

**UNITED STATES DISTRICT COURT  
DISTRICT OF MINNESOTA**

IN RE RESIDEO TECHNOLOGIES, INC.  
SECURITIES LITIGATION

Case No. 19-cv-02863 (WMW/KMM)

**CLASS ACTION**

**CONSOLIDATED AMENDED COMPLAINT FOR  
VIOLATIONS OF THE FEDERAL SECURITIES LAWS**

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Lead Plaintiffs The Gabelli Asset Fund, The Gabelli Dividend & Income Trust, The Gabelli Focus Five Fund, The Gabelli Multimedia Trust Inc., The Gabelli Value 25 Fund Inc., GAMCO International SICAV, GAMCO Asset Management Inc., Naya 1740 Fund Ltd., Naya Coldwater Fund Ltd., Naya Master Fund LP and Nayawood LP (together, “Lead Plaintiffs”), and additional Plaintiff Oklahoma Firefighters Pension and Retirement System (the “Additional Plaintiff” and, collectively with Lead Plaintiffs, the “Plaintiffs”), bring this class action (the “Action”) for violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 (the “Exchange Act”) against Resideo Technologies, Inc. (“Resideo” or the “Company”), its Chief Executive Officer (“CEO”) Michael G. Nefkens (“Nefkens”), the Company’s former Chief Financial Officer (“CFO”) Joseph D. Ragan III (“Ragan”) and its Chief Innovation Officer (“CIO”) and former director Niccolo de Masi (“de Masi”) (collectively, the “Defendants”) on behalf of themselves and a class (the “Class”) defined as:

**All persons or entities who purchased or otherwise acquired common stock of Resideo on the secondary market during the period October 29, 2018 through November 6, 2019, inclusive (the “Class Period”), and were damaged thereby.**

Plaintiffs’ allegations are based upon personal knowledge as to themselves and their own acts and upon information and belief as to all other matters. Plaintiffs’ information and belief is based on an investigation conducted by and through Plaintiffs’ counsel, which included, among other things, consultation with experts and a review of public filings with the U.S. Securities and Exchange Commission (“SEC”), press releases, investor presentations, earnings calls, analyst research and media reports concerning Resideo and

its former parent Honeywell International Inc. (“Honeywell”).<sup>1</sup> Plaintiffs’ allegations are also based on information and documents provided by, and one or more interviews conducted with, fifteen confidential witnesses (the “Confidential Witness(es)” or “CW(s)”), each of whom, as detailed below, was at the relevant time an employee at Resideo and/or Honeywell with personal knowledge of matters set forth herein.<sup>2</sup>

Counsel’s investigation into the facts supporting the claims alleged herein continues, and many of the relevant facts are known only to Defendants, or are exclusively within Defendants’ custody or control. Plaintiffs believe that substantial additional evidentiary support for the allegations set forth herein will be uncovered after a reasonable opportunity for further investigation and discovery of Defendants.

## **I. INTRODUCTION**

1. On October 29, 2018, multi-national industrial giant Honeywell completed a transaction first announced in 2017 whereby it combined certain unrelated business units and products and “spun” them off as a new stand-alone company (the “Spin-Off”) named

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<sup>1</sup> Attached hereto as Appendix A is a Table of Key Terms listing the relevant terms appearing herein.

<sup>2</sup> See Section IV *infra* and the Table of Confidential Witnesses, attached hereto as Appendix B, both of which provide a description of each Confidential Witnesses’ position held at Resideo and/or Honeywell during the Class Period and the likelihood they would possess the information provided. See *In re Nash Finch Co.*, 502 F. Supp. 2d 861, 874 (D. Minn. 2007) (Accepting confidential witness allegations where: (i) “Plaintiff has described the CWs with sufficient particularity to support the probability that persons in their job positions would possess the information alleged”; (ii) “[a]ll of the CWs were employed by [defendant] during at least some portion of the class period”; (iii) “Plaintiff has described the CW’s job titles and duties with particularity, as well as the information possessed by the various CWs”; and (iv) “the CW’s accounts corroborate each other.”).

Resideo. The new Company commenced regular trading on the New York Stock Exchange (“NYSE”) on October 29 at \$28.00 per share and immediately generated significant investor interest. Indeed, in the first five days after regular trading commenced more than *65 million shares* of Resideo changed hands worth more than \$1.4 billion.

2. Plaintiffs bring this federal securities class Action on behalf of the Class of investors who purchased or otherwise acquired Resideo common shares in the secondary market between October 29, 2018 and November 6, 2019 based on Defendants’ misstatements and omissions of material fact, which portrayed the new Company as a demonstrably well-managed, cutting-edge, favorably-positioned market leader in:

- (i) Two areas of home technology: (1) home comfort, including thermostats, other heating, ventilation, and air-conditioning (“HVAC”) products, and Residential Thermal Solutions (“RTS”) such as water heaters and boilers, and (2) home security systems, including panels and sensors, which together formed Resideo’s “Products & Solutions” operating division; and
- (ii) Distribution through its ADI Global Distribution (“ADI”) business, which provided wholesale distribution of security and fire protection products.

3. Indeed, before and during the Class Period, Defendants represented that Resideo’s businesses would benefit, purportedly demonstrated by results while part of Honeywell, from the Company’s legacy relationship to Honeywell from a product, sourcing and manufacturing standpoint and excel as a new company due to claimed agility in new-product development and “speed to the market.” Defendants repeatedly touted Resideo’s “prior operating history” as part of Honeywell, its “strong management operating system and attractive financial profile,” and its “revolutionary” new products and technology purportedly ready to roll out to customers.



4. Defendants' representations were not general corporate optimism. At the outset and throughout the Class Period, Defendants made detailed statements about specific legacy products, such as the "T-Series" line of thermostats and the innovation of new product launches such as "Project GRIP" and a product under development referred to internally as "Project STORM."

5. Moreover, based on Resideo's purported strengths, the Company issued aggressive earnings guidance that allayed investor fears that financial liabilities to Honeywell and lenders arising from the Spin-Off would adversely impact the Company.

6. However, the truth about Resideo was manifestly different than the portrait painted by Defendants, to almost a staggering degree. As set forth in more detail herein, both in the run up to the Spin-Off and during the year-long Class Period that followed, Defendants misrepresented or concealed wide-spread, fundamental problems at Resideo touching virtually every area of the Company, including:

- Systemic governance, product and operational problems caused by the fact that Resideo was comprised of unrelated businesses that lacked both operating history together and individual profit and loss ("P&L") statements from which management could reasonably estimate performance or earnings;
- Honeywell had left Resideo with no "value engineers" – product-specific experts needed to control the costs of components, raw materials and packaging;
- Pervasive supply chain issues caused by, among other things, the loss of its value engineering teams and the splitting of manufacturing between Honeywell and Resideo;
- Loss of sourcing leverage – *i.e.*, the bargaining advantages of its prior association with Honeywell and economies of scale;

- Aging technology in its core T-Series thermostat line and non-competitive security products;
- Chronic failures in one of its signature products – the Total Connected Comfort application (the “TCC App”) – which controlled both older model T-Series thermostats as well as the Company’s pro-installed line of thermostats;
- Failure to deliver on obligations to large Original Equipment Manufacturer (“OEM”) customers and related contractual penalties; and
- The lack of technology or expertise to correct these problems or to deliver on new products being touted to investors.

7. Significantly, information provided by Confidential Witnesses who were employed in key positions at Resideo during the Class Period and Defendants’ own statements demonstrate that Defendants had *actual knowledge* of these systemic, undisclosed problems at Resideo, and is more than sufficient to meet the standards to hold these Defendants liable.

8. For example, during one January 2019 meeting attended by senior officers of the Company who reported to Nefkens, a broad range of the Company’s problems were discussed, including the loss of major channel partners, loss of security partners, the challenges of Resideo’s “Cloud,” and customer churn on the security side of the business, in addition to falling demand for Resideo’s line of T-Series thermostats, which were considered aging technologies when Resideo was still part of Honeywell. The T-Series line included thermostats controlled by the TCC application, which constituted 85% of Resideo’s connected thermostats (thermostats controlled by WiFi devices), but were subject to severe outages, significantly impacting customers. Yet the Company continued

to market and sell these products and, notably, to tout to investors its market-leading position by virtue of the T-Series.

9. Moreover, at the same meeting, engineering personnel advised management that Resideo did not have a pathway forward to produce more innovative products. Thereafter, senior management *specifically directed that personnel should not let negative information about the Company “leak” and that certain internal communications should be conducted only via “WhatsApp” (a secure messaging application) rather than Company emails because emails were “easily discoverable.”* The directive was stated to come from the “leadership team” which necessarily included, and was understood to include, Nefkens and Ragan. Such conduct reflects more than mere knowledge of facts contrary to Defendants’ statements to the market – it is clear evidence of intent to deceive.

10. Likewise, Defendant Nefkens’ own post-Class Period statements prove that he knew of Resideo’s problems no later than the date of the Spin-Off. During a November 7, 2019 earnings call on the day after the Class Period ended, Nefkens disclosed for the first time that Resideo’s value engineering teams – which he acknowledged were crucial to control “product costs like components, raw materials and packaging” – had been depleted by Honeywell at the time of the Spin-Off and that this depletion significantly affected the Company’s operations and gross margins.

11. Similarly, at a December 2019 investor conference shortly after he replaced Defendant Ragan as CFO, Robert Ryder (“Ryder”) conceded the Company had widespread problems with Resideo’s Products & Solutions business from the beginning of the Spin-

Off. Ryder conceded the product and governance problems were caused by the scattershot nature of the businesses selected to comprise Resideo:

A big thing was a lack of pre-existing standalone business . . . [e]ssentially, the whole Products & Solutions business was various businesses within divisions of Honeywell. And they kind of picked individual pieces up and kind of threw them together and called that Products & Solutions which we'll talk about. And that kind of had some governance ramifications.

12. Ryder also conceded that, as to Resideo's new and old products, they were "not completely launched, right, but weren't really accepted by customers, weren't really competitive," and "[w]e had the inventory. And unfortunately, nobody wanted to buy it, which is why we had these inventory write-offs, okay"?

13. Ultimately, as these and other problems were gradually revealed during the Class Period, and caused attendant earnings shortfalls, the market reacted immediately. For example, when Defendants were forced in March 2019 – *only five months after trading began* – to lower 2019 earnings guidance and announce a 20% decrease in profit for Products & Solutions, Resideo's common stock price plunged more than **23 percent**.

14. Likewise, as Resideo was forced to acknowledge more problems with its businesses and earnings in a series of additional disclosures in August, October and November 2019, the Company's stock price dropped a total of more than 39 percent on days following the disclosures – costing investors more than **\$1.3 billion**.

**A. Honeywell's One-Sided Spin-Off**

15. Honeywell's Spin-Off of Resideo was a one-sided transaction structured to provide financial benefits to Honeywell. Through the Spin-Off, Honeywell was able to

hand-select underperforming businesses to transfer into Resideo and, in exchange, require Resideo (and by extension its new shareholders who received shares in the Spin-Off or purchased in the secondary market during the Class Period) to incur huge financial obligations to Honeywell, including paying:

- Up to \$140 million per year of Honeywell’s legacy environmental liabilities for the next 25 years;
- A one-time “dividend” of ***\$1.2 billion*** to Honeywell, funded from debt undertaken by Resideo consisting of \$400 million in high-interest unsecured notes and \$800 million in term loans; and
- Tens of millions of dollars to Honeywell in annual royalties from the use of Honeywell’s trademarks.

16. Put another way, Honeywell paid itself \$1.2 billion to dump underperforming assets, avoid billions of dollars in obligations over the next two decades related to past environmental issues, and retain its best product lines, while still collecting revenue from Resideo’s businesses through royalties.

17. Significantly, because Resideo was undertaking these onerous recurring environmental liabilities, debt service and royalty payments, the market viability and competitiveness of its product mix, its capacity for innovation, its ability quickly to develop and launch new products in a technologically evolving market, and the efficacy of its governance and operations, and resulting earnings guidance, were crucially important to investors in deciding whether to invest.

**B. Defendants’ Material Misstatements and Omissions**

18. Unfortunately for investors, from the moment the Spin-Off from Honeywell was completed in October 2018, Resideo faced immediate economic pressures as a stand-

alone enterprise as a result of severe and widespread issues with its products, which had been thrown together piecemeal by Honeywell.

19. To prop up Resideo's stock price and portray the Spin-Off as a success, it was crucial for Defendants to paint Resideo as a viable standalone enterprise with cohesive operating units and sufficient technological expertise, existing earnings as part of Honeywell, and growth potential such that following the separation of Resideo the Company would be able to satisfy the significant financial obligations to Honeywell, noteholders and lenders, and create substantial value over and above those obligations.

20. For example, on October 10, 2018, less than three weeks before the Spin-Off, Honeywell published a press release which it also filed with the SEC on Form 8-K touting Resideo's "bright future" based on an "enviable market position" and "diversified revenue streams, strong segment profits and limited capital expenditure needs." During an investor call on October 11, 2018, Defendant Nefkens likewise touted Resideo's growth prospects based on its capacity for innovation:

We have great growth prospects, and we are the leader right now in connecting a lot of the stuff in the home that no one sees, like water heaters, boiler controls, leak detection, and we have the scale and capability to innovate and be a major player in this space.

21. Defendants' bullish statements about the Company continued immediately after the Spin-Off. Two weeks after the Spin-Off, during Resideo's November 14, 2018 earnings call (its first as a publicly traded company), Nefkens stated that Resideo's "performance as part of Honeywell over the past three years demonstrates a well-run business that is on track to deliver continued growth in 2018 and beyond." This statement

was at worst patently false and at best strikingly misleading. As was revealed to investors after the Class Period, Resideo was constructed from a hodgepodge of thrown-together businesses with aging and problematic technology and no history of performance together or even P&L statements upon which Defendant Nefkens could reasonably base his statements.

22. Moreover, Nefkens acknowledged “some spin-related supply chain issues that *temporarily* increased our backlog,” but falsely claimed that Resideo was “actively addressing” those issues and was “already seeing product flows moving back towards normal volumes.” Defendant Ragan likewise referred to the “supply chain challenges” as “*short-term*,” when in fact they were not correctable without, among other things, Resideo’s non-existent value engineers who would take at least a year-and-a-half to replace and train.

23. During the remainder of Class Period, Defendants continued to tout Resideo’s business, operations and prospects, its strong financial condition and earnings while part of Honeywell, and its prospects for continued strong earnings growth. Specifically, throughout 2018 and into 2019, Defendants represented to investors:

- Resideo had a leading position in each of its Products & Solutions businesses and an extremely strong franchise position;
- Resideo had timely begun volume shipments of its purportedly new cutting-edge security system – the Global Residential Intrusion Platform (“GRIP”) – to ADT, one of its largest customers and the largest security company in the U.S., and the rollout was “progressing very, very well”;
- Resideo was accelerating development of new, integrated products – GRIP for direct consumers and a heavily-touted system integration

tool, internally called “Project STORM” – with delivery dates in 2019, with the promise that the rollout of these products would increase margins for the year;

- Resideo had a strong position in the Residential Thermal Solutions (RTS) business – “behind the wall” products such as water-heaters and boilers – and that the business was growing above market;
- Resideo was a market leader in traditional non-connected thermostats by virtue of the older-non-WiFi-enabled models of the T-Series line;
- Resideo was a market leader in the connected thermostat space by virtue of its newer WiFi-enabled T-Series products controlled by the TCC App that was itself subject to severe outages; and
- Resideo’s “Flycatcher” program – the internal name for the new line of connected thermostats marketed and sold as the T9 and T10 – was “the best in the market” and would drive major earnings growth for Resideo.

24. As it turns out, these statements were false and misleading and omitted crucial material facts. In truth, Resideo was concealing massive Company-wide problems in both its products and in its operations.

25. For example:

- Honeywell had depleted Resideo’s value engineers prior to the Spin-Off, and without any value engineers, Resideo was unable to effectively control the cost of raw materials, packaging and electrical components, significantly driving up costs and causing margins to deteriorate;
- As a result of the Spin-Off, Resideo’s business units lost sourcing leverage in direct and indirect parts and materials they enjoyed as part of Honeywell;
- Even prior to the Spin-Off, numerous individual product lines that were given to Resideo – including thermostats, security sensors, intrusion panels, doorbells, other HVAC products and microprocessors – were experiencing significant supply chain delays;



- Resideo’s older TCC App, which controlled both older model connected T-Series thermostats as well as the Pro-installed line of thermostats, was not designed to handle the 3 million users Resideo allowed on the system and was out of service every 3-4 days and at times for as long as 24 hours, causing customer dissatisfaction and further diminishing demand;
- Prior to the Spin-Off, the team responsible for the TCC App had run projections regarding whether Resideo’s servers dedicated to the T-Series thermostats could keep up with the demand and projected that Resideo’s system would crash in September 2018, about which they alerted Resideo’s Chief Technology Officer (“CTO”) Edgar Tu (“Tu”);
- Delivery on repeated promises of an accelerated rollout of the customer version of GRIP in 2019 was unlikely in light of repeated warnings by managing engineers that the development process for the product was beset with dysfunction and uncertainty and delays otherwise caused by the dearth of talented engineers;
- In 2017, certain of Resideo’s businesses had secured a competitive contract with ADT that provided for contractual penalties, which were realized when Resideo could not timely deliver the GRIP products, further eroding margins;
- Resideo did not possess the technology to develop or roll out to customers “Project STORM,” the heavily-touted application which Resideo said would integrate the global intrusion security panel with comfort products but was referred to by one Confidential Witness as Nefkens’ “*fake project*” because Resideo was nowhere close to having the technology needed to complete it;
- Resideo’s purported market-leading position in non-connected thermostats was pyrrhic – non-connected thermostats were an obsolete product with decreasing demand and no growth potential; and
- Resideo’s T9 and T10 connected thermostat program (internally dubbed “Flycatcher”), which allowed customers to control multiple thermostats at once through the Honeywell Home App (as opposed to older T-Series models, which were controlled via the TCC App), was

late to market due to a lack of technical talent, including software developers and product engineers, and as a result, competitors had already surpassed Resideo's technology and beaten to the market.

26. Critically, as a result of the forgoing problems and Resideo's "thrown together" products – which lacked even basic historical P&L statements – management lacked a reasonable basis to issue and reaffirm earnings guidance during the Class Period. Indeed, virtually all of the problems adversely impacted the costs, margins and/or demand for Resideo's products including but were not limited to: (1) the lack of value engineers, which increased costs and caused supply chain issues, (2) the significant decline in sourcing leverage after the Spin-Off, (3) contract penalties later characterized by Resideo as "rebates" regarding an OEM contract (with ADT) entered into in 2017, (4) slow moving products, and (5) the lack of expertise or technology to roll out new innovative products to drive demand and growth. All of these undisclosed factors made hitting earnings projections impossible.

27. Even worse, because Resideo knew that it could not realistically meet its earnings guidance, the Company resorted to large-scale layoffs in 2019 to drastically cut costs, even though that included getting rid of the very short-supplied engineering talent the Company needed to develop new products.

### **C. Investors Suffer Massive Losses as the Truth Is Revealed**

28. By March 2019 – just five months after the Spin-Off – Defendants were forced partially to reveal that all was in fact not well with Resideo. In reporting the Company's fourth quarter and full-year 2018 financial results, Resideo announced its intention to lower its 2019 financial forecasts from 4 percent to an indeterminate range of

“2 to 5 percent” and further revealed a 20% decrease in profit for the Product & Solutions division. These results were directly caused by the undisclosed cost, margin and product demand problems at Resideo. The announcement caused Resideo’s common stock price to decline by \$5.79 per share, to close at \$18.96 on March 7, 2019.

29. Nevertheless, the stock price remained inflated as Defendants continued to mislead the market. Indeed, the same press release disclosing reduced earnings guidance and a decrease in revenue in Products & Solutions stated that “[t]he disruption from the spin is mostly behind us and we have a solid team in place that delivered great results in 2018.”

30. In the earnings call held the same day, Nefkens likewise stated that Resideo was “on schedule, and in some cases, ahead of schedule, when I compare to previous spins I’ve been [a] part of,” and that he felt “really good that most of the disruption from the spin is now behind us.” Nefkens further reassured investors that “this effectively is the first time that we are having all of our costs under control” and that “we’re at a strategic inflection point. I would tell you that we are at or ahead of where I expect it to be.” Once again, these material statements, in light of the assorted undisclosed problems Resideo was experiencing, were manifestly misleading. For example, due to the dearth of value engineers and sourcing leverage Resideo *did not* have its costs under control.

31. The truth was further partially disclosed in the days following the August 7, 2019 release of Resideo’s financial results for the second quarter of 2019, which disclosed an EBITDA drop of 36% in the Company’s Second Quarter 2019 financial results. On the earnings call held the following day, Defendants revealed that Resideo was experiencing

“margin pressures due to product mix headwinds,” including the sale of lower margin connected thermostats. In response to these disclosures, the price of Resideo’s common stock declined by 2.4 percent from its opening price of \$17.50 to close at \$17.08 per share on unusually high volume. Nevertheless, Defendants continued to conceal the truth from investors. Indeed, in the same earnings call, Nefkens attempted to deflect attention from the precipitous drop in EBITDA by stating that “our momentum continued with strong top-line growth during the second quarter” and by representing that Resideo was “focused on executing [] organic and inorganic growth strategies, as well as [] cost reduction programs” that would “continue to drive growth and long-term value creation for shareholders.”

32. Resideo’s stock price continued to decline in the following trading days as the market digested the disclosures. Specifically, the price of Resideo’s common stock decreased by approximately 3.7 percent on August 9, 2019, closing at \$16.42 per share, and declined by approximately 5.2 percent the following trading day, to close at \$15.59 per share on August 12, 2019.

33. After market close on August 12, 2019, Oppenheimer issued an analyst report in which it lowered Resideo’s price target from \$30 to \$20. Among other things, the report noted “we are concerned with REZI’s margin profile over the next 2-3 years” and revealed that “management also acknowledged there is a ‘new normal’ in security and margins should settle in 500bps lower.” These lower long-term security margins were in conflict with the promises of near-term launches of high-volume products like Project GRIP for the retail market and the product that was referred to internally as Project STORM. On this news, the price of Resideo’s common stock declined from \$15.59 per

share on August 12, 2019 to close at \$15.31 per share on August 13, 2019. Resideo's stock price continued to decline the following day, declining from \$15.31 per share on August 13, 2019 to \$14.64 per share on August 14, 2019.

34. Nevertheless, Oppenheimer kept its OUTPERFORM rating, based on its assessment that Resideo's representations rendered its 2019 guidance "reasonable" and assurances from Resideo's management that margins for the year would in fact improve because at the end of 2019 there was "going to be some improvement that we're going to see on the security margins from where we currently are." Of course, such improvements never materialized as bad news from the Company escalated in the following months.

35. After market close on October 22, 2019, Resideo issued a press release announcing its Third Quarter 2019 financial results. Among other things, Resideo disclosed that the Products & Solutions segment "experienced revenue decline in certain product families of the Comfort business and in its [RTS] gas combustion business" due to "lower sales volumes in non-connected thermostats," explaining "[w]e believe a poor pre-spin cutover from the prior generation of non-connected thermostats to the T-Series line impacted the adoption of mid-level T-Series thermostats. The cutover effects became markedly more pronounced in the third quarter after the prior generation of non-connected thermostats were discontinued." These disclosures revealed that Defendants' statements about Resideo's market-leading position in non-connected thermostats omitted the crucial truth that non-connected thermostats were becoming obsolete technology with rapidly falling demand, as well as the fact that the routine failures of TCC were also eroding demand for Resideo's legacy T-Series connected thermostats.

36. Resideo further disclosed preliminary third quarter EBITDA of \$77-\$79 million, missing analyst expectations of \$98-\$101 million, and downwardly revised its 2019 full year EBITDA guidance to a range of \$330-\$350 million from \$410-\$430 million. On the same day, the Company announced the replacement of its then-CFO, Defendant Ragan. These disclosures caused the price of Resideo's common stock to decline by over 37%, or \$5.37 per share.

37. Finally, the truth concerning Resideo's business and operations was largely revealed during the Company's earnings call held on November 7, 2019 to discuss Third Quarter 2019 financial results. On the call, Nefkens revealed for the first time five factors contributing to Resideo's precipitous EBITDA decline that directly contrasted with Defendants' prior Class Period statements:

- “The first factor was gross margin compression. *Most of our value engineering stopped prior to our spin-off from Honeywell.* In a company like ours, product costs like components, raw materials and packaging need to be optimized every year to keep gross margin strong. Value engineering teams do that. *Before we spun off from Honeywell, these teams were largely depleted, and we are seeing the effects of that in our gross margins*” and that seeing any benefit from an effort to rebuild those teams would “take *12 to 24 months*”;
- “The second factor is sourcing. *We lost some sourcing leverage in direct and indirect materials following the spin-off.* We've been working with our suppliers for *several months* now to rectify that”;
- “The third factor is a margin drop associated with the competitive renewal of a contract from a large OEM security customer. *This contract was secured in 2017* and first deliveries began a year later, with volume ramp-up in 2019. *Contractual customer rebates associated with this contract drove further margin decline this year*”;<sup>3</sup>

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<sup>3</sup> Tellingly, even this disclosure was misleading. Nefkens referred to “rebates” that were

- “The fourth factor is the previously mentioned T-Series thermostat transition. This was a transition that began in 2017 from a high-margin product offering to more modern but lower-margin series”; and
- “Finally, post-spin inventory write-downs and slow-moving products impacted our EBITDA as well.”

38. Also on the call, Nefkens attributed the decline in EBITDA to “slowed orders impacted by an energy efficiency regulation” and that “while we knew that the measure was being adopted in July 2019, we had no visibility into the inventory levels of either the OEMs nor the distribution channel to enable us to accurately estimate these changes.” The explanation on its face makes little sense. If the distribution channels were stocking up on grandfathered products, then Resideo surely knew that this was a material risk that it should have disclosed or, at the least, factored into its guidance, regardless of its purported lack of “visibility into the inventory levels of either the OEMs [or] the distribution channel.” In sum, CW3 stated that Resideo’s statements in this press release were a “smokescreen” and “misdirection” to draw attention away from and to hide the true problems at the Company.

39. Following the earnings call held November 7, 2019, the price of Resideo’s common stock declined in the ensuing three trading days by 10%, falling from its closing price of \$10.02 per share on November 6, 2019 to \$9.02 per share on November 11, 2019.

40. All told, the corrective disclosures in March, August, October and November caused Resideo stock price to drop by \$12.16 per share – or more than 39% of its \$28.00 per share opening price on the October 29, 2018 Spin-Off day – costing investors, including

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in fact penalties for failure timely to deliver GRIP products to ADT.

Plaintiffs and other members of the Class, more than *\$1.3 billion*. By contrast, during the Class Period, Honeywell's stock increased more than 32%.

## II. JURISDICTION AND VENUE

41. This Court has jurisdiction over this Action under Section 27 of the Exchange Act, 15 U.S.C. § 78aa. In addition, because this is a civil action arising under the laws of the United States, this Court has jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1337.

42. Venue is proper in this District pursuant to 28 U.S.C. § 1391(b) because Resideo was headquartered in this District and a substantial part of the events giving rise to the Action occurred in this district.

43. Personal jurisdiction exists over each Defendant either because the Defendant conducts business in or maintains operations in this District or is an individual who is either present in this District for jurisdictional purposes or has sufficient minimum contacts with this District to render the exercise of jurisdiction over the Defendant by this Court permissible under traditional notions of fair play and substantial justice. Each Individual Defendant was a Resideo senior executive during the Class Period at a time when the Company was located in this District.

44. In connection with the acts alleged herein, Defendants, directly or indirectly, used the means and instrumentalities of interstate commerce, including but not limited to the mail, interstate telephone communications and the facilities of a national securities exchange.



### **III. PARTIES**

#### **A. Plaintiffs**

45. Lead Plaintiffs The Gabelli Asset Fund, The Gabelli Dividend & Income Trust, The Gabelli Focus Five Fund, The Gabelli Multimedia Trust Inc., The Gabelli Value 25 Fund Inc. and GAMCO International SICAV (the “Gabelli Funds”) are closed-end investment management companies headquartered in Rye, New York. As set forth in the Certification attached hereto as Exhibit A, the Funds purchased Resideo common stock during the Class Period and were damaged thereby.

46. Lead Plaintiff GAMCO Asset Management Inc. (“GAMCO”) is an investment management company located in Rye, New York that offers portfolio management, financial planning and investment advisory services to clients. As set forth in the Certification attached hereto as Exhibit B, GAMCO purchased Resideo common stock during the Class Period and was damaged thereby.

47. Lead Plaintiffs Naya 1740 Fund. Ltd., Naya Coldwater Fund Ltd., Naya Master Fund LP and Nayawood LP (the “Naya Funds”) are pooled investment funds managed by Naya Capital Management UK Limited. As set forth in the Certification attached hereto as Exhibit C, the Naya Funds purchased Resideo common stock during the Class Period and were damaged thereby.

48. Additional Plaintiff Oklahoma Firefighters Pension and Retirement System (“Oklahoma Fire”) is a defined benefit pension plan founded in 1980 for the benefit of paid and volunteer firefighters in the State of Oklahoma. Oklahoma Fire manages more than \$2.8 billion in assets. As set forth in the Certification attached hereto as Exhibit D,

Oklahoma Fire purchased Resideo common stock during the Class Period and was damaged thereby.

**B. Corporate Defendant**

49. Defendant Resideo Technologies, Inc. is a Delaware corporation with its principal executive offices at 901 E. 6th St., Austin, Texas 78702. Resideo was incorporated on April 24, 2018 and became an independently publicly traded company as a result of a *pro rata* distribution of Resideo's common stock to shareholders of Honeywell International Inc. on October 29, 2018. At the outset of the Class Period, the Company was headquartered in Golden Valley, Minnesota. In early 2019, the Company relocated its headquarters to Austin, Texas. The Company's common stock trades on the NYSE under the ticker symbol "REZI." Defendant Resideo is named in Count I (violations of Section 10(b) of the Exchange Act).

**C. Individual Defendants**

50. Defendant Michael G. Nefkens has served as Resideo's President CEO and a member of the board of directors from the Spin-Off to the present. Prior to the Spin-Off, Nefkens served as President and CEO of Honeywell's Home Business from May to October 2018. On December 2, 2019, Resideo announced Nefkens would be resigning from Resideo as its CEO, as well as from his position as a director, but would stay on while the Company located his successor. Defendant Nefkens signed a cover letter for the Information Statement attached to the amended Registration Statement on Form 10, that the Company filed on October 2, 2018, and the Company's Annual Report on Form 10-K, that the Company filed on March 18, 2019, both of which contained material misstatements

or omissions, and personally made numerous public statements that contained materials misstatements or omissions, as set forth below. Defendant Nefkens is named in Count I (violations of Section 10(b) of the Exchange Act) and Count II (violations of Section 20(a) of the Exchange Act).

51. Defendant Joseph D. Ragan III served as Resideo's Executive Vice President and CFO from the Spin-Off until October 22, 2019. Prior to the Spin-Off, Ragan served as Chief Financial Officer of Honeywell Homes from August to October 2018. Defendant Ragan signed the Company's Annual Report on Form 10-K, that the Company filed on March 18, 2019, that contained material misstatements or omissions and personally made numerous public statements that contained materials misstatements or omissions, as set forth below. Defendant Ragan is named in Count I (violations of Section 10(b) of the Exchange Act) and Count II (violations of Section 20(a) of the Exchange Act).

52. Defendant Niccolo de Masi served as Resideo's President, Products & Solutions and as a member of Resideo's board of directors from the Company's inception until January 6, 2020. Defendant de Masi has served as Resideo's Chief Innovation Officer from Resideo's inception to the present. Defendant de Masi signed the Company's Annual Report on Form 10-K, that the Company filed on March 18, 2019, that contained material misstatements or omissions as set forth below. Defendant de Masi is named in Count I (violations of Section 10(b) of the Exchange Act) and Count II (violations of Section 20(a) of the Exchange Act).

53. Together, Nefkens, Ragan and de Masi are referred to herein as the "Individual Defendants."

**D. Relevant Non-Parties**

54. Honeywell International Inc. is a Delaware corporation with its principal executive offices at 300 South Tryon Street, Charlotte, North Carolina. Honeywell is one of the largest industrial companies in the world, with more than 113,000 employees spread across 932 global locations and annual revenue exceeding \$36 billion.

55. Edgar Tu has served as Resideo's Chief Technology Officer from October 2018 to the present. Prior to the Spin-Off, Tu served as the Chief Technology Officer of Honeywell Security and Fire. As alleged herein, Tu reported directly to Defendant Nefkens and was involved in the TCC App and Project STORM products.

56. Scott Harkins ("Harkins") has served as Resideo's Vice President and General Manager of Connected Home from October 2018 to the present. Prior to the Spin-Off, Harkins serves as Honeywell's President Partner Development from 2014 to 2017, and as President of Honeywell Security Products from 2011 to 2014. Among other things, as alleged herein, Harkins ordered, as a directive from the "leadership team," which was understood to include Nefkens and Ragan, that all negative information about Project STORM and the TCC App be made via WhatsApp.com, not the Company system, because emails were "easily discoverable."

**IV. SOURCES OF ALLEGATIONS**

57. Plaintiffs' allegations are based upon the investigation of Plaintiffs' counsel, including information contained in SEC filings by Honeywell and Resideo, regulatory filings and reports, securities analysts' reports and advisories about the Company, press releases, conference call transcripts and other public statements issued by the Company, as

well as media reports and other sources of information about the Company, including information obtained from 15 former employees of Honeywell and/or Resideo (*i.e.*, the Confidential Witnesses). Information provided by each Confidential Witness is reliable and credible because:

- Each of the Confidential Witnesses worked at Resideo during the Class Period, and many worked at Honeywell in the months preceding the Spin-Off;
- Each witness stated that she/he had personal knowledge of the information provided;
- The Confidential Witnesses' job titles and responsibilities demonstrate that they had personal knowledge of the information provided;
- The Confidential Witnesses' accounts corroborate one another; and
- The witnesses' accounts are corroborated by other information alleged herein and by Defendants' own post-Class Period statements.

58. CW1 worked as an Environmental Controls and Combustion Representative for Honeywell from September 2015 before joining Resideo to work as a Distribution Representative from October 2018, until June 2019, reporting first to Rick Dash (title unknown) and then to Sales Leader Paul Adair. In connection with these positions, CW1 worked as a local territory representative covering several states for HVAC parts and accessories. As a Distribution Representative for Resideo's residential HVAC segment, CW1 personally dealt with upset customers during her entire time at Resideo, many of whom threatened to go to Resideo's competition due to supply chain issues.

59. CW2 was a General Manager for Residential Combustion – Europe from 2015 (before the Spin-Off, for Honeywell, and after for Resideo) until 2019. CW2 reported

on an interim basis to Defendant Nefkens for his final five and a half months at Resideo.

60. CW3 was employed at Honeywell from June 2017, and left to work at Resideo in the Spin-Off in October 2018. He was laid off in March 2019. During his time at Resideo, CW3 had responsibility for a portfolio of software development for products for the Company's Residential Thermal Solutions, home comfort and security systems segments. CW3 participated in breakout sessions of the January 2019 meeting in Orlando, Florida following the Spin-Off where, among other things, competitive challenges to Resideo's T-Series thermostats, losses of major channel partners, declining security sales and the lack of a pathway forward to introduce new products were discussed. Prior to the Spin-Off, CW3 was a member of the team that ran projections regarding whether Resideo's servers dedicated to the T-Series thermostats could keep up with the increasing demand, and his team projected that the system crash would occur in September 2018 (it wound up occurring in November 2018).

61. CW4 worked as an Internal Auditor for Honeywell and then at Resideo for a total of 21 years until his termination in June of 2019, covering the procedural audits of operational matters for the legacy ADI business. CW4 reported to VP of Global Operations Alicia Copeland, who CW4 believes reported to Rob Aarnes, President of ADI Global Distribution. CW4 attended a "skip-level" meeting held by Defendant Nefkens during the pendency of the Spin-Off wherein Nefkens explained the transition from Honeywell to Resideo and during which it 'appeared,' impliedly came to light, that the thermostat product line had not been performing well sales-wise.

62. CW5 worked as an Inside Sales Representative for ADI selling security, fire

and audio-visual systems to customers when the division was part of Honeywell from August of 2017 until the Spin-Off, and then continued to work at ADI from October 2018 until September 2019.

63. CW6 was a Retail Channel Marketing Leader at Honeywell and then Resideo from October 2017 until January 2019 and reported to the Vice President of Marketing, Jennifer Bonuso.

64. CW7 served as a Senior Inside Sales Representative at ADI from July 2010 to July 2014, and then as a Branch Manager at ADI from 2014 (while it was owned by Honeywell, and then after the Spin-Off when it became a part of Resideo) until October 2019. CW7 reported to ADI Sales Manager Alan Higgins, who was responsible for a region that included Florida and Puerto Rico.

65. CW8 worked for Resideo from November 2018 to June 2019 and reported directly to Resideo's Director of Software Engineering. CW8 spent much of his time working on cloud products Quicksilver and Titan, which served as the cloud software behind Resideo's GRIP product, and attended daily meetings during which he and others voiced concerns with regard to the progression of the GRIP product.

66. CW9 was a Channel Marketing Manager responsible for marketing new products to Resideo's new Honeywell Home products to professional installers and contractors, and held a similar position with Honeywell from December 2014 until the Spin-Off in October 2018. The products that CW9 was mostly responsible for marketing were home comfort and HVAC. CW9 recalled a meeting possibly in December 2018 or January 2019 in which issues surrounding Project STORM were discussed. Among the

members of management who attended were Resideo's CIO, Defendant de Masi, who reported directly to Nefkens.

67. CW10 worked at Honeywell from October 2006 to October 2018 as a Global Purchasing Card Manager and then for Resideo from October 2018 to June 2019 as a Global Program Manager, Project Sourcing. CW10 reported directly to Resideo's Sourcing Director Wayne Holland, who in turn reported directly to Greg Sachs, the Company's Chief Procurement Officer. At Honeywell, CW10 managed the global purchasing card program for Honeywell's \$11 billion Automation and Control Solutions business worldwide. After joining Resideo in the Spin-Off, CW10 managed many of the processes Resideo used to work with vendors, and assisted in developing procedures and processes for disposing of obsolete and excess inventory.

68. CW11 worked as an Inside Sales Representative for ADI from June 2018 (while it was owned by Honeywell, and then after the Spin-Off when it became a part of Resideo) until February 2019. CW11 previously served as a branch manager from July 2017 to June 2018 and as an inside sales representative from May 2016 to July 2017. While at ADI, CW11 was responsible for selling home security system products. CW11 reported to Inside Sales Representative Aaron Garcia.

69. CW12 was employed by ADI, from November 2012 (while it was owned by Honeywell, and then after the Spin-Off when it became a part of Resideo) to August 2019 as an Inside Sales Representative.

70. CW13 also worked at ADI as a Senior Inside Sales Representative from September 2015 (while it was owned by Honeywell, and then after the Spin-Off when it



became a part of Resideo) until February of 2019, and sold lines of security products directly to dealers and informed his direct report, one of ADI's Regional Sales Managers, Jesse Wekheiser, that Resideo was going to start losing customers because of backorder issues.

71. CW14, a former Resideo Insider Sales Representative from October 2018 until July 2019, was responsible for growing and promoting Resideo's full line of security products to customers within his territory. CW14 reported directly to Inside Sales Supervisor April Downs. CW14 attended weekly meetings at which inventory backorders came up fairly often, in addition to sales meetings twice a week where these inventory backorder issues were discussed.

72. CW15 was employed by Resideo from October 2018 to late Spring 2019 as a leader in Vice-President of Engineering Services David Zakrewski's organization and had previously held that position at Honeywell from late Spring 2018 to October 2018. CW15 stated that as leader in Zakrewski's organization, CW15 was a program manager whose responsibilities included working on the development of Resideo mobile applications (or "Apps"). While at Resideo, CW15 reported to a Senior Director who in turn reported to Vice-President of Engineering Services David Zakrewski, who in turn reported to CTO Tu, a direct report to Nefkens. Near the very end of 2018, CW15 was assigned to be part of a team tasked with addressing problems encountered by the TCC App. With respect to the TCC remediation project, CW15 reported his progress to CTO Tu. Among other things, CW15 also attended a two-day meeting in April 2019 relating to Resideo's Project STORM. Also at the meeting were Defendant de Masi, the CIO, whom

CW15 referred to as Defendant Nefkens' "righthand man," CTO Tu, and Scott Harkins, Vice President /General Manager Connected Home, who reported to Defendant de Masi.

## V. SUBSTANTIVE ALLEGATIONS

### A. Background of the Spin-Off

#### 1. Honeywell Seeks to Optimize Its Valuation

73. On March 1, 2016, Honeywell was reeling from its failed attempt to acquire rival United Technologies Corporation ("UTC") in an offer worth \$90.7 billion. Honeywell spent more than a year courting UTC but was ultimately rebuffed by the UTC board out of concerns that the proposed merger would face insurmountable regulatory obstacles. The failed UTC acquisition was the latest saga in a string of merger and acquisition activity led by Honeywell's then-CEO Dave Cote. In the wake of the failed acquisition of UTC, Cote began exploring alternatives to bolster Honeywell's revenue and create cost-cutting opportunities to drive up Honeywell's valuation.

74. To facilitate the implementation of the plan to trim Honeywell's business units and eliminate money-losing assets, Honeywell elevated Cote's hand-picked successor to the newly-created role of President and Chief Operating Officer on April 4, 2016.

75. Beginning in April of 2016, following appointment of the COO, Honeywell engaged in a detailed review of its entire business portfolio for the purpose of identifying strategic transactions to improve Honeywell's balance sheet.

76. As a result of this review, in the following three years, Honeywell spun off: (i) the Resins & Chemicals division into a company named AdvanSix Inc.; (ii) the transportation business into a company named Garrett Motion Inc. ("Garrett"); and (iii) the

distribution and certain of the homes product portfolio into Resideo.

77. Honeywell also took the opportunity presented by the spin-offs to effectively rid itself of billions of dollars of decades-old legacy asbestos liabilities (as in the case of Garrett) and environmental liabilities (as in the case of Resideo) that posed a significant threat to Honeywell's cash position and weighed on the company's valuation. For example, from 2015 to 2017 alone, Honeywell's legacy environmental liabilities were \$259 million, \$221 million and \$200 million, respectively.

2. Resideo's Massive Liabilities Under the Spin-Off Agreements

78. On October 10, 2017, Honeywell announced its intention to spin-off its Homes and Global Distribution portfolio, which Honeywell claimed was a "Leading Provider to Global Home HVAC Controls and Security Markets Plus Leading Global Fire and Security Distributor (ADI)," to create Resideo.

79. On October 2, 2018, Resideo filed an amended registration statement on Form 10 with the SEC with respect to the shares of Resideo common stock to be issued to Honeywell shareholders pursuant to the Spin-Off. An exhibit to the Form 10 entitled "Information Statement" contained background facts of the Spin-Off and touted the benefits of the Spin-Off and Resideo's business units, stating "[w]e are a leading global provider of critical comfort and security solutions primarily in residential environments, with a presence in over 150 million homes globally."

80. Honeywell deliberately structured the Spin-Off of Resideo to meet the requirements for exemption from formal registration and the attendant filing of an S-1 under the Securities Act and instead registered Resideo's common stock under the less-

onerous Section 12(g) of the Exchange Act which only required the filing of a Form 10. Honeywell likewise spun Resideo without conducting an initial public offering.

81. To effectuate the Spin-Off, Honeywell required Resideo to enter into certain agreements. After the Spin-Off was announced in October 2017, Honeywell's management installed Honeywell's then-Assistant General Counsel and Assistant Corporate Secretary Jacqueline Katzel as Resideo's President. Ms. Katzel signed all the separation documents on Resideo's behalf.

82. On October 14, 2018, Honeywell caused Resideo to enter into an Indemnification and Reimbursement Agreement with Honeywell covering legacy environmental liabilities. Among other things, the agreement obligates Resideo to remit cash payments to Honeywell for 90% of amounts billed related to: (i) environmental claims; (ii) environmental remediation; (iii) hazardous exposure; and (iv) toxic tort claims. The agreement caps the amount payable to Honeywell at \$140 million per year and continues until the earlier of 2043, or if the amount payable falls below \$25 million per year for three consecutive years. Obviously, this agreement had no benefit for Resideo and Defendant Nefkens conceded on a June 6, 2019 investor call that the indemnification agreement "was really just a mechanism to take more like a dividend out from the stem and to enhance the return from the spin for Honeywell."

83. Honeywell also caused Resideo to enter into a Trademark License Agreement on October 19, 2018. Pursuant to the terms of the Trademark Agreement, Resideo is forced to pay a royalty of 1.5% of the net sales of Honeywell Home products to Honeywell. In 2019 alone, Resideo paid Honeywell \$27 million in licensing fees. The

term of the trademark agreement is 40 years.

84. Finally, Honeywell caused Resideo to pay to Honeywell a \$1.2 billion dividend payment in connection with the Spin-Off. To fund the massive dividend payment to Honeywell, Resideo assumed \$400 million in 6.125% senior unsecured notes and entered into an \$800 million term loan. As with the common stock, Resideo avoided registering the notes under the Securities Act by conducting a private placement that sold the high-interest bonds to only qualified institutional buyers pursuant to Rule 144A of the Securities Act of 1933 and/or to offshore purchasers.

85. Given the obligations under the indemnification and trademark agreements and the newly-undertaken debt, it was crucial for Resideo investors that the Company be a cohesive and efficiently run business having an “enviable market position,” with a likely potential to yield strong segment profits and a significant capacity for innovation.

3. Resideo’s Post-Spin Composition

86. Following the Spin-Off, Resideo became comprised of two business units: (1) Products & Solutions (home comfort and security solutions); and (2) ADI (wholesale distribution of security and fire protection products).

87. The Products & Solutions area of the Company is divided between Comfort & Care and Security & Safety. The Comfort & Care business is comprised of home products, services and technologies, including Temperature and Humidity Control Solutions; Thermal Solutions; Water Solutions; Air Solutions; and Remote Patient Monitoring Software Solutions (telehealth); and Software Solutions.

88. The Security & Safety business includes professionally installed and

monitored intrusion and life safety detection and alarm systems, as well as self-installed and self-monitored awareness solutions, including Security Panels; Sensors; Peripherals; Wires and Cables; Software Solutions; Communication Devices; Video Cameras; Awareness Solutions; Cloud Infrastructure; and Installation and Maintenance Tools.

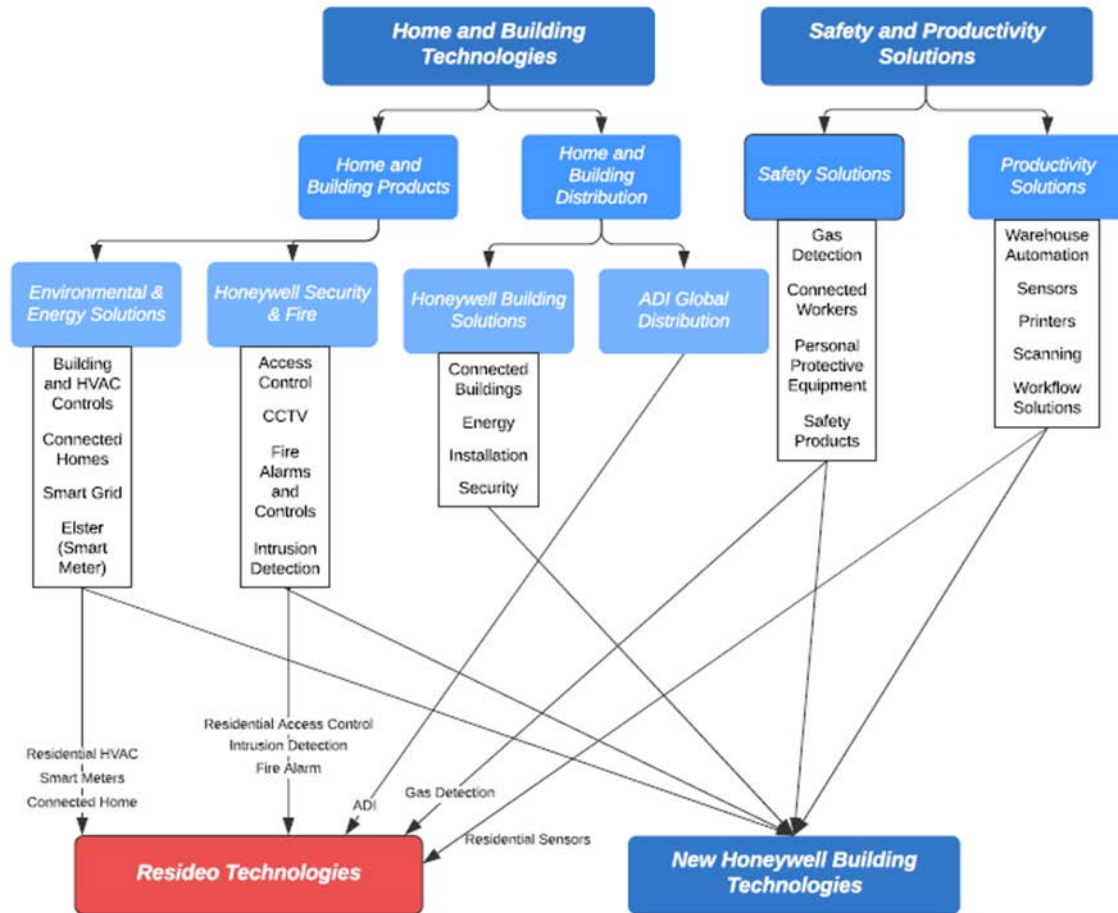
89. ADI distributes third-party products including security products (video surveillance, intrusion systems, and access controls); fire and safety products; and wire, networking and professional audio-visual systems in addition to Resideo's own line of security products.

**B. Resideo Immediately Faces Undisclosed Companywide Problems Following the Spin-Off**

90. Unfortunately for Honeywell investors who received Resideo shares in the Spin-Off and, for purposes of this Action, investors who purchased shares in the secondary market beginning on October 29, 2018, the Company faced immediate, fundamental and companywide problems that affected nearly every aspect of its operations and products, and rendered any earnings guidance baseless and unreasonable under the circumstances.

1. Resideo's Creation from Unrelated Business Units Causes Governance, Manufacturing and Product Problems

91. Significantly, Resideo was never a pre-existing standalone business within Honeywell. Rather, the Company was constructed with product lines from various Honeywell divisions, later revealed to have been underperforming, that did not otherwise have historic-separate P&Ls as standalone businesses or independent governance and operational structures, but rather was an amalgamation of individual products from different Honeywell units:



92. Critically, Honeywell did not even spin off the entirety of each business unit to Resideo. Rather, Honeywell retained five operating units – (1) Environmental & Energy Solutions; (2) Honeywell Security & Fire; (3) Honeywell Building Solutions; (4) Safety Solutions; and (5) Productivity Solutions. Each of these business units continues to operate and report as part of Honeywell Building Technologies and Safety and Productivity Solutions and, in many cases, competes with Resideo’s products.

93. As later revealed to investors, creating Resideo from an amalgamation of Honeywell businesses caused the Company myriad problems and impacted earnings.

94. Indeed, just weeks after arriving, Resideo’s new CFO Robert Ryder – who

had replaced Defendant Ragan – uncovered the truth concerning the Spin-Off and Resideo’s business units and immediately cut Resideo’s guidance. As he later remarked during Resideo’s presentation at the 2019 Imperial Capital Security Investor Conference held December 11, 2019: “I’m new here, just started about a month ago. My first official act was to bring down full year guidance by like 35%, so welcome to the NFL moment.”

95. Also during the presentation, Mr. Ryder revealed that Resideo’s problems existed *prior to its inception*, including the very process and structure of the Spin-Off itself. Among other things, Mr. Ryder revealed that, contrary to Honeywell’s and Resideo’s statements before and during the Class Period about the integration of the business lines and strong management structure, in reality the Products & Solutions business was “thrown together” by Honeywell as a hodgepodge of random parts, thereby causing fissures in the segment and systemic governance problems:

A big thing was a lack of pre-existing standalone business . . . [e]ssentially, the whole Products & Solutions business was various businesses within divisions of Honeywell. And they kind of picked individual pieces up and kind of threw them together and called that Products & Solutions which we’ll talk about. And that kind of had some governance ramifications.

96. Mr. Ryder also acknowledged severe fundamental problems with the Company’s products, manufacturing and distribution:

We probably have too many [products], we might be in too many places. Maybe our manufacturing facilities aren’t in the right places with the right freight lanes. Maybe capacity utilization isn’t where we would want to be.

97. Mr. Ryder also outlined further structural problems at the Company and changes that are needed to solve the problems inherited from Honeywell:



We're going to make some pretty sizeable reductions in [selling, general and administrative expenses] to right-size the business for what we think new sales will be when we eliminate some of the [products] and maybe look at some of the geographies and make sure we have the right [selling, general and administrative expenses], because all this stuff came over from Honeywell, and was probably structured for a much bigger, more complex business. Which we no longer have. There is a lot of governance with a clear escalation path.

98. Mr. Ryder's revelations exposed a reality at Resideo that is almost exactly the opposite of what Defendants said about the Company before and during the Class Period. Mr. Ryder's statements make it clear that – far from the positive characterizations and projections for the newly spun-off Company – Defendants omitted that the processes for the Spin-Off and projections were flawed from the beginning. Honeywell took a mishmash of products from various business units, many with outdated consumer market offerings, that did not otherwise have historic-separate P&Ls as stand-alone businesses or independent governance and operational structures and just assigned numbers to them without regard to how they would be integrated to operate as a stand-alone Company.

2. Honeywell Retains Resideo's Value Engineers Causing Systemic Supply Chain Issues

99. According to Defendant Nefkens, value engineers are critical to businesses like Resideo because “product costs like components, raw materials and packaging will need to be optimized every year to keep gross margin strong.” Unfortunately, to squeeze residual value from Resideo, prior to the Spin-Off Honeywell stripped each of Resideo's product lines of their critical value engineering personnel and kept them, leaving Resideo with *no value engineers* at the Company's inception. Accordingly, Resideo lacked value

engineers with specialized knowledge of individual product line supply chains, and who Nefkens ultimately conceded were indispensable to optimizing the manufacturing supply chain by, among other things, negotiating with product suppliers, identifying cost overruns, and devising product substitutions.

100. As Resideo's management later revealed at the end of the Class Period, in the course of re-packaging the individual product lines that would be given to Resideo in the Spin-Off transaction, Honeywell had elected to retain its value engineering teams for each of those product lines. As a result, following the Spin-Off, Resideo was unable to effectively control the cost of raw materials – including packaging and electrical components – significantly driving up costs.

101. Thus, from the start, the Company was destined to have long-term supply chain issues. According to CW3, Resideo's costs increased because the Company began its post-spin era without any value engineers because Honeywell had kept them all. CW3 further stated that it would take approximately *a year-and-a-half* to develop new value engineers as they built Company-specific knowledge. Nefkens' statements on this issue at the end of the Class Period were consistent, saying that it would “take 12 to 24 months [] before we start to see the benefit of that.”

102. Moreover, also prior to the Spin-Off, the supply chain operations of numerous Honeywell product lines that were given to Resideo – including thermostats, security sensors, intrusion panels, doorbells and other HVAC products – were in total disarray and were experiencing significant delivery delays, which culminated in the loss of customers to competitors.

103. The Spin-Off of these product lines created additional operating and supply chain inefficiencies due to the split of manufacturing facilities between Honeywell and Resideo and because Resideo was initially unable to secure the raw materials required to continue manufacturing products following its separation from Honeywell. These operational supply chain problems, which affected virtually every aspect of Resideo's business, were very real impediments to reporting financial results in line with guidance.

104. Several former employees of ADI – CW5, CW7, CW11, CW12 and CW13 – separately discussed the supply chain issues that Honeywell's security products faced with most confirming that they had pre-existed the Spin-Off, most that they included backorder and inventory problems, and that these issues continued or intensified following the Spin-Off.

105. CW5 asserted that Honeywell always had supply chain issues with their security products and accessories, and that these issues continued after the Spin-Off. He commented “[g]etting inventory in was always a huge issue.”

106. According to CW7, “Honeywell Security Systems had problems with availability even before the Spin-Off ever happened.” He added “that division just had issues.” CW7 said that the problems still existed after the Spin-Off, without change, saying that “You can't switch manufacturing processes that quick.”

107. CW11 stated that there were problems getting certain Honeywell products, particularly contacts and PIR Motion Detectors. According to CW11, “They would be on backorder for weeks on end.” He stated that this was a long-standing issue that became particularly acute toward the end of his tenure in 2019.

108. CW12 explained that part of the reason why the supply chain and inventory issues got worse was because Honeywell had better management, and Resideo brought in new management, post-spin off, that did not run supply chain/inventory as well. CW12 similarly stated that after the Spin-Off, Resideo hired managers from failing or failed companies – including Payless, Circuit City and Radio Shack, and that none of these managers had experience with Honeywell’s product lines. CW12 also believes that Resideo’s shipping costs had greatly increased based on CW12’s observation of an increase in shipping in and out of CW12’s location. CW12 noticed increased shipping charges per item and per order, and believed this was related to the increased shipping in and out of CW12’s location post Spin-Off.

109. CW13 reported that before the Spin-Off, Honeywell had a track history of supply chain issues with items – sometimes with panels, sometimes, with doorbells, and other times with radios. After the Spin-Off, the supply chain issues intensified, including “serious backorder issues” and that “dealers were complaining that we did not have the stock available and the parts that they needed.”

110. When CW13 reported these issues to CW13’s superior, a Regional Sales Manager, saying that Resideo would start to lose customers by reason of these delays, including dealer customers who were complaining of not being able to get parts and who were therefore going to other lines, the latter replied that while Resideo had some of the relevant parts in stock, they were holding on to them for what was referred to as key accounts and that “they were holding onto some inventory to quiet down the squeaky wheels.” According to CW13, the dealers he spoke with told him that if Resideo could not

provide these parts, they were not going to be able to use Honeywell security solutions.

111. Similarly, other former employees of Resideo – CW1, CW2, CW6 and CW14 – described similar supply chain problems with respect to the same and other Products & Solutions products, as alleged below.

112. CW14 stated that after the Spin-Off, Resideo began experiencing severe inventory shortages and that Resideo was forced to order significant accessory inventory from Honeywell which led to backorders, commenting “there were backorders on inventory that we didn’t get and that Honeywell took” and that there was “massive confusion.”

113. CW14 further said that Resideo had a “very hard time stocking certain items.” CW14 noted that while some loyal Honeywell customers remained with Resideo despite the backorder problems, others left for the competition, such as DSC, Interlogix Global Security Products, and Alarm.com. CW14 stated that the inventory backorder issues came up fairly often during the weekly meetings. Management at these meetings, typically including Vice Presidents of Resideo, only stated that certain items were backordered but that management was unable to state when they would be available or to provide updates.

114. CW1 stated that after the Spin-Off, Honeywell kept the commercial part of that business, with Resideo taking the residential segment. CW1 stated that one month before the Spin-Off, in September 2018, Honeywell began to experience supply chain issues with the residential HVAC segment. CW1 noted that these issues continued after the Spin-Off and grew progressively worse. CW1 spoke with upset customers throughout

CW1's time at Resideo because of consistent "backorders for months" related to supply chain issues.

115. CW6 stated that there had been supply chain issues at Honeywell before the Spin-Off, which continued thereafter. CW6 said that the supply chain issues were the result of "constraints by Honeywell" as to certain products, including thermostats, which were constrained for *at least six months*, and humidifiers and air filters.

116. Relatedly, CW2, explained that "supply chain issues were relevant" in Resideo's global RTS business going back until at least as early as Autumn 2017, when the RTS business was still a part of Honeywell. CW2 attributed the supply chain issues in part to delays in getting microprocessors from manufacturers in Asia beginning in the Fall of 2017, and that it continued to impact Resideo's RTS "bottom line" in Europe, Middle East & Asia markets throughout 2018 and had a "huge impact on margins" in those residential markets resulting in "super negative results." With respect to Resideo's EMEA residential business, including for electronic controls and connected solutions, CW2 explained that this was driven by the steep increase that Resideo's RTS business in EMEA had to pay for microprocessors, which normally cost between 80 cents to \$2.50 each, but jumped to \$9.00 to \$15.00 per unit during the "crisis." When asked if Resideo's C-suite executives were aware of the impact that delays in microprocessors had on sales, CW2 responded that it "should have been visible upfront."

### 3. Resideo Loses Its Sourcing Leverage

117. As one of the world's largest industrial conglomerates, Honeywell has significant sourcing leverage (or the ability to negotiate favorable terms based on large

order volumes) over a diverse array of raw materials used in the manufacture of industrial and household goods, in addition to significant bargaining power to negotiate favorable terms of financial agreements.

118. Resideo lost the sourcing leverage many of its products enjoyed as part of Honeywell in the months preceding the Spin-Off as Resideo was required to enter into new contracts. CW10 explained that Resideo had to negotiate new contracts on less favorable terms for “a lot of electronics – thousands of parts and supplies that went into product lines for Resideo.” CW10 further stated that Resideo’s supplier base for parts was inherently smaller than Honeywell’s, and that it was “pretty obvious” to Resideo’s management that the Company lacked Honeywell’s sourcing leverage and would not be able to secure contracts on the same favorable terms that Honeywell received.

119. In sum, diminished sourcing leverage was an actual, not hypothetical issue and it materially adversely impacted upon margin and EBITDA issues, which was obvious from the start. This problem did not become a surprise for Defendants at the end of the Class Period.

#### 4. Resideo’s TCC Application Faces Chronic Failures

120. Resideo’s TCC App allows users to control older models of most of Resideo’s T-Series smart thermostats via smartphones and other WiFi-enabled devices remotely. It was designed to control 30-40 different types of “connected” thermostats (i.e. controlled by an internet app), including all T-Series thermostats except the T9 and T10 series, which was controlled by a Honeywell Home app that was considered an upgrade. According to CW3, around 85% of all of Resideo’s connected thermostats were controlled

through the TCC App.

121. Prior to the Spin-Off, CW3 was a member of a team that ran projections regarding whether Resideo's servers dedicated to the T-Series thermostats could keep up with the increasing demand upon them as additional connected thermostats were sold, and his team projected that the system crash would occur in September 2018 and alerted CTO Tu (it wound up occurring in November 2018)

122. According to CW15, the TCC App had a threshold of around 3 million users. As early as the summer of 2018, warnings had been sent up the chain of command that this threshold was being approached and that when it was passed, the App would crash and service outages would occur. That is, while the customers could still manually control their thermostats from home, they would not be able to do so remotely through the App during the outages.

123. CW15 recalled hearing internally, during the crashes and outages, that Resideo's customer care team was handling customer complaints due to the problems they had encountered with their ability to operate their thermostats remotely from the TCC App. According to CW15, customers also complained that sometimes the App was not even available. CW15 estimated that the customer care team handled around 100 such customer complaints per hour during the stage of around one outage per week, at 3 to 4 hours per occurrence.

124. Internal Resideo documents demonstrate that TCC outages were long-known within the Company and discussed extensively at meetings throughout the end of 2018 and through 2019. For instance, an attachment to an email to CW15 dated January 8, 2019,



was a request for one of one of the many suggested fixes for the problem considered during the Class Period, a request ultimately sent to CTO Tu. The request stated as the “Justification for the change,” that the “Performance and Reliability” issues pertaining to the TCC App had “*resulted in direct impact to the customers of the company*” meaning that whenever there was an outage, TCC customers could not control their thermostats from the App.

125. An internal PowerPoint presentation that was prepared stated that just in the month of January 2019, “The TCC/LCC Outages occurred on the 8th, 9th, 11th, 21st, 22nd, 25th, 28th, 29th and 31st.” Resideo continued to sell thermostats controlled by the TCC App throughout the time it was aware of these severe problems, notwithstanding the severe outages to which they were subject.

126. In two emails sent on January 23, 2019, Resideo sales and marketing employees, Mandy Hopmann, Senior Product Marketing Manager, and Mike J. Bauman, a Product Specialist, provided an “Example experience from a frustrated contractor below,” relating to a contractor who “installs \$1M / year in Honeywell thermostats.” Bauman said that the contractor focused on slow registration issues, but also discussed the other problems afflicting the TCC App product. According to Bauman, “[i]n general he says using TCC has been a bad experience. Slow registration has been a normal experience for him. He is also upset by the shortcomings of TCC and says that our competitors are passing us by.” He also said “the TCC issues are making it difficult for him to continue to use our thermostats.” Bauman said, also in frustration, “I basically didn’t know what to say in response. What can we tell custome[rs] having these type of ongoing issues to ensure them

that the experience will continue to improve going forward”?

127. In December 2018, CW15 was advised that he had been assigned to a team of 15-20 people to work on solving the outage problem. He stated that Tu instructed the team to not discuss the TCC App problem outside of the group that already had knowledge of it and was working on it. He further noted that Nefkens, Tu and Vice President/General Manager Connected Home Scott Harkins were the executives deciding what would or would not be mentioned to the public about the TCC outages.

128. CW15 recalled participating in “hundreds of meetings” on the TCC problems from December 31, 2018 until the end of his tenure, in June 2019, including in India with some of the Resideo’s engineers living and working there. According to CW15, CTO Tu provided no recommendations as to how to get the job done, but merely instructed the engineers to fix the problem. However, despite that directive, Tu would not authorize implementation of important recommendations made by CW15 and his team to hasten the alleviation of the TCC outage issues. CW15 further explained that Tu would not allow any material changes to be made until the team had a full picture of the issues and the root problem was discovered, even though recommendations were made by CW15’s team on ways to at least alleviate the issues until it could be fully resolved. He added that Tu only allowed smaller changes to be implemented to somewhat lessen the problem.

129. One of the plans considered by Resideo’s software engineering department in late 2018 and early 2019 was to converge the TCC App into the Honeywell Home App (“HH”), which employed more modern technology. This convergence was originally planned for 2019. However, it got pushed out to 2020. CW15 added that it became

apparent by January or February 2019 that the TCC/HH convergence was not going to happen until 2020. CW15 identified Head of Product/Global Connected Home Nate Kraft and Vice President/General Manager, Connected Home Harkins as knowing that the TCC/HH convergence was being pushed out from 2019 to 2020, as early as January/February 2019, and CW15 strongly believes that they made senior leadership aware. CW15 identified “senior leadership” as CTO Tu, Resideo’s CIO Defendant de Masi and CEO Nefkens. CW15 added that the TCC/HH convergence was not complete by the end of his tenure, in June 2019, and that he is unaware if it was ever completed.

130. On May 20, 2019, CW15, as one of a number of recipients, received an email from Klaus Hofrichter, the new Vice President Engineering – Software, who had joined the team in February 2019, stating that “At this time I have little hope to rescue or patch the existing TCC – it’s just too complicated.”

131. CW15, again as one of a number of recipients, received another email the next day, May 21, 2019, from DevOps Manager Cristian Sturek, who reported to Vic Cutrone, the Global CoE (Centers of Excellence) Leader of the Connected Technologies Group. Sturek summarized the TCC outage problem, and the fact that Resideo continued to sell TCC App thermostats without regard to the fact that the problems remained unresolved. According to Sturek:

*TCC load increases approx. 1000 devices / day and this means approx. 1000 users / day are getting added new to the system. But LITTLE or NO focus given to Size or Scale infra to meet the increasing growth/demands.*

CW15 fully agreed that that was exactly what the situation was.

132. In another email on the same date, also to a number of individuals including CW15, but addressed to someone else, Sturek stated that:

*I stand by what I said, we DO NOT know the entire system, no way, no how! We guess, and sometimes we guess right. I know you believe the implementation of TCC is great. I disagree 100%. You mentioned the architect who worked on it; when said architect, who worked on the system, doesn't know all the ins and outs, it's because of a terrible implementation...*

133. CW15 confirmed that others within the engineering groups at Resideo shared Sturek's opinion about TCC and its "terrible implementation." CW15 then explained that the original team of software engineers and support staff that developed and maintained TCC for 7 years were located in Brno, Czech Republic, and were let go in Spring or Summer 2018 around the time CW15 joined Resideo. CW15 further explained that a team in India then took over those responsibilities for TCC, but this team had little-to-no experience with the system. CW15 added that this decision, to eliminate the team that created implemented and maintained the system, "absolutely" led to delays in fixing TCC. CW15 had no knowledge as to why the original team in Brno was let go.

5. Resideo's Late Delivery of GRIP and Resulting Contractual Penalties

134. One of Resideo's "pioneer" products in the Company's Security & Safety division was the heavily-touted "Global Residential Intrusion Platform," or GRIP, which was a physical control panel designed to be placed in customer homes and was initially developed for one of Resideo's largest OEM customers, ADT. GRIP was designed to integrate a variety of security systems and other sensors, with self-contained wireless panels and encrypted panels.

135. There were two versions of GRIP. One was GRIP for ADT, which CW8 said had a different back end and was designed for use with the ADT monitoring system. The other one, for the direct consumer market, to be sold at retail outlets like Best Buy, was designed to and connected products by means of cloud software internally termed Quicksilver and Titan.

136. According to CW3, Resideo had contractual obligations that ADT receive its version first. Another reason why the consumer version was developed second was that it was intended that it would include modifications from the ADT version. Different engineering teams worked on each of these product developments, without interaction.

137. Resideo's GRIP project for ADT was subject to extensive delays that caused friction in the Company's relationship with ADT – one of the Company's single-largest customers – and the development of the consumer version was poorly managed, leading to extensive delays as well.

138. Indeed, CW3 recalled Resideo's GRIP platform as an example of problems in the security side of Resideo's business. According to CW3, the GRIP panel, which was being developed for ADT pursuant to a contract that was valued at approximately one billion dollars, was supposed to be ready for rollout in February 2019, but wound up being delayed until May 2019 and then even longer.

139. CW3 stated that by February 2019, Resideo had only sent to ADT the GRIP product for beta testing. CW3 further stated that ADT employees did not start beta testing on the product until February or March. He added that it is possible that Resideo may have shipped out to ADT in that time frame a product that was modified to perhaps 20% or so

of the contractual minimal product requirements, just to say that is had shipped something out, but in either event, Resideo was subject to contractual penalties for missed milestones such as delivery dates and delays in production.

140. CW3 did not recall while he was at Resideo that it was released to ADT customers by the time his tenure ended (by March 2019) because GRIP was behind in schedule, it was not ready to be produced in large numbers, and Resideo was nowhere near close to ramping up production for many GRIPs even if the product was fully ready and passed beta testing. He added that while a limited rollout to ADT was possible as of May 2019, Resideo was in not in a place to ramp up production of GRIP in any way by that time.

141. CW3 further explained that the delayed rollout of GRIP hurt Resideo's relationship with ADT because ADT had already spent money to market the GRIP platform to customers of its own. According to CW3 the delay in delivering GRIP to ADT cost Resideo millions of dollars in revenue, and that it would probably continue to cost the Company money in the future due to the Company's inability to meet ADT's contract demands. It also suffered contractual penalties by reason of these delays, also in the millions of dollars. CW3 was aware of and had seen the ADT contract, by reason of his responsibilities, which included managing the financials and programs of all software aspects of all categories of the Company's products.

142. CW8 discussed working on projects that went by the internal names of Quicksilver and Titan, both of which referred to the cloud portion of GRIP product for direct consumers. This GRIP product was intended to be a physical panel that would be

placed inside a consumer's house. Titan would be the cloud, which would have an app/web page. "Titan is kind of like the plumbing," according to CW8. CW8 said that the purpose of Project Titan was to combine into one cloud a group of connected devices, such as original thermostats and ADT-manufactured panels, that had all operated separately.

143. Starting in January 2019, CW8 was tasked with "get[ting] GRIP over the finish line." However, he said that it was "the worst-run project" he had ever worked on during his entire engineering career. He stated that "[the project] was so poorly scoped. I've never been on a project that poorly run." He advised his direct supervisor, Brian Beale, Resideo's Director of Software Engineering, "Dude, this [GRIP project] is not close to done." CW8 believes that Beale would have communicated this information to his superior, Laurent Legris, Vice President of Engineering, Security. CW8's views about how poorly run the Project GRIP development project was did not change by the time he left Resideo in June 2019.

144. Specifically, CW8 said that that there were no milestones set for developers working on different aspects of GRIP to meet and also that there were no specifications on what GRIP, as a whole, was supposed to be. He described the lack of project specifications as the main problem. According to CW8, because of these two issues, it was impossible to know when GRIP or any component of it would be completed. CW8 recounted how he kept asking in the daily GRIP meetings, "how do we know when we're done; how do I know that my component is doing what it's supposed to" when he was not given any milestone, or end result, for his component of GRIP that he worked on. CW8 further noted that the specifications for GRIP were fluid and kept changing, so that it was impossible to

know when any of it would be completed.

145. CW8 also recalled that the GRIP device was “not even able to upgrade” by February 2019 because the software it was using at that time was not upgradeable. He recalled that by February 2019, GRIP was only able to send some alarms and communicate with the server. CW8 added that teams working on GRIP were not cooperating with each other, and that there was “no system-level decision making,” so decisions fell through the cracks. CW8 described it as the most unsupportive environment that he ever worked in.

146. CW8 further stated that Resideo senior executives likely knew ahead of time if GRIP was not going to ship on time because team members were working on GRIP 12 hours a day, and there were daily meetings held about the project, during which he and others voiced the problems that it was facing. CW8 further advised that the leaders of these daily meetings were Eric Oh and Legris, and that Legris, in turn, reported to CTO Edgar Tu. CW8 said that Legris was “very aware” of the delayed state of the GRIP project. CW8 added that “everybody knew” GRIP development was not going well because the issues with the project were discussed in the daily meetings.

#### 6. Resideo Lacked the Technology for Project STORM

147. Another project that was touted to investors beginning in early 2019 was the impending launch of a “pioneering platform with recurring services that [would] integrate all dimensions of home wellness.” Internally, Resideo referred to this platform as “Project STORM.” As CW3 recalled, by the time he left Resideo in March 2019, Project STORM, which he referred to as Nefkens’ “*fake project*,” was not close to having any of the technology needed for it to be completed. CW3 recalled a discussion involving CTO Edgar



Tu and Scott Harkins, Vice President and General Manager of Connected in January or February 2019, in which the managers working on the project informed them that it would not be ready for another 2 or 3 years. CW 3 continued that various managers, including CW3, explained to Tu and Harkins that all elements of STORM – including the plastics that housed everything, and the hardware (which CW3 referred to as the “guts”) and software involved – were a few years from being developed. CW3 believes that Tu communicated this information to Nefkens, saying that Tu would have informed CEO Nefkens about the pushback on the STORM timeline from the Vice Presidents/General Managers.

148. CW3 recalls as well a subsequent meeting that had been held in Austin, Texas (after, though approximately within the same time frame as, the January/February meeting where Tu had been told the time frame could not be met) where Nefkens was present. CW3 recalled that this meeting was at the opening of the new Austin, Texas office, and there was a presentation. According to CW3, the presentations included slides covering the “next generation platform,” which CW3 identified as referring to STORM. CW3 recalled that when the presentation got to the slide that showed a delivery date of May 2019, Nefkens stated something similar to, “This is what I’m promising the market, so we need to make it happen.”

149. CW9 also recalled a meeting similar to that described by CW3, possibly in December 2018 or January 2019 where the issues surrounding STORM were discussed. Attending the meeting were Harkins, Resideo’s CIO Defendant de Masi, as well as A.J. Smith, Vice President, Home Comfort; Nate Craft, Head of Product, Global Connected

Home; and David Quam, Global Director, Connected Services. In the meeting, it was apparent, by inference from the statements made to the members of management present, that Resideo did not as yet have the hardware to make the Project STORM product work and that the engineers present at the meeting advised that it would not be available for as many as five years because the hardware had not yet been developed to make it work. CW9 stated that it was CW9's view that the roll out date of Project STORM by 2019 was picked arbitrarily without consideration as to whether it feasibly would be ready by then, and that this was a common problem with Resideo management. They would pick a rollout date without any involvement or input from those involved with the project. CW9 added that management's response was usually "just make it happen."

150. CW15 advised that he did not have a role in Project STORM, but that he attended an April 15, 2019 meeting in Minneapolis, Minnesota in place of a Resideo Project Manager from India who was unable to attend. CW15 recalled that also attending the meeting were Tu, Harkins and Defendant de Masi. CW15 further recalled that it was stated to everyone present at the meeting that a public announcement would be made in summer 2019 that STORM would be rolled out in December 2019. CW15 further recalled that the "majority of participants," who he identified as the Vice Presidents and General Managers, were "all skeptical" and expressed their concerns to Defendant de Masi, Harkins and Tu that the December 2019 deadline could not be met. The reasons they stated were that the connected home and security sides would not be ready, that manufacturing of the hardware was behind and not even close to being ready, and that a vision of the final product was lacking. CW15 added that there was "a lot of resistance to that time frame,"

regarding the December 2019 deadline. CW15 further recalled that some Vice Presidents/General Managers informed Defendant de Masi, Harkins and Tu that they would need at least another year, and possibly more to complete STORM. The reason given were that the manufacturing capabilities for STORM was “not feasible” by December 2019 because the needed software was not developed.

7. Resideo was Late to the Market with “Flycatcher”

151. Resideo’s “Flycatcher” is a prominent example of Resideo’s lagging technical innovation and subpar products. CW3 stated that Flycatcher was the new connected thermostats (T9 and T10) that allowed customers to control multiple home thermostats remotely, but that the product was 18 months late to the market because Resideo did not have the technical talent – including software developers and product engineers – to produce it in time. CW3 attributed Resideo’s lack of technical talent to Honeywell’s decision to retain the best talent for themselves.

152. CW3 explained that Flycatcher was supposed to be released in the middle of 2018, and wound up being released in 2019, approximately 6 months after Ecobee’s equivalent product was released. CW3 advised that he knew of the planned release and the delay, and recalled a presentation on why the T9 and T10 were delayed that was given by somebody to either Defendant de Masi or CEO Nefkens, and the former, that if Defendant de Masi would have reported it to Nefkens.

153. When asked about representations made by Defendants during the Class Period, as alleged *infra*, that at a certain time the Flycatcher products had surpassed Ecobee in “market growth rate,” CW3 responded he would like to see the source data on those

numbers because, based on his understanding of the connected market competitors, including Ecobee and Nest, both had better products and capability to bring them to market. CW3 believes that Resideo came across something when doing some research, showing that they were number 2 in something, and chose to present it as having more significance than it should.

154. Similarly, CW3 disputed the accuracy of Defendant CFO Ragan's statement during the Class Period, as alleged infra, that "The T9, T10 functionality is actually the best in the market. It's really about sensors and range. So our range is 3 to 4x what our competitors are." CW3 noted that the touting of the range 3 – 4 times greater than the competition does not make any sense. CW3 explained that even Resideo's T9 thermostat uses the same technology as other connected thermostats including the competitions' products, and that they all use Zigbee and Zwave as wireless protocols. CW3 added that "nobody can claim" to have the better range.

155. Moreover, CW3 noted a lack of technical talent at Resideo because Honeywell held onto the best talent for itself when it spun-off Resideo.

8. Resideo's T-Series Thermostats and Security Products Suffered from Aging Technology, Leading to a Directive From Senior Management to Only Use WhatsApp When Discussing These Problems

156. CW3 further explained that Resideo's entire thermostat line, which was composed almost entirely of T-Series, were already considered aging technologies when Resideo was still part of Honeywell. Moreover, according to CW3, Resideo's purported dominance in the non-connected market will continue to become less relevant as it is a

shrinking market as customers continue moving to connected thermostats.

157. CW3 also noted that both prior to and following the Spin-Off, Resideo was always late to the market with new technology, and that competitors had surpassed them by the time of the Spin-Off, if not before.

158. CW3 further confirmed that Resideo's T-Series line of thermostats, which was heavily promoted by the Company, were already outdated by 2019, and that Resideo's competition – including Nest smart thermostats – had beaten Resideo to the market.

159. CW3 also added that while Honeywell, and thereafter Resideo, already had at least 50% of the market in non-connected thermostats, the new and future profits to be made is in the newer connected thermostats, as the connected thermostat market will only be growing since its more modern technology continued to be deployed as new homes are continuously built. CW3 also made the point that as a consequence, the non-connected thermostat market will be shrinking, so Resideo and Honeywell's market dominance with non-connected thermostats will continue to become less relevant.

160. Similarly, Resideo's line of security products inherited from Honeywell was dated compared to the products sold by their competitors Nest and Alarm.com.

161. According to CW3, Resideo had no path forward to compete with Nest, Alarm.net or the other connected security providers. CW3 said that Resideo's pricing was too high, and it did not have enough talented engineers to produce new products before their competitors' products hit the market. CW3 added that Honeywell kept the best engineers during the spinoff. As to the Flycatcher product, Resideo was late to the market such that competitors such as Nest had already surpassed Resideo's technology and

captured that market.

162. Consistent with these first hand observations, CW3 also recalled a breakout meeting at Resideo's annual meeting in Orlando, Florida around January 2019, where challenges presented by Resideo's competition to the T-series thermostats were discussed, as were the loss of major channel partners, loss of security partners, the challenges of Resideo's "Cloud," and customer churn on the security side of the business. CW3 added that at that same meeting there was extensive discussions of Resideo losing its channel partners who sell and install both thermostats and security systems.

163. CW3 further stated that engineering personnel advised that the company did not have any products ready to sell and did not have a pathway forward to produce more products. CW3 added that Project STORM was also discussed at this meeting, with specific reference to the fact that it was impossible to meet the May/June 2019 target in its current state. CW3 also confirmed, with TCC outages still ongoing, there were specific discussions about the social media outcry from several outspoken users.

164. According to CW3, one of the lost channel partners discussed was Resideo's second largest up to that time, Ackerman Security, an Atlanta, Georgia based company. CW3 added that there were other channel partners that were lost throughout 2018. CW3 stated that Resideo lost Ackerman to a competitor(s) due to better cost and quality (or at least no worse than Resideo's quality) on the part of the competitor.

165. When asked for examples on Resideo's lesser technological quality, CW3 responded that the Company did not have any full touch screen products yet at that time, while their main competitors did. He added that Alarm.com had more modern and cheaper

products, and that other competitors were also “eating into” Resideo’s security business. CW3 stated that what also negatively impacted Resideo’s position against its competition was that the Company, on the security side, had no new products coming up so it had no way to expand into a new space in a short period of time.

166. CW3 also revealed that at the end of this meeting, Harkins ordered that *to ensure this negative product news*, including all negative information about STORM and TCC, *was not leaked outside Resideo, that all communications would be on WhatsApp.com*, not the Company email system. The reason that CW3 and other managers were given was that *the information was “potentially damaging,” and emails are “easily discoverable.”*

167. Providing further confirmation of Resideo’s product woes were revelations made at a meeting that Nefkens attended. CW4 stated that during the pendency of the Spin-Off, he attended a “skip-level” meeting led by Nefkens. A skip-level meeting is one in which a senior officer meets with lower-level employees, not inviting the next level or levels of senior management so that attendees can speak freely. The purpose of this particular meeting was for Nefkens to explain how the transition from Honeywell to Resideo was “going to happen.”

168. At the skip-level meeting, it had apparently come out that the thermostat product line had not been performing well sales-wise. CW4 next stated that Nefkens conveyed to the attendees that his feeling at the time was that if Resideo was not first or second best in a certain market, that the Company should get out of it.

169. As alleged in more detail *infra*, Resideo confirmed these previously

undisclosed observations concerning a lack of engineering talent during the Class Period to enable Resideo to compete effectively with respect to its existing and developing products.

170. Also consistent with these discussions, CW11 said that with respect to the Honeywell products (which Resideo inherited) that he sold, they could not compete with competitors such as Nest or Alarm.com as they were relatively dated as compared with the products sold by those companies.

9. Resideo's Problems Precluded it Meeting Earnings Projections

171. By virtue of the foregoing companywide problems, Resideo had virtually no capability to meet its earnings guidance and management lacked a reasonable basis to issue and reaffirm earnings guidance during the Class Period.

172. Indeed, virtually all of the foregoing problems adversely impacted the costs, margins or demand for Resideo's products. These included but were not limited to (1) the lack of value engineers, which increased costs and caused supply chain issues, (2) the significant decline in sourcing leverage after the Spin-Off, (3) significant consumer "rebates" on an OEM contract entered into in 2017, (4) slow moving products, and (5) the lack of expertise or technology to roll out new innovative products to drive demand and growth. All of these undisclosed factors made hitting earnings projections impossible.

**C. Resideo Admits Problems with its Supply Chain, Products and Engineering**

173. On October 22, 2019, Resideo announced its Third Quarter 2019 financial results. In the press release announcing the results, Resideo disclosed it would be



performing a full financial and operational review of its business:

Resideo has begun a comprehensive operational and financial review, focused on improving gross margins and optimizing its organizational footprint. The aim of the review is to simplify internal processes that will enable Resideo to be more agile in responding to changing customer and marketplace dynamics. The company has retained industry-recognized experts in supply chain optimization and organizational excellence to assist in the review.

174. Simultaneously with the disclosure that the Company would initiate a comprehensive financial review, Resideo announced the surprise departure of its CFO Defendant Ragan.

175. Resideo further disclosed that its Products segment experienced revenue decline due in part to a slowdown in the RTS business which was “driven by certain recent regulatory changes and a general slowdown across large OEM customers in the sector.”

176. Resideo also announced a decline in the Comfort business “primarily due to lower sales volumes in non-connected thermostats.” Significantly, Resideo admitted that “poor pre-spin cutover from the prior generation of non-connected thermostats to the T-Series line impacted the adoption of mid-level T-Series thermostats” and that “the cutover effects became markedly more pronounced in the third quarter after the prior generation of non-connected thermostats were discontinued.”

177. Additionally, Resideo disclosed that its “new generation of security products and connected thermostats have experienced solid growth” but that “these products have yet to benefit from lifecycle value engineering, adversely impacting full-year 2019 Products & Solutions segment gross margins.”

178. On this news, the price of Resideo's common stock declined more than 37%, from a close of \$15.23 per share on October 22, 2019 to a close of \$9.50 per share on October 23, 2019, on a volume of more than 16 million shares.

179. On November 6, 2019, Resideo issued a press release summarizing the Company's Third Quarter 2019 financial results. The press release was attached as an exhibit to a Form 8-K, and confirmed Resideo's disclosures in the October 22, 2019 earnings preview.

180. On the earnings call held the following day to discuss the results, Resideo provided additional details about the Company's supply chain issues and specifically its value engineering problems, that not simply did Resideo fail to apply value engineering to its products, but that it in fact did not have the talent to do so. Specifically, Nefkens stated "Before we spun off from Honeywell, these teams were largely depleted."

181. In response to an analyst question about how Resideo had lost value engineering people in the Spin-Off because those employees had stayed with Honeywell, Nefkens responded:

So look I think the lines were drawn pre-spin sometime back about who was coming over and who wasn't. So not certain of exactly how those decisions were made. And what I can tell you is that the talent and the value engineering that came over was very small compared to what was required. Our business is going through a transformation right now from products that are more mechanical into products that are more electronic. ***And we basically did not have the right people on the pitch post spin to continue to value engineer those products. One of the poor assumptions we made was that we have those capabilities and we have the right talent to drive those.***

\* \* \*

*As you alluded the problem with that is really the value engineering that should have been done 12 to 24 months ago we would have started to see the impact now. Now that we're restarting that it will take some time as new raws new materials new components will have to come in will have to be manufactured. We'll have to move all the previous stocks that we have before we start to see the benefit of that and we expect that to take 12 to 24 months.*

182. Put another way, Nefkens admitted for the first time that at the time of the Spin-Off Resideo did not have sufficient value engineering staff to address the Company's ongoing supply chain problems. Nefkens also admitted that, had Resideo worked earlier to retain value engineering staff to replenish the staff that Honeywell had retained, Resideo would have seen the benefit reflected in the supply chain within 12-24 months.

183. In further disclosing the material "specific factors that impacted our 2019 EBITDA decline in Products and Solutions," Nefkens stated that "We lost some sourcing leverage in direct and indirect materials following the Spin-Off. We've been working with our suppliers for several months now to rectify that." As alleged above, this material deficiency was obvious to senior management and was known from the start of the Spin-Off. To the extent it was a drag on margin and EBITDA, it should have been disclosed during the Class Period when Defendants discussed those issues, as a then-current adverse factor, not as a hypothetical possibility, as well as have been incorporated into Defendants' guidance to the market.

184. The final material factor that Nefkens disclosed that resulted in the significant decline in the Products and Solutions earnings was "post-spin inventory write-downs and slow-moving products impacted our EBITDA as well." While he provided

“examples” – “the leaner kind of thermostat, the retail home security tower and other parts and other parts and raws that have been in the system for some time”—he did not state that these were the exclusive list of “slow moving products.” The extensive, but undisclosed, problems detailed above affecting Resideo’s entire product line renders it a certainty that a good portion of it were also “slow moving products.” Indeed, CW15, who was not involved in the commercial part of the business, said that he was not aware as to whether the TCC outage problems had effected the sales of the 85% of Resideo’s connected thermostats that used the TCC App, but that he could not imagine that it did not.

185. Following the earnings call held November 7, 2019, the price of Resideo’s common stock declined from its closing price of \$10.02 per share on November 6, 2019, to close at \$9.78 per share on November 7, 2019, on heavy trading volume. As the market further digested the negative news, in the subsequent trading days Resideo’s common stock declined further: on November 8, 2019, Resideo’s common stock closed at \$9.60 per share, and on November 11, 2019, the Company’s common stock closed at \$9.02 per share.

186. On December 2, 2019 – less than two months after the departure of Resideo’s CFO and in the midst of a financial and operational review – Resideo announced the departure of CEO Nefkens to “focus on family health issues.”

187. On December 11, 2019, Resideo released an “Investor Update” presentation in advance of the Imperial Capital 2019 Security Investor Conference. During the presentation, Resideo’s new CFO Robert Ryder stated that, contrary to Resideo’s statements concerning the integration of business units and strong management, the Products & Solutions business was thrown together by Honeywell:

A big thing was a lack of pre-existing standalone business . . . [e]ssentially, the whole Products & Solutions business was various businesses within divisions of Honeywell. And they kind of picked individual pieces up and kind of threw them together and called that Products & Solutions which we'll talk about. And that kind of had some governance ramifications.

188. Ryder further revealed Resideo's prior statements concerning the Company's supposedly innovative products, streamlined manufacturing and robust supply chain were false when made:

We've had new product introduction, execution issues, **lack of customer acceptance testing**. And we are too slow to identify poor performing new product launches, okay? Now all these new product introductions, obviously, this takes a while to get these things going.

\* \* \*

The portfolio is being adjusted to meet consumer needs, right? So there are a lot of these – most of this was driven by **new product introductions**. These were all developed probably a couple of years ago and launched kind of this year, **not completely launched**, right, but **weren't really accepted by customers, weren't really competitive**, probably some issues around previous products that were discontinued and new products that were put in. **The customers actually like the old products better than new products. That's never a good thing**. Maybe, they **weren't so price competitive**, which is also never a good thing, which is leading to these kind of numbers.

\* \* \*

We had the inventory. And unfortunately, **nobody wanted to buy it**, which is why we had these inventory write-offs, okay?

\* \* \*

We probably have **too many [products]**, we might be **in too many places**. Maybe **our manufacturing facilities aren't in the right places with the right freight lanes**. Maybe capacity

utilization isn't where we would want to be.

189. On February 26, 2020, Resideo issued a press release providing Fourth Quarter and Full-Year 2019 results. The bottom line is that, contrary to repeated representations by Defendants, full year consolidated revenue increased by 3% on a GAAP basis, and adjusted EBITDA declined \$137 million, or 27%, driven by a 32% reduction in the Products & Solutions division.

190. In a related earnings call the next day, presided over by Nefkens, Ryder, and Lead Independent Director Andy Teich, Teich pulled the curtain further down, revealing more relevant and highly material facts that belied many of Defendants' statements during the Class Period. As certain of the Confidential Witnesses stated, Resideo's product line and development was plagued with outdated technology and a paucity of talent to improve its competitive edge that followed the Company from Honeywell after the Spin-Off. Thus, Jeff Kessler of Imperial Capital asked, in pertinent part, the following question:

[W]ith regard to **one of the problems that the company encountered this past year was the lack of product development people who were in critical in developing some of the newer, now perhaps slightly older products that you folks [were] selling did not come over from Honeywell . . .** [I]t sounds like they've either gotten some people coming over from Honeywell or you've replenished some of the product development folks who were lost. Can you comment on what's going on there in terms of getting the people in place and then getting the products in place?

Teich answered as follows:

**So I agree with you, Jeff, that post-spin that there was an opportunity for talent improvement in product development areas of P&S, and some of the lack of that was manifested in our results in 2019.** So the problem has been identified. We've hired a new Products & Solutions President,

Sach Sankpal, who's got a history with Honeywell and in some of the segments, so he knows a lot of the players there. And he's got a good eye for talent. And that's the most important thing, it's just to get the right talent in the right positions and properly motivate them and direct them to focus on the right priorities from the R&D standpoint. And that's job number one for Sach at this point. He's an experienced operator. And I'm confident that he's going to generate good results in that regard. It's a time-consuming process. **It's not something that happens instantly. But I think it's most important that you have good talent that is well selected and well-managed and working on the correct priorities,** and that's what we're focused on.

## **VI. DEFENDANTS' MATERIALLY FALSE AND MISLEADING STATEMENTS AND OMISSIONS**

### **A. Pre-Class Period Misrepresentations That Conditioned the Market for Resideo Common Stock**

191. On August 23, 2018, before the Spin-Off, Honeywell published on its investor relations website a presentation entitled "Resideo At A Glance." The title page listed two authors of the document, Resideo and Honeywell Home. The second page was titled "Who We Are," with pictures of, among others, Defendants Nefkens and Ragan, under the subtitle "Leadership," making it clear that the document reflected representations by Defendants.

192. Among other things, the presentation touted Resideo's "Competitive Strengths" as follows:

- "Diversified revenue streams, strong segment profits and limited capital expenditures";
- "Agility and speed to market needed to move in a growing industry"; and
- "strong management operating system and attractive financial profile."

193. Also in the presentation, Honeywell represented under the heading “Company Snapshot” that Resideo would be, among other things, the “Leading global provider of critical comfort and security solutions, primarily in residential environments” and a provider of “Innovative solutions protected by broad intellectual property portfolio.”

194. The presentation further touted that Resideo’s Honeywell Homes division would provide “innovative, end-to-end solutions” that represented a “growing portfolio of connected home solutions” that was “one of the largest and most comprehensive in the market.”

195. The statements set forth in ¶¶191-194 were materially false or misleading and omitted material facts because:

- A. As to the representations as to “strong segment profits” and an “attractive financial profile,” for the reasons stated in ¶¶91-170. In particular, the Products and Solutions division was comprised of disparate businesses that had never operated independently with a separate P&L or operational or governance structures such that it was false to state that the division as a whole, at the outset, had ever shown “strong profits” or to otherwise characterize its purported “financial profile.” Indeed, the integration of these disparate businesses in an efficient manner was far from complete, creating a significant hurdle toward attaining “strong profits” or an otherwise “attractive financial profile” in the immediate future. In addition, the unconnected thermostats that Resideo sold were outdated and from a prior



generation, and the Company was having difficulty transitioning its customers to a new generation of its T-Series connected thermostats. The reasons for that difficulty included, among others, that the connected thermostats Resideo sold were also outdated. In addition, most of the Company's connected thermostats were experiencing significant operational problems and the effort to integrate multiple thermostats at home with a remote control was late to market. There were also pre-existing significant supply chain issues and a material decline in sourcing leverage caused by the Spin-Off. Exacerbating these difficulties, and making them more difficult to overcome, Resideo started business with a depleted value engineering team necessary to maintain healthy profit margins. Finally, the efforts to integrate Resideo's connected security products and, more ambitiously, all of its products were a long time from completion.

- B. As to the representations about "agility and speed to market," for the reasons stated in ¶¶91-170, given the constraints that Resideo would necessarily face in light of its undisclosed product offering and product development problems and delays, its supply chain problems, its loss of sourcing leverage, and the problems that would likely result from the agglomeration of disparate divisions that had not previously been run as independent businesses.

- C. As to the representations about a “strong management operating system,” for the reasons stated ¶¶91-116, given the depletion of Resideo’s value engineering team and the same issues alleged above concerning the slapping together of disparate divisions that had never before had separate P&Ls as stand-alone business units, independent governance or operational structures.
- D. As to the representations that Resideo would be a “Leading global provider of critical comfort and security solutions, primarily in residential environments,” a provider of “Innovative solutions protected by broad intellectual property portfolio,” and the similar representation alleged in ¶192 above, for the reasons stated in ¶¶91-170, given Resideo’s undisclosed product offering and product development problems and delays.

196. On October 2, 2018, Resideo filed an amended Registration Statement on Form 10 in connection with the Spin-Off from Honeywell. The Registration Statement attached an Information Statement, with a cover letter signed by Defendant Nefkens, that included a description of Resideo’s business operations, the reasons for the Spin-Off, and consolidated financials for the business segments that would become Resideo.

197. Among other representations Resideo and Nefkens made are the following:

- We have a **long-standing leadership position in the traditional/non-connected products space that contributes significantly to our net sales.** Our **growing portfolio of connected home solutions** is one of the largest and most comprehensive in the market. Our connected solutions are supported by software platforms

(**which we expect to consolidate in a single platform and mobile application**) that allow consumers and channel partners to easily install, use and maintain our solutions and third party devices. These platforms interact with other ecosystems to control SpinCo's and others' home automation devices.

- ADI has long been an important channel to market for our security products, providing a level of end-customer intimacy that **drives our ability to develop successful new products at an accelerated rate and insights into current market trends that help us quickly adapt our product portfolio to meet evolving customer needs.**
- We are **strongly positioned to provide products that enhance consumers' comfort, convenience and sense of security and work together to contribute to a connected home ecosystem.**
- We have a **long history of innovation and industry firsts in our Comfort & Care and Security & Safety markets** and have a **reputation for providing trusted, tested and proven products and solutions.**
- Our iconic Honeywell brand is **globally recognized for quality, innovation, security and reliability.**
- Our comprehensive Products portfolio provides end-to-end solutions that focus on critical needs within the home, where **product reliability and ease of use** are of utmost importance . . . Our portfolio distinguishes us from our competitors, most of whom focus on niche solutions within the home. We provide solutions that address multiple consumer connected home needs under a common platform.
- We are well positioned to leverage the growing demand for connected home solutions with our **innovative products that are easy to purchase, install and deploy within the broader smart home ecosystem including our thermostats portfolio.**
- We believe we have an **attractive financial profile** highlighted by our diversified revenue streams, strong segment profits and limited capital expenditure needs. **We have delivered strong net sales growth over the period from 2013 to 2017**, during which our net sales grew at a CAGR of 3.7%.

- We are developing **new, innovative products and solutions across Comfort & Care and Security & Safety to grow our core business and differentiate ourselves from our competitors**....We plan to further expand our portfolio by bringing to market an extensive set of new solutions for everyday problems, including remote furnace and boiler monitoring, smart vents, shut-off valve solutions, battery-operated video motion cameras and a residential global intrusion system.
- We believe we are **well positioned to benefit from the growing demand for connected solutions in homes due to our breadth of offerings, customer reach and strong brand**. As consumer preferences drive increasing demand for connected home solutions, we believe our portfolio of end-to-end solutions will become increasingly important. Compelling connected home use cases require careful orchestration of multiple solutions to create an ecosystem that can be reliably accessed by consumers on a common platform. A seamless experience is a key differentiator relative to single-purpose product providers.

198. The representations in ¶197 as to Resideo’s “long-standing leadership position in the traditional/non-connected products space that contributes significantly to our net sales” were materially false or misleading and omitted material facts for at least the reasons stated in ¶¶151-170, given that its non-connected thermostats were outdated, the future market was in connected thermostats so that Resideo’s dominance in the area of non-connected thermostats was increasingly irrelevant, and Resideo was unsuccessfully seeking non-connected customers to transition to it,

199. The representations in ¶197 as to:

- A. Resideo’s expectation of being able to “consolidate in a single platform and mobile application” all of its product offerings (a reference to Project STORM);

- B. its statement that it was able to “develop new products at an accelerated rate” and “quickly adapt our product portfolio to meet evolving customer needs”;
- C. its claims as to a “growing portfolio of connected home solutions,” and that it was “strongly positioned to provide products that enhance consumers’ comfort, convenience and sense of security and work together to contribute to a connected home ecosystem”;
- D. its boasts that it had a “long history of innovation and industry firsts in our Comfort & Care and Security & Safety markets,” a “reputation for providing trusted, tested and proven products and solutions,” “product reliability and ease of use,” and “innovative products that are easy to purchase, install and deploy within the broader smart home ecosystem including our thermostats portfolio”;
- E. its touting of its purported reputation for “quality, innovation, security and reliability,” and “superior customer service”;
- F. its further statements that it was well-positioned to develop “new, innovative products and solutions across Comfort & Care and Security & Safety to grow our core business and differentiate ourselves from our competitors”; and
- G. the representation that Resideo was “well positioned to benefit from the growing demand for connected solutions in homes due to our breadth of offerings, customer reach and strong brand”;

were all materially false or misleading and omitted material facts for at least the reasons stated in ¶¶99-170. That is, there were undisclosed significant problems and issues limiting the competitiveness and operability of Resideo's product offerings, the significant customer complaints it was experiencing, and an inability to manufacture and roll out products under development on a timely basis, as well as significant supply chain problems it was experiencing

200. The representations in ¶197 as to "an attractive financial profile" were materially false or misleading and omitted material facts for at least the reasons stated in ¶¶91-116, given the depletion of Resideo's value engineering team, and the issues and difficulties likely to result from haphazardly putting together disparate divisions that had never before been run as independent businesses.

201. The Registration Statement also contained a section entitled "Risk Factors Relating to Our Business" concerning the Spin-Off:

***We have no operating history as an independent, publicly traded company, and our historical combined financial information is not necessarily representative of the results we would have achieved as an independent, publicly traded company and may not be a reliable indicator of our future results.***

We derived the historical combined financial information included in this Information Statement from Honeywell's consolidated financial statements, and this information does not necessarily reflect the results of operations and financial position we would have achieved as an independent, publicly traded company during the periods presented, or those that we will achieve in the future. This is primarily because of the following factors:

- Prior to the Spin-Off, we operated as part of Honeywell's broader corporate organization, and Honeywell performed various corporate functions for us. Our historical combined financial information reflects allocations of corporate expenses from Honeywell for these and similar functions. These allocations may not reflect the costs we will incur for similar services in the future as an independent publicly traded company.
- We will enter into transactions with Honeywell that did not exist prior to the Spin-Off, such as Honeywell's provision of transition and other services and brand licensing agreements, and undertake indemnification obligations, which will cause us to incur new costs. See "Certain Relationships and Related Party Transactions—Agreements with Honeywell."
- Our historical combined financial information does not reflect changes that we expect to experience in the future as a result of our separation from Honeywell, including changes in the financing, cash management, operations, cost structure and personnel needs of our business. **As part of Honeywell, we enjoyed certain benefits from Honeywell's operating diversity, size, purchasing power, borrowing leverage and available capital for investments, and we may lose these benefits after the Spin-Off.** As an independent entity, we may be unable to purchase goods, services and technologies, such as insurance and health care benefits and computer software licenses, or access capital markets on terms as favorable to us as those we obtained as part of Honeywell prior to the Spin-Off, and our business, financial condition, results of operations and cash flows may be adversely affected. In addition, our historical combined financial data do not include an allocation of interest expense comparable to the interest expense we will incur as a result of the Reorganization Transactions and the Spin-Off, including interest expense in connection with the incurrence of indebtedness at the Company.

We have no operating history as an independent, publicly traded company. Furthermore, while the individualized businesses or their predecessors have a history of product development going back over 100 years, we have neither operated with a residential Comfort & Care, Security & Safety,

or home solutions business focus, nor combined that with a distribution business in the past, and we may not be successful in continuing to operate and grow our business with a narrower focus and outside the broader Honeywell operating environment.

We may face operational inefficiencies as we continue to integrate our business after the Spin-Off. Following the Spin-Off, we will also face additional costs and demands on management's time associated with being an independent, publicly traded company, including costs and demands related to corporate governance, investor and public relations and public reporting. In addition, while we have been profitable as part of Honeywell, we cannot assure you that our profits will continue at a similar level when we are an independent, publicly traded company. For additional information about our past financial performance and the basis of presentation of our Combined Financial Statements, see "Selected Historical and Unaudited Pro Forma Combined Financial Data," "Unaudited Pro Forma Combined Financial Statements," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our historical Combined Financial Statements, and the Notes thereto, included elsewhere in this Information Statement.

(Emphasis in original).

202. The purported "Risk Factors" was materially false or misleading and omitted material facts because, while the Company disclosed it had not operated with a "Comfort & Care, Security & Safety, or home solutions business focus, nor combined that with a distribution business in the past," Resideo omitted that the business units had in fact been individual pieces of distinct divisions within Honeywell that were thrown together by Honeywell and did not have historic separate P&Ls as stand-alone business units, and that they suffered from undisclosed product, supply chain and governance problems, as disclosed by CFO Ryder on December 11, 2019.



203. Further, the statement that the Company had not operated with a “Comfort & Care” or “Security & Safety” business combined was materially false or misleading and omitted material facts because it obfuscated the fact that both of these business units were themselves creations of the Spin-Off and neither existed as independent business units within Honeywell.

204. The statement that “As part of Honeywell, we enjoyed certain benefits . . . and we may lose these benefits after the Spin-Off” was materially false or misleading and omitted material facts because it was framed as a hypothetical, when, as alleged in ¶¶117-119, “it was pretty obvious” from the start that Resideo had suffered a loss of sourcing leverage, significant enough to have adversely affected its gross margins, a factor that at no time during the Class Period Defendants ever disclosed when discussing margin issues and providing assurances that it would overcome issues leading to margin compression.

205. The purported “Risk Factors” was materially false or misleading and omitted material facts for the additional reason that it was entirely generic, could apply to any corporate spin-off, and disclosed none of the material product, supply chain and governance issues that had already occurred, including Honeywell’s decision to throw together business units with no prior relationship to form Resideo.

206. On October 10, 2018, Resideo issued a press release, which it also filed with the SEC on Form 8-K, stating that “Our diversified revenue streams, strong segment profits and limited capital expenditure needs are just a few of the reasons Resideo has a bright future.” This representation was materially false or misleading and omitted material facts for at least the same reasons stated in ¶¶91-170.

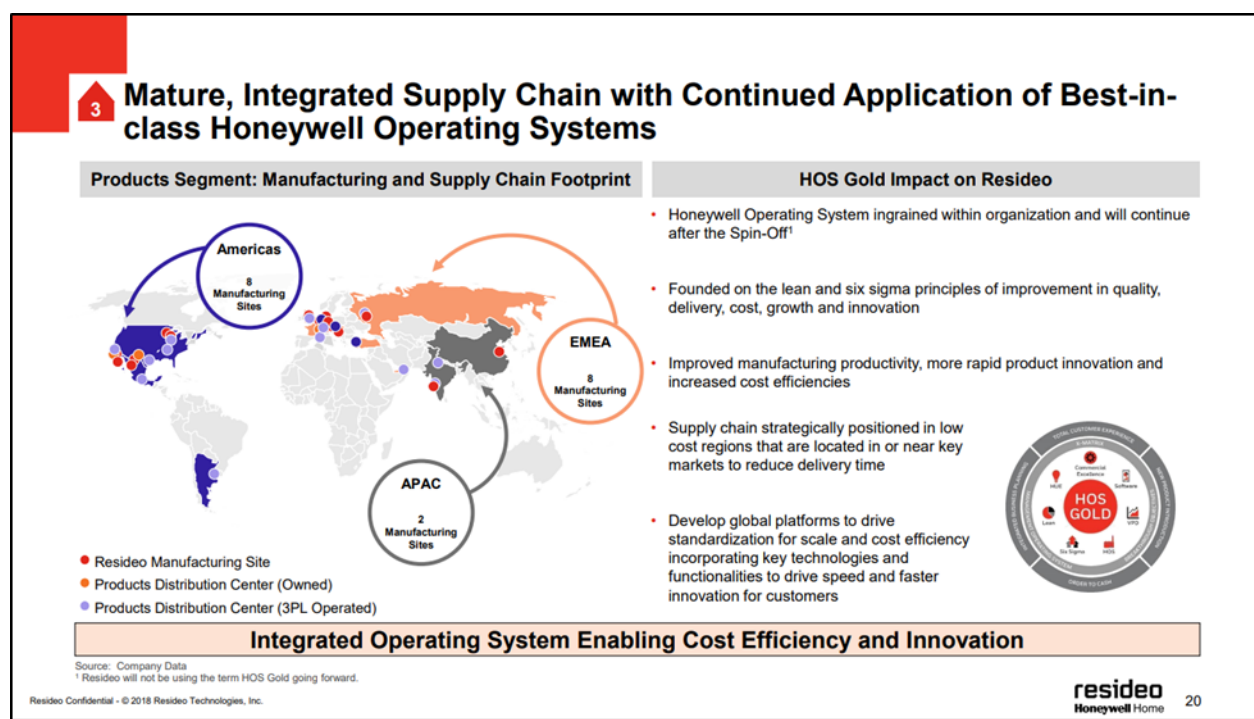
207. Also on October 10, 2018, the Company held its first Investor Showcase and Technology Demonstration. The slide presentation published in advance of the demonstration boasted, among other things, that Resideo's connected products provided "Seamless control across connected product categories" with "Software [that] Ties It All Together" and, as one reason why the Company was "Positioned to Drive Shareholder Value Well Into the Future," and had "Leading positions integrating and running most critical systems in a home."

208. The representations in ¶207 were materially false or misleading and omitted material facts for at least the reasons stated in ¶¶91-170, in light of the undisclosed significant problems and issues limiting the competitiveness and operability of Resideo's product offerings, the significant customer complaints it was experiencing, and an inability to manufacture and roll out products under development on a timely basis, as well as significant supply chain problems it was experiencing.

209. The slides also represented that in 2019 Resideo would yield over 4% of organic revenue growth, as well as an adjusted EBITDA margin of 13% pre-indemnity and post-indemnity 10% adjusted EBITDA margin. These representations in were materially false or misleading and omitted material facts for at least all of the same reasons stated in ¶¶91-170.

**B. Resideo Begins the Class Period with False Claims of Past Performance, A Shorter Product Development Period Than Its Competitors and Comfort That “We’re on The Other Side” Of the Supply Chain Issues**

210. Less than a month after its shares of common stock began trading, on November 8, 2018, Resideo issued a press release, which it also filed on Form 8-K, announcing that the Company’s management would present at the Robert W. Baird Global Industrial Conference in Chicago, Illinois. In the November 2018 presentation attached to the same Form 8-K, Resideo touted that it had a “Mature, Integrated Supply Chain with Continued Application of Best-in-Class Honeywell Operating System,” as follows:



211. As indicated above, Resideo went to great lengths to trumpet its supposedly robust and efficient supply chain, stating that the Honeywell Home Operating System (which became part of Resideo) supply chain was “*strategically positioned in low cost regions that are located in or near key markets to reduce delivery time.*”

212. Resideo also touted the Company's line of "connected" (*e.g.*, wireless) home products in the presentation. For example, Resideo stated it was "uniquely positioned to benefit from growing demand for connected homes," that it had an "Exciting and extensive new product line" and, under the "Key Growth Drivers" heading, that it had "Increasing penetration of connected systems." Resideo also claimed that it had "Seamless control across connected product categories." The presentation further touted Resideo's purportedly robust product development line, with "Continuous innovation and a shorter product-to-market period that, we believe, will drive revenue growth."

213. The representations in ¶¶210-211 with respect to a "mature, integrated supply chain" and a "supply chain strategically positioned . . . to reduce delivery time" were materially false or misleading and omitted material facts for the reasons stated in ¶¶91-116 in light of the historic supply chain issues that existed prior to the spin-off that were only exacerbated due to the split in manufacturing facilities between Honeywell and Resideo.

214. The statements in ¶¶210-211 concerning Resideo's line of connected smart products were materially false or misleading and omitted material facts for the reasons stated in ¶¶120-133, 151-170 because, among other things: (i) Resideo's connected products relied on obsolete technology that was late to market; and (ii) the technology that Resideo used in a number of its connected products material to its ability to generate revenue was subject to constant outages.

215. The representations in ¶212 as to "Continuous innovation and a shorter product-to-market period that, we believe, will drive revenue growth" were materially false

or misleading and omitted material facts for at least the reasons stated in ¶¶151-170, in light of the significant development and delivery delays Resideo faced with the T9 and T10 thermostats, the Project GRIP security panel, both for ADT and for direct consumers and the Project STORM product. Indeed, the representation in ¶212 as to a “Seamless control across connected product categories” appeared to refer the Project STORM product, which did not exist at the time, or any time within the Class Period, and was likely at best several years off from ever being developed as set forth in ¶¶147-150.

216. On November 13, 2018, Resideo issued a press release announcing its third quarter 2018 financial results in which Nefkens was quoted as saying: “Our performance as part of Honeywell over the past three years demonstrates a well-run business that is on-track to deliver continued growth in 2018 and beyond.” This exact same representation was made by Nefkens in the related earnings call on November 14, 2018. Additionally, Resideo reiterated that for full-year 2019, it was expecting “4 percent organic revenue growth [and an] adjusted EBITDA margin of 13 percent,” a representation made by Defendant Ragan, Resideo’s then-CFO, in his part of the presentation during the earnings call.

217. The representations in ¶216 as to “our performance as part of Honeywell over the past three years” were materially false or misleading and omitted material facts given that the Products and Solutions division was comprised of disparate business units within separate Honeywell divisions that had never operated independently with a separate P&L or operational or governance structures, as well as for all of the other reasons outlined in ¶¶91-170) relating to the undisclosed operational difficulties Resideo faces, as well as its

undisclosed product line and development woes. For the same reasons, Defendants had no reasonable basis for its guidance of a 4 percent increase in sales and an adjusted EBITDA margin of 13% for the reasons outlined in ¶¶171-172.

218. In the same press release, Resideo stated that the “Products segment performance was impacted by temporary supply chain issues as a result of the spinoff” but that the Company was “actively resolving” those issues.

219. Similarly, during the related earnings call on November 14, 2018, Nefkens stated that “with the spin behind us, operationally, our team is focused and back on track” and reiterated that the Company was “actively addressing [] supply-chain issues, and [] **already seeing product flows moving back towards normal volumes.**” Further, Defendant Ragan referred to the “supply chain challenges” as “[s]hort-term.”

220. Nefkens was specifically asked about Resideo’s supply chain issues on the earnings call by an analyst from Oppenheimer. The exchange went as follows:

Oppenheimer Analyst: if you could give a breakout of how much of the growth was really impacted by spin related supply chain noise during the quarter, and then going forward what do you view as a normalized growth rate, and how quickly can you get there? Thanks.

Nefkens: Thanks for the question. So – so yeah, so I'll talk a little bit about the spin related supply chain issues that we put out there because it did affect us in Q3 as expected. I talked about these at Investor Day. Typically what they are – are our items I will just give you a really good example like **most of them are believe or not are administrative items.** We had an example of customs related issues where paperwork comes in under the Honeywell name, Products needs to actually be come out the Resideo name, took a couple days to do that. *We also have some plant shifts that we're making in Europe as a*

*result of the spin. So, these are just items that we knew, were in front of us, we plan for it.*

*In Q4 I can tell you right now we're already seeing volumes coming back to normal. And I've told the team and we're still looking out, there's still a few things we've got to make sure come through before we get clean. So I would tell you we're still seeing a few of those headwinds here in Q4 as expected. And we'll be fully back and running here by Q1. Again, the reason that we were able to – from our guidance at the top-end of the range is because we're already working through these items, and we're very comfortable that we're on the other side of it now.*

Oppenheimer Analyst: Okay, terrific. That's great. *So, full power by the beginning of 2019?*

Nefkens: *That's correct.*

221. These representations in ¶¶220 were materially false or misleading and omitted material facts for the reasons stated in ¶¶91-170, given that the Products and Solutions' extensive supply chain problems pre-existed the spinoff and were not temporary but, rather, long-standing, were far more serious than just administrative problems arising from the spin, and there was no evidence they were improving, with many instances in which they were becoming worse. In addition, the spin created additional issues that should have been disclosed if Defendants were going to represent that the Company was "back on track," such as the material loss of sourcing leverage, and the continuation of other pre-existing problems, such as the depletion of Resideo's value engineering team, which would necessarily lead to depressed margins.

222. Also on the call, Nefkens compared Resideo to its competitors, saying in part that “they don’t have product solutions or connectivity that sits behind the wall, which is really the core of any smart home. That’s what makes us different.”

223. This representation in ¶222 was materially false or misleading and omitted material facts for the reasons stated in ¶¶91-170 as the overwhelming majority of Resideo’s “connected” app thermostat program was not designed to handle the number of users Resideo allowed on the system, it was out of service every 3-4 days and at times for as long as 24 hours, and its program to allow customers to control multiple thermostats at home with a remote control was late to the market such that that competitors such as Nest had already surpassed Resideo’s technology and captured that market. Further, Resideo’s connected security product for direct consumers, the GRIP was “not close [to being] done,” and the OEM version had been delayed in violation of contractual commitments to Resideo’s largest OEM customer, ADT. In addition, Resideo’s plan to integrate all of its home-based platforms was not close to having the technology needed for it to be completed.

224. In his part of the presentation, Ragan stated that “Our business is performing well. And we expect the powerful combination of scale, steady growth and market position **will give us margin expansion** and significant equity valuation uplift going forward.”

225. This representation in ¶224 was materially false or misleading and omitted material facts in light of the depletion of Resideo’s value engineers, which necessarily adversely impacted upon margin growth, the significant supply chain issues, the loss of sourcing leverage, and the product problems and delays Resideo was experiencing.



226. Defendant Ragan presented at the Imperial Capital Security Investor Conference in New York on December 12, 2018. At the conference, Ragan sought to place the Company's supply chain issues into historical perspective by comparing them with what existed ten years prior. He said "We have done a significant amount of work on the factory rationalization. 10 years ago, there were 50 factories and somehow Michael got from 50 to 18 and doubled revenue, which is spectacular . . . the company is incredibly efficient from a manufacturing supply chain perspective."

227. This sunny representation in ¶226 was materially false or misleading and omitted material facts given that (1) ten years in the past Resideo did not exist; *i.e.* certain of the disparate businesses that comprise the Company were present at the time, but those that make up the Products and Solutions division were not run as independent businesses, and (2) regardless of whatever work had been done to eliminate inefficiencies while these businesses were part of Honeywell, the agglomeration of them in a new entity created new undisclosed issues of overcapacity and inefficiency. As later revealed after the end of the Class Period by CFO Ryder: "***We probably have too many [products], we might be in too many places. Maybe our manufacturing facilities aren't in the right places with the right freight lanes. Maybe capacity utilization isn't where we would want to be.***"

228. Nonetheless, Defendants' glossing over of Resideo's supply chain and other spin-related issues created a favorable impression in the investment community. On November 13, 2018, Oppenheimer issued an analyst report in which it maintained an OUTPERFORM rating, noting as to while it experienced "typical spin-off related supply

chain headwinds,” that “Management expects these temporary headwinds to subside quickly and for the business to normalize in 4Q18.”

**C. Resideo Falsely Assures Investors the Company’s Supply Chain Issues are Resolved, Touts the Release of the T9 and T10 Thermostats and the GRIP Platform and Claims the Company is at a “Strategic Inflection Point”**

229. On March 7, 2019, Resideo issued a press release in which it reported its fourth quarter and full year 2018 results. The release quoted Nefkens touting Resideo’s “strong performance for the fourth quarter and full year, despite the spin-related cost based coming in higher than expected.” However, while he also boasted that “we successfully executed the spin and met or exceeded financial expectations,” the press release also reported, under “Segment Performance” that “[Products and Solutions] segment profit decreased 20 percent, impacted by one-time spin-related costs.” It also reduced Resideo’s 2019 revenue guidance from 4 percent to an indeterminate range of “2 to 5 percent.”

230. Nevertheless, Nefkens stated that “The disruption from the spin is mostly behind us.” During the earnings call on the same day, Nefkens made virtually the same representations. Nefkens repeated this message during the call saying that this was the third Spin-Off that he had been a part of and “we’re on schedule, and in some cases, ahead of schedule, when I compare to previous spins I’ve been [a] part of,” and “I also feel really good that **most of the disruption from the spin is now behind us.**” Further, in response to an analyst question about the lowered revenue guidance, Nefkens responded:

As you guys know with the spin this effectively is the first time that we are having all of our costs under our control . . . **[W]e’re at a strategic inflection point. I would tell you that we are at or ahead of where I expect[ed] to be.**

231. These overly optimistic representations in ¶¶229 and 230 were false or materially misleading for the reasons stated in ¶¶91-119, relating to the mostly pre-existing, persistent and worsening supply chain issues Resideo faced. The representations were also materially false or misleading because of the further reasons stated in ¶¶120-170. That is, Nefkens' claims that "most of the disruption from the spin is now behind us" and references to a "strategic inflection point," such that Resideo was "at or ahead of where I expect[ed] to be," camouflaged a long list of material undisclosed problems, including challenges presented by Resideo's competition to the T-Series thermostats, the loss of major channel partners, loss of security partners, the challenges of Resideo's "Cloud," customer churn on the security side of the business, and the lack of any pathway forward to produce more products. Indeed, these problems were so serious that *Resideo's leadership team ordered that to ensure the bad news was not leaked outside the company, that all communications would be on WhatsApp, not the Company email system.*

232. Notwithstanding a lowered guidance, the press release promised "an initiative to optimize our cost base" as one means of driving up margins. Similarly, Nefkens, attributing Resideo's disappointing results to spin-related disruptions that were purportedly in the past, stated during the earnings call that "[w]hile our spin-related cost base came in higher than expected and put some downward pressure on our near-term EBITDA, we're already taking action to optimize the cost base and operating footprint we inherited from the spin." Nefkens claimed that these measures, plus "new product launches," would "get us back to where we want to be margin-wise in 2020." Ragan similarly promised that the "margin uplift for next year when you add in the incremental

EBITDA that we'll get from the cost takeouts as well as having gotten through that initial investment is 150 to 200 basis points." Ragan further stated that "With respect to EBITDA margins, we're expecting approximately 11%, excluding the Honeywell reimbursement agreement payment, and 8% including"

233. Defendants' representations as to what steps the Company intended to undertake to increase margins, compelled them to fully disclose the many problems that were materially weighing down margins which could reasonably be expected to diminish any chance of success that those efforts may have, as further alleged in ¶¶91-170. These included the depletion of Resideo's value engineering staff, significant loss of sourcing leverage, continued longstanding supply chain issues, and inefficiencies relating to the number of products the Company was manufacturing and selling, the placement of manufacturing facilities and capacity underutilization. That Defendants failed to disclose these significant obstacles to increasing margins rendered their statements of intended efforts to do so false or materially misleading.

234. Relatedly, in line with the representations that Resideo would achieve margin uplift in part by "new product launches," Defendants also touted Resideo's supposedly robust new product pipeline, including the supposed industry-leading T9 and T10 line of smart thermostats: "In addition to successfully completing the spin *we also launched some terrific products in the fourth quarter, including our market-moving next-generation security platform*, universal heat pump defrost controls and *the T9 and T10 thermostats.*" Later on the call, Nefkens stated: "our innovative product pipeline and focus on doubling our high-margin recurring revenue stream will further solidify our existing market

leadership.” However, as alleged in ¶¶151-170, Resideo’s products were outdated and perennially late to the market.

235. Further, in the press release, Defendants stated that “Over the year ahead, Resideo will roll out next generation platforms in both its security and comfort division. In security, Resideo's Global Residential Intrusion Platform is extensible and brings enhanced software offerings. In comfort, Resideo is launching a pioneering platform with recurring services that integrate all dimensions of home wellness.” The press release also represented that “The company began customer deliveries of its next-generation security platform (Global Residential Intrusion Platform/GRIP) in December 2018.” Nefkens also represented during the earnings call that Resideo would accelerate product launch originally scheduled for 2020 into 2019, putting its Comfort products on a “single app.”

236. With respect to the GRIP product, in answer to analyst questions about “parsing out” the 2-5% top line guidance based on product mix between Products & Solutions and the ADI Global Distribution arm, as well as expectations as to new product introductions, Nefkens made representations as to both the purported rollout of the product to its largest OEM customer, ADT, and its plans to roll out the version that was being developed for direct customers:

The big item for us this year is going to be our security business. We have the rollout of our new Global Intrusion Platform, started in December. *That rollout is progressing very, very well with our first customers.* And for us to be at the top of the range, we're going to need very strong performance from our teams in second half of the year in the – in GRIP.

\* \* \*

our biggest investment is our – the rollout of our GRIP platform, that’s the next-generation security platform, ***which is already rolling out [] we’ve got our largest customer that comes up first, then we have general market in the Americas and then we move to general market in Europe.*** We were not planning a European launch until 2020. We’re accelerating that into 2019 as well. So we’ve got investment increases to make that happen. That’s security

237. These representations in ¶¶235-236 were materially false or misleading and omitted material facts for the reasons stated in ¶¶134-146. In particular, (1) the GRIP product for the direct consumer market was far from ready and was hampered by a “poorly scoped” and generally, and continuously, dysfunctional and disorganized development process that made acceleration of the rollout of the product into 2019 unlikely, and (2) the separate GRIP product for ADT had been delayed past the point at which Resideo had committed to ADT it would be ready, resulting in millions of dollars in lost revenue and contractual penalties. CW3, who had direct responsibility for this latter product, definitively states that Project GRIP for ADT did not ship out in 2018, as Defendants claimed in the March press release and earnings call.

238. Indeed, the Defendants themselves later contradicted this assertion and never again claimed a launch date in December 2018 for GRIP. In the May earnings call, as alleged ¶¶134-146, Nefkens said that “Volume shipments began for our largest customer in February,” which CW3 also disputes. And in a June presentation that Ragan made to investors at the Robert W. Baird Global Consumer, Technology & Services Conference, he stated that as to GRIP “we rolled out and started to deliver this year.”

239. As to the Comfort division, Nefkens, in further response to the same analyst questions, stated “we’re pulling forward our platform - new platform launch in our comfort business from 2020 to 2019. If we can get some of that into the fourth quarter, then I would be very optimistic about where we can be from a growth perspective in our products business as well.” As well, he said that:

On the comfort side, as I said earlier, we've rolled out several great products, the T9 and the T10 that Ian mentioned earlier. But we are going to have a new platform launch that was planned for 2020. We're accelerating that into 2019. All this is done to do two things. Number one, it's to accelerate our growth, and number two, it's going to be the [both] platforms that are necessary for us to really push subscription services. Our older products did not have the capability to do that. They were multiple applications. This will all be under single app, and we'll be able to launch our first generation of subscription services, which will drive our recurring revenue north. So that is why we're accelerating these investments. Those investments are primarily in the product segment, and we'll also be executing, as I mentioned in my prepared remarks, a few tuck-in acquisitions as well to give us other IP and products that will help us bring those subscription services to market.

240. CW3, when asked about this statement, reasoned that Nefkens may have been referring to the “app convergence” between TCC and Honeywell Home, and he called it a new product. CW3 recalled that Resideo’s plan was to refer to the product resulting from the app convergence as the “the platform” or “the new software platform.” CW3 also said he did not recall any major new software releases internally scheduled for 2019 or 2020.

241. CW15 was a member of the team seeking to affect the convergence of TCC into Honeywell Home. He stated that it was apparent by January or February 2019 that the

TCC/Honeywell Home convergence was not going to happen until 2020. CW15 identified Head of Product/Global Connected Home Nate Kraft and Harkins as knowing that the TCC/Honeywell Home Convergence was being pushed out from 2019 to 2020, as early as January/February 2019, and strongly believes that they made senior leadership aware of that fact. CW15 identified “senior leadership” as Defendants de Masi and Nefkens.

242. Accordingly, these representations in ¶239 were materially false or misleading and omitted material facts for the following reasons. First, as alleged in ¶¶151-170, the T9 and T10 were late to the market and reflected technology no more advanced than that of products that Resideo’s competitors already had in the market. Second, as alleged in ¶¶120-133, CW15 expressly said that it had become apparent in January or February, prior to these representations that Nefkens made during the March earnings call, that the TCC/Honeywell Home convergence would be pushed into 2020. Third, as alleged in ¶¶99-116, Resideo’s efforts to introduce new products were severely hampered by the dearth of engineering talent that migrated to Resideo from Honeywell, as Defendants later acknowledged after the end of the Class Period.

243. More generally, Nefkens stated that “We have heard very clearly from our customers that they are excited about Resideo, they love our products, but they want us to move faster.” This representation was materially false or misleading and omitted material facts for the reasons stated in ¶¶91-170 given the end of the Class Period disclosure that Resideo had a difficult time transitioning customers to its new generation of T-Series thermostats. In addition, the old line had been declining in sales for years and was outdated. Further, the Company faced severe challenges presented by Resideo’s competition to the



T-series thermostats, with the TCC thermostats, 85% of the connected thermostats the Company sold, subject to severe outages; the loss of major channel partners; loss of security partners; the challenges of Resideo's "Cloud"; and customer churn on the security side of the business.

244. Following these representations, on March 12, 2019, Resideo's management, including Ragan, met with and provided a presentation at a meeting hosted by Bank of America Merrill Lynch ("BAML"). The next day, BAML issued an analyst report in which it rated Resideo as a "BUY" and stated "Following yesterday's meetings, we have greater confidence in REZI's ability to achieve, and most likely surpass, its revised 2019 adjusted EBITDA outlook of \$410-\$430mm (BofAML \$429mm), which was reduced in the context of last week's 4Q18 earnings results."

245. On March 18, 2019, Resideo filed with the Securities and Exchange Commission its Annual Report on Form 10-K ("Form 10-K"), signed by both Nefkens and Ragan. In the Form 10-K, Defendants repeated many of the same material misrepresentations as to Resideo's organizational efficiency, financial performance, product line and purported innovation.

246. Defendants claimed in the Form 10-K that "Our extensive product portfolio also enables us to achieve profitable economies of scale in production, distribution and speed to market while making us a 'go to' partner in the smart home ecosystem." Similarly, Defendants made the following representation:

Our financial performance is underpinned by our implementation of the Operating System ("OS"). OS is integral to our organization, and was

founded on the lean and six sigma principles of continuous improvement in quality, delivery, cost, growth and innovation. **We have continued to execute the OS model following the Spin-Off, resulting in improved manufacturing productivity, more rapid product innovation and increased cost efficiencies. Important parts of our supply chain are strategically positioned in low cost regions located in or near key markets, consistent with a strategy of optimizing our supply chain and reducing delivery times.** We have extended OS concepts beyond lean manufacturing to our Global Distribution business, customer service and product development areas. We are applying these practices to develop global platforms to drive standardization for scale and cost efficiency, while incorporating key technologies and functionalities to drive speed and faster innovation for our contractor partners and end-user customers.

247. The representations in ¶246 were materially false or misleading and omitted material facts for the reasons stated in ¶¶91-116. As was revealed at the end of the Class Period, Resideo was hampered by "a lack of pre-existing standalone business," that when Honeywell organized Resideo it "kind of picked individual pieces up and kind of threw them together," and that "We probably have too many [products], we might be in too many places, maybe our manufacturing facilities aren't in the right places with the right freight lines, maybe capacity utilization isn't where we would want to be." Moreover, Resideo's value engineering team had been depleted and Resideo otherwise suffered from systemic and persistent supply chain problems.

248. Further, with respect to the market attractiveness of its products and Resideo's purported innovative products that would increase demand for its brand, Defendants boasted that "We are well positioned to leverage the growing demand for connected home solutions with our **innovative products** that are easy to purchase, install and deploy within the broader smart home ecosystem **including our thermostats portfolio,**" that "Our innovation is supported by the Resideo User Experience design

group, which **creates value by understanding and translating the needs of consumers** and channel partners to develop intuitive, desirable and brand differentiated end-to-end experiences,” that **“We have over 1,300 engineers creating innovative solutions** in software centers of excellence located in Austin, Texas, Bengaluru and Madurai, India and other locations, that **“We are developing new, innovative products** and solutions across Comfort, RTS and Security to grow our core business and **differentiate ourselves from our competitors,**” and that **“Our award-winning thermostats are our most iconic products** and we market certain models directly to end consumers.”

249. These representations in ¶248 were materially false or misleading and omitted material facts because of the reasons alleged in ¶¶93-170. Among other things, (1)Resideo’s TCC thermostats, which accounted for about 85% of all of the Company’s connected thermostats were subject to chronic severe service outages on a periodic basis, problems that “resulted in direct impact to the customers of the company”; (2) Resideo was 18 months late to the market with its newest thermostats, the T-9 and T-10, which allowed customers to control multiple home thermostats remotely, because Resideo did not have the technical talent – including software developers and product engineers – to produce it in time and its competitors had beaten Resideo to the market;(3) Resideo’s line of security products inherited from Honeywell was dated compared to the products sold by their competitors Nest and Alarm.com; and (4) Resideo did not have enough talented engineers to produce new products before their competitors’ products hit the market because Honeywell kept the best engineers during the Spin-Off”, and (5) Resideo’s new CFO at the end of the Class Period stated as to its products, new and old, that they were “not completely

launched, right, but weren't really accepted by customers, weren't really competitive," and "We had the inventory. And unfortunately, nobody wanted to buy it, which is why we had these inventory write-offs, okay"?

250. As in the Registration Statement, Defendants repeated the representation that "Our attractive financial profile includes diversified revenue streams, strong segment profits and limited capital expenditure needs". This representation is materially false or misleading and omitted material facts, for the same reasons alleged in ¶249.

251. Resideo also touted its relationships with OEMS, stating:

We also have long-standing relationships with important OEMs and service providers such as ADT Security Services, United Technologies and A.O. Smith Corporation. A number of these relationships extend more than 25 years, including some spanning over 40 years. These deep partnerships are possible because OEMs value our design capabilities, innovation, domain expertise, supply chain capabilities and product quality, and our commitment to working with them to grow their businesses by way of the Resideo/Honeywell Home platform and suite of products.

252. This representation in ¶251 was materially false or misleading and omitted material facts for the reasons alleged in ¶¶134-146. Resideo's GRIP project for ADT, the Company's single-largest customer, was subject to extensive delays that caused friction in the Company's relationship with ADT. Moreover, Resideo had lost major channel partners, including its second largest up to that time, Ackerman Security.

253. The "Risk Factors" listed in the Form 10-K contained the exact same ones included in the Registration Statement, as alleged in ¶201, and these were materially false or misleading and omit material facts for the same reasons.

**D. Resideo's Management Again Touts Its Products and Purported Accelerated Product Launches, Again Minimizes Supply Chain Issues and Again Claims Progress Toward Margin Expansion**

254. On May 8, 2019, Resideo issued a press release announcing its first quarter 2019 results. In the release, the Company stated, “[w]ith continued confidence in our ability to execute and positive first-quarter results, we are reiterating our full-year 2019 guidance to reflect revenue growth of 2-5% and Adjusted EBITDA at the upper end of the range of \$410 to \$430 million.” Similarly, Ragan stated at a related earnings call that took place on May 9, 2019 that “We’ve reiterated our guidance for growth in a range of 2% to 5% as we gather more visibility into 2019. As I mentioned, we are guiding to the upper end of the adjusted EBITDA range of \$410 million to \$430 million.” Nefkens emphasized the point, saying, “for 2019, we’re confident in our growth guidance in the **upper end of our EBITDA guidance**, and we remain optimistic.”

255. These representations in ¶254 were materially false or misleading and omitted to disclose material facts because of all of the reasons listed in ¶¶195(A)-(D) with respect to Resideo’s product problems and delays, resulting in loss of business, sources of margin pressure, including a depleted value engineering team and loss of sourcing leverage, significant risks of lost earnings because of a contract provision providing for large penalties with a large customer, and the difficulties, inefficiencies and uncertainty resulting from the aggregation of disparate divisions that had never operated as separate businesses before.

256. The press release also quoted Nefkens as follows: “We’re off to a great start in 2019 with strong Q1 revenue performance in both our Global Distribution and Products

& Solutions businesses. In Q1, our in-house innovation shined with the launch and strong sales volumes of our next generation pro security platform.”

257. In particular, the press release further stated that “Resideo's new next-generation pro series security platform began rollout in Q1 [notwithstanding the Company’s prior representation of a December 2018 rollout]. This revolutionary platform delivers both entry-level security protection and scales to a fully integrated smart home security solution. It features new self-contained wireless panels, advanced encrypted sensing, and offers dealers one system for easy installation and support.” The description of this security platform from the release was clearly intended to refer to Project GRIP, though that name was not used. And in the earnings call discussion, Nefkens made clear – in answer to a question from an analyst as to “the differential in margin profile when you guys are selling through to an OEM-type customer relative to, if you're just selling kind of directly to a contractor through a higher-touch distribution model that might come with more margin” – that the product referred to was the one manufactured for ADT, which had a lower margin than if the Company was selling such a product directly to consumers: “[W]ith the launch of our security platform to right now, which we're basically rolling out to one of our largest customers. That is an OEM-type contract, it has lower price points.”

258. These statements in ¶¶256-257 were materially misleading and omitted material facts for the reasons stated in ¶¶134-146 because they failed to disclose that the separate GRIP product for ADT had been delayed past the point on which Resideo had committed to ADT it would be ready, with the delay resulting in millions of dollars in lost revenue and in significant contract penalties.

259. Indeed, one of the factors Nefkens claimed at the end of the Class Period caused the dismal financial results the Company disclosed at that time Nefkens was “[c]ontractual customer rebates associated with” what Nefkens said was a contract renewal in 2017 with what he described as “a large OEM security customer.” CW3 explained that the OEM referenced by Nefkens could only have been ADT because it was the only OEM selling security products that could be characterized as “large,” and Resideo’s contract with ADT was renewed in 2017. CW3 further recalled that Resideo’s delay of delivery of the GRIP product to ADT resulted in contract penalties, which may have been in the form of rebates.

260. Further, Nefkens left the misleading impression that while the separate, higher margin Project GRIP project was not yet ready for shipment, it would soon would be, and that in fact, by the end of the year, it would be able to integrate that product with all of the Comfort products, what internally was referred to as Project STORM. First, as to Project GRIP, Nefkens initially stated, in continuing his answer to the analyst question alleged above, that “So we're basically rolling that product out first at the lowest price points while we still have not come up the scale from a manufacturing perspective, and that's causing kind of the product mix here. So that's how you – we're looking at the product mix bucket. And *as we continue to go faster, that's [when] we've increased the number there.*”

261. Further, with respect to the implied time frame for rolling out first the consumer version of the Project GRIP product and thereafter the Project STORM product, there was this exchange:

**Jeffrey Ted Kessler** - Imperial Capital, LLC, Research Division – MD

This is Jeff Kessler at Imperial Capital. Can you talk a little bit about – beyond your largest customer on the security side when you're talking about putting together both a home product selection on the security side as well as integrating heat and cold equipment. When you look at the next level down of companies or let's just call it both direct dealers as well as channel partners, what are you finding as the sweet spot for what they want so that you can maximize – to some extent, maximize your scale and margin, maximize what they want at their end to satisfy their end users the most? *Where are you finding that compromise, that mix that would be maybe the sweet spot for growth in this company beyond the relationship with your largest buyer?*

**Michael G. Nefkens** - Resideo Technologies, Inc. - CEO, President & Director

Yes, Jeff. So thanks for the question. So obviously, we're really excited about the launch of our pro [series] security product, and this product is redefining the industry with its self-contained wireless panel, its encryption, its sensing capability. I mean this is a true classic example of non-creepy [surveillance]. So we are not listening to the customer, we're not taking video. It's a true sensing product, and it's wireless, and very easy to use. For the end user and very easy to install for the dealer and it's got user-replaceable modules. So they don't have to do a truckload to get that out there, which is going to save the dealer quite a bit of money going forward as technology [needs an] upgrade.

[Y]our question around the sweet spot for us, *as we roll this out to the rest of our customers, being able to integrate not only the hardware but the hardware with our software, is going to be key for us, and then being able to leverage our platform to move into other adjacencies* like the Buoy example [a home water flow product] that was just given. *So we'll have the capability by the end of the year, beginning of next year.* If you are using our application for security products, you're also going to be able to integrate the Buoy product and see what's happening with the water in your home, and we're going to be able to move into air quality as well. So



that's why we're so excited about these platforms. That's why we're accelerating these platforms is because they give us more opportunity to grow our recurring revenue as we go forward.

262. These statements in ¶¶260-261 were materially false or misleading and omitted material facts because of the reasons alleged in ¶¶134-146. The Project GRIP product for consumers was “poorly scoped” and “not close to done” as of the time of this representation. There were no set milestones for teams working on the project to meet, and no idea what the finished product was supposed to look like. Project STORM, which Nefkens adverted to by his reference to “being able to leverage our platform to move into other adjacencies,” and which he CW3 referred to as Nefkens’ “fake project,” was not close to having any of the technology needed for it to be completed. Resideo was slow to develop the technology and supporting equipment to produce the Project STORM product. management’s rollout dates, for STORM and other projects, were picked arbitrarily without consideration of whether they were feasible.

263. With respect to Comfort division products, the press release noted that:

At the Consumer Electronics Show in January, Resideo announced its Honeywell Home™ T-Series Smart Thermostats – the T9 and T10 Pro – which feature wireless smart room sensors. Resideo offerings won multiple awards at CES, including a Consumer Technology Association award, and earned mentions in multiple “top pick” and “best of CES” coverage.

264. Similarly, during the earnings call, Nefkens stated that “we celebrated the award-winning launch of multiple products at CES [Consumer Electronics Show], including our T9 and T10 smart home thermostats.”

265. More broadly, in the First Quarter 2019 investor presentation published to Resideo’s website the next day, the Company touted “[s]trong growth in security driven by launch of next generation platform” and the “[a]ward-winning launch at CES of new smart thermostat (T9/T10).” The presentation also highlighted supposed “[i]mprovement in supply chain execution.”

266. The presentation also contained a chart entitled “Resideo Segment and Market Overview” purporting to describe Resideo’s key competitors in select business units and whether Resideo had a larger addressable market and market growth estimate than its competitors, as follows:

### Resideo Segment and Market Overview

|  |   |                                     | Addressable Market (\$B) <sup>3</sup> | Market Growth Estimate (%) <sup>3</sup> | Est. Resideo vs. Market <sup>4</sup> | Select Players  |
|--|---|-------------------------------------|---------------------------------------|---|--------------------------------------|---|
| Products & Solutions (\$2.5B) <sup>2</sup> | Comfort \$1.7B <sup>1</sup>                       | Connected Thermostats               | \$1.5B                                | +10%                                    | Green                                | • Nest (Google), Ecobee, tado, Hive, Emerson, GLAS (Johnson Controls)               |
|  |   | Traditional Temperature Control     | \$2.5B                                | Flat to down                            | Green                                | • Emerson, Lennox, Carrier, Trane   |
|  |   | IAQ and Potable Water               | \$3.7B                                | 4-5%                                    | Grey                                 | • Aprilaire, BTW, Danfoss, Watts Water Tech, Carrier, Foobot, Awair, Molekule       |
|  |   | Residential Thermal Solutions (RTS) | \$2.7B                                | 2-3%                                    | Green                                | • SIT, ebmpast, Emerson, UTC  |
|  | Security \$0.8B <sup>1</sup>                      | Pro Security <sup>5</sup>           | \$2.9B                                | 2-4%                                    | Grey                                 | • Alarm.com, Vivint, Simplisafe, Tyco, 2GIG, UTC, Ring, Nest Secure (Google), Abode |
|  |   | DIY Awareness                       | \$2.3B                                | +10%                                    | Red                                  | • Ring (Amazon), Nest (Google), Arlo, Ooma  |
|  | ADI Distribution <sup>6</sup> \$2.7B <sup>1</sup> |                                     | \$20.6B                               | 3-4%                                    | Green                                | • Anixter, ScanSource   |

1. 2018 revenue as reported in our Annual Report on Form 10-K for the year ended December 31, 2018 filed with the Securities and Exchange Commission; 2. Includes intersegment revenue of \$305M as reported in 10K; 3. Addressable market and growth rates for 2019 in the markets and geographies that we compete in; 4. Estimated Relative performance (sales \$) over the past year; 5. Pro Security is professionally monitored security including those systems that are self-installed by consumers, e.g. Simplisafe; 6. ADI Distribution includes physical security equipment sold through distribution (video surveillance, access control, intruder alarms, video door phones, fire detection); Sources: IHS, Navigant, BSRIA, Management estimates

5

**Growing Presence in Attractive Markets**



267. First, regarding the Connected Thermostats subdivision, Nefkens stated: Moving up the chart to our largest business of Products & Solutions, Comfort. We have broken the down into 4 subsegments: the first, *connected thermostats, is a growing market*

*at 10% plus, and we've been performing above market with multiple market-gaining launches over the past 12 months, including the T9 and T10 smart home thermostats.*

268. Similarly, in another part of the presentation, Nefkens had the following exchange with an analyst as to the T9 and T10 thermostats, and what he referred to as the “superconnected” thermostat:

**Ian Alton Zaffino** - Oppenheimer & Co. Inc., Research Division - MD and Senior Analyst

Okay. And then you had a very successful launch of the T9 and T10 at CES. Now is that the superconnected thermostat or is this what's coming before and then you're going to have the superconnected coming afterwards? And what's kind of the timing of that rollout?

**Michael G. Nefkens** - Resideo Technologies, Inc. - CEO, President & Director

Yes. Ian, it's Mike here. So the T9 and T10 are top-of-the-line connected products that have been in the works really for the last year. So – as you mentioned, **we launched those very successfully** at CES here in January. The T9 is the kind of the do-it-yourself model, and the T10 is the pro model. **So the thermostat we've been alluding to we'll be launching towards the second half of this year, and that will – that is the superconnected one that's in the works right now and we expect to be shipping those next year at the first of 2020**

269. The representations in ¶¶267-268 were materially false or misleading and omitted to disclose material facts for the reasons stated in ¶¶156-170. The T-Series thermostats had been declining for years and had been considered aging technology before the Spin-Off from Honeywell. Defendants themselves admitted at the end of the class period that a poor *pre-spin* transition from the prior generation of non-connected thermostats in 2017 to the new T-Series line impacted the adoption by the market of mid-level T-Series thermostats.

270. With respect to the TCC connected applications, about 85% of Company's connected thermostats, the infrastructure for the product was not designed to handle the 3 million users that Resideo allowed on the system, but Resideo nevertheless sold the product even after the Company knew of this problem. As a result, the engineering team with responsibility for the project warned as early as the summer of 2018 that it would crash and it in fact did crash in November 2018. As a result of this problem, the TCC app was out of service approximately every 3-4 days and at times for as long as 24 hours. Given this severe problem, there were hundreds of customer complaints. While CW15 was not on the commercial side of the business, and therefore could not provide information with respect to sales for the product, CW15 could not imagine that such a significant problem did not affect TCC sales.

271. The representation in ¶¶267-268 with respect to the T9 and T10 thermostats were materially false or misleading and omitted material facts for the reasons stated in ¶¶151-155. The rollout of those thermostats was delayed by about 18 months and Resideo's competition, which included Google's Nest product highlighted by Resideo as a key competitor, had already surpassed Resideo's technology and captured that market.

272. The representations in ¶268 with respect to the "superconnected" thermostat were materially false or misleading and omitted material facts for the reasons stated in ¶¶195(A)-(D) because, Resideo had a lack of technical talent, including software developers and product engineers, significantly delaying the time in which it could launch any new products.

273. Second, regarding the Traditional Temperature Control Segment (*i.e.*, non-

connected thermostats), Nefkens stated: “next, is traditional temperature control, which includes nonconnected thermostats, hydronic heating controls, zoning controls, et cetera. *That's a \$2.5 billion market where Resideo is the clear leader, but the market traditional temperature control is flat, and we're performing just about that.*”

274. The representations in ¶273 with regard to non-traditional thermostats were materially false or misleading and omitted material facts for the reasons stated in ¶¶156-170. The Company later conceded that its products in this area were outdated, from a prior generation, and it was striving, unsuccessfully to transition consumers to another product.

275. Indeed, as the connected thermostat market will only be growing since its more modern technology continued to be deployed as new homes are continuously built, the non-connected thermostat market will be shrinking. As such, Resideo’s and Honeywell’s market dominance with non-connected thermostats will continue to become less relevant.

276. Finally, after discussing the IAQ and Potable Water subdivisions, Nefkens discussed the RTS business, “which includes the behind-the-wall controls, for hot water heaters, boilers, furnaces, et cetera.” Nefkens stated that “in RTS, Resideo has a strong and leading market position and growing well above market.”

277. These representations in ¶276 were materially false or misleading and omitted to disclose material facts for the reasons stated in ¶¶91-98, given (1) the “huge impact on margins” for the EMEA division of the RTS business, causing it have to pay for such devices that normally cost between around 80 cents to \$2.50 each an amount that jumped to \$9.00 to \$15 per unit, and (2) as the Company later disclosed, before adoption

of an upcoming regulation affecting RTS products Resideo did not sell, distribution channels were sufficiently aware of its likely implementation such that they were stocking up on grandfathered products. If those channels knew this, then Resideo, a participant as well in the RTS business, surely knew of it as well, including that existing non-compliant products would be grandfathered, and therefore there was a material risk that those channels would stock up with such products, crowding out Resideo's products .

278. In sum, Defendants used the chart reproduced in ¶266 to claim that Resideo's products – including Connected Thermostats, Traditional Temperature Control and the RTS business – were purportedly “above market” competitors, including Google Nest. In this regard, Nefkens stated: “So to summarize, Resideo has market-leading positions [in] performance in the markets we serve, coupled with solid Q1 improvements in our Pro Security business. So our work is to gear [Resideo] to accelerate growth even further in these markets.” For all the reasons stated above in ¶¶195(A)-(D), this statement was materially false or misleading and omitted to disclose material facts.

279. Also during the call, Nefkens again claimed that Resideo had largely put its spin-related issues behind it, saying “The product segment also saw tangible improvement in supply chain execution as we work through spin-related headwinds from the past 2 quarters” and “We're also starting to move beyond some of the supply chain and cost spin burdens.”

280. These statements in ¶279 were materially false or misleading and omitted material facts because of the reasons alleged in ¶¶91-116. Most of the supply chain issues had pre-dated the spin, required significant changes in infrastructure to be fixed, and had

still not been resolved as of the time of this representation. As the new CFO Ryder stated after the end of the Class Period, “maybe our manufacturing facilities aren’t in the right places with the right freight lines.”

281. In response from an analyst who asked “what type of margin expansion should we be expecting,” Ragan claimed that “from the new products, we’ll get additional scale throughout the whole year, we’ve got it at 8%, which is what we did in Q1.”

282. This representation in ¶281 was materially false or misleading and omits material facts relating to sources of margin pressure, as alleged in ¶¶91-170, including a depleted value engineering team and loss of sourcing leverage, significant risks of lost earnings because of a contract provision providing for large penalties with a large customer, likely ADT in connection with Resideo’s late delivery of its GRIP product, and the difficulties, inefficiencies and uncertainty resulting from the aggregation of disparate divisions that had never operated as separate businesses before.

283. Further, Ragan’s representation alleged in ¶281 was also materially false or misleading and omitted material facts to the extent he claimed that margin expansion would result from “the new products.” As ¶¶91-170 establish, there were significant problems with each of Resideo’s new products and significant delays in the introduction of others well beyond what Defendants were leading the market to believe.

284. Following the press release and earnings call, Oppenheimer issued an analyst report on May 8, 2019, maintaining its OUTPERFORM rating, emphasizing Resideo’s reiteration of its 2019 guidance and intended cost cutting initiative to increase margins. On May 16, 2019, BAML issued a report in which it maintained its BUY rating, focused on,

among other things, Resideo’s “plans to launch a new comfort platform later this year to help accelerate growth in the its product business, led by its new ‘super-connected’ thermostat.”

285. On June 6, 2019, Ragan presented at the Robert W. Baird Global Consumer, Technology & Services Conference. During the presentation, Nefkens discussed the Company’s GRIP product and the contract with ADT, stating:

We talked about the strong growth in Security. We won a large contract with ADT. And as we roll that out, we don't have the leverage yet on that particular product. That's our GRIP, Global Residential Intrusion Platform, that *we rolled out and started to deliver this year*. As we go through the year, *we'll get margin expansion as we get additional volume and scale there*.

\* \* \*

*And the next-generation security platform is going great as far as the adoption. I'm sure everyone's seen the ADT commercials. That is our platform that they're highlighting there, and it is a great product.*

286. However, the representation alleged in ¶285 was materially false or misleading and omitted material facts as Resideo had delayed the launch of the GRIP platform and the delay in the rollout damaged its relationship with ADT and caused it to incur millions of dollars of lost revenue and contract penalties.

287. Also during the presentation, Ragan stated that Resideo “got a lot of traction in connected thermostats . . . So we have made a move in connected thermostats. We were behind. We were #3 behind Ecobee and Nest, Now we’re #2. So we are getting some momentum there. We rolled out a new connected thermostat, T9, T10, at CES, and that’s gotten great adoption. That’s clearly the best product in the market today which is driving



some of that share growth that we have, ” going further to state that “T9, T10 functionality is actually the best in the market.”

288. These statements in ¶287 were materially false or misleading and omitted material facts for the reasons stated in ¶¶156-170 because Resideo was late in rolling out its connected thermostat products so that Nest had captured the market in that product area. CW3 stated, as alleged in ¶153, that he does not know how they got the “we’re # 2” from. CW3 added that he would like to see the source data on those numbers because, based on his understanding of the connected market competitors, including Ecobee and Nest, both had better products and capability to bring them to market.

289. Ragan also stated that as to “the traditional temperature control, that is the nonconnected thermostats,” that, while “the market overall is flat,” Resideo “continue[s] to take share there” and it has a “compelling position in the nonconnected space, much greater than 50%.”

290. This statement in ¶289 was also materially false or misleading and omits material facts for the reasons alleged in ¶¶156-170, again, given the Company’s own subsequent admission that its products in this area were outdated, from a prior generation, and it was striving, unsuccessfully, to transition consumers to another product. Further, Resideo’s position in the non-connected thermostat market was increasingly irrelevant as that market was shrinking in the face of more modern technology.

291. Ragan further stated regarding the decline in the RTS business that “comps year-over-year were tough” and “so the comps don’t look as good as we would like” but assured investors that “that’s really just a temporary issue.”

292. This statement in ¶291 was also materially false or misleading and omit material facts because of the reasons alleged in ¶¶91-98, relating to significant pressure on RTS margins in Resideo's EMEA division RTS business.

293. On June 6, 2019, Whitesand Research issued an analyst report on Resideo, stating:

We believe that the guidance cut (during 4Q18) is behind and REZI has laid out a path to **accelerated growth** following its 1Q19 earnings. The **margins are also anticipated to rebound** over the medium term. REZI trades at ~7.3x our FY 2020 adjusted EBITDA estimate, which is at the lower end of the peer group despite **better margins and growth outlook**. In our view, REZI is undervalued at current levels.

The report also added that “The next generation security platform launched in late 2018 saw solid growth in 1Q19 as shipments began to one large customer. REZI expects the product to reach the entire customer base by 1H20 which should further drive revenue.”

**E. Resideo's Management Again Claims the Company's Supply Chain Issues Had Been Resolved, Commits to Rolling Out the GRIP Product for Direct Consumers in Q4, While Disclosing a 36% Drop in Products & Solutions EBITDA**

294. On August 7, 2019, Resideo issued a press release announcing its Second Quarter 2019 financial results, disclosing a GAAP net loss of \$11 million and GAAP EPS loss of \$0.09. The release also disclosed that Products & Solutions EBITDA had decreased 36% as a result of “unfavorable product mix, production cost increases, and the impact of acquisition expenses.”

295. In spite of disclosing segment-specific EBITDA declines, Resideo reaffirmed its guidance, full year revenue growth of 2-5% and at the upper end of the

Adjusted EBITDA range of \$410 - \$430 million, supported by the Company's cost reduction program, which Resideo stated was on track to yield \$50 million in annualized savings by 2020.

296. Additionally, Nefkens claimed that Resideo's "momentum continues with strong top-line growth during the second quarter, spread evenly across our ADI Global Distribution and Products and Solutions businesses." At the conference call with analysts Nefkens and Ragan held the next day to discuss the results, Ragan similarly reiterated the prior 2019 guidance.

297. These statements in ¶¶ 294-296 were materially false or misleading and omit material facts because of all of the reasons set forth in ¶195(A)-(D), including the fact that the integration of these disparate businesses in an efficient manner was far from complete, there were undisclosed significant problems and issues limiting the competitiveness and operability of Resideo's product offerings, the significant customer complaints its was experiencing, an inability to manufacture and roll out products under development on a timely basis, resulting in part in lost revenue and contract penalties, as well as significant supply chain problems the Company was experiencing.

298. Also on the conference call, Nefkens yet again claimed that *this* time Resideo overcame its spin-related problems, saying, "We are finally starting to see some normalcy after all the spin work." He further stated: "As you may know, we had some supply chain headwinds pre- and post-spin. But due to new supply chain leadership and process changes, we're delivering more on time than ever before and our delivery metrics are the best they've been in 5 years. This improvement will allow us to be more aggressive on the growth side."

Nefkens reiterated this point by saying, “I also want to call out the incredible strides we’ve made on improving our supply chain.”

299. These statements in ¶298 were materially false or misleading and omit material facts because of the reasons set forth in ¶¶99-116, including fundamental supply chain problems, requiring significant changes in infrastructure to be fixed, and had still not been resolved as of the time of this representation. As the new CFO Ryder stated after the end of the Class Period, “maybe our manufacturing facilities aren’t in the right places with the right freight lines.”

300. On the issue of the Company’s gross margins, Ragan claimed that “We are more than confident we will mitigate any weakness with cost reductions.” In response to a later question concerning the cost reduction program, Ragan answered by saying “we are driving across the cost and the company overheads as well as looking at gross margin improvements as well and supply chain. So there are multiple opportunities that we’re working currently. So I would expect continued SG&A improvement as we take costs out of that structure, and **you should see some improvement on the gross margin line as well.**”

301. These representations in ¶300 were materially false or misleading and omitted material facts because of the reasons alleged in ¶¶195(A)-(D), as to material sources of margin pressure, including a depleted value engineering team and loss of sourcing leverage, a contract provision providing for large penalties with a large customer, likely ADT in connection with the late delivery of the ADT product, and the difficulties,

inefficiencies and uncertainty resulting from the aggregation of disparate divisions that had never operated as separate businesses before.

302. Also on the call, a question was asked concerning what efforts Resideo was taking to increase its new product line into the fourth quarter in light of the Company's competition:

**Jeffrey Ted Kessler** - Imperial Capital, LLC, Research Division - MD

This is Jeff Kessler at Imperial Capital. With regard to non-ADT business in the Pro market, what are the medium and some of the smaller – but maybe let's shift into the medium regional companies asking for – as you begin to change your product line and advance it in the fourth quarter, what are they asking for that is different or additive to what they have now to keep them – to keep their value proposition up and higher than, you might call, the new competition?

**Michael G. Nefkens** - Resideo Technologies, Inc. - CEO, President & Director Thanks, Jeff. This is Mike here. I'll answer that. So yes, so looking at security, we will be rolling out our new Pro series platform to the general market in Q4. So that in 2020, we'll be rolling that out in Europe. So we have launched it with our largest customer, and we will be rolling it out to general market in Q4 and then into Europe next year.

303. The representations alleged in ¶302 with respect to the Project GRIP security product were materially false or misleading and omit material facts because of the reasons alleged in ¶¶134-146. There were no set milestones for teams working on the project to meet, no idea what the finished product was supposed to look like, and no improvement upon this dysfunctional process that would make a launch date in 2019 likely. Further, the Company suffered a dearth of talented engineers needed to successfully complete this product launch, and it exacerbated that problem by engaging in a significant reduction in

force series of layoffs as part of the cost-cutting program designed to in other ways expand margins.

304. On August 12, 2019, Oppenheimer issued an analyst report in which it expressed concern about the Company's margin profile "over the next 2-3 years," revealing that "management also acknowledged there is a 'new normal' in security and margins should settle in 500bps lower," and leading Oppenheimer to reduce the Company's price target from \$30 to \$20. Nevertheless, Oppenheimer kept its OUTPERFORM rating, based on its assessment that Resideo's representations, including those alleged above, rendered its 2019 guidance "reasonable," including assurances from Resideo's management that margins for the year would in fact improve because at the end of 2019 there "is going to be some improvement that we're going to see on the security margins from where we currently are."

**F. Resideo Initiates a Comprehensive Operational and Financial Review and is Forced to Admit a Slowdown in the RTS and Comfort Businesses**

305. On October 22, 2019, Resideo announced its Third Quarter 2019 financial results. In the press release announcing the results, Resideo disclosed it would be performing a full financial and operational review of its business:

Resideo has begun a comprehensive operational and financial review, focused on improving gross margins and optimizing its organizational footprint. The aim of the review is to simplify internal processes that will enable Resideo to be more agile in responding to changing customer and marketplace dynamics. The company has retained industry-recognized experts in supply chain optimization and organizational excellence to assist in the review.

306. Simultaneously with this disclosure, Resideo announced the surprise departure of its CFO Defendant Ragan, to be replaced by former Constellation Brands CFO Robert Ryder.

307. Resideo further disclosed that its Products segment experienced revenue decline due in part to a slowdown in the RTS business which was “driven by certain recent regulatory changes and a general slowdown across large OEM customers in the sector.” The regulatory changes were later explained to have occurred in July 2019, and to have been anticipated in advance of that date by distribution channels through which Resideo operated in its RTS business.

308. Resideo also announced a decline in the Comfort business “primarily due to lower sales volumes in non-connected thermostats.” Significantly, Resideo admitted that “poor **pre-spin** cutover from the prior generation of non-connected thermostats to the T-Series line impacted the adoption of mid-level T-Series thermostats,” claiming only that “[t]he cutover effects became markedly more pronounced in the third quarter after the prior generation of non-connected thermostats were discontinued.”

309. As alleged in ¶38, CW3 states that these statements by Resideo as to its declining revenue were a “smokescreen” and “misdirection” to draw attention away from and to hide the true problems at the Company.

310. Additionally, Resideo disclosed that its “new generation of security products and connected thermostats have experienced solid growth” but that “these products have yet to benefit from lifecycle value engineering, adversely impacting full-year 2019 Products & Solutions segment gross margins.” The release further represented that “the

company is actively investing in its value engineering team and expects meaningful improvement to gross margins over the next 18 months.”

311. This statement in ¶310 was materially false or misleading and omitted to disclose material facts for the reasons stated in ¶¶99-116. That is, there was no explanation until the end of the Class Period that the lack of an application of value engineering to the Company’s products resulted from Honeywell leaving Resideo’s value engineering team at the time of the Spin-Off “**largely depleted.**” Accordingly, while Resideo could begin hiring new value engineers, it takes an average of at least a year and a half to have a new employee (even if experienced) gain the institutional knowledge needed to make an impact in finding ways for the Company to cut costs along the manufacturing process. In sum, what was missing from this press release is a disclosure that Resideo could experience “meaningful improvement to gross margins” through this important tool not **over** an 18-month period, but **only** beginning near or at the end of that period of time.

312. Also in the press release, Resideo disclosed third quarter EBITDA of \$77-79 million, missing analyst expectations of \$98-101 million. Resideo further reduced its full year 2019 EBITDA guidance to a range of \$330-350 million, down from the top end of \$410-430 million that it had previously given and reaffirmed without qualification in numerous prior public statements, and a reduction of its full year sales guidance, similarly reaffirmed without qualification in numerous prior public statements, from GAAP revenue growth of 2% to 5% to 2% to 4%.

313. Nonetheless, the press release boasted that the financial and operational review would “build upon the previously announced cost optimization program, which is



on track to achieve approximately \$15 million in realized savings in 2019 and \$50 million in [] 2020.” This representation failed to disclose that, as alleged in ¶¶91-172, one of the factors that Defendants disclosed at the end of the Class Period that caused Resideo’s disappointing results, including low margins, was “slow moving products,” despite the repeated representations during the Class Period and before as to Resideo’s superior competitive position across product categories and robust and innovative product line. Though not disclosed until after the end of the Class Period, this problem was the materialization of the risk caused by Resideo’s lack of talented engineers, a problem exacerbated by the cost optimization program to the extent it led to the mass employment termination of many of the engineering staff that it had retained.

## VII. THE TRUTH IS DISCLOSED

314. On November 6, 2019, Resideo issued a press release summarizing the Company’s Third Quarter 2019 financial results. The press release was attached as an exhibit to a Form 8-K, and confirmed Resideo’s disclosures in the October 22, 2019 earnings preview.

315. On the earnings call held the following day to discuss the results, Resideo provided additional details about, among other things, the Company’s supply chain issues and specifically its value engineering problems. Nefkens disclosed for the first time Resideo essentially had as of the beginning of the Spin-Off and through the Class Period no value engineering teams. Nefkens stated:

The first factor was gross margin compression. *Most of our value engineering stopped prior to our spin-off from Honeywell.* In a company like ours, product costs like

components, raw materials and packaging will need to be optimized every year to keep gross margin strong. Value engineering teams do that. **Before we spun off from Honeywell, these teams were largely depleted**, and we are seeing the effects of that in our gross margins.

316. In response to an analyst question about how Resideo had lost value engineering people in the Spin-Off because those employees had stayed with Honeywell, Nefkens responded:

So look I think the lines were drawn pre-spin sometime back about who was coming over and who wasn't. So not certain of exactly how those decisions were made. And what I can tell you is that the talent and the value engineering that came over was very small compared to what was required. Our business is going through a transformation right now from products that are more mechanical into products that are more electronic. *And we basically did not have the right people on the pitch post spin to continue to value engineer those products . . .*

*As you alluded the problem with that is really the value engineering that should have been done 12 to 24 months ago we would have started to see the impact now.* Now that we're restarting that it will take some time as new raw new materials new components will have to come in will have to be manufactured. *We'll have to move all the previous stocks that we have before we start to see the benefit of that and we expect that to take 12 to 24 months.*

317. Put another way, Nefkens admitted for the first time that at the time of the Spin-Off not simply a failure to fully apply value engineering to its products, but Resideo **did not have** the value engineering staff to address the Company's ongoing supply chain problems. As CW3 noted, *see* ¶101, Resideo did not have any value engineers from the time of the Spin-Off, because Honeywell took all of them.

318. Most significantly, in terms of Resideo's near term future EBITDA and

margins, Nefkens also admitted that, had Resideo worked earlier to retain value engineering staff to replenish the staff that Honeywell had retained, Resideo would have seen the benefit reflected in the supply chain within 12-24 months.

319. Next, Nefkens stated “The second factor is sourcing. We lost some sourcing leverage in direct and indirect materials **following the spin-off**. We've been working with our suppliers for several months now to rectify that.” This is also a significant problem affecting margins, also one that is not easily or quickly remediable, and therefore is likely to adversely impact upon margins in the future.

320. Another factor that Nefkens mentioned was “post-spin inventory write-downs and slow-moving products” that “impacted our EBIDTA as well.” As previously alleged in ¶184, this disclosure is contrary to all of Defendants prior representations with respect to Resideo’s product line. It is consistent, however, with (1) statements from CW3 as to discussions within Resideo early in the Class Period of “challenges presented by [Resideo’s] competition to the T-series thermostats,” “the loss of major channel partners, loss of security partners, the challenges of Resideo’s ‘Cloud,’ and customer churn on the security side of the business.” Indeed, these problems were so severe that *Resideo’s leadership team ordered that to ensure the bad news was not leaked outside the company, that all communications would be on WhatsApp.com, not the Company email system*. It is also consistent with (2) the later disclosure of a paucity of engineering talent. Most significantly, no basis was provided to the investing public as to why this also was not a long-term problem not amenable to a quick fix.

321. In an analyst report issued on November 6, 2019, Oppenheimer stated that there had been “significant mis-executions of the business.”

322. Following the earnings call held November 7, 2019 – in which Nefkens disclosed for the first time certain longstanding problems that significantly affected the Company’s gross margins the price of Resideo’s common stock declined from its closing price of \$10.02 per share on November 6, 2019, to close at \$9.78 per share on November 7, 2019 on heavy trading volume. As the market further digested the negative news, in the subsequent trading days Resideo’s common stock declined further: on November 8, 2019, Resideo’s common stock closed at \$9.60 per share, and on November 11, 2019, the Company’s common stock closed at \$9.02 per share.

#### **VIII. POST-CLASS PERIOD DEVELOPMENTS**

323. On December 2, 2019, it was announced that Nefkens would be leaving his role at the company “to focus on family health issues,” staying only long enough until a successor was appointed. Oppenheimer, in its analyst report issues on the same day, stated that this news was “a development we view as positive.”

324. On December 11, 2019, Resideo released an “Investor Update” presentation in advance of the Imperial Capital 2019 Security Investor Conference. In the presentation, Resideo admitted that “SpinCos often have teething pains due to legacy tie-ins, allocated pre-spin financials, management and customer turnover, TSA transitions and shareholder churn.” The presentation further admitted the Resideo Spin-Off had “additional complexity due to Honeywell determined spin obligations, lack of pre-existing stand-alone business and dramatic profitability shortfalls to estimates.”

325. On the same day, Resideo's new CFO Robert Ryder presented at the investor conference in which he made numerous statements revealing the Company's severe problems since inception – and further indicating the falsity of Resideo's public statements during the Class Period. As alleged in detail in ¶¶11-12, 94-98, 187-188, Ryder disclosed that (a) contrary to prior representations as to Resideo having a “strong management operation system” with integrated business units, Honeywell “kind of picked individual pieces up and kind of threw them together and called that products and solutions” to create Resideo, which had “governance ramifications”; *i.e.*, Honeywell took a bunch of products from various business units that did not otherwise have historic-separate P&Ls as stand-alone businesses or independent governance and operational structures and just assigned numbers to them without regard to how they would be integrated to operate as a stand-alone Company; (b) contrary to the prior statements concerning the Company's supposedly innovative products, streamlined manufacturing and robust supply chain, Resideo likely had “too many products,” “in too many places,” not “in the right places with the right freight lines”; and (c) contrary to Defendants' statements as to Resideo's competitive and innovative products and agility and speed to the market, “[w]e've had new product introduction, execution issues, lack of customer acceptance testing. And we are too slow to identify poor performing new product launches,” new product launches were “not completely launched, right, but weren't really accepted by customers, weren't really competitive” and “[w]e had the inventory. And unfortunately, nobody wanted to buy it, which is why we had these inventory write-offs, okay?”

326. Also, the financial projections Defendants issued at the time of the Spin-Off

– which aggregated the projections of the random Honeywell business units that would become Resideo – lacked a reasonable basis, in light of Resideo’s lack of operating history and revenues as a single pre-spin business unit of Honeywell and the undisclosed problems that the Company had during the Class Period.

327. On February 26, 2020, Resideo issued a press release providing fourth quarter 2019 and full year 2019 results. Contrary to repeated representations by Defendants, full year consolidated revenue increased by 3% on a GAAP basis, and adjusted EBITDA declined \$137 million, or 27%, driven by a 32% reduction in the Products & Solutions division.

328. A related earnings call was held the next day, presided over by Nefkens, Ryder, and Lead Independent Director Andy Teich. As alleged in detail in ¶190, Teich made clear that not only was Resideo bereft of value engineers during the Class Period, but sufficient talented engineers generally, with materially adverse consequences for product development and innovation.

**IX. DEFENDANTS ACTED WITH SCIENTER WHEN THEY MADE OR CAUSED TO BE MADE MATERIAL MISSTATEMENTS OR OMISSIONS IN VIOLATION OF SECTION 10(b) OF THE EXCHANGE ACT**

329. Defendants were active and culpable participants in the fraud alleged herein, as evidenced by their knowing or reckless issuance and/or ultimate authority over the materially false or misleading statements alleged herein. Each of Nefkens and Ragan acted with scienter in that each knew or recklessly disregarded that each of his respective public statements alleged above was materially false or misleading when made, and knowingly or

recklessly participated or acquiesced in the issuance or dissemination of each such statement as a primary violator of Section 10(b) of the Exchange Act. In addition to the specific facts alleged above, Defendants' scienter is further evidenced by the following facts:

**A. Nefkens and Ragan Participated Directly in Periodic Reviews of Resideo's Individual Products, Were Personally Involved in New Product Introductions and in Addressing Supply Chain Issues and Directed the Concealment of Negative Information**

1. Nefkens and Ragan Instructed Resideo Employees to Conceal Negative Information

330. CW3 recalled a breakout meeting at the Company's annual meeting in Orlando, Florida in January or February 2019, in which there was a discussion of the product and market challenges that Resideo faced. These included challenges presented by Resideo's competition to the T-series thermostats, the loss of major channel partners, loss of security partners, the challenges of Resideo's "Cloud," and customer churn on the security side of the business. CW3 added that at that same meeting there was extensive discussions of Resideo losing its channel partners who sell and install both thermostats and security systems. He further stated that engineering personnel advised that the company did not have any products ready to sell and did not have a pathway forward to produce more products.

331. CW3 added that Project STORM was also discussed at this meeting, with specific reference to the fact that it was impossible to meet the May/June 2019 target in its current state. CW3 also confirmed that, with TCC outages still ongoing, there were specific discussions about the social media outcry from several outspoken users.

332. CW3 stated that at the end of this breakout meeting, Harkins directed CW3 and all other Vice Presidents/General Managers to not discuss this adverse news, including the problems relating to Project STORM and the TCC outages through email. They were instead directed to use WhatsApp. The reason they were given was that such news was “potentially damaging” and emails were “easily discoverable.”

333. Harkins advised CW3 that this directive came from the “leadership team.” Given the hierarchy of the Company, this could only refer to Nefkens and Ragan, as well as Defendants de Masi, Vice President Flink, and possibly the Board of Directors. CW3 stated that Harkins first reported to both Flink and Defendant de Masi, who in turn reported to Nefkens. CW3 stated that “there is no way that CEO Mike Nefkens did not know about WhatsApp,” that Nefkens was part of the “leadership team” that Harkins had stated had directed him to direct others to use that means of communication.

334. Such a directive goes beyond just demonstrating scienter, knowledge of material omissions that made their representations materially false or misleading. It demonstrates a conscious effort to deceive the market.

## 2. Nefkens’ “Skip-Level” Meeting

335. CW4 recalled a “skip-level” meeting during the pendency of the Spin-Off conducted by Defendant Nefkens. A “skip-level meeting” entails a senior executive (such as Nefkens) not inviting his immediate subordinates or the next level of senior managers to a meeting to allow lower-level employees to speak directly to senior executives without fear of their supervisors holding it against the employees for asking frank or controversial questions. CW4 explained that at the “skip-level” meeting that Nefkens attended, it had



apparently come out that the thermostat product line had not been performing well sales-wise. CW4 reported that Nefkens conveyed to the attendees that his feeling at the time was that if Resideo was not first or second best in a certain market, that the Company should get out of it. CW4 added that while this was the only “skip-level meeting” that he attended, given that he was a part of ADI, other departments also had their own skip-level meetings with CEO Mike Nefkens. In addition, multiple confidential witnesses confirm that Nefkens attended and/or presented at Resideo meetings in which the supply chain issues were discussed. For example, CW2 recalled monthly reviews that included 40 – 50 senior Resideo executives globally – mainly with Michael Flink, Executive Vice President, Chief Marketing and Sales Officers, who reported directly to Nefkens, two meetings with Nefkens, and occasionally attended by Ragan in which he and his Resideo counterparts from around the world presented their Key Performance Indicators, including sales, profit, availability, days waiting for payment, days waiting to pay vendors, and other categories. When asked if Honeywell or Resideo’s C-suite executives were aware of the impact that delays in microprocessors had on sales, CW2 responded that it “should have been visible upfront.” More specifically, CW2 noted that Nefkens attended a separate meeting in London that involved a deep dive into RTS. At that meeting, there was a discussion about the root causes for the challenging profit situation within RTS. Many root causes were discussed but the key reason was linked to microprocessor shortages and, as detailed in ¶116, the resulting increase in costs the Company incurred.

3. Nefkens’ Position at Honeywell Prior to the Spin-Off

336. Nefkens also had access to various sources of information concerning the business units that would make up Resideo and was aware that the products suffered from severe supply chain and corporate governance problems prior to the Spin-Off. For instance, Nefkens had access to confidential information pertaining to products that would be given to Resideo in the Spin-Off by virtue of his position as President & Chief Executive Officer of Honeywell Homes from May 2018 until the date of the Spin-Off. Because of his active participation in an internal “skip-level” meeting, his attendance, or that of his direct reports, on monthly calls on which Key Performance Indicators were discussed, and his participation, or that of his direct reports, at multiple conferences in which issues with respect to the T-Series thermostats, including the TCC connected thermostats, were discussed, Nefkens knew, or was severely reckless in not knowing, that his statements concerning Resideo’s supply chain issues, customer adoption of the T-Series line of thermostats and attendant lack of customer demand, were false and misleading when made.

#### 4. Nefkens’ Involvement in Project STORM

337. In January or February 2019, CW3, and other managing engineers working on the Project STORM product, advised Tu and Vice President Scott Harkins that the project would not be ready for delivery to the market until at least 2 or 3 years from that time, and that a deadline of summer 2019 was “impossible.” The project managers explained that all elements of STORM, including the plastics that housed everything, and the hardware and software involved, were a few years from being developed.

338. CW3 recalls as well a subsequent meeting that had been held in Austin, Texas, though approximately within the same time frame as the January/February meeting

where Tu had been told the time frame could not be met, where Nefkens was present. CW3 states that with respect to a delivery date of May 2019 for Project STORM, notwithstanding what his direct reports had just been told that this target date would be impossible to meet, Nefkens insisted, in words or substance, “This is what I’m promising the market, so we need to make it happen.”

339. CW15 similarly recalled a meeting in April of 2019 during which Project STORM was discussed and in which Nefkens’ “righthand man” CIO Defendant de Masi was present. At the meeting, Defendant de Masi was informed by most of the participants in the meeting that the December 2019 deadline could not be met because they believed that the connected home and security sides would not be ready, that manufacturing of the hardware was behind and not even close to being ready, and that the a vision of the final product was lacking. Of the above-named officers to whom this news was told, Tu and Defendant de Masi directly reported to Nefkens, and Harkins directly reported to Defendant de Masi.

340. Tu, Harkins and Defendant de Masi were senior officers of Resideo such as to have their knowledge of these issues, as to which three witnesses provide direct statements, attributed to Defendant Resideo.

341. CW9, responsible for marketing new product to Resideo’s new Honeywell Home Products division to professional installers and contractors, recalls a meeting similar to the first one CW3 described, “possibly” in December 2018 or January 2019, attended by Harkins and CIO Defendant de Masi, as well as A.J. Smith, Vice President, Home Comfort; Nate Craft, Head of Product, Global Connected Home; and David Quam, Global Director,

Connected Services. At the meeting, it became apparent, by inference, from the statements made to members of management in attendance, that Resideo did not have the hardware to make the Project STORM project and that it would not be available for several years, possibly as many as five years.

342. CW9's view was that the roll out date of Project STORM by 2019 was picked arbitrarily without consideration as to whether the product would be ready by then. According to CW9, it was common at Resideo to just pick an arbitrary rollout date without any involvement or input from those involved with the program. Management's response was usually "just make it happen."

**B. The GRIP Project Managing Engineers Continuously Informed Senior Management of Serious Problems With its Development**

343. As alleged in detail in ¶143, CW8, who was tasked with "get[ting] GRIP over the finish line," said it was "the worst-run project" he had ever worked on during his entire engineering career. He stated that "[the project] was so poorly scoped. I've never been on a project that poorly run." He advised his direct supervisor, Brian Beale, Resideo's Director of Software Engineering, "Dude, this [GRIP project] is not close to done." He said that he believes that Beale would have communicated this information to his superior, Laurent Legris, Vice President of Engineering, Security. CW8's view as to how poorly run the Project GRIP was did not change by the time he left Resideo in June 2019

344. CW8 stated that Resideo senior executives likely knew ahead of time if GRIP was not going to ship on time because team members were working on GRIP twelve hours a day, and there were daily meetings held about the project, during which he and others

voiced the problems that it was facing. CW8 further advised that the leaders of these daily meetings were Eric Oh and Legris, and that Legris, in turn, reported to CTO Edgar Tu. CW8 said that Legris was “very aware” of the delayed state of the GRIP project. CW8 added that “everybody knew” GRIP development was not going well because the issues with the project were discussed in the daily meetings.

345. Notwithstanding these facts, Defendants continued to represent to the investing public that the direct consumer version of the GRIP product would be available in 2109, with Nefkens saying (1) during the March 2019 earnings call that, as to this rollout, both in the U.S. and then in Europe, “We're accelerating that into 2019”; (2) during the May 2019 earnings call with regard to the effort to roll out the consumer version of GRIP that “we continue to go faster” and that as to that rollout and even a version of the Project STORM product, “we'll have the capability by the end of the year, beginning of next year”; and during the August 2019 earnings call that “we will be rolling out our new Pro series platform to the general market in Q4.” All of these statements, made without any caveats, implied that Nefkens was aware and fully informed of the then status of the engineering progress in the development of the GRIP project. But all of them were contrary to the actual facts with respect to that development, which was communicated to senior members of management on a daily basis, as to complaints by the managing engineers actually working on this project that the project was poorly scoped and dysfunctional and continued to be so without change.

**C. Defendants Made Inconsistent Statements Regarding the Rollout of the Project GRIP Product For ADT, All of Which Were Belied by the Concealed Facts**

346. CW8 explained that its GRIP product for its largest OEM, ADT, was different from the one designed for direct customers, with the latter working on Resideo's Titan cloud.

347. The March 7, 2019 Resideo press release as to the fourth quarter 2018 financial results stated that "The company began customer deliveries of its next-generation security platform (Global Residential Intrusion Platform/GRIP) in December 2018," presumably the version designed for ADT, and on the related earnings call that day, Nefkens stated that the "rollout is progressing very, very, well." Nefkens, however, stated in the May 9, 2019 earnings call as to the first quarter 2019 financial results, as to a product that by its description was almost certainly Project GRIP for ADT, "Volume shipments began for our largest customer in February." And in a June presentation that Ragan made to investors at the Robert W. Baird Global Consumer, Technology & Services Conference, he stated that as to the GRIP product for Resideo's largest OEM customer, "we rolled out and started to deliver this year." This inconsistency, which was never acknowledged, let alone corrected, provides corroboration for CW3's statements in ¶¶134-146 that neither of these rollout dates were accurate, that Defendants were making statements as to rollout dates without any basis, without having conducted the type of inquiry that investors would have expected that they would have engaged in before making these representations, without any such an inquiry providing them with any reason to have concluded that their statements were in any way accurate.

348. Given the importance of ADT as a customer, and the significance of this product introduction, Defendants necessarily had to be aware of the truth before they misrepresented and omitted material facts with respect to the rollout of this product.

**D. Defendants Demonstrated in Their Public Representations Direct and Detailed Knowledge of the Issues to Which All Alleged Undisclosed Facts Pertained**

349. Nefkens and Ragan spoke repeatedly about Resideo's progress after the Spin-Off, including its supposed resolution of the Company's supply chain issues, financial guidance and demand for T-Series thermostats, assuring investors they knew what they were speaking about. The public statements by Nefkens and Ragan provide strong and direct indications of their knowledge of undisclosed facts. These Defendants spoke to investors and analysts prior to and throughout the Class Period regarding Resideo's products, on offer to the market and in development, and other factors that were likely to impact upon the Company's financial condition and prospects. Defendants' communications with the public regarding these matters were detail-laden, strongly indicating that Nefkens and Ragan were hands-on managers with specific knowledge of (or direct access to) data and facts regarding the then current status of all factors that affected the likelihood that their guidance of 2019 results were reasonable and achievable, and of all then current material risks that threatened its likelihood, whether disclosed to the investing public or not.

1. Resideo's Supply Chain

350. Nefkens and Ragan repeatedly spoke of Resideo's supply chain. For example, Nefkens stated at various times that Resideo was "actively addressing these

supply chain issues and we're already seeing product flows moving back towards normal volumes," that Resideo's "product segment also saw tangible improvement in supply chain execution," that the Company was "starting to move beyond some of the supply chain and cost spin burdens" and later went on to "call out the incredible strides we've made on improving our supply chain." Ragan also stated that Resideo was "incredibly efficient from a manufacturing supply chain perspective."

## 2. Resideo's Financial Guidance

351. Nefkens and Ragan repeatedly spoke to Resideo's financial guidance when, as discussed above, they actually knew of multiple significant facts that rendered the financial guidance without reasonable basis and unattainable. Nefkens stated: "we're excited about the momentum our business is showing, and we're reaffirming our guidance for full year 2018 and outlook for 2019," while Ragan stated "very good performance in the fourth quarter and we are reaffirming that guidance."

352. While nonetheless claiming that Resideo was "on track to hit our previously provided guidance for 201," Nefkens demonstrated his focus at the August 2019 Second Quarter earnings call on difficulties the Company was facing, while omitting others he only disclosed at the end of the class period that he would have been aware of, particularly given that focus:

Looking at P&S segment adjusted EBITDA, both comfort and security are seeing margin pressures due to product mix headwinds, specifically the ramp up of our new security platform and lower margins on connected thermostats. We are working to offset these with cost containment and supply chain and sourcing process improvements. I also want to call out the incredible strides we've made on improving our supply chain.



As you may know, we had some supply chain headwinds pre- and post-spin. But due to new supply chain leadership and process changes, we're delivering more on time than ever before and our delivery metrics are the best they've been in 5 years. This improvement will allow us to be more aggressive on the growth side.

3. Resideo's New Product Introductions

353. Nefkens repeatedly touted the Company's introduction of new products and alleged robust customer demand for those products, including the T-Series line of thermostats, which Nefkens represented was critical to the Company's business. Nefkens stated Resideo "launched some terrific products in the fourth quarter including our market moving next-generation security platform, universal heat pump defrost controls and the T9 and T10 thermostats." Nefkens further stated: "[o]n the comfort side, as I said earlier, we've rolled out several great products, the T9 and the T10," and "we celebrated the award winning launch of multiple products at CES, including our T9 and T10 smart home thermostats."

354. Further, Nefkens made clear in the March 7, 2019 fourth quarter 2018 earnings call that he and other members of management, presumably including Ragan who also presented and answered questions on the call, were paying a lot of attention to customer acceptance levels of Resideo's products, to what Resideo's employees were saying about the development of the Company's products, and to the efforts to expand gross margins:

Since completing the spin, **we've been out on a listening tour with many of our investors, partners, customers and ecosystem stakeholders.** So as I said at the beginning of my prepared remarks, **we have spent a lot of time listening to all**

**of our constituents from our customers to our investors, to our employees**, we have heard very clearly from our customers that they are excited about Resideo, they love our products, but **they want us to move faster**. We have to get out of this industrial pace and get into a higher pace. As a result of that, we are moving faster. We're accelerating a lot of the investment that we had planned for 2020 into 2019. We are making aggressive cost moves to right-size our cost structure post-spin, and I can tell you, I couldn't be prouder of the team and where we are right now. We delivered our numbers in 2018 as we said we would, and **we are going to deliver on the growth and margin expectations we have put out here**.

355. Nefkens also discussed in detail Resideo's most promising products under development, including technology to integrate them on one platform, providing assurances that they would be available within a short period of time, implying he was cognizant of the current status of the engineering efforts driving those product introductions. As he stated, also at the May 9, 2019 earnings call, in response to a question as to Resideo's "sweet spot" for maximizing margins and other goals, in which he referenced GRIP and seemingly STORM, Nefkens stated:

So obviously, we're really excited about the launch of our pro [series] security product, and this product is **redefining the industry with its self-contained wireless panel, its encryption, its sensing capability**. I mean this is a true classic example of non-creepy [surveillance]. So we are not listening to the customer, we're not taking video. It's a true sensing product, and it's wireless, and very easy to use. For the end user and very easy to install for the dealer and it's got user-replaceable modules. So they don't have to do a truckload to get that out there, which is going to save the dealer quite a bit of money going forward as technology [needs an] upgrade.

**[Y]our question around the sweet spot for us, as we roll this out to the rest of our customers, being able to integrate not only the hardware but the hardware with our software, is**

**going to be key for us, and then being able to leverage our platform to move into other adjacencies like the Buoy example [a home water flow product] that was just given. So we'll have the capability by the end of the year, beginning of next year.** If you are using our application for security products, you're also going to be able to integrate the Buoy product and see what's happening with the water in your home, and we're going to be able to move into air quality as well. So that's why we're so excited about these platforms. That's why we're accelerating these platforms is because they give us more opportunity to grow our recurring revenue as we go forward.

356. Ragan also repeatedly demonstrated his understanding of and focus on all of the details relating to Resideo's gross margin issues and efforts to withstand all causes of margin compression, to meet the guidance that he provided. Thus, at the August 8, 2019 second quarter 2019 earnings call, just a little more than two months before the end of class period disclosures, Ragan said the following:

**We are more than confident we will mitigate any weakness with cost reductions.** While we expect margin pressure to continue, we have performed well year-to-date from a revenue perspective, allowing us to maintain our EBITDA outlook. Our cost reduction programs remain on track, and we expect to realize \$10 million in savings from them this year. You'll notice in our disclosures that we are reporting one-time repositioning costs related to our \$50 million cost reduction program of \$25 million, illustrating that the cost takeouts are well underway.

357. As alleged in detail in ¶285 Ragan also demonstrated in his presentation at the Robert W. Baird Global Consumer, Technology & Services Conference, on June 6, 2019, significant familiarity with Resideo's products, their functionality and customer acceptance of them.

358. Nefkens and Ragan addressed investors on these topics through a variety of media, including during investor conference calls, in SEC filings, at industry and investor events, and in new product introductions touted to investors and customers. Further, Nefkens and Ragan were well aware of the fact that the market was relying on these statements, as analyst published numerous reports that focused specifically on the Company's resolution of supply chain issues and introduction of new products. Multiple analysts asked specific questions about Resideo's supply chain, the introduction of new products and financial guidance, to which Nefkens and Ragan provided assuring responses. Nefkens and Ragan knew, or were severely reckless in not knowing, that the Company's supply chain issues were pervasive, and that Resideo's financial guidance lacked a reasonable basis when made because the Spin-Off was an amalgamation of different Honeywell products with no separately reported P&L and the new products lacked demand and widespread customer adoption.

**E. The Defendants Made Admissions as to the Causes of The Significant 2019 Shortfalls in Financial Results Only Upon the End of the Class Period, the Vast Majority of Which They Were Aware of *Before the Spin-Off***

359. After the end of the Class Period, Defendants presented a multiplicity of explanations for the significant shortfalls in Resideo's financial results. Almost every one of these explanations were of facts that, given the focus of these Defendants and of the importance to the Company of these matters, could not possibly have escaped their attention while they were causing the adverse results that were later disclosed. Indeed, the great majority were of facts or event that existed or occurred *before the Spin-Off*.

360. Thus, the October 22, 2019 press release generally described two product related reasons for the decline in the Products & Solutions division. The first was “The Comfort business declines were primarily due to lower sales volumes in non-connected thermostats. We believe a poor *pre-spin* cutover from the prior generation of non-connected thermostats to the T-Series line impacted the adoption of mid-level T-Series thermostats. The cutover effects became markedly more pronounced in the third quarter after the prior generation of non-connected thermostats were discontinued. The company is working with its channel partners to enhance and better position the T-Series and expects significant improvement in 2020.”

361. Notably, this explanation as to a “poor . . . cutover” was stated to have occurred “pre-spin.” While the effects were stated to have become “more pronounced” in the third quarter, at no time was this adverse product acceptance development, and the Defendants’ concern that the traditional non-connected products were of an outdated prior generation from which they unsuccessfully sought consumers to transition to other products, material risks to sales and EBITDA goals, ever disclosed during the Class Period.

362. The release further stated that “We believe the RTS slowdown was driven by certain recent regulatory changes and a general slowdown across large OEM customers in the sector.” CW3 stated that this explanation for a decline in OEM revenues was false. Instead, CW3 noted, the true reason is Resideo’s poor performance on the contract with ADT, its largest OEM customer, as Resideo was unable to provide the Project GRIP product as provided for under the contract, costing Resideo millions in revenue in 2019

that will continue into the future. The ADT contract was worth approximately a billion dollars, whereas, CW3 explained, the RTS business is the smallest part of the Company.

363. In sum, CW3 stated that Resideo's statements as to its declining revenue were a "smokescreen" and "misdirection" to draw attention away from and to hide the true problems at the Company.

364. Further, even taking at face value the Company's statements with regard to its RTS business, they also evidence prior knowledge of material risks that Defendants were obligated to have earlier disclosed.

365. In the November 7, 2019 earnings call meeting, Nefkens expanded upon the explanation provided in the press release, stating that "slowed orders impacted by an energy efficiency regulation that became effective this summer." He went on to state that the regulation required fan efficiency ratings for lower-end residential furnace stands in gas-fired furnaces, a product category in which Resideo did not compete. However, he went on, because of the expectation that the regulation would be enacted, which happened in July 2019, the distribution channels through which Resideo sold the products in which it did sell stocked up on the lower cost products in advance of the regulation, because they would be grandfathered, adversely impacting demand by OEMs for Resideo's product. Nefkens claimed that "[w]hile we knew that the measure was being adopted in July 2019, we had no visibility into the inventory levels of either the OEMs nor the distribution channel to enable us to accurately estimate these changes."

366. The explanation on its face makes little sense. If the distribution channels were sufficiently aware of the upcoming regulation such that they were stocking up on

grandfathered products, then Resideo surely knew of it as well, including that existing non-compliant products would be grandfathered, and thereby knew that this was a material risk to the sale of its products through those channels, by reason of this likely “stocking up” of grandfathered products. This material risk should have been disclosed or, at the least, factored into Defendants’ guidance, regardless of its purported lack of “visibility into the inventory levels of either the OEMs [or] the distribution channel.” Instead, in the May 2019 earnings call, Nefkens stated that “in RTS, Resideo has a strong and leading market position and growing well above market.” During the August 8 earnings call, notably happening after the regulation went into effect, Nefkens stated that “we did see an in-quarter slowdown in the RTS OEM channel, in particular with our hot water heater OEM customers.” But he neither warned of any risk that this slowdown posed to the Company’s guidance nor made any disclosure of the purported risks posed by the regulatory change.

367. In the November 7, 2019 earnings call, Nefkens and the new CFO, Ryder, hosted an earnings call relating to the disappointing results. During the call, Nefkens outlined what he stated were the causes for the shortfalls in the Product & Solutions division. After repeating the two product-related causes referred to in the October 22 press release – a “poor cutover” to a new generation of nonconnected thermostats, which he expressly said happened in 2017, and the purported issues relating to an energy efficiency regulation in the summer, which other participants in the RTS business had earlier anticipated and acted upon – Nefkens purported to list five “specific factors that impacted our 2019 EBITDA decline in products and solutions.”

368. Most of the factors relate to events that occurred prior to the spin and as to which Defendants had knowledge at the time but which they never disclosed to the investing public. And the few that did not directly contradict the optimistic statements they made throughout the class period.

369. As previously alleged, Nefkens said:

The first factor was gross margin compression. *Most of our value engineering stopped prior to our spin-off from Honeywell.* In a company like ours, product costs like components, raw materials and packaging will need to be optimized every year to keep gross margin strong. Value engineering teams do that. Before we spun off from Honeywell, these teams were largely depleted, and we are seeing the effects of that in our gross margins. Building back this capability as a top priority, and we expect to see the benefits starting in 2020.

Given the importance of value engineering, and given Defendants' focus on gross margin issue, it is again inconceivable that they were not aware of this deficiency and the consequences to margin issues that resulted therefrom. Resideo was obligated to have disclosed its lack of this asset throughout the Class Period, particularly when discussing gross margin issues, as well as incorporated this deficiency in the guidance it provided.

370. Next, Nefkens listed yet another pre-spin development that would have been obvious to Defendants throughout the Class Period but that was never disclosed to the investing public: "The second factor is sourcing. We lost some sourcing leverage in direct and indirect materials **following the Spin-Off.** We've been working with our suppliers for several months now to rectify that."



371. As CW10, who reported directly to Wayne Holland, Resideo's Sourcing Director, who in turn reported to Greg Sachs, the COO, Sourcing, stated, as alleged in further detail in ¶118, that as early as May 2018, when Resideo was required to extend certain contracts that Honeywell had entered into, it "was pretty obvious" that Resideo lacked the sourcing leverage – *i.e.*, the ability to negotiate favorable terms based on large order volumes – that Honeywell had enjoyed. When asked if it would have become apparent to Resideo's leadership that it lacked Honeywell's sourcing leverage and therefore would not be able win contracts with terms as favorable as Honeywell received, CW10 said "I think it was pretty obvious" from the start.

372. Nefkens said that the third factor was "[c]ontractual customer rebates associated with" what Nefkens said was a contract renewal with what he described as "a large OEM security customer." Nefkens noted that the contract was entered into *in 2017*. He also that there was "volume ramp-up in 2019" under the contract, which provided for the opportunity to seek significant rebate, two facts that combined represented a material risk that Defendants should have disclosed.

373. Again, as alleged in ¶260, for the reasons he states, this could only have referred to Resideo's failure to deliver the Project GRIP product to ADT on a contractually agreed upon time, and the resulting contractual penalties. The importance of both ADT and the specific contract that it had to deliver the GRIP product to it, worth a billion dollars, and the obfuscation that Defendants employed to hide the Company's failure to deliver under that contract, makes any denial of Nefkens' and Ragan's knowledge of these events wholly implausible.

374. The fourth factor that Nefkens mentioned was a return reference to the T-Series thermostat transition. Nefkens stated that “This was a transition that began in 2017 from a high-margin product offering to more modern but lower-margin series.” Nefkens claimed that Resideo’s plan was to make up the margin drop by increased volume. However, he had just stated that there had been a “poor cutover” to the new T-Series generation *in 2017*. And, as CW3 noted, the T-Series constituted outdated technology that was long in decline. Again, as alleged above, *e.g.*, ¶¶156-170, the challenges presented by Resideo’s competition to the T-Series thermostats had been long discussed.

375. Finally, and related to the fourth factor, Nefkens mentioned “post-spin inventory write-downs and slow-moving products” that “impacted our EBIDTA as well.” As alleged in ¶166, as early as January 2019, in a meeting at which a senior officer had directed participants to not communicate about what had been discussed other than on WhatsApp, because email is discoverable, by order of the “leadership team,” which CW3 noted had to include Nefkens and Ragan. CW3’s description of the topics discussed at this meeting is directly relevant to the matter of “slow-moving products”: Challenges presented by Resideo’s competition to the T-Series thermostats, the loss of major channel partners, the loss of security partners, the challenges of Resideo’s ‘Cloud,’ and customer churn on the security side of the business. As CW11 also said, Resideo products could not compete with competitors such as Nest or Alarm.com as they were relatively dated as compared with the products sold by those companies. CW12 also said that the Company over-priced certain products that were available online cheaper, resulting in several price adjustments

for clients who complained about the higher pricing. *See also* ¶166 with respect to CW3's consistent reports.

376. At the December 11, 2019 investor conference, Resideo's new CFO Ryder revealed the Company's additional severe problems since inception – again, all matters which would not have been a surprise to Defendants and which belied Resideo's public statements, including generally its guidance, during the Class Period.

377. Among other things, Mr. Ryder stated that, contrary to Resideo's statements concerning the integration of business units and strong management, the Products & Solutions business was thrown together by Honeywell from distinct parts of disparate business units.

378. This disparity of business units, which had not previously operated together, and none of whom had any pre-existing P&L's by which to accurately gauge the effect on the profitability of the entire enterprise of then current business trends, and the lack of common governance standards by which to do so, made any projections of future results problematic at best, a caveat that Defendants were obligated to have emphasized.

379. As detailed in ¶¶11-12, 94-98, 187-188, Mr. Ryder further revealed Resideo's prior statements concerning the Company's supposedly innovative products, streamlined manufacturing and robust supply chain were false when made: These revelations included the lack of customer acceptance of the Company's products, that they "weren't really competitive," that "[w]e had the inventory. And unfortunately, nobody wanted to buy it," too many products in too many places, and manufacturing facilities that weren't "in the right places with the right freight lines. These are facts fundamental to the

business of Resideo that were so diametrically opposite to what Defendants were claiming during the Class Period, that they could possibly claim surprise.

380. All of these after-the-class period statements confirm the information that the confidential witnesses have provided as to the lack of competitiveness of Resideo's products, it's the lack of consumer acceptance of those products, and the failure to launch promised new products that were said would change the margin mix in a more favorable way. And they all belied the representations by the Defendants during the Class Period saying the opposite.

381. In addition, the reference to "maybe our manufacturing facilities aren't in the right places with the right freight lines" is another concession as to the knowing falsity of many of the statements made by Defendants during the Class Period that the Company had overcome its supply chain issues, which they often stated were a temporary problem caused by the Spin-Off. In truth, most of these problems pre-existed the Spin-Off, and were inherent in the manner in which the business units operated and therefore required a fundamental reorganization to be resolved. Such a significant change never occurred, and so these problems of product and part delays persisted, contrary to Defendants' repeated statements at each juncture that the Company had stated that it had successfully overcome them. As alleged in ¶¶91-116, multiple confidential witnesses reported these problems.

382. One of Ryder's concluding remarks was the following:

We're going to make some pretty sizeable reductions in [selling, general and administrative expenses] to right-size the business for what we think new sales will be when we eliminate some of the [products] and maybe look at some of the geographies and make sure we have the right [selling,

general and administrative expenses], because all this stuff came over from Honeywell, and was probably structured for a much bigger, more complex business. Which we no longer have. There is a lot of governance with a clear escalation path.

Again, these were not issues that Defendants mentioned during the Class Period when they provided guidance for 2019.

383. Finally, as alleged in detail in ¶190, at the February 27, 2020 Fourth Quarter 2019 earnings call, Lead Independent Director Andy Teich confirmed what certain of the Confidential Witnesses stated as an important source of Resideo's product acceptance development problems, that they stemmed from a lack of engineering talent. Defendants would necessarily have been aware of these issues given their critical importance to the success of the Company, and the effect they had on matters that Defendants focused on, as shown by their public statements, all of which in pertinent part they misrepresented to the market.

**F. Nefkens' and Ragan's Sudden Departure Supports a Strong Inference of Scienter**

384. On October 22, 2019 – the same day that Resideo announced the initiation of its comprehensive operational and financial review and made other corrective disclosures as alleged above – Resideo announced the termination of CFO Ragan effective immediately. Given that Ragan's "founder's grant" of \$1,100,000 worth of Resideo restricted stock units (*i.e.*, double his annual salary) would not fully vest until four years of employment with Resideo, it is implausible that Ragan voluntarily "le[ft] the company to pursue other opportunities" in advance of the full vesting of stock award. Rather, the far stronger inference is that Defendant Ragan was forced to leave the Company because

Resideo's board concluded that he had prepared or assisted in the preparation of materially false and misleading statements regarding Resideo's financial condition, and relevant factors that were affecting it (including preparation of Resideo's financial guidance) – a fact that was subsequently confirmed by his replacement's acknowledgement that “we're undergoing a comprehensive, strategic and operational review to improve business processes and our financial algorithm.”

385. Additionally, on December 2, 2019, in the midst of Resideo's Comprehensive Operational and Financial Review, Resideo announced the departure of CEO Nefkens, ostensibly to “focus on family health issues.” Like Ragan, given that Nefkens' “founder's grant” of \$4,300,000 worth of Resideo restricted stock units would not fully vest until four years of employment with Resideo, it is implausible that Nefkens voluntarily left the Company to “focus on family health issues” in advance of the full vesting of stock award. Rather, the far stronger inference is that Defendant Nefkens was forced to leave the Company because Resideo's board concluded he had prepared or issued false statements to Resideo investors.

**G. Nefkens' and Ragan's Misrepresentations Were Quickly Uncovered by Resideo's New Management**

386. The information demonstrating Resideo was composed of unrelated legacy Honeywell businesses with no stand-alone prior P&L record and supply chain issues was clearly set forth in Resideo's own books and records, so clearly in fact, that CFO Ragan's replacement Ryder found it within weeks of his appointment. As discussed above, less than two months after Ragan's abrupt departure from Resideo in October of 2019,

Resideo's new CFO Ryder presented at an investor conference in which he made statements revealing the Company's severe problems since inception based on information that was readily available to Nefkens and Ragan.

387. Although Nefkens and Ragan continued to portray Resideo's Products & Solutions division to investors as if it were a previously-existing, stand-alone business within Honeywell, and that Resideo's supply chain issues were spin-related and the Company was overcoming those issues, Ryder discovered that "the whole products and solutions business was various businesses within divisions of Honeywell and they kind of picked individual pieces up and kind of threw them together and called that products and solutions" within just weeks of arriving.

388. The rapidity and ease with which Ragan's replacement discovered Resideo's underlying supply chain and corporate governance problems – which stemmed from the fact that Products & Solutions was comprised of unrelated failing parts within different divisions of Honeywell – as well as the lack of competitiveness of Resideo's products, new and old (Resideo's products "weren't really accepted by customers, weren't really competitive" and "We had the inventory. And unfortunately, nobody wanted to buy it") – further supports a strong inference of Nefkens' and Ragan's scienter.

## **X. LOSS CAUSATION**

389. Defendants' wrongful conduct as alleged herein directly and proximately caused Plaintiffs and the Class to suffer substantial losses.

390. As the risks concealed by Defendants' misrepresentations and material omissions materialized in a series of negative results for Resideo's business, and facts

concealed by Defendants' misrepresentations and omissions were revealed to the market by a series of partial corrective disclosures, the price of Resideo's common stock declined, removing the artificial inflation.

391. As a result of purchasing Resideo's common stock during the Class Period, Plaintiffs and the Class were damaged when the price of Resideo's common stock declined when the truth was revealed through a series of partial corrective disclosures and/or the undisclosed risks regarding Resideo's business materialized. The price of Resideo's common stock significantly declined when Defendants' misrepresentations and/or omissions and/or the materialization of undisclosed risks were revealed.

392. As detailed herein, during the Class Period, Defendants made false and misleading statements and engaged in a scheme that caused Resideo's common stock to trade at artificially inflated prices. Among other things, Defendants misled investors regarding:

- Resideo's historic operations as part of Honeywell;
- The extent, nature of, and ability to resolve the Company's supply chain issues, which pervaded nearly every Resideo product and became more pronounced following the Spin-Off;
- Resideo's purported leading position in each of its Products & Solutions businesses and its strong franchise position;
- The introduction of the new T9 and T10 connected thermostats would drive major earnings growth for Resideo;
- Promised dates of delivery of Resideo's new product pipeline, including the GRIP platform and products internally referred to as Project STORM;
- Resideo's tremendous competitive advantages and the widespread adoption of its products; and



- Resideo's ability to meet or exceed opt-repeated earnings guidance.

393. Prior to the revelation of the truth about Resideo and the issues that arose from the previously concealed risks associated with its business operations and product lines through a series of partial corrective disclosures, the market believed Resideo's statements to investors. For example, on November 13, 2018, Oppenheimer issued an analyst report, based on Resideo's misrepresentations and material omissions, in which it maintained an OUTPERFORM rating, stating that while Resideo experienced "typical spin-off related supply chain headwinds," that "Management expects these temporary headwinds to subside quickly for the business to normalize in 4Q18."

394. As the truth about Resideo's business and operations was revealed to the market through a series of partial corrective disclosures and materialization of previously undisclosed risks commencing in March of 2019, the artificial inflation was removed from the Company's stock price and the price of Resideo's common stock declined significantly.

**A. March 7, 2019 Corrective Disclosure and/or Materialization of Risk**

395. On March 7, 2019, just five months after the Spin-Off, in reporting the Company's fourth quarter and full-year 2018 financial results, Resideo announced its intention to lower its 2019 financial forecasts from 4 percent to an indeterminate range of "2 to 5 percent" and further revealed a **20% decrease** in profit for the Product & Solutions division. These results were directly caused by the undisclosed problems and Resideo and the fact that the Company had not reasonable basis for its financial guidance. The announcement caused Resideo's common stock price to decline by \$5.79 per share, to close at \$18.96 on March 7, 2019.

396. The dramatic decline in revenue for the Products & Solutions division and the adjustment of 2019 financial forecasts from 4 percent to an ambiguous 2 to 5 percent was a materialization of the undisclosed risks associated with:

- The pre-spin depletion of Resideo’s value engineering team, which was critical to optimizing supply chain costs and lowering the cost of raw materials and the cost of electrical components used in Resideo’s products;
- Resideo’s material loss in sourcing leverage, including that Resideo was forced to renew legacy contracts on less favorable terms and did not enjoy the same pricing leverage over the cost of raw materials and financial products as Honeywell;
- Resideo’s pervasive supply chain issues – which affected virtually every product line and, contrary to Defendants’ representations, intensified following the Spin-Off due to the split in manufacturing facilities between Honeywell and Resideo and the inability to source parts and accessories, particularly with respect to the residential HVAC business;
- Resideo’s TCC App, which, as demonstrated by internal documents and through Confidential Witness interviews, was experiencing severe outages as a result of Resideo permitting too many customers on the platform and caused customers to shift to competing products from Nest and Ecobee; and
- Resideo’s belated introduction of the T9 and T10 smart thermostats, which were delayed as a result of the Company’s lack of engineering talent and were considered already aging technologies when introduced, in addition to being lower-margin than traditional nonconnected thermostats.

397. Nevertheless, the stock price remained inflated as Resideo continued to conceal material facts about its business and operations. Specifically, the press release disclosing the drop in Products & Solutions EBITDA and the adjustment in financial forecasts quoted Nefkens as saying that the “disruption from the spin is mostly behind us.” During the earnings call held the same day, Nefkens continued to mislead investors, stating

“we are on schedule, and in some cases, ahead of schedule, when I compare to previous spins I’ve been [a] part of” and “I also feel really good that most of the disruption from the spin is now behind us.” Significantly, in response to an analyst question about the adjusted guidance, Nefkens responded that “this effectively is the first time that we are having all of our costs under our control” and that Resideo was at “a strategic inflection point. I would tell you that we are at or ahead of where I expect[ed] to be.”

398. The market continued to believe Defendants’ misrepresentations. In this regard, on May 16, 2019, BAML issued a report in which it maintained its BUY rating, focused on, among other things, Resideo’s “plans to launch a new comfort platform later this year to help accelerate growth in the its product business, led by its new purported ‘super-connected’ thermostat.”

**B. August 7-14 Corrective Disclosures and/or Materialization of Risks**

399. On August 7, 2019, Resideo released its financial results for the Second Quarter of 2019. The press release disclosed a GAAP net loss of \$11 million and GAAP EPS loss of \$0.09. The press release further disclosed that Products & Solutions EBITDA had decreased **36%** as a result of “unfavorable product mix, production cost increases, and the impact of acquisition expenses.” On the earnings call held the following day, Defendants further revealed that Resideo was experiencing margin pressures due to product mix headwinds, including the sale of lower margin devices.

400. As stated above, Resideo’s precipitous 36% drop in EBITDA constituted a materialization of the undisclosed risks associated with:

- The pre-spin depletion of Resideo’s value engineering team, which was

- critical to optimizing supply chain costs and lowering the cost of raw materials and the cost of electrical components used in Resideo's products;
- Resideo's material loss in sourcing leverage, including that Resideo was forced to renew legacy contracts on less favorable terms and did not enjoy the same pricing leverage over the cost of raw materials and financial products as Honeywell;
  - Resideo's pervasive supply chain issues – which affected virtually every product line and, contrary to Defendants' representations, intensified following the Spin-Off due to the split in manufacturing facilities between Honeywell and Resideo and the inability to source parts and accessories, particularly with respect to the residential HVAC business;
  - Resideo's Total Connect Comfort app, which, as demonstrated by internal documents and through Confidential Witness interviews, was experiencing severe outages as a result of Resideo permitting too many customers on the platform and caused customers to shift to competing products from Nest and Ecobee;
  - Resideo's belated introduction of the T9 and T10 smart thermostats, which were delayed as a result of the Company's lack of engineering talent and were considered already aging technologies when introduced, in addition to being lower-margin than traditional nonconnected thermostats; and
  - The contract penalties Resideo had accrued because of its late delivery of the Project GRIP product to ADT.

401. The drop in EBITDA was also a materialization of the undisclosed risk related to Resideo's large-scale layoffs in 2019. Specifically, Resideo resorted to large-scale layoffs in 2019 as a way to drastically cut costs, even though it meant disposing of the engineering talent necessary to develop new products and increase Resideo's revenue.

402. In response to the August 7-8 revelations, the price of Resideo common stock declined by over 2.4 percent from opening at \$17.50 to close at \$17.08. As the market continued to digest the negative news, Resideo common stock declined by 3.7 percent on

August 9, 2019 closing at \$16.45 per share, and declined by approximately 5.2 percent the following trading day, to close at \$15.59 per share on August 12, 2019.

403. Nevertheless, Resideo's share price remained inflated as Defendants continued to mislead investors. Specifically, on the August 8, 2019 earnings call, Nefkens touted Resideo's "strong volumes in the new T9 and T10 Pro connected thermostats" and further discussed Resideo's "new supply chain leadership and process changes," stating "we're delivering more on time than ever before and our delivery metrics are the best they've been in 5 years." Nefkens also assured the market that the Project GRIP product for retail consumers would be delivered in "Q4."

404. After the market close on August 12, 2019, Oppenheimer issued an analyst report in which it lowered Resideo's price target from \$30 to \$20. Among other things, the report noted "we are concerned with REZI's margin profile over the next 2-3 years. We believe REZI could face a permanently lower margin profile in security (down 500bps), as well as increased investment spend and near-term headwinds created by its transition from high-margin, non-connected devices to lower-margin (SaaS-driven), connected devices." The report further stated that the security business "has seen ~800bps of margin compression since the launch of the new security platform. Some of this is related to scaling/ramp-up cost absorption and a greater mix of ADT sales [] However, ***management also acknowledged there is a 'new normal' in security and margins should settle in 500bps lower.***"

405. The information contained in the August 12, 2019 Oppenheimer report concerning sustained margin compression that would settle ~500bps lower was the first

time the market learned about the supposed ‘new normal’ in security. Indeed, on the earnings call held on August 8, 2019, nowhere did Resideo’s management refer to sustained long-term margin compression but instead stated that margins for the year would in fact improve because at the end of 2019 there “is going to be some improvement that we’re going to see on the security margins from where they currently are.”

406. The information revealed by the Oppenheimer report caused the price of Resideo’s common stock to decline from \$15.59 per share on August 12, 2019 to close at \$15.31 per share on August 13, 2019. Resideo’s stock price continued to decline the following day, declining from \$15.31 per share on August 13, 2019 to \$14.64 per share on August 14, 2019.

407. Once again, however, the market continued to believe Defendants’ reassurances. For example, following the press release and earnings call, Oppenheimer issued an analyst report on August 12, 2019, maintaining its OUTPERFORM rating, emphasizing Resideo’s reiteration of its 2019 guidance and intended cost cutting initiative to increase margins.

### **C. October 22, 2019 Corrective Disclosure and/or Materialization of Risk**

408. After the close of trading on October 22, 2019, Resideo issued a press release in which the Company disclosed that:

- The “Products & Solutions segment experienced revenue decline in certain product families of the Comfort business and in its Residential Thermal Solutions (RTS) gas combustion business”; and
- “The Comfort business declines were primarily due to lower sales volumes in non-connected thermostats. We believe a poor pre-spin

cutover from the prior generation of non-connected thermostats to the T-Series line impacted the adoption of mid-level T-Series thermostats. The cutover effects became markedly more pronounced in the third quarter after the prior generation of non-connected thermostats were discontinued. The company is working with its channel partners to enhance and better position the T-Series and expects significant improvement in 2020.”

409. Resideo’s statement that Comfort declines were due in part to a “poor pre-spin cutover from the prior generation of non-connected thermostats to the T-Series line impacted the adoption of mid-level T-Series thermostats” was new information to investors and partially revealed the truth concerning Defendants’ prior statements about the adoption of the Company’s T-Series line.

410. Resideo also announced preliminary third quarter EBITDA of \$77-\$79 million, missing analyst expectations of \$98-\$101 million, and downwardly revised its 2019 full year EBITDA guidance to a range of \$330-\$350 million from \$410-\$430 million. On the same day, the Company announced the replacement of its then-CFO, Defendant Ragan.

411. Resideo’s downward revision in EBITDA guidance from \$330-\$350 million from \$410-\$430 million was a materialization of the undisclosed risks concerning Resideo’s business. Specifically:

- The pre-spin depletion of Resideo’s value engineering team, which was critical to optimizing supply chain costs and lowering the cost of raw materials and the cost of electrical components used in Resideo’s products;
- Resideo’s material loss in sourcing leverage, including that Resideo was forced to renew legacy contracts on less favorable terms and did not enjoy the same pricing leverage over the cost of raw materials and financial products as Honeywell;

- Resideo’s pervasive supply chain issues – which affected virtually every product line and, contrary to Defendants’ representations, intensified following the Spin-Off due to the split in manufacturing facilities between Honeywell and Resideo and the inability to source parts and accessories, particularly with respect to the residential HVAC business;
- Resideo’s Total Connect Comfort app, which, as demonstrated by internal documents and through Confidential Witness interviews, was experiencing severe outages as a result of Resideo permitting too many customers on the platform and caused customers to shift to competing products from Nest and Ecobee;
- The contract penalties Resideo had accrued because of its late delivery of the Project GRIP product to ADT; and
- The promised margin expansion from the introduction in 2019 of high margin products like the retail version of GRIP and Project STORM products was not going to occur.

412. The next day, these partial corrective disclosures and/or the materialization of undisclosed risks caused the price of Resideo’s common stock to decline by over 37%, or \$5.37 per share. Moreover, BAML issued an analyst report, changing its rating for Resideo from BUY to NEUTRAL, and questioning Resideo’s credibility: “we believe *management credibility has become a significant challenge for the stock* and that Ryder/any new CFO will have a heavy load to bear in turning the company around.”

**D. November 7, 2019 Corrective Disclosure and/or Materialization of Risk**

413. Finally, on November 7, 2019, the truth was largely revealed and/or the undisclosed risks regarding Resideo’s product lines and business operations fully materialized.

414. Nefkens admitted in the November 7, 2019 earnings call that “*Most of our value engineering stopped prior to our spin-off from Honeywell*” and explained that “In



a company like ours, product costs like components, raw materials and packaging will need to be optimized every year to keep gross margin strong. Value engineering teams do that.

*Before we spun off from Honeywell, these teams were largely depleted.”*

415. When asked by an analyst for clarification regarding Resideo’s loss of its value engineering team in the Spin-Off, Nefkens remarked:

So look I think the lines were drawn pre-spin sometime back about who was coming over and who wasn't. So not certain of exactly how those decisions were made. And what I can tell you is that the talent and the value engineering that came over was very small compared to what was required. Our business is going through a transformation right now from products that are more mechanical into products that are more electronic. *And we basically did not have the right people on the pitch post spin to continue to value engineer those products.*

416. Nefkens also admitted that Resideo should have began training its new value engineering team 12-24 months prior, and that Resideo would expect to see the benefit from value engineering in 12-24 months’ time:

*As you alluded the problem with that is really the value engineering that should have been done 12 to 24 months ago we would have started to see the impact now.* Now that we're restarting that it will take some time as new raw new materials new components will have to come in will have to be manufactured. *We'll have to move all the previous stocks that we have before we start to see the benefit of that and we expect that to take 12 to 24 months.*

417. These statements revealed to the market for the first time that Resideo **did not have a value engineering team** at the time of the Spin-Off, a fact confirmed by CW3, because Honeywell kept all of them.

418. Nefkens’ belated admission that Honeywell depleted Resideo’s value engineering team also revealed that Resideo’s near term future EBITDA margins were

adversely affected by the lack of value engineers, and Resideo would have seen the benefit of value engineers reflected in the supply chain in 12-24 months.

419. Another factor that had a material impact on margins was Resideo's loss of sourcing leverage following its separation from Honeywell. In this regard, Nefkens stated on the call that "***We lost some sourcing leverage in direct and indirect materials following the Spin-Off.*** We've been working with our suppliers for several months now to rectify that." As discussed in further detail above, the material loss in sourcing leverage was a significant problem affecting margins known to Defendants at the time of the Spin-Off, one never previously raised as a material risk contributing to margin compression.

420. Also on the call, Nefkens discussed how "post-spin inventory write-downs and slow-moving products [] impacted our EBITDA as well." This disclosure revealed to the market that Nefkens' prior representations with respect to Resideo's product line were false and misleading when made. Nefkens' admission is consistent with CW3's recollection of internal discussions at Resideo at the beginning of the Class Period concerning:

- "challenges presented by Resideo's competition to the T-series thermostats"; and
- "the loss of major channel partners, loss of security partners, the challenges of Resideo's 'Cloud,' and customer churn on the security side of the business."

421. Nefkens provided no reason as to why this was not a long-term problem not amenable to a quick fix, and is consistent with the later disclosure of the Company's lack of engineering talent.

422. Following the earnings call held November 7, 2019, the price of Resideo's

common stock declined from its closing price of \$10.02 per share on November 6, 2019, to close at \$9.78 per share on November 7, 2019 on heavy trading volume. As the market further digested the negative news, in the subsequent trading days Resideo's common stock declined further: on November 8, 2019, Resideo's common stock closed at \$9.60 per share, and on November 11, 2019, the Company's common stock closed at \$9.02 per share.

**E. Cumulative Effect of the Partial Corrective Disclosures and/or Materialization of Risks**

423. All told, the corrective disclosures in March, August, October and November caused Resideo's stock price to drop by \$12.16 per share – erasing more than *\$1.3 billion* in market capitalization.

424. None of the revelations discussed above were sufficient on their own to fully remove the inflation from Resideo's stock price because each only partially revealed the risks and conditions that had been concealed from or misrepresented to investors. Moreover, as explained above, the corrective impact of the disclosures alleged herein was tempered by Defendants' continued reassuring statements and failure to fully disclose the facts regarding Resideo's business.

425. The declines in the price of Resideo common stock identified above directly resulted from or were substantially caused by the market learning the truth about Resideo's business and operations and/or the materialization of undisclosed risks. Specifically, the precipitous drop in Resideo's common stock was due to the revelation of the following undisclosed facts concerning Resideo's business:

- Resideo's value engineering stopped prior to the Spin-Off;

- Resideo lost sourcing leverage in direct and indirect materials following the Spin-Off;
- Resideo entered into a contract in 2017 with a “large OEM” that provided the opportunity for large penalties, and that such contractual customer penalties associated with the contract drove further margin declines in 2019;
- The T-Series thermostat transition, which began in 2017 from a high-margin product offering to more modern but lower-margin series;
- Post-spin inventory write-downs and slow-moving products impacting Resideo’s EBITDA; and
- Regarding the security side of the business, as disclosed in the Oppenheimer report dated August 12, 2019, management acknowledged that moving forward the ‘new normal’ in security and margins would settle in at 500bps lower.

426. The decline in Resideo’s stock price was also a result of Resideo’s failure to meet earnings guidance, which was due to materialization of the following undisclosed risks:

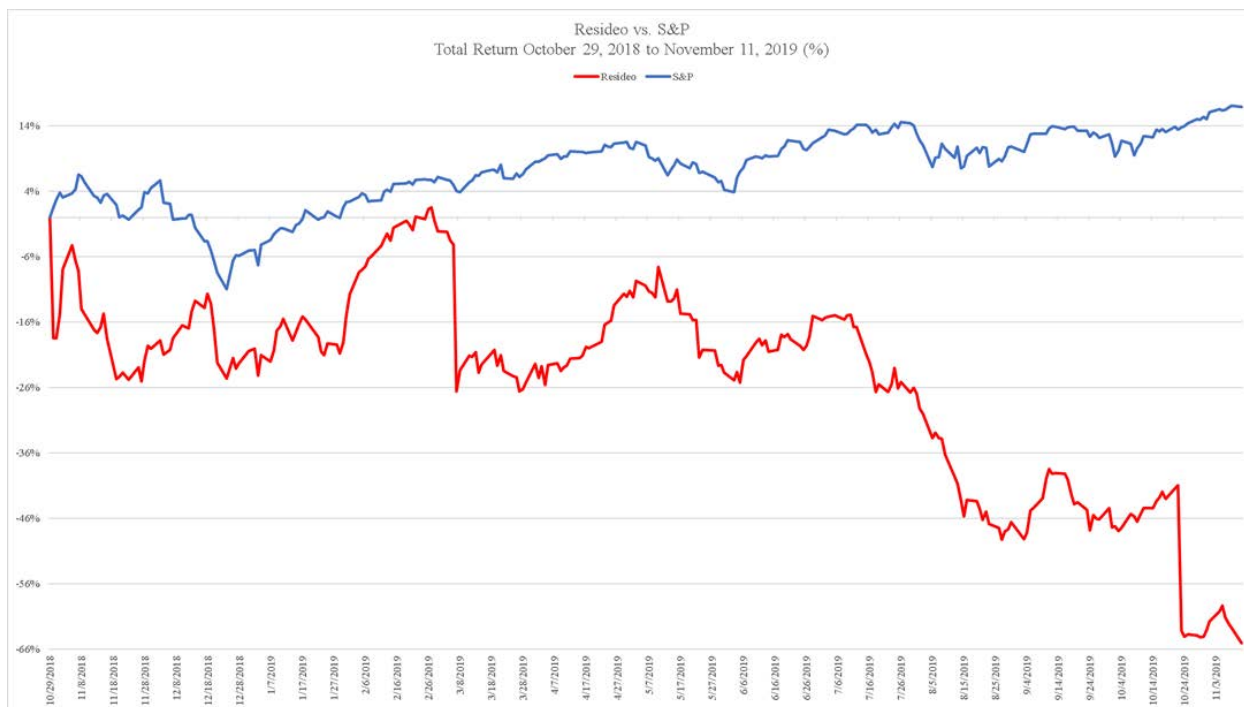
- The pre-spin depletion of Resideo’s value engineering team, which was critical to optimizing supply chain costs and lowering the cost of raw materials and the cost of electrical components used in Resideo’s products;
- Resideo’s material loss in sourcing leverage, including that Resideo was forced to renew legacy contracts on less favorable terms and did not enjoy the same pricing leverage over the cost of raw materials and financial products as Honeywell;
- Resideo’s pervasive supply chain issues – which affected virtually every product line and, contrary to Defendants’ representations, intensified following the Spin-Off due to the split in manufacturing facilities between Honeywell and Resideo and the inability to source parts and accessories, particularly with respect to the residential HVAC business;
- Resideo’s Total Connect Comfort app, which, as demonstrated by internal documents and through Confidential Witness interviews, was experiencing severe outages as a result of Resideo permitting too many

customers on the platform and caused customers to shift to competing products from Nest and Ecobee;

- Resideo's belated introduction of the T9 and T10 smart thermostats, which were delayed as a result of the Company's lack of engineering talent and were considered already aging technologies when introduced, in addition to being lower-margin than traditional nonconnected thermostats;
- Resideo resorted to large-scale layoffs in 2019 as a drastic measure to meet earnings guidance, including laying off the very engineering and technical teams necessary to drive Resideo's products to market and increase the Company's revenue; and
- Resideo's failure to launch new innovative high margin products in 2019, despite its many representations that it would.

427. The timing and magnitude of the price declines negate any inference that the losses suffered by Plaintiffs and the Class were caused by changed market conditions, macroeconomic or industry factors, or Company-specific facts unrelated to Defendants' misrepresentations and omissions and/or the materialization of undisclosed risks concerning Resideo's business and operations.

428. The following chart illustrates Resideo's total return versus the S&P index total return during the Class Period, expressed as a percentage, and further negates the inference that the losses suffered by Plaintiffs and the Class were caused by changed market conditions, macroeconomic or industry factors:



429. Accordingly, as a result of their purchases of Resideo common stock during the Class Period, Plaintiffs and the Class suffered economic loss and damages under the federal securities laws.

## XI. PRESUMPTION OF RELIANCE

430. At all relevant times, the market for Resideo's common stock was efficient for the following reasons, among others:

- (a) Resideo common stock met the requirements for listing, and was listed and actively traded on the NYSE, a highly efficient and automated market;
- (b) As a regulated issuer, Resideo filed periodic reports with the SEC;
- (c) Resideo regularly communicated with public investors via established market communication mechanisms, including through regular disseminations of press releases on the national circuits of major newswire services and through other wide-ranging public disclosures, such as communications with the financial press and other similar reporting services; and

(d) Resideo was followed by numerous securities analysts employed by major brokerage firms, including Goldman Sachs, JP Morgan, and Barclays, and who wrote reports which were distributed to those brokerage firms' sales force and certain customers. Each of these reports was publicly available and entered the public market place.

431. As a result of the foregoing, the market for Resideo's common stock promptly digested current information regarding Resideo from all publicly available sources and reflected such information in the price of Resideo's common stock. All purchasers of Resideo common stock during the Class Period suffered similar injury through their purchase of Resideo common stock at artificially inflated prices, and a presumption of reliance applies.

432. A Class-wide presumption of reliance is also appropriate in this action under the United States Supreme Court holding in *Affiliated Ute Citizens of Utah v. United States*, 406 U.S. 128 (1972), because the claims asserted herein against Defendants are predicated upon omissions of material fact for which there is a duty to disclose.

## **XII. INAPPLICABILITY OF THE STATUTORY SAFE HARBOR AND BESPEAKS CAUTION DOCTRINE**

433. The statutory safe harbor provided for forward-looking statements under certain circumstances does not apply to any of the allegedly false statements pled in this complaint. The specific statements alleged herein to be false and misleading were not identified as "forward looking statements" when made. To the extent there were any forward-looking statements, there were no meaningful cautionary statements identifying important facts that could cause actual results to differ materially from those in the purportedly forward-looking statements.

434. Alternatively, to the extent that the statutory safe harbor does apply to any forward-looking statements pleaded herein, Defendants are liable for those false forward-looking statements because at the time each of those forward-looking statements was made, the particular speaker knew that the particular forward-looking statement was false, and/or the forward-looking statement was authorized and/or approved by an executive officer of Resideo who knew that those statements were false when made.

### **XIII. CLASS ACTION ALLEGATIONS**

435. Plaintiffs bring this action pursuant to Rule 23 of the Federal Rules of Civil Procedure on behalf individuals or entities, excluding Defendants and their affiliates, that purchased or otherwise acquired common stock of Resideo Technologies, Inc. on the secondary market during the period October 29, 2018 through November 6, 2019, inclusive and were damaged thereby.

436. There are questions of law and fact that are common to the Class, which predominate over any individual issues, including:

- (a) whether Defendants misrepresented material facts;
- (b) whether Defendants knew or recklessly disregarded that their statements and/or omissions were false and misleading;
- (c) whether the price of Resideo's common stock was artificially inflated;
- (d) whether the Individual Defendants are liable as "controlling persons" under §20(a) of the Exchange Act; and
- (e) whether Plaintiffs and the other members of the Class were injured as a result of Defendants' misconduct.



437. Plaintiffs' claims are typical of the claims of the other members of the Class because Plaintiffs and the Class sustained damaged from Defendants' wrongful conduct.

438. Plaintiffs are committed to prosecuting this action and have retained competent counsel experienced in litigation of this nature. Plaintiffs have the same interests as the other members of the Class. Accordingly, Plaintiffs are adequate representatives of the Class and will fairly and adequately protect the interests of the Class.

439. A class action is superior to other available methods for the fair and efficient adjudication of this controversy.

#### **XIV. CLAIMS FOR RELIEF**

##### **COUNT I**

##### **For Violations of Section 10(b) of the Exchange Act and Rule 10b-5 Against All Defendants**

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

441. During the Class Period, Defendants carried out a plan, scheme, and course of conduct which was intended to and, throughout the Class Period, did: (i) deceive the investing public, including Plaintiffs and other Class members, as alleged herein; and (ii) cause Plaintiffs and other members of the Class to purchase Resideo common stock at artificially inflated prices.

442. Defendants: (i) employed devices, schemes, and artifices to defraud; (ii) made untrue statements of material fact and/or omitted to state material facts necessary to make the statements not misleading; and (iii) engaged in acts, practices and a course of business which operated as a fraud and deceit upon the purchasers of the Company's

securities in an effort to maintain artificially high market prices for Resideo's common stock in violation of Section 10(b) of the Exchange Act, 15 U.S.C. §§ 78j(b), and Rule 10b-5 promulgated thereunder, 17 C.F.R. § 240.10b-5.

443. Defendants, individually and in concert, directly and indirectly, by the use, means or instrumentalities of interstate commerce and/or of the mails, engaged and participated in a continuous course of conduct to conceal adverse material information about the Company's financial well-being, operation and prospects.

444. During the Class Period, Defendants made the false statements specified above, which they knew or recklessly disregarded to be false or 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.

445. Defendants had actual knowledge of the misrepresentations and omissions of material facts set forth herein, or recklessly disregarded the true facts that were available to them. Defendants engaged in this misconduct to conceal Resideo's true condition from the investing public and to support the artificially inflated prices of the Company's common stock.

446. As described above, Defendants acted with scienter in committing the wrongful acts and omissions alleged herein in that they either had actual knowledge of the misrepresentations and omissions of material facts set forth herein, or acted with reckless disregard for the truth in that they failed to ascertain and disclose the true facts, even though such facts were available to them.

447. Defendants engaged in this scheme in order to maintain and/or inflate the prices of Resideo's common stock.

448. Plaintiffs and the Class have suffered damages in that, in reliance on the integrity of the market, they paid artificially inflated prices for Resideo's common stock. Plaintiffs and the Class would not have purchased the Company's common stock at the prices they paid, or at all, had they been aware that the market prices for Resideo's common stock had been artificially inflated by Defendants' fraudulent course of conduct.

449. As a direct and proximate result of Defendants' wrongful conduct, Plaintiffs suffered damages in connection with their purchases of Resideo common stock during the Class Period.

**COUNT II**  
**For Violations of Section 20(a) of the Exchange Act**  
**Against the Individual Defendants**

450. Plaintiffs repeat, incorporate and reallege each and every allegation set forth above as if fully set forth herein.

451. This Count is asserted against Defendants Nefkens, Ragan and de Masi for violations of Section 20(a) of the Exchange Act, 15 U.S.C. § 78t(a).

452. During his tenure as President and CEO of Resideo, Defendant Nefkens was a controlling person of Resideo within the meaning of Section 20(a) of the Exchange Act. By reason of his position of control and authority as Resideo's President and CEO, Defendant Nefkens had the power and authority to cause Resideo to engage in the wrongful conduct complaint of herein. Defendant Nefkens was able to and did control, directly and indirectly, the content of the public statements made by Resideo, thereby causing the

dissemination of the false and misleading statements and omissions of material facts as alleged herein during the Class Period. Moreover, as detailed above, during the time that Nefkens served as Resideo's President and CEO, he was responsible for the material misstatements and omissions made by Resideo.

453. In his capacity as Resideo's Chief Financial Officer, and as more fully described above, Defendant Ragan was a controlling person of Resideo within the meaning of Section 20(a) of the Exchange Act. By reason of his position of control and authority as Resideo's CFO, Defendant Ragan was able to and did control, directly and indirectly, the content of the public statements made by Resideo, thereby causing the dissemination of the false and misleading statements and omissions of material facts as alleged herein during the Class Period. Moreover, as detailed above, during the time that Defendant Ragan served as CFO of Resideo, he was responsible for the material misstatements and omissions made by Resideo.

454. In addition to Nefkens and Ragan, Defendant de Masi acted as a controlling person of Resideo within the meaning of §20(a) of the 1934 Act. By virtue of his position on the Resideo board of directors, his position as Resideo's President of Products and Solutions and his position as Resideo's Chief Information Officer, de Masi had the power and authority to cause Resideo to engage in wrongful conduct complained of herein. By reason of such conduct, de Masi is liable pursuant to §20(a) of the 1934 Act.

455. As set forth above, Resideo violated Section 10(b) of the Exchange Act by its acts and omissions as alleged in this Complaint. By virtue of their positions as controlling persons of Resideo and, as a result of their own conduct, Defendants Nefkens,

Ragan and de Masi are liable pursuant to Section 20(a) of the Exchange Act, jointly and severally with, and to the same extent as, Resideo is liable under Section 10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder, to Plaintiffs and other members of the Class who purchased Resideo common stock during the Class Period.

**XV. PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs pray for judgment as follows:

A. Determining that this action is a proper class action under Rule 23 of the Federal Rules of Civil Procedure;

B. Awarding compensatory damages in favor of Plaintiffs and other Class members against all Defendants, jointly and severally, for all damages sustained as a result of the Defendants' wrongdoing, in an amount to be proven at trial, including interest thereon;

C. Awarding Plaintiffs and the Class their reasonable costs and expenses incurred in this action, including attorneys' fees and expert fees; and

D. Awarding such equitable/injunctive or other further relief (including, but not limited to, rescission) as the Court may deem just and proper.

**XVI. JURY DEMAND**

Plaintiff hereby demands a trial by jury.

DATED: April 10, 2020

/s/ Andrew J. Entwistle

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*Plaintiffs' Liaison Counsel*

/s/ Shawn A. Williams

Shawn A. Williams (*pro hac vice*)

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*Counsel for Additional Plaintiff Oklahoma  
Firefighters Pension and Retirement System*

**APPENDIX A**

| <b>Table of Key Terms</b> |  |
|---------------------------|--|
| ADI Global Distribution   | One of Resideo's two operating segments, ADI is a wholesale distributor of both Resideo/Honeywell Home-branded and third-party security and fire protection products.  |
| ADT                       | ADT, Inc., a provider of professionally installed security and premises monitoring automation systems with approximately 6.5 million recurring customers. ADT was one of Resideo's largest Original Equipment Manufacturer customers.  |
| Connected Thermostat      | A thermostat that can be controlled with a phone, tablet, smart speaker, or other internet-connected device via WiFi.  |
| EMEA                      | The abbreviation for Europe, the Middle East and Africa  |
| Flycatcher                | Internal name for Resideo's T9 and T10 smart thermostat projects.  |
| GRIP                      | The abbreviation for Resideo's "Global Residential Intrusion Platform," a physical control panel which integrates a variety of security systems and related sensors with self-contained wireless and encrypted panels. GRIP was developed in two versions – the first was for Resideo's large OEM ADT for use with their proprietary monitoring system, while the second version of GRIP was to be developed as a consumer version to be sold directly to consumers via retail outlets such as Best Buy. |



| <b>Table of Key Terms</b> |   |
|---------------------------|---|
| Honeywell Home            | Brand name under which Resideo's Comfort, Security and Residential Thermal Solutions products are marketed and sold pursuant to a trademark license agreement with Honeywell. Honeywell Home products include residential HVAC controls, software solutions (including the mobile applications Total Connect Comfort and Lyric), water sensors and control solutions, telehealth software and air quality controls (including humidifiers and air filters), boiler products and water heating solutions, in addition to security panels, sensors and related software products. |
| HVAC                      | The abbreviation for Heating, Ventilation and Air-Conditioning.   |
| Non-connected Thermostat  | A traditional thermostat not connected to the internet.   |
| OEM                       | The abbreviation for Original Equipment Manufacturer. An OEM is a company that manufactures and develops equipment and products for sale by another company.  |
| Products and Solutions    | One of Resideo's two operating segments. Products and Solutions is divided into (i) Comfort; (ii) Residential Thermal Solutions; and (iii) Security.  |
| Project STORM             | Internal name for Resideo's application that would integrate the GRIP and other security products with Resideo's other Comfort products ( <i>i.e.</i> , the T-Series connected thermostats).  |
| RTS                       | The abbreviation for Residential Thermal Solutions, a subdivision of Resideo's Products and Solutions division that manufactures and sells boiler products, gas valves, air pressure switches, gas ignition and gas pressure regulation under the Honeywell Home brand.   |
| T9/T10 Series             | Two connected thermostat product lines introduced by Resideo following the Spin-Off.  |

| <b>Table of Key Terms</b> |  |
|---------------------------|--|
| TCC                       | The abbreviation for Resideo's "Total Connect Comfort" application available on Android & iOS designed to control Resideo's older-model Wi-Fi thermostats and pro-installed thermostats. |
| T-Series                  | The name of Honeywell's portfolio of both connected and non-connected residential thermostats given to Resideo in the Spin-Off.  |

**APPENDIX B**

| <b>Table of Confidential Witnesses</b> |   |
|--|---|
| CW1                                    | CW1 worked as an Environmental Controls and Combustion Representative for Honeywell from September 2015 before joining Resideo to work as a Distribution Representative from October 2018, until June 2019, reporting first to Rick Dash (title unknown) and then to Sales Leader Paul Adair. In connection with these positions, CW1 worked as a local territory representative covering several states for HVAC parts and accessories. As a Distribution Representative for Resideo's residential HVAC segment, CW1 personally dealt with upset customers during her entire time at Resideo, many of whom threatened to go to Resideo's competition due to supply chain issues.   |
| CW2                                    | CW2 was a General Manager for Residential Combustion – Europe from 2015 (before the Spin-Off, for Honeywell, and after for Resideo) until 2019. CW2 reported on an interim basis to Defendant Nefkens for his final five and a half months at Resideo.  |
| CW3                                    | CW3 was employed at Honeywell from June 2017, and left to work at Resideo in the Spin-Off in October 2018. He was laid off in March 2019. During his time at Resideo, CW3 had responsibility for a portfolio of software development for products for the Company's Residential Thermal Solutions, home comfort and security systems segments. CW3 participated in breakout sessions of the January 2019 meeting in Orlando, Florida following the Spin-Off where, among other things, competitive challenges to Resideo's T-Series thermostats, losses of major channel partners, declining security sales and the lack of a pathway forward to introduce new products were discussed. Prior to the Spin-Off, CW3 was a member of the team that ran projections regarding whether Resideo's servers dedicated to the T-Series thermostats could keep up with the increasing demand, and his team projected that the system crash would occur in September 2018 (it wound up occurring in November 2018). |

| <b>Table of Confidential Witnesses</b> |   |
|--|---|
| CW4                                    | CW4 worked as an Internal Auditor for Honeywell and then at Resideo for a total of 21 years until his termination in June of 2019, covering the procedural audits of operational matters for the legacy ADI business. CW4 reported to VP of Global Operations Alicia Copeland, who CW4 believes reported to Rob Aarnes, President of ADI Global Distribution. CW4 attended a “skip-level” meeting held by Defendant Nefkens during the pendency of the Spin-Off wherein Nefkens explained the transition from Honeywell to Resideo and during which it ‘appeared,’ impliedly came to light, that the thermostat product line had not been performing well sales-wise. |
| CW5                                    | CW5 worked as an Inside Sales Representative for ADI selling security, fire and audio-visual systems to customers when the division was part of Honeywell from August of 2017 until the Spin-Off, and then continued to work at ADI from October 2018 until September 2019.   |
| CW6                                    | CW6 was a Retail Channel Marketing Leader at Honeywell and then Resideo from October 2017 until January 2019 and reported to the Vice President of Marketing, Jennifer Bonuso.  |
| CW7                                    | CW7 served as a Senior Inside Sales Representative at ADI from July 2010 to July 2014, and then as a Branch Manager at ADI from 2014 (while it was owned by Honeywell, and then after the Spin-Off when it became a part of Resideo) until October 2019. CW7 reported to ADI Sales Manager Alan Higgins, who was responsible for a region that included Florida and Puerto Rico.  |
| CW8                                    | CW8 worked for Resideo from November 2018 to June 2019 and reported directly to Resideo’s Director of Software Engineering. CW8 spent much of his time working on cloud products Quicksilver and Titan, which served as the cloud software behind Resideo’s GRIP product, and attended daily meetings during which he and others voiced concerns with regard to the progression of the GRIP product.  |

| <b>Table of Confidential Witnesses</b> |   |
|--|---|
| CW9                                    | CW9 was a Channel Marketing Manager responsible for marketing new products to Resideo's new Honeywell Home products to professional installers and contractors, and held a similar position with Honeywell from December 2014 until the Spin-Off in October 2018. The products that CW9 was mostly responsible for marketing were home comfort and HVAC. CW9 recalled a meeting possibly in December 2018 or January 2019 in which issues surrounding Project STORM were discussed. Among the members of management who attended were Resideo's CIO, Defendant de Masi, who reported directly to Nefkens.   |
| CW10                                   | CW10 worked at Honeywell from October 2006 to October 2018 as a Global Purchasing Card Manager and then for Resideo from October 2018 to June 2019 as a Global Program Manager, Project Sourcing. CW10 reported directly to Resideo's Sourcing Director Wayne Holland, who in turn reported directly to Greg Sachs, the Company's Chief Procurement Officer. At Honeywell, CW10 managed the global purchasing card program for Honeywell's \$11 billion Automation and Control Solutions business worldwide. After joining Resideo in the Spin-Off, CW10 managed many of the processes Resideo used to work with vendors, and assisted in developing procedures and processes for disposing of obsolete and excess inventory. |
| CW11                                   | CW11 worked as an Inside Sales Representative for ADI from June 2018 (while it was owned by Honeywell, and then after the Spin-Off when it became a part of Resideo) until February 2019. CW11 previously served as a branch manager from July 2017 to June 2018 and as an inside sales representative from May 2016 to July 2017. While at ADI, CW11 was responsible for selling home security system products. CW11 reported to Inside Sales Representative Aaron Garcia.   |
| CW12                                   | CW12 was employed by ADI, from November 2012 (while it was owned by Honeywell, and then after the Spin-Off when it became a part of Resideo) to August 2019 as an Inside Sales Representative.  |

| <b>Table of Confidential Witnesses</b> |   |
|--|---|
| CW13                                   | CW13 also worked at ADI as a Senior Inside Sales Representative from September 2015 (while it was owned by Honeywell, and then after the Spin-Off when it became a part of Resideo) until February of 2019, and sold lines of security products directly to dealers and informed his direct report, one of ADI's Regional Sales Managers, Jesse Wekheiser, that Resideo was going to start losing customers because of backorder issues.  |
| CW14                                   | CW14, a former Resideo Insider Sales Representative from October 2018 until July 2019, was responsible for growing and promoting Resideo's full line of security products to customers within his territory. CW14 reported directly to Inside Sales Supervisor April Downs. CW14 attended weekly meetings at which inventory backorders came up fairly often, in addition to sales meetings twice a week where these inventory backorder issues were discussed.   |
| CW15                                   | CW15 was employed by Resideo from October 2018 to late Spring 2019 as a leader in Vice-President of Engineering Services David Zakrewski's organization and had previously held that position at Honeywell from late Spring 2018 to October 2018. CW15 stated that as leader in Zakrewski's organization, CW15 was a program manager whose responsibilities included working on the development of Resideo mobile applications (or "Apps"). While at Resideo, CW15 reported to a Senior Director who in turn reported to Vice-President of Engineering Services David Zakrewski, who in turn reported to CTO Tu, a direct report to Nefkens. Near the very end of 2018, CW15 was assigned to be part of a team tasked with addressing problems encountered by the TCC App. With respect to the TCC remediation project, CW15 reported his progress to CTO Tu. Among other things, CW15 also attended a two-day meeting in April 2019 relating to Resideo's Project STORM. Also at the meeting were Defendant de Masi, the CIO, whom CW15 referred to as Defendant Nefkens' "righthand man," CTO Tu, and Scott Harkins, Vice President /General Manager Connected Home, who reported to Defendant de Masi. |

# **EXHIBIT A**

**CERTIFICATION**

I, David M. Goldman, on behalf of The Gabelli Asset Fund, The Gabelli Dividend & Income Trust, The Gabelli Focus Five Fund, The Gabelli Multimedia Trust Inc., The Gabelli Value 25 Fund Inc. and The GAMCO International SICAV (the “Funds”), hereby certify, as to the claims asserted under the federal securities laws, that:

1. I am General Counsel of Gabelli Funds, LLC, investment manager for the Funds. I am authorized to execute this Certification on behalf of the Funds. I have reviewed the Consolidated Amended Complaint for Violations of the Federal Securities Laws and have authorized its filing.
2. The Funds did not purchase the securities that are the subject of this action at the direction of counsel or in order to participate in any action arising under the federal securities laws.
3. The Funds have been appointed to serve as lead plaintiffs on behalf of the Class. The Funds remain willing to serve as lead plaintiffs and representative parties on behalf of the Class, including providing testimony at deposition and trial, if necessary. The Funds fully understand the duties and responsibilities of a lead plaintiff under the Private Securities Litigation Reform Act, including the selection and retention of counsel and overseeing the prosecution of the action for the Class.
4. The Funds’ transactions in Resideo Technologies, Inc. securities that are the subject of this action are set forth in Exhibit A hereto.
5. The Funds have not sought to serve as a lead plaintiff or representative party on behalf of a class in any action under the federal securities laws filed during the three-year period preceding the date of this Certification. The Funds’ investment manager serves as a lead plaintiff *In re Akorn, Inc. Data Integrity Sec. Litig.*, No. 18-cv-01713 (N.D. Ill.) and its affiliated entity – GAMCO Asset Management Inc. – sought to serve as lead plaintiff in *GAMCO Asset Management, Inc. v. Mark McCollum et al.*, No. 19-cv-03363 (S.D. Tex.).
6. The Funds will not accept any payment for serving as representative parties on behalf of the Class beyond their *pro rata* share of any recovery, except such reasonable costs and expenses (including lost wages) directly relating to the representation of the Class, as ordered or approved by the Court.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this April 9, 2020.



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David M. Goldman  
General Counsel  
Gabelli Funds, LLC



## Exhibit 1

| Fund Name              | Transaction | Date       | Price    | Shares | Transaction Total |
|------------------------|-------------|------------|----------|--------|-------------------|
| The Gabelli Asset Fund | Spin-Off    | 10/28/2018 |          | 42,332 |                   |
| The Gabelli Asset Fund | Purchase    | 10/30/2018 | \$ 22.53 | 3,334  | \$ 75,115.02      |
| The Gabelli Asset Fund | Purchase    | 10/31/2018 | \$ 20.38 | 2,000  | \$ 40,760.00      |
| The Gabelli Asset Fund | Purchase    | 11/6/2018  | \$ 23.73 | 3,000  | \$ 71,204.70      |
| The Gabelli Asset Fund | Purchase    | 11/7/2018  | \$ 23.85 | 2,000  | \$ 47,700.00      |
| The Gabelli Asset Fund | Purchase    | 11/16/2018 | \$ 21.23 | 3,000  | \$ 63,694.20      |
| The Gabelli Asset Fund | Purchase    | 11/26/2018 | \$ 19.85 | 2,000  | \$ 39,700.00      |
| The Gabelli Asset Fund | Purchase    | 11/30/2018 | \$ 20.98 | 5,000  | \$ 104,924.00     |
| The Gabelli Asset Fund | Purchase    | 12/7/2018  | \$ 21.24 | 3,000  | \$ 63,711.90      |
| The Gabelli Asset Fund | Purchase    | 12/12/2018 | \$ 21.59 | 2,000  | \$ 43,180.00      |
| The Gabelli Asset Fund | Purchase    | 12/14/2018 | \$ 22.12 | 3,000  | \$ 66,348.90      |
| The Gabelli Asset Fund | Purchase    | 12/17/2018 | \$ 22.34 | 2,000  | \$ 44,680.00      |
| The Gabelli Asset Fund | Purchase    | 12/20/2018 | \$ 21.25 | 3,000  | \$ 63,736.50      |
| The Gabelli Asset Fund | Purchase    | 12/21/2018 | \$ 20.86 | 5,000  | \$ 104,279.20     |
| The Gabelli Asset Fund | Purchase    | 12/26/2018 | \$ 19.48 | 2,000  | \$ 38,960.00      |
| The Gabelli Asset Fund | Purchase    | 12/27/2018 | \$ 19.54 | 100    | \$ 1,954.00       |
| The Gabelli Asset Fund | Purchase    | 12/28/2018 | \$ 20.31 | 1,900  | \$ 38,583.87      |
| The Gabelli Asset Fund | Purchase    | 1/3/2019   | \$ 20.58 | 1,000  | \$ 20,579.00      |
| The Gabelli Asset Fund | Purchase    | 1/7/2019   | \$ 20.41 | 2,000  | \$ 40,812.60      |
| The Gabelli Asset Fund | Purchase    | 1/9/2019   | \$ 20.93 | 3,000  | \$ 62,792.70      |
| The Gabelli Asset Fund | Purchase    | 1/18/2019  | \$ 22.01 | 2,000  | \$ 44,019.00      |
| The Gabelli Asset Fund | Purchase    | 2/4/2019   | \$ 23.52 | 1,000  | \$ 23,516.90      |
| The Gabelli Asset Fund | Purchase    | 2/14/2019  | \$ 24.99 | 2,000  | \$ 49,980.00      |
| The Gabelli Asset Fund | Purchase    | 3/7/2019   | \$ 18.09 | 5,000  | \$ 90,443.50      |
| The Gabelli Asset Fund | Purchase    | 8/1/2019   | \$ 18.86 | 4,333  | \$ 81,713.88      |
| The Gabelli Asset Fund | Purchase    | 8/6/2019   | \$ 17.37 | 10,000 | \$ 173,652.50     |
| The Gabelli Asset Fund | Purchase    | 8/7/2019   | \$ 16.83 | 10,000 | \$ 168,316.50     |
| The Gabelli Asset Fund | Purchase    | 8/8/2019   | \$ 17.15 | 10,000 | \$ 171,516.00     |
| The Gabelli Asset Fund | Purchase    | 8/8/2019   | \$ 16.99 | 5,000  | \$ 84,950.00      |
| The Gabelli Asset Fund | Purchase    | 8/12/2019  | \$ 15.87 | 10,000 | \$ 158,700.00     |
| The Gabelli Asset Fund | Purchase    | 8/14/2019  | \$ 14.28 | 4,300  | \$ 61,404.00      |
| The Gabelli Asset Fund | Purchase    | 8/15/2019  | \$ 14.58 | 5,000  | \$ 72,877.50      |
| The Gabelli Asset Fund | Purchase    | 8/15/2019  | \$ 14.08 | 5,700  | \$ 80,254.29      |
| The Gabelli Asset Fund | Purchase    | 8/16/2019  | \$ 14.83 | 5,000  | \$ 74,148.00      |
| The Gabelli Asset Fund | Sale        | 8/20/2019  | \$ 14.39 | 5,000  | \$ 71,956.50      |
| The Gabelli Asset Fund | Purchase    | 8/26/2019  | \$ 13.75 | 5,000  | \$ 68,725.00      |
| The Gabelli Asset Fund | Purchase    | 8/28/2019  | \$ 13.47 | 5,000  | \$ 67,337.50      |
| The Gabelli Asset Fund | Purchase    | 9/3/2019   | \$ 13.34 | 5,000  | \$ 66,698.50      |
| The Gabelli Asset Fund | Purchase    | 9/11/2019  | \$ 15.54 | 2,949  | \$ 45,827.46      |
| The Gabelli Asset Fund | Purchase    | 9/12/2019  | \$ 15.88 | 7,051  | \$ 111,962.43     |
| The Gabelli Asset Fund | Purchase    | 10/1/2019  | \$ 14.07 | 5,000  | \$ 70,334.00      |
| The Gabelli Asset Fund | Sale        | 10/15/2019 | \$ 14.56 | 5,000  | \$ 72,794.99      |
| The Gabelli Asset Fund | Purchase    | 10/23/2019 | \$ 8.99  | 200    | \$ 1,798.00       |
| The Gabelli Asset Fund | Purchase    | 10/24/2019 | \$ 9.38  | 4,800  | \$ 45,022.08      |
| The Gabelli Asset Fund | Purchase    | 10/28/2019 | \$ 9.29  | 10,000 | \$ 92,900.00      |
| The Gabelli Asset Fund | Purchase    | 11/1/2019  | \$ 9.51  | 10,000 | \$ 95,065.00      |
| The Gabelli Asset Fund | Purchase    | 11/5/2019  | \$ 10.50 | 5,000  | \$ 52,500.00      |

## Exhibit 1

| Fund Name                           | Transaction | Date       | Price    | Shares | Transaction Total |
|-------------------------------------|-------------|------------|----------|--------|-------------------|
| The Gabelli Dividend & Income Trust | Spin-Off    | 10/28/2018 |          | 54,468 |                   |
| The Gabelli Dividend & Income Trust | Purchase    | 10/30/2018 | \$ 21.93 | 3,982  | \$ 87,320.08      |
| The Gabelli Dividend & Income Trust | Sale        | 10/31/2018 | \$ 20.94 | 766    | \$ 16,041.36      |
| The Gabelli Dividend & Income Trust | Sale        | 11/14/2018 | \$ 21.51 | 1,666  | \$ 35,835.19      |
| The Gabelli Dividend & Income Trust | Purchase    | 11/19/2018 | \$ 19.73 | 4,000  | \$ 78,906.40      |
| The Gabelli Dividend & Income Trust | Purchase    | 11/27/2018 | \$ 19.59 | 3,000  | \$ 58,767.60      |
| The Gabelli Dividend & Income Trust | Purchase    | 12/10/2018 | \$ 21.59 | 860    | \$ 18,567.40      |
| The Gabelli Dividend & Income Trust | Purchase    | 12/14/2018 | \$ 22.60 | 3,140  | \$ 70,964.00      |
| The Gabelli Dividend & Income Trust | Purchase    | 12/19/2018 | \$ 23.18 | 2,000  | \$ 46,360.00      |
| The Gabelli Dividend & Income Trust | Purchase    | 12/24/2018 | \$ 19.75 | 4,000  | \$ 79,009.60      |
| The Gabelli Dividend & Income Trust | Sale        | 2/20/2019  | \$ 25.64 | 7,500  | \$ 192,277.24     |
| The Gabelli Dividend & Income Trust | Purchase    | 3/7/2019   | \$ 18.31 | 10,000 | \$ 183,100.00     |
| The Gabelli Dividend & Income Trust | Purchase    | 4/18/2019  | \$ 20.69 | 5,000  | \$ 103,427.00     |
| The Gabelli Dividend & Income Trust | Purchase    | 7/23/2019  | \$ 19.06 | 105    | \$ 2,001.30       |
| The Gabelli Dividend & Income Trust | Purchase    | 7/25/2019  | \$ 19.72 | 4,895  | \$ 96,528.91      |
| The Gabelli Dividend & Income Trust | Purchase    | 8/2/2019   | \$ 17.94 | 4,000  | \$ 71,777.60      |
| The Gabelli Dividend & Income Trust | Purchase    | 8/12/2019  | \$ 15.74 | 6,315  | \$ 99,422.10      |
| The Gabelli Dividend & Income Trust | Purchase    | 8/15/2019  | \$ 14.05 | 5,000  | \$ 70,252.50      |
| The Gabelli Dividend & Income Trust | Purchase    | 9/27/2019  | \$ 13.99 | 5,000  | \$ 69,927.00      |
| The Gabelli Dividend & Income Trust | Sale        | 10/2/2019  | \$ 13.46 | 836    | \$ 11,248.64      |
| The Gabelli Dividend & Income Trust | Purchase    | 10/23/2019 | \$ 9.50  | 10,000 | \$ 95,000.00      |
| The Gabelli Dividend & Income Trust | Purchase    | 10/24/2019 | \$ 9.30  | 5,000  | \$ 46,480.00      |
| The Gabelli Dividend & Income Trust | Purchase    | 10/28/2019 | \$ 9.39  | 30,000 | \$ 281,562.00     |
| The Gabelli Dividend & Income Trust | Purchase    | 11/1/2019  | \$ 9.51  | 10,000 | \$ 95,065.00      |
|                                     |             |            |          |        |                   |
| The Gabelli Focus Five Fund         | Purchase    | 3/7/2019   | \$ 18.43 | 20,000 | \$ 368,530.00     |
| The Gabelli Focus Five Fund         | Purchase    | 3/25/2019  | \$ 19.53 | 15,000 | \$ 292,951.50     |
| The Gabelli Focus Five Fund         | Purchase    | 8/12/2019  | \$ 15.63 | 15,000 | \$ 234,430.50     |
| The Gabelli Focus Five Fund         | Purchase    | 8/14/2019  | \$ 14.52 | 7,500  | \$ 108,905.25     |
| The Gabelli Focus Five Fund         | Purchase    | 8/16/2019  | \$ 14.53 | 845    | \$ 12,276.92      |
| The Gabelli Focus Five Fund         | Purchase    | 8/19/2019  | \$ 15.00 | 10,000 | \$ 150,000.00     |
| The Gabelli Focus Five Fund         | Purchase    | 8/21/2019  | \$ 13.94 | 6,655  | \$ 92,777.36      |
| The Gabelli Focus Five Fund         | Purchase    | 9/24/2019  | \$ 13.61 | 10,000 | \$ 136,143.00     |
| The Gabelli Focus Five Fund         | Sale        | 10/25/2019 | \$ 9.38  | 15,000 | \$ 140,650.58     |
|                                     |             |            |          |        |                   |
| The Gabelli Multimedia Trust Inc.   | Purchase    | 12/12/2018 | \$ 21.48 | 5,000  | \$ 107,400.00     |
| The Gabelli Multimedia Trust Inc.   | Purchase    | 12/21/2018 | \$ 20.80 | 4,000  | \$ 83,190.40      |
| The Gabelli Multimedia Trust Inc.   | Purchase    | 12/24/2018 | \$ 19.88 | 2,000  | \$ 39,752.00      |
| The Gabelli Multimedia Trust Inc.   | Purchase    | 12/26/2018 | \$ 19.53 | 2,000  | \$ 39,060.00      |
| The Gabelli Multimedia Trust Inc.   | Purchase    | 12/28/2018 | \$ 19.99 | 2,000  | \$ 39,979.60      |
| The Gabelli Multimedia Trust Inc.   | Purchase    | 1/11/2019  | \$ 21.78 | 2,000  | \$ 43,555.60      |
| The Gabelli Multimedia Trust Inc.   | Purchase    | 1/15/2019  | \$ 21.04 | 2,000  | \$ 42,072.80      |
| The Gabelli Multimedia Trust Inc.   | Purchase    | 3/7/2019   | \$ 18.01 | 3,000  | \$ 54,026.10      |
| The Gabelli Multimedia Trust Inc.   | Purchase    | 5/9/2019   | \$ 22.66 | 3,000  | \$ 67,990.50      |
| The Gabelli Multimedia Trust Inc.   | Purchase    | 8/9/2019   | \$ 16.49 | 3,000  | \$ 49,467.00      |
| The Gabelli Multimedia Trust Inc.   | Purchase    | 8/14/2019  | \$ 14.50 | 2,000  | \$ 29,000.00      |
| The Gabelli Multimedia Trust Inc.   | Sale        | 10/4/2019  | \$ 13.42 | 2,000  | \$ 26,840.44      |
| The Gabelli Multimedia Trust Inc.   | Purchase    | 10/23/2019 | \$ 9.44  | 4,000  | \$ 37,760.00      |

## Exhibit 1

| Fund Name                      | Transaction | Date       | Price    | Shares | Transaction Total |
|--------------------------------|-------------|------------|----------|--------|-------------------|
| The Gabelli Value 25 Fund Inc. | Spin-Off    | 10/28/2018 |          | 13,333 |                   |
| The Gabelli Value 25 Fund Inc. | Purchase    | 10/31/2018 | \$ 20.81 | 3,667  | \$ 76,320.90      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 11/2/2018  | \$ 23.33 | 4,000  | \$ 93,320.00      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 11/21/2018 | \$ 19.89 | 4,000  | \$ 79,552.80      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 11/23/2018 | \$ 19.34 | 2,000  | \$ 38,680.00      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 11/30/2018 | \$ 20.58 | 2,000  | \$ 41,160.00      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 12/6/2018  | \$ 20.04 | 2,000  | \$ 40,082.60      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 12/7/2018  | \$ 20.98 | 3,000  | \$ 62,940.00      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 12/12/2018 | \$ 21.88 | 2,000  | \$ 43,761.40      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 12/14/2018 | \$ 22.46 | 3,796  | \$ 85,261.70      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 12/18/2018 | \$ 22.72 | 1,204  | \$ 27,348.86      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 12/20/2018 | \$ 22.14 | 2,000  | \$ 44,280.00      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 12/24/2018 | \$ 19.60 | 1,000  | \$ 19,603.60      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 12/26/2018 | \$ 19.44 | 3,000  | \$ 58,320.00      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 12/31/2018 | \$ 20.13 | 2,000  | \$ 40,260.00      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 1/8/2019   | \$ 20.52 | 2,000  | \$ 41,040.00      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 1/10/2019  | \$ 21.68 | 2,000  | \$ 43,360.00      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 1/14/2019  | \$ 21.51 | 3,000  | \$ 64,536.90      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 1/18/2019  | \$ 22.01 | 2,000  | \$ 44,025.40      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 2/7/2019   | \$ 23.92 | 3,000  | \$ 71,760.00      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 3/21/2019  | \$ 20.24 | 5,000  | \$ 101,222.00     |
| The Gabelli Value 25 Fund Inc. | Purchase    | 8/7/2019   | \$ 16.73 | 5,000  | \$ 83,658.50      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 8/9/2019   | \$ 16.79 | 5,000  | \$ 83,948.00      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 8/15/2019  | \$ 14.49 | 5,000  | \$ 72,447.50      |
| The Gabelli Value 25 Fund Inc. | Sale        | 9/25/2019  | \$ 13.82 | 6,000  | \$ 82,941.07      |
| The Gabelli Value 25 Fund Inc. | Sale        | 10/4/2019  | \$ 13.11 | 5,000  | \$ 65,550.13      |
| The Gabelli Value 25 Fund Inc. | Sale        | 10/10/2019 | \$ 14.05 | 4,000  | \$ 56,210.03      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 10/23/2019 | \$ 8.98  | 9,000  | \$ 80,820.00      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 10/24/2019 | \$ 9.26  | 5,000  | \$ 46,313.00      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 10/29/2019 | \$ 9.23  | 10,000 | \$ 92,272.00      |
| The Gabelli Value 25 Fund Inc. | Purchase    | 11/5/2019  | \$ 10.49 | 5,000  | \$ 52,430.50      |
| The GAMCO International SICAV  | Purchase    | 12/7/2018  | \$ 21.03 | 2,000  | \$ 42,060.00      |
| The GAMCO International SICAV  | Purchase    | 12/21/2018 | \$ 20.15 | 2,000  | \$ 40,301.20      |
| The GAMCO International SICAV  | Purchase    | 1/3/2019   | \$ 19.64 | 2,500  | \$ 49,097.75      |
| The GAMCO International SICAV  | Purchase    | 1/7/2019   | \$ 20.34 | 1,500  | \$ 30,516.00      |
| The GAMCO International SICAV  | Sale        | 2/1/2019   | \$ 22.49 | 2,000  | \$ 44,985.41      |
| The GAMCO International SICAV  | Purchase    | 7/31/2019  | \$ 18.95 | 1,000  | \$ 18,951.80      |
| The GAMCO International SICAV  | Purchase    | 8/29/2019  | \$ 13.68 | 1,000  | \$ 13,681.00      |

# **EXHIBIT B**


**CERTIFICATION**

I, David M. Goldman, on behalf of GAMCO Asset Management Inc. (“GAMCO”) hereby certify, as to the claims asserted under the federal securities laws, that:

1. I am General Counsel of GAMCO and am authorized to execute this Certification on its behalf. I have reviewed the Consolidated Amended Complaint for Violations of the Federal Securities Laws and have authorized its filing.
2. GAMCO did not purchase the securities that are the subject of this action at the direction of counsel or in order to participate in any action arising under the federal securities laws.
3. GAMCO has been appointed to serve as lead plaintiffs on behalf of the Class. GAMCO remains willing to serve as a lead plaintiff and representative party on behalf of the Class, including providing testimony at deposition and trial, if necessary. GAMCO fully understands the duties and responsibilities of a lead plaintiff under the Private Securities Litigation Reform Act, including the selection and retention of counsel and overseeing the prosecution of the action for the Class.
4. GAMCO’s transactions in Resideo Technologies, Inc. securities that are the subject of this action are set forth in Exhibit 1 hereto.
5. GAMCO has sought to serve as a lead plaintiff or representative party on behalf of a class in one action under the federal securities laws filed during the three-year period preceding the date of this Certification: *GAMCO Asset Management, Inc. v. Mark McCollum et al.*, No. 19-cv-03363 (S.D. Tex.). Its affiliated entity – Gabelli Funds, LLC – serves as a lead plaintiff in *In re Akorn, Inc. Data Integrity Sec. Litig.*, No. 18-cv-01713 (N.D. Ill.).
6. GAMCO will not accept any payment for serving as representative parties on behalf of the Class beyond its *pro rata* share of any recovery, except such reasonable costs and expenses (including lost wages) directly relating to the representation of the Class, as ordered or approved by the Court.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 9th day of April 2020.



David Goldman  
General Counsel  
GAMCO Asset Management Inc.

## Exhibit 1

| Transaction | Date       | Price    | Shares  | Transaction Total |
|-------------|------------|----------|---------|-------------------|
| Spin-Off    | 10/28/2018 |          | 109,936 |                   |
| Purchase    | 10/30/2018 | \$ 22.88 | 113     | \$ 2,585.46       |
| Purchase    | 10/31/2018 | \$ 20.28 | 25      | \$ 506.93         |
| Purchase    | 10/31/2018 | \$ 19.52 | 2,334   | \$ 45,558.28      |
| Purchase    | 10/31/2018 | \$ 19.67 | 250     | \$ 4,917.45       |
| Purchase    | 10/31/2018 | \$ 19.66 | 500     | \$ 9,829.95       |
| Purchase    | 10/31/2018 | \$ 19.67 | 250     | \$ 4,917.45       |
| Purchase    | 10/31/2018 | \$ 19.74 | 434     | \$ 8,564.99       |
| Purchase    | 10/31/2018 | \$ 19.74 | 700     | \$ 13,814.50      |
| Purchase    | 10/31/2018 | \$ 19.54 | 1,400   | \$ 27,349.00      |
| Purchase    | 10/31/2018 | \$ 19.54 | 1,500   | \$ 29,302.50      |
| Purchase    | 10/31/2018 | \$ 19.80 | 4,000   | \$ 79,200.00      |
| Sale        | 10/31/2018 | \$ 20.94 | 133     | \$ 2,785.25       |
| Purchase    | 11/6/2018  | \$ 24.17 | 2,000   | \$ 48,340.00      |
| Sale        | 11/6/2018  | \$ 23.89 | 433     | \$ 10,345.10      |
| Sale        | 11/6/2018  | \$ 23.63 | 83      | \$ 1,961.27       |
| Purchase    | 11/7/2018  | \$ 23.44 | 3,184   | \$ 74,641.88      |
| Purchase    | 11/7/2018  | \$ 23.45 | 5,934   | \$ 139,135.68     |
| Purchase    | 11/7/2018  | \$ 23.45 | 1,400   | \$ 32,826.08      |
| Purchase    | 11/7/2018  | \$ 23.45 | 1,650   | \$ 38,687.88      |
| Purchase    | 11/7/2018  | \$ 23.45 | 967     | \$ 22,673.44      |
| Purchase    | 11/7/2018  | \$ 23.45 | 967     | \$ 22,673.44      |
| Purchase    | 11/7/2018  | \$ 23.45 | 367     | \$ 8,605.12       |
| Purchase    | 11/7/2018  | \$ 23.27 | 4,167   | \$ 96,957.34      |
| Purchase    | 11/7/2018  | \$ 23.45 | 1,867   | \$ 43,775.92      |
| Purchase    | 11/7/2018  | \$ 23.45 | 1,900   | \$ 44,549.68      |
| Purchase    | 11/7/2018  | \$ 23.45 | 467     | \$ 10,949.84      |
| Purchase    | 11/7/2018  | \$ 23.44 | 534     | \$ 12,518.46      |
| Purchase    | 11/7/2018  | \$ 23.45 | 1,234   | \$ 28,933.84      |
| Purchase    | 11/7/2018  | \$ 23.45 | 2,184   | \$ 51,208.68      |
| Purchase    | 11/7/2018  | \$ 23.45 | 4,000   | \$ 93,788.80      |
| Purchase    | 11/7/2018  | \$ 23.45 | 5,400   | \$ 126,614.88     |
| Purchase    | 11/7/2018  | \$ 23.45 | 1,517   | \$ 35,569.40      |
| Purchase    | 11/7/2018  | \$ 23.44 | 784     | \$ 18,379.16      |
| Purchase    | 11/7/2018  | \$ 23.44 | 3,034   | \$ 71,125.46      |
| Purchase    | 11/7/2018  | \$ 23.75 | 1,000   | \$ 23,750.40      |
| Purchase    | 11/7/2018  | \$ 23.44 | 1,400   | \$ 32,819.92      |
| Purchase    | 11/7/2018  | \$ 23.44 | 1,350   | \$ 31,647.78      |
| Purchase    | 11/7/2018  | \$ 23.27 | 1,667   | \$ 38,787.59      |
| Purchase    | 11/7/2018  | \$ 23.44 | 750     | \$ 17,582.10      |
| Purchase    | 11/8/2018  | \$ 22.60 | 614     | \$ 13,874.13      |
| Purchase    | 11/8/2018  | \$ 22.60 | 309     | \$ 6,982.26       |
| Purchase    | 11/8/2018  | \$ 22.60 | 154     | \$ 3,479.83       |
| Purchase    | 11/8/2018  | \$ 22.55 | 1,084   | \$ 24,449.19      |
| Purchase    | 11/8/2018  | \$ 22.61 | 6,000   | \$ 135,666.60     |
| Purchase    | 11/8/2018  | \$ 22.57 | 5,000   | \$ 112,838.00     |
| Purchase    | 11/8/2018  | \$ 22.61 | 6,034   | \$ 136,435.38     |
| Purchase    | 11/8/2018  | \$ 22.62 | 5,167   | \$ 116,877.54     |
| Purchase    | 11/8/2018  | \$ 22.61 | 784     | \$ 17,727.10      |
| Purchase    | 11/8/2018  | \$ 22.55 | 356     | \$ 8,029.44       |
| Purchase    | 11/8/2018  | \$ 22.55 | 178     | \$ 4,014.72       |
| Purchase    | 11/8/2018  | \$ 22.55 | 4,200   | \$ 94,729.32      |
| Purchase    | 11/8/2018  | \$ 22.49 | 700     | \$ 15,742.44      |
| Purchase    | 11/8/2018  | \$ 23.02 | 267     | \$ 6,147.66       |
| Purchase    | 11/8/2018  | \$ 22.55 | 1,817   | \$ 40,981.71      |
| Purchase    | 11/8/2018  | \$ 22.55 | 134     | \$ 3,022.32       |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 11/9/2018 | \$ 21.78 | 400    | \$ 8,711.95       |
| Purchase    | 11/9/2018 | \$ 21.80 | 300    | \$ 6,540.24       |
| Purchase    | 11/9/2018 | \$ 21.80 | 217    | \$ 4,730.77       |
| Purchase    | 11/9/2018 | \$ 21.80 | 175    | \$ 3,815.14       |
| Purchase    | 11/9/2018 | \$ 21.80 | 175    | \$ 3,815.14       |
| Purchase    | 11/9/2018 | \$ 21.80 | 1,417  | \$ 30,890.60      |
| Purchase    | 11/9/2018 | \$ 21.80 | 500    | \$ 10,900.40      |
| Purchase    | 11/9/2018 | \$ 21.80 | 450    | \$ 9,810.00       |
| Purchase    | 11/9/2018 | \$ 21.80 | 550    | \$ 11,990.44      |
| Purchase    | 11/9/2018 | \$ 21.78 | 450    | \$ 9,801.00       |
| Purchase    | 11/9/2018 | \$ 21.80 | 350    | \$ 7,630.28       |
| Purchase    | 11/9/2018 | \$ 21.78 | 184    | \$ 4,007.85       |
| Purchase    | 11/9/2018 | \$ 21.80 | 375    | \$ 8,175.30       |
| Purchase    | 11/9/2018 | \$ 21.79 | 617    | \$ 13,441.35      |
| Purchase    | 11/9/2018 | \$ 21.78 | 375    | \$ 8,168.18       |
| Purchase    | 11/9/2018 | \$ 21.80 | 217    | \$ 4,730.77       |
| Purchase    | 11/9/2018 | \$ 21.80 | 792    | \$ 17,266.23      |
| Purchase    | 11/9/2018 | \$ 21.80 | 509    | \$ 11,096.61      |
| Purchase    | 11/9/2018 | \$ 21.80 | 617    | \$ 13,451.09      |
| Purchase    | 11/9/2018 | \$ 21.79 | 659    | \$ 14,356.32      |
| Purchase    | 11/9/2018 | \$ 21.80 | 2,284  | \$ 49,793.03      |
| Purchase    | 11/9/2018 | \$ 21.80 | 175    | \$ 3,815.14       |
| Purchase    | 11/9/2018 | \$ 21.80 | 90     | \$ 1,962.07       |
| Purchase    | 11/9/2018 | \$ 21.78 | 367    | \$ 7,993.92       |
| Purchase    | 11/9/2018 | \$ 21.80 | 800    | \$ 17,440.64      |
| Purchase    | 11/9/2018 | \$ 21.80 | 1,000  | \$ 21,800.80      |
| Purchase    | 11/9/2018 | \$ 21.78 | 359    | \$ 7,819.67       |
| Purchase    | 11/9/2018 | \$ 21.80 | 529    | \$ 11,532.62      |
| Purchase    | 11/9/2018 | \$ 21.80 | 529    | \$ 11,532.62      |
| Purchase    | 11/9/2018 | \$ 21.80 | 300    | \$ 6,540.24       |
| Purchase    | 11/9/2018 | \$ 21.80 | 300    | \$ 6,540.24       |
| Purchase    | 11/9/2018 | \$ 21.80 | 809    | \$ 17,636.85      |
| Purchase    | 11/9/2018 | \$ 21.80 | 425    | \$ 9,265.34       |
| Purchase    | 11/9/2018 | \$ 21.80 | 225    | \$ 4,905.18       |
| Purchase    | 11/9/2018 | \$ 21.80 | 138    | \$ 3,008.87       |
| Purchase    | 11/9/2018 | \$ 21.80 | 230    | \$ 5,014.18       |
| Purchase    | 11/9/2018 | \$ 21.79 | 367    | \$ 7,995.10       |
| Purchase    | 11/9/2018 | \$ 21.80 | 450    | \$ 9,810.36       |
| Purchase    | 11/9/2018 | \$ 21.78 | 300    | \$ 6,534.54       |
| Purchase    | 11/9/2018 | \$ 21.82 | 92     | \$ 2,007.56       |
| Purchase    | 11/9/2018 | \$ 21.80 | 150    | \$ 3,270.08       |
| Purchase    | 11/9/2018 | \$ 21.78 | 400    | \$ 8,711.95       |
| Purchase    | 11/9/2018 | \$ 21.79 | 225    | \$ 4,902.64       |
| Purchase    | 11/9/2018 | \$ 21.81 | 125    | \$ 2,725.89       |
| Purchase    | 11/9/2018 | \$ 21.82 | 92     | \$ 2,007.56       |
| Purchase    | 11/9/2018 | \$ 21.78 | 634    | \$ 13,809.66      |
| Purchase    | 11/9/2018 | \$ 21.78 | 359    | \$ 7,819.67       |
| Purchase    | 11/9/2018 | \$ 21.78 | 467    | \$ 10,172.10      |
| Purchase    | 11/9/2018 | \$ 21.81 | 550    | \$ 11,996.05      |
| Purchase    | 11/9/2018 | \$ 21.80 | 3,300  | \$ 71,940.00      |
| Purchase    | 11/9/2018 | \$ 21.80 | 70     | \$ 1,526.00       |
| Purchase    | 11/9/2018 | \$ 21.78 | 400    | \$ 8,712.72       |
| Purchase    | 11/9/2018 | \$ 21.82 | 100    | \$ 2,181.70       |
| Purchase    | 11/9/2018 | \$ 21.79 | 200    | \$ 4,358.45       |
| Purchase    | 11/9/2018 | \$ 21.78 | 317    | \$ 6,904.77       |
| Purchase    | 11/9/2018 | \$ 21.78 | 900    | \$ 19,603.44      |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 11/9/2018 | \$ 21.82 | 100    | \$ 2,181.70       |
| Purchase    | 11/9/2018 | \$ 21.78 | 500    | \$ 10,888.70      |
| Purchase    | 11/9/2018 | \$ 21.87 | 700    | \$ 15,308.50      |
| Purchase    | 11/9/2018 | \$ 21.85 | 150    | \$ 3,277.77       |
| Purchase    | 11/9/2018 | \$ 21.87 | 700    | \$ 15,308.50      |
| Purchase    | 11/9/2018 | \$ 21.77 | 817    | \$ 17,789.00      |
| Purchase    | 11/9/2018 | \$ 21.77 | 817    | \$ 17,789.00      |
| Purchase    | 11/9/2018 | \$ 21.79 | 200    | \$ 4,358.45       |
| Purchase    | 11/9/2018 | \$ 21.78 | 600    | \$ 13,065.45      |
| Purchase    | 11/9/2018 | \$ 21.80 | 184    | \$ 4,011.35       |
| Purchase    | 11/9/2018 | \$ 21.80 | 184    | \$ 4,011.35       |
| Purchase    | 11/9/2018 | \$ 21.80 | 184    | \$ 4,011.35       |
| Purchase    | 11/9/2018 | \$ 21.80 | 184    | \$ 4,011.35       |
| Purchase    | 11/9/2018 | \$ 21.79 | 634    | \$ 13,811.69      |
| Purchase    | 11/9/2018 | \$ 21.79 | 92     | \$ 2,004.22       |
| Purchase    | 11/9/2018 | \$ 21.79 | 323    | \$ 7,036.56       |
| Purchase    | 11/9/2018 | \$ 21.79 | 37     | \$ 806.05         |
| Purchase    | 11/9/2018 | \$ 21.79 | 100    | \$ 2,178.50       |
| Purchase    | 11/9/2018 | \$ 21.77 | 700    | \$ 15,242.20      |
| Purchase    | 11/9/2018 | \$ 21.75 | 600    | \$ 13,050.00      |
| Purchase    | 11/9/2018 | \$ 21.75 | 400    | \$ 8,700.00       |
| Purchase    | 11/9/2018 | \$ 21.75 | 600    | \$ 13,050.00      |
| Purchase    | 11/9/2018 | \$ 21.78 | 300    | \$ 6,534.00       |
| Purchase    | 11/9/2018 | \$ 21.78 | 350    | \$ 7,623.00       |
| Purchase    | 11/9/2018 | \$ 21.75 | 734    | \$ 15,964.50      |
| Purchase    | 11/9/2018 | \$ 21.79 | 700    | \$ 15,249.50      |
| Purchase    | 11/9/2018 | \$ 21.79 | 134    | \$ 2,919.19       |
| Purchase    | 11/9/2018 | \$ 21.75 | 400    | \$ 8,700.00       |
| Purchase    | 11/9/2018 | \$ 21.78 | 567    | \$ 12,350.28      |
| Purchase    | 11/9/2018 | \$ 21.79 | 400    | \$ 8,714.00       |
| Purchase    | 11/9/2018 | \$ 21.78 | 134    | \$ 2,918.52       |
| Purchase    | 11/9/2018 | \$ 21.79 | 250    | \$ 5,446.25       |
| Purchase    | 11/9/2018 | \$ 21.79 | 350    | \$ 7,624.75       |
| Purchase    | 11/9/2018 | \$ 21.79 | 400    | \$ 8,714.00       |
| Purchase    | 11/9/2018 | \$ 21.77 | 400    | \$ 8,708.00       |
| Purchase    | 11/9/2018 | \$ 21.78 | 700    | \$ 15,247.12      |
| Purchase    | 11/9/2018 | \$ 21.81 | 1,000  | \$ 21,811.00      |
| Purchase    | 11/9/2018 | \$ 21.79 | 309    | \$ 6,731.57       |
| Purchase    | 11/9/2018 | \$ 21.78 | 1,000  | \$ 21,781.60      |
| Purchase    | 11/9/2018 | \$ 21.75 | 367    | \$ 7,982.25       |
| Purchase    | 11/9/2018 | \$ 21.79 | 984    | \$ 21,436.44      |
| Purchase    | 11/9/2018 | \$ 21.79 | 967    | \$ 21,066.10      |
| Purchase    | 11/9/2018 | \$ 21.78 | 467    | \$ 10,172.10      |
| Purchase    | 11/9/2018 | \$ 21.78 | 400    | \$ 8,712.72       |
| Purchase    | 11/9/2018 | \$ 21.80 | 321    | \$ 6,998.06       |
| Purchase    | 11/9/2018 | \$ 21.75 | 225    | \$ 4,893.75       |
| Purchase    | 11/9/2018 | \$ 21.81 | 7,100  | \$ 154,858.10     |
| Purchase    | 11/9/2018 | \$ 21.78 | 650    | \$ 14,153.83      |
| Purchase    | 11/9/2018 | \$ 21.79 | 1,201  | \$ 26,163.79      |
| Purchase    | 11/9/2018 | \$ 21.79 | 217    | \$ 4,727.35       |
| Purchase    | 11/9/2018 | \$ 21.79 | 217    | \$ 4,727.35       |
| Purchase    | 11/9/2018 | \$ 21.79 | 225    | \$ 4,901.63       |
| Purchase    | 11/9/2018 | \$ 21.75 | 134    | \$ 2,914.50       |
| Purchase    | 11/9/2018 | \$ 21.86 | 642    | \$ 14,035.28      |
| Purchase    | 11/9/2018 | \$ 21.80 | 367    | \$ 8,000.89       |
| Purchase    | 11/9/2018 | \$ 21.77 | 896    | \$ 19,508.63      |



## Exhibit 1

| Transaction | Date       | Price    | Shares | Transaction Total |
|-------------|------------|----------|--------|-------------------|
| Purchase    | 11/9/2018  | \$ 21.80 | 700    | \$ 15,260.56      |
| Purchase    | 11/9/2018  | \$ 21.81 | 400    | \$ 8,724.40       |
| Purchase    | 11/9/2018  | \$ 21.79 | 250    | \$ 5,446.83       |
| Purchase    | 11/9/2018  | \$ 21.78 | 300    | \$ 6,535.20       |
| Purchase    | 11/9/2018  | \$ 21.82 | 100    | \$ 2,181.70       |
| Purchase    | 11/9/2018  | \$ 21.80 | 617    | \$ 13,450.60      |
| Purchase    | 11/9/2018  | \$ 21.78 | 400    | \$ 8,711.95       |
| Purchase    | 11/9/2018  | \$ 21.78 | 308    | \$ 6,708.79       |
| Purchase    | 11/9/2018  | \$ 21.78 | 350    | \$ 7,623.63       |
| Purchase    | 11/9/2018  | \$ 21.78 | 350    | \$ 7,623.63       |
| Purchase    | 11/9/2018  | \$ 21.67 | 3,000  | \$ 64,998.60      |
| Purchase    | 11/9/2018  | \$ 21.78 | 517    | \$ 11,260.26      |
| Purchase    | 11/9/2018  | \$ 21.80 | 309    | \$ 6,736.45       |
| Purchase    | 11/9/2018  | \$ 21.80 | 309    | \$ 6,736.45       |
| Purchase    | 11/12/2018 | \$ 21.50 | 184    | \$ 3,955.76       |
| Purchase    | 11/12/2018 | \$ 21.50 | 134    | \$ 2,880.83       |
| Purchase    | 11/12/2018 | \$ 21.50 | 334    | \$ 7,180.57       |
| Purchase    | 11/12/2018 | \$ 21.50 | 417    | \$ 8,964.96       |
| Purchase    | 11/12/2018 | \$ 21.50 | 409    | \$ 8,792.97       |
| Purchase    | 11/12/2018 | \$ 21.50 | 717    | \$ 15,414.57      |
| Purchase    | 11/12/2018 | \$ 21.50 | 517    | \$ 11,114.83      |
| Purchase    | 11/12/2018 | \$ 21.50 | 467    | \$ 10,039.89      |
| Purchase    | 11/12/2018 | \$ 21.50 | 267    | \$ 5,740.15       |
| Purchase    | 11/12/2018 | \$ 21.50 | 400    | \$ 8,599.48       |
| Purchase    | 11/12/2018 | \$ 21.50 | 450    | \$ 9,674.42       |
| Purchase    | 11/12/2018 | \$ 21.50 | 700    | \$ 15,049.09      |
| Purchase    | 11/12/2018 | \$ 21.50 | 138    | \$ 2,966.82       |
| Purchase    | 11/12/2018 | \$ 21.50 | 459    | \$ 9,867.90       |
| Purchase    | 11/12/2018 | \$ 21.50 | 334    | \$ 7,180.57       |
| Purchase    | 11/12/2018 | \$ 21.50 | 634    | \$ 13,630.18      |
| Purchase    | 11/12/2018 | \$ 21.50 | 334    | \$ 7,180.57       |
| Purchase    | 11/12/2018 | \$ 21.50 | 720    | \$ 15,479.06      |
| Purchase    | 11/12/2018 | \$ 21.50 | 400    | \$ 8,599.48       |
| Purchase    | 11/12/2018 | \$ 21.50 | 900    | \$ 19,348.83      |
| Purchase    | 11/12/2018 | \$ 21.50 | 359    | \$ 7,718.03       |
| Purchase    | 11/12/2018 | \$ 21.50 | 459    | \$ 9,867.90       |
| Purchase    | 11/12/2018 | \$ 21.50 | 459    | \$ 9,867.90       |
| Purchase    | 11/12/2018 | \$ 21.50 | 647    | \$ 13,909.66      |
| Purchase    | 11/12/2018 | \$ 21.50 | 600    | \$ 12,899.22      |
| Purchase    | 11/12/2018 | \$ 21.50 | 225    | \$ 4,837.21       |
| Purchase    | 11/12/2018 | \$ 21.50 | 225    | \$ 4,837.21       |
| Purchase    | 11/12/2018 | \$ 21.50 | 500    | \$ 10,749.35      |
| Purchase    | 11/12/2018 | \$ 21.50 | 734    | \$ 15,780.05      |
| Purchase    | 11/12/2018 | \$ 21.72 | 150    | \$ 3,257.39       |
| Purchase    | 11/12/2018 | \$ 21.69 | 600    | \$ 13,014.69      |
| Purchase    | 11/12/2018 | \$ 21.70 | 250    | \$ 5,425.68       |
| Purchase    | 11/12/2018 | \$ 21.72 | 150    | \$ 3,257.39       |
| Purchase    | 11/12/2018 | \$ 21.50 | 225    | \$ 4,837.21       |
| Purchase    | 11/12/2018 | \$ 21.50 | 1,600  | \$ 34,397.92      |
| Purchase    | 11/12/2018 | \$ 21.50 | 567    | \$ 12,189.76      |
| Purchase    | 11/12/2018 | \$ 21.50 | 1,600  | \$ 34,397.92      |
| Purchase    | 11/12/2018 | \$ 21.71 | 600    | \$ 13,027.74      |
| Purchase    | 11/12/2018 | \$ 21.70 | 300    | \$ 6,509.82       |
| Purchase    | 11/12/2018 | \$ 21.50 | 450    | \$ 9,674.42       |
| Purchase    | 11/12/2018 | \$ 21.50 | 367    | \$ 7,890.02       |
| Purchase    | 11/12/2018 | \$ 21.50 | 2,100  | \$ 45,147.27      |

## Exhibit 1

| Transaction | Date       | Price    | Shares | Transaction Total |
|-------------|------------|----------|--------|-------------------|
| Purchase    | 11/12/2018 | \$ 21.50 | 1,600  | \$ 34,397.92      |
| Purchase    | 11/12/2018 | \$ 21.50 | 225    | \$ 4,837.21       |
| Purchase    | 11/12/2018 | \$ 21.50 | 450    | \$ 9,674.42       |
| Purchase    | 11/12/2018 | \$ 21.50 | 267    | \$ 5,740.15       |
| Purchase    | 11/12/2018 | \$ 21.50 | 134    | \$ 2,880.83       |
| Purchase    | 11/12/2018 | \$ 21.50 | 225    | \$ 4,837.21       |
| Purchase    | 11/12/2018 | \$ 21.50 | 317    | \$ 6,815.09       |
| Purchase    | 11/12/2018 | \$ 21.50 | 534    | \$ 11,480.31      |
| Purchase    | 11/12/2018 | \$ 21.50 | 1,100  | \$ 23,648.57      |
| Purchase    | 11/12/2018 | \$ 21.50 | 2,000  | \$ 42,997.40      |
| Purchase    | 11/12/2018 | \$ 21.50 | 2,091  | \$ 44,953.78      |
| Purchase    | 11/12/2018 | \$ 21.50 | 261    | \$ 5,611.16       |
| Purchase    | 11/12/2018 | \$ 21.50 | 348    | \$ 7,481.55       |
| Purchase    | 11/12/2018 | \$ 21.50 | 1,267  | \$ 27,238.85      |
| Purchase    | 11/12/2018 | \$ 21.50 | 225    | \$ 4,837.21       |
| Purchase    | 11/12/2018 | \$ 21.50 | 117    | \$ 2,515.35       |
| Purchase    | 11/12/2018 | \$ 21.50 | 542    | \$ 11,652.30      |
| Purchase    | 11/12/2018 | \$ 21.50 | 500    | \$ 10,749.35      |
| Purchase    | 11/12/2018 | \$ 21.50 | 442    | \$ 9,502.43       |
| Purchase    | 11/12/2018 | \$ 21.50 | 217    | \$ 4,665.22       |
| Purchase    | 11/12/2018 | \$ 21.50 | 175    | \$ 3,762.27       |
| Purchase    | 11/12/2018 | \$ 21.50 | 367    | \$ 7,890.02       |
| Purchase    | 11/12/2018 | \$ 21.50 | 184    | \$ 3,955.76       |
| Purchase    | 11/12/2018 | \$ 21.50 | 138    | \$ 2,966.82       |
| Purchase    | 11/12/2018 | \$ 21.50 | 138    | \$ 2,966.82       |
| Purchase    | 11/12/2018 | \$ 21.50 | 467    | \$ 10,039.89      |
| Purchase    | 11/12/2018 | \$ 21.50 | 550    | \$ 11,824.29      |
| Purchase    | 11/12/2018 | \$ 21.50 | 225    | \$ 4,837.21       |
| Purchase    | 11/12/2018 | \$ 21.50 | 142    | \$ 3,052.82       |
| Purchase    | 11/12/2018 | \$ 21.50 | 367    | \$ 7,890.02       |
| Purchase    | 11/12/2018 | \$ 21.50 | 367    | \$ 7,890.02       |
| Purchase    | 11/12/2018 | \$ 21.50 | 317    | \$ 6,815.09       |
| Purchase    | 11/12/2018 | \$ 21.50 | 634    | \$ 13,630.18      |
| Purchase    | 11/12/2018 | \$ 21.50 | 700    | \$ 15,049.09      |
| Purchase    | 11/12/2018 | \$ 21.50 | 809    | \$ 17,392.45      |
| Purchase    | 11/12/2018 | \$ 21.50 | 275    | \$ 5,912.14       |
| Purchase    | 11/12/2018 | \$ 21.50 | 225    | \$ 4,837.21       |
| Purchase    | 11/12/2018 | \$ 21.50 | 367    | \$ 7,890.02       |
| Purchase    | 11/12/2018 | \$ 21.50 | 367    | \$ 7,890.02       |
| Purchase    | 11/12/2018 | \$ 21.50 | 367    | \$ 7,890.02       |
| Purchase    | 11/12/2018 | \$ 21.50 | 634    | \$ 13,630.18      |
| Purchase    | 11/12/2018 | \$ 21.50 | 88     | \$ 1,891.89       |
| Purchase    | 11/12/2018 | \$ 21.50 | 409    | \$ 8,792.97       |
| Purchase    | 11/12/2018 | \$ 21.50 | 409    | \$ 8,792.97       |
| Purchase    | 11/12/2018 | \$ 21.50 | 334    | \$ 7,180.57       |
| Purchase    | 11/12/2018 | \$ 21.50 | 334    | \$ 7,180.57       |
| Purchase    | 11/12/2018 | \$ 21.50 | 350    | \$ 7,524.55       |
| Purchase    | 11/12/2018 | \$ 21.50 | 134    | \$ 2,880.83       |
| Purchase    | 11/12/2018 | \$ 21.50 | 225    | \$ 4,837.21       |
| Purchase    | 11/12/2018 | \$ 21.50 | 225    | \$ 4,837.21       |
| Purchase    | 11/12/2018 | \$ 21.50 | 221    | \$ 4,751.21       |
| Purchase    | 11/12/2018 | \$ 21.50 | 225    | \$ 4,837.21       |
| Purchase    | 11/12/2018 | \$ 21.50 | 92     | \$ 1,977.88       |
| Purchase    | 11/12/2018 | \$ 21.50 | 271    | \$ 5,826.15       |
| Purchase    | 11/12/2018 | \$ 21.50 | 471    | \$ 10,125.89      |
| Purchase    | 11/12/2018 | \$ 21.50 | 734    | \$ 15,780.05      |

## Exhibit 1

| Transaction | Date       | Price    | Shares | Transaction Total |
|-------------|------------|----------|--------|-------------------|
| Purchase    | 11/12/2018 | \$ 21.50 | 180    | \$ 3,869.77       |
| Purchase    | 11/12/2018 | \$ 21.50 | 967    | \$ 20,789.24      |
| Purchase    | 11/12/2018 | \$ 21.50 | 467    | \$ 10,039.89      |
| Purchase    | 11/12/2018 | \$ 21.50 | 917    | \$ 19,714.31      |
| Purchase    | 11/12/2018 | \$ 21.50 | 534    | \$ 11,480.31      |
| Purchase    | 11/12/2018 | \$ 21.50 | 305    | \$ 6,557.10       |
| Purchase    | 11/12/2018 | \$ 21.50 | 400    | \$ 8,599.48       |
| Purchase    | 11/12/2018 | \$ 21.50 | 109    | \$ 2,343.36       |
| Purchase    | 11/12/2018 | \$ 21.50 | 134    | \$ 2,880.83       |
| Purchase    | 11/12/2018 | \$ 21.50 | 134    | \$ 2,880.83       |
| Purchase    | 11/12/2018 | \$ 21.50 | 296    | \$ 6,363.62       |
| Purchase    | 11/12/2018 | \$ 21.50 | 359    | \$ 7,718.03       |
| Purchase    | 11/12/2018 | \$ 21.50 | 630    | \$ 13,544.18      |
| Purchase    | 11/13/2018 | \$ 21.27 | 500    | \$ 10,634.65      |
| Purchase    | 11/13/2018 | \$ 21.37 | 225    | \$ 4,808.21       |
| Purchase    | 11/13/2018 | \$ 21.29 | 225    | \$ 4,789.28       |
| Purchase    | 11/13/2018 | \$ 21.29 | 409    | \$ 8,705.85       |
| Purchase    | 11/13/2018 | \$ 21.37 | 325    | \$ 6,945.19       |
| Purchase    | 11/13/2018 | \$ 21.41 | 4,667  | \$ 99,916.27      |
| Purchase    | 11/13/2018 | \$ 21.41 | 4,667  | \$ 99,916.27      |
| Purchase    | 11/13/2018 | \$ 21.37 | 200    | \$ 4,273.96       |
| Purchase    | 11/13/2018 | \$ 21.37 | 221    | \$ 4,722.73       |
| Purchase    | 11/13/2018 | \$ 21.37 | 434    | \$ 9,274.49       |
| Purchase    | 11/13/2018 | \$ 21.18 | 459    | \$ 9,720.28       |
| Purchase    | 11/13/2018 | \$ 21.33 | 459    | \$ 9,791.53       |
| Purchase    | 11/13/2018 | \$ 21.29 | 867    | \$ 18,454.70      |
| Purchase    | 11/13/2018 | \$ 21.24 | 1,400  | \$ 29,729.00      |
| Purchase    | 11/13/2018 | \$ 21.41 | 1,800  | \$ 38,536.38      |
| Purchase    | 11/13/2018 | \$ 21.45 | 225    | \$ 4,825.64       |
| Purchase    | 11/13/2018 | \$ 21.29 | 800    | \$ 17,028.56      |
| Purchase    | 11/13/2018 | \$ 21.41 | 717    | \$ 15,350.32      |
| Purchase    | 11/13/2018 | \$ 21.33 | 1,100  | \$ 23,465.53      |
| Purchase    | 11/13/2018 | \$ 21.33 | 354    | \$ 7,551.63       |
| Purchase    | 11/13/2018 | \$ 21.09 | 317    | \$ 6,686.83       |
| Purchase    | 11/13/2018 | \$ 21.33 | 634    | \$ 13,524.68      |
| Purchase    | 11/13/2018 | \$ 21.33 | 225    | \$ 4,799.77       |
| Purchase    | 11/13/2018 | \$ 21.41 | 1,100  | \$ 23,550.01      |
| Purchase    | 11/13/2018 | \$ 21.09 | 467    | \$ 9,848.61       |
| Purchase    | 11/13/2018 | \$ 21.33 | 343    | \$ 7,316.98       |
| Purchase    | 11/13/2018 | \$ 21.33 | 243    | \$ 5,183.75       |
| Purchase    | 11/13/2018 | \$ 21.33 | 79     | \$ 1,685.25       |
| Purchase    | 11/13/2018 | \$ 21.33 | 130    | \$ 2,773.20       |
| Purchase    | 11/13/2018 | \$ 21.33 | 300    | \$ 6,399.69       |
| Purchase    | 11/13/2018 | \$ 21.33 | 357    | \$ 7,615.63       |
| Purchase    | 11/13/2018 | \$ 21.39 | 6,400  | \$ 136,864.00     |
| Purchase    | 11/13/2018 | \$ 21.39 | 6,300  | \$ 134,725.50     |
| Purchase    | 11/15/2018 | \$ 22.03 | 367    | \$ 8,085.01       |
| Purchase    | 11/15/2018 | \$ 22.03 | 184    | \$ 4,053.52       |
| Purchase    | 11/15/2018 | \$ 22.03 | 184    | \$ 4,053.52       |
| Sale        | 11/15/2018 | \$ 22.40 | 33     | \$ 739.34         |
| Purchase    | 11/16/2018 | \$ 21.50 | 617    | \$ 13,265.31      |
| Purchase    | 11/16/2018 | \$ 21.70 | 5,000  | \$ 108,476.00     |
| Purchase    | 11/16/2018 | \$ 21.55 | 400    | \$ 8,619.88       |
| Purchase    | 11/16/2018 | \$ 21.55 | 717    | \$ 15,451.13      |
| Purchase    | 11/16/2018 | \$ 21.52 | 1,434  | \$ 30,859.68      |
| Purchase    | 11/16/2018 | \$ 21.52 | 867    | \$ 18,657.84      |

## Exhibit 1

| Transaction | Date       | Price    | Shares | Transaction Total |
|-------------|------------|----------|--------|-------------------|
| Purchase    | 11/16/2018 | \$ 21.52 | 400    | \$ 8,608.00       |
| Purchase    | 11/16/2018 | \$ 21.52 | 967    | \$ 20,809.84      |
| Purchase    | 11/16/2018 | \$ 21.52 | 367    | \$ 7,897.84       |
| Purchase    | 11/19/2018 | \$ 20.16 | 5,624  | \$ 113,399.23     |
| Purchase    | 11/19/2018 | \$ 19.86 | 800    | \$ 15,887.52      |
| Purchase    | 11/20/2018 | \$ 19.45 | 5,000  | \$ 97,250.00      |
| Sale        | 11/20/2018 | \$ 19.16 | 21     | \$ 402.30         |
| Purchase    | 11/21/2018 | \$ 19.95 | 2,000  | \$ 39,904.20      |
| Purchase    | 11/21/2018 | \$ 19.95 | 2,000  | \$ 39,904.20      |
| Sale        | 11/21/2018 | \$ 19.87 | 916    | \$ 18,196.55      |
| Sale        | 11/21/2018 | \$ 19.89 | 200    | \$ 3,977.00       |
| Sale        | 11/21/2018 | \$ 19.99 | 83     | \$ 1,659.14       |
| Purchase    | 11/27/2018 | \$ 19.33 | 575    | \$ 11,112.11      |
| Purchase    | 11/28/2018 | \$ 19.69 | 903    | \$ 17,778.72      |
| Sale        | 11/28/2018 | \$ 20.05 | 35     | \$ 701.90         |
| Purchase    | 11/29/2018 | \$ 20.78 | 3,100  | \$ 64,403.12      |
| Purchase    | 11/29/2018 | \$ 20.78 | 3,100  | \$ 64,403.12      |
| Sale        | 11/29/2018 | \$ 20.43 | 95     | \$ 1,940.82       |
| Sale        | 11/29/2018 | \$ 20.44 | 4      | \$ 81.77          |
| Sale        | 11/29/2018 | \$ 20.44 | 8      | \$ 163.55         |
| Sale        | 11/29/2018 | \$ 20.51 | 83     | \$ 1,702.24       |
| Sale        | 11/29/2018 | \$ 20.43 | 308    | \$ 6,292.35       |
| Sale        | 11/29/2018 | \$ 20.51 | 8      | \$ 164.06         |
| Sale        | 11/29/2018 | \$ 20.43 | 56     | \$ 1,144.06       |
| Sale        | 11/29/2018 | \$ 20.43 | 283    | \$ 5,781.61       |
| Purchase    | 11/30/2018 | \$ 20.88 | 1,000  | \$ 20,877.70      |
| Purchase    | 12/3/2018  | \$ 20.84 | 7,663  | \$ 159,728.73     |
| Purchase    | 12/3/2018  | \$ 21.02 | 2,000  | \$ 42,040.00      |
| Purchase    | 12/3/2018  | \$ 21.02 | 2,000  | \$ 42,040.00      |
| Purchase    | 12/4/2018  | \$ 20.90 | 400    | \$ 8,360.00       |
| Purchase    | 12/6/2018  | \$ 20.25 | 855    | \$ 17,313.07      |
| Purchase    | 12/6/2018  | \$ 20.25 | 855    | \$ 17,313.07      |
| Purchase    | 12/6/2018  | \$ 19.99 | 2,000  | \$ 39,976.20      |
| Purchase    | 12/6/2018  | \$ 20.37 | 1,000  | \$ 20,372.50      |
| Purchase    | 12/6/2018  | \$ 20.37 | 1,100  | \$ 22,409.75      |
| Purchase    | 12/10/2018 | \$ 21.05 | 1,000  | \$ 21,050.00      |
| Purchase    | 12/11/2018 | \$ 21.39 | 3,000  | \$ 64,181.70      |
| Purchase    | 12/11/2018 | \$ 21.81 | 334    | \$ 7,284.17       |
| Sale        | 12/11/2018 | \$ 21.25 | 16     | \$ 340.05         |
| Purchase    | 12/12/2018 | \$ 21.78 | 3,000  | \$ 65,331.60      |
| Purchase    | 12/12/2018 | \$ 21.78 | 2,145  | \$ 46,712.09      |
| Purchase    | 12/12/2018 | \$ 21.78 | 2,145  | \$ 46,712.09      |
| Purchase    | 12/12/2018 | \$ 21.78 | 2,700  | \$ 58,810.59      |
| Purchase    | 12/12/2018 | \$ 21.78 | 1,000  | \$ 21,780.00      |
| Purchase    | 12/12/2018 | \$ 21.78 | 2,000  | \$ 43,554.40      |
| Purchase    | 12/13/2018 | \$ 21.48 | 5,000  | \$ 107,403.50     |
| Sale        | 12/13/2018 | \$ 21.60 | 16     | \$ 345.62         |
| Purchase    | 12/14/2018 | \$ 22.27 | 1,600  | \$ 35,632.00      |
| Purchase    | 12/17/2018 | \$ 22.26 | 500    | \$ 11,130.00      |
| Purchase    | 12/18/2018 | \$ 22.68 | 1,400  | \$ 31,751.30      |
| Sale        | 12/18/2018 | \$ 22.41 | 50     | \$ 1,120.60       |
| Purchase    | 12/19/2018 | \$ 22.34 | 500    | \$ 11,169.30      |
| Purchase    | 12/19/2018 | \$ 23.26 | 2,000  | \$ 46,520.00      |
| Purchase    | 12/19/2018 | \$ 23.26 | 2,000  | \$ 46,520.00      |
| Sale        | 12/19/2018 | \$ 22.36 | 25     | \$ 559.03         |
| Sale        | 12/19/2018 | \$ 23.22 | 600    | \$ 13,930.31      |

## Exhibit 1

| Transaction | Date       | Price    | Shares | Transaction Total |
|-------------|------------|----------|--------|-------------------|
| Purchase    | 12/20/2018 | \$ 21.41 | 500    | \$ 10,704.95      |
| Purchase    | 12/20/2018 | \$ 22.13 | 102    | \$ 2,256.96       |
| Purchase    | 12/20/2018 | \$ 22.13 | 152    | \$ 3,363.32       |
| Purchase    | 12/20/2018 | \$ 22.13 | 206    | \$ 4,558.18       |
| Purchase    | 12/20/2018 | \$ 22.13 | 142    | \$ 3,142.05       |
| Purchase    | 12/20/2018 | \$ 22.13 | 101    | \$ 2,234.84       |
| Purchase    | 12/20/2018 | \$ 22.13 | 47     | \$ 1,039.97       |
| Purchase    | 12/20/2018 | \$ 22.13 | 49     | \$ 1,084.23       |
| Purchase    | 12/20/2018 | \$ 22.13 | 61     | \$ 1,349.75       |
| Purchase    | 12/20/2018 | \$ 22.13 | 49     | \$ 1,084.23       |
| Purchase    | 12/20/2018 | \$ 22.13 | 144    | \$ 3,186.30       |
| Purchase    | 12/20/2018 | \$ 22.13 | 251    | \$ 5,553.90       |
| Purchase    | 12/20/2018 | \$ 22.13 | 49     | \$ 1,084.23       |
| Purchase    | 12/20/2018 | \$ 22.13 | 310    | \$ 6,859.40       |
| Purchase    | 12/20/2018 | \$ 22.13 | 64     | \$ 1,416.13       |
| Purchase    | 12/20/2018 | \$ 22.13 | 59     | \$ 1,305.50       |
| Purchase    | 12/20/2018 | \$ 22.13 | 55     | \$ 1,216.99       |
| Purchase    | 12/20/2018 | \$ 22.13 | 45     | \$ 995.72         |
| Purchase    | 12/20/2018 | \$ 22.12 | 72     | \$ 1,592.60       |
| Purchase    | 12/20/2018 | \$ 22.12 | 60     | \$ 1,327.16       |
| Purchase    | 12/20/2018 | \$ 22.12 | 48     | \$ 1,061.73       |
| Purchase    | 12/20/2018 | \$ 22.13 | 58     | \$ 1,283.37       |
| Purchase    | 12/20/2018 | \$ 22.13 | 43     | \$ 951.47         |
| Purchase    | 12/20/2018 | \$ 22.13 | 107    | \$ 2,367.60       |
| Purchase    | 12/20/2018 | \$ 22.13 | 143    | \$ 3,164.18       |
| Purchase    | 12/20/2018 | \$ 22.13 | 65     | \$ 1,438.26       |
| Purchase    | 12/20/2018 | \$ 22.13 | 81     | \$ 1,792.30       |
| Purchase    | 12/20/2018 | \$ 22.13 | 47     | \$ 1,039.97       |
| Purchase    | 12/20/2018 | \$ 22.12 | 50     | \$ 1,105.97       |
| Purchase    | 12/20/2018 | \$ 22.13 | 48     | \$ 1,062.10       |
| Purchase    | 12/20/2018 | \$ 22.13 | 477    | \$ 10,554.63      |
| Purchase    | 12/20/2018 | \$ 22.13 | 71     | \$ 1,571.02       |
| Purchase    | 12/20/2018 | \$ 22.13 | 45     | \$ 995.72         |
| Purchase    | 12/20/2018 | \$ 22.13 | 35     | \$ 774.45         |
| Purchase    | 12/20/2018 | \$ 22.13 | 35     | \$ 774.45         |
| Purchase    | 12/20/2018 | \$ 22.13 | 35     | \$ 774.45         |
| Purchase    | 12/20/2018 | \$ 22.13 | 48     | \$ 1,062.10       |
| Purchase    | 12/20/2018 | \$ 22.13 | 51     | \$ 1,128.48       |
| Purchase    | 12/20/2018 | \$ 22.13 | 38     | \$ 840.83         |
| Purchase    | 12/20/2018 | \$ 22.13 | 55     | \$ 1,216.99       |
| Purchase    | 12/20/2018 | \$ 22.13 | 50     | \$ 1,106.36       |
| Purchase    | 12/20/2018 | \$ 22.13 | 55     | \$ 1,216.99       |
| Purchase    | 12/20/2018 | \$ 22.13 | 153    | \$ 3,385.45       |
| Purchase    | 12/20/2018 | \$ 22.13 | 130    | \$ 2,876.52       |
| Purchase    | 12/20/2018 | \$ 22.13 | 130    | \$ 2,876.52       |
| Purchase    | 12/20/2018 | \$ 22.13 | 53     | \$ 1,172.74       |
| Purchase    | 12/20/2018 | \$ 22.13 | 54     | \$ 1,194.86       |
| Purchase    | 12/20/2018 | \$ 22.13 | 307    | \$ 6,793.02       |
| Purchase    | 12/20/2018 | \$ 22.12 | 50     | \$ 1,105.97       |
| Purchase    | 12/20/2018 | \$ 22.13 | 55     | \$ 1,216.99       |
| Purchase    | 12/20/2018 | \$ 21.60 | 500    | \$ 10,798.05      |
| Purchase    | 12/20/2018 | \$ 21.25 | 3,000  | \$ 63,754.50      |
| Purchase    | 12/20/2018 | \$ 21.25 | 3,000  | \$ 63,754.50      |
| Purchase    | 12/21/2018 | \$ 20.72 | 1,700  | \$ 35,224.34      |
| Purchase    | 12/21/2018 | \$ 20.72 | 1,700  | \$ 35,224.34      |
| Purchase    | 12/21/2018 | \$ 20.08 | 2,000  | \$ 40,153.00      |

## Exhibit 1

| Transaction | Date       | Price    | Shares | Transaction Total |
|-------------|------------|----------|--------|-------------------|
| Purchase    | 12/21/2018 | \$ 20.02 | 2,000  | \$ 40,040.00      |
| Purchase    | 12/21/2018 | \$ 20.02 | 2,000  | \$ 40,040.00      |
| Sale        | 12/21/2018 | \$ 20.06 | 166    | \$ 3,329.91       |
| Sale        | 12/21/2018 | \$ 21.03 | 81     | \$ 1,703.56       |
| Purchase    | 12/24/2018 | \$ 19.92 | 1,000  | \$ 19,915.40      |
| Purchase    | 12/26/2018 | \$ 19.47 | 3,000  | \$ 58,410.00      |
| Purchase    | 12/26/2018 | \$ 19.52 | 66     | \$ 1,288.32       |
| Purchase    | 12/26/2018 | \$ 19.52 | 138    | \$ 2,693.76       |
| Purchase    | 12/26/2018 | \$ 19.52 | 244    | \$ 4,763.22       |
| Sale        | 12/26/2018 | \$ 19.84 | 500    | \$ 9,919.87       |
| Purchase    | 12/27/2018 | \$ 20.01 | 111    | \$ 2,220.97       |
| Purchase    | 12/27/2018 | \$ 19.71 | 1,200  | \$ 23,652.00      |
| Purchase    | 12/27/2018 | \$ 19.71 | 1,000  | \$ 19,710.00      |
| Sale        | 12/27/2018 | \$ 19.99 | 477    | \$ 9,536.25       |
| Purchase    | 12/28/2018 | \$ 19.91 | 7,634  | \$ 152,006.68     |
| Purchase    | 12/28/2018 | \$ 19.91 | 100    | \$ 1,991.18       |
| Purchase    | 12/28/2018 | \$ 20.04 | 1,000  | \$ 20,044.50      |
| Sale        | 12/28/2018 | \$ 19.84 | 150    | \$ 2,975.47       |
| Purchase    | 12/31/2018 | \$ 20.28 | 1,000  | \$ 20,284.00      |
| Purchase    | 1/2/2019   | \$ 20.71 | 116    | \$ 2,402.71       |
| Sale        | 1/2/2019   | \$ 20.33 | 166    | \$ 3,375.11       |
| Purchase    | 1/3/2019   | \$ 19.72 | 188    | \$ 3,707.34       |
| Purchase    | 1/3/2019   | \$ 19.86 | 2,000  | \$ 39,724.60      |
| Purchase    | 1/3/2019   | \$ 19.83 | 1,800  | \$ 35,688.15      |
| Purchase    | 1/3/2019   | \$ 19.70 | 250    | \$ 4,924.53       |
| Purchase    | 1/3/2019   | \$ 19.61 | 3,000  | \$ 58,827.60      |
| Purchase    | 1/3/2019   | \$ 19.61 | 3,000  | \$ 58,827.60      |
| Purchase    | 1/4/2019   | \$ 20.57 | 2,000  | \$ 41,138.00      |
| Purchase    | 1/4/2019   | \$ 20.57 | 400    | \$ 8,227.60       |
| Purchase    | 1/7/2019   | \$ 20.21 | 2,000  | \$ 40,420.00      |
| Purchase    | 1/7/2019   | \$ 20.18 | 900    | \$ 18,159.48      |
| Sale        | 1/8/2019   | \$ 20.44 | 200    | \$ 4,088.32       |
| Purchase    | 1/9/2019   | \$ 21.42 | 500    | \$ 10,710.00      |
| Purchase    | 1/9/2019   | \$ 20.76 | 2,500  | \$ 51,911.50      |
| Sale        | 1/9/2019   | \$ 20.46 | 16     | \$ 327.35         |
| Sale        | 1/11/2019  | \$ 21.22 | 666    | \$ 14,133.98      |
| Sale        | 1/11/2019  | \$ 20.62 | 16     | \$ 329.92         |
| Purchase    | 1/14/2019  | \$ 21.24 | 1,000  | \$ 21,241.50      |
| Purchase    | 1/14/2019  | \$ 21.38 | 3,000  | \$ 64,149.00      |
| Purchase    | 1/14/2019  | \$ 21.38 | 3,000  | \$ 64,149.00      |
| Purchase    | 1/14/2019  | \$ 21.79 | 500    | \$ 10,894.00      |
| Purchase    | 1/14/2019  | \$ 21.67 | 1,000  | \$ 21,666.50      |
| Purchase    | 1/14/2019  | \$ 21.67 | 2,000  | \$ 43,333.00      |
| Purchase    | 1/14/2019  | \$ 21.77 | 600    | \$ 13,060.98      |
| Purchase    | 1/14/2019  | \$ 21.38 | 2,000  | \$ 42,766.00      |
| Purchase    | 1/14/2019  | \$ 21.38 | 2,000  | \$ 42,766.00      |
| Purchase    | 1/15/2019  | \$ 21.24 | 900    | \$ 19,120.14      |
| Purchase    | 1/15/2019  | \$ 21.03 | 2,000  | \$ 42,063.60      |
| Purchase    | 1/15/2019  | \$ 21.08 | 500    | \$ 10,538.50      |
| Purchase    | 1/15/2019  | \$ 21.08 | 600    | \$ 12,646.20      |
| Sale        | 1/16/2019  | \$ 21.60 | 16     | \$ 345.59         |
| Sale        | 1/16/2019  | \$ 21.68 | 25     | \$ 542.02         |
| Sale        | 1/16/2019  | \$ 21.58 | 25     | \$ 539.49         |
| Purchase    | 1/22/2019  | \$ 21.11 | 5,891  | \$ 124,380.99     |
| Purchase    | 1/22/2019  | \$ 21.21 | 591    | \$ 12,536.00      |
| Purchase    | 1/22/2019  | \$ 21.01 | 1,000  | \$ 21,013.40      |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 1/23/2019 | \$ 20.61 | 334    | \$ 6,883.37       |
| Sale        | 1/23/2019 | \$ 20.39 | 100    | \$ 2,039.28       |
| Sale        | 1/23/2019 | \$ 20.55 | 66     | \$ 1,356.06       |
| Purchase    | 1/24/2019 | \$ 20.75 | 58     | \$ 1,203.77       |
| Purchase    | 1/24/2019 | \$ 20.40 | 43     | \$ 877.07         |
| Purchase    | 1/24/2019 | \$ 20.76 | 4      | \$ 83.04          |
| Purchase    | 1/28/2019 | \$ 20.77 | 100    | \$ 2,077.24       |
| Purchase    | 1/28/2019 | \$ 20.73 | 500    | \$ 10,366.40      |
| Purchase    | 1/28/2019 | \$ 20.80 | 510    | \$ 10,608.26      |
| Sale        | 1/28/2019 | \$ 19.18 | 3      | \$ 57.54          |
| Sale        | 1/29/2019 | \$ 20.62 | 8      | \$ 164.99         |
| Sale        | 1/29/2019 | \$ 20.65 | 61     | \$ 1,259.75       |
| Sale        | 1/29/2019 | \$ 20.65 | 33     | \$ 681.50         |
| Sale        | 1/29/2019 | \$ 20.65 | 21     | \$ 433.68         |
| Sale        | 1/29/2019 | \$ 20.62 | 22     | \$ 453.74         |
| Sale        | 1/29/2019 | \$ 20.62 | 15     | \$ 309.37         |
| Sale        | 1/29/2019 | \$ 20.51 | 33     | \$ 676.72         |
| Sale        | 1/29/2019 | \$ 20.57 | 16     | \$ 329.11         |
| Sale        | 1/29/2019 | \$ 20.53 | 16     | \$ 328.51         |
| Sale        | 1/29/2019 | \$ 20.51 | 25     | \$ 512.66         |
| Sale        | 1/29/2019 | \$ 20.51 | 25     | \$ 512.66         |
| Sale        | 1/29/2019 | \$ 20.62 | 16     | \$ 329.99         |
| Sale        | 1/29/2019 | \$ 20.53 | 16     | \$ 328.51         |
| Sale        | 1/29/2019 | \$ 20.53 | 33     | \$ 677.57         |
| Sale        | 1/29/2019 | \$ 20.53 | 33     | \$ 677.57         |
| Sale        | 1/29/2019 | \$ 20.53 | 33     | \$ 677.57         |
| Sale        | 1/29/2019 | \$ 20.51 | 10     | \$ 205.06         |
| Sale        | 1/29/2019 | \$ 20.51 | 21     | \$ 430.63         |
| Sale        | 1/29/2019 | \$ 20.46 | 50     | \$ 1,023.00       |
| Sale        | 1/29/2019 | \$ 20.11 | 16     | \$ 321.73         |
| Sale        | 1/29/2019 | \$ 20.25 | 16     | \$ 324.00         |
| Sale        | 1/29/2019 | \$ 20.32 | 50     | \$ 1,015.95       |
| Sale        | 1/29/2019 | \$ 20.25 | 16     | \$ 324.00         |
| Sale        | 1/29/2019 | \$ 20.30 | 41     | \$ 832.18         |
| Sale        | 1/29/2019 | \$ 20.27 | 33     | \$ 668.84         |
| Sale        | 1/29/2019 | \$ 20.11 | 16     | \$ 321.73         |
| Sale        | 1/29/2019 | \$ 20.25 | 16     | \$ 324.00         |
| Sale        | 1/29/2019 | \$ 20.11 | 16     | \$ 321.73         |
| Sale        | 1/29/2019 | \$ 20.11 | 16     | \$ 321.73         |
| Sale        | 1/29/2019 | \$ 20.69 | 33     | \$ 682.76         |
| Sale        | 1/29/2019 | \$ 20.69 | 16     | \$ 331.03         |
| Sale        | 1/29/2019 | \$ 20.51 | 33     | \$ 676.72         |
| Sale        | 1/29/2019 | \$ 20.33 | 33     | \$ 671.05         |
| Sale        | 1/30/2019 | \$ 20.13 | 33     | \$ 664.41         |
| Sale        | 1/30/2019 | \$ 20.12 | 33     | \$ 663.95         |
| Sale        | 1/30/2019 | \$ 20.62 | 16     | \$ 329.89         |
| Sale        | 1/30/2019 | \$ 20.62 | 33     | \$ 680.40         |
| Sale        | 1/30/2019 | \$ 20.09 | 33     | \$ 663.02         |
| Sale        | 1/30/2019 | \$ 20.28 | 50     | \$ 1,014.19       |
| Sale        | 1/30/2019 | \$ 20.65 | 16     | \$ 330.45         |
| Sale        | 1/30/2019 | \$ 20.13 | 33     | \$ 664.41         |
| Sale        | 1/30/2019 | \$ 20.62 | 33     | \$ 680.40         |
| Sale        | 1/30/2019 | \$ 20.62 | 25     | \$ 515.46         |
| Sale        | 1/30/2019 | \$ 20.47 | 25     | \$ 511.87         |
| Sale        | 1/30/2019 | \$ 20.62 | 25     | \$ 515.46         |
| Sale        | 1/30/2019 | \$ 20.62 | 20     | \$ 412.36         |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Sale        | 1/30/2019 | \$ 20.62 | 20     | \$ 412.36         |
| Sale        | 1/30/2019 | \$ 20.13 | 33     | \$ 664.41         |
| Sale        | 1/30/2019 | \$ 19.67 | 8      | \$ 157.32         |
| Sale        | 1/30/2019 | \$ 20.62 | 50     | \$ 1,030.91       |
| Sale        | 1/30/2019 | \$ 20.62 | 16     | \$ 329.89         |
| Sale        | 1/30/2019 | \$ 20.62 | 16     | \$ 329.89         |
| Sale        | 1/30/2019 | \$ 20.87 | 16     | \$ 333.91         |
| Sale        | 1/30/2019 | \$ 20.87 | 25     | \$ 521.74         |
| Sale        | 1/30/2019 | \$ 20.87 | 25     | \$ 521.74         |
| Sale        | 1/30/2019 | \$ 20.62 | 25     | \$ 515.46         |
| Sale        | 1/30/2019 | \$ 20.47 | 33     | \$ 675.67         |
| Sale        | 1/30/2019 | \$ 20.76 | 19     | \$ 394.43         |
| Sale        | 1/30/2019 | \$ 20.87 | 16     | \$ 333.91         |
| Sale        | 1/30/2019 | \$ 20.87 | 16     | \$ 333.91         |
| Sale        | 1/30/2019 | \$ 20.73 | 33     | \$ 684.08         |
| Sale        | 1/30/2019 | \$ 20.74 | 33     | \$ 684.58         |
| Sale        | 1/30/2019 | \$ 20.72 | 33     | \$ 683.75         |
| Sale        | 1/30/2019 | \$ 20.62 | 16     | \$ 329.89         |
| Sale        | 1/30/2019 | \$ 20.62 | 33     | \$ 680.40         |
| Sale        | 1/30/2019 | \$ 20.62 | 16     | \$ 329.89         |
| Sale        | 1/30/2019 | \$ 20.87 | 16     | \$ 333.91         |
| Sale        | 1/30/2019 | \$ 20.62 | 16     | \$ 329.89         |
| Sale        | 1/30/2019 | \$ 20.62 | 25     | \$ 515.46         |
| Sale        | 1/30/2019 | \$ 20.66 | 66     | \$ 1,363.55       |
| Sale        | 1/30/2019 | \$ 20.80 | 33     | \$ 686.27         |
| Sale        | 1/30/2019 | \$ 20.62 | 8      | \$ 164.94         |
| Sale        | 1/30/2019 | \$ 20.62 | 33     | \$ 680.40         |
| Sale        | 1/30/2019 | \$ 20.98 | 500    | \$ 10,489.86      |
| Sale        | 1/30/2019 | \$ 20.62 | 50     | \$ 1,030.91       |
| Sale        | 1/30/2019 | \$ 20.62 | 16     | \$ 329.89         |
| Sale        | 1/30/2019 | \$ 20.62 | 33     | \$ 680.40         |
| Sale        | 1/30/2019 | \$ 20.62 | 25     | \$ 515.46         |
| Sale        | 1/30/2019 | \$ 20.62 | 16     | \$ 329.89         |
| Sale        | 1/30/2019 | \$ 20.62 | 33     | \$ 680.40         |
| Sale        | 1/30/2019 | \$ 20.62 | 33     | \$ 680.40         |
| Sale        | 1/30/2019 | \$ 20.62 | 11     | \$ 226.79         |
| Sale        | 1/30/2019 | \$ 20.62 | 7      | \$ 144.32         |
| Purchase    | 1/31/2019 | \$ 21.84 | 55     | \$ 1,201.06       |
| Purchase    | 1/31/2019 | \$ 21.89 | 55     | \$ 1,203.94       |
| Purchase    | 1/31/2019 | \$ 21.90 | 55     | \$ 1,204.50       |
| Sale        | 1/31/2019 | \$ 21.38 | 8      | \$ 171.07         |
| Sale        | 1/31/2019 | \$ 20.84 | 16     | \$ 333.43         |
| Sale        | 1/31/2019 | \$ 21.38 | 40     | \$ 855.36         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 3      | \$ 64.14          |
| Sale        | 1/31/2019 | \$ 21.38 | 7      | \$ 149.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 5      | \$ 106.91         |
| Sale        | 1/31/2019 | \$ 21.38 | 6      | \$ 128.30         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |



## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.91 | 16     | \$ 350.57         |
| Sale        | 1/31/2019 | \$ 21.91 | 16     | \$ 350.57         |
| Sale        | 1/31/2019 | \$ 21.91 | 16     | \$ 350.57         |
| Sale        | 1/31/2019 | \$ 21.91 | 100    | \$ 2,191.07       |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 50     | \$ 1,069.21       |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 20.93 | 12     | \$ 251.13         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.19 | 33     | \$ 699.26         |
| Sale        | 1/31/2019 | \$ 21.38 | 116    | \$ 2,480.56       |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 50     | \$ 1,069.21       |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 66     | \$ 1,411.36       |
| Sale        | 1/31/2019 | \$ 21.38 | 3      | \$ 64.14          |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |
| Sale        | 1/31/2019 | \$ 21.90 | 33     | \$ 722.69         |
| Sale        | 1/31/2019 | \$ 21.90 | 16     | \$ 350.39         |
| Sale        | 1/31/2019 | \$ 21.90 | 33     | \$ 722.69         |
| Sale        | 1/31/2019 | \$ 21.90 | 50     | \$ 1,094.98       |
| Sale        | 1/31/2019 | \$ 21.90 | 33     | \$ 722.69         |
| Sale        | 1/31/2019 | \$ 21.90 | 16     | \$ 350.39         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.89 | 33     | \$ 722.36         |
| Sale        | 1/31/2019 | \$ 21.92 | 83     | \$ 1,819.34       |
| Sale        | 1/31/2019 | \$ 21.90 | 16     | \$ 350.39         |
| Sale        | 1/31/2019 | \$ 21.38 | 7      | \$ 149.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 7      | \$ 149.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.38 | 25     | \$ 534.60         |
| Sale        | 1/31/2019 | \$ 21.38 | 20     | \$ 427.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 33     | \$ 705.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 16     | \$ 342.14         |
| Sale        | 1/31/2019 | \$ 21.19 | 33     | \$ 699.26         |
| Sale        | 1/31/2019 | \$ 21.03 | 16     | \$ 336.49         |
| Sale        | 1/31/2019 | \$ 21.38 | 25     | \$ 534.60         |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Sale        | 1/31/2019 | \$ 21.38 | 20     | \$ 427.68         |
| Sale        | 1/31/2019 | \$ 21.38 | 25     | \$ 534.60         |
| Sale        | 2/1/2019  | \$ 22.15 | 133    | \$ 2,946.31       |
| Sale        | 2/1/2019  | \$ 22.10 | 66     | \$ 1,458.42       |
| Sale        | 2/1/2019  | \$ 21.88 | 16     | \$ 350.09         |
| Sale        | 2/1/2019  | \$ 22.10 | 16     | \$ 353.55         |
| Sale        | 2/1/2019  | \$ 21.90 | 216    | \$ 4,730.33       |
| Sale        | 2/1/2019  | \$ 22.10 | 100    | \$ 2,209.72       |
| Sale        | 2/1/2019  | \$ 22.10 | 50     | \$ 1,104.86       |
| Sale        | 2/1/2019  | \$ 22.04 | 33     | \$ 727.32         |
| Sale        | 2/1/2019  | \$ 22.10 | 16     | \$ 353.55         |
| Sale        | 2/1/2019  | \$ 22.10 | 12     | \$ 265.16         |
| Sale        | 2/4/2019  | \$ 23.20 | 116    | \$ 2,690.93       |
| Sale        | 2/4/2019  | \$ 22.77 | 150    | \$ 3,415.45       |
| Sale        | 2/5/2019  | \$ 23.49 | 83     | \$ 1,949.90       |
| Sale        | 2/5/2019  | \$ 23.58 | 166    | \$ 3,914.24       |
| Purchase    | 2/6/2019  | \$ 23.85 | 146    | \$ 3,481.75       |
| Purchase    | 2/6/2019  | \$ 23.85 | 45     | \$ 1,073.14       |
| Purchase    | 2/6/2019  | \$ 23.85 | 85     | \$ 2,027.05       |
| Purchase    | 2/7/2019  | \$ 23.94 | 88     | \$ 2,106.72       |
| Sale        | 2/7/2019  | \$ 23.67 | 58     | \$ 1,372.84       |
| Sale        | 2/7/2019  | \$ 23.67 | 116    | \$ 2,745.68       |
| Purchase    | 2/8/2019  | \$ 24.25 | 64     | \$ 1,551.92       |
| Purchase    | 2/8/2019  | \$ 24.25 | 66     | \$ 1,600.31       |
| Sale        | 2/8/2019  | \$ 24.26 | 83     | \$ 2,013.21       |
| Sale        | 2/8/2019  | \$ 24.25 | 4      | \$ 97.01          |
| Sale        | 2/11/2019 | \$ 24.39 | 200    | \$ 4,878.93       |
| Sale        | 2/11/2019 | \$ 24.40 | 366    | \$ 8,930.35       |
| Purchase    | 2/12/2019 | \$ 24.88 | 2,000  | \$ 49,767.80      |
| Purchase    | 2/12/2019 | \$ 24.88 | 2,000  | \$ 49,767.80      |
| Purchase    | 2/12/2019 | \$ 24.87 | 48     | \$ 1,193.67       |
| Sale        | 2/13/2019 | \$ 24.97 | 23     | \$ 574.37         |
| Sale        | 2/13/2019 | \$ 24.85 | 33     | \$ 820.21         |
| Sale        | 2/15/2019 | \$ 25.40 | 600    | \$ 15,242.32      |
| Purchase    | 2/19/2019 | \$ 25.64 | 500    | \$ 12,818.00      |
| Sale        | 2/20/2019 | \$ 25.42 | 100    | \$ 2,541.55       |
| Sale        | 2/20/2019 | \$ 25.43 | 150    | \$ 3,814.80       |
| Purchase    | 2/22/2019 | \$ 25.60 | 64     | \$ 1,638.39       |
| Purchase    | 2/22/2019 | \$ 25.60 | 73     | \$ 1,868.79       |
| Purchase    | 2/22/2019 | \$ 25.80 | 1,000  | \$ 25,797.00      |
| Purchase    | 2/25/2019 | \$ 25.84 | 47     | \$ 1,214.48       |
| Purchase    | 2/25/2019 | \$ 25.75 | 47     | \$ 1,210.25       |
| Sale        | 2/25/2019 | \$ 25.60 | 50     | \$ 1,280.14       |
| Purchase    | 2/27/2019 | \$ 26.26 | 124    | \$ 3,255.62       |
| Sale        | 2/27/2019 | \$ 25.99 | 116    | \$ 3,015.39       |
| Sale        | 2/27/2019 | \$ 25.99 | 16     | \$ 415.91         |
| Sale        | 2/27/2019 | \$ 25.95 | 150    | \$ 3,892.01       |
| Sale        | 2/27/2019 | \$ 26.14 | 1,583  | \$ 41,380.66      |
| Sale        | 2/27/2019 | \$ 25.99 | 199    | \$ 5,172.95       |
| Sale        | 2/27/2019 | \$ 25.99 | 50     | \$ 1,299.74       |
| Sale        | 2/28/2019 | \$ 25.92 | 1      | \$ 25.92          |
| Purchase    | 3/1/2019  | \$ 25.90 | 46     | \$ 1,191.26       |
| Sale        | 3/4/2019  | \$ 25.35 | 466    | \$ 11,811.64      |
| Purchase    | 3/6/2019  | \$ 24.78 | 91     | \$ 2,254.97       |
| Purchase    | 3/7/2019  | \$ 18.21 | 300    | \$ 5,462.19       |
| Purchase    | 3/7/2019  | \$ 18.15 | 110    | \$ 1,996.95       |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 3/7/2019  | \$ 18.96 | 5,000  | \$ 94,787.00      |
| Purchase    | 3/7/2019  | \$ 18.18 | 5,000  | \$ 90,894.00      |
| Purchase    | 3/7/2019  | \$ 18.18 | 5,000  | \$ 90,894.00      |
| Purchase    | 3/7/2019  | \$ 18.96 | 200    | \$ 3,791.48       |
| Purchase    | 3/7/2019  | \$ 18.96 | 200    | \$ 3,791.48       |
| Purchase    | 3/7/2019  | \$ 18.96 | 1,200  | \$ 22,748.88      |
| Purchase    | 3/7/2019  | \$ 18.85 | 4,000  | \$ 75,381.20      |
| Purchase    | 3/7/2019  | \$ 18.05 | 800    | \$ 14,440.00      |
| Purchase    | 3/7/2019  | \$ 18.05 | 800    | \$ 14,440.00      |
| Purchase    | 3/7/2019  | \$ 18.35 | 1,000  | \$ 18,350.00      |
| Purchase    | 3/7/2019  | \$ 18.35 | 500    | \$ 9,175.00       |
| Purchase    | 3/8/2019  | \$ 18.78 | 125    | \$ 2,347.38       |
| Purchase    | 3/8/2019  | \$ 19.07 | 3,333  | \$ 63,560.98      |
| Purchase    | 3/8/2019  | \$ 19.46 | 2,000  | \$ 38,911.20      |
| Purchase    | 3/8/2019  | \$ 18.81 | 1,500  | \$ 28,215.90      |
| Purchase    | 3/8/2019  | \$ 19.55 | 300    | \$ 5,864.49       |
| Purchase    | 3/8/2019  | \$ 18.33 | 319    | \$ 5,846.57       |
| Purchase    | 3/11/2019 | \$ 19.96 | 241    | \$ 4,809.81       |
| Purchase    | 3/11/2019 | \$ 20.49 | 50     | \$ 1,024.34       |
| Sale        | 3/11/2019 | \$ 19.71 | 50     | \$ 985.48         |
| Sale        | 3/11/2019 | \$ 20.46 | 350    | \$ 7,160.62       |
| Sale        | 3/11/2019 | \$ 20.46 | 500    | \$ 10,231.57      |
| Sale        | 3/12/2019 | \$ 20.25 | 16     | \$ 324.02         |
| Sale        | 3/12/2019 | \$ 20.53 | 249    | \$ 5,111.90       |
| Sale        | 3/14/2019 | \$ 20.15 | 33     | \$ 664.99         |
| Purchase    | 3/18/2019 | \$ 20.41 | 100    | \$ 2,040.50       |
| Purchase    | 3/19/2019 | \$ 20.53 | 49     | \$ 1,005.97       |
| Purchase    | 3/19/2019 | \$ 20.52 | 41     | \$ 841.32         |
| Purchase    | 3/20/2019 | \$ 20.09 | 350    | \$ 7,033.01       |
| Purchase    | 3/20/2019 | \$ 20.43 | 916    | \$ 18,714.98      |
| Sale        | 3/20/2019 | \$ 20.37 | 500    | \$ 10,185.01      |
| Sale        | 3/21/2019 | \$ 20.45 | 350    | \$ 7,157.42       |
| Sale        | 3/21/2019 | \$ 19.85 | 8      | \$ 158.77         |
| Sale        | 3/21/2019 | \$ 19.95 | 216    | \$ 4,309.14       |
| Sale        | 3/21/2019 | \$ 19.95 | 250    | \$ 4,987.43       |
| Purchase    | 3/22/2019 | \$ 19.94 | 200    | \$ 3,988.82       |
| Purchase    | 3/22/2019 | \$ 19.96 | 350    | \$ 6,986.19       |
| Purchase    | 3/22/2019 | \$ 19.95 | 800    | \$ 15,962.07      |
| Purchase    | 3/22/2019 | \$ 19.95 | 800    | \$ 15,962.07      |
| Purchase    | 3/22/2019 | \$ 19.97 | 250    | \$ 4,991.55       |
| Purchase    | 3/22/2019 | \$ 19.96 | 275    | \$ 5,490.21       |
| Purchase    | 3/22/2019 | \$ 19.94 | 600    | \$ 11,966.46      |
| Sale        | 3/22/2019 | \$ 20.20 | 150    | \$ 3,029.96       |
| Purchase    | 3/27/2019 | \$ 18.99 | 250    | \$ 4,746.98       |
| Purchase    | 3/27/2019 | \$ 18.96 | 32     | \$ 606.72         |
| Purchase    | 3/27/2019 | \$ 18.98 | 191    | \$ 3,624.61       |
| Purchase    | 3/27/2019 | \$ 18.96 | 60     | \$ 1,137.59       |
| Purchase    | 3/27/2019 | \$ 18.96 | 179    | \$ 3,392.96       |
| Sale        | 3/27/2019 | \$ 19.08 | 41     | \$ 782.26         |
| Sale        | 3/27/2019 | \$ 19.08 | 41     | \$ 782.26         |
| Purchase    | 3/28/2019 | \$ 19.06 | 1,000  | \$ 19,056.90      |
| Purchase    | 3/28/2019 | \$ 19.06 | 900    | \$ 17,151.21      |
| Purchase    | 3/28/2019 | \$ 19.06 | 1,000  | \$ 19,056.90      |
| Purchase    | 3/28/2019 | \$ 19.25 | 600    | \$ 11,552.79      |
| Purchase    | 3/28/2019 | \$ 19.24 | 218    | \$ 4,193.64       |
| Sale        | 3/28/2019 | \$ 18.98 | 50     | \$ 948.98         |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 3/29/2019 | \$ 19.30 | 10,000 | \$ 193,000.00     |
| Purchase    | 3/29/2019 | \$ 19.28 | 1,412  | \$ 27,220.11      |
| Purchase    | 3/29/2019 | \$ 19.28 | 70     | \$ 1,349.44       |
| Purchase    | 3/29/2019 | \$ 19.28 | 218    | \$ 4,202.54       |
| Purchase    | 3/29/2019 | \$ 19.28 | 100    | \$ 1,927.77       |
| Purchase    | 3/29/2019 | \$ 19.31 | 2,400  | \$ 46,341.84      |
| Purchase    | 3/29/2019 | \$ 19.28 | 800    | \$ 15,422.16      |
| Purchase    | 3/29/2019 | \$ 19.28 | 200    | \$ 3,855.54       |
| Sale        | 3/29/2019 | \$ 17.72 | 33     | \$ 584.85         |
| Purchase    | 4/1/2019  | \$ 20.00 | 2,352  | \$ 47,029.40      |
| Purchase    | 4/1/2019  | \$ 19.96 | 90     | \$ 1,796.16       |
| Sale        | 4/1/2019  | \$ 19.87 | 5,500  | \$ 109,283.57     |
| Purchase    | 4/2/2019  | \$ 19.67 | 10,000 | \$ 196,697.00     |
| Purchase    | 4/2/2019  | \$ 19.68 | 40     | \$ 787.20         |
| Purchase    | 4/2/2019  | \$ 19.76 | 93     | \$ 1,837.68       |
| Purchase    | 4/2/2019  | \$ 19.76 | 93     | \$ 1,837.68       |
| Sale        | 4/2/2019  | \$ 19.46 | 58     | \$ 1,128.66       |
| Sale        | 4/2/2019  | \$ 19.65 | 450    | \$ 8,841.93       |
| Sale        | 4/2/2019  | \$ 19.64 | 250    | \$ 4,909.99       |
| Purchase    | 4/3/2019  | \$ 19.96 | 34     | \$ 678.64         |
| Purchase    | 4/3/2019  | \$ 19.97 | 42     | \$ 838.69         |
| Purchase    | 4/3/2019  | \$ 19.97 | 34     | \$ 678.98         |
| Sale        | 4/3/2019  | \$ 19.79 | 400    | \$ 7,915.90       |
| Sale        | 4/3/2019  | \$ 19.94 | 1,500  | \$ 29,903.61      |
| Purchase    | 4/5/2019  | \$ 19.87 | 35     | \$ 695.45         |
| Purchase    | 4/5/2019  | \$ 19.87 | 81     | \$ 1,609.79       |
| Sale        | 4/5/2019  | \$ 19.19 | 66     | \$ 1,266.52       |
| Sale        | 4/5/2019  | \$ 19.74 | 33     | \$ 651.48         |
| Purchase    | 4/8/2019  | \$ 20.03 | 7,287  | \$ 145,947.73     |
| Purchase    | 4/8/2019  | \$ 20.02 | 200    | \$ 4,004.95       |
| Purchase    | 4/8/2019  | \$ 20.03 | 1,117  | \$ 22,372.17      |
| Purchase    | 4/8/2019  | \$ 20.03 | 104    | \$ 2,083.00       |
| Purchase    | 4/8/2019  | \$ 20.03 | 179    | \$ 3,585.16       |
| Purchase    | 4/8/2019  | \$ 20.01 | 700    | \$ 14,004.95      |
| Purchase    | 4/8/2019  | \$ 19.98 | 550    | \$ 10,990.41      |
| Purchase    | 4/8/2019  | \$ 19.98 | 700    | \$ 13,987.80      |
| Purchase    | 4/8/2019  | \$ 19.98 | 900    | \$ 17,984.31      |
| Purchase    | 4/8/2019  | \$ 19.98 | 600    | \$ 11,989.54      |
| Purchase    | 4/8/2019  | \$ 19.98 | 300    | \$ 5,994.77       |
| Purchase    | 4/8/2019  | \$ 19.98 | 250    | \$ 4,995.64       |
| Purchase    | 4/8/2019  | \$ 20.01 | 800    | \$ 16,004.95      |
| Purchase    | 4/8/2019  | \$ 19.98 | 200    | \$ 3,996.51       |
| Purchase    | 4/8/2019  | \$ 20.03 | 350    | \$ 7,010.08       |
| Purchase    | 4/8/2019  | \$ 20.03 | 350    | \$ 7,010.08       |
| Purchase    | 4/8/2019  | \$ 20.03 | 150    | \$ 3,004.32       |
| Purchase    | 4/8/2019  | \$ 20.03 | 150    | \$ 3,004.32       |
| Purchase    | 4/8/2019  | \$ 20.03 | 400    | \$ 8,011.52       |
| Purchase    | 4/8/2019  | \$ 20.03 | 400    | \$ 8,011.52       |
| Purchase    | 4/8/2019  | \$ 20.03 | 700    | \$ 14,020.16      |
| Purchase    | 4/8/2019  | \$ 20.03 | 250    | \$ 5,007.20       |
| Purchase    | 4/9/2019  | \$ 19.82 | 2,500  | \$ 49,552.25      |
| Purchase    | 4/9/2019  | \$ 19.89 | 2,000  | \$ 39,789.80      |
| Purchase    | 4/9/2019  | \$ 19.89 | 1,500  | \$ 29,842.35      |
| Purchase    | 4/9/2019  | \$ 19.89 | 1,600  | \$ 31,831.84      |
| Purchase    | 4/9/2019  | \$ 19.89 | 900    | \$ 17,905.41      |
| Purchase    | 4/9/2019  | \$ 19.89 | 1,000  | \$ 19,894.90      |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 4/9/2019  | \$ 19.82 | 5,000  | \$ 99,101.00      |
| Purchase    | 4/9/2019  | \$ 19.89 | 1,700  | \$ 33,821.33      |
| Purchase    | 4/9/2019  | \$ 19.89 | 200    | \$ 3,978.98       |
| Purchase    | 4/9/2019  | \$ 19.82 | 500    | \$ 9,910.45       |
| Purchase    | 4/9/2019  | \$ 19.89 | 1,100  | \$ 21,884.39      |
| Purchase    | 4/9/2019  | \$ 19.89 | 1,900  | \$ 37,800.31      |
| Purchase    | 4/9/2019  | \$ 19.89 | 5,000  | \$ 99,474.50      |
| Purchase    | 4/9/2019  | \$ 19.89 | 2,300  | \$ 45,758.27      |
| Purchase    | 4/9/2019  | \$ 19.89 | 1,400  | \$ 27,852.86      |
| Purchase    | 4/9/2019  | \$ 19.82 | 6,000  | \$ 118,921.20     |
| Purchase    | 4/9/2019  | \$ 19.95 | 2,500  | \$ 49,874.75      |
| Purchase    | 4/9/2019  | \$ 19.82 | 600    | \$ 11,892.12      |
| Purchase    | 4/9/2019  | \$ 19.82 | 300    | \$ 5,946.27       |
| Purchase    | 4/9/2019  | \$ 19.82 | 200    | \$ 3,964.18       |
| Purchase    | 4/9/2019  | \$ 19.82 | 2,000  | \$ 39,641.80      |
| Purchase    | 4/9/2019  | \$ 19.89 | 1,000  | \$ 19,890.00      |
| Purchase    | 4/9/2019  | \$ 19.82 | 2,000  | \$ 39,640.40      |
| Purchase    | 4/9/2019  | \$ 19.82 | 1,300  | \$ 25,766.26      |
| Purchase    | 4/9/2019  | \$ 19.82 | 500    | \$ 9,910.10       |
| Purchase    | 4/9/2019  | \$ 19.82 | 1,400  | \$ 27,748.28      |
| Purchase    | 4/9/2019  | \$ 19.82 | 400    | \$ 7,928.08       |
| Purchase    | 4/9/2019  | \$ 19.82 | 1,500  | \$ 29,731.35      |
| Purchase    | 4/9/2019  | \$ 19.82 | 4,000  | \$ 79,283.60      |
| Purchase    | 4/9/2019  | \$ 19.82 | 1,500  | \$ 29,731.35      |
| Purchase    | 4/9/2019  | \$ 19.82 | 1,500  | \$ 29,730.30      |
| Sale        | 4/9/2019  | \$ 19.94 | 116    | \$ 2,313.32       |
| Purchase    | 4/10/2019 | \$ 19.87 | 600    | \$ 11,924.25      |
| Purchase    | 4/10/2019 | \$ 19.89 | 400    | \$ 7,955.96       |
| Purchase    | 4/10/2019 | \$ 19.86 | 1,900  | \$ 37,733.62      |
| Purchase    | 4/10/2019 | \$ 19.92 | 500    | \$ 9,959.05       |
| Purchase    | 4/10/2019 | \$ 19.86 | 500    | \$ 9,929.90       |
| Purchase    | 4/10/2019 | \$ 19.86 | 600    | \$ 11,915.46      |
| Purchase    | 4/10/2019 | \$ 19.87 | 337    | \$ 6,696.80       |
| Purchase    | 4/10/2019 | \$ 19.87 | 337    | \$ 6,696.80       |
| Purchase    | 4/10/2019 | \$ 19.87 | 337    | \$ 6,696.80       |
| Purchase    | 4/10/2019 | \$ 19.87 | 289    | \$ 5,742.95       |
| Purchase    | 4/10/2019 | \$ 19.87 | 337    | \$ 6,696.80       |
| Purchase    | 4/10/2019 | \$ 19.87 | 1,917  | \$ 38,094.24      |
| Purchase    | 4/10/2019 | \$ 19.87 | 334    | \$ 6,637.18       |
| Purchase    | 4/10/2019 | \$ 19.87 | 144    | \$ 2,861.54       |
| Purchase    | 4/10/2019 | \$ 19.87 | 434    | \$ 8,624.36       |
| Purchase    | 4/10/2019 | \$ 19.87 | 350    | \$ 6,955.13       |
| Purchase    | 4/10/2019 | \$ 19.90 | 300    | \$ 5,968.80       |
| Purchase    | 4/10/2019 | \$ 19.90 | 500    | \$ 9,948.00       |
| Purchase    | 4/10/2019 | \$ 19.87 | 100    | \$ 1,987.18       |
| Purchase    | 4/10/2019 | \$ 19.87 | 120    | \$ 2,384.62       |
| Purchase    | 4/10/2019 | \$ 19.90 | 1,600  | \$ 31,836.80      |
| Purchase    | 4/10/2019 | \$ 19.89 | 200    | \$ 3,978.05       |
| Purchase    | 4/10/2019 | \$ 19.92 | 100    | \$ 1,991.50       |
| Purchase    | 4/10/2019 | \$ 19.92 | 700    | \$ 13,942.67      |
| Purchase    | 4/10/2019 | \$ 19.92 | 600    | \$ 11,950.86      |
| Purchase    | 4/10/2019 | \$ 19.90 | 800    | \$ 15,916.80      |
| Purchase    | 4/10/2019 | \$ 19.92 | 1,900  | \$ 37,844.39      |
| Purchase    | 4/10/2019 | \$ 19.86 | 4,700  | \$ 93,341.06      |
| Purchase    | 4/10/2019 | \$ 19.86 | 105    | \$ 2,085.28       |
| Purchase    | 4/10/2019 | \$ 19.90 | 700    | \$ 13,928.60      |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 4/10/2019 | \$ 19.89 | 200    | \$ 3,978.05       |
| Purchase    | 4/10/2019 | \$ 19.89 | 250    | \$ 4,971.33       |
| Purchase    | 4/10/2019 | \$ 19.87 | 650    | \$ 12,917.53      |
| Purchase    | 4/10/2019 | \$ 19.90 | 1,000  | \$ 19,896.00      |
| Purchase    | 4/10/2019 | \$ 19.92 | 1,300  | \$ 25,893.53      |
| Purchase    | 4/10/2019 | \$ 19.88 | 300    | \$ 5,964.60       |
| Purchase    | 4/10/2019 | \$ 19.88 | 300    | \$ 5,964.60       |
| Purchase    | 4/10/2019 | \$ 19.92 | 150    | \$ 2,987.72       |
| Purchase    | 4/10/2019 | \$ 19.92 | 150    | \$ 2,987.72       |
| Purchase    | 4/10/2019 | \$ 19.92 | 150    | \$ 2,987.72       |
| Purchase    | 4/10/2019 | \$ 19.92 | 150    | \$ 2,987.72       |
| Purchase    | 4/10/2019 | \$ 19.92 | 150    | \$ 2,987.72       |
| Purchase    | 4/10/2019 | \$ 19.87 | 1,000  | \$ 19,870.45      |
| Purchase    | 4/10/2019 | \$ 19.89 | 300    | \$ 5,966.97       |
| Purchase    | 4/10/2019 | \$ 19.87 | 400    | \$ 7,948.00       |
| Purchase    | 4/10/2019 | \$ 19.90 | 2,100  | \$ 41,785.80      |
| Purchase    | 4/10/2019 | \$ 19.91 | 2,500  | \$ 49,782.00      |
| Purchase    | 4/10/2019 | \$ 19.91 | 1,000  | \$ 19,912.80      |
| Purchase    | 4/10/2019 | \$ 19.91 | 1,200  | \$ 23,895.36      |
| Purchase    | 4/10/2019 | \$ 19.91 | 700    | \$ 13,938.96      |
| Purchase    | 4/10/2019 | \$ 19.91 | 500    | \$ 9,956.40       |
| Purchase    | 4/10/2019 | \$ 19.90 | 5,000  | \$ 99,520.00      |
| Purchase    | 4/10/2019 | \$ 19.91 | 1,300  | \$ 25,886.64      |
| Purchase    | 4/10/2019 | \$ 19.91 | 300    | \$ 5,973.84       |
| Purchase    | 4/10/2019 | \$ 19.90 | 400    | \$ 7,959.20       |
| Purchase    | 4/10/2019 | \$ 19.91 | 900    | \$ 17,921.52      |
| Purchase    | 4/10/2019 | \$ 19.91 | 1,600  | \$ 31,860.48      |
| Purchase    | 4/10/2019 | \$ 19.91 | 3,500  | \$ 69,694.80      |
| Purchase    | 4/10/2019 | \$ 19.91 | 1,700  | \$ 33,851.76      |
| Purchase    | 4/10/2019 | \$ 19.91 | 1,200  | \$ 23,895.36      |
| Purchase    | 4/10/2019 | \$ 19.88 | 100    | \$ 1,988.34       |
| Purchase    | 4/10/2019 | \$ 19.92 | 500    | \$ 9,959.05       |
| Purchase    | 4/10/2019 | \$ 19.90 | 5,000  | \$ 99,520.00      |
| Purchase    | 4/10/2019 | \$ 19.92 | 1,059  | \$ 21,093.27      |
| Purchase    | 4/10/2019 | \$ 19.92 | 250    | \$ 4,979.53       |
| Purchase    | 4/10/2019 | \$ 19.92 | 400    | \$ 7,967.24       |
| Purchase    | 4/10/2019 | \$ 19.92 | 100    | \$ 1,991.81       |
| Purchase    | 4/10/2019 | \$ 19.92 | 100    | \$ 1,991.81       |
| Purchase    | 4/10/2019 | \$ 19.92 | 600    | \$ 11,950.86      |
| Purchase    | 4/10/2019 | \$ 19.92 | 700    | \$ 13,942.67      |
| Purchase    | 4/10/2019 | \$ 19.92 | 250    | \$ 4,979.53       |
| Purchase    | 4/10/2019 | \$ 19.92 | 500    | \$ 9,959.05       |
| Purchase    | 4/10/2019 | \$ 19.92 | 400    | \$ 7,967.24       |
| Purchase    | 4/10/2019 | \$ 19.92 | 200    | \$ 3,983.62       |
| Purchase    | 4/10/2019 | \$ 19.88 | 5,000  | \$ 99,417.00      |
| Purchase    | 4/10/2019 | \$ 19.92 | 2,400  | \$ 47,803.44      |
| Purchase    | 4/10/2019 | \$ 19.92 | 300    | \$ 5,975.43       |
| Purchase    | 4/10/2019 | \$ 19.92 | 900    | \$ 17,926.29      |
| Purchase    | 4/10/2019 | \$ 19.92 | 300    | \$ 5,975.43       |
| Purchase    | 4/10/2019 | \$ 19.92 | 600    | \$ 11,950.86      |
| Purchase    | 4/10/2019 | \$ 19.87 | 1,200  | \$ 23,843.55      |
| Purchase    | 4/10/2019 | \$ 19.92 | 800    | \$ 15,934.48      |
| Purchase    | 4/10/2019 | \$ 19.90 | 200    | \$ 3,980.80       |
| Purchase    | 4/10/2019 | \$ 19.88 | 300    | \$ 5,964.60       |
| Purchase    | 4/10/2019 | \$ 19.88 | 300    | \$ 5,964.60       |
| Purchase    | 4/10/2019 | \$ 19.92 | 100    | \$ 1,991.50       |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 4/10/2019 | \$ 19.86 | 700    | \$ 13,901.86      |
| Purchase    | 4/10/2019 | \$ 19.88 | 500    | \$ 9,937.70       |
| Purchase    | 4/10/2019 | \$ 19.92 | 900    | \$ 17,926.29      |
| Purchase    | 4/10/2019 | \$ 19.92 | 300    | \$ 5,975.43       |
| Purchase    | 4/10/2019 | \$ 19.92 | 300    | \$ 5,975.43       |
| Purchase    | 4/10/2019 | \$ 19.92 | 400    | \$ 7,967.24       |
| Purchase    | 4/10/2019 | \$ 19.92 | 400    | \$ 7,967.24       |
| Purchase    | 4/10/2019 | \$ 19.90 | 700    | \$ 13,932.80      |
| Purchase    | 4/10/2019 | \$ 19.90 | 300    | \$ 5,969.40       |
| Purchase    | 4/10/2019 | \$ 19.90 | 100    | \$ 1,989.80       |
| Purchase    | 4/10/2019 | \$ 19.90 | 3,000  | \$ 59,694.00      |
| Purchase    | 4/10/2019 | \$ 19.87 | 172    | \$ 3,417.62       |
| Purchase    | 4/10/2019 | \$ 19.92 | 500    | \$ 9,959.05       |
| Purchase    | 4/10/2019 | \$ 19.92 | 200    | \$ 3,983.62       |
| Purchase    | 4/10/2019 | \$ 19.92 | 200    | \$ 3,983.62       |
| Purchase    | 4/10/2019 | \$ 19.92 | 1,000  | \$ 19,918.10      |
| Purchase    | 4/10/2019 | \$ 19.92 | 500    | \$ 9,959.05       |
| Purchase    | 4/10/2019 | \$ 19.92 | 700    | \$ 13,942.67      |
| Purchase    | 4/10/2019 | \$ 19.92 | 150    | \$ 2,987.72       |
| Purchase    | 4/10/2019 | \$ 19.92 | 450    | \$ 8,963.15       |
| Purchase    | 4/10/2019 | \$ 19.92 | 450    | \$ 8,963.15       |
| Purchase    | 4/10/2019 | \$ 19.86 | 550    | \$ 10,922.51      |
| Purchase    | 4/10/2019 | \$ 19.88 | 300    | \$ 5,964.60       |
| Purchase    | 4/10/2019 | \$ 19.92 | 450    | \$ 8,963.15       |
| Purchase    | 4/10/2019 | \$ 19.92 | 450    | \$ 8,963.15       |
| Purchase    | 4/10/2019 | \$ 19.91 | 1,000  | \$ 19,905.00      |
| Purchase    | 4/10/2019 | \$ 19.90 | 2,900  | \$ 57,704.20      |
| Purchase    | 4/10/2019 | \$ 19.90 | 1,200  | \$ 23,877.60      |
| Purchase    | 4/10/2019 | \$ 19.90 | 1,200  | \$ 23,884.80      |
| Sale        | 4/10/2019 | \$ 19.84 | 41     | \$ 813.49         |
| Sale        | 4/11/2019 | \$ 19.83 | 33     | \$ 654.51         |
| Sale        | 4/11/2019 | \$ 19.83 | 8      | \$ 158.66         |
| Sale        | 4/15/2019 | \$ 20.21 | 100    | \$ 2,020.95       |
| Purchase    | 4/16/2019 | \$ 20.48 | 6,500  | \$ 133,120.00     |
| Purchase    | 4/16/2019 | \$ 20.46 | 3,500  | \$ 71,599.50      |
| Purchase    | 4/16/2019 | \$ 20.46 | 2,000  | \$ 40,914.00      |
| Purchase    | 4/16/2019 | \$ 20.48 | 4,700  | \$ 96,256.00      |
| Purchase    | 4/16/2019 | \$ 20.37 | 142    | \$ 2,892.54       |
| Purchase    | 4/16/2019 | \$ 20.39 | 130    | \$ 2,650.45       |
| Purchase    | 4/16/2019 | \$ 20.40 | 56     | \$ 1,142.39       |
| Purchase    | 4/16/2019 | \$ 20.40 | 83     | \$ 1,693.19       |
| Sale        | 4/16/2019 | \$ 20.36 | 3      | \$ 61.07          |
| Purchase    | 4/17/2019 | \$ 20.61 | 196    | \$ 4,039.56       |
| Purchase    | 4/17/2019 | \$ 20.62 | 85     | \$ 1,752.46       |
| Purchase    | 4/17/2019 | \$ 20.60 | 107    | \$ 2,204.20       |
| Sale        | 4/17/2019 | \$ 20.62 | 125    | \$ 2,577.44       |
| Purchase    | 4/22/2019 | \$ 20.78 | 287    | \$ 5,963.83       |
| Sale        | 4/22/2019 | \$ 20.85 | 16     | \$ 333.59         |
| Sale        | 4/24/2019 | \$ 21.56 | 2,300  | \$ 49,597.55      |
| Sale        | 4/24/2019 | \$ 21.66 | 33     | \$ 714.81         |
| Sale        | 4/25/2019 | \$ 21.60 | 2,700  | \$ 58,323.38      |
| Sale        | 4/25/2019 | \$ 21.57 | 133    | \$ 2,868.75       |
| Sale        | 4/25/2019 | \$ 21.70 | 250    | \$ 5,424.89       |
| Purchase    | 5/1/2019  | \$ 23.24 | 74     | \$ 1,719.75       |
| Purchase    | 5/1/2019  | \$ 23.24 | 73     | \$ 1,696.86       |
| Purchase    | 5/1/2019  | \$ 23.25 | 58     | \$ 1,348.50       |

## Exhibit 1

| Transaction | Date     | Price    | Shares | Transaction Total |
|-------------|----------|----------|--------|-------------------|
| Purchase    | 5/1/2019 | \$ 23.23 | 152    | \$ 3,530.96       |
| Purchase    | 5/1/2019 | \$ 23.25 | 37     | \$ 860.25         |
| Purchase    | 5/2/2019 | \$ 22.55 | 200    | \$ 4,510.00       |
| Purchase    | 5/2/2019 | \$ 22.55 | 100    | \$ 2,255.00       |
| Purchase    | 5/2/2019 | \$ 22.78 | 267    | \$ 6,080.94       |
| Purchase    | 5/2/2019 | \$ 22.58 | 300    | \$ 6,774.00       |
| Purchase    | 5/2/2019 | \$ 22.58 | 150    | \$ 3,387.00       |
| Purchase    | 5/2/2019 | \$ 22.58 | 200    | \$ 4,516.00       |
| Purchase    | 5/2/2019 | \$ 22.58 | 197    | \$ 4,448.26       |
| Purchase    | 5/2/2019 | \$ 22.58 | 100    | \$ 2,258.00       |
| Purchase    | 5/2/2019 | \$ 23.52 | 100    | \$ 2,352.34       |
| Purchase    | 5/2/2019 | \$ 22.58 | 200    | \$ 4,516.00       |
| Purchase    | 5/2/2019 | \$ 22.58 | 100    | \$ 2,258.00       |
| Purchase    | 5/2/2019 | \$ 22.35 | 131    | \$ 2,928.01       |
| Purchase    | 5/2/2019 | \$ 22.35 | 102    | \$ 2,279.70       |
| Purchase    | 5/2/2019 | \$ 23.17 | 1,000  | \$ 23,173.00      |
| Purchase    | 5/2/2019 | \$ 23.17 | 1,000  | \$ 23,173.00      |
| Sale        | 5/2/2019 | \$ 22.89 | 16     | \$ 366.23         |
| Sale        | 5/3/2019 | \$ 22.81 | 33     | \$ 752.71         |
| Sale        | 5/3/2019 | \$ 23.10 | 1,500  | \$ 34,654.23      |
| Purchase    | 5/7/2019 | \$ 22.86 | 300    | \$ 6,859.08       |
| Purchase    | 5/7/2019 | \$ 22.86 | 300    | \$ 6,859.08       |
| Purchase    | 5/7/2019 | \$ 22.85 | 1,234  | \$ 28,194.80      |
| Purchase    | 5/7/2019 | \$ 22.85 | 200    | \$ 4,570.00       |
| Purchase    | 5/7/2019 | \$ 22.85 | 238    | \$ 5,438.30       |
| Purchase    | 5/7/2019 | \$ 22.85 | 238    | \$ 5,438.30       |
| Purchase    | 5/7/2019 | \$ 22.86 | 400    | \$ 9,145.44       |
| Purchase    | 5/7/2019 | \$ 22.86 | 100    | \$ 2,286.36       |
| Purchase    | 5/7/2019 | \$ 22.86 | 100    | \$ 2,286.36       |
| Purchase    | 5/7/2019 | \$ 22.86 | 400    | \$ 9,145.44       |
| Purchase    | 5/7/2019 | \$ 22.86 | 300    | \$ 6,859.08       |
| Purchase    | 5/7/2019 | \$ 22.83 | 150    | \$ 3,425.13       |
| Purchase    | 5/7/2019 | \$ 22.86 | 400    | \$ 9,145.44       |
| Purchase    | 5/7/2019 | \$ 22.84 | 700    | \$ 15,990.31      |
| Purchase    | 5/7/2019 | \$ 22.83 | 200    | \$ 4,566.84       |
| Purchase    | 5/7/2019 | \$ 22.86 | 150    | \$ 3,429.54       |
| Purchase    | 5/7/2019 | \$ 22.86 | 700    | \$ 16,004.52      |
| Purchase    | 5/7/2019 | \$ 22.86 | 600    | \$ 13,718.16      |
| Purchase    | 5/7/2019 | \$ 22.86 | 100    | \$ 2,286.36       |
| Purchase    | 5/7/2019 | \$ 22.84 | 500    | \$ 11,421.65      |
| Purchase    | 5/7/2019 | \$ 22.86 | 1,300  | \$ 29,722.68      |
| Purchase    | 5/7/2019 | \$ 22.86 | 200    | \$ 4,572.72       |
| Purchase    | 5/7/2019 | \$ 22.86 | 100    | \$ 2,286.36       |
| Purchase    | 5/7/2019 | \$ 22.83 | 250    | \$ 5,708.55       |
| Purchase    | 5/7/2019 | \$ 22.86 | 1,000  | \$ 22,863.60      |
| Purchase    | 5/7/2019 | \$ 22.86 | 1,100  | \$ 25,149.96      |
| Purchase    | 5/7/2019 | \$ 22.83 | 300    | \$ 6,850.26       |
| Purchase    | 5/7/2019 | \$ 22.86 | 500    | \$ 11,431.80      |
| Purchase    | 5/7/2019 | \$ 22.86 | 500    | \$ 11,431.80      |
| Purchase    | 5/7/2019 | \$ 22.86 | 250    | \$ 5,715.90       |
| Purchase    | 5/7/2019 | \$ 22.86 | 300    | \$ 6,859.08       |
| Purchase    | 5/7/2019 | \$ 22.86 | 900    | \$ 20,577.24      |
| Purchase    | 5/7/2019 | \$ 22.86 | 400    | \$ 9,145.44       |
| Purchase    | 5/7/2019 | \$ 22.86 | 200    | \$ 4,572.72       |
| Purchase    | 5/7/2019 | \$ 22.86 | 200    | \$ 4,572.72       |
| Purchase    | 5/7/2019 | \$ 22.84 | 300    | \$ 6,852.99       |



## Exhibit 1

| Transaction | Date     | Price    | Shares | Transaction Total |
|-------------|----------|----------|--------|-------------------|
| Purchase    | 5/7/2019 | \$ 22.86 | 300    | \$ 6,859.08       |
| Purchase    | 5/7/2019 | \$ 22.83 | 686    | \$ 15,664.26      |
| Purchase    | 5/7/2019 | \$ 22.83 | 196    | \$ 4,475.50       |
| Purchase    | 5/7/2019 | \$ 22.83 | 300    | \$ 6,850.26       |
| Purchase    | 5/7/2019 | \$ 22.75 | 200    | \$ 4,550.00       |
| Purchase    | 5/7/2019 | \$ 22.86 | 550    | \$ 12,574.98      |
| Purchase    | 5/7/2019 | \$ 22.86 | 550    | \$ 12,574.98      |
| Purchase    | 5/7/2019 | \$ 22.86 | 150    | \$ 3,429.54       |
| Purchase    | 5/7/2019 | \$ 22.86 | 100    | \$ 2,286.36       |
| Purchase    | 5/7/2019 | \$ 22.86 | 500    | \$ 11,431.80      |
| Purchase    | 5/7/2019 | \$ 22.86 | 500    | \$ 11,431.80      |
| Purchase    | 5/7/2019 | \$ 22.86 | 350    | \$ 8,002.26       |
| Purchase    | 5/7/2019 | \$ 22.86 | 700    | \$ 16,004.52      |
| Purchase    | 5/7/2019 | \$ 22.86 | 100    | \$ 2,286.36       |
| Purchase    | 5/7/2019 | \$ 22.86 | 350    | \$ 8,002.26       |
| Purchase    | 5/7/2019 | \$ 22.86 | 400    | \$ 9,145.44       |
| Purchase    | 5/7/2019 | \$ 22.86 | 100    | \$ 2,286.36       |
| Purchase    | 5/7/2019 | \$ 22.83 | 500    | \$ 11,417.10      |
| Purchase    | 5/7/2019 | \$ 22.83 | 300    | \$ 6,850.26       |
| Purchase    | 5/7/2019 | \$ 22.86 | 400    | \$ 9,145.44       |
| Purchase    | 5/7/2019 | \$ 22.86 | 400    | \$ 9,143.45       |
| Purchase    | 5/7/2019 | \$ 22.86 | 200    | \$ 4,572.72       |
| Purchase    | 5/7/2019 | \$ 22.86 | 700    | \$ 16,004.52      |
| Purchase    | 5/7/2019 | \$ 22.86 | 200    | \$ 4,572.72       |
| Purchase    | 5/7/2019 | \$ 22.86 | 1,567  | \$ 35,827.26      |
| Purchase    | 5/7/2019 | \$ 22.86 | 617    | \$ 14,106.84      |
| Purchase    | 5/7/2019 | \$ 22.86 | 800    | \$ 18,290.88      |
| Purchase    | 5/7/2019 | \$ 22.86 | 1,000  | \$ 22,863.60      |
| Purchase    | 5/7/2019 | \$ 22.86 | 600    | \$ 13,718.16      |
| Purchase    | 5/7/2019 | \$ 23.01 | 133    | \$ 3,059.96       |
| Purchase    | 5/7/2019 | \$ 22.86 | 800    | \$ 18,290.88      |
| Purchase    | 5/7/2019 | \$ 22.86 | 400    | \$ 9,145.44       |
| Purchase    | 5/7/2019 | \$ 22.86 | 900    | \$ 20,577.24      |
| Purchase    | 5/7/2019 | \$ 22.86 | 300    | \$ 6,859.08       |
| Purchase    | 5/7/2019 | \$ 22.86 | 300    | \$ 6,859.08       |
| Purchase    | 5/7/2019 | \$ 22.86 | 400    | \$ 9,145.44       |
| Purchase    | 5/7/2019 | \$ 22.86 | 300    | \$ 6,859.08       |
| Purchase    | 5/7/2019 | \$ 22.86 | 600    | \$ 13,718.16      |
| Purchase    | 5/7/2019 | \$ 22.86 | 650    | \$ 14,861.34      |
| Purchase    | 5/7/2019 | \$ 22.86 | 200    | \$ 4,572.72       |
| Purchase    | 5/7/2019 | \$ 22.86 | 200    | \$ 4,572.72       |
| Purchase    | 5/7/2019 | \$ 22.86 | 800    | \$ 18,290.88      |
| Purchase    | 5/7/2019 | \$ 22.86 | 600    | \$ 13,718.16      |
| Purchase    | 5/7/2019 | \$ 22.87 | 200    | \$ 4,574.61       |
| Purchase    | 5/7/2019 | \$ 22.95 | 50     | \$ 1,147.37       |
| Purchase    | 5/7/2019 | \$ 22.86 | 400    | \$ 9,145.44       |
| Purchase    | 5/7/2019 | \$ 22.86 | 1,000  | \$ 22,863.60      |
| Purchase    | 5/7/2019 | \$ 22.77 | 800    | \$ 18,216.00      |
| Purchase    | 5/7/2019 | \$ 22.83 | 400    | \$ 9,133.68       |
| Purchase    | 5/7/2019 | \$ 22.77 | 500    | \$ 11,385.00      |
| Purchase    | 5/7/2019 | \$ 22.83 | 300    | \$ 6,850.26       |
| Purchase    | 5/7/2019 | \$ 22.86 | 1,000  | \$ 22,863.60      |
| Purchase    | 5/7/2019 | \$ 22.77 | 200    | \$ 4,554.00       |
| Purchase    | 5/7/2019 | \$ 22.86 | 1,200  | \$ 27,436.32      |
| Purchase    | 5/7/2019 | \$ 22.86 | 300    | \$ 6,859.08       |
| Purchase    | 5/7/2019 | \$ 22.86 | 400    | \$ 9,145.44       |

## Exhibit 1

| Transaction | Date     | Price    | Shares | Transaction Total |
|-------------|----------|----------|--------|-------------------|
| Purchase    | 5/7/2019 | \$ 22.86 | 250    | \$ 5,715.90       |
| Purchase    | 5/7/2019 | \$ 22.83 | 600    | \$ 13,695.36      |
| Purchase    | 5/7/2019 | \$ 22.92 | 600    | \$ 13,752.50      |
| Purchase    | 5/7/2019 | \$ 22.86 | 250    | \$ 5,715.90       |
| Purchase    | 5/7/2019 | \$ 22.86 | 400    | \$ 9,145.44       |
| Purchase    | 5/7/2019 | \$ 22.86 | 700    | \$ 16,004.52      |
| Purchase    | 5/7/2019 | \$ 22.90 | 150    | \$ 3,435.63       |
| Purchase    | 5/7/2019 | \$ 22.92 | 600    | \$ 13,752.50      |
| Purchase    | 5/7/2019 | \$ 22.86 | 800    | \$ 18,290.88      |
| Purchase    | 5/7/2019 | \$ 22.86 | 1,300  | \$ 29,722.68      |
| Purchase    | 5/7/2019 | \$ 22.86 | 203    | \$ 4,641.31       |
| Purchase    | 5/7/2019 | \$ 22.84 | 727    | \$ 16,607.08      |
| Purchase    | 5/7/2019 | \$ 22.84 | 75     | \$ 1,713.25       |
| Purchase    | 5/7/2019 | \$ 22.84 | 51     | \$ 1,165.01       |
| Purchase    | 5/7/2019 | \$ 22.84 | 39     | \$ 890.89         |
| Purchase    | 5/7/2019 | \$ 22.86 | 200    | \$ 4,572.72       |
| Purchase    | 5/7/2019 | \$ 22.84 | 108    | \$ 2,467.08       |
| Purchase    | 5/7/2019 | \$ 22.86 | 500    | \$ 11,431.80      |
| Purchase    | 5/7/2019 | \$ 22.84 | 800    | \$ 18,274.64      |
| Purchase    | 5/7/2019 | \$ 22.84 | 800    | \$ 18,274.64      |
| Purchase    | 5/7/2019 | \$ 22.84 | 200    | \$ 4,568.66       |
| Purchase    | 5/7/2019 | \$ 22.84 | 2,534  | \$ 57,884.92      |
| Purchase    | 5/7/2019 | \$ 22.84 | 650    | \$ 14,848.15      |
| Purchase    | 5/7/2019 | \$ 22.86 | 400    | \$ 9,145.44       |
| Purchase    | 5/7/2019 | \$ 22.84 | 400    | \$ 9,137.32       |
| Purchase    | 5/7/2019 | \$ 22.84 | 550    | \$ 12,563.82      |
| Purchase    | 5/7/2019 | \$ 22.84 | 500    | \$ 11,421.65      |
| Purchase    | 5/7/2019 | \$ 22.84 | 2,100  | \$ 47,970.93      |
| Purchase    | 5/7/2019 | \$ 22.84 | 650    | \$ 14,848.15      |
| Purchase    | 5/7/2019 | \$ 22.84 | 3,100  | \$ 70,814.23      |
| Purchase    | 5/7/2019 | \$ 22.84 | 900    | \$ 20,558.97      |
| Purchase    | 5/7/2019 | \$ 22.84 | 717    | \$ 16,378.65      |
| Purchase    | 5/7/2019 | \$ 22.84 | 300    | \$ 6,852.99       |
| Purchase    | 5/7/2019 | \$ 22.84 | 1,450  | \$ 33,122.79      |
| Purchase    | 5/7/2019 | \$ 22.84 | 450    | \$ 10,279.49      |
| Purchase    | 5/7/2019 | \$ 22.83 | 717    | \$ 16,372.12      |
| Purchase    | 5/7/2019 | \$ 22.84 | 767    | \$ 17,520.81      |
| Purchase    | 5/7/2019 | \$ 23.27 | 250    | \$ 5,817.85       |
| Purchase    | 5/7/2019 | \$ 22.84 | 1,117  | \$ 25,515.97      |
| Purchase    | 5/7/2019 | \$ 22.84 | 1,250  | \$ 28,554.13      |
| Purchase    | 5/7/2019 | \$ 22.84 | 834    | \$ 19,051.31      |
| Purchase    | 5/7/2019 | \$ 22.83 | 600    | \$ 13,700.52      |
| Purchase    | 5/7/2019 | \$ 22.84 | 517    | \$ 11,809.99      |
| Purchase    | 5/7/2019 | \$ 22.84 | 467    | \$ 10,667.82      |
| Purchase    | 5/7/2019 | \$ 22.84 | 400    | \$ 9,137.32       |
| Purchase    | 5/7/2019 | \$ 22.84 | 1,434  | \$ 32,757.29      |
| Purchase    | 5/7/2019 | \$ 22.84 | 250    | \$ 5,710.83       |
| Purchase    | 5/7/2019 | \$ 22.84 | 500    | \$ 11,421.65      |
| Purchase    | 5/7/2019 | \$ 22.84 | 1,267  | \$ 28,942.46      |
| Purchase    | 5/7/2019 | \$ 22.84 | 475    | \$ 10,850.57      |
| Purchase    | 5/7/2019 | \$ 22.84 | 375    | \$ 8,566.24       |
| Purchase    | 5/7/2019 | \$ 22.84 | 300    | \$ 6,852.99       |
| Purchase    | 5/7/2019 | \$ 22.84 | 300    | \$ 6,852.99       |
| Purchase    | 5/7/2019 | \$ 22.84 | 192    | \$ 4,385.91       |
| Purchase    | 5/7/2019 | \$ 22.84 | 192    | \$ 4,385.91       |
| Purchase    | 5/7/2019 | \$ 22.84 | 384    | \$ 8,771.83       |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 5/7/2019  | \$ 22.84 | 284    | \$ 6,487.50       |
| Purchase    | 5/7/2019  | \$ 22.84 | 350    | \$ 7,995.16       |
| Purchase    | 5/7/2019  | \$ 22.84 | 900    | \$ 20,558.97      |
| Purchase    | 5/7/2019  | \$ 22.83 | 300    | \$ 6,850.26       |
| Purchase    | 5/7/2019  | \$ 22.86 | 500    | \$ 11,431.80      |
| Purchase    | 5/7/2019  | \$ 22.86 | 500    | \$ 11,431.80      |
| Purchase    | 5/7/2019  | \$ 22.86 | 300    | \$ 6,859.08       |
| Purchase    | 5/7/2019  | \$ 22.86 | 300    | \$ 6,859.08       |
| Purchase    | 5/7/2019  | \$ 22.86 | 500    | \$ 11,431.80      |
| Purchase    | 5/7/2019  | \$ 22.84 | 1,500  | \$ 34,264.95      |
| Purchase    | 5/7/2019  | \$ 22.84 | 200    | \$ 4,568.66       |
| Purchase    | 5/7/2019  | \$ 22.84 | 200    | \$ 4,568.66       |
| Purchase    | 5/7/2019  | \$ 22.84 | 300    | \$ 6,852.99       |
| Purchase    | 5/7/2019  | \$ 22.83 | 200    | \$ 4,566.84       |
| Purchase    | 5/7/2019  | \$ 22.83 | 1,000  | \$ 22,825.60      |
| Purchase    | 5/7/2019  | \$ 22.87 | 200    | \$ 4,574.61       |
| Purchase    | 5/7/2019  | \$ 22.86 | 300    | \$ 6,859.08       |
| Purchase    | 5/7/2019  | \$ 22.86 | 350    | \$ 8,002.26       |
| Purchase    | 5/7/2019  | \$ 22.86 | 300    | \$ 6,859.08       |
| Purchase    | 5/7/2019  | \$ 22.86 | 150    | \$ 3,429.54       |
| Purchase    | 5/7/2019  | \$ 22.86 | 200    | \$ 4,572.72       |
| Purchase    | 5/7/2019  | \$ 22.86 | 200    | \$ 4,572.72       |
| Purchase    | 5/7/2019  | \$ 22.86 | 200    | \$ 4,572.72       |
| Purchase    | 5/7/2019  | \$ 22.86 | 200    | \$ 4,572.72       |
| Purchase    | 5/7/2019  | \$ 22.86 | 100    | \$ 2,286.36       |
| Purchase    | 5/7/2019  | \$ 22.86 | 250    | \$ 5,715.90       |
| Purchase    | 5/7/2019  | \$ 22.86 | 400    | \$ 9,145.44       |
| Purchase    | 5/7/2019  | \$ 22.86 | 800    | \$ 18,290.88      |
| Purchase    | 5/7/2019  | \$ 22.86 | 400    | \$ 9,145.44       |
| Purchase    | 5/7/2019  | \$ 22.86 | 1,000  | \$ 22,863.60      |
| Purchase    | 5/7/2019  | \$ 22.86 | 500    | \$ 11,431.80      |
| Purchase    | 5/7/2019  | \$ 22.86 | 250    | \$ 5,715.90       |
| Purchase    | 5/7/2019  | \$ 22.86 | 100    | \$ 2,286.36       |
| Purchase    | 5/7/2019  | \$ 22.86 | 100    | \$ 2,286.36       |
| Purchase    | 5/7/2019  | \$ 22.86 | 100    | \$ 2,286.36       |
| Purchase    | 5/7/2019  | \$ 22.86 | 100    | \$ 2,286.36       |
| Purchase    | 5/7/2019  | \$ 22.86 | 200    | \$ 4,572.72       |
| Purchase    | 5/7/2019  | \$ 22.86 | 350    | \$ 8,002.26       |
| Purchase    | 5/7/2019  | \$ 22.86 | 600    | \$ 13,718.16      |
| Sale        | 5/7/2019  | \$ 22.85 | 2,599  | \$ 59,377.72      |
| Purchase    | 5/8/2019  | \$ 22.91 | 2,800  | \$ 64,139.32      |
| Purchase    | 5/8/2019  | \$ 22.91 | 3,000  | \$ 68,720.70      |
| Sale        | 5/8/2019  | \$ 22.86 | 150    | \$ 3,428.48       |
| Purchase    | 5/9/2019  | \$ 22.73 | 160    | \$ 3,637.55       |
| Sale        | 5/9/2019  | \$ 22.18 | 251    | \$ 5,567.06       |
| Purchase    | 5/10/2019 | \$ 23.40 | 75     | \$ 1,755.00       |
| Sale        | 5/10/2019 | \$ 23.63 | 1,200  | \$ 28,361.62      |
| Sale        | 5/10/2019 | \$ 22.90 | 49     | \$ 1,122.08       |
| Purchase    | 5/14/2019 | \$ 22.55 | 40     | \$ 901.99         |
| Purchase    | 5/16/2019 | \$ 23.18 | 74     | \$ 1,715.50       |
| Purchase    | 5/16/2019 | \$ 23.19 | 75     | \$ 1,739.25       |
| Purchase    | 5/20/2019 | \$ 21.75 | 50     | \$ 1,087.50       |
| Sale        | 5/20/2019 | \$ 21.98 | 300    | \$ 6,593.14       |
| Sale        | 5/20/2019 | \$ 22.04 | 58     | \$ 1,278.47       |
| Purchase    | 5/21/2019 | \$ 22.00 | 38     | \$ 836.00         |
| Purchase    | 5/22/2019 | \$ 21.83 | 500    | \$ 10,915.00      |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 5/22/2019 | \$ 21.83 | 250    | \$ 5,457.50       |
| Purchase    | 5/22/2019 | \$ 21.77 | 35     | \$ 761.95         |
| Purchase    | 5/23/2019 | \$ 20.29 | 150    | \$ 3,043.50       |
| Purchase    | 5/23/2019 | \$ 20.26 | 72     | \$ 1,458.52       |
| Purchase    | 5/23/2019 | \$ 20.26 | 84     | \$ 1,701.84       |
| Purchase    | 5/23/2019 | \$ 20.21 | 5,000  | \$ 101,050.00     |
| Purchase    | 5/23/2019 | \$ 20.21 | 5,000  | \$ 101,050.00     |
| Purchase    | 5/24/2019 | \$ 20.43 | 400    | \$ 8,172.00       |
| Sale        | 5/24/2019 | \$ 20.56 | 1,000  | \$ 20,561.37      |
| Purchase    | 5/30/2019 | \$ 19.98 | 149    | \$ 2,976.28       |
| Purchase    | 5/30/2019 | \$ 19.93 | 13     | \$ 259.14         |
| Purchase    | 5/30/2019 | \$ 20.01 | 4      | \$ 80.04          |
| Purchase    | 6/3/2019  | \$ 19.40 | 30     | \$ 582.00         |
| Purchase    | 6/3/2019  | \$ 19.38 | 3,000  | \$ 58,149.60      |
| Purchase    | 6/3/2019  | \$ 19.38 | 3,000  | \$ 58,149.60      |
| Sale        | 6/4/2019  | \$ 19.68 | 500    | \$ 9,839.79       |
| Purchase    | 6/5/2019  | \$ 19.12 | 57     | \$ 1,089.84       |
| Purchase    | 6/5/2019  | \$ 19.76 | 710    | \$ 14,026.21      |
| Sale        | 6/5/2019  | \$ 19.07 | 1,500  | \$ 28,604.40      |
| Purchase    | 6/6/2019  | \$ 19.78 | 76     | \$ 1,503.50       |
| Sale        | 6/6/2019  | \$ 20.17 | 800    | \$ 16,135.66      |
| Purchase    | 6/7/2019  | \$ 20.49 | 74     | \$ 1,516.12       |
| Sale        | 6/7/2019  | \$ 20.26 | 33     | \$ 668.56         |
| Sale        | 6/11/2019 | \$ 21.11 | 133    | \$ 2,807.57       |
| Purchase    | 6/13/2019 | \$ 20.93 | 150    | \$ 3,139.50       |
| Purchase    | 6/17/2019 | \$ 20.66 | 36     | \$ 743.76         |
| Sale        | 6/18/2019 | \$ 21.17 | 1,500  | \$ 31,758.09      |
| Purchase    | 6/19/2019 | \$ 21.01 | 81     | \$ 1,702.09       |
| Sale        | 6/20/2019 | \$ 21.08 | 50     | \$ 1,054.21       |
| Purchase    | 6/21/2019 | \$ 20.96 | 48     | \$ 1,006.23       |
| Sale        | 6/21/2019 | \$ 21.04 | 200    | \$ 4,207.66       |
| Sale        | 6/21/2019 | \$ 20.99 | 33     | \$ 692.65         |
| Sale        | 6/24/2019 | \$ 20.79 | 600    | \$ 12,471.94      |
| Sale        | 6/26/2019 | \$ 20.76 | 50     | \$ 1,038.13       |
| Sale        | 6/26/2019 | \$ 20.74 | 1,166  | \$ 24,185.59      |
| Purchase    | 6/28/2019 | \$ 21.95 | 79     | \$ 1,733.85       |
| Purchase    | 6/28/2019 | \$ 21.95 | 70     | \$ 1,536.50       |
| Purchase    | 6/28/2019 | \$ 21.95 | 52     | \$ 1,141.40       |
| Purchase    | 6/28/2019 | \$ 21.95 | 79     | \$ 1,733.85       |
| Sale        | 7/1/2019  | \$ 21.95 | 3,250  | \$ 71,352.92      |
| Purchase    | 7/2/2019  | \$ 21.99 | 25     | \$ 549.75         |
| Purchase    | 7/3/2019  | \$ 21.92 | 234    | \$ 5,129.26       |
| Purchase    | 7/5/2019  | \$ 21.64 | 2,000  | \$ 43,285.00      |
| Purchase    | 7/5/2019  | \$ 21.64 | 2,000  | \$ 43,285.00      |
| Purchase    | 7/5/2019  | \$ 21.75 | 200    | \$ 4,350.00       |
| Purchase    | 7/5/2019  | \$ 21.54 | 53     | \$ 1,141.79       |
| Purchase    | 7/5/2019  | \$ 21.54 | 103    | \$ 2,218.95       |
| Purchase    | 7/8/2019  | \$ 21.78 | 62     | \$ 1,350.47       |
| Purchase    | 7/8/2019  | \$ 21.76 | 39     | \$ 848.50         |
| Sale        | 7/8/2019  | \$ 21.77 | 58     | \$ 1,262.63       |
| Sale        | 7/8/2019  | \$ 21.69 | 250    | \$ 5,421.76       |
| Sale        | 7/8/2019  | \$ 21.69 | 250    | \$ 5,421.76       |
| Purchase    | 7/10/2019 | \$ 22.06 | 39     | \$ 860.27         |
| Purchase    | 7/10/2019 | \$ 22.05 | 77     | \$ 1,697.85       |
| Sale        | 7/10/2019 | \$ 21.97 | 50     | \$ 1,098.40       |
| Purchase    | 7/12/2019 | \$ 21.51 | 389    | \$ 8,367.39       |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Sale        | 7/12/2019 | \$ 21.46 | 4,666  | \$ 100,142.88     |
| Purchase    | 7/15/2019 | \$ 20.49 | 88     | \$ 1,803.00       |
| Purchase    | 7/16/2019 | \$ 20.04 | 42     | \$ 841.76         |
| Purchase    | 7/16/2019 | \$ 20.05 | 2,000  | \$ 40,091.40      |
| Purchase    | 7/16/2019 | \$ 20.05 | 2,000  | \$ 40,091.40      |
| Purchase    | 7/17/2019 | \$ 19.72 | 211    | \$ 4,161.28       |
| Purchase    | 7/18/2019 | \$ 19.41 | 2,000  | \$ 38,818.80      |
| Purchase    | 7/18/2019 | \$ 19.41 | 2,000  | \$ 38,818.80      |
| Purchase    | 7/18/2019 | \$ 19.34 | 300    | \$ 5,802.00       |
| Purchase    | 7/18/2019 | \$ 19.34 | 200    | \$ 3,868.00       |
| Purchase    | 7/18/2019 | \$ 19.34 | 150    | \$ 2,901.00       |
| Purchase    | 7/18/2019 | \$ 19.34 | 200    | \$ 3,868.00       |
| Purchase    | 7/18/2019 | \$ 19.34 | 200    | \$ 3,868.00       |
| Purchase    | 7/18/2019 | \$ 19.34 | 200    | \$ 3,868.00       |
| Purchase    | 7/18/2019 | \$ 19.30 | 88     | \$ 1,698.40       |
| Purchase    | 7/19/2019 | \$ 19.04 | 3,000  | \$ 57,122.70      |
| Purchase    | 7/19/2019 | \$ 19.37 | 1,000  | \$ 19,366.00      |
| Purchase    | 7/19/2019 | \$ 19.37 | 500    | \$ 9,683.00       |
| Purchase    | 7/19/2019 | \$ 19.37 | 1,000  | \$ 19,366.00      |
| Purchase    | 7/19/2019 | \$ 19.32 | 1,000  | \$ 19,323.95      |
| Purchase    | 7/19/2019 | \$ 19.39 | 123    | \$ 2,384.97       |
| Purchase    | 7/19/2019 | \$ 19.18 | 2,000  | \$ 38,351.80      |
| Purchase    | 7/19/2019 | \$ 19.18 | 2,000  | \$ 38,351.80      |
| Sale        | 7/19/2019 | \$ 19.05 | 83     | \$ 1,581.05       |
| Sale        | 7/19/2019 | \$ 19.05 | 100    | \$ 1,904.89       |
| Purchase    | 7/22/2019 | \$ 19.01 | 200    | \$ 3,802.00       |
| Purchase    | 7/22/2019 | \$ 19.02 | 1,000  | \$ 19,017.40      |
| Purchase    | 7/23/2019 | \$ 19.02 | 2,000  | \$ 38,048.40      |
| Purchase    | 7/23/2019 | \$ 19.05 | 25     | \$ 476.25         |
| Purchase    | 7/23/2019 | \$ 19.04 | 15     | \$ 285.60         |
| Sale        | 7/23/2019 | \$ 19.13 | 83     | \$ 1,587.75       |
| Sale        | 7/23/2019 | \$ 19.13 | 800    | \$ 15,306.56      |
| Sale        | 7/24/2019 | \$ 19.07 | 16     | \$ 305.11         |
| Sale        | 7/24/2019 | \$ 19.20 | 66     | \$ 1,267.17       |
| Sale        | 7/24/2019 | \$ 19.07 | 600    | \$ 11,441.76      |
| Sale        | 7/24/2019 | \$ 19.07 | 66     | \$ 1,258.59       |
| Sale        | 7/24/2019 | \$ 19.07 | 250    | \$ 4,767.40       |
| Sale        | 7/25/2019 | \$ 19.07 | 233    | \$ 4,443.70       |
| Sale        | 7/26/2019 | \$ 19.15 | 100    | \$ 1,915.01       |
| Purchase    | 7/29/2019 | \$ 19.00 | 45     | \$ 855.00         |
| Sale        | 7/29/2019 | \$ 19.27 | 200    | \$ 3,853.12       |
| Sale        | 7/30/2019 | \$ 18.77 | 83     | \$ 1,557.87       |
| Purchase    | 7/31/2019 | \$ 19.14 | 3,000  | \$ 57,432.00      |
| Purchase    | 7/31/2019 | \$ 19.14 | 3,000  | \$ 57,432.00      |
| Purchase    | 7/31/2019 | \$ 19.27 | 141    | \$ 2,716.48       |
| Purchase    | 8/1/2019  | \$ 18.32 | 1,200  | \$ 21,989.40      |
| Purchase    | 8/1/2019  | \$ 18.32 | 300    | \$ 5,497.35       |
| Purchase    | 8/1/2019  | \$ 18.32 | 150    | \$ 2,748.68       |
| Sale        | 8/1/2019  | \$ 18.21 | 300    | \$ 5,464.38       |
| Sale        | 8/2/2019  | \$ 17.82 | 350    | \$ 6,236.38       |
| Sale        | 8/2/2019  | \$ 17.79 | 150    | \$ 2,669.04       |
| Sale        | 8/2/2019  | \$ 17.83 | 4      | \$ 71.31          |
| Sale        | 8/2/2019  | \$ 17.83 | 4      | \$ 71.31          |
| Purchase    | 8/5/2019  | \$ 17.39 | 10,000 | \$ 173,893.00     |
| Purchase    | 8/5/2019  | \$ 17.45 | 2,000  | \$ 34,893.00      |
| Purchase    | 8/5/2019  | \$ 17.34 | 105    | \$ 1,820.70       |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Sale        | 8/5/2019  | \$ 17.09 | 83     | \$ 1,418.44       |
| Sale        | 8/5/2019  | \$ 17.18 | 500    | \$ 8,590.92       |
| Purchase    | 8/6/2019  | \$ 17.36 | 2,000  | \$ 34,713.00      |
| Purchase    | 8/7/2019  | \$ 16.93 | 1,000  | \$ 16,927.60      |
| Purchase    | 8/7/2019  | \$ 16.93 | 1,000  | \$ 16,927.60      |
| Purchase    | 8/8/2019  | \$ 17.44 | 1,200  | \$ 20,926.44      |
| Purchase    | 8/8/2019  | \$ 17.63 | 500    | \$ 8,815.10       |
| Purchase    | 8/8/2019  | \$ 17.41 | 1,000  | \$ 17,409.70      |
| Purchase    | 8/9/2019  | \$ 16.78 | 491    | \$ 8,238.98       |
| Purchase    | 8/9/2019  | \$ 16.77 | 85     | \$ 1,425.45       |
| Purchase    | 8/9/2019  | \$ 16.79 | 51     | \$ 856.29         |
| Purchase    | 8/9/2019  | \$ 16.53 | 2,000  | \$ 33,061.00      |
| Purchase    | 8/12/2019 | \$ 15.68 | 46     | \$ 721.49         |
| Purchase    | 8/12/2019 | \$ 15.73 | 1,000  | \$ 15,730.00      |
| Purchase    | 8/13/2019 | \$ 15.53 | 17,342 | \$ 269,303.18     |
| Purchase    | 8/14/2019 | \$ 14.57 | 100    | \$ 1,457.00       |
| Purchase    | 8/14/2019 | \$ 14.54 | 1,000  | \$ 14,543.50      |
| Purchase    | 8/14/2019 | \$ 14.30 | 5,000  | \$ 71,478.00      |
| Purchase    | 8/14/2019 | \$ 14.30 | 5,000  | \$ 71,478.00      |
| Purchase    | 8/14/2019 | \$ 14.51 | 450    | \$ 6,527.25       |
| Purchase    | 8/14/2019 | \$ 14.52 | 225    | \$ 3,266.10       |
| Purchase    | 8/14/2019 | \$ 14.52 | 1,500  | \$ 21,779.85      |
| Purchase    | 8/14/2019 | \$ 14.47 | 2,000  | \$ 28,944.00      |
| Purchase    | 8/14/2019 | \$ 14.57 | 500    | \$ 7,285.00       |
| Purchase    | 8/14/2019 | \$ 14.51 | 2,000  | \$ 29,014.20      |
| Purchase    | 8/14/2019 | \$ 14.54 | 1,000  | \$ 14,543.50      |
| Purchase    | 8/14/2019 | \$ 14.73 | 2,000  | \$ 29,460.00      |
| Purchase    | 8/14/2019 | \$ 14.47 | 3,000  | \$ 43,416.00      |
| Purchase    | 8/14/2019 | \$ 14.47 | 3,000  | \$ 43,416.00      |
| Sale        | 8/14/2019 | \$ 14.44 | 416    | \$ 6,005.29       |
| Sale        | 8/14/2019 | \$ 14.44 | 25     | \$ 360.89         |
| Purchase    | 8/15/2019 | \$ 14.50 | 700    | \$ 10,150.00      |
| Purchase    | 8/15/2019 | \$ 14.58 | 800    | \$ 11,660.00      |
| Purchase    | 8/15/2019 | \$ 14.05 | 400    | \$ 5,619.04       |
| Sale        | 8/15/2019 | \$ 14.45 | 733    | \$ 10,591.63      |
| Sale        | 8/15/2019 | \$ 13.98 | 250    | \$ 3,494.92       |
| Sale        | 8/15/2019 | \$ 14.01 | 250    | \$ 3,502.43       |
| Purchase    | 8/16/2019 | \$ 14.51 | 3,000  | \$ 43,526.10      |
| Purchase    | 8/16/2019 | \$ 14.33 | 4,500  | \$ 64,481.85      |
| Purchase    | 8/16/2019 | \$ 14.33 | 1,300  | \$ 18,628.09      |
| Purchase    | 8/16/2019 | \$ 14.33 | 1,600  | \$ 22,926.88      |
| Purchase    | 8/16/2019 | \$ 14.33 | 1,000  | \$ 14,329.30      |
| Purchase    | 8/16/2019 | \$ 14.33 | 1,000  | \$ 14,329.30      |
| Purchase    | 8/16/2019 | \$ 14.33 | 1,700  | \$ 24,359.81      |
| Purchase    | 8/16/2019 | \$ 14.51 | 30     | \$ 435.30         |
| Purchase    | 8/16/2019 | \$ 14.49 | 128    | \$ 1,854.57       |
| Purchase    | 8/16/2019 | \$ 14.50 | 62     | \$ 899.00         |
| Purchase    | 8/16/2019 | \$ 14.33 | 5,000  | \$ 71,646.50      |
| Purchase    | 8/16/2019 | \$ 14.33 | 5,000  | \$ 71,646.50      |
| Sale        | 8/16/2019 | \$ 14.29 | 916    | \$ 13,085.16      |
| Sale        | 8/16/2019 | \$ 14.48 | 40     | \$ 579.19         |
| Purchase    | 8/19/2019 | \$ 14.95 | 1,100  | \$ 16,442.47      |
| Purchase    | 8/19/2019 | \$ 14.47 | 4,300  | \$ 62,221.00      |
| Purchase    | 8/19/2019 | \$ 14.93 | 5,000  | \$ 74,659.00      |
| Purchase    | 8/19/2019 | \$ 14.91 | 1,400  | \$ 20,879.32      |
| Purchase    | 8/19/2019 | \$ 14.91 | 1,400  | \$ 20,879.32      |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 8/19/2019 | \$ 14.47 | 500    | \$ 7,235.00       |
| Purchase    | 8/20/2019 | \$ 14.37 | 700    | \$ 10,057.32      |
| Purchase    | 8/20/2019 | \$ 14.38 | 400    | \$ 5,752.00       |
| Purchase    | 8/20/2019 | \$ 14.38 | 250    | \$ 3,595.00       |
| Purchase    | 8/20/2019 | \$ 14.38 | 250    | \$ 3,595.00       |
| Purchase    | 8/20/2019 | \$ 14.45 | 800    | \$ 11,562.00      |
| Purchase    | 8/20/2019 | \$ 14.45 | 300    | \$ 4,335.75       |
| Purchase    | 8/20/2019 | \$ 14.45 | 300    | \$ 4,335.75       |
| Purchase    | 8/20/2019 | \$ 14.45 | 1,000  | \$ 14,452.50      |
| Purchase    | 8/20/2019 | \$ 14.45 | 800    | \$ 11,562.00      |
| Purchase    | 8/20/2019 | \$ 14.40 | 700    | \$ 10,081.61      |
| Purchase    | 8/20/2019 | \$ 14.40 | 600    | \$ 8,638.74       |
| Purchase    | 8/20/2019 | \$ 14.45 | 400    | \$ 5,781.00       |
| Purchase    | 8/20/2019 | \$ 14.45 | 900    | \$ 13,007.25      |
| Purchase    | 8/20/2019 | \$ 14.45 | 600    | \$ 8,671.50       |
| Purchase    | 8/20/2019 | \$ 14.45 | 800    | \$ 11,562.00      |
| Purchase    | 8/20/2019 | \$ 14.45 | 1,100  | \$ 15,897.75      |
| Purchase    | 8/20/2019 | \$ 14.45 | 550    | \$ 7,948.88       |
| Purchase    | 8/20/2019 | \$ 14.45 | 650    | \$ 9,394.13       |
| Purchase    | 8/20/2019 | \$ 14.45 | 450    | \$ 6,503.63       |
| Purchase    | 8/20/2019 | \$ 14.40 | 700    | \$ 10,078.53      |
| Purchase    | 8/20/2019 | \$ 14.40 | 900    | \$ 12,958.11      |
| Purchase    | 8/20/2019 | \$ 14.43 | 550    | \$ 7,936.50       |
| Purchase    | 8/20/2019 | \$ 14.40 | 350    | \$ 5,039.27       |
| Purchase    | 8/20/2019 | \$ 14.43 | 5,000  | \$ 72,138.00      |
| Purchase    | 8/20/2019 | \$ 14.43 | 750    | \$ 10,822.50      |
| Purchase    | 8/20/2019 | \$ 14.45 | 550    | \$ 7,948.88       |
| Purchase    | 8/20/2019 | \$ 14.45 | 800    | \$ 11,562.00      |
| Purchase    | 8/20/2019 | \$ 14.45 | 800    | \$ 11,562.00      |
| Purchase    | 8/20/2019 | \$ 14.45 | 500    | \$ 7,226.25       |
| Purchase    | 8/20/2019 | \$ 14.45 | 400    | \$ 5,781.00       |
| Purchase    | 8/20/2019 | \$ 14.45 | 800    | \$ 11,562.00      |
| Purchase    | 8/20/2019 | \$ 14.40 | 700    | \$ 10,078.53      |
| Purchase    | 8/20/2019 | \$ 14.45 | 900    | \$ 13,007.25      |
| Purchase    | 8/20/2019 | \$ 14.45 | 550    | \$ 7,948.88       |
| Purchase    | 8/20/2019 | \$ 14.45 | 800    | \$ 11,562.00      |
| Purchase    | 8/20/2019 | \$ 14.45 | 550    | \$ 7,948.88       |
| Purchase    | 8/20/2019 | \$ 14.45 | 800    | \$ 11,562.00      |
| Purchase    | 8/20/2019 | \$ 14.45 | 800    | \$ 11,562.00      |
| Purchase    | 8/20/2019 | \$ 14.45 | 600    | \$ 8,671.50       |
| Purchase    | 8/20/2019 | \$ 14.45 | 600    | \$ 8,671.50       |
| Purchase    | 8/20/2019 | \$ 14.45 | 800    | \$ 11,562.00      |
| Purchase    | 8/20/2019 | \$ 14.45 | 600    | \$ 8,671.50       |
| Purchase    | 8/20/2019 | \$ 14.45 | 250    | \$ 3,613.13       |
| Purchase    | 8/20/2019 | \$ 14.45 | 250    | \$ 3,613.13       |
| Purchase    | 8/20/2019 | \$ 14.45 | 800    | \$ 11,562.00      |
| Purchase    | 8/20/2019 | \$ 14.45 | 250    | \$ 3,613.13       |
| Purchase    | 8/20/2019 | \$ 14.45 | 700    | \$ 10,116.75      |
| Purchase    | 8/20/2019 | \$ 14.38 | 300    | \$ 4,315.23       |
| Purchase    | 8/20/2019 | \$ 14.41 | 1,500  | \$ 21,613.35      |
| Purchase    | 8/20/2019 | \$ 14.40 | 900    | \$ 12,958.11      |
| Purchase    | 8/20/2019 | \$ 14.40 | 700    | \$ 10,078.53      |
| Purchase    | 8/20/2019 | \$ 14.46 | 550    | \$ 7,952.40       |
| Purchase    | 8/20/2019 | \$ 14.45 | 900    | \$ 13,007.25      |
| Purchase    | 8/20/2019 | \$ 14.45 | 550    | \$ 7,948.88       |
| Purchase    | 8/20/2019 | \$ 14.45 | 300    | \$ 4,335.75       |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 8/20/2019 | \$ 14.45 | 600    | \$ 8,671.50       |
| Purchase    | 8/20/2019 | \$ 14.45 | 1,000  | \$ 14,452.50      |
| Purchase    | 8/20/2019 | \$ 14.47 | 1,200  | \$ 17,364.50      |
| Purchase    | 8/20/2019 | \$ 14.45 | 1,000  | \$ 14,452.50      |
| Purchase    | 8/20/2019 | \$ 14.45 | 800    | \$ 11,562.00      |
| Purchase    | 8/20/2019 | \$ 14.40 | 1,723  | \$ 24,815.16      |
| Purchase    | 8/20/2019 | \$ 14.40 | 175    | \$ 2,520.40       |
| Purchase    | 8/20/2019 | \$ 14.40 | 49     | \$ 705.71         |
| Purchase    | 8/20/2019 | \$ 14.40 | 71     | \$ 1,022.56       |
| Purchase    | 8/20/2019 | \$ 14.45 | 450    | \$ 6,503.63       |
| Purchase    | 8/20/2019 | \$ 14.45 | 225    | \$ 3,251.81       |
| Purchase    | 8/20/2019 | \$ 14.40 | 182    | \$ 2,621.22       |
| Purchase    | 8/20/2019 | \$ 14.45 | 600    | \$ 8,671.50       |
| Purchase    | 8/20/2019 | \$ 14.40 | 800    | \$ 11,521.84      |
| Purchase    | 8/20/2019 | \$ 14.40 | 700    | \$ 10,081.61      |
| Purchase    | 8/20/2019 | \$ 14.40 | 200    | \$ 2,880.46       |
| Purchase    | 8/20/2019 | \$ 14.40 | 700    | \$ 10,081.61      |
| Purchase    | 8/20/2019 | \$ 14.45 | 900    | \$ 13,007.25      |
| Purchase    | 8/20/2019 | \$ 14.40 | 400    | \$ 5,760.92       |
| Purchase    | 8/20/2019 | \$ 14.40 | 1,100  | \$ 15,842.53      |
| Purchase    | 8/20/2019 | \$ 14.40 | 650    | \$ 9,361.50       |
| Purchase    | 8/20/2019 | \$ 14.40 | 350    | \$ 5,040.49       |
| Purchase    | 8/20/2019 | \$ 14.40 | 900    | \$ 12,961.26      |
| Purchase    | 8/20/2019 | \$ 14.40 | 300    | \$ 4,320.42       |
| Purchase    | 8/20/2019 | \$ 14.40 | 800    | \$ 11,518.32      |
| Purchase    | 8/20/2019 | \$ 14.40 | 850    | \$ 12,241.19      |
| Purchase    | 8/20/2019 | \$ 14.65 | 400    | \$ 5,861.31       |
| Purchase    | 8/20/2019 | \$ 14.40 | 600    | \$ 8,640.84       |
| Purchase    | 8/20/2019 | \$ 14.40 | 600    | \$ 8,640.84       |
| Purchase    | 8/20/2019 | \$ 14.40 | 900    | \$ 12,961.26      |
| Purchase    | 8/20/2019 | \$ 14.40 | 600    | \$ 8,638.74       |
| Purchase    | 8/20/2019 | \$ 14.40 | 500    | \$ 7,200.70       |
| Purchase    | 8/20/2019 | \$ 14.40 | 400    | \$ 5,760.56       |
| Purchase    | 8/20/2019 | \$ 14.40 | 500    | \$ 7,200.70       |
| Purchase    | 8/20/2019 | \$ 14.40 | 600    | \$ 8,640.84       |
| Purchase    | 8/20/2019 | \$ 14.40 | 500    | \$ 7,200.70       |
| Purchase    | 8/20/2019 | \$ 14.40 | 700    | \$ 10,080.98      |
| Purchase    | 8/20/2019 | \$ 14.40 | 400    | \$ 5,760.56       |
| Purchase    | 8/20/2019 | \$ 14.40 | 300    | \$ 4,320.42       |
| Purchase    | 8/20/2019 | \$ 14.40 | 700    | \$ 10,080.98      |
| Purchase    | 8/20/2019 | \$ 14.46 | 1,800  | \$ 26,026.02      |
| Purchase    | 8/20/2019 | \$ 14.46 | 6,000  | \$ 86,753.40      |
| Purchase    | 8/20/2019 | \$ 14.46 | 5,000  | \$ 72,294.50      |
| Purchase    | 8/20/2019 | \$ 14.46 | 1,200  | \$ 17,350.68      |
| Purchase    | 8/20/2019 | \$ 14.40 | 700    | \$ 10,078.53      |
| Purchase    | 8/20/2019 | \$ 14.40 | 700    | \$ 10,078.53      |
| Purchase    | 8/20/2019 | \$ 14.45 | 1,000  | \$ 14,452.50      |
| Purchase    | 8/20/2019 | \$ 14.45 | 450    | \$ 6,503.63       |
| Purchase    | 8/20/2019 | \$ 14.45 | 700    | \$ 10,116.75      |
| Purchase    | 8/20/2019 | \$ 14.45 | 500    | \$ 7,226.25       |
| Purchase    | 8/20/2019 | \$ 14.45 | 700    | \$ 10,116.75      |
| Purchase    | 8/20/2019 | \$ 14.45 | 300    | \$ 4,335.75       |
| Purchase    | 8/20/2019 | \$ 14.41 | 5,000  | \$ 72,044.50      |
| Purchase    | 8/20/2019 | \$ 14.45 | 700    | \$ 10,116.75      |
| Purchase    | 8/20/2019 | \$ 14.40 | 900    | \$ 12,961.26      |
| Purchase    | 8/20/2019 | \$ 14.40 | 1,500  | \$ 21,602.10      |



## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 8/20/2019 | \$ 14.40 | 450    | \$ 6,480.63       |
| Purchase    | 8/20/2019 | \$ 14.40 | 3,000  | \$ 43,204.20      |
| Purchase    | 8/20/2019 | \$ 14.40 | 450    | \$ 6,480.63       |
| Purchase    | 8/20/2019 | \$ 14.40 | 550    | \$ 7,918.85       |
| Purchase    | 8/20/2019 | \$ 14.43 | 1,200  | \$ 17,313.12      |
| Purchase    | 8/20/2019 | \$ 14.37 | 700    | \$ 10,062.27      |
| Purchase    | 8/20/2019 | \$ 14.41 | 600    | \$ 8,645.34       |
| Purchase    | 8/20/2019 | \$ 14.43 | 300    | \$ 4,328.28       |
| Purchase    | 8/20/2019 | \$ 14.43 | 200    | \$ 2,885.52       |
| Purchase    | 8/20/2019 | \$ 14.43 | 1,500  | \$ 21,641.40      |
| Purchase    | 8/20/2019 | \$ 14.34 | 300    | \$ 4,301.31       |
| Purchase    | 8/20/2019 | \$ 14.34 | 53     | \$ 759.90         |
| Purchase    | 8/20/2019 | \$ 14.34 | 42     | \$ 602.18         |
| Purchase    | 8/20/2019 | \$ 14.34 | 68     | \$ 974.96         |
| Purchase    | 8/20/2019 | \$ 14.34 | 70     | \$ 1,003.64       |
| Purchase    | 8/20/2019 | \$ 14.34 | 96     | \$ 1,376.42       |
| Purchase    | 8/20/2019 | \$ 14.34 | 100    | \$ 1,433.77       |
| Purchase    | 8/20/2019 | \$ 14.34 | 69     | \$ 989.30         |
| Purchase    | 8/20/2019 | \$ 14.34 | 42     | \$ 602.18         |
| Purchase    | 8/20/2019 | \$ 14.34 | 45     | \$ 645.20         |
| Purchase    | 8/20/2019 | \$ 14.34 | 74     | \$ 1,060.99       |
| Purchase    | 8/20/2019 | \$ 14.34 | 21     | \$ 301.09         |
| Purchase    | 8/20/2019 | \$ 14.34 | 26     | \$ 372.78         |
| Purchase    | 8/20/2019 | \$ 14.34 | 95     | \$ 1,362.08       |
| Purchase    | 8/20/2019 | \$ 14.34 | 46     | \$ 659.53         |
| Purchase    | 8/20/2019 | \$ 14.34 | 45     | \$ 645.20         |
| Purchase    | 8/20/2019 | \$ 14.34 | 23     | \$ 329.77         |
| Purchase    | 8/20/2019 | \$ 14.34 | 67     | \$ 960.63         |
| Purchase    | 8/20/2019 | \$ 14.34 | 25     | \$ 358.44         |
| Purchase    | 8/20/2019 | \$ 14.34 | 51     | \$ 731.22         |
| Purchase    | 8/20/2019 | \$ 14.34 | 36     | \$ 516.16         |
| Purchase    | 8/20/2019 | \$ 14.34 | 42     | \$ 602.18         |
| Purchase    | 8/20/2019 | \$ 14.45 | 750    | \$ 10,839.38      |
| Purchase    | 8/20/2019 | \$ 14.45 | 700    | \$ 10,116.75      |
| Purchase    | 8/20/2019 | \$ 14.45 | 450    | \$ 6,503.63       |
| Purchase    | 8/20/2019 | \$ 14.45 | 450    | \$ 6,503.63       |
| Purchase    | 8/20/2019 | \$ 14.45 | 450    | \$ 6,503.63       |
| Purchase    | 8/20/2019 | \$ 14.45 | 550    | \$ 7,948.88       |
| Purchase    | 8/20/2019 | \$ 14.45 | 900    | \$ 13,007.25      |
| Purchase    | 8/20/2019 | \$ 14.45 | 1,000  | \$ 14,452.50      |
| Purchase    | 8/20/2019 | \$ 14.45 | 1,000  | \$ 14,452.50      |
| Purchase    | 8/20/2019 | \$ 14.45 | 800    | \$ 11,562.00      |
| Purchase    | 8/20/2019 | \$ 14.45 | 600    | \$ 8,671.50       |
| Purchase    | 8/20/2019 | \$ 14.45 | 400    | \$ 5,781.00       |
| Purchase    | 8/20/2019 | \$ 14.45 | 225    | \$ 3,251.81       |
| Purchase    | 8/20/2019 | \$ 14.43 | 1,300  | \$ 18,755.88      |
| Purchase    | 8/20/2019 | \$ 14.45 | 550    | \$ 7,948.88       |
| Purchase    | 8/20/2019 | \$ 14.45 | 750    | \$ 10,839.38      |
| Purchase    | 8/20/2019 | \$ 14.45 | 1,300  | \$ 18,788.25      |
| Purchase    | 8/21/2019 | \$ 14.30 | 400    | \$ 5,719.48       |
| Purchase    | 8/21/2019 | \$ 14.01 | 600    | \$ 8,404.80       |
| Purchase    | 8/21/2019 | \$ 14.01 | 600    | \$ 8,404.80       |
| Purchase    | 8/21/2019 | \$ 14.01 | 250    | \$ 3,502.00       |
| Purchase    | 8/21/2019 | \$ 14.01 | 400    | \$ 5,603.20       |
| Purchase    | 8/21/2019 | \$ 14.01 | 400    | \$ 5,603.20       |
| Purchase    | 8/21/2019 | \$ 14.01 | 500    | \$ 7,004.00       |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 8/21/2019 | \$ 14.11 | 4,700  | \$ 66,317.00      |
| Purchase    | 8/21/2019 | \$ 14.11 | 6,000  | \$ 84,660.00      |
| Purchase    | 8/21/2019 | \$ 14.01 | 100    | \$ 1,401.00       |
| Purchase    | 8/21/2019 | \$ 14.37 | 139    | \$ 1,997.82       |
| Sale        | 8/21/2019 | \$ 13.91 | 1,000  | \$ 13,913.21      |
| Sale        | 8/21/2019 | \$ 14.07 | 250    | \$ 3,518.60       |
| Purchase    | 8/22/2019 | \$ 14.38 | 284    | \$ 4,084.72       |
| Sale        | 8/22/2019 | \$ 14.39 | 50     | \$ 719.48         |
| Purchase    | 8/23/2019 | \$ 14.06 | 1,618  | \$ 22,750.70      |
| Purchase    | 8/23/2019 | \$ 14.06 | 141    | \$ 1,982.60       |
| Purchase    | 8/23/2019 | \$ 14.06 | 241    | \$ 3,388.70       |
| Purchase    | 8/23/2019 | \$ 14.12 | 1,450  | \$ 20,475.02      |
| Purchase    | 8/23/2019 | \$ 14.06 | 900    | \$ 12,653.46      |
| Purchase    | 8/23/2019 | \$ 14.06 | 3,000  | \$ 42,178.20      |
| Purchase    | 8/26/2019 | \$ 13.59 | 2,000  | \$ 27,184.80      |
| Purchase    | 8/26/2019 | \$ 13.75 | 113    | \$ 1,553.74       |
| Purchase    | 8/26/2019 | \$ 13.72 | 152    | \$ 2,084.89       |
| Purchase    | 8/26/2019 | \$ 13.58 | 1,000  | \$ 13,580.70      |
| Purchase    | 8/26/2019 | \$ 13.64 | 5,000  | \$ 68,193.50      |
| Purchase    | 8/26/2019 | \$ 13.64 | 5,000  | \$ 68,193.50      |
| Purchase    | 8/27/2019 | \$ 13.62 | 1,200  | \$ 16,344.00      |
| Purchase    | 8/27/2019 | \$ 13.66 | 1,121  | \$ 15,312.86      |
| Purchase    | 8/27/2019 | \$ 13.66 | 103    | \$ 1,406.98       |
| Purchase    | 8/27/2019 | \$ 13.66 | 176    | \$ 2,404.16       |
| Sale        | 8/27/2019 | \$ 13.64 | 500    | \$ 6,819.35       |
| Purchase    | 8/28/2019 | \$ 13.27 | 241    | \$ 3,198.62       |
| Purchase    | 8/29/2019 | \$ 13.65 | 118    | \$ 1,610.68       |
| Purchase    | 8/30/2019 | \$ 13.83 | 100    | \$ 1,383.00       |
| Purchase    | 8/30/2019 | \$ 13.67 | 30     | \$ 410.10         |
| Purchase    | 8/30/2019 | \$ 13.67 | 23     | \$ 314.41         |
| Purchase    | 8/30/2019 | \$ 13.69 | 24     | \$ 328.56         |
| Sale        | 8/30/2019 | \$ 13.67 | 59     | \$ 806.81         |
| Sale        | 8/30/2019 | \$ 13.67 | 95     | \$ 1,299.10       |
| Sale        | 8/30/2019 | \$ 13.67 | 80     | \$ 1,093.98       |
| Purchase    | 9/3/2019  | \$ 13.11 | 3,000  | \$ 39,334.80      |
| Purchase    | 9/3/2019  | \$ 13.11 | 3,000  | \$ 39,334.80      |
| Purchase    | 9/3/2019  | \$ 13.29 | 74     | \$ 983.32         |
| Sale        | 9/3/2019  | \$ 13.10 | 100    | \$ 1,309.97       |
| Purchase    | 9/4/2019  | \$ 13.28 | 5,455  | \$ 72,415.13      |
| Purchase    | 9/6/2019  | \$ 14.30 | 2,000  | \$ 28,604.00      |
| Purchase    | 9/6/2019  | \$ 14.34 | 1,000  | \$ 14,335.00      |
| Purchase    | 9/9/2019  | \$ 14.67 | 200    | \$ 2,934.00       |
| Purchase    | 9/9/2019  | \$ 14.62 | 1,000  | \$ 14,620.00      |
| Sale        | 9/11/2019 | \$ 15.77 | 66     | \$ 1,040.79       |
| Sale        | 9/11/2019 | \$ 15.35 | 833    | \$ 12,786.28      |
| Sale        | 9/11/2019 | \$ 15.76 | 6,000  | \$ 94,573.03      |
| Sale        | 9/11/2019 | \$ 15.76 | 5,700  | \$ 89,844.38      |
| Purchase    | 9/12/2019 | \$ 15.57 | 1,000  | \$ 15,572.35      |
| Purchase    | 9/12/2019 | \$ 15.75 | 114    | \$ 1,795.12       |
| Sale        | 9/12/2019 | \$ 15.66 | 116    | \$ 1,816.52       |
| Sale        | 9/12/2019 | \$ 15.59 | 183    | \$ 2,852.88       |
| Sale        | 9/13/2019 | \$ 15.74 | 2,583  | \$ 40,660.48      |
| Sale        | 9/13/2019 | \$ 15.75 | 4,166  | \$ 65,624.38      |
| Sale        | 9/13/2019 | \$ 15.75 | 10,666 | \$ 168,030.56     |
| Sale        | 9/13/2019 | \$ 15.75 | 166    | \$ 2,614.89       |
| Sale        | 9/13/2019 | \$ 15.72 | 8,000  | \$ 125,721.39     |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Sale        | 9/13/2019 | \$ 15.85 | 583    | \$ 9,237.84       |
| Purchase    | 9/16/2019 | \$ 15.83 | 78     | \$ 1,234.73       |
| Purchase    | 9/16/2019 | \$ 15.68 | 57     | \$ 893.75         |
| Purchase    | 9/16/2019 | \$ 15.68 | 74     | \$ 1,160.32       |
| Sale        | 9/16/2019 | \$ 15.66 | 83     | \$ 1,299.75       |
| Sale        | 9/16/2019 | \$ 15.72 | 8,000  | \$ 125,774.19     |
| Sale        | 9/17/2019 | \$ 15.37 | 166    | \$ 2,551.39       |
| Sale        | 9/17/2019 | \$ 15.37 | 8,000  | \$ 122,984.65     |
| Purchase    | 9/18/2019 | \$ 14.89 | 63     | \$ 938.01         |
| Sale        | 9/18/2019 | \$ 14.73 | 150    | \$ 2,209.45       |
| Sale        | 9/19/2019 | \$ 14.68 | 500    | \$ 7,339.79       |
| Sale        | 9/19/2019 | \$ 14.68 | 166    | \$ 2,436.80       |
| Purchase    | 9/20/2019 | \$ 14.48 | 192    | \$ 2,780.16       |
| Purchase    | 9/24/2019 | \$ 13.66 | 4,000  | \$ 54,652.40      |
| Purchase    | 9/24/2019 | \$ 13.66 | 4,000  | \$ 54,652.40      |
| Purchase    | 9/24/2019 | \$ 14.04 | 2,000  | \$ 28,080.00      |
| Purchase    | 9/24/2019 | \$ 14.04 | 50     | \$ 702.00         |
| Purchase    | 9/24/2019 | \$ 13.77 | 7,000  | \$ 96,371.80      |
| Purchase    | 9/24/2019 | \$ 13.62 | 300    | \$ 4,086.00       |
| Purchase    | 9/24/2019 | \$ 14.08 | 200    | \$ 2,816.19       |
| Purchase    | 9/24/2019 | \$ 13.90 | 4,000  | \$ 55,603.60      |
| Purchase    | 9/24/2019 | \$ 13.90 | 4,000  | \$ 55,603.60      |
| Sale        | 9/24/2019 | \$ 13.83 | 233    | \$ 3,223.32       |
| Sale        | 9/24/2019 | \$ 13.87 | 1,450  | \$ 20,111.52      |
| Purchase    | 9/25/2019 | \$ 13.63 | 500    | \$ 6,815.60       |
| Purchase    | 9/25/2019 | \$ 13.63 | 150    | \$ 2,044.68       |
| Purchase    | 9/25/2019 | \$ 13.63 | 150    | \$ 2,044.68       |
| Purchase    | 9/25/2019 | \$ 13.63 | 150    | \$ 2,044.68       |
| Purchase    | 9/25/2019 | \$ 13.63 | 150    | \$ 2,044.68       |
| Purchase    | 9/25/2019 | \$ 13.63 | 100    | \$ 1,363.12       |
| Purchase    | 9/25/2019 | \$ 13.78 | 4,000  | \$ 55,124.40      |
| Purchase    | 9/25/2019 | \$ 13.80 | 4,000  | \$ 55,194.80      |
| Purchase    | 9/25/2019 | \$ 13.80 | 2,500  | \$ 34,496.75      |
| Purchase    | 9/25/2019 | \$ 13.80 | 1,000  | \$ 13,798.70      |
| Purchase    | 9/25/2019 | \$ 13.78 | 5,000  | \$ 68,905.50      |
| Purchase    | 9/25/2019 | \$ 13.79 | 1,500  | \$ 20,682.00      |
| Purchase    | 9/25/2019 | \$ 13.63 | 500    | \$ 6,815.60       |
| Purchase    | 9/25/2019 | \$ 13.63 | 200    | \$ 2,726.24       |
| Purchase    | 9/25/2019 | \$ 13.63 | 200    | \$ 2,726.24       |
| Sale        | 9/25/2019 | \$ 13.55 | 16     | \$ 216.82         |
| Sale        | 9/25/2019 | \$ 13.55 | 16     | \$ 216.82         |
| Sale        | 9/25/2019 | \$ 13.55 | 33     | \$ 447.21         |
| Purchase    | 9/26/2019 | \$ 14.12 | 800    | \$ 11,298.00      |
| Sale        | 9/26/2019 | \$ 13.98 | 1,881  | \$ 26,295.65      |
| Sale        | 9/26/2019 | \$ 13.95 | 200    | \$ 2,789.94       |
| Sale        | 9/26/2019 | \$ 14.07 | 2,500  | \$ 35,175.77      |
| Sale        | 9/26/2019 | \$ 14.07 | 2,500  | \$ 35,175.77      |
| Purchase    | 9/27/2019 | \$ 14.11 | 77     | \$ 1,086.46       |
| Purchase    | 9/27/2019 | \$ 14.14 | 191    | \$ 2,700.76       |
| Sale        | 9/27/2019 | \$ 13.93 | 50     | \$ 696.48         |
| Sale        | 9/27/2019 | \$ 13.97 | 700    | \$ 9,778.79       |
| Sale        | 9/27/2019 | \$ 13.97 | 700    | \$ 9,778.79       |
| Purchase    | 9/30/2019 | \$ 14.27 | 156    | \$ 2,225.65       |
| Purchase    | 9/30/2019 | \$ 14.27 | 234    | \$ 3,338.48       |
| Purchase    | 9/30/2019 | \$ 14.27 | 309    | \$ 4,408.50       |
| Purchase    | 9/30/2019 | \$ 14.27 | 214    | \$ 3,053.14       |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 9/30/2019 | \$ 14.27 | 153    | \$ 2,182.85       |
| Purchase    | 9/30/2019 | \$ 14.27 | 36     | \$ 513.61         |
| Purchase    | 9/30/2019 | \$ 14.27 | 75     | \$ 1,070.03       |
| Purchase    | 9/30/2019 | \$ 14.27 | 94     | \$ 1,341.10       |
| Purchase    | 9/30/2019 | \$ 14.27 | 220    | \$ 3,138.74       |
| Purchase    | 9/30/2019 | \$ 14.27 | 42     | \$ 599.21         |
| Purchase    | 9/30/2019 | \$ 14.26 | 45     | \$ 641.55         |
| Purchase    | 9/30/2019 | \$ 14.27 | 147    | \$ 2,097.25       |
| Purchase    | 9/30/2019 | \$ 14.26 | 12     | \$ 171.08         |
| Purchase    | 9/30/2019 | \$ 14.26 | 9      | \$ 128.31         |
| Purchase    | 9/30/2019 | \$ 14.26 | 7      | \$ 99.80          |
| Purchase    | 9/30/2019 | \$ 14.27 | 88     | \$ 1,255.50       |
| Purchase    | 9/30/2019 | \$ 14.27 | 66     | \$ 941.62         |
| Purchase    | 9/30/2019 | \$ 14.27 | 81     | \$ 1,155.63       |
| Purchase    | 9/30/2019 | \$ 14.27 | 188    | \$ 2,682.20       |
| Purchase    | 9/30/2019 | \$ 14.27 | 99     | \$ 1,412.43       |
| Purchase    | 9/30/2019 | \$ 14.27 | 72     | \$ 1,027.22       |
| Purchase    | 9/30/2019 | \$ 14.27 | 36     | \$ 513.61         |
| Purchase    | 9/30/2019 | \$ 14.27 | 668    | \$ 9,530.36       |
| Purchase    | 9/30/2019 | \$ 14.27 | 108    | \$ 1,540.84       |
| Purchase    | 9/30/2019 | \$ 14.27 | 68     | \$ 970.16         |
| Purchase    | 9/30/2019 | \$ 14.27 | 54     | \$ 770.42         |
| Purchase    | 9/30/2019 | \$ 14.27 | 55     | \$ 784.69         |
| Purchase    | 9/30/2019 | \$ 14.27 | 55     | \$ 784.69         |
| Purchase    | 9/30/2019 | \$ 14.27 | 72     | \$ 1,027.22       |
| Purchase    | 9/30/2019 | \$ 14.27 | 135    | \$ 1,926.05       |
| Purchase    | 9/30/2019 | \$ 14.27 | 57     | \$ 813.22         |
| Purchase    | 9/30/2019 | \$ 14.27 | 76     | \$ 1,084.29       |
| Purchase    | 9/30/2019 | \$ 14.27 | 83     | \$ 1,184.16       |
| Purchase    | 9/30/2019 | \$ 14.27 | 234    | \$ 3,338.48       |
| Purchase    | 9/30/2019 | \$ 14.27 | 197    | \$ 2,810.60       |
| Purchase    | 9/30/2019 | \$ 14.27 | 197    | \$ 2,810.60       |
| Purchase    | 9/30/2019 | \$ 14.27 | 79     | \$ 1,127.09       |
| Purchase    | 9/30/2019 | \$ 14.27 | 81     | \$ 1,155.63       |
| Purchase    | 9/30/2019 | \$ 14.27 | 392    | \$ 5,592.66       |
| Purchase    | 9/30/2019 | \$ 14.27 | 100    | \$ 1,426.70       |
| Purchase    | 9/30/2019 | \$ 14.27 | 210    | \$ 2,996.07       |
| Purchase    | 9/30/2019 | \$ 14.27 | 206    | \$ 2,939.00       |
| Purchase    | 9/30/2019 | \$ 14.27 | 166    | \$ 2,368.32       |
| Purchase    | 9/30/2019 | \$ 14.26 | 8      | \$ 114.05         |
| Purchase    | 9/30/2019 | \$ 14.27 | 41     | \$ 584.95         |
| Purchase    | 9/30/2019 | \$ 14.27 | 72     | \$ 1,027.22       |
| Purchase    | 9/30/2019 | \$ 14.27 | 38     | \$ 542.15         |
| Purchase    | 9/30/2019 | \$ 14.27 | 76     | \$ 1,084.29       |
| Purchase    | 9/30/2019 | \$ 14.27 | 130    | \$ 1,854.71       |
| Purchase    | 9/30/2019 | \$ 14.26 | 10     | \$ 142.57         |
| Purchase    | 9/30/2019 | \$ 14.26 | 10     | \$ 142.57         |
| Purchase    | 9/30/2019 | \$ 14.27 | 80     | \$ 1,141.36       |
| Purchase    | 9/30/2019 | \$ 14.26 | 7      | \$ 99.80          |
| Purchase    | 9/30/2019 | \$ 14.27 | 77     | \$ 1,098.56       |
| Purchase    | 9/30/2019 | \$ 14.27 | 212    | \$ 3,024.60       |
| Purchase    | 9/30/2019 | \$ 14.27 | 66     | \$ 941.62         |
| Purchase    | 9/30/2019 | \$ 14.27 | 144    | \$ 2,054.45       |
| Purchase    | 9/30/2019 | \$ 14.27 | 317    | \$ 4,522.64       |
| Purchase    | 9/30/2019 | \$ 14.27 | 263    | \$ 3,752.22       |
| Purchase    | 9/30/2019 | \$ 14.27 | 75     | \$ 1,070.03       |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 9/30/2019 | \$ 14.27 | 93     | \$ 1,326.83       |
| Purchase    | 9/30/2019 | \$ 14.27 | 40     | \$ 570.68         |
| Purchase    | 9/30/2019 | \$ 14.27 | 75     | \$ 1,070.03       |
| Purchase    | 9/30/2019 | \$ 14.27 | 38     | \$ 542.15         |
| Purchase    | 9/30/2019 | \$ 14.27 | 40     | \$ 570.68         |
| Purchase    | 9/30/2019 | \$ 14.26 | 9      | \$ 128.31         |
| Purchase    | 9/30/2019 | \$ 14.26 | 7      | \$ 99.80          |
| Purchase    | 9/30/2019 | \$ 14.27 | 5      | \$ 71.34          |
| Purchase    | 9/30/2019 | \$ 14.27 | 1      | \$ 14.27          |
| Purchase    | 9/30/2019 | \$ 14.27 | 100    | \$ 1,426.70       |
| Purchase    | 9/30/2019 | \$ 14.26 | 21     | \$ 299.39         |
| Purchase    | 9/30/2019 | \$ 14.27 | 65     | \$ 927.36         |
| Purchase    | 9/30/2019 | \$ 14.26 | 2      | \$ 28.51          |
| Purchase    | 9/30/2019 | \$ 14.27 | 11     | \$ 156.94         |
| Purchase    | 9/30/2019 | \$ 14.27 | 51     | \$ 727.62         |
| Purchase    | 9/30/2019 | \$ 14.26 | 3      | \$ 42.77          |
| Purchase    | 9/30/2019 | \$ 14.26 | 3      | \$ 42.77          |
| Purchase    | 9/30/2019 | \$ 14.27 | 39     | \$ 556.41         |
| Purchase    | 9/30/2019 | \$ 14.27 | 45     | \$ 642.02         |
| Purchase    | 9/30/2019 | \$ 14.26 | 15     | \$ 213.85         |
| Purchase    | 9/30/2019 | \$ 14.26 | 7      | \$ 99.80          |
| Purchase    | 9/30/2019 | \$ 14.27 | 26     | \$ 370.94         |
| Purchase    | 9/30/2019 | \$ 14.26 | 8      | \$ 114.05         |
| Purchase    | 9/30/2019 | \$ 14.27 | 40     | \$ 570.68         |
| Purchase    | 9/30/2019 | \$ 14.27 | 44     | \$ 627.75         |
| Purchase    | 9/30/2019 | \$ 14.26 | 4      | \$ 57.03          |
| Purchase    | 9/30/2019 | \$ 14.27 | 1      | \$ 14.27          |
| Purchase    | 9/30/2019 | \$ 14.27 | 2      | \$ 28.53          |
| Purchase    | 9/30/2019 | \$ 14.26 | 12     | \$ 171.08         |
| Purchase    | 9/30/2019 | \$ 14.26 | 5      | \$ 71.28          |
| Purchase    | 9/30/2019 | \$ 14.26 | 16     | \$ 228.11         |
| Purchase    | 9/30/2019 | \$ 14.27 | 36     | \$ 513.61         |
| Purchase    | 9/30/2019 | \$ 14.27 | 5      | \$ 71.34          |
| Purchase    | 9/30/2019 | \$ 14.27 | 23     | \$ 328.14         |
| Purchase    | 9/30/2019 | \$ 14.27 | 47     | \$ 670.55         |
| Purchase    | 9/30/2019 | \$ 14.26 | 7      | \$ 99.80          |
| Purchase    | 9/30/2019 | \$ 14.27 | 20     | \$ 285.34         |
| Purchase    | 9/30/2019 | \$ 14.27 | 100    | \$ 1,426.70       |
| Purchase    | 9/30/2019 | \$ 14.27 | 37     | \$ 527.88         |
| Purchase    | 9/30/2019 | \$ 14.26 | 10     | \$ 142.57         |
| Purchase    | 9/30/2019 | \$ 14.27 | 18     | \$ 256.81         |
| Purchase    | 9/30/2019 | \$ 14.27 | 273    | \$ 3,894.89       |
| Purchase    | 9/30/2019 | \$ 14.27 | 54     | \$ 770.42         |
| Purchase    | 9/30/2019 | \$ 14.27 | 28     | \$ 399.48         |
| Purchase    | 9/30/2019 | \$ 14.27 | 9      | \$ 128.40         |
| Purchase    | 9/30/2019 | \$ 14.27 | 4      | \$ 57.07          |
| Purchase    | 9/30/2019 | \$ 14.26 | 7      | \$ 99.80          |
| Purchase    | 9/30/2019 | \$ 14.27 | 12     | \$ 171.20         |
| Purchase    | 9/30/2019 | \$ 14.27 | 5      | \$ 71.34          |
| Purchase    | 9/30/2019 | \$ 14.27 | 4      | \$ 57.07          |
| Purchase    | 9/30/2019 | \$ 14.27 | 5      | \$ 71.34          |
| Purchase    | 9/30/2019 | \$ 14.27 | 6      | \$ 85.60          |
| Sale        | 9/30/2019 | \$ 14.02 | 700    | \$ 9,815.82       |
| Sale        | 9/30/2019 | \$ 14.02 | 700    | \$ 9,815.82       |
| Purchase    | 10/1/2019 | \$ 13.71 | 3,000  | \$ 41,116.20      |
| Purchase    | 10/1/2019 | \$ 13.71 | 3,000  | \$ 41,116.20      |

## Exhibit 1

| Transaction | Date       | Price    | Shares | Transaction Total |
|-------------|------------|----------|--------|-------------------|
| Sale        | 10/1/2019  | \$ 13.60 | 2,700  | \$ 36,723.28      |
| Purchase    | 10/2/2019  | \$ 13.53 | 500    | \$ 6,764.10       |
| Purchase    | 10/2/2019  | \$ 13.53 | 100    | \$ 1,352.82       |
| Sale        | 10/2/2019  | \$ 13.30 | 66     | \$ 877.78         |
| Purchase    | 10/3/2019  | \$ 13.40 | 67     | \$ 897.57         |
| Sale        | 10/4/2019  | \$ 13.47 | 83     | \$ 1,117.98       |
| Sale        | 10/4/2019  | \$ 13.51 | 130    | \$ 1,755.69       |
| Purchase    | 10/7/2019  | \$ 13.94 | 148    | \$ 2,062.68       |
| Sale        | 10/7/2019  | \$ 13.52 | 166    | \$ 2,244.27       |
| Purchase    | 10/8/2019  | \$ 14.11 | 64     | \$ 903.04         |
| Purchase    | 10/8/2019  | \$ 14.09 | 331    | \$ 4,662.40       |
| Sale        | 10/8/2019  | \$ 14.07 | 600    | \$ 8,441.82       |
| Sale        | 10/9/2019  | \$ 13.77 | 2,000  | \$ 27,539.02      |
| Sale        | 10/9/2019  | \$ 13.77 | 666    | \$ 9,170.49       |
| Purchase    | 10/10/2019 | \$ 14.20 | 2,200  | \$ 31,233.18      |
| Sale        | 10/11/2019 | \$ 14.68 | 150    | \$ 2,202.09       |
| Sale        | 10/11/2019 | \$ 14.33 | 33     | \$ 473.02         |
| Sale        | 10/11/2019 | \$ 14.33 | 83     | \$ 1,189.72       |
| Sale        | 10/11/2019 | \$ 14.33 | 50     | \$ 716.70         |
| Sale        | 10/11/2019 | \$ 14.33 | 66     | \$ 946.04         |
| Purchase    | 10/14/2019 | \$ 14.01 | 54     | \$ 756.54         |
| Sale        | 10/14/2019 | \$ 14.09 | 186    | \$ 2,621.06       |
| Sale        | 10/15/2019 | \$ 14.44 | 800    | \$ 11,548.24      |
| Sale        | 10/15/2019 | \$ 14.44 | 2,584  | \$ 37,300.81      |
| Sale        | 10/15/2019 | \$ 14.44 | 1,350  | \$ 19,487.65      |
| Sale        | 10/15/2019 | \$ 14.61 | 2,500  | \$ 36,522.74      |
| Sale        | 10/16/2019 | \$ 14.64 | 25     | \$ 365.99         |
| Sale        | 10/16/2019 | \$ 14.64 | 83     | \$ 1,215.22       |
| Sale        | 10/16/2019 | \$ 14.64 | 42     | \$ 614.86         |
| Sale        | 10/16/2019 | \$ 14.64 | 83     | \$ 1,215.09       |
| Sale        | 10/16/2019 | \$ 14.80 | 54     | \$ 799.12         |
| Sale        | 10/16/2019 | \$ 14.80 | 81     | \$ 1,198.69       |
| Sale        | 10/16/2019 | \$ 14.80 | 106    | \$ 1,568.65       |
| Sale        | 10/16/2019 | \$ 14.80 | 74     | \$ 1,095.10       |
| Sale        | 10/16/2019 | \$ 14.80 | 53     | \$ 784.32         |
| Sale        | 10/16/2019 | \$ 14.80 | 24     | \$ 355.16         |
| Sale        | 10/16/2019 | \$ 14.80 | 26     | \$ 384.76         |
| Sale        | 10/16/2019 | \$ 14.80 | 32     | \$ 473.55         |
| Sale        | 10/16/2019 | \$ 14.80 | 76     | \$ 1,124.70       |
| Sale        | 10/16/2019 | \$ 14.80 | 28     | \$ 414.36         |
| Sale        | 10/16/2019 | \$ 14.79 | 166    | \$ 2,454.87       |
| Sale        | 10/16/2019 | \$ 14.80 | 77     | \$ 1,139.50       |
| Sale        | 10/16/2019 | \$ 14.79 | 45     | \$ 665.48         |
| Sale        | 10/16/2019 | \$ 14.79 | 32     | \$ 473.23         |
| Sale        | 10/16/2019 | \$ 14.79 | 25     | \$ 369.71         |
| Sale        | 10/16/2019 | \$ 14.80 | 30     | \$ 443.96         |
| Sale        | 10/16/2019 | \$ 14.80 | 22     | \$ 325.57         |
| Sale        | 10/16/2019 | \$ 14.80 | 56     | \$ 828.72         |
| Sale        | 10/16/2019 | \$ 14.80 | 132    | \$ 1,953.41       |
| Sale        | 10/16/2019 | \$ 14.80 | 34     | \$ 503.15         |
| Sale        | 10/16/2019 | \$ 14.80 | 25     | \$ 369.96         |
| Sale        | 10/16/2019 | \$ 14.80 | 25     | \$ 369.96         |
| Sale        | 10/16/2019 | \$ 14.80 | 244    | \$ 3,610.86       |
| Sale        | 10/16/2019 | \$ 14.80 | 37     | \$ 547.55         |
| Sale        | 10/16/2019 | \$ 14.80 | 24     | \$ 355.16         |
| Sale        | 10/16/2019 | \$ 14.80 | 19     | \$ 281.17         |

## Exhibit 1

| Transaction | Date       | Price    | Shares | Transaction Total |
|-------------|------------|----------|--------|-------------------|
| Sale        | 10/16/2019 | \$ 14.80 | 19     | \$ 281.17         |
| Sale        | 10/16/2019 | \$ 14.80 | 19     | \$ 281.17         |
| Sale        | 10/16/2019 | \$ 14.80 | 25     | \$ 369.96         |
| Sale        | 10/16/2019 | \$ 14.80 | 20     | \$ 295.97         |
| Sale        | 10/16/2019 | \$ 14.80 | 26     | \$ 384.76         |
| Sale        | 10/16/2019 | \$ 14.80 | 29     | \$ 429.16         |
| Sale        | 10/16/2019 | \$ 14.80 | 81     | \$ 1,198.69       |
| Sale        | 10/16/2019 | \$ 14.80 | 68     | \$ 1,006.31       |
| Sale        | 10/16/2019 | \$ 14.80 | 68     | \$ 1,006.31       |
| Sale        | 10/16/2019 | \$ 14.80 | 27     | \$ 399.56         |
| Sale        | 10/16/2019 | \$ 14.80 | 28     | \$ 414.36         |
| Sale        | 10/16/2019 | \$ 14.80 | 146    | \$ 2,160.60       |
| Sale        | 10/16/2019 | \$ 14.80 | 34     | \$ 503.15         |
| Sale        | 10/16/2019 | \$ 14.80 | 21     | \$ 310.77         |
| Sale        | 10/16/2019 | \$ 14.80 | 194    | \$ 2,870.93       |
| Sale        | 10/16/2019 | \$ 14.80 | 58     | \$ 858.32         |
| Sale        | 10/16/2019 | \$ 14.79 | 28     | \$ 414.07         |
| Sale        | 10/16/2019 | \$ 14.80 | 17     | \$ 251.57         |
| Sale        | 10/16/2019 | \$ 14.80 | 26     | \$ 384.76         |
| Sale        | 10/16/2019 | \$ 14.80 | 19     | \$ 281.17         |
| Sale        | 10/16/2019 | \$ 14.80 | 27     | \$ 399.56         |
| Sale        | 10/16/2019 | \$ 14.80 | 45     | \$ 665.94         |
| Sale        | 10/16/2019 | \$ 14.79 | 35     | \$ 517.59         |
| Sale        | 10/16/2019 | \$ 14.79 | 37     | \$ 547.17         |
| Sale        | 10/16/2019 | \$ 14.80 | 26     | \$ 384.76         |
| Sale        | 10/16/2019 | \$ 14.79 | 26     | \$ 384.50         |
| Sale        | 10/16/2019 | \$ 14.80 | 26     | \$ 384.76         |
| Sale        | 10/16/2019 | \$ 14.80 | 70     | \$ 1,035.90       |
| Sale        | 10/16/2019 | \$ 14.80 | 35     | \$ 517.95         |
| Sale        | 10/16/2019 | \$ 14.80 | 49     | \$ 725.13         |
| Sale        | 10/16/2019 | \$ 14.80 | 133    | \$ 1,968.21       |
| Sale        | 10/16/2019 | \$ 14.80 | 105    | \$ 1,553.85       |
| Sale        | 10/16/2019 | \$ 14.80 | 53     | \$ 784.32         |
| Sale        | 10/16/2019 | \$ 14.80 | 65     | \$ 961.91         |
| Sale        | 10/16/2019 | \$ 14.80 | 27     | \$ 399.56         |
| Sale        | 10/16/2019 | \$ 14.80 | 51     | \$ 754.72         |
| Sale        | 10/16/2019 | \$ 14.80 | 25     | \$ 369.96         |
| Sale        | 10/16/2019 | \$ 14.80 | 26     | \$ 384.76         |
| Sale        | 10/16/2019 | \$ 14.79 | 33     | \$ 488.02         |
| Sale        | 10/16/2019 | \$ 14.79 | 26     | \$ 384.50         |
| Sale        | 10/16/2019 | \$ 14.80 | 76     | \$ 1,124.70       |
| Sale        | 10/16/2019 | \$ 14.80 | 36     | \$ 532.75         |
| Sale        | 10/16/2019 | \$ 14.80 | 52     | \$ 769.52         |
| Sale        | 10/16/2019 | \$ 14.80 | 15     | \$ 221.97         |
| Sale        | 10/16/2019 | \$ 14.79 | 60     | \$ 887.30         |
| Sale        | 10/16/2019 | \$ 14.80 | 35     | \$ 517.95         |
| Sale        | 10/16/2019 | \$ 14.79 | 13     | \$ 192.24         |
| Sale        | 10/16/2019 | \$ 14.80 | 33     | \$ 488.35         |
| Sale        | 10/16/2019 | \$ 14.80 | 26     | \$ 384.76         |
| Sale        | 10/16/2019 | \$ 14.79 | 13     | \$ 192.24         |
| Sale        | 10/16/2019 | \$ 14.80 | 23     | \$ 340.36         |
| Sale        | 10/16/2019 | \$ 14.80 | 26     | \$ 384.76         |
| Sale        | 10/16/2019 | \$ 14.79 | 54     | \$ 798.57         |
| Sale        | 10/16/2019 | \$ 14.79 | 26     | \$ 384.50         |
| Sale        | 10/16/2019 | \$ 14.80 | 17     | \$ 251.57         |
| Sale        | 10/16/2019 | \$ 14.79 | 27     | \$ 399.28         |

## Exhibit 1

| Transaction | Date       | Price    | Shares | Transaction Total |
|-------------|------------|----------|--------|-------------------|
| Sale        | 10/16/2019 | \$ 14.80 | 24     | \$ 355.16         |
| Sale        | 10/16/2019 | \$ 14.80 | 26     | \$ 384.76         |
| Sale        | 10/16/2019 | \$ 14.79 | 13     | \$ 192.24         |
| Sale        | 10/16/2019 | \$ 14.80 | 15     | \$ 221.97         |
| Sale        | 10/16/2019 | \$ 14.80 | 39     | \$ 577.15         |
| Sale        | 10/16/2019 | \$ 14.79 | 44     | \$ 650.69         |
| Sale        | 10/16/2019 | \$ 14.79 | 17     | \$ 251.40         |
| Sale        | 10/16/2019 | \$ 14.79 | 44     | \$ 650.69         |
| Sale        | 10/16/2019 | \$ 14.80 | 21     | \$ 310.77         |
| Sale        | 10/16/2019 | \$ 14.80 | 15     | \$ 221.97         |
| Sale        | 10/16/2019 | \$ 14.80 | 13     | \$ 192.38         |
| Sale        | 10/16/2019 | \$ 14.80 | 26     | \$ 384.76         |
| Sale        | 10/16/2019 | \$ 14.79 | 27     | \$ 399.28         |
| Sale        | 10/16/2019 | \$ 14.80 | 13     | \$ 192.38         |
| Sale        | 10/16/2019 | \$ 14.80 | 64     | \$ 947.11         |
| Sale        | 10/16/2019 | \$ 14.80 | 26     | \$ 384.76         |
| Sale        | 10/16/2019 | \$ 14.79 | 34     | \$ 502.81         |
| Sale        | 10/16/2019 | \$ 14.80 | 13     | \$ 192.38         |
| Sale        | 10/16/2019 | \$ 14.80 | 203    | \$ 3,004.12       |
| Sale        | 10/16/2019 | \$ 14.80 | 15     | \$ 221.97         |
| Sale        | 10/16/2019 | \$ 14.80 | 16     | \$ 236.77         |
| Sale        | 10/16/2019 | \$ 14.80 | 28     | \$ 414.36         |
| Sale        | 10/16/2019 | \$ 14.80 | 13     | \$ 192.38         |
| Sale        | 10/16/2019 | \$ 14.79 | 30     | \$ 443.65         |
| Sale        | 10/16/2019 | \$ 14.80 | 61     | \$ 902.71         |
| Sale        | 10/16/2019 | \$ 14.79 | 65     | \$ 961.25         |
| Sale        | 10/16/2019 | \$ 14.80 | 32     | \$ 473.55         |
| Sale        | 10/16/2019 | \$ 14.80 | 51     | \$ 754.72         |
| Sale        | 10/16/2019 | \$ 14.80 | 15     | \$ 221.97         |
| Sale        | 10/16/2019 | \$ 14.80 | 563    | \$ 8,331.61       |
| Sale        | 10/16/2019 | \$ 14.80 | 13     | \$ 192.38         |
| Sale        | 10/16/2019 | \$ 14.80 | 17     | \$ 251.57         |
| Sale        | 10/16/2019 | \$ 14.80 | 17     | \$ 251.57         |
| Sale        | 10/16/2019 | \$ 14.80 | 40     | \$ 591.95         |
| Sale        | 10/16/2019 | \$ 14.80 | 14     | \$ 207.17         |
| Sale        | 10/16/2019 | \$ 14.80 | 29     | \$ 429.16         |
| Sale        | 10/16/2019 | \$ 14.80 | 11     | \$ 162.78         |
| Sale        | 10/16/2019 | \$ 14.80 | 58     | \$ 858.32         |
| Sale        | 10/16/2019 | \$ 14.80 | 2      | \$ 29.59          |
| Sale        | 10/17/2019 | \$ 14.97 | 50     | \$ 748.48         |
| Sale        | 10/17/2019 | \$ 14.97 | 50     | \$ 748.48         |
| Sale        | 10/17/2019 | \$ 14.88 | 450    | \$ 6,697.44       |
| Sale        | 10/17/2019 | \$ 14.88 | 266    | \$ 3,958.92       |
| Purchase    | 10/18/2019 | \$ 14.82 | 250    | \$ 3,705.00       |
| Purchase    | 10/18/2019 | \$ 14.82 | 700    | \$ 10,374.00      |
| Purchase    | 10/18/2019 | \$ 14.79 | 3,384  | \$ 50,046.31      |
| Sale        | 10/18/2019 | \$ 14.75 | 583    | \$ 8,597.90       |
| Sale        | 10/18/2019 | \$ 14.75 | 1,000  | \$ 14,747.69      |
| Sale        | 10/18/2019 | \$ 14.75 | 33     | \$ 486.66         |
| Sale        | 10/18/2019 | \$ 14.83 | 2,100  | \$ 31,138.57      |
| Sale        | 10/18/2019 | \$ 14.80 | 1,267  | \$ 18,753.74      |
| Sale        | 10/18/2019 | \$ 14.80 | 2,700  | \$ 39,959.17      |
| Sale        | 10/21/2019 | \$ 15.05 | 1,117  | \$ 16,807.71      |
| Sale        | 10/21/2019 | \$ 15.06 | 65     | \$ 979.00         |
| Sale        | 10/22/2019 | \$ 15.17 | 26     | \$ 394.54         |
| Purchase    | 10/23/2019 | \$ 9.16  | 700    | \$ 6,413.12       |



## Exhibit 1

| Transaction | Date       | Price   | Shares | Transaction Total |
|-------------|------------|---------|--------|-------------------|
| Purchase    | 10/23/2019 | \$ 9.16 | 1,000  | \$ 9,161.60       |
| Purchase    | 10/23/2019 | \$ 9.16 | 700    | \$ 6,413.12       |
| Purchase    | 10/23/2019 | \$ 8.99 | 350    | \$ 3,145.87       |
| Purchase    | 10/23/2019 | \$ 9.16 | 800    | \$ 7,329.28       |
| Purchase    | 10/23/2019 | \$ 9.05 | 2,100  | \$ 18,999.12      |
| Purchase    | 10/23/2019 | \$ 8.99 | 1,200  | \$ 10,785.84      |
| Purchase    | 10/23/2019 | \$ 9.16 | 1,500  | \$ 13,742.40      |
| Purchase    | 10/23/2019 | \$ 9.05 | 1,100  | \$ 9,951.92       |
| Purchase    | 10/23/2019 | \$ 9.16 | 7,000  | \$ 64,131.20      |
| Purchase    | 10/23/2019 | \$ 9.16 | 1,900  | \$ 17,407.04      |
| Purchase    | 10/23/2019 | \$ 9.16 | 3,300  | \$ 30,233.28      |
| Purchase    | 10/23/2019 | \$ 8.99 | 700    | \$ 6,291.74       |
| Purchase    | 10/23/2019 | \$ 9.16 | 1,100  | \$ 10,077.76      |
| Purchase    | 10/23/2019 | \$ 9.16 | 1,100  | \$ 10,077.76      |
| Purchase    | 10/23/2019 | \$ 9.16 | 550    | \$ 5,038.88       |
| Purchase    | 10/23/2019 | \$ 9.16 | 2,200  | \$ 20,155.52      |
| Purchase    | 10/23/2019 | \$ 9.16 | 1,100  | \$ 10,077.76      |
| Purchase    | 10/23/2019 | \$ 9.05 | 550    | \$ 4,974.81       |
| Purchase    | 10/23/2019 | \$ 9.16 | 450    | \$ 4,122.72       |
| Purchase    | 10/23/2019 | \$ 9.05 | 950    | \$ 8,592.85       |
| Purchase    | 10/23/2019 | \$ 9.04 | 350    | \$ 3,162.67       |
| Purchase    | 10/23/2019 | \$ 9.16 | 450    | \$ 4,122.72       |
| Purchase    | 10/23/2019 | \$ 9.05 | 700    | \$ 6,333.04       |
| Purchase    | 10/23/2019 | \$ 9.16 | 800    | \$ 7,329.28       |
| Purchase    | 10/23/2019 | \$ 9.48 | 5,000  | \$ 47,399.00      |
| Purchase    | 10/23/2019 | \$ 9.17 | 177    | \$ 1,622.84       |
| Purchase    | 10/24/2019 | \$ 9.32 | 3,000  | \$ 27,966.90      |
| Purchase    | 10/24/2019 | \$ 9.30 | 3,000  | \$ 27,904.20      |
| Purchase    | 10/24/2019 | \$ 9.30 | 3,000  | \$ 27,904.20      |
| Purchase    | 10/24/2019 | \$ 9.28 | 5,000  | \$ 46,388.50      |
| Sale        | 10/24/2019 | \$ 9.18 | 1,600  | \$ 14,688.65      |
| Purchase    | 10/25/2019 | \$ 9.33 | 300    | \$ 2,799.00       |
| Purchase    | 10/25/2019 | \$ 9.42 | 300    | \$ 2,827.14       |
| Purchase    | 10/25/2019 | \$ 9.42 | 350    | \$ 3,298.33       |
| Purchase    | 10/25/2019 | \$ 9.42 | 350    | \$ 3,298.33       |
| Purchase    | 10/25/2019 | \$ 9.42 | 350    | \$ 3,298.33       |
| Purchase    | 10/25/2019 | \$ 9.42 | 300    | \$ 2,827.14       |
| Purchase    | 10/25/2019 | \$ 9.42 | 300    | \$ 2,827.14       |
| Purchase    | 10/25/2019 | \$ 9.42 | 2,000  | \$ 18,847.60      |
| Purchase    | 10/25/2019 | \$ 9.42 | 350    | \$ 3,298.33       |
| Purchase    | 10/25/2019 | \$ 9.42 | 150    | \$ 1,413.57       |
| Purchase    | 10/25/2019 | \$ 9.42 | 450    | \$ 4,240.71       |
| Purchase    | 10/25/2019 | \$ 9.42 | 600    | \$ 5,654.28       |
| Purchase    | 10/25/2019 | \$ 9.42 | 170    | \$ 1,602.05       |
| Purchase    | 10/25/2019 | \$ 9.42 | 200    | \$ 1,884.76       |
| Sale        | 10/25/2019 | \$ 9.31 | 300    | \$ 2,793.48       |
| Sale        | 10/25/2019 | \$ 9.31 | 300    | \$ 2,793.48       |
| Sale        | 10/25/2019 | \$ 9.31 | 900    | \$ 8,380.44       |
| Sale        | 10/25/2019 | \$ 9.31 | 900    | \$ 8,380.44       |
| Sale        | 10/25/2019 | \$ 9.31 | 700    | \$ 6,518.12       |
| Sale        | 10/25/2019 | \$ 9.31 | 1,500  | \$ 13,967.40      |
| Sale        | 10/25/2019 | \$ 9.31 | 300    | \$ 2,793.48       |
| Sale        | 10/25/2019 | \$ 9.31 | 900    | \$ 8,380.44       |
| Sale        | 10/25/2019 | \$ 9.31 | 900    | \$ 8,380.44       |
| Purchase    | 10/28/2019 | \$ 9.32 | 17,048 | \$ 158,967.43     |
| Purchase    | 10/28/2019 | \$ 9.37 | 1,300  | \$ 12,179.83      |

## Exhibit 1

| Transaction | Date       | Price   | Shares | Transaction Total |
|-------------|------------|---------|--------|-------------------|
| Purchase    | 10/28/2019 | \$ 9.37 | 700    | \$ 6,558.37       |
| Purchase    | 10/28/2019 | \$ 9.37 | 2,500  | \$ 23,422.75      |
| Purchase    | 10/28/2019 | \$ 9.37 | 1,700  | \$ 15,927.47      |
| Purchase    | 10/28/2019 | \$ 9.37 | 1,200  | \$ 11,242.92      |
| Purchase    | 10/29/2019 | \$ 9.12 | 113    | \$ 1,030.35       |
| Purchase    | 10/30/2019 | \$ 9.27 | 1,000  | \$ 9,265.90       |
| Purchase    | 10/30/2019 | \$ 9.26 | 2,100  | \$ 19,450.83      |
| Purchase    | 10/30/2019 | \$ 9.26 | 600    | \$ 5,556.00       |
| Purchase    | 10/30/2019 | \$ 9.26 | 500    | \$ 4,630.00       |
| Purchase    | 10/30/2019 | \$ 9.26 | 500    | \$ 4,630.00       |
| Purchase    | 10/30/2019 | \$ 9.26 | 500    | \$ 4,628.10       |
| Purchase    | 10/30/2019 | \$ 9.30 | 5,000  | \$ 46,511.50      |
| Purchase    | 10/30/2019 | \$ 9.26 | 300    | \$ 2,776.86       |
| Purchase    | 10/30/2019 | \$ 9.25 | 600    | \$ 5,550.24       |
| Purchase    | 10/30/2019 | \$ 9.25 | 1,000  | \$ 9,250.40       |
| Purchase    | 10/30/2019 | \$ 9.27 | 400    | \$ 3,706.36       |
| Purchase    | 10/30/2019 | \$ 9.26 | 2,800  | \$ 25,917.36      |
| Purchase    | 10/30/2019 | \$ 9.26 | 1,000  | \$ 9,256.20       |
| Purchase    | 10/30/2019 | \$ 9.26 | 700    | \$ 6,479.34       |
| Purchase    | 10/30/2019 | \$ 9.27 | 200    | \$ 1,853.18       |
| Purchase    | 10/30/2019 | \$ 9.26 | 1,900  | \$ 17,586.78      |
| Purchase    | 10/30/2019 | \$ 9.26 | 700    | \$ 6,479.34       |
| Purchase    | 10/30/2019 | \$ 9.25 | 1,900  | \$ 17,575.76      |
| Purchase    | 10/30/2019 | \$ 9.26 | 800    | \$ 7,411.19       |
| Purchase    | 10/30/2019 | \$ 9.28 | 200    | \$ 1,856.51       |
| Purchase    | 10/30/2019 | \$ 9.26 | 1,500  | \$ 13,884.30      |
| Purchase    | 10/30/2019 | \$ 9.27 | 2,000  | \$ 18,531.80      |
| Purchase    | 10/30/2019 | \$ 9.27 | 2,000  | \$ 18,531.80      |
| Purchase    | 10/30/2019 | \$ 9.27 | 800    | \$ 7,412.72       |
| Purchase    | 10/30/2019 | \$ 9.27 | 400    | \$ 3,706.36       |
| Purchase    | 10/30/2019 | \$ 9.27 | 4,000  | \$ 37,063.60      |
| Purchase    | 10/30/2019 | \$ 9.27 | 1,800  | \$ 16,678.62      |
| Purchase    | 10/30/2019 | \$ 9.25 | 1,300  | \$ 12,025.00      |
| Purchase    | 10/30/2019 | \$ 9.26 | 750    | \$ 6,945.00       |
| Purchase    | 10/30/2019 | \$ 9.25 | 1,800  | \$ 16,650.00      |
| Purchase    | 10/30/2019 | \$ 9.25 | 1,000  | \$ 9,250.00       |
| Purchase    | 10/30/2019 | \$ 9.26 | 2,500  | \$ 23,140.50      |
| Purchase    | 10/30/2019 | \$ 9.25 | 700    | \$ 6,475.00       |
| Purchase    | 10/30/2019 | \$ 9.26 | 2,100  | \$ 19,438.02      |
| Purchase    | 10/30/2019 | \$ 9.26 | 350    | \$ 3,239.67       |
| Purchase    | 10/30/2019 | \$ 9.30 | 1,900  | \$ 17,674.37      |
| Purchase    | 10/30/2019 | \$ 9.25 | 500    | \$ 4,625.00       |
| Purchase    | 10/30/2019 | \$ 9.27 | 1,500  | \$ 13,898.85      |
| Purchase    | 10/30/2019 | \$ 9.25 | 350    | \$ 3,237.50       |
| Purchase    | 10/30/2019 | \$ 9.27 | 2,300  | \$ 21,311.57      |
| Purchase    | 10/30/2019 | \$ 9.27 | 550    | \$ 5,096.25       |
| Purchase    | 10/30/2019 | \$ 9.27 | 600    | \$ 5,559.54       |
| Purchase    | 10/30/2019 | \$ 9.27 | 200    | \$ 1,853.18       |
| Purchase    | 10/30/2019 | \$ 9.27 | 900    | \$ 8,339.31       |
| Purchase    | 10/30/2019 | \$ 9.26 | 1,000  | \$ 9,256.20       |
| Purchase    | 10/30/2019 | \$ 9.28 | 3,400  | \$ 31,552.00      |
| Purchase    | 10/30/2019 | \$ 9.26 | 1,100  | \$ 10,188.53      |
| Purchase    | 10/30/2019 | \$ 9.28 | 64     | \$ 593.91         |
| Purchase    | 10/30/2019 | \$ 9.30 | 3,000  | \$ 27,906.90      |
| Purchase    | 10/30/2019 | \$ 9.26 | 1,500  | \$ 13,890.00      |
| Purchase    | 10/30/2019 | \$ 9.30 | 800    | \$ 7,441.84       |

## Exhibit 1

| Transaction | Date       | Price   | Shares | Transaction Total |
|-------------|------------|---------|--------|-------------------|
| Purchase    | 10/30/2019 | \$ 9.30 | 800    | \$ 7,441.84       |
| Purchase    | 10/31/2019 | \$ 9.32 | 700    | \$ 6,524.07       |
| Purchase    | 10/31/2019 | \$ 9.31 | 3,500  | \$ 32,571.70      |
| Purchase    | 10/31/2019 | \$ 9.31 | 1,000  | \$ 9,306.20       |
| Purchase    | 10/31/2019 | \$ 9.22 | 500    | \$ 4,609.20       |
| Purchase    | 10/31/2019 | \$ 9.22 | 800    | \$ 7,374.72       |
| Purchase    | 10/31/2019 | \$ 9.32 | 400    | \$ 3,728.04       |
| Purchase    | 10/31/2019 | \$ 9.32 | 200    | \$ 1,864.02       |
| Purchase    | 10/31/2019 | \$ 9.32 | 350    | \$ 3,262.04       |
| Purchase    | 10/31/2019 | \$ 9.32 | 1,200  | \$ 11,184.12      |
| Purchase    | 10/31/2019 | \$ 9.22 | 500    | \$ 4,609.20       |
| Purchase    | 10/31/2019 | \$ 9.32 | 700    | \$ 6,524.07       |
| Purchase    | 10/31/2019 | \$ 9.32 | 700    | \$ 6,524.07       |
| Purchase    | 10/31/2019 | \$ 9.32 | 500    | \$ 4,660.05       |
| Purchase    | 10/31/2019 | \$ 9.32 | 600    | \$ 5,592.06       |
| Purchase    | 10/31/2019 | \$ 9.23 | 1,000  | \$ 9,229.90       |
| Purchase    | 10/31/2019 | \$ 9.32 | 700    | \$ 6,524.07       |
| Purchase    | 10/31/2019 | \$ 9.22 | 1,600  | \$ 14,749.44      |
| Purchase    | 10/31/2019 | \$ 9.22 | 100    | \$ 921.84         |
| Purchase    | 10/31/2019 | \$ 9.22 | 100    | \$ 921.84         |
| Purchase    | 10/31/2019 | \$ 9.22 | 200    | \$ 1,843.68       |
| Purchase    | 10/31/2019 | \$ 9.22 | 386    | \$ 3,558.30       |
| Purchase    | 10/31/2019 | \$ 9.22 | 1,062  | \$ 9,789.94       |
| Purchase    | 10/31/2019 | \$ 9.22 | 1,691  | \$ 15,588.31      |
| Purchase    | 10/31/2019 | \$ 9.22 | 500    | \$ 4,609.20       |
| Purchase    | 10/31/2019 | \$ 9.22 | 290    | \$ 2,673.34       |
| Purchase    | 10/31/2019 | \$ 9.22 | 48     | \$ 442.48         |
| Purchase    | 10/31/2019 | \$ 9.22 | 241    | \$ 2,221.63       |
| Purchase    | 10/31/2019 | \$ 9.22 | 724    | \$ 6,674.12       |
| Purchase    | 10/31/2019 | \$ 9.22 | 483    | \$ 4,452.49       |
| Purchase    | 10/31/2019 | \$ 9.22 | 724    | \$ 6,674.12       |
| Purchase    | 10/31/2019 | \$ 9.22 | 386    | \$ 3,558.30       |
| Purchase    | 10/31/2019 | \$ 9.22 | 290    | \$ 2,673.34       |
| Purchase    | 10/31/2019 | \$ 9.22 | 724    | \$ 6,674.12       |
| Purchase    | 10/31/2019 | \$ 9.22 | 241    | \$ 2,221.63       |
| Purchase    | 10/31/2019 | \$ 9.22 | 394    | \$ 3,632.05       |
| Purchase    | 10/31/2019 | \$ 9.22 | 917    | \$ 8,453.27       |
| Purchase    | 10/31/2019 | \$ 9.22 | 628    | \$ 5,789.16       |
| Purchase    | 10/31/2019 | \$ 9.22 | 300    | \$ 2,765.52       |
| Purchase    | 10/31/2019 | \$ 9.22 | 400    | \$ 3,687.36       |
| Purchase    | 10/31/2019 | \$ 9.22 | 200    | \$ 1,843.68       |
| Purchase    | 10/31/2019 | \$ 9.22 | 700    | \$ 6,452.88       |
| Purchase    | 10/31/2019 | \$ 9.22 | 500    | \$ 4,609.20       |
| Purchase    | 10/31/2019 | \$ 9.22 | 400    | \$ 3,687.36       |
| Purchase    | 10/31/2019 | \$ 9.22 | 500    | \$ 4,609.20       |
| Purchase    | 10/31/2019 | \$ 9.22 | 200    | \$ 1,843.68       |
| Purchase    | 10/31/2019 | \$ 9.22 | 500    | \$ 4,609.20       |
| Purchase    | 10/31/2019 | \$ 9.22 | 100    | \$ 921.84         |
| Purchase    | 10/31/2019 | \$ 9.22 | 300    | \$ 2,765.52       |
| Purchase    | 10/31/2019 | \$ 9.22 | 200    | \$ 1,843.68       |
| Purchase    | 10/31/2019 | \$ 9.22 | 1,300  | \$ 11,983.92      |
| Purchase    | 10/31/2019 | \$ 9.22 | 700    | \$ 6,452.88       |
| Purchase    | 10/31/2019 | \$ 9.32 | 1,500  | \$ 13,980.15      |
| Purchase    | 10/31/2019 | \$ 9.22 | 400    | \$ 3,687.36       |
| Purchase    | 10/31/2019 | \$ 9.22 | 800    | \$ 7,374.72       |
| Purchase    | 10/31/2019 | \$ 9.22 | 1,500  | \$ 13,827.60      |

## Exhibit 1

| Transaction | Date       | Price   | Shares | Transaction Total |
|-------------|------------|---------|--------|-------------------|
| Purchase    | 10/31/2019 | \$ 9.22 | 300    | \$ 2,765.52       |
| Purchase    | 10/31/2019 | \$ 9.33 | 600    | \$ 5,598.00       |
| Purchase    | 10/31/2019 | \$ 9.31 | 1,400  | \$ 13,028.68      |
| Purchase    | 10/31/2019 | \$ 9.16 | 700    | \$ 6,413.19       |
| Purchase    | 10/31/2019 | \$ 9.32 | 800    | \$ 7,456.08       |
| Purchase    | 10/31/2019 | \$ 9.32 | 200    | \$ 1,864.02       |
| Purchase    | 10/31/2019 | \$ 9.32 | 1,000  | \$ 9,320.10       |
| Purchase    | 10/31/2019 | \$ 9.32 | 1,500  | \$ 13,980.15      |
| Purchase    | 10/31/2019 | \$ 9.32 | 1,500  | \$ 13,980.15      |
| Purchase    | 10/31/2019 | \$ 9.32 | 1,884  | \$ 17,559.07      |
| Purchase    | 10/31/2019 | \$ 9.32 | 900    | \$ 8,388.09       |
| Purchase    | 10/31/2019 | \$ 9.32 | 800    | \$ 7,456.08       |
| Purchase    | 10/31/2019 | \$ 9.32 | 800    | \$ 7,456.08       |
| Purchase    | 10/31/2019 | \$ 9.32 | 450    | \$ 4,194.05       |
| Sale        | 10/31/2019 | \$ 9.33 | 9,000  | \$ 84,013.25      |
| Purchase    | 11/1/2019  | \$ 9.77 | 1,500  | \$ 14,658.15      |
| Purchase    | 11/1/2019  | \$ 9.77 | 1,600  | \$ 15,635.36      |
| Purchase    | 11/1/2019  | \$ 9.77 | 1,020  | \$ 9,967.54       |
| Purchase    | 11/1/2019  | \$ 9.40 | 200    | \$ 1,880.00       |
| Purchase    | 11/1/2019  | \$ 9.40 | 100    | \$ 940.00         |
| Purchase    | 11/1/2019  | \$ 9.40 | 50     | \$ 470.00         |
| Purchase    | 11/1/2019  | \$ 9.40 | 200    | \$ 1,880.00       |
| Purchase    | 11/1/2019  | \$ 9.40 | 52     | \$ 488.80         |
| Purchase    | 11/1/2019  | \$ 9.40 | 15     | \$ 141.00         |
| Purchase    | 11/1/2019  | \$ 9.40 | 250    | \$ 2,350.00       |
| Purchase    | 11/1/2019  | \$ 9.40 | 200    | \$ 1,880.00       |
| Purchase    | 11/1/2019  | \$ 9.40 | 200    | \$ 1,880.00       |
| Purchase    | 11/1/2019  | \$ 9.40 | 100    | \$ 940.00         |
| Purchase    | 11/1/2019  | \$ 9.77 | 500    | \$ 4,886.05       |
| Purchase    | 11/1/2019  | \$ 9.77 | 600    | \$ 5,863.26       |
| Purchase    | 11/1/2019  | \$ 9.77 | 300    | \$ 2,931.63       |
| Purchase    | 11/1/2019  | \$ 9.40 | 250    | \$ 2,350.00       |
| Purchase    | 11/1/2019  | \$ 9.40 | 100    | \$ 940.00         |
| Purchase    | 11/1/2019  | \$ 9.71 | 188    | \$ 1,826.16       |
| Purchase    | 11/1/2019  | \$ 9.71 | 281    | \$ 2,729.52       |
| Purchase    | 11/1/2019  | \$ 9.71 | 375    | \$ 3,642.60       |
| Purchase    | 11/1/2019  | \$ 9.71 | 259    | \$ 2,515.82       |
| Purchase    | 11/1/2019  | \$ 9.71 | 185    | \$ 1,797.02       |
| Purchase    | 11/1/2019  | \$ 9.71 | 85     | \$ 825.66         |
| Purchase    | 11/1/2019  | \$ 9.71 | 90     | \$ 874.22         |
| Purchase    | 11/1/2019  | \$ 9.71 | 112    | \$ 1,087.92       |
| Purchase    | 11/1/2019  | \$ 9.71 | 265    | \$ 2,574.10       |
| Purchase    | 11/1/2019  | \$ 9.71 | 97     | \$ 942.22         |
| Purchase    | 11/1/2019  | \$ 9.72 | 585    | \$ 5,684.68       |
| Purchase    | 11/1/2019  | \$ 9.71 | 270    | \$ 2,622.67       |
| Purchase    | 11/1/2019  | \$ 9.72 | 159    | \$ 1,545.07       |
| Purchase    | 11/1/2019  | \$ 9.72 | 111    | \$ 1,078.63       |
| Purchase    | 11/1/2019  | \$ 9.72 | 89     | \$ 864.85         |
| Purchase    | 11/1/2019  | \$ 9.71 | 106    | \$ 1,029.64       |
| Purchase    | 11/1/2019  | \$ 9.71 | 79     | \$ 767.37         |
| Purchase    | 11/1/2019  | \$ 9.71 | 196    | \$ 1,903.87       |
| Purchase    | 11/1/2019  | \$ 9.71 | 463    | \$ 4,497.40       |
| Purchase    | 11/1/2019  | \$ 9.71 | 119    | \$ 1,155.92       |
| Purchase    | 11/1/2019  | \$ 9.71 | 87     | \$ 845.08         |
| Purchase    | 11/1/2019  | \$ 9.71 | 86     | \$ 835.37         |
| Purchase    | 11/1/2019  | \$ 9.71 | 857    | \$ 8,324.56       |

## Exhibit 1

| Transaction | Date      | Price   | Shares | Transaction Total |
|-------------|-----------|---------|--------|-------------------|
| Purchase    | 11/1/2019 | \$ 9.71 | 131    | \$ 1,272.48       |
| Purchase    | 11/1/2019 | \$ 9.71 | 82     | \$ 796.52         |
| Purchase    | 11/1/2019 | \$ 9.71 | 65     | \$ 631.38         |
| Purchase    | 11/1/2019 | \$ 9.71 | 66     | \$ 641.10         |
| Purchase    | 11/1/2019 | \$ 9.71 | 66     | \$ 641.10         |
| Purchase    | 11/1/2019 | \$ 9.71 | 88     | \$ 854.80         |
| Purchase    | 11/1/2019 | \$ 9.71 | 70     | \$ 679.95         |
| Purchase    | 11/1/2019 | \$ 9.71 | 92     | \$ 893.65         |
| Purchase    | 11/1/2019 | \$ 9.71 | 100    | \$ 971.36         |
| Purchase    | 11/1/2019 | \$ 9.71 | 282    | \$ 2,739.24       |
| Purchase    | 11/1/2019 | \$ 9.71 | 193    | \$ 1,874.72       |
| Purchase    | 11/1/2019 | \$ 9.71 | 239    | \$ 2,321.55       |
| Purchase    | 11/1/2019 | \$ 9.71 | 97     | \$ 942.22         |
| Purchase    | 11/1/2019 | \$ 9.71 | 98     | \$ 951.93         |
| Purchase    | 11/1/2019 | \$ 9.71 | 509    | \$ 4,944.22       |
| Purchase    | 11/1/2019 | \$ 9.71 | 121    | \$ 1,175.35       |
| Purchase    | 11/1/2019 | \$ 9.71 | 299    | \$ 2,904.37       |
| Purchase    | 11/1/2019 | \$ 9.71 | 685    | \$ 6,653.82       |
| Purchase    | 11/1/2019 | \$ 9.71 | 202    | \$ 1,962.15       |
| Purchase    | 11/1/2019 | \$ 9.72 | 99     | \$ 962.02         |
| Purchase    | 11/1/2019 | \$ 9.71 | 61     | \$ 592.53         |
| Purchase    | 11/1/2019 | \$ 9.71 | 91     | \$ 883.94         |
| Purchase    | 11/1/2019 | \$ 9.71 | 68     | \$ 660.52         |
| Purchase    | 11/1/2019 | \$ 9.71 | 95     | \$ 922.79         |
| Purchase    | 11/1/2019 | \$ 9.71 | 159    | \$ 1,544.46       |
| Purchase    | 11/1/2019 | \$ 9.72 | 124    | \$ 1,204.96       |
| Purchase    | 11/1/2019 | \$ 9.72 | 128    | \$ 1,243.83       |
| Purchase    | 11/1/2019 | \$ 9.71 | 93     | \$ 903.36         |
| Purchase    | 11/1/2019 | \$ 9.72 | 90     | \$ 874.57         |
| Purchase    | 11/1/2019 | \$ 9.71 | 90     | \$ 874.22         |
| Purchase    | 11/1/2019 | \$ 9.71 | 122    | \$ 1,185.06       |
| Purchase    | 11/1/2019 | \$ 9.71 | 171    | \$ 1,661.03       |
| Purchase    | 11/1/2019 | \$ 9.71 | 461    | \$ 4,477.97       |
| Purchase    | 11/1/2019 | \$ 9.71 | 367    | \$ 3,564.89       |
| Purchase    | 11/1/2019 | \$ 9.71 | 185    | \$ 1,797.02       |
| Purchase    | 11/1/2019 | \$ 9.71 | 225    | \$ 2,185.56       |
| Purchase    | 11/1/2019 | \$ 9.71 | 94     | \$ 913.08         |
| Purchase    | 11/1/2019 | \$ 9.71 | 179    | \$ 1,738.73       |
| Purchase    | 11/1/2019 | \$ 9.71 | 87     | \$ 845.08         |
| Purchase    | 11/1/2019 | \$ 9.71 | 91     | \$ 883.94         |
| Purchase    | 11/1/2019 | \$ 9.72 | 129    | \$ 1,253.54       |
| Purchase    | 11/1/2019 | \$ 9.72 | 92     | \$ 894.00         |
| Purchase    | 11/1/2019 | \$ 9.71 | 272    | \$ 2,642.10       |
| Purchase    | 11/1/2019 | \$ 9.71 | 125    | \$ 1,214.20       |
| Purchase    | 11/1/2019 | \$ 9.71 | 184    | \$ 1,787.30       |
| Purchase    | 11/1/2019 | \$ 9.71 | 55     | \$ 534.25         |
| Purchase    | 11/1/2019 | \$ 9.72 | 257    | \$ 2,497.37       |
| Purchase    | 11/1/2019 | \$ 9.71 | 122    | \$ 1,185.06       |
| Purchase    | 11/1/2019 | \$ 9.72 | 47     | \$ 456.72         |
| Purchase    | 11/1/2019 | \$ 9.71 | 117    | \$ 1,136.49       |
| Purchase    | 11/1/2019 | \$ 9.71 | 91     | \$ 883.94         |
| Purchase    | 11/1/2019 | \$ 9.72 | 47     | \$ 456.72         |
| Purchase    | 11/1/2019 | \$ 9.71 | 81     | \$ 786.80         |
| Purchase    | 11/1/2019 | \$ 9.71 | 94     | \$ 913.08         |
| Purchase    | 11/1/2019 | \$ 9.72 | 94     | \$ 913.44         |
| Purchase    | 11/1/2019 | \$ 9.71 | 60     | \$ 582.82         |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 11/1/2019 | \$ 9.72  | 94     | \$ 913.44         |
| Purchase    | 11/1/2019 | \$ 9.71  | 84     | \$ 815.94         |
| Purchase    | 11/1/2019 | \$ 9.71  | 91     | \$ 883.94         |
| Purchase    | 11/1/2019 | \$ 9.72  | 43     | \$ 417.85         |
| Purchase    | 11/1/2019 | \$ 9.71  | 53     | \$ 514.82         |
| Purchase    | 11/1/2019 | \$ 9.71  | 138    | \$ 1,340.48       |
| Purchase    | 11/1/2019 | \$ 9.72  | 98     | \$ 952.31         |
| Purchase    | 11/1/2019 | \$ 9.72  | 60     | \$ 583.04         |
| Purchase    | 11/1/2019 | \$ 9.72  | 242    | \$ 2,351.61       |
| Purchase    | 11/1/2019 | \$ 9.71  | 72     | \$ 699.38         |
| Purchase    | 11/1/2019 | \$ 9.71  | 54     | \$ 524.53         |
| Purchase    | 11/1/2019 | \$ 9.71  | 45     | \$ 437.11         |
| Purchase    | 11/1/2019 | \$ 9.71  | 90     | \$ 874.22         |
| Purchase    | 11/1/2019 | \$ 9.72  | 98     | \$ 952.31         |
| Purchase    | 11/1/2019 | \$ 9.71  | 45     | \$ 437.11         |
| Purchase    | 11/1/2019 | \$ 9.71  | 226    | \$ 2,195.27       |
| Purchase    | 11/1/2019 | \$ 9.71  | 92     | \$ 893.65         |
| Purchase    | 11/1/2019 | \$ 9.72  | 129    | \$ 1,253.54       |
| Purchase    | 11/1/2019 | \$ 9.71  | 45     | \$ 437.11         |
| Purchase    | 11/1/2019 | \$ 9.71  | 716    | \$ 6,954.94       |
| Purchase    | 11/1/2019 | \$ 9.71  | 164    | \$ 1,593.03       |
| Purchase    | 11/1/2019 | \$ 9.71  | 57     | \$ 553.68         |
| Purchase    | 11/1/2019 | \$ 9.71  | 99     | \$ 961.65         |
| Purchase    | 11/1/2019 | \$ 9.71  | 48     | \$ 466.25         |
| Purchase    | 11/1/2019 | \$ 9.72  | 106    | \$ 1,030.04       |
| Purchase    | 11/1/2019 | \$ 9.71  | 216    | \$ 2,098.14       |
| Purchase    | 11/1/2019 | \$ 9.72  | 203    | \$ 1,972.63       |
| Purchase    | 11/1/2019 | \$ 9.71  | 114    | \$ 1,107.35       |
| Purchase    | 11/1/2019 | \$ 9.71  | 179    | \$ 1,738.73       |
| Purchase    | 11/1/2019 | \$ 9.71  | 54     | \$ 524.53         |
| Purchase    | 11/1/2019 | \$ 9.71  | 4,480  | \$ 43,516.93      |
| Purchase    | 11/1/2019 | \$ 9.71  | 45     | \$ 437.11         |
| Purchase    | 11/1/2019 | \$ 9.71  | 59     | \$ 573.10         |
| Purchase    | 11/1/2019 | \$ 9.71  | 56     | \$ 543.96         |
| Purchase    | 11/1/2019 | \$ 9.71  | 138    | \$ 1,340.48       |
| Purchase    | 11/1/2019 | \$ 9.71  | 48     | \$ 466.25         |
| Purchase    | 11/1/2019 | \$ 9.71  | 109    | \$ 1,058.78       |
| Purchase    | 11/1/2019 | \$ 9.71  | 48     | \$ 466.25         |
| Purchase    | 11/1/2019 | \$ 9.71  | 251    | \$ 2,438.11       |
| Purchase    | 11/1/2019 | \$ 9.71  | 21     | \$ 203.99         |
| Purchase    | 11/1/2019 | \$ 9.71  | 30     | \$ 291.41         |
| Purchase    | 11/1/2019 | \$ 9.72  | 20     | \$ 194.35         |
| Purchase    | 11/1/2019 | \$ 9.77  | 1,016  | \$ 9,928.45       |
| Sale        | 11/1/2019 | \$ 9.51  | 83     | \$ 789.31         |
| Sale        | 11/1/2019 | \$ 9.61  | 800    | \$ 7,687.84       |
| Sale        | 11/1/2019 | \$ 9.61  | 266    | \$ 2,556.24       |
| Sale        | 11/1/2019 | \$ 9.68  | 206    | \$ 1,994.04       |
| Purchase    | 11/4/2019 | \$ 10.04 | 250    | \$ 2,509.35       |
| Purchase    | 11/4/2019 | \$ 10.04 | 300    | \$ 3,011.22       |
| Purchase    | 11/4/2019 | \$ 10.04 | 600    | \$ 6,022.44       |
| Purchase    | 11/4/2019 | \$ 10.04 | 800    | \$ 8,029.92       |
| Purchase    | 11/4/2019 | \$ 10.04 | 300    | \$ 3,011.22       |
| Purchase    | 11/4/2019 | \$ 10.00 | 600    | \$ 6,001.14       |
| Purchase    | 11/4/2019 | \$ 10.00 | 900    | \$ 9,001.71       |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,600  | \$ 16,059.84      |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,600  | \$ 16,059.84      |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 11/4/2019 | \$ 10.04 | 780    | \$ 7,829.17       |
| Purchase    | 11/4/2019 | \$ 10.04 | 250    | \$ 2,509.35       |
| Purchase    | 11/4/2019 | \$ 10.04 | 500    | \$ 5,018.70       |
| Purchase    | 11/4/2019 | \$ 10.00 | 600    | \$ 6,001.14       |
| Purchase    | 11/4/2019 | \$ 10.04 | 400    | \$ 4,014.96       |
| Purchase    | 11/4/2019 | \$ 10.04 | 700    | \$ 7,026.18       |
| Purchase    | 11/4/2019 | \$ 10.04 | 350    | \$ 3,513.09       |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,000  | \$ 10,037.40      |
| Purchase    | 11/4/2019 | \$ 10.04 | 700    | \$ 7,026.18       |
| Purchase    | 11/4/2019 | \$ 10.04 | 600    | \$ 6,022.44       |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,500  | \$ 15,056.10      |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,100  | \$ 11,041.14      |
| Purchase    | 11/4/2019 | \$ 10.04 | 2,300  | \$ 23,086.02      |
| Purchase    | 11/4/2019 | \$ 10.04 | 2,500  | \$ 25,093.50      |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,200  | \$ 12,044.88      |
| Purchase    | 11/4/2019 | \$ 10.04 | 600    | \$ 6,022.44       |
| Purchase    | 11/4/2019 | \$ 10.04 | 800    | \$ 8,029.92       |
| Purchase    | 11/4/2019 | \$ 10.05 | 700    | \$ 7,036.96       |
| Purchase    | 11/4/2019 | \$ 10.04 | 2,500  | \$ 25,093.50      |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,591  | \$ 15,969.50      |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,100  | \$ 11,041.14      |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,500  | \$ 15,056.10      |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,400  | \$ 14,052.36      |
| Purchase    | 11/4/2019 | \$ 10.04 | 2,000  | \$ 20,074.80      |
| Purchase    | 11/4/2019 | \$ 10.04 | 700    | \$ 7,026.18       |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,300  | \$ 13,048.62      |
| Purchase    | 11/4/2019 | \$ 10.04 | 400    | \$ 4,014.96       |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,050  | \$ 10,539.27      |
| Purchase    | 11/4/2019 | \$ 10.04 | 500    | \$ 5,018.70       |
| Purchase    | 11/4/2019 | \$ 10.04 | 500    | \$ 5,018.70       |
| Purchase    | 11/4/2019 | \$ 10.04 | 500    | \$ 5,018.70       |
| Purchase    | 11/4/2019 | \$ 10.04 | 500    | \$ 5,018.70       |
| Purchase    | 11/4/2019 | \$ 10.04 | 450    | \$ 4,516.83       |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,100  | \$ 11,041.14      |
| Purchase    | 11/4/2019 | \$ 10.00 | 1,450  | \$ 14,502.76      |
| Purchase    | 11/4/2019 | \$ 10.04 | 800    | \$ 8,029.92       |
| Purchase    | 11/4/2019 | \$ 10.04 | 300    | \$ 3,011.22       |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,700  | \$ 17,063.58      |
| Purchase    | 11/4/2019 | \$ 10.00 | 414    | \$ 4,140.79       |
| Purchase    | 11/4/2019 | \$ 10.00 | 1,138  | \$ 11,382.16      |
| Purchase    | 11/4/2019 | \$ 10.00 | 1,809  | \$ 18,093.44      |
| Purchase    | 11/4/2019 | \$ 10.00 | 500    | \$ 5,000.95       |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,200  | \$ 12,044.88      |
| Purchase    | 11/4/2019 | \$ 10.00 | 310    | \$ 3,100.59       |
| Purchase    | 11/4/2019 | \$ 10.00 | 244    | \$ 2,440.46       |
| Purchase    | 11/4/2019 | \$ 10.00 | 776    | \$ 7,761.47       |
| Purchase    | 11/4/2019 | \$ 10.00 | 517    | \$ 5,170.98       |
| Purchase    | 11/4/2019 | \$ 10.00 | 776    | \$ 7,761.47       |
| Purchase    | 11/4/2019 | \$ 10.00 | 414    | \$ 4,140.79       |
| Purchase    | 11/4/2019 | \$ 10.00 | 310    | \$ 3,100.59       |
| Purchase    | 11/4/2019 | \$ 10.00 | 776    | \$ 7,761.47       |
| Purchase    | 11/4/2019 | \$ 10.00 | 259    | \$ 2,590.49       |
| Purchase    | 11/4/2019 | \$ 10.10 | 700    | \$ 7,073.35       |
| Purchase    | 11/4/2019 | \$ 10.00 | 423    | \$ 4,230.80       |
| Purchase    | 11/4/2019 | \$ 10.00 | 983    | \$ 9,831.87       |
| Purchase    | 11/4/2019 | \$ 10.00 | 672    | \$ 6,721.28       |

## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 11/4/2019 | \$ 10.00 | 400    | \$ 4,000.76       |
| Purchase    | 11/4/2019 | \$ 10.00 | 800    | \$ 8,001.52       |
| Purchase    | 11/4/2019 | \$ 10.00 | 500    | \$ 5,000.95       |
| Purchase    | 11/4/2019 | \$ 10.00 | 467    | \$ 4,670.89       |
| Purchase    | 11/4/2019 | \$ 10.00 | 500    | \$ 5,000.95       |
| Purchase    | 11/4/2019 | \$ 10.00 | 600    | \$ 6,001.14       |
| Purchase    | 11/4/2019 | \$ 10.00 | 200    | \$ 2,000.00       |
| Purchase    | 11/4/2019 | \$ 10.00 | 400    | \$ 4,000.76       |
| Purchase    | 11/4/2019 | \$ 10.00 | 300    | \$ 3,000.57       |
| Purchase    | 11/4/2019 | \$ 10.00 | 1,000  | \$ 10,000.00      |
| Purchase    | 11/4/2019 | \$ 10.00 | 1,200  | \$ 12,002.28      |
| Purchase    | 11/4/2019 | \$ 10.00 | 800    | \$ 8,001.52       |
| Purchase    | 11/4/2019 | \$ 10.00 | 500    | \$ 5,000.95       |
| Purchase    | 11/4/2019 | \$ 10.00 | 900    | \$ 9,001.71       |
| Purchase    | 11/4/2019 | \$ 10.00 | 1,500  | \$ 15,002.85      |
| Purchase    | 11/4/2019 | \$ 10.04 | 1,200  | \$ 12,044.88      |
| Purchase    | 11/5/2019 | \$ 10.49 | 23,313 | \$ 244,615.07     |
| Purchase    | 11/5/2019 | \$ 10.55 | 500    | \$ 5,274.95       |
| Purchase    | 11/5/2019 | \$ 10.55 | 1,109  | \$ 11,699.84      |
| Purchase    | 11/5/2019 | \$ 10.55 | 6,619  | \$ 69,829.79      |
| Purchase    | 11/5/2019 | \$ 10.55 | 619    | \$ 6,530.39       |
| Purchase    | 11/5/2019 | \$ 10.55 | 1,062  | \$ 11,203.99      |
| Purchase    | 11/5/2019 | \$ 10.55 | 250    | \$ 2,637.48       |
| Purchase    | 11/5/2019 | \$ 10.55 | 2,900  | \$ 30,594.71      |
| Purchase    | 11/5/2019 | \$ 10.40 | 2,400  | \$ 24,963.12      |
| Purchase    | 11/5/2019 | \$ 10.44 | 4,000  | \$ 41,748.40      |
| Purchase    | 11/5/2019 | \$ 10.44 | 1,000  | \$ 10,437.10      |
| Purchase    | 11/5/2019 | \$ 10.44 | 1,100  | \$ 11,480.81      |
| Purchase    | 11/5/2019 | \$ 10.44 | 600    | \$ 6,262.26       |
| Purchase    | 11/5/2019 | \$ 10.44 | 600    | \$ 6,262.26       |
| Purchase    | 11/5/2019 | \$ 10.42 | 1,300  | \$ 13,546.00      |
| Purchase    | 11/5/2019 | \$ 10.44 | 1,200  | \$ 12,524.52      |
| Purchase    | 11/5/2019 | \$ 10.44 | 4,000  | \$ 41,748.40      |
| Purchase    | 11/5/2019 | \$ 10.44 | 2,500  | \$ 26,092.75      |
| Purchase    | 11/5/2019 | \$ 10.44 | 900    | \$ 9,393.39       |
| Purchase    | 11/5/2019 | \$ 10.55 | 1,100  | \$ 11,604.89      |
| Purchase    | 11/5/2019 | \$ 10.55 | 800    | \$ 8,439.92       |
| Purchase    | 11/5/2019 | \$ 10.55 | 1,100  | \$ 11,604.89      |
| Purchase    | 11/5/2019 | \$ 10.55 | 1,300  | \$ 13,714.87      |
| Purchase    | 11/5/2019 | \$ 10.55 | 900    | \$ 9,494.91       |
| Purchase    | 11/5/2019 | \$ 10.55 | 1,200  | \$ 12,659.88      |
| Purchase    | 11/5/2019 | \$ 10.55 | 800    | \$ 8,439.92       |
| Purchase    | 11/5/2019 | \$ 10.55 | 3,400  | \$ 35,869.66      |
| Purchase    | 11/5/2019 | \$ 10.55 | 650    | \$ 6,857.44       |
| Purchase    | 11/5/2019 | \$ 10.55 | 100    | \$ 1,054.99       |
| Purchase    | 11/5/2019 | \$ 10.55 | 700    | \$ 7,384.93       |
| Purchase    | 11/5/2019 | \$ 10.40 | 2,500  | \$ 26,003.25      |
| Purchase    | 11/5/2019 | \$ 10.55 | 3,000  | \$ 31,649.70      |
| Purchase    | 11/6/2019 | \$ 10.08 | 300    | \$ 3,025.47       |
| Purchase    | 11/6/2019 | \$ 10.08 | 200    | \$ 2,016.98       |
| Purchase    | 11/6/2019 | \$ 10.08 | 200    | \$ 2,016.98       |
| Purchase    | 11/6/2019 | \$ 10.08 | 200    | \$ 2,016.98       |
| Purchase    | 11/6/2019 | \$ 10.08 | 200    | \$ 2,016.98       |
| Purchase    | 11/6/2019 | \$ 10.08 | 250    | \$ 2,521.23       |
| Purchase    | 11/6/2019 | \$ 10.08 | 1,100  | \$ 11,093.39      |
| Purchase    | 11/6/2019 | \$ 10.08 | 200    | \$ 2,016.98       |



## Exhibit 1

| Transaction | Date      | Price    | Shares | Transaction Total |
|-------------|-----------|----------|--------|-------------------|
| Purchase    | 11/6/2019 | \$ 10.08 | 200    | \$ 2,016.98       |
| Purchase    | 11/6/2019 | \$ 10.08 | 400    | \$ 4,033.96       |
| Purchase    | 11/6/2019 | \$ 10.08 | 110    | \$ 1,109.34       |
| Purchase    | 11/6/2019 | \$ 10.08 | 150    | \$ 1,512.74       |
| Purchase    | 11/6/2019 | \$ 10.08 | 500    | \$ 5,042.45       |
| Purchase    | 11/6/2019 | \$ 10.04 | 800    | \$ 8,035.52       |
| Purchase    | 11/6/2019 | \$ 10.10 | 1,300  | \$ 13,132.60      |
| Purchase    | 11/6/2019 | \$ 10.11 | 300    | \$ 3,034.32       |
| Purchase    | 11/6/2019 | \$ 10.10 | 1,600  | \$ 16,161.70      |
| Purchase    | 11/6/2019 | \$ 10.04 | 1,000  | \$ 10,044.40      |
| Purchase    | 11/6/2019 | \$ 10.15 | 2,000  | \$ 20,298.00      |
| Purchase    | 11/6/2019 | \$ 10.21 | 3,000  | \$ 30,625.80      |
| Purchase    | 11/6/2019 | \$ 10.21 | 1,100  | \$ 11,229.46      |
| Purchase    | 11/6/2019 | \$ 10.21 | 1,500  | \$ 15,312.90      |
| Purchase    | 11/6/2019 | \$ 10.21 | 700    | \$ 7,146.02       |
| Purchase    | 11/6/2019 | \$ 10.21 | 700    | \$ 7,146.02       |
| Purchase    | 11/6/2019 | \$ 10.13 | 5,700  | \$ 57,731.31      |
| Purchase    | 11/6/2019 | \$ 10.21 | 1,300  | \$ 13,271.18      |
| Purchase    | 11/6/2019 | \$ 10.21 | 5,500  | \$ 56,147.30      |
| Purchase    | 11/6/2019 | \$ 10.21 | 3,000  | \$ 30,625.80      |
| Purchase    | 11/6/2019 | \$ 10.04 | 1,000  | \$ 10,044.40      |
| Purchase    | 11/6/2019 | \$ 10.13 | 6,000  | \$ 60,769.80      |
| Purchase    | 11/6/2019 | \$ 10.12 | 2,200  | \$ 22,273.68      |
| Purchase    | 11/6/2019 | \$ 10.13 | 2,800  | \$ 28,359.24      |
| Purchase    | 11/6/2019 | \$ 10.15 | 1,300  | \$ 13,193.70      |
| Purchase    | 11/6/2019 | \$ 10.15 | 700    | \$ 7,104.30       |

# **EXHIBIT C**

**CERTIFICATION**

I, Ian Wylie, am Partner and Chief Operating Officer of Naya Capital Management UK Limited and hereby certify as follows:

1. In my capacity as Partner and Chief Operating Officer of Naya Capital Management UK Limited, I am personally authorized to enter into and executed this certification on behalf of Naya 1740 Fund Ltd, Naya Coldwater Fund Limited, Naya Master Fund LP, and Nayawood LP (together, "Naya").

2. I have reviewed a complaint prepared against Resideo Technologies, Inc. ("Resideo") alleging violations of the federal securities laws, and authorize the filing of this pleading;

3. Naya did not transact in the stock of Resideo at the direction of counsel or in order to participate in any private action under the federal securities laws;

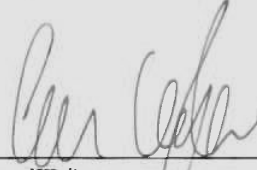
4. Naya is willing to serve as a lead plaintiff and representative party in this matter, including providing testimony at deposition and trial, if necessary. Naya fully understands the duties and responsibilities of the lead plaintiff under the Private Securities Litigation Reform Act, including the selection and retention of counsel and overseeing the prosecution of the action for the Class;

5. Naya's transactions in Resideo stock are reflected in Exhibit A attached hereto;

6. Naya has not sought to serve as a lead plaintiff and/or representative party in any class action filed under the federal securities laws during the last three years;

7. Beyond Naya's pro rata share of any recovery, I will not accept payment for serving as a lead plaintiff and representative party on behalf of the Class, except the reimbursement of such reasonable costs and expenses (including lost wages) as ordered or approved by the Court.

I declare under penalty of perjury, under the laws of the United States, that the foregoing is true and correct this 3rd day of January, 2020.



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*Ian Wylie*  
Partner and Chief Operating Officer of  
Naya Capital Management UK Limited,  
Authorized Signatory for *Naya 1740 Fund Ltd*,  
*Naya Coldwater Fund Limited*, *Naya Master Fund*  
*LP*, and *Nayawood LP*

## EXHIBIT A

TRANSACTIONS IN RESIDEO TECHNOLOGIES, INC.

| Fund                        | Transaction Type | Trade Date | Shares     | Price Per Share | Cost / Proceeds |
|-----------------------------|------------------|------------|------------|-----------------|-----------------|
| Naya 1740 Fund Ltd          | Buy              | 04/24/19   | 12,080.00  | \$21.5842       | (\$260,736.53)  |
| Naya 1740 Fund Ltd          | Buy              | 04/25/19   | 18,200.00  | \$21.6342       | (\$393,741.86)  |
| Naya 1740 Fund Ltd          | Buy              | 04/26/19   | 9,100.00   | \$22.3205       | (\$203,116.17)  |
| Naya 1740 Fund Ltd          | Buy              | 04/26/19   | 2,600.00   | \$22.0230       | (\$57,259.86)   |
| Naya 1740 Fund Ltd          | Buy              | 04/29/19   | 9,300.00   | \$22.6652       | (\$210,786.08)  |
| Naya 1740 Fund Ltd          | Buy              | 05/08/19   | 8,500.00   | \$22.8397       | (\$194,137.53)  |
| Naya 1740 Fund Ltd          | Buy              | 05/08/19   | 12,600.00  | \$22.9164       | (\$288,746.20)  |
| Naya 1740 Fund Ltd          | Buy              | 05/09/19   | 18,400.00  | \$22.3984       | (\$412,130.84)  |
| Naya 1740 Fund Ltd          | Buy              | 05/10/19   | 7,000.00   | \$23.7778       | (\$166,444.30)  |
| Naya 1740 Fund Ltd          | Buy              | 05/23/19   | 12,434.00  | \$20.2850       | (\$252,223.69)  |
| Naya 1740 Fund Ltd          | Buy              | 06/07/19   | 26,203.00  | \$20.5222       | (\$537,743.76)  |
| Naya 1740 Fund Ltd          | Buy              | 06/07/19   | 5,300.00   | \$20.5798       | (\$109,072.78)  |
| Naya 1740 Fund Ltd          | Buy              | 06/07/19   | 200.00     | \$20.5362       | (\$4,107.24)    |
| Naya 1740 Fund Ltd          | Buy              | 06/12/19   | 11,300.00  | \$20.7288       | (\$234,235.20)  |
| Naya 1740 Fund Ltd          | Buy              | 06/13/19   | 15,700.00  | \$20.8131       | (\$326,765.32)  |
| Naya 1740 Fund Ltd          | Sell             | 06/28/19   | -3,550.00  | \$21.9200       | \$77,816.00     |
| Naya 1740 Fund Ltd          | Sell             | 08/07/19   | -1,400.00  | \$16.8040       | \$23,525.55     |
| Naya 1740 Fund Ltd          | Sell             | 08/07/19   | -12,100.00 | \$16.6711       | \$201,720.09    |
| Naya 1740 Fund Ltd          | Sell             | 08/08/19   | -4,800.00  | \$17.3643       | \$83,348.75     |
| Naya 1740 Fund Ltd          | Sell             | 08/08/19   | -11,900.00 | \$17.2962       | \$205,824.78    |
| Naya 1740 Fund Ltd          | Sell             | 08/14/19   | -15,800.00 | \$14.4950       | \$229,020.92    |
| Naya 1740 Fund Ltd          | Sell             | 08/15/19   | -14,000.00 | \$14.1314       | \$197,839.29    |
| Naya 1740 Fund Ltd          | Sell             | 08/16/19   | -10,800.00 | \$14.5271       | \$156,892.95    |
| Naya 1740 Fund Ltd          | Sell             | 08/16/19   | -8,600.00  | \$14.2444       | \$122,501.99    |
| Naya 1740 Fund Ltd          | Sell             | 08/19/19   | -10,700.00 | \$14.7212       | \$157,516.66    |
| Naya 1740 Fund Ltd          | Sell             | 08/20/19   | -10,500.00 | \$14.4559       | \$151,786.50    |
| Naya 1740 Fund Ltd          | Sell             | 08/21/19   | -5,600.00  | \$14.1186       | \$79,064.04     |
| Naya 1740 Fund Ltd          | Sell             | 08/22/19   | -5,400.00  | \$14.4308       | \$77,926.07     |
| Naya 1740 Fund Ltd          | Sell             | 08/22/19   | -16,100.00 | \$14.2695       | \$229,739.00    |
| Naya 1740 Fund Ltd          | Sell             | 08/22/19   | -16,100.00 | \$14.4620       | \$232,837.83    |
| Naya 1740 Fund Ltd          | Sell             | 08/23/19   | -8,891.00  | \$13.7946       | \$122,648.07    |
| Naya 1740 Fund Ltd          | Sell             | 08/26/19   | -12,676.00 | \$13.6224       | \$172,677.54    |
|                             |                  |            |            |                 |                 |
| Naya Coldwater Fund Limited | Buy              | 04/24/19   | 2,860.00   | \$21.5842       | (\$61,730.67)   |
| Naya Coldwater Fund Limited | Buy              | 04/25/19   | 3,900.00   | \$21.6342       | (\$84,373.26)   |
| Naya Coldwater              | Buy              | 04/26/19   | 2,000.00   | \$22.3205       | (\$44,640.92)   |

| Fund                        | Transaction Type | Trade Date | Shares     | Price Per Share | Cost / Proceeds |
|-----------------------------|------------------|------------|------------|-----------------|-----------------|
| Fund Limited                |                  |            |            |                 |                 |
| Naya Coldwater Fund Limited | Buy              | 04/26/19   | 600.00     | \$22.0230       | (\$13,213.81)   |
| Naya Coldwater Fund Limited | Buy              | 04/29/19   | 2,100.00   | \$22.6652       | (\$47,596.86)   |
| Naya Coldwater Fund Limited | Buy              | 04/30/19   | 4,528.00   | \$22.7000       | (\$102,785.60)  |
| Naya Coldwater Fund Limited | Buy              | 05/08/19   | 4,500.00   | \$22.9164       | (\$103,123.64)  |
| Naya Coldwater Fund Limited | Buy              | 05/08/19   | 3,100.00   | \$22.8397       | (\$70,803.10)   |
| Naya Coldwater Fund Limited | Buy              | 05/09/19   | 4,800.00   | \$22.3984       | (\$107,512.39)  |
| Naya Coldwater Fund Limited | Buy              | 05/10/19   | 2,200.00   | \$23.7778       | (\$52,311.07)   |
| Naya Coldwater Fund Limited | Buy              | 05/23/19   | 9,066.00   | \$20.2850       | (\$183,903.81)  |
| Naya Coldwater Fund Limited | Buy              | 05/31/19   | 27,890.00  | \$19.6800       | (\$548,875.20)  |
| Naya Coldwater Fund Limited | Buy              | 06/07/19   | 6,714.00   | \$20.5222       | (\$137,786.19)  |
| Naya Coldwater Fund Limited | Buy              | 06/07/19   | 2,900.00   | \$20.5798       | (\$59,681.33)   |
| Naya Coldwater Fund Limited | Buy              | 06/07/19   | 100.00     | \$20.5362       | (\$2,053.62)    |
| Naya Coldwater Fund Limited | Buy              | 06/12/19   | 6,200.00   | \$20.7288       | (\$128,518.43)  |
| Naya Coldwater Fund Limited | Buy              | 06/13/19   | 8,600.00   | \$20.8131       | (\$178,992.47)  |
| Naya Coldwater Fund Limited | Sell             | 06/18/19   | -1,885.00  | \$21.0812       | \$39,738.00     |
| Naya Coldwater Fund Limited | Buy              | 06/28/19   | 10,000.00  | \$21.9200       | (\$219,200.00)  |
| Naya Coldwater Fund Limited | Buy              | 07/02/19   | 2,486.00   | \$21.7306       | (\$54,022.18)   |
| Naya Coldwater Fund Limited | Buy              | 07/10/19   | 3,229.00   | \$22.0497       | (\$71,198.46)   |
| Naya Coldwater Fund Limited | Buy              | 07/31/19   | 39,867.00  | \$18.8600       | (\$751,891.62)  |
| Naya Coldwater Fund Limited | Sell             | 08/07/19   | -10,700.00 | \$16.6711       | \$178,380.58    |
| Naya Coldwater Fund Limited | Sell             | 08/07/19   | -1,200.00  | \$16.8040       | \$20,164.75     |
| Naya Coldwater              | Sell             | 08/08/19   | -4,300.00  | \$17.3643       | \$74,666.58     |

| Fund                        | Transaction Type | Trade Date | Shares     | Price Per Share | Cost / Proceeds  |
|-----------------------------|------------------|------------|------------|-----------------|------------------|
| Fund Limited                |                  |            |            |                 |                  |
| Naya Coldwater Fund Limited | Sell             | 08/08/19   | -10,500.00 | \$17.2962       | \$181,610.10     |
| Naya Coldwater Fund Limited | Sell             | 08/14/19   | -13,900.00 | \$14.4950       | \$201,480.43     |
| Naya Coldwater Fund Limited | Sell             | 08/15/19   | -12,300.00 | \$14.1314       | \$173,815.95     |
| Naya Coldwater Fund Limited | Sell             | 08/16/19   | -9,500.00  | \$14.5271       | \$138,007.69     |
| Naya Coldwater Fund Limited | Sell             | 08/16/19   | -7,600.00  | \$14.2444       | \$108,257.58     |
| Naya Coldwater Fund Limited | Sell             | 08/19/19   | -9,500.00  | \$14.7212       | \$139,851.24     |
| Naya Coldwater Fund Limited | Sell             | 08/20/19   | -9,200.00  | \$14.4559       | \$132,993.88     |
| Naya Coldwater Fund Limited | Sell             | 08/21/19   | -5,000.00  | \$14.1186       | \$70,592.90      |
| Naya Coldwater Fund Limited | Sell             | 08/22/19   | -14,200.00 | \$14.2695       | \$202,626.94     |
| Naya Coldwater Fund Limited | Sell             | 08/22/19   | -4,700.00  | \$14.4308       | \$67,824.54      |
| Naya Coldwater Fund Limited | Sell             | 08/22/19   | -14,200.00 | \$14.4620       | \$205,360.07     |
| Naya Coldwater Fund Limited | Sell             | 08/23/19   | -7,814.00  | \$13.7946       | \$107,791.25     |
| Naya Coldwater Fund Limited | Sell             | 08/26/19   | -11,141.00 | \$13.6224       | \$151,767.16     |
|                             |                  |            |            |                 |                  |
| Naya Master Fund LP         | Buy              | 04/24/19   | 59,240.00  | \$21.5842       | (\$1,278,645.05) |
| Naya Master Fund LP         | Buy              | 04/25/19   | 89,100.00  | \$21.6342       | (\$1,927,604.37) |
| Naya Master Fund LP         | Buy              | 04/26/19   | 44,600.00  | \$22.3205       | (\$995,492.43)   |
| Naya Master Fund LP         | Buy              | 04/26/19   | 12,600.00  | \$22.0230       | (\$277,490.09)   |
| Naya Master Fund LP         | Buy              | 04/29/19   | 45,700.00  | \$22.6652       | (\$1,035,798.27) |
| Naya Master Fund LP         | Buy              | 04/30/19   | 4,480.00   | \$22.7000       | (\$101,696.00)   |
| Naya Master Fund LP         | Buy              | 05/08/19   | 42,500.00  | \$22.8397       | (\$970,687.63)   |
| Naya Master Fund LP         | Buy              | 05/08/19   | 62,700.00  | \$22.9164       | (\$1,436,856.09) |

| Fund                | Transaction Type | Trade Date | Shares     | Price Per Share | Cost / Proceeds  |
|---------------------|------------------|------------|------------|-----------------|------------------|
| Naya Master Fund LP | Buy              | 05/09/19   | 91,500.00  | \$22.3984       | (\$2,049,454.97) |
| Naya Master Fund LP | Buy              | 05/10/19   | 35,201.00  | \$23.7778       | (\$837,000.82)   |
| Naya Master Fund LP | Buy              | 05/23/19   | 62,007.00  | \$20.2850       | (\$1,257,812.00) |
| Naya Master Fund LP | Buy              | 06/07/19   | 25,800.00  | \$20.5798       | (\$530,958.07)   |
| Naya Master Fund LP | Buy              | 06/07/19   | 117,065.00 | \$20.5222       | (\$2,402,433.80) |
| Naya Master Fund LP | Buy              | 06/07/19   | 1,000.00   | \$20.5362       | (\$20,536.18)    |
| Naya Master Fund LP | Buy              | 06/12/19   | 55,300.00  | \$20.7288       | (\$1,146,301.48) |
| Naya Master Fund LP | Buy              | 06/13/19   | 76,800.00  | \$20.8131       | (\$1,598,444.39) |
| Naya Master Fund LP | Buy              | 06/28/19   | 3,550.00   | \$21.9200       | (\$77,816.00)    |
| Naya Master Fund LP | Buy              | 06/28/19   | 36,400.00  | \$21.9200       | (\$797,888.00)   |
| Naya Master Fund LP | Buy              | 07/31/19   | 9,190.00   | \$18.8600       | (\$173,323.40)   |
| Naya Master Fund LP | Sell             | 08/07/19   | -64,300.00 | \$16.6711       | \$1,071,950.57   |
| Naya Master Fund LP | Sell             | 08/07/19   | -7,400.00  | \$16.8040       | \$124,349.32     |
| Naya Master Fund LP | Sell             | 08/08/19   | -63,000.00 | \$17.2962       | \$1,089,660.60   |
| Naya Master Fund LP | Sell             | 08/08/19   | -25,600.00 | \$17.3643       | \$444,526.64     |
| Naya Master Fund LP | Sell             | 08/14/19   | -83,200.00 | \$14.4950       | \$1,205,983.58   |
| Naya Master Fund LP | Sell             | 08/15/19   | -74,074.00 | \$14.1314       | \$1,046,767.69   |
| Naya Master Fund LP | Sell             | 08/16/19   | -56,800.00 | \$14.5271       | \$825,140.70     |
| Naya Master Fund LP | Sell             | 08/16/19   | -45,538.00 | \$14.2444       | \$648,662.31     |
| Naya Master Fund LP | Sell             | 08/19/19   | -56,900.00 | \$14.7212       | \$837,635.31     |
| Naya Master Fund LP | Sell             | 08/20/19   | -55,486.00 | \$14.4559       | \$802,097.68     |
| Naya Master Fund LP | Sell             | 08/21/19   | -29,733.00 | \$14.1186       | \$419,787.71     |



| Fund                | Transaction Type | Trade Date | Shares     | Price Per Share | Cost / Proceeds |
|---------------------|------------------|------------|------------|-----------------|-----------------|
| Naya Master Fund LP | Sell             | 08/22/19   | -85,281.00 | \$14.4620       | \$1,233,331.86  |
| Naya Master Fund LP | Sell             | 08/22/19   | -28,348.00 | \$14.4308       | \$409,082.99    |
| Naya Master Fund LP | Sell             | 08/22/19   | -85,400.00 | \$14.2695       | \$1,218,615.56  |
| Naya Master Fund LP | Sell             | 08/23/19   | -46,860.00 | \$13.7946       | \$646,416.46    |
| Naya Master Fund LP | Sell             | 08/26/19   | -66,813.00 | \$13.6224       | \$910,153.41    |
|                     |                  |            |            |                 |                 |
| Nayawood LP         | Buy              | 04/24/19   | 14,040.00  | \$21.5842       | (\$303,041.47)  |
| Nayawood LP         | Buy              | 04/25/19   | 21,100.00  | \$21.6342       | (\$456,480.94)  |
| Nayawood LP         | Buy              | 04/26/19   | 10,500.00  | \$22.3205       | (\$234,364.81)  |
| Nayawood LP         | Buy              | 04/26/19   | 3,000.00   | \$22.0230       | (\$66,069.07)   |
| Nayawood LP         | Buy              | 04/29/19   | 10,800.00  | \$22.6652       | (\$244,783.84)  |
| Nayawood LP         | Buy              | 05/08/19   | 9,900.00   | \$22.8397       | (\$226,113.12)  |
| Nayawood LP         | Buy              | 05/08/19   | 14,600.00  | \$22.9164       | (\$334,578.93)  |
| Nayawood LP         | Buy              | 05/09/19   | 21,400.00  | \$22.3984       | (\$479,326.08)  |
| Nayawood LP         | Buy              | 05/10/19   | 8,200.00   | \$23.7778       | (\$194,977.61)  |
| Nayawood LP         | Buy              | 05/23/19   | 14,438.00  | \$20.2850       | (\$292,874.83)  |
| Nayawood LP         | Buy              | 06/07/19   | 6,000.00   | \$20.5798       | (\$123,478.62)  |
| Nayawood LP         | Buy              | 06/07/19   | 27,258.00  | \$20.5222       | (\$559,394.70)  |
| Nayawood LP         | Buy              | 06/07/19   | 200.00     | \$20.5362       | (\$4,107.24)    |
| Nayawood LP         | Buy              | 06/12/19   | 12,900.00  | \$20.7288       | (\$267,401.25)  |
| Nayawood LP         | Buy              | 06/13/19   | 17,900.00  | \$20.8131       | (\$372,554.10)  |
| Nayawood LP         | Sell             | 08/07/19   | -1,600.00  | \$16.8040       | \$26,886.34     |
| Nayawood LP         | Sell             | 08/07/19   | -14,100.00 | \$16.6711       | \$235,062.26    |
| Nayawood LP         | Sell             | 08/08/19   | -5,600.00  | \$17.3643       | \$97,240.20     |
| Nayawood LP         | Sell             | 08/08/19   | -13,800.00 | \$17.2962       | \$238,687.56    |
| Nayawood LP         | Sell             | 08/14/19   | -18,300.00 | \$14.4950       | \$265,258.41    |
| Nayawood LP         | Sell             | 08/15/19   | -16,300.00 | \$14.1314       | \$230,341.46    |
| Nayawood LP         | Sell             | 08/16/19   | -10,000.00 | \$14.2444       | \$142,444.18    |
| Nayawood LP         | Sell             | 08/16/19   | -12,500.00 | \$14.5271       | \$181,589.06    |
| Nayawood LP         | Sell             | 08/19/19   | -12,500.00 | \$14.7212       | \$184,014.79    |
| Nayawood LP         | Sell             | 08/20/19   | -12,200.00 | \$14.4559       | \$176,361.46    |
| Nayawood LP         | Sell             | 08/21/19   | -6,600.00  | \$14.1186       | \$93,182.62     |
| Nayawood LP         | Sell             | 08/22/19   | -18,700.00 | \$14.2695       | \$266,839.71    |
| Nayawood LP         | Sell             | 08/22/19   | -6,200.00  | \$14.4308       | \$89,470.67     |
| Nayawood LP         | Sell             | 08/22/19   | -18,800.00 | \$14.4620       | \$271,885.17    |
| Nayawood LP         | Sell             | 08/23/19   | -10,321.00 | \$13.7946       | \$142,374.40    |
| Nayawood LP         | Sell             | 08/26/19   | -14,715.00 | \$13.6224       | \$200,453.62    |

# **EXHIBIT D**

CERTIFICATION PURSUANT TO FEDERAL SECURITIES LAWS

Oklahoma Firefighters Pension and Retirement System (“Plaintiff”) declares:

1. Plaintiff has reviewed a complaint and authorized its filing. Plaintiff has authorized the filing of a motion for appointment as lead plaintiff.

2. Plaintiff did not acquire the security that is the subject of this action at the direction of plaintiff’s counsel or in order to participate in this private action or any other litigation under the federal securities laws.

3. Plaintiff is willing to serve as a representative party on behalf of the class, including providing testimony at deposition and trial, if necessary.

4. Plaintiff has made the following transaction(s) during the Class Period in the securities that are the subject of this action:

| <u>Security</u> | <u>Transaction</u> | <u>Date</u> | <u>Price Per Share</u> |
|-----------------|--------------------|-------------|------------------------|
|-----------------|--------------------|-------------|------------------------|

*See attached Schedule A.*

5. (a) Plaintiff has been appointed to serve as a representative party for a class in the following actions filed under the federal securities laws within the three-year period prior to the date of this Certification:

- Hall v. Rent-A-Center, Inc., et al.*, No. 4:16-cv-00978 (E.D. Tex.)
- Lehigh County Employees' Retirement System v. Novo Nordisk, et al.*, No. 3:17-cv-00209 (D.N.J.)
- Weiner v. Tivity Health, Inc., et al.*, No. 3:17-cv-01469 (M.D. Tenn.)
- In re Campbell Soup Company Sec. Litig.*, No. 1:18-cv-14385 (D.N.J.)
- Mulquin v. Nektar Therapeutics, et al.*, No. 4:18-cv-06607 (N.D. Cal.)
- Potts v. Weight Watchers International, Inc, et al.*, No. 1:19-cv-02005 (S.D.N.Y.)
- Employees' Ret. Sys. of the Puerto Rico Electric Power Authority v. Conduent Inc., et al*, No. 2:19-cv-08237 (D.N.J.)
- Logan v. ProPetro Holding Corp., et al.*, No. 7:19-cv-00217-DC (W.D. Tex.)

(b) Plaintiff is seeking to serve as a representative party for a class in the following actions filed under the federal securities laws:

- Omdahl v. Farfetch Limited, et al.*, No. 1:19-cv-08657 (S.D.N.Y.)

(c) Plaintiff initially sought to serve as a representative party for a class in the following actions filed under the federal securities laws within the three-year period prior to the date of this Certification:

- Oklahoma Firefighters Pension and Ret. Sys. v. Lexmark International, Inc., et al.*, No. 1:17-cv-05543 (S.D.N.Y.)
- Tung v. Bristol-Myers Squibb Company, et al.*, No. 1:18-cv-01611 (S.D.N.Y.)
- West Palm Beach Firefighters' Pension Fund v. Conagra Brands, Inc., et al.*, No. 1:19-cv-01323 (N.D. Ill.)
- Oklahoma Firefighters Pension and Ret. Sys. v. United States Steel Corp., et al.*, No. 2:19-cv-00470 (W.D. Pa.)


6. Plaintiff will not accept any payment for serving as a representative party on behalf of the class beyond the Plaintiff's pro rata share of any recovery, except such reasonable costs and expenses (including lost wages) directly relating to the representation of the class as ordered or approved by the court.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 6<sup>th</sup> day of ~~December~~, ~~2019~~.

*Samary 2020*  


Oklahoma Firefighters Pension and Retirement System

By:   
Chase Rankin, Executive Director

**SCHEDULE A**

**SECURITIES TRANSACTIONS**

**Stock**

| <u>Date Acquired</u> | <u>Amount of Shares Acquired</u> | <u>Price</u> |
|----------------------|----------------------------------|--------------|
| 04/29/2019           | 7,538                            | \$22.76      |
| 04/30/2019           | 4,498                            | \$22.64      |
| 05/01/2019           | 4,198                            | \$23.08      |
| 05/02/2019           | 3,444                            | \$22.66      |
| 05/06/2019           | 261                              | \$22.60      |
| 05/07/2019           | 3,636                            | \$22.86      |
| 05/09/2019           | 4,367                            | \$22.32      |
| 05/13/2019           | 4,244                            | \$22.47      |
| 05/14/2019           | 2,520                            | \$22.49      |
| 05/15/2019           | 1,930                            | \$22.34      |
| 05/20/2019           | 10,948                           | \$22.00      |
| 06/19/2019           | 13,509                           | \$20.98      |

| <u>Date Sold</u> | <u>Amount of Shares Sold</u> | <u>Price</u> |
|------------------|------------------------------|--------------|
| 10/29/2018       | 1,389                        | \$25.63      |
| 10/29/2018       | 1,878                        | \$25.60      |
| 11/08/2018       | 666                          | \$22.93      |

Prices listed are rounded up to two decimal places.

\*Opening position of 3,933 shares.