HUDSON TECHNOLOGIES INC /NY
Form 10-K
March 15, 2019

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2018

OR

¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from ____________ to ____________

Commission file number 1-13412

Hudson Technologies, Inc.

(Exact name of registrant as specified in its charter)

New York	**13-3641539**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
P.O. Box 1541 **One Blue Hill Plaza** **Pearl River, New York**	**10965**
(Address of Principal Executive Offices)	(Zip Code)
Registrant's telephone number, including area code	**(845) 735-6000**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common stock, $.01 par value	The NASDAQ Stock Market LLC (NASDAQ Capital Market)

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act **¨ Yes x No**

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act **¨ Yes x No**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. **x Yes ¨ No**

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). **x Yes ¨ No**

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ¨

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer	¨	Accelerated filer	x
Non-accelerated filer	¨	Smaller reporting company	x
		Emerging growth company	¨

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ¨

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). ¨ **Yes** x **No**

The aggregate market value of registrant's common stock held by non-affiliates at June 30, 2018 was approximately $73,537,183. As of March 15, 2019, there were 42,602,431 shares of the registrant's common stock outstanding**.**

DOCUMENTS INCORPORATED BY REFERENCE:

Portions of the Registrant's Proxy Statement for its Annual Meeting of Stockholders to be held on June 6, 2019, are incorporated by reference in Part III of this Report. Except as expressly incorporated by reference, the Registrant's Proxy Statement shall not be deemed to be part of this Form 10-K.

Hudson Technologies, Inc.

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Part I

Item 1. Business

General

Hudson Technologies, Inc., incorporated under the laws of New York on January 11, 1991, is a refrigerant services company providing innovative solutions to recurring problems within the refrigeration industry. The Company’s operations consist of one reportable segment. The Company's products and services are primarily used in commercial air conditioning, industrial processing and refrigeration systems, and include refrigerant and industrial gas sales, refrigerant management services consisting primarily of reclamation of refrigerants and RefrigerantSide® Services performed at a customer's site, consisting of system decontamination to remove moisture, oils and other contaminants. In addition, the Company’s SmartEnergy OPS® service is a web-based real time continuous monitoring service applicable to a facility’s refrigeration systems and other energy systems. The Company’s Chiller Chemistry® and Chill Smart® services are also predictive and diagnostic service offerings. As a component of the Company’s products and services, the Company also participates in the generation of carbon offset projects. The Company operates principally through its wholly-owned subsidiaries, Hudson Technologies Company and Aspen Refrigerants, Inc., which was formerly known as Airgas-Refrigerants, Inc. prior to the acquisition described below. Unless the context requires otherwise, references to the “Company”, “Hudson”, “we", “us”, “our”, or similar pronouns refer to Hudson Technologies, Inc. and its subsidiaries.

The Company's executive offices are located at One Blue Hill Plaza, Pearl River, New York and its telephone number is (845) 735-6000. The Company maintains a website at www.hudsontech.com, the contents of which are not incorporated into this filing.

Recent Acquisition

On October 10, 2017, the Company and its wholly-owned subsidiary, Hudson Holdings, Inc. (“Holdings”) completed the acquisition (the “Acquisition”) from Airgas, Inc. (“Airgas”) of all of the outstanding stock of Airgas-Refrigerants, Inc., a Delaware corporation (“ARI”), and effective October 11, 2017, ARI’s name was changed to Aspen Refrigerants, Inc. At closing, Holdings paid net cash consideration to Airgas of approximately $209 million, which includes preliminary post-closing adjustments relating to: (i) changes in the net working capital of ARI as of the closing relative to a net working capital target, (ii) the actual amount of specified types of R-22 refrigerant inventory on hand at closing relative to a target amount thereof, and (iii) other consideration pursuant to the stock purchase agreement.

The cash consideration paid by Holdings at closing was financed with available cash balances, plus $80 million of borrowings under an enhanced asset-based lending facility of $150 million from PNC Bank and a new term loan of $105 million from funds advised by FS Investments.

ARI, which is operated as a wholly owned subsidiary, is a leading refrigerant distributor and distributes, reclaims and packages refrigerant gases for a variety of end uses. Potential benefits of the acquisition of ARI include (i) providing a broader customer network which will provide the Company with increased access to refrigerant for reclamation and strengthen the Company's refrigerant distribution capabilities; (ii) adding incremental reclamation processing capacity to support the growth in reclamation; (iii) providing a broader customer base for the marketing and sale of the Company's services offerings; and (iv) enhancing the Company's geographic footprint in the United States.

Industry Background

The Company participates in an industry that is highly regulated, and changes in the regulations affecting our business could affect our operating results. Currently the Company purchases virgin, hydrochlorofluorocarbon ("HCFC") and hydrofluorocarbon ("HFC") refrigerants and reclaimable, primarily HCFC, HFC and chlorofluorocarbon ("CFC") refrigerants from suppliers and its customers. Effective January 1, 1996, the Clean Air Act, as amended (the "Act") prohibited the production of virgin CFC refrigerants and limited the production of virgin HCFC refrigerants. Effective January 2004, the Act further limited the production of virgin HCFC refrigerants and federal regulations were enacted which established production and consumption allowances for HCFC refrigerants and which imposed limitations on the importation of certain virgin HCFC refrigerants. Under the Act, production of certain virgin HCFC refrigerants is scheduled to be phased out by 2020, and production of all virgin HCFC refrigerants is scheduled to be phased out by 2030. In October 2014, the EPA published a final rule providing further reductions in the production and consumption allowances for virgin HCFC refrigerants for the years 2015 through 2019 (the "Final Rule"). In the Final Rule, the EPA has established a linear annual phase down schedule for the production or importation of virgin HCFC-22 that started at approximately 22 million pounds in 2015 and reduces by approximately 4.5 million pounds each year and ends at zero in 2020.

HFC refrigerants are used as substitutes for CFC and HCFC refrigerants in certain applications. As a result of the increasing restrictions and limitations on the production and use of CFC and HCFC refrigerants, various sectors of the air conditioning and refrigeration industry have been replacing or modifying equipment that utilize CFC and HCFC refrigerants and have been transitioning to equipment that utilize HFC refrigerants and hydrofluoro-olefins ("HFO"). HFC refrigerants are not ozone depleting chemