAPHY	WIRELESS SENSING	PRECISION INTEGRATION
 <p><b>Laser records into photopolymer:</b>  <b>holoOPTIX</b>® holographic optical components  <b>metaAIR</b>® laser glare protection  <b>ARfusion</b>™ prescription AR smart glasses  <b>HUD displays</b> for automotive, aerospace</p>	 <p><b>RML</b>® produces sub-micron metal mesh:  <b>NANOWEB</b>® antennas, reflectors, EMI shielding, de-ice/de-fog  <b>EBL + Nanoimprint Lithography + R2R Processing produces nano-optic security features:</b>  <b>KolourOptik</b>® anti-counterfeiting</p>	 <p><b>Metamaterial films enhance signals/images:</b>  <b>glucoWISE</b>® non-invasive glucose monitor  <b>radiWISE</b>™ MRI image enhancement</p>	 <p><b>Proprietary production platforms:</b>  <b>ARfusion</b>™ prescription AR smart glasses  <b>PLASMAfusion</b>™ patented high-speed coating technology, any solid material on any substrate</p>

148. The above statements (*i.e.*, text and image) were false and/or materially misleading because they misrepresented each of Meta Materials’ holography, lithography, and wireless sensing “capabilities.”

149. Meta Materials’ holography consisted largely of its metaAIR glasses. The metaAIR glasses were designed to protect against green-wavelength lasers only unlike other products in the market that, in fact, blocked light from blue and red wavelengths as well (*e.g.*, dye-based lenses and non-holographic thin-film options). Thus, by providing investors with a picture of red, green, and blue light on the slide (upper left), Meta Materials misrepresented the capabilities of its metaAIR glasses.

150. Meta Materials also misrepresented its NanoWeb product which it advertised for use in connection with 5G antennas. Meta Materials acquired the technology underlying its NanoWeb product in 2016, but did not materially advance its development thereafter or continue to maintain the licensing allowing for use of the technology despite increased demand and competition in the market. Instead, Meta Materials acquired Nanotech in 2021 but Nanotech’s technology was incompatible with NanoWeb’s intended uses.

151. Meta Materials' representation of its wireless sensing capabilities was also materially misleading. Its wireless sensing product was the glucoWISE. While the glucoWISE could potentially detect changes in glucose concentrations in water using concentrations of glucose ranging from 2x-50x normal blood-glucose levels, it had not demonstrated any accuracy or effectiveness of the glucoWISE when testing it with blood or through skin (contrary to the picture it provided in the slide above). Similarly, Meta Materials had not demonstrated that its radiWISE worked in any pre-clinical or clinical studies.

152. Given that these products were still in early development, Meta Materials materially misled investors when referring to them as "capabilities" which indicated that the products had been proven scientifically and that the design and development phases had been completed. Further, Meta Materials had not as of the time of this fact sheet "deliver[ed] previously unachievable performance" or enabled its customers to "deliver breakthrough products to their customers" in light of the fact that Meta Materials' products were not ready for commercialization and the LGP glasses were not a breakthrough product.


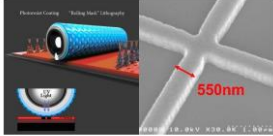

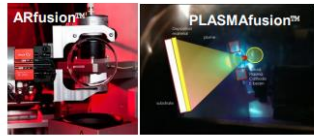
#### **May 2022 – Investor Presentation**


153. In May 2022, Meta Materials published an investor presentation discussing *inter alia* recent and historical accomplishments.



154. The presentation included a slide titled “Technology Platform Capabilities” that provided a false and/or materially misleading representation of Meta Materials’ product capabilities at the time. The slide from the presentation is below:

## Technology Platform Capabilities

<p><b>HOLOGRAPHY</b></p>  <p><b>Laser records into photopolymer:</b></p> <ul style="list-style-type: none"> <li>• holoOPTIX® optical components</li> <li>• metaAIR® laser glare protection</li> <li>• HUD displays for automotive, aerospace</li> </ul>	<p><b>LITHOGRAPHY</b></p>  <p><b>RML® produces sub-micron metal mesh:</b></p> <ul style="list-style-type: none"> <li>• NANOWEB® antennas, reflectors, EMI shielding, de-ice/de-fog</li> </ul> <p><b>Electron Beam Lithography + Nanoimprint Lithography (NIL) + Roll-to-Roll Processing produces nano-optic security features:</b></p> <ul style="list-style-type: none"> <li>• KolourOptik® anti-counterfeiting</li> </ul>	<p><b>WIRELESS SENSING</b></p>  <p><b>Metamaterial films enhance signals/images:</b></p> <ul style="list-style-type: none"> <li>• glucoWISE® non-invasive glucose monitor</li> <li>• radiWISE™ MRI image enhancement</li> </ul>	<p><b>PRECISION INTEGRATION</b></p>  <p><b>Proprietary production platforms:</b></p> <ul style="list-style-type: none"> <li>• ARfusion™ prescription AR smart glasses</li> <li>• PLASMAfusion™ patented high-speed coating technology, any solid material on any substrate</li> </ul>
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155. The above statements (*i.e.*, the slide) were false and/or materially misleading because they misrepresented each of Meta Materials’ holography, lithography, and wireless sensing “capabilities.”

156. Meta Materials’ holography consisted largely of its metaAIR glasses. The metaAIR glasses were designed to protect against green-wavelength lasers only unlike other products in the market that, in fact, blocked light from blue and red wavelengths as well (*e.g.*, dye-based lenses and non-holographic thin-film options). Thus, by providing investors with a picture of red, green, and blue light on the slide (upper left), Meta Materials misrepresented the capabilities of its metaAIR glasses.

157. Meta Materials also misrepresented its NanoWeb product which it advertised for use in connection with 5G antennas. Meta Materials acquired the technology underlying its NanoWeb product in 2016, but did not materially advance its development thereafter or continue to maintain the licensing allowing for use of the technology despite increased demand and competition in the market. Instead, Meta Materials acquired Nanotech in 2021 but Nanotech's technology was incompatible with NanoWeb's intended uses.

158. Meta Materials' representation of its wireless sensing capabilities was also materially misleading. Its wireless sensing product was the glucoWISE. While the glucoWISE could potentially detect changes in glucose concentrations in water using concentrations of glucose ranging from 2x-50x normal blood-glucose levels, it had not demonstrated any accuracy or effectiveness of the glucoWISE when testing it with blood or through skin (contrary to the picture it provided in the slide above). Similarly, Meta Materials had not demonstrated that its radiWISE worked in any pre-clinical or clinical studies.

159. Given that these products were still in early development, Meta Materials materially misled investors when referring to them as "capabilities" which indicated that the products had been proven scientifically and that the design and development phases had been completed.

#### **May 2, 2022 – Amended Annual Report**

160. On May 2, 2022, during market hours, Meta Materials filed an amended annual report on Form 10-K for fiscal 2021. Palikaras and Rice signed the report.

161. The amended annual report misrepresented the development status of Meta Materials' products. In pertinent part, the annual report stated that:

*The Company has generated a portfolio of intellectual property and is now moving toward commercializing products at a performance and price point*

*combination that has the potential to be disruptive in multiple market verticals.* The Company’s platform technology includes holography, lithography, and medical wireless sensing. The underlying approach that powers the Company’s platform technologies comprises advanced materials, metamaterials and functional surfaces. These materials include structures that are patterned in ways that manipulate light, heat, and electromagnetic waves in unusual ways. *The Company’s advanced structural design technologies and scalable manufacturing methods provide a path to broad commercial opportunities in aerospace and defense, automotive, energy, healthcare, consumer electronics, and data transmission.*

(emphasis added)

162. The above statement, including the portions identified in emphasis, was false and/or materially misleading because it represented that Meta Materials was now in the process of “moving towards commercializing” and had already developed “scalable manufacturing methods.” By making this claim, Meta Materials implied that it had completed the design and development phase of its products and was in the process of scaling production and distributing its products when, in reality, this was not the case.

163. Meta Materials had not materially advanced the development of its products let alone to a point where it was ready to begin “commercializing” them. As of the date of the above statement, Meta Materials’ holography, lithography, and wireless sensing products were still in their infancy and unproven in terms of real-world application or profitability: Meta Materials had failed to manufacture its metaAIR glasses at scale or sell them to anyone in any meaningful amounts; its glucoWISE system remained unproven, scientifically; and it has failed to materially develop NanoWeb past where it existed since first acquiring it in 2016. Meta Materials did not even have a production facility capable of producing its products at “commercial[.]” levels or have any ability to “scale” production during the Class Period, according to FE1. Thus, Meta Materials materially misled investors when representing that it had completed its design and development

and was “now moving towards commercializing [these] products” or had already developed any “scalable manufacturing method[.]”

### May 10, 2022 – Quarterly Report

164. On May 10, 2022, after market hours, Meta Materials filed its quarterly report on Form 10-Q for the first quarter of fiscal 2022. Palikaras and Rice signed the report.

165. The quarterly report misrepresented the development status of Meta Materials’ products. In pertinent part, the quarterly report stated that:

*We have generated a portfolio of intellectual property and is now moving toward commercializing products at a performance and price point combination that has the potential to be disruptive in multiple market verticals.* Our platform technology includes holography, lithography, and medical wireless sensing. The underlying approach that powers our platform technologies comprises advanced materials, metamaterials and functional surfaces. These materials include structures that are patterned in ways that manipulate light, heat, and electromagnetic waves in unusual ways. Our advanced structural design technologies and *scalable manufacturing methods* provide a path to broad commercial opportunities in aerospace and defense, automotive, energy, healthcare, consumer electronics, and data transmission.

(emphasis added)

166. The above statement, including the portion identified in emphasis, was false and/or materially misleading because it represented that Meta Materials was now in the process of “moving towards commercializing” and had already developed “scalable manufacturing methods.” By making this claim, Meta Materials implied that it had completed the design and development phase of its products and was in the process of scaling production and distributing its products when, in reality, this was not the case. By making this claim, Meta Materials implied that it had completed the design and development phase of its products and was in the process of scaling production and distributing its products when, in reality, this was not the case.


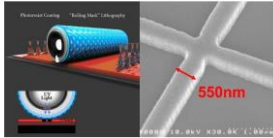

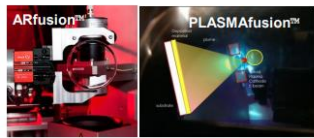
167. Meta Materials had not materially advanced the development of its products let alone to a point where it was ready to begin “commercializing” them. As of the date of the above statement, Meta Materials’ holography, lithography, and wireless sensing products were still in their infancy and unproven in terms of real-world application or profitability: Meta Materials had failed to manufacture its metaAIR glasses at scale or sell them to anyone in any meaningful amounts; its glucoWISE system remained unproven, scientifically; and it has failed to materially develop NanoWeb past where it existed since first acquiring it in 2016. Meta Materials did not even have a production facility capable of producing its products at “commercial[.]” levels or have any ability to “scale” production during the Class Period, according to FE1. Thus, Meta Materials materially misled investors when representing that it had completed its design and development and was “now moving towards commercializing [these] products” or had already developed any “scalable manufacturing method[.]”

**May 11, 2022 – Investor Presentation**

168. On May 11, 2022, Meta Materials provided investors with a presentation discussing *inter alia* recent accomplishments and its operations during the first quarter of fiscal 2021.

169. The presentation included a slide titled “Technology Platform Capabilities” that provided a false and/or materially misleading representation of Meta Materials’ product capabilities at the time. The slide from the presentation is below:

**Technology Platform Capabilities**

HOLOGRAPHY	LITHOGRAPHY	WIRELESS SENSING	PRECISION INTEGRATION
 <p><b>Laser records into photopolymer:</b></p> <ul style="list-style-type: none"> <li>• holoOPTIX® optical components</li> <li>• metaAIR® laser glare protection</li> <li>• HUD displays for automotive, aerospace</li> </ul>	 <p><b>RML® produces sub-micron metal mesh:</b></p> <ul style="list-style-type: none"> <li>• NANOWEB® antennas, reflectors, EMI shielding, de-ice/de-fog</li> </ul> <p><b>Electron Beam Lithography + Nanoimprint Lithography (NIL) + Roll-to-Roll Processing produces nano-optic security features:</b></p> <ul style="list-style-type: none"> <li>• KolourOptik® anti-counterfeiting</li> </ul>	 <p><b>Metamaterial films enhance signals/images:</b></p> <ul style="list-style-type: none"> <li>• glucoWISE® non-invasive glucose monitor</li> <li>• radiWISE™ MRI image enhancement</li> </ul>	 <p><b>Proprietary production platforms:</b></p> <ul style="list-style-type: none"> <li>• ARfusion™ prescription AR smart glasses</li> <li>• PLASMAfusion™ patented high-speed coating technology, any solid material on any substrate</li> </ul>

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**META®**  
Go Beyond.

170. The above statements (*i.e.*, the slide) were false and/or materially misleading because they misrepresented each of Meta Materials’ holography, lithography, and wireless sensing “capabilities.”

171. Meta Materials’ holography consisted largely of its metaAIR glasses. The metaAIR glasses were designed to protect against green-wavelength lasers only unlike other products in the market that, in fact, blocked light from blue and red wavelengths as well (*e.g.*, dye-based lenses and non-holographic thin-film options). Thus, by providing investors with a picture of red, green, and blue light on the slide (upper left), Meta Materials misrepresented the capabilities of its metaAIR glasses.

172. Meta Materials also misrepresented its NanoWeb product which it advertised for use in connection with 5G antennas. Meta Materials acquired the technology underlying its NanoWeb product in 2016, but did not materially advance its development thereafter or continue to maintain the licensing allowing for use of the technology despite increased demand and competition in the market. Instead, Meta Materials acquired Nanotech in 2021 but Nanotech's technology was incompatible with NanoWeb's intended uses.

173. Meta Materials' representation of its wireless sensing capabilities was also materially misleading. Its wireless sensing product was the glucoWISE. While the glucoWISE could potentially detect changes in glucose concentrations in water using concentrations of glucose ranging from 2x-50x normal blood-glucose levels, it had not demonstrated any accuracy or effectiveness of the glucoWISE when testing it with blood or through skin (contrary to the picture it provided in the slide above). Similarly, Meta Materials had not demonstrated that its radiWISE worked in any pre-clinical or clinical studies.

174. Given that these products were still in early development, Meta Materials materially misled investors when referring to them as "capabilities" which indicated that the products had been proven scientifically and that the design and development phases had been completed.

**May 25, 2022 – Press Release**

175. On May 25, 2022, before market hours, Meta Materials issued a press release titled "Dr. Panos Kosmas to Deliver Keynote Lecture on New Medical Technology for Stroke Detection."

176. The press release misrepresented the historical status of Meta Materials' wireless sensing products. In pertinent part, the press release stated that:

Point of care diagnostics and remote monitoring crucially depend on data accuracy and reliability. *META has developed a metamaterial technology platform to measure physiological signals with superior accuracy, specificity, and sensitivity.* META's technology leverages metamaterials to bend light in non-ordinary ways. When a metamaterial film is placed on the skin, the signal can penetrate the tissue, improving sensing accuracy. Under normal circumstances, a signal is reflected, and little energy penetrates the tissue, hindering sensing accuracy.

"The application of metamaterials in medical imaging has the potential for rapid clinical adoption, providing higher image resolution, faster scans and without using ionizing radiation. Our technology leads to the development of improved diagnostic tools," said George Palikaras, President & CEO. "*META has demonstrated and published the effectiveness of metamaterial technology in both imaging and sensing applications.* I am personally excited about how this technology will make a difference in people's lives."

(emphasis added)

177. The above statement, including the portions identified in emphasis, was false and/or materially misleading because it misrepresented the developmental status of Meta Materials' wireless sensing products, namely the glucoWISE product. As of the date of the above statement, Meta Materials relied on studies to support the glucoWISE product showing that it could detect changes in glucose concentrations in water (not in blood and/or through skin) using concentrations of glucose ranging from 2x-50x normal blood-glucose levels. Meta Materials had not performed any testing capable of "demonstrat[ing] . . . the effectiveness" of its technology. Therefore, by stating that it had, Meta Materials materially misled investors to believe that its wireless sensing products were significantly more developed than they truly were at the time.



**June 10, 2022 – Prospectus**

178. On June 10, 2022, after market hours, Meta Materials filed a prospectus with the SEC in connection with the registration of shares used to acquire Plasma App Ltd., providing for the resale of the shares into the open market.

179. The prospectus misrepresented the development status of Meta Materials' products.

In pertinent part, the prospectus stated that:

The Company has generated a portfolio of intellectual property and *is now moving toward commercializing products* at a performance and price point combination that has the potential to be disruptive in multiple market verticals. The Company's platform technology includes holography, lithography, and medical wireless sensing. The underlying approach that powers the Company's platform technologies comprises advanced materials, metamaterials and functional surfaces. These materials include structures that are patterned in ways that manipulate light, heat, and electromagnetic waves in unusual ways. The Company's advanced structural design technologies and *scalable manufacturing methods* provide a path to broad commercial opportunities in aerospace and defense, automotive, energy, healthcare, consumer electronics, and data transmission.

(emphasis added)

180. The above statement, including the portion identified in emphasis, was false and/or materially misleading because it represented that Meta Materials was now in the process of "moving towards commercializing." By making this claim, Meta Materials implied that it had completed the design and development phase of its products and was in the process of scaling production and distributing its products when, in reality, this was not the case.

181. Meta Materials had not materially advanced the development of its products let alone to a point where it was ready to begin "commercializing" them. As of the date of the above statement, Meta Materials' holography, lithography, and wireless sensing products were still in their infancy and unproven in terms of real-world application or profitability: Meta Materials had failed to manufacture its metaAIR glasses at scale or sell them to anyone in any meaningful

amounts; its glucoWISE system remained unproven, scientifically; and it has failed to materially develop NanoWeb past where it existed since first acquiring it in 2016. Meta Materials did not even have a production facility capable of producing its products at “commercial[.]” levels or have any ability to “scale” production during the Class Period, according to FE1. Thus, Meta Materials materially misled investors when representing that it had completed its design and development and was “now moving towards commercializing [these] products” or had already developed any “scalable manufacturing method[.]”

## **VI. ADDITIONAL SCIENTER ALLEGATIONS**

182. Defendants acted with scienter in that they knew that the public documents and statements issued or disseminated in the name of Meta Materials were materially false and misleading; knew that such statements or documents would be issued or disseminated to the investing public; and knowingly and substantially participated or acquiesced in the issuance or dissemination of such statements or documents as primary violations of the federal securities laws. Defendants, by virtue of their receipt of information reflecting the true facts regarding Meta Materials, participated in the fraudulent scheme alleged herein.

### **A. Defendants Knew Facts and Had Access to Contrary Information.**

183. Defendants made numerous materially misleading statements concerning the development status of Meta Materials’ main products, including the metaAIR, glucoWISE, and NanoWeb. The frequency with which Defendants discussed these products evidences their importance to Meta Materials’ overall operations as well as Defendants’ familiarity with their true development status.

184. Contrary to Defendants’ public statements, these products were not ready for commercialization. The products were still in early development and not ready for scaling in terms of manufacturing and production. Due to their nascent development status, the products were not

ready for marketing or, as Defendants stated, “commercializ[ation]” and “scal[ing].” A significant difference existed between, on one hand, Defendants’ public descriptions of Meta Materials’ product development and, on the other hand, the true state of affairs that existed at the time.

185. Defendants Palikaras and Rice knew that Meta Materials’ products were not ready for “commercializ[ation]” and “scal[ing].” Meta Materials’ production facility in Halifax, Nova Scotia, was not equipped for commercial production due, in part, to the fact that it consisted of a rented “clean room” and was a “temporary set-up.” FE1, who worked in Meta Materials’ production facility in Halifax, Nova Scotia, witnessed Palikaras and Rice visit the production floor at the production facility in Halifax. Thus, Palikaras and Rice were aware of the production limitations that existed during the Class Period and, in turn, the fact that Meta Materials was unable to “commercializ[e]” or “scal[e]” the production of its products.

186. Given the importance of metaAIR, glucoWISE, and NanoWeb to Meta Materials’ overall operations, Defendants were in possession of and/or had access to information concerning the true development status of these products. Indeed, Meta Materials identified metaAIR as one of its “principal” holography products and frequently promoted the fact that the metaAIR was the subject of a distribution agreement with Satair. Thus, Defendants knew or had access to information showing that Meta Materials was unable to scale production of the metaAIR product and/or sell it at profitable and competitive prices, *i.e.*, metaAIR was not ready for commercialization.

187. Similarly, glucoWISE was one of Meta Materials’ oldest products, given that Palikaras first started developing it in 2014. However, despite the amount of time and effort purportedly spent on its development, glucoWISE has not materially advanced in terms of development and/or towards commercialization. The studies used to support Meta Materials’

promotion of the product do not demonstrate its ability to work in real-world conditions. Its prominence within Meta Materials' promotional materials (including SEC filings) demonstrates its importance to the company's overall operations and, in turn, Defendants' knowledge of and/or access to information about glucoWISE's true development status.

188. NanoWeb was also one of Meta Materials' primary focuses in terms of research and development heading into fiscal 2022 after acquiring Nanotech. However, the technology that Meta Materials acquired from Nanotech was not applicable in terms of using it for NanoWeb's development, manufacturing, or commercialization. Further, the patent that Meta Materials had historically relied upon for NanoWeb had lapsed, meaning that Meta Materials was unable to rely on it to further NanoWeb's development. Given NanoWeb's importance to Meta Materials, Defendants knew or had access to information showing that the company's development of NanoWeb was stalled and/or non-existent and, therefore, was not ready for commercialization.

189. In addition to the metaAIR, glucoWISE, and NanoWeb products, Defendants also routinely promoted Meta Materials based on its prior dealings with Lockheed Martin and Airbus. These dealings, however, were materially different than how Defendants represented them. The "partnership" with Lockheed Martin was, in fact, not a partnership and Airbus was not one of Meta Materials' customers. The significant differences between the truth and Defendants' public statements gives rise to the conclusion that Defendants' inaccuracy was not unintentional but rather made with an intent to deceive and/or a reckless disregard for the risk of misleading investors.

190. Defendants' possession of facts and/or access to information that contradicted their public statements suggests strongly that they acted with scienter at all relevant times.

**B. Brda and McCabe Benefitted Financially.**

191. Brda and McCabe had motive and opportunity to commit the fraud alleged herein, as evidenced by the lucrative financial incentives and benefits they received as a result of Torchlight’s merger with Meta Materials.

**John Brda**

192. The following table provides Brda’s compensation as CEO and President of Torchlight for the years 2015 through 2019, *i.e.*, the five-year period prior to the merger with Meta Materials:

	<b>Salary</b>	<b>Bonus</b>	<b>Stock</b>	<b>Options</b>	<b>Other</b>	<b>Total</b>
<b>2015</b>	\$337,500	--	--	\$1,530,000	--	\$1,867,500
<b>2016</b>	\$375,000	--	--	\$712,500	--	\$1,087,500
<b>2017</b>	\$375,000	--	--	--	--	\$375,000
<b>2018</b>	\$375,000	--	--	--	--	\$375,000
<b>2019</b>	\$375,000	--	--	--	--	\$375,000

193. Brda’s compensation between 2015 and 2019 was subject to a five-year employment agreement entered into with Torchlight on June 16, 2015. Pursuant to the agreement, 20% of Brda’s salary “accrue[d] unpaid until such time as management believe[d] there [was] adequate cash for such payment.”

194. On July 15, 2020, while Brda was actively negotiating strategic alternatives with outside parties, he entered into a new one-year employment agreement with Torchlight after his previous one expired in June 2020. Under the new agreement, Brda received his same annual salary of \$375,000, but this time with 36% set “to accrue unpaid until such time as the Board of Directors believe[d] there [was] adequate cash for such payment.” Importantly, the new agreement provided

that “if there is a ‘change of control’ in the company (as defined in the agreement), the employee will be paid in one lump sum any amounts owed to the employee under the agreement that are accrued and unpaid plus his salary that would be earned through the end of the term of the agreement.”

195. Brda’s new compensation agreement also provided him with a grant of stock options to purchase a total of up to 2,250,000 shares of Torchlight’s common stock, including up to 375,000 shares at an exercise price of \$0.50 per share and up to 1,875,000 shares at an exercise price of \$1.00 per share. These options were subject to an accelerated vesting schedule upon a change of control. According to Brda’s compensation agreement, the options would vest upon either (a) the approval by shareholders of a change of control occurring prior to July 15, 2021, or (b) the company entering into a letter of intent with a third party prior to July 15, 2021 that contemplates a change of control, and the change of control transaction closes with that third party (or an affiliate(s) of that third party) at a date not later than July 15, 2022.

196. Thus, by going forward with the Meta Materials merger, Brda was able to secure payment of his “accrue[d] unpaid” salary as well as the early vesting of in-the-money options for millions of shares of stock. Upon the completion of the merger, these options were worth \$9 million based on an approximate trading price of \$8/share.

197. In addition, Brda was also able to secure a bonus payment of \$1,500,000, which Meta Materials disclosed in its amended annual report on Form 10-K for fiscal 2021. The annual report provided Brda’s total compensation for 2020 and 2021, showing that he received \$375,000 and \$1,687,500, respectively.

198. Consequently, by proceeding with the Meta Materials merger, Brda enriched himself at the expense of Meta Materials (including Torchlight) shareholders. The amounts he

received were material relative to his previous compensation, especially in light of the fact that some of his previous compensation was not even being paid. The financial opportunity and incentive created by the merger motivated Brda to intentionally mislead or deliberately disregard the risk of misleading investors when discussing Meta Materials' and, consequently, gives rise to a strong inference of scienter.

### **Greg McCabe**

199. McCabe was Torchlight's Chairman and largest individual shareholder. As of July 2015, he nearly 20% of Torchlight's common stock and over 35% of its convertible preferred shares.

200. Between 2015 and 2020, McCabe had invested millions of dollars into Torchlight with only a speculative chance of receiving a return on his investment. McCabe's investments in Torchlight varied, as follows:

- a. In March 2016, he loaned Torchlight \$500,000 without any interest.
- b. In April 2016, McCabe (through McCabe Petroleum Corporation) gave Torchlight a 66.66% working interest in approximately 12,000 acres in the Midland Basin in exchange for 1,500,000 common stock warrants at an exercise price of \$1.00.
- c. In January 2017, McCabe gave Torchlight his company, Line Drive Energy, LLC, which owned certain assets and securities including 40.66% of 12,000 gross acres in the Hazel Project and 521,739 warrants to purchase Torchlight common stock. In exchange, McCabe received 3.3 million restricted shares of Torchlight common stock.

- d. In January 2017, McCabe (through another of his companies, Wolfbone Investments, LLC) gave Torchlight additional interests in the Hazel Project, including its interest in the Flying B Ranch #1 well and the 40-acre unit surrounding the well, in exchange for \$415,000 and the cancellation of 2.78 million warrants to purchase Torchlight stock.
- e. In November 2017, McCabe (through Wolfbone Investments, LLC) agreed to carry interests (and costs) on Torchlight's leases under a pre-existing agreement (referred to as the Farmout Agreement) in exchange for an increased interest in the leases.
- f. In December 2017, McCabe (through McCabe Petroleum Corporation) gave Torchlight 640 acres in Winkler County, Texas, in exchange for 2.5 million restricted shares of Torchlight common stock.
- g. In October 2018, McCabe effectively guaranteed Torchlight's note issuance, which allowed Torchlight to raise \$6 million, by granting the purchasers of the note a put option whereby McCabe would have to purchase unpaid principal amounts due on the notes.

201. By September 2020, while Torchlight was negotiating its merger with Meta Materials, McCabe was still the largest individual owner of Torchlight common stock. With over 13.6 million shares, he controlled 13.75% of Torchlight's common stock. He also held a significant portion of Torchlight's oil and gas assets, including *inter alia* controlling interests in Masterson Hazel Partners, LP, McCabe Petroleum Corporation, Wolfbone Investments, LLC, and ORRI – Magdalena Royalties, LLC as well as interests in Torchlight's various oil and gas projects including but not limited to the Orogrande Project and Hazel Project.



202. The merger with Meta Materials presented McCabe with a definitive exit strategy that would allow him to realize a return on his investment in Torchlight. The oil and gas assets, as of June 28, 2021 (when the merger closed), were valued at \$72.6 million. Torchlight's agreement with Meta Materials did not require Torchlight to sell these oil and gas assets prior to consummation of the merger which, according to Torchlight, was during a "downturn in the oil and gas industry." Moreover, the merger agreement also provided for Torchlight's "legacy" stockholders (including in large part McCabe) to exclusively receive the value of the oil and gas assets if and/or when Meta Materials disposed of them. McCabe supported the transaction emphatically, even going so far as to provide bridge financing in the amount of \$1 million to Meta Materials so it could meet its "current cash needs."

203. The merger with Meta Materials provided McCabe with an opportunity to exit what had become a failing investment in Torchlight. That opportunity incentivized McCabe financially to intentionally mislead or deliberately disregard the risk of misleading investors when discussing Meta Materials' and, consequently, gives rise to a strong inference of scienter.

**C. Meta Materials Profited at Plaintiffs' Expense.**

204. Historically, Meta Materials was a Canadian company with little-to-no revenues or prospects of commercializing any of its products. Revenue (cash) was largely obtained through loans, grants, and partnerships. To this end, Meta Materials secured approximately C\$60 million in funding since its inception in 2011 through September 2020.

205. Meta Materials, however, was unable to remain in business through public grants and loans by itself. As of December 31, 2020, Meta Materials recognized "material uncertainties that cast[ed] substantial doubt about the appropriateness of a going concern assumption, as [Meta Materials] incurred a net loss of \$19,806,340 for the year ended December 31, 2020, negative cash

flow from operations of \$9,802,829, and had a deficit of \$52,088,351 as at December 31, 2020.” Further, Meta Materials was also “in breach of a debt covenant with BDC Capital Inc. for convertible secured debentures and ha[d] reclassified the balance as at December 31, 2020 of \$7,060,493 into current liabilities.”

206. Meta Materials was in desperate need of access to capital. Thus, the merger with Torchlight was vital to Meta Materials’ existence, given the fact that it provided Meta Materials with the ability to raise capital from the U.S. public equity markets. Indeed, Meta Materials admitted as much, stating that it was interested in proceeding with the reverse merger “in order to facilitate Meta’s listing on NASDAQ and access to the U.S. capital markets.”

207. Even before the merger was complete, Meta Materials was using Torchlight’s public listing to raise desperately needed capital. On February 8, 2021, as part of the merger agreement, Torchlight raised \$22.4 million through a follow-on offering for 20 million shares and then loaned \$10 million of the net proceeds to Meta Materials as “bridge financing.”

208. Meta Materials continued to take advantage of its newfound access to the U.S. public equity markets when, on June 21, 2021, Torchlight conducted an “at the market offering” selling over 11.7 million shares for approximately \$100 million. Torchlight stated in its prospectus that only a portion of the proceeds would be allocated to its then-existing oil and gas assets with the remainder going to Meta Materials for “general corporate purposes.”

209. Most recently, on June 27, 2022, Meta Materials held an offering with certain institutional investors for the purchase and sale in a registered direct offering of 37,037,039 shares of our common stock at a purchase price of \$1.35 per share and warrants to purchase 37,037,039 shares at an exercise price of \$1.75 per share. This resulted in gross proceeds from the offering of \$50 million and net proceeds of \$46.3 million. Aside from \$5 million of the proceeds to be used

for development of Torchlight’s legacy oil and gas assets, Meta Materials intended to use the remaining \$41.3 million for “general corporate purposes.”

210. Meta Materials’ “general corporate purposes” largely consist of its “General & Administrative” expenses, which represented 65% of its overall operating expenses for the second quarter of fiscal 2022. According to its quarterly report on Form 10-Q for the quarter, “The increase in general & administrative expenses of \$10.6 million for the three months ended June 30, 2022, as compared to the same period of 2021, is primarily due to \$4.8 million in professional fees due to ongoing SEC investigation and lawsuits, acquisitions related cost and consulting fees, \$2.9 million increase in salaries and benefits including \$1.3 million increase in non-cash equity compensation . . . .”

211. Thus, far from using its cash for the vital research and development necessary to commercialize a product, Meta Materials has simply used it to stay afloat long enough to create enough hype for its next capital raise and, in doing so, perpetuating a cycle of fraudulent conduct that leaves its investors with increasingly diluted ownership. The opportunity to access the public equity markets was not only necessary for Meta Materials’ immediate survival but it was also integral to the fraudulent scheme alleged herein and, therefore, demonstrates a corporate motive evidencing a strong and compelling inference of scienter.

**D. Meta Materials Acted with Corporate Scienter.**

212. Meta Materials’ public statements about its operations, including its product development and commercialization, were critical to its reputation and overall value. Given the dramatic allegations of falsity contained herein, a strong inference exists that Meta Materials’ corporate officials knew of the falsity of the statements at the time of publication.

213. The Individual Defendants were acting within their normal scopes of employment when making the fraudulent statements described above. Consequently, their scienter is imputed to Meta Materials under the doctrine of *respondeat superior* and common law principles of agency.

## **VII. LOSS CAUSATION AND ECONOMIC LOSS**

214. Throughout the Class Period, Defendants made materially misleading statements and omissions, which artificially inflated the price of Meta Materials' securities and operated as a fraud or deceit on Class Period purchasers of these securities. As the truth began to emerge, as a result of corrective disclosures, the prior artificial inflation was removed from Meta Materials' stock price and Plaintiffs and other members of the Class suffered foreseeable economic losses, which were proximately caused by Defendants materially misleading the investing public.

215. The market for Meta Materials' stock was open, well-developed and efficient at all relevant times. Defendants' misrepresentations and omissions created a false impression in the market as to Meta Materials' business operations, products, partnerships, and financials. In turn, this caused Meta Materials' shares to be overvalued and artificially inflated during the Class Period.

216. Reasonably relying on the integrity of the market price for Meta Materials' securities and market information relating to Meta Materials' business, Plaintiffs and other members of the Class purchased Meta Materials' securities to their detriment as they sustained damages resulting from the revelation of corrective information, as discussed below.

217. On December 14, 2020, before market hours, Torchlight and Meta Materials announced the signing of their definitive business combination agreement. This news signaled to investors that Meta Materials' takeover of Torchlight was imminent. Given Meta Materials' history of repeated product and development failures, its inability to successfully commercialize its LGP glasses, and the countless material misrepresentations disseminated by Meta Materials'

the market, Torchlight investors feared that, if the transaction proceeded, Meta Materials' standard parasitic conduct would lead to the draining of any remaining value within Torchlight.

218. When the signed agreement was announced, it immediately resulted in Meta Materials' stock price plunging 18% from \$1.52 per share to close at \$1.24 per share on December 14, 2020. This decline in Meta Materials' stock price represented dissipation of the artificial inflation in the stock price that had been created and/or maintained by Defendants' fraudulent statements. As such, Torchlight's definitive agreement to be taken over by Meta Materials proximately caused the substantial losses suffered by Plaintiffs and other members of the Class.

219. On March 3, 2021, after market close, the SEC published a letter to Torchlight requesting specific information about the exchange ratio and other disclosure issues concerning the merger. The letter revealed to investors that material risks related to the exchange ratio had been omitted and Torchlight's disclosures were inadequate in multiple ways. The letter, in turn, created additional uncertainty concerning Meta Materials' future and represented the materialization of one of the risks concerning the legitimacy of the merger concealed by Defendants' fraudulent conduct.

220. As the market promptly digested the implications of the SEC letter, Meta Materials' stock price fell 20% from \$5.30 per share to close at \$4.24 per share on March 4, 2021 thereby causing significant additional damages to Plaintiff and Class Members. This decline in the value of Meta Materials' shares amounted to dissipation of artificial inflation in the stock price that had been created and/or maintained by Defendants' fraudulent statements.

221. On June 21, 2021, Torchlight announced an offering of 11.7 million shares for proceeds of \$100 million. Immediately, the market reacted negatively to this news because just four months prior to this offering, on February 10, 2021, Torchlight had closed another public

offering for gross proceeds of \$27.6 million. Consequently, the June 2021 offering would dramatically dilute the value of shareholders' stock far beyond the market's anticipation. As the market anticipated the February 2021 offering because it was conducted pursuant to the terms of the takeover agreement, the market had no reason to suspect an additional offering less than six months later and for nearly four times the amount of the previous offering and, therefore, created additional uncertainty concerning Meta Materials' future and marked yet another materialization of risks concerning the legitimacy of the merger concealed by Defendants' fraudulent conduct.

222. On June 22, 2021, in response to this news, Torchlight's stock price precipitously plummeted an astounding 50% over the next two days to close down from \$19.84 per share to \$9.84 per share on June 23, 2021. This decline in the value of Meta Materials' shares amounted to further dissipation of the artificial inflation in the stock price that had been created and/or maintained by Defendants' fraudulent statements.

223. On November 15, 2021, after market hours, Meta Materials disclosed that it received a subpoena from the SEC's Enforcement Division in September 2021. According to Meta Materials, the subpoena requested information concerning the September 2020 merger with Torchlight. In essence, the SEC subpoena revealed to investors for the first time that the merger was problematic from a regulatory standpoint and the issues raised by the SEC in its March 2021 letter had barely scratched the surface of Meta Materials' disclosure failures. Further adding to uncertainty in the market, the subpoena also revealed that, due to Defendants' misrepresentations and omissions, the investing public was still missing pertinent material disclosures that were necessary to accurately determine the value and legitimacy of Torchlight's merger with Meta Materials.

224. On this news, Meta Materials' stock price fell 3.9% from \$4.77 per share to close at \$4.58 per share on November 16, 2021 thereby causing additional damages to Plaintiffs and Class Members. This decline in Meta Materials' stock price represented dissipation of the artificial inflation in Meta Materials' shares that had been created and/or maintained by Defendants' fraudulent statements.

225. On December 14, 2021, during market hours, Kerrisdale Capital issued a report accusing Meta Materials of habitually making misleading claims about the feasibility, development, and commercial potential of its technologies, which were in direct contradiction to the claims made by Defendants. The report also revealed the various business segments and technologies that Meta Materials had touted as pivotal, but later quietly abandoned, in addition to the true nature and state of Meta Materials' so-called partnerships. The Kerrisdale Capital report operated as another corrective disclosure because it revealed and/or corrected information that Defendants had previously misrepresented or concealed from the investing public concerning the merger with Torchlight and which were material to investors' decision to purchase and/or sell Meta Materials shares.

226. Meta Materials' stock price immediately declined 5.8% from \$3.09 per share to close at \$2.91 per share on December 14, 2021 causing substantial damages to Plaintiffs and Class Members. This decline in Meta Materials' stock price represented further dissipation of the artificial inflation in Meta Materials shares that had been created and/or maintained by Defendants' fraudulent statements.

227. On March 1, 2022, after market close, Meta Materials filed an SEC Form 12b-25 notice of untimely filing for its annual report on Form 10-K for fiscal year 2021. The notice indicated that the delay was due to a material weakness in Meta Materials' internal controls over

financial reporting emanating from Meta Materials' operations pre-merger with Torchlight. This further revealed to investors that the financial information they previously relied upon was inaccurate and/or that Meta Materials shares were overvalued as its market price was not reflective of accurate financial information. In fact, in an article titled, "Meta Materials lost money last year. And it's not even 100% certain how much," the *Motley Fool* stated, in pertinent part:

Now as if that weren't bad enough, Meta Materials added to investor concern with this statement in a separate filing it made simultaneous with its earnings release: "Meta Materials . . . is unable, without unreasonable effort or expense, to file its annual report on Form 10-K for its fiscal year ended December 31, 2021 ('Annual Report') within the prescribed time period [because] the Company's management concluded that . . . the Company's internal control over financial reporting was not effective as of December 31, 2021, due to material weaknesses in internal control over financial reporting."

***This suggests that Meta Materials may need to restate its financials -- and that no matter how bad the above news already looks, it could still get worse. No wonder investors are selling today.***

(emphasis added)

228. Defendants' notice of untimely filing operated as a corrective disclosure because it marked yet another materialization of the risks that Defendants had previously concealed about Meta Materials' operations and the benefits of the merger. On this news, Meta Materials' stock price declined by 20% from \$2.08 per share to close at \$1.65 per share on March 2, 2022 causing Plaintiff and other members of the Class to suffer significant additional losses.

229. On June 24, 2022, during market hours, Meta Materials filed a supplemental prospectus relating to its at-the-market offering from the previous year. The supplemental prospectus revealed that Meta Materials had sold yet an additional \$37.5 million or 4.4 million shares. Simultaneously, Meta Materials also entered into a securities purchase agreement with certain institutional investors for the purchase of over 37 million shares of common stock at \$1.35



per share and warrants to purchase an additional 37 million shares at an exercise price of \$1.75 per share.

230. At a time when Meta Materials was already the subject of an SEC investigation and the Kerrisdale Capital report questioned Meta Materials' business operations, shareholders perceived the follow-on offering as confirmation that Meta Materials was in fact a company interested only in exploiting its access to the public equity markets at the expense of ordinary shareholders. Indeed, the *Motley Fool* noted that "[n]o investor loves a dilutive new stock issue," in its article titled, "Why Meta Materials Stock Dived by 40% Today." In response to Meta Materials' announcement, its stock price plummeted 38% from \$1.91 per share to close at \$1.17 per share on June 24, 2022 thereby causing significant additional damages to Plaintiff and other members of the Class.

231. As detailed above, when the truth about Defendants' misrepresentations and omissions were revealed, the value of Meta Materials' shares declined precipitously as the prior artificial inflation no longer propped up its stock price. The decline in Meta Materials' stock price was a direct result of the nature and extent of Defendants' fraud being revealed to investors and the market through corrective disclosures and/or materialization of the risks concerning Meta Materials' fraudulent conduct.

232. The timing and magnitude of Meta Materials' stock price declines negate any inference that the loss suffered by Plaintiffs and other members of the Class was caused by changed market conditions, macroeconomic or industry factors or company-specific facts unrelated to the Defendants' fraudulent conduct. Therefore, the damages suffered by Plaintiffs and Class Members were foreseeably and proximately caused by Defendants' fraudulent scheme to artificially inflate

stock prices and the subsequent significant declines in the value of Meta Materials shares when Defendants' prior misrepresentations and omissions were revealed.

**VIII. PRESUMPTION OF RELIANCE; FRAUD-ON-THE-MARKET**

233. Plaintiffs will rely upon the presumption of reliance established by the fraud on the market doctrine in that, among other things:

- a. Defendants made public misrepresentations or failed to disclose material facts during the Class Period;
- b. the omissions and misrepresentations were material;
- c. Meta Materials' securities traded in an efficient market;
- d. the misrepresentations alleged would tend to induce a reasonable investor to misjudge the value of the Meta Materials' securities; and
- e. Plaintiffs and the other members of the Class purchased Meta Materials' securities between the time Defendants misrepresented or failed to disclose material facts and the time the true facts were disclosed, without knowledge of the misrepresented or omitted facts.

234. At all relevant times, the market for Meta Materials' securities was an efficient market for the following reasons, among others:

- a. Meta Materials' stock met the requirements for listing, and were listed and actively traded on the Nasdaq, a highly efficient market and automated market;
- b. During the Class Period, Meta Materials' stock was actively traded, demonstrating a strong presumption of an efficient market;
- c. As a regulated issuer, Meta Materials filed with the SEC periodic public

reports during the Class Period;

- d. Meta Materials regularly communicated with public investors via established market communication mechanisms;
- e. Meta Materials was followed by securities analysts employed by major brokerage firms who wrote reports that were distributed to the sales force and certain customers of brokerage firms during the Class Period. Each of these reports was publicly available and entered the public marketplace; and
- f. Unexpected material news about Meta Materials was rapidly reflected in and incorporated into Meta Materials' stock price during the Class Period.

235. As a result of the foregoing, the market for Meta Materials' securities promptly digested current information regarding Meta Materials from all publicly available sources and reflected such information in Meta Materials' stock price. Under these circumstances, all purchasers of Meta Materials securities during the Class Period suffered similar injury through their purchase of Meta Materials' stock at artificially inflated prices, and a presumption of reliance applies.

236. Alternatively, reliance need not be proven in this action because the action involves material omissions and deficient disclosures. Positive proof of reliance is not a prerequisite to recovery pursuant to ruling of the United States Supreme Court in *Affiliated Ute Citizens of Utah v. United States*, 406 U.S. 128 (1972). All that is necessary is that the facts withheld be material in the sense that a reasonable investor might have considered the omitted information important in deciding whether to buy or sell the subject security. Here, the facts withheld are material because an investor would have considered Meta Materials' business operations, financial prospects, and adequacy of internal controls over financial reporting and disclosures when deciding whether to

purchase and/or sell Meta Materials securities.

**IX. NO SAFE HARBOR; INAPPLICABILITY OF BESPEAKS CAUTION DOCTRINE**

237. The statutory safe harbor provided for forward-looking statements under certain circumstances does not apply to any of the material misrepresentations and omissions alleged in this Complaint.

238. To the extent certain of the statements alleged to be misleading or inaccurate may be characterized as forward looking, they were not identified as “forward-looking statements” when made and there were no meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those in the purportedly forward-looking statements.

239. Defendants are also liable for any false or misleading “forward-looking statements” pleaded because, at the time each “forward-looking statement” was made, the speaker knew the “forward-looking statement” was false or misleading and the “forward-looking statement” was authorized and/or approved by an executive officer of Meta Materials who knew that the “forward-looking statement” was false. Alternatively, none of the historic or present-tense statements made by the Defendants were assumptions underlying or relating to any plan, projection, or statement of future economic performance, as they were not stated to be such assumptions underlying or relating to any projection or statement of future economic performance when made, nor were any of the projections or forecasts made by Defendants expressly related to or stated to be dependent on those historic or present-tense statements when made.

**X. CLASS ACTION ALLEGATIONS**

240. Plaintiffs bring this action on behalf of all persons and entities who purchased Meta Materials’ publicly traded securities during the Class Period, and were damaged thereby (the

“Class”). Excluded from the Class are the Individual Defendants, members of the immediate families of each Defendant, Meta Materials (including its subsidiaries) and its officers and directors at all relevant times, any entity in which any excluded party has or had a controlling interest or which is related to or affiliated with any Defendant, and the legal representatives, heirs, successors or assigns of any such excluded party.

241. The members of the Class are so numerous that joinder of all members is impracticable. Throughout the Class Period, Meta Materials’ stock was actively traded on the Nasdaq. While the exact number of Class members is unknown to Plaintiffs at this time and can be ascertained only through appropriate discovery, Plaintiffs believe that there are hundreds or thousands of members in the proposed Class. Record owners and other members of the Class may be identified from records maintained by Meta Materials or its transfer agent and may be notified of the pendency of this action by mail, using the form of notice similar to that customarily used in securities class actions.

242. Plaintiffs’ claims are typical of the claims of the members of the Class as all members of the Class are similarly affected by the Defendants’ respective wrongful conduct in violation of the federal laws complained of herein.

243. Plaintiffs has and will continue to fairly and adequately protect the interests of the members of the Class and have retained counsel competent and experienced in class and securities litigation. Plaintiffs have no interests antagonistic to or in conflict with those of the Class.

244. Common questions of law and fact exist as to all members of the Class and predominate over any questions solely affecting individual members of the Class. Among the questions of law and fact common to the Class are:

- a. whether the federal securities laws were violated by Defendants;

b. whether Defendants acted knowingly or with deliberate recklessness in issuing false and misleading statements (except with regard to Plaintiffs' claims under Sections 11 and 15 of the Securities Act of 1933 and Section 14(a) of the Securities Exchange Act of 1934 and Rule 14a-9);

c. whether the price of Meta Materials' stock during the Class Period was artificially inflated because of the Defendants' conduct complained of herein; and

d. whether the members of the Class have sustained damages and, if so, what is the proper measure of damages.

245. A class action is superior to all other available methods for the fair and efficient adjudication of this controversy since joinder of all members is impracticable. Furthermore, as the damages suffered by individual Class members may be relatively small, the expense and burden of individual litigation make it impossible for members of the Class to individually redress the wrongs done to them. There will be no difficulty in the management of this action as a class action.

**XI. CLAIMS FOR RELIEF**

**COUNT I**

**FOR VIOLATION OF SECTION 10(b) OF THE EXCHANGE ACT  
AND RULE 10B-5 PROMULGATED THEREUNDER  
(Against Meta Materials and the Individual Defendants)**

246. Plaintiffs repeat and reallege each and every allegation contained above as if fully set forth herein.

247. During the Class Period, Meta Materials and the Individual Defendants disseminated or approved the materially false and misleading statements specified above, which they knew or deliberately disregarded were misleading in that they contained misrepresentations

and failed to disclose material facts necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading.

248. Meta Materials and the Individual Defendants violated Section 10(b) of the 1934 Act [15 U.S.C. §78j(b)] and Rule 10b-5 [17 C.F.R. §240.10b-5] in that they: (a) employed devices, schemes, and artifices to defraud; (b) made untrue statements of material fact and/or omitted to state material facts necessary to make the statements not misleading; and (c) engaged in acts, practices, and a course of business which operated as a fraud and deceit upon the purchasers of the Meta Materials securities during the Class Period.

249. Plaintiffs and the Class have suffered damages in that, in reliance on the integrity of the market, they paid artificially inflated prices for Meta Materials securities. Plaintiffs and the Class would not have purchased Meta Materials securities at the prices they paid, or at all, if they had been aware that the market prices had been artificially and falsely inflated by the Defendants' misleading statements and/or omissions.

250. As a direct and proximate result of the Defendants' wrongful conduct, Plaintiffs and the other members of the Class suffered damages in connection with their purchases of Meta Materials securities during the Class Period.

## **COUNT II**

### **FOR VIOLATION OF SECTION 20(a) OF THE EXCHANGE ACT (Against the Individual Defendants)**

251. Plaintiffs repeat and reallege each and every allegation contained above as if fully set forth herein.

252. During the Class Period, the Individual Defendants participated in the operation and management of Meta Materials, and conducted and participated, directly and indirectly, in the conduct of Meta Materials' business affairs. Because of their senior positions, they knew the

adverse non-public information about Meta Materials' business operations, products, partnerships, and financial prospects.

253. As officers and/or directors of a publicly-owned company, the Individual Defendants had a duty to disseminate accurate and truthful information with respect to Meta Materials' business operations, products, partnerships, and press releases, and to promptly correct any public statements issued by Meta Materials which had become materially false or misleading.

254. Because of their positions of control and authority as senior officers, directors, and/or controlling shareholders, the Individual Defendants were able to, and did, control the contents of the various reports, press releases and public filings which Meta Materials disseminated in the marketplace during the Class Period concerning Meta Materials' business operations, products, partnerships, and financial prospects. Throughout the Class Period, the Individual Defendants exercised their power and authority to cause Meta Materials to engage in the wrongful acts complained of herein. The Individual Defendants therefore, were "controlling persons" of Meta Materials within the meaning of Section 20(a) of the Exchange Act. In this capacity, they participated in the unlawful conduct alleged which artificially inflated the market price of Meta Materials securities.

255. Each of the Individual Defendants, therefore, acted as a controlling person of Meta Materials. By reason of their senior management positions and/or being directors or controlling shareholders of Meta Materials, each of the Individual Defendants had the power to direct the actions of, and exercised the same to cause, Meta Materials to engage in the unlawful acts and conduct complained of herein. Each of the Individual Defendants exercised control over the general operations of Meta Materials and possessed the power to control the specific activities



which comprise the primary violations about which Plaintiffs and the other members of the Class complain.

256. By reason of the above conduct, the Individual Defendants are liable pursuant to Section 20(a) of the Exchange Act for the violations committed by Meta Materials.

### **COUNT III**

#### **FOR VIOLATION OF SECTION 11 OF THE SECURITIES ACT (Against the Meta Materials, Brda, and McCabe)**

257. Plaintiffs repeat and reallege each and every allegation contained above as if fully set forth herein, except for the allegations in Sections V-VIII and Counts I-II, *supra*.

258. This Count is based on negligence and strict liability and does not sound in fraud. Any allegations of fraud or fraudulent conduct and/or motive are expressly excluded from this Count.

259. This count is asserted against Meta Materials, Brda, and McCabe for violations of Section 11 of the Securities Act [15 U.S.C. §77k] on behalf of Plaintiffs and all members of the Class who purchased Meta Materials securities (including Torchlight common stock before the reverse merger was complete) pursuant or traceable to Torchlight's Registration Statement and Prospectus on Form S-3 filed on May 28, 2021 and Prospectus Supplements filed on June 16, 2021 and June 21, 2021 (collectively, the "Registration Statement").

260. Brda and McCabe signed the Registration Statement filed on May 28, 2021.

261. The Registration Statement registered "an indeterminate number or amount of common stock . . . not to exceed \$250,000,000."

262. On June 14, 2021, the SEC declared the Registration Statement effective.

263. On June 16, 2021, Meta Materials (which was Torchlight at the time) entered into a sales agreement with Roth Capital Partners, LLC, whereby Meta Materials would offer and sell

pursuant to the Registration Statement shares of its common stock up to an aggregate offering price of \$100,000,000.

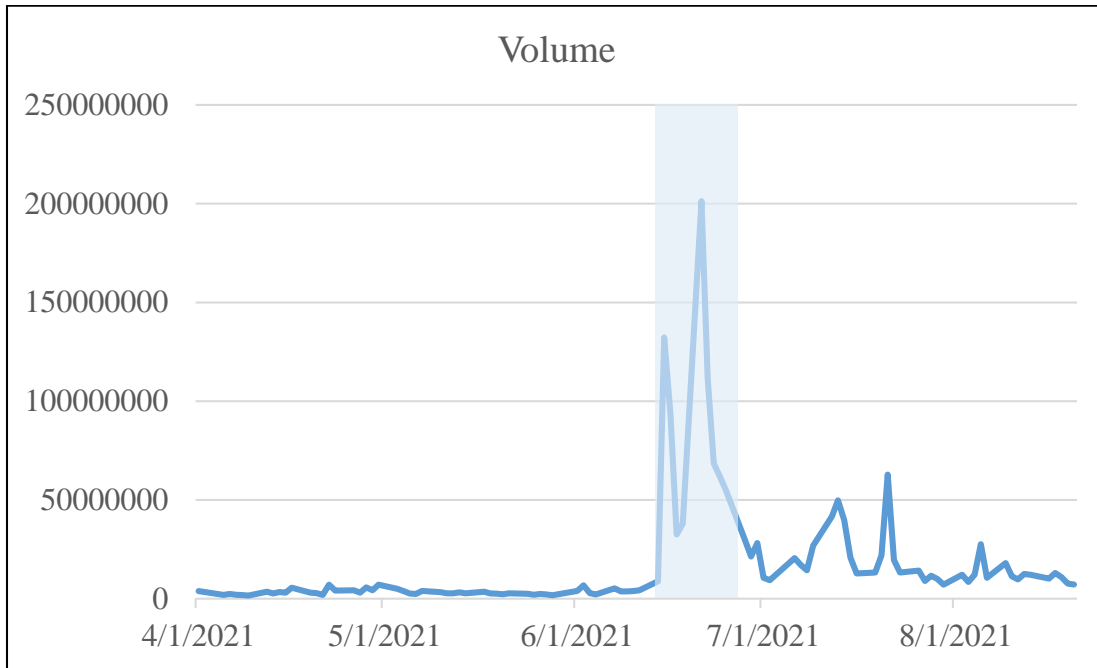
264. On June 21, 2021, Meta Materials (still operating as Torchlight) amended its sales agreement with Roth Capital Partners, LLC, to increase the aggregate offering price of shares of its common stock under the Registration Statement from \$100,000,000 to up to \$250,000,000.

265. During the period of June 16, 2021 to June 25, 2021, Meta Materials offered and sold pursuant to the Registration Statement a total of 16,185,805 shares of its common stock for aggregate gross proceeds of approximately \$137.5 million.

266. During the same period of June 16, 2021 to June 25, 2021, Meta Materials' stock traded at abnormally high volumes, frequencies, and prices, as illustrated by the historical trading data in the table below:

<b>Date</b>	<b>Open</b>	<b>High</b>	<b>Low</b>	<b>Close</b>	<b>Adj Close</b>	<b>Volume</b>
<b>6/16/2021</b>	11.62	13.52	10.66	11.98	11.98	93458350
<b>6/17/2021</b>	10.82	11.16	9.72	10.8	10.8	32536450
<b>6/18/2021</b>	10.8	13	10.62	12.54	12.54	37913900
<b>6/21/2021</b>	17.8	21.76	16.14	19.84	19.84	201314600
<b>6/22/2021</b>	20.12	20.42	13.76	14	14	111249050
<b>6/23/2021</b>	11.84	11.88	9.26	9.84	9.84	68454300
<b>6/24/2021</b>	9.86	11.54	9.5	9.5	9.5	61677100
<b>6/25/2021</b>	10	10.76	9.6	9.9	9.9	54378450

267. The trading volume of Meta Materials’ stock between June 16, 2021 and June 25, 2021 was abnormally large. The below chart illustrates Meta Materials’ trading volume between April 1, 2021 and August 20, 2021:



268. Meta Materials’ offering flooded the market with shares issued pursuant and/or traceable to the Registration Statement. Thus, the vast majority of shares traded between June 16, 2021 and June 25, 2021 were shares issued pursuant and/or traceable to the Registration Statement.

269. Plaintiffs purchased substantial amounts of Meta Materials (Torchlight) stock during the period between June 16, 2021 and June 25, 2021, including but not limited to the following purchases:

a. Kaoutar Kajjame			
June 21, 2021	27,218 shares	\$9.00/share	
	<i>Total: 27,218 shares @ \$244,962</i>		
June 21, 2021	24,066 shares	\$9.84/share	
June 22, 2021	29,418 shares	\$9.60/share	
June 22, 2021	11,221 shares	\$9.94/share	
	<i>Total: 64,705 shares @ \$630,758.98</i>		

b. Philip Granite

June 22, 2021	10,050 shares	\$9.89/share
June 22, 2021	9,956 shares	\$9.89/share
<i>Total: 20,006 shares @ \$197.859.34</i>		

c. Ricardo Joseph

June 22, 2021	12,800 shares	\$7.85/share
June 22, 2021	13,800 shares	\$7.85/share
June 22, 2021	14,200 shares	\$7.80/share
<i>Total: 40,800 shares @ \$319,570</i>		

270. Given that the vast amount of shares traded during the period between June 16, 2021 and June 25, 2021 were shares issued pursuant and/or traceable to the Registration Statement, the shares purchased by Plaintiffs between June 16, 2021 and June 25, 2021 were issued pursuant and/or traceable to the Registration Statement.

271. The Registration Statement incorporated by reference the following documents, all of which had been filed previously with the SEC by Meta Materials (Torchlight):

- a. Annual Report on Form 10-K for the fiscal year ended December 31, 2020, filed on March 18, 2021;
- b. Quarterly Report on Form 10-Q for the quarter ended March 31, 2021, filed on May 14, 2021;
- c. Definitive Proxy Statement on Schedule 14A filed on May 7, 2021 (previously defined as the “Proxy Statement”); and
- d. our Current Reports on Form 8-K filed on January 6, 2021, January 13, 2021, January 14, 2021, January 22, 2021, January 25, 2021, January 28, 2021, January 29, 2021, February 1, 2021, February 4, 2021, February 8, 2021, February 10, 2021, February 16, 2021, February 22, 2021, March 11,

2021, March 15, 2021, April 1, 2021, April 15, 2021, May 4, 2021, May 7, 2021, May 25, 2021, June 11, 2021, June 16, 2021 and June 21, 2021.

272. These documents contained false and/or materially misleading statements about Meta Materials' operations. In particular, the Proxy Statement stated, in pertinent part, that:

Meta has generated a portfolio of intellectual property and is *now moving toward commercializing products* at a performance and price point combination that has the potential to be disruptive in multiple market verticals. Meta's platform technology includes holography, lithography and medical wireless sensing. The underlying approach that powers all of Meta's platform technologies comprises advanced materials, metamaterials and functional surfaces. These materials include structures that are patterned in ways that manipulate light, heat and electromagnetic waves in unusual ways. Meta's advanced structural design technologies and *scalable manufacturing methods* provide a path to broad commercial opportunities in aerospace, medical, automotive, energy and other industries.

(emphasis added)

273. The above statement, including the portions identified in emphasis, was false and/or materially misleading because it misrepresented that Meta Materials was now in the process of "moving towards commercializing" and had already developed "scalable manufacturing methods." By making this claim, Meta Materials implied that it had completed the design and development phase of its products and was in the process of scaling production and distributing its products when, in reality, this was not the case.

274. Meta Materials had not materially advanced the development of its products let alone to a point where it was ready to begin "commercializing" them. As of the date of the above statement, Meta Materials' holography, lithography, and wireless sensing products were still in their infancy and unproven in terms of real-world application or profitability: Meta Materials had failed to manufacture its metaAIR glasses at scale or sell them to anyone in any meaningful amounts; its glucoWISE system remained unproven, scientifically; and it has failed to materially develop NanoWeb past where it existed since first acquiring it in 2016. Meta Materials did not

even have a production facility capable of producing its products at “commercial[.]” levels or have any ability to “scale” production during the Class Period, according to FE1. Thus, Meta Materials materially misled investors when representing that it had completed its design and development and was “now moving towards commercializing [these] products” or had already developed any “scalable manufacturing method[.]”

275. The Proxy Statement also stated, in pertinent part, that:

Meta was incorporated on August 15, 2011 as Lamda Guard Canada Inc. Meta amended its articles of incorporation on March 27, 2013 and continued operations under the name Metamaterial Technologies Inc. since April 30, 2013. On March 28, 2013, Meta incorporated Lamda Guard Inc., Lamda Lux Inc., and Lamda Solar Inc., under the federal laws of Canada, as wholly-owned subsidiaries of Meta. *These subsidiaries have minimal operational activity.* Meta specializes in designing and producing nanocomposite transparent materials with properties not found in nature that can manipulate light and other forms of energy, either by enhancing, absorbing, reflecting or blocking them.

(emphasis added)

276. The above statements, including the portions identified in emphasis, were false and/or materially misleading because they misrepresented that Lamda Lux and Lamda Solar had “minimal operational activity.” To the contrary, Lamda Lux and Lamda Solar had *no activity* in the three years prior to March 5, 2020, according to Meta Materials’ disclosures related to the CPM reverse merger. Meta Materials abandoned its efforts related to Lamda Lux and Lamda Solar thereby making it false to suggest that these business segments had *any* activity.

277. The Proxy Statement also stated that:

Meta’s platform technology (holography, lithography and medical wireless sensing) is being used to develop potentially transformative and innovative products for: aerospace and defense, automotive, energy, healthcare, consumer electronics, and data transmission. *Meta has many product concepts currently in different stages of development with multiple customers in diverse market verticals.* Meta’s business model is to co-develop innovative products or applications with industry leaders that add value. *This approach enables Meta to*

*understand market dynamics and ensure the relevance and need for Meta's products.*

278. The above statements, including the portions identified in emphasis, were false and/or materially misleading because they misrepresented that Meta Materials had multiple commercialized products with “multiple customers in diverse market verticals.” However, at the time this statement was made, Meta Materials only had *one* product, metaAIR, and *one* contractual customer for the product, Satair, which was relevant to only *one* market, the aerospace market. By making the above claim, Meta Materials created a false perception as to the development and commercialization status of its product and, ultimately, the financial prospects of the company.

279. The above statements were also false and/or materially misleading because they misrepresented that Meta Materials' business strategy ensured the “relevance and need” for the company's products. Yet, the relevance and need for Meta Materials' only developed product, metaAIR, was virtually non-existent. As previously described herein, the metaAIR glasses only provided protection from green wavelengths while higher quality competitive products in the market offered protection against green, red, and blue wavelengths. In addition, metaAIR lacked peripheral vision protection and it was not scratch-resistant. Given that Meta Materials' only developed product, metaAIR, lacked multiple features that other, more durable, products offered and at 85%-90% higher than the cost of better alternatives, Meta Materials misled the investing public as to the true need, relevance, potential demand, and financial prospects for metaAIR.

280. The Proxy Statement stated further that:

*Meta's principal products that employ holography technology are its metaAIR® laser glare protection eyewear, metaAIR laser protection films for law enforcement and metaOPTIX notch filters. Meta co-developed its metaAIR laser protection eyewear product with Airbus S.A.S. that has been engineered to provide laser glare protection for pilots, military and law enforcement using Meta's holography technology. metaAIR® is a holographic optical filter developed using nano-patterned designs that block and deflect specific colors or wavelengths of*

*light*. Meta launched metaAIR® with strategic and exclusive distribution partner, Satair, a wholly owned Airbus company and started producing and selling metaAIR® in April 2019. The scale-up and specification for the raw photopolymer material used to produce the eyewear was successfully finalized in late 2019 and commercialized in 2020.

(emphasis added)

281. The above statements, including the portions identified in emphasis, were also false and/or materially misleading because they misrepresented Meta Materials’ business relationship with Airbus by touting that it “co-developed its METAIR® laser protection *eyewear* product with *Airbus*” (emphasis added). In 2013, Meta Materials’ website claimed that it had “developed an optically transparent thin film that selectively blocks narrow light frequencies . . . and can be adhesively applied on existing surfaces such as cockpit windows or windshields.” Following this, in June 2014, Meta Materials announced a signed agreement with Airbus to test its design. Then, in February 2017, Airbus executed a second agreement for Meta Materials to “validate, certify, and commercialize” the LGP technology. Subsequently, Meta Materials raised \$8.3 million in equity to “support commercialization of the windscreen film and to add needed staff.” Just a few months later, in June 2017, Meta Materials executed an MOU with Satair for the exclusive distribution of the metaAIR windscreen film technology. On October 17, 2018, however, Meta Materials executed a \$1 million agreement *with Satair* to exclusively distribute “metaAIR® laser glare protection [LGP] *eyewear and visors* to all aviation and military markets” (emphasis added). At no point in time was Airbus affiliated with, let alone co-developing, the metaAIR eyewear. Meta Materials’ business relationship with Airbus was solely related to Meta Materials’ now defunct LGP technology for aircraft windshields. Accordingly, Meta Materials materially misled the investing public to falsely believe that the company “co-developed its metaAIR laser protection eyewear product with Airbus,” which was Meta Materials’ only tangible product at the time. By



making the above statements, Meta Materials wrongfully used Airbus' name and reputation to misleadingly impute prestige, quality, and relevance to its metaAIR eyewear.

282. Further, the above statements also misrepresented Meta Materials' metaAIR product by touting that it could "block and deflect specific *colors or wavelengths* of light" (emphasis added). However, metaAIR was specifically designed to only protect against *one color or wavelength*, *i.e.*, metaAIR was designed to only protect against the green wavelength and not the red or blue wavelengths, as previously discussed herein. Thus, in direct contradiction of the metaAIR product specifications, Meta Materials materially misled the investing public to believe that metaAIR provided protection against multiple "colors or wavelengths of light." By making the above claim, Meta Materials created a false impression in the market as to the breadth of metaAIR's capabilities and, ultimately, its financial prospects.

283. With regard to Meta Materials' "Lithography Technology," the Proxy Statement stated that:

In order to meet the performance, fabrication-speed, and/or cost criteria required for many potential applications that require large area and low cost nanopatterning. Meta has developed a new nanolithography method called "Rolling Mask" lithography (registered trademark RML®), which combines the best features of photolithography, soft lithography and roll-to-plate/roll-to-roll printing capability technologies. Rolling Mask lithography utilizes a proprietary UV light exposure method where a master pattern is provided in the form of a cylindrical mask. These master patterns are designed by Meta and over the years they have become part of a growing library of patterns, enriching the intellectual property of Meta. The nanostructured pattern on the mask is then rolled over a flat surface area writing a nano-pattern into the volume of a light-sensitive material (a photoresist), creating patterned grooves, metal is then evaporated and fills the patterned grooves. The excess metal is then removed by a known post-process called lift-off. The result is an invisible conductive metal mesh-patterned surface (registered trademark NanoWeb®) that can be fabricated onto any glass or plastic transparent surface in order to offer high transparency, high conductivity and low haze smart materials.

*Meta's current principal prototype product in lithography technology is its transparent conductive film, NanoWeb®. The lithography division operates out*

*of Meta's wholly owned U.S. subsidiary, which can produce meter-long samples of NanoWeb®, at a small volumes scale, for industry customers/partners.*

*There are six NanoWeb®-enabled products and applications that are currently in early stages of development including NanoWeb® for Transparent EMI Shielding, NanoWeb® for 5G signal enhancement, NanoWeb Transparent Antennas, NanoWeb® for Touch Screen Sensors, NanoWeb® for Solar cells and NanoWeb® for Transparent Heating to de-ice and de-fog. Currently these products are in the design and prototyping phase and Meta is performing market trials with potential customers.*

Throughout 2020, Meta was ordering and upgrading its equipment at its California facility to efficiently supply NanoWeb samples in larger volumes. Meta has entered into a collaboration agreement with Crossover Solutions Inc. to commercialize the NanoWeb-enabled products and applications for the automotive industry and with ADI Technologies to help secure contracts with the U.S. Department of Defense.

(emphasis added)

284. The above statements, including the portions identified in emphasis, were also false and/or materially misleading because they misrepresented the development and commercialization status of NanoWeb. NanoWeb was prototyped by a group of optical scientists at the company Rolith. But, after running out of cash and not being able to secure additional funding, Rolith's founding scientists were forced to sell the company. In mid-2016, Meta Materials acquired the NanoWeb technology through its acquisition of Rolith for \$2.5 million. In the six years since Meta Materials acquired Rolith, the market has seen numerous competitive technologies commercialized and mass produced while Meta Materials seems to have completely reversed its own course. Instead of continuing to develop and commercialize NanoWeb, Meta Materials terminated its license for a key patent on NanoWeb, which materially contradicted its statements about future commercialization. The NanoWeb production process required a critical patent from the University of Michigan, but for years Meta Materials had stopped paying for the license and failed to disclose this fact to investors. Thus, in making the above statements, Meta Materials materially misled the market as to the development and commercialization status of NanoWeb.

285. The Proxy Statement also falsely described Meta Materials’ “Wireless Sensing Technology,” stating in pertinent part as follows:

Wireless sensing is the ability to cancel reflections (anti-reflection) from the skin to increase the Signal-to-Noise-Ratio transmitted through body tissue to enable better medical diagnostics. ***This breakthrough wireless sensing technology is made using proprietary patterned designs, printed on metal-dielectric structures on flexible substrates that act as anti-reflection (impedance-matching) coatings when placed over the human skin in combination with medical diagnostic modalities, such as MRI, ultrasound systems, non-invasive glucometers etc.*** For example, as a medical imaging application, Meta is developing metaSURFACETM, or RadiWiseTM, an innovation which allows up to 40 times more energy to be transmitted through the human tissue, instead of being reflected. The benefit is increased diagnostic speed and imaging accuracy leading to patient throughput increases for healthcare providers. The metaSURFACETM device consists of proprietary non-ferrous metallic and dielectric layers that are exactly designed to interact (resonate) with radio waves allowing the waves to “see-through the skin.”

(emphasis added)

286. The above statements, including the portions identified in emphasis, were false and/or materially misleading because they misrepresented the state and development status of Meta Materials’ wireless sensing technology. In describing wireless sensing as “ability to cancel reflections (anti-reflection) from the skin to increase the Signal-to-Noise-Ratio transmitted through body tissue to enable better medical diagnostics” then proceeding to tout that “[t]his ***breakthrough wireless sensing technology is made using proprietary patterned designs*** . . . [that] when placed over the human skin ***in combination with medical diagnostic modalities, such as MRI, ultrasound systems, non-invasive glucometers,***” Meta Materials materially misled the market to believe that its wireless sensing technology and non-invasive glucometers had been developed and proven (emphasis added). In truth, Meta Materials lacked any demonstrable evidence that its wireless sensing technology and non-invasive glucometers were successful in measuring or monitoring blood glucose levels wirelessly, *i.e.*, through the skin barrier and without the need for blood. Meta

Materials had no scientifically proven wireless sensing technology, no approved medical devices, and absolutely no human studies demonstrating the accuracy of the technology. By making the above claims, Meta Materials created a false impression in the market as to the state of its wireless sensing technology in addition to the commercial prospects for the technology.

287. The Proxy Statement also provided investors with a false and/or materially misleading description of the Meta Materials' "Overall Performance, Industry Trends and Economic Factors," stating as follows:

In Q1 2019, Meta completed the setup of its metaAIR® eyewear production facility and started providing its eyewear to several airlines for in-market flight tests through its distributor, Satair (an Airbus Company). ***Meta sold 50 units during 2019 and it is further increasing its reach to airlines through Airbus and Satair.*** Satair prepared a series of marketing initiatives to promote Meta's laser glare protection eyewear solution to increase market awareness in the existing laser glare protection market. During May 2019, Meta received the prestigious Silver A' Design Award in Safety Clothing and Personal Protective Equipment Design Category, from the A' Design Award and Competition in Italy for its metaAIR® eyewear.

(emphasis added)

288. The above statements, including the portions identified in emphasis, were false and/or materially misleading because they, again, misrepresented Meta Materials' business relationship with Airbus by touting that Meta Materials was "increasing its reach to airlines ***through Airbus***" (emphasis added). In 2013, Meta Materials' website claimed that it had "developed an optically transparent thin film that selectively blocks narrow light frequencies . . . and can be adhesively applied on existing surfaces such as cockpit windows or windshields." Then, in June 2014, Meta Materials announced a signed agreement with Airbus to test its design. In February 2017, Airbus executed a second agreement for Meta Materials to "validate, certify, and commercialize" the LGP technology. Subsequently, Meta Materials raised \$8.3 million in equity to "support commercialization of the windscreen film and to add needed staff." Just a few months

later, in June 2017, Meta Materials executed an MOU with Satair for the exclusive distribution of the metaAIR windscreen film technology. On October 17, 2018, however, Meta Materials executed a \$1 million agreement *with Satair to exclusively distribute “metaAIR® laser glare protection [LGP] eyewear and visors to all aviation and military markets”* (emphasis added). Therefore, at no point in time was Airbus ever affiliated with, let alone commercializing, the metaAIR eyewear. Meta Materials’ business relationship with Airbus was solely related to Meta Materials’ now defunct LGP technology for *aircraft windshields*. As such, Meta Materials materially misled the investing public to falsely believe that it was “increasing its reach to airlines through Airbus” for sales of its metaAIR eyewear. By making the above statements, Meta Materials wrongfully used Airbus’ name and reputation to misleadingly impute prestige to the metaAIR eyewear and to misleadingly suggest that there would be increased future sales demand for metaAIR.

289. Meta Materials was the issuer of the stock issued via the Registration Statement. As such, Meta Materials is strictly liable for each false and misleading statement contained therein, even for innocent misrepresentations.

290. The Individual Defendants had a duty to make a reasonable investigation into the statements contained in the Registration Statement to ensure that said statements were true and that there was no omission to state any material fact required to be stated in order to make the statements contained therein not misleading. In the exercise of reasonable care, these Defendants should have known of the material misstatements and omissions contained in the Registration Statement. As such, each of these Defendants is liable to Plaintiffs.

291. Plaintiffs acquired Meta Materials securities without knowledge of the untruths and/or omissions alleged herein. Plaintiffs were thus damaged by Defendants' material misstatements and omissions.

#### **COUNT IV**

#### **FOR VIOLATION OF SECTION 15 OF THE SECURITIES ACT (Against the Individual Defendants)**

292. Plaintiffs repeat and reallege each and every allegation contained above as if fully set forth herein, except for the allegations in Sections V-VIII and Counts I-II, *supra*.

293. This Count is asserted pursuant to Section 15 of the Securities Act [15 U.S.C. §77o] against the Individual Defendants. In addition to their own primary liability under the Securities Act, the Individual Defendants are also secondarily liable for the primary violations of Meta Materials.

294. As officers and/or directors of Meta Materials, the Individual Defendants were involved with the day-to-day operations prior, during, and after the merger and were involved in reviewing and providing the descriptions of Meta Materials' operations in the Registration Statement. Each had the ability to control the contents thereof.

295. Plaintiffs acquired Meta Materials securities without knowledge of the untruths and/or omissions alleged herein. Plaintiffs were thus damaged by the primary violations of Meta Materials. By virtue of the conduct alleged herein, and their status as control persons of Meta Materials, the Individual Defendants are secondarily liable to Plaintiffs.

## COUNT V

### FOR VIOLATION OF SECTION 14(a) OF THE EXCHANGE ACT AND RULE 14a-9 PROMULGATED THEREUNDER (Against the Meta Materials, Brda, and McCabe)

296. Plaintiffs repeat and reallege each and every allegation contained above as if fully set forth herein, except for the allegations in Sections V-VI and Counts I-IV, *supra*.

297. This Count is asserted pursuant to Section 14(a) of the Exchange Act [15 U.S.C. §78n] and Rule 14a-9 promulgated thereunder, against Meta Materials, Brda, and McCabe and does not sound in fraud. Plaintiffs do not allege that Defendants acted with scienter or fraudulent intent with respect to this Count as that intent is not an element of a Section 14(a) claim.

298. SEC Rule 14a-9, 17 C.F.R. §240.14a-9, promulgated pursuant to Section 14(a) of the Exchange Act, provides:

No solicitation subject to this regulation shall be made by means of any proxy statement, form of proxy, notice of meeting or other communication, written or oral, containing any statement which, at the time and in the light of the circumstances under which it is made, is false or misleading with respect to any material fact, or which omits to state any material fact necessary in order to make the statements therein not false or misleading or necessary to correct any statement in any earlier communication with respect to the solicitation of a proxy for the same meeting or subject matter which has become false or misleading.

299. On May 7, 2021, Meta Materials (through Torchlight) filed a definitive proxy statement in connection with the merger (previously defined as the “Proxy Statement”).

300. The Proxy Statement misrepresented the development status of Meta Materials’ products and its business relationship with Airbus. In pertinent part, the proxy statement stated that:

Meta has generated a portfolio of intellectual property and is ***now moving toward commercializing products*** at a performance and price point combination that has the potential to be disruptive in multiple market verticals. Meta’s platform technology includes holography, lithography and medical wireless sensing. The underlying approach that powers all of Meta’s platform technologies comprises

advanced materials, metamaterials and functional surfaces. These materials include structures that are patterned in ways that manipulate light, heat and electromagnetic waves in unusual ways. Meta's advanced structural design technologies and *scalable manufacturing methods* provide a path to broad commercial opportunities in aerospace, medical, automotive, energy and other industries.

(emphasis added)

301. The above statement, including the portions identified in emphasis, was false and/or materially misleading because it represented that Meta Materials was now in the process of “moving towards commercializing” and had already developed “scalable manufacturing methods.” By making this claim, Meta Materials implied that it had completed the design and development phase of its products and was in the process of scaling production and distributing its products when, in reality, this was not the case.

302. Meta Materials had not materially advanced the development of its products let alone to a point where it was ready to begin “commercializing” them. As of the date of the above statement, Meta Materials’ holography, lithography, and wireless sensing products were still in their infancy and unproven in terms of real-world application or profitability: Meta Materials had failed to manufacture its metaAIR glasses at scale or sell them to anyone in any meaningful amounts; its glucoWISE system remained unproven, scientifically; and it has failed to materially develop NanoWeb past where it existed since first acquiring it in 2016. Meta Materials did not even have a production facility capable of producing its products at “commercial[.]” levels or have any ability to “scale” production during the Class Period, according to FE1. Thus, Meta Materials materially misled investors when representing that it had completed its design and development and was “now moving towards commercializing [these] products” or had already developed any “scalable manufacturing method[.]”



303. The Proxy Statement also stated, in pertinent part, that:

Meta was incorporated on August 15, 2011 as Lamda Guard Canada Inc. Meta amended its articles of incorporation on March 27, 2013 and continued operations under the name Metamaterial Technologies Inc. since April 30, 2013. On March 28, 2013, Meta incorporated Lamda Guard Inc., Lamda Lux Inc., and Lamda Solar Inc., under the federal laws of Canada, as wholly-owned subsidiaries of Meta. ***These subsidiaries have minimal operational activity.*** Meta specializes in designing and producing nanocomposite transparent materials with properties not found in nature that can manipulate light and other forms of energy, either by enhancing, absorbing, reflecting or blocking them.

(emphasis added)

304. The above statements, including the portions identified in emphasis, were false and/or materially misleading because they misrepresented that Lamda Lux and Lamda Solar had “minimal operational activity.” To the contrary, Lamda Lux and Lamda Solar had ***no activity*** in the three years prior to March 5, 2020, according to Meta Materials’ disclosures related to the CPM reverse merger. Meta Materials abandoned its efforts related to Lamda Lux and Lamda Solar thereby making it false to suggest that these business segments had ***any*** activity.

305. The Proxy Statement also stated that:

Meta’s platform technology (holography, lithography and medical wireless sensing) is being used to develop potentially transformative and innovative products for: aerospace and defense, automotive, energy, healthcare, consumer electronics, and data transmission. ***Meta has many product concepts currently in different stages of development with multiple customers in diverse market verticals.*** Meta’s business model is to co-develop innovative products or applications with industry leaders that add value. ***This approach enables Meta to understand market dynamics and ensure the relevance and need for Meta’s products.***

306. The above statements, including the portions identified in emphasis, were false and/or materially misleading because they misrepresented that Meta Materials had multiple commercialized products with “multiple customers in diverse market verticals.” However, at the time this statement was made, Meta Materials only had ***one*** product, metaAIR, and ***one*** contractual

customer for the product, Satair, which was relevant to only *one* market, the aerospace market. By making the above claim, Meta Materials created a false perception as to the development and commercialization status of its product and, ultimately, the financial prospects of the company.

307. The above statements were also false and/or materially misleading because they misrepresented that Meta Materials' business strategy ensured the "relevance and need" for the company's products. Yet, the relevance and need for Meta Materials' only developed product, metaAIR, was virtually non-existent. As previously described herein, the metaAIR glasses only provided protection from green wavelengths while higher quality competitive products in the market offered protection against green, red, and blue wavelengths. In addition, metaAIR lacked peripheral vision protection and it was not scratch-resistant. Given that Meta Materials' only developed product, metaAIR, lacked multiple features that other, more durable, products offered and at 85%-90% higher than the cost of better alternatives, Meta Materials misled the investing public as to the true need, relevance, potential demand, and financial prospects for metaAIR.

308. The Proxy Statement stated further that:

Meta's principal products that employ holography technology are its metaAIR® laser glare protection eyewear, metaAIR laser protection films for law enforcement and metaOPTIX notch filters. *Meta co-developed its metaAIR laser protection eyewear product with Airbus S.A.S. that has been engineered to provide laser glare protection for pilots, military and law enforcement using Meta's holography technology. metaAIR® is a holographic optical filter developed using nano-patterned designs that block and deflect specific colors or wavelengths of light.* Meta launched metaAIR® with strategic and exclusive distribution partner, Satair, a wholly owned Airbus company and started producing and selling metaAIR® in April 2019. The scale-up and specification for the raw photopolymer material used to produce the eyewear was successfully finalized in late 2019 and commercialized in 2020.

(emphasis added)

309. The above statements, including the portions identified in emphasis, were also false and/or materially misleading because they misrepresented Meta Materials' business relationship

with Airbus by touting that it “co-developed its METAIR® laser protection *eyewear* product with *Airbus*” (emphasis added). In 2013, Meta Materials’ website claimed that it had “developed an optically transparent thin film that selectively blocks narrow light frequencies . . . and can be adhesively applied on existing surfaces such as cockpit windows or windshields.” Following this, in June 2014, Meta Materials announced a signed agreement with Airbus to test its design. Then, in February 2017, Airbus executed a second agreement for Meta Materials to “validate, certify, and commercialize” the LGP technology. Subsequently, Meta Materials raised \$8.3 million in equity to “support commercialization of the windscreen film and to add needed staff.” Just a few months later, in June 2017, Meta Materials executed an MOU with Satair for the exclusive distribution of the metaAIR windscreen film technology. On October 17, 2018, however, Meta Materials executed a \$1 million agreement *with Satair* to exclusively distribute “metaAIR® laser glare protection [LGP] *eyewear and visors* to all aviation and military markets” (emphasis added). At no point in time was Airbus affiliated with, let alone co-developing, the metaAIR eyewear. Meta Materials’ business relationship with Airbus was solely related to Meta Materials’ now defunct LGP technology for aircraft windshields. Accordingly, Meta Materials materially misled the investing public to falsely believe that the company “co-developed its metaAIR laser protection eyewear product with Airbus,” which was Meta Materials’ only tangible product at the time. By making the above statements, Meta Materials wrongfully used Airbus’ name and reputation to misleadingly impute prestige, quality, and relevance to its metaAIR eyewear.

310. Further, the above statements also misrepresented Meta Materials’ metaAIR product by touting that it could “block and deflect specific *colors or wavelengths* of light” (emphasis added). However, metaAIR was specifically designed to only protect against *one color or wavelength*, *i.e.*, metaAIR was designed to only protect against the green wavelength and not

the red or blue wavelengths, as previously discussed herein. Thus, in direct contradiction of the metaAIR product specifications, Meta Materials materially misled the investing public to believe that metaAIR provided protection against multiple “colors or wavelengths of light.” By making the above claim, Meta Materials created a false impression in the market as to the breadth of metaAIR’s capabilities and, ultimately, its financial prospects.

311. With regard to Meta Materials’ “Lithography Technology,” the Proxy Statement stated that:

In order to meet the performance, fabrication-speed, and/or cost criteria required for many potential applications that require large area and low cost nanopatterning. Meta has developed a new nanolithography method called “Rolling Mask” lithography (registered trademark RML®), which combines the best features of photolithography, soft lithography and roll-to-plate/roll-to-roll printing capability technologies. Rolling Mask lithography utilizes a proprietary UV light exposure method where a master pattern is provided in the form of a cylindrical mask. These master patterns are designed by Meta and over the years they have become part of a growing library of patterns, enriching the intellectual property of Meta. The nanostructured pattern on the mask is then rolled over a flat surface area writing a nano-pattern into the volume of a light-sensitive material (a photoresist), creating patterned grooves, metal is then evaporated and fills the patterned grooves. The excess metal is then removed by a known post-process called lift-off. The result is an invisible conductive metal mesh-patterned surface (registered trademark NanoWeb®) that can be fabricated onto any glass or plastic transparent surface in order to offer high transparency, high conductivity and low haze smart materials.

***Meta’s current principal prototype product in lithography technology is its transparent conductive film, NanoWeb®. The lithography division operates out of Meta’s wholly owned U.S. subsidiary, which can produce meter-long samples of NanoWeb®, at a small volumes scale, for industry customers/partners.***

***There are six NanoWeb®-enabled products and applications that are currently in early stages of development including NanoWeb® for Transparent EMI Shielding, NanoWeb® for 5G signal enhancement, NanoWeb Transparent Antennas, NanoWeb® for Touch Screen Sensors, NanoWeb® for Solar cells and NanoWeb® for Transparent Heating to de-ice and de-fog. Currently these products are in the design and prototyping phase and Meta is performing market trials with potential customers.***

Throughout 2020, Meta was ordering and upgrading its equipment at its California facility to efficiently supply NanoWeb samples in larger volumes. Meta has entered

into a collaboration agreement with Crossover Solutions Inc. to commercialize the NanoWeb-enabled products and applications for the automotive industry and with ADI Technologies to help secure contracts with the U.S. Department of Defense.

(emphasis added)

312. The above statements, including the portions identified in emphasis, were also false and/or materially misleading because they misrepresented the development and commercialization status of NanoWeb. NanoWeb was prototyped by a group of optical scientists at the company Rolith. But, after running out of cash and not being able to secure additional funding, Rolith's founding scientists were forced to sell the company. In mid-2016, Meta Materials acquired the NanoWeb technology through its acquisition of Rolith for \$2.5 million. In the six years since Meta Materials acquired Rolith, the market has seen numerous competitive technologies commercialized and mass produced while Meta Materials seems to have completely reversed its own course. Instead of continuing to develop and commercialize NanoWeb, Meta Materials terminated its license for a key patent on NanoWeb, which materially contradicted its statements about future commercialization. The NanoWeb production process required a critical patent from the University of Michigan, but for years Meta Materials had stopped paying for the license and failed to disclose this fact to investors. Thus, in making the above statements, Meta Materials materially misled the market as to the development and commercialization status of NanoWeb.

313. The Proxy Statement also falsely described Meta Materials' "Wireless Sensing Technology," stating in pertinent part as follows:

Wireless sensing is the ability to cancel reflections (anti-reflection) from the skin to increase the Signal-to-Noise-Ratio transmitted through body tissue to enable better medical diagnostics. ***This breakthrough wireless sensing technology is made using proprietary patterned designs, printed on metal-dielectric structures on flexible substrates that act as anti-reflection (impedance-matching) coatings when placed over the human skin in combination with medical diagnostic modalities, such as MRI, ultrasound systems, non-invasive glucometers etc.*** For example, as a medical imaging application, Meta is developing

metaSURFACETM, or RadiWiseTM, an innovation which allows up to 40 times more energy to be transmitted through the human tissue, instead of being reflected. The benefit is increased diagnostic speed and imaging accuracy leading to patient throughput increases for healthcare providers. The metaSURFACETM device consists of proprietary non-ferrous metallic and dielectric layers that are exactly designed to interact (resonate) with radio waves allowing the waves to “see-through the skin.”

(emphasis added)

314. The above statements, including the portions identified in emphasis, were false and/or materially misleading because they misrepresented the state and development status of Meta Materials’ wireless sensing technology. In describing wireless sensing as “ability to cancel reflections (anti-reflection) from the skin to increase the Signal-to-Noise-Ratio transmitted through body tissue to enable better medical diagnostics” then proceeding to tout that “[t]his **breakthrough wireless sensing technology is made using proprietary patterned designs** . . . [that] when placed over the human skin **in combination with medical diagnostic modalities, such as** MRI, ultrasound systems, **non-invasive glucometers,**” Meta Materials materially misled the market to believe that its wireless sensing technology and non-invasive glucometers had been developed and proven (emphasis added). In truth, Meta Materials lacked any demonstrable evidence that its wireless sensing technology and non-invasive glucometers were successful in measuring or monitoring blood glucose levels wirelessly, *i.e.*, through the skin barrier and without the need for blood. Meta Materials had no scientifically proven wireless sensing technology, no approved medical devices, and absolutely no human studies demonstrating the accuracy of the technology. By making the above claims, Meta Materials created a false impression in the market as to the state of its wireless sensing technology in addition to the commercial prospects for the technology.

315. The Proxy Statement also provided investors with a false and/or materially misleading description of the Meta Materials’ “Overall Performance, Industry Trends and Economic Factors,” stating as follows:

In Q1 2019, Meta completed the setup of its metaAIR® eyewear production facility and started providing its eyewear to several airlines for in-market flight tests through its distributor, Satair (an Airbus Company). ***Meta sold 50 units during 2019 and it is further increasing its reach to airlines through Airbus and Satair.*** Satair prepared a series of marketing initiatives to promote Meta’s laser glare protection eyewear solution to increase market awareness in the existing laser glare protection market. During May 2019, Meta received the prestigious Silver A’ Design Award in Safety Clothing and Personal Protective Equipment Design Category, from the A’ Design Award and Competition in Italy for its metaAIR® eyewear.

(emphasis added)

316. The above statements, including the portions identified in emphasis, were false and/or materially misleading because they, again, misrepresented Meta Materials’ business relationship with Airbus by touting that Meta Materials was “increasing its reach to airlines ***through Airbus***” (emphasis added). In 2013, Meta Materials’ website claimed that it had “developed an optically transparent thin film that selectively blocks narrow light frequencies . . . and can be adhesively applied on existing surfaces such as cockpit windows or windshields.” Then, in June 2014, Meta Materials announced a signed agreement with Airbus to test its design. In February 2017, Airbus executed a second agreement for Meta Materials to “validate, certify, and commercialize” the LGP technology. Subsequently, Meta Materials raised \$8.3 million in equity to “support commercialization of the windscreen film and to add needed staff.” Just a few months later, in June 2017, Meta Materials executed an MOU with Satair for the exclusive distribution of the metaAIR windscreen film technology. On October 17, 2018, however, Meta Materials executed a \$1 million agreement ***with Satair to exclusively distribute “metaAIR® laser glare protection [LGP] eyewear and visors*** to all aviation and military markets” (emphasis added).

Therefore, at no point in time was Airbus ever affiliated with, let alone commercializing, the metaAIR eyewear. Meta Materials' business relationship with Airbus was solely related to Meta Materials' now defunct LGP technology for *aircraft windshields*. As such, Meta Materials materially misled the investing public to falsely believe that it was "increasing its reach to airlines through Airbus" for sales of its metaAIR eyewear. By making the above statements, Meta Materials wrongfully used Airbus' name and reputation to misleadingly impute prestige to the metaAIR eyewear and to misleadingly suggest that there would be increased future sales demand for metaAIR.

317. The Proxy Statement stated that the "The Board of Directors of Torchlight . . . is soliciting your proxy . . . ." Brda and McCabe were directors of Torchlight at the time of the Proxy Statement.

318. Meta Materials (or, at the time, Torchlight), Brda, and McCabe prepared, reviewed, and disseminated the Proxy Statement, which made false statements, omitted material information that was required to be set forth therein, and failed to disclose material facts necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading in violation of Section 14(a) of the Exchange Act and Rule 14a-9 promulgated thereunder.

319. By virtue of their positions within Meta Materials (pre-merger) and their due diligence regarding Meta Materials and the merger, Meta Materials, Brda, and McCabe were aware of the undisclosed or misrepresented information and of their duty to disclose this information in the Proxy Statement. The Proxy Statement was prepared, reviewed, and/or disseminated by Meta Materials, Brda, and McCabe named herein. It misrepresented and/or omitted material facts, as



detailed above. Meta Materials, Brda, and McCabe were at least negligent in filing the Proxy Statement with these materially false and misleading statements.

320. As a direct result of Meta Materials, Brda, and McCabe's negligent preparation, review and dissemination of the Proxy Statement, Plaintiffs were precluded from exercising their right to exchange shares on a fully informed basis and were induced to vote their shares and accept inadequate consideration in connection with the merger. The Proxy Statement used to obtain shareholder approval of the merger deprived Plaintiffs of their right to a fully informed shareholder vote in connection therewith and the full and fair value for their shares. At all times relevant to the dissemination of the Proxy Statement, Meta Materials, Brda, and McCabe were aware of and/or had access to the true facts concerning Meta Materials. Thus, as a direct and proximate result of the dissemination of the Proxy Statement that Meta Materials, Brda, and McCabe used to obtain shareholder approval of and thereby consummate the merger, Plaintiffs suffered damages and actual economic losses in an amount to be determined at trial.

321. The omissions and false and misleading statements in the Proxy Statement were material in that a reasonable stockholder would have considered them important in deciding how to vote on the merger. In addition, a reasonable investor would view a full and accurate disclosure as significantly altering the "total mix" of information made available in the Proxy Statement and in other information reasonably available to stockholders.

322. As stated herein, the Proxy Statement contained untrue statements of material fact and omitted to state material facts necessary to make the statements made not misleading in violation of Section 14(a) of the Exchange Act and SEC Rule 14a-9 promulgated thereunder. It was an essential link in the consummation of the merger. Meta Materials, Brda, and McCabe also failed to correct the Proxy Statement prior to the merger and the failure to update and correct false

statements is also a violation of Section 14(a) of the Exchange Act and SEC Rule 14a-9 promulgated thereunder.

323. By reason of the foregoing, Meta Materials, Brda, and McCabe have violated Section 14(a) of the Exchange Act and Rule 14a-9(a) promulgated thereunder.

**XII. PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs pray for relief and judgment as follows:

- a. Determining this action to be a class action properly maintained pursuant to Rule 23 of the Federal Rules of Civil Procedure, certifying Plaintiffs as Class Representatives, and designating Lead Counsel as Class Counsel;
- b. Awarding compensatory damages in favor of Plaintiffs and the other Class members against all Defendants, jointly and severally, for all damages sustained as a result of Defendants' wrongdoing, in an amount to be proven at trial, together with interest thereon;
- c. Awarding Plaintiffs and the Class their reasonable costs and expenses incurred in this action, including counsel fees and expert fees; and
- d. Awarding such other and further relief as the Court may deem just and proper.

**XIII. JURY TRIAL DEMANDED**

Plaintiffs hereby demand a jury trial.

*[Signature blocks on following page]*

Dated: August 29, 2022

LEVI & KORSINSKY, LLP

/s/ Adam M. Apton

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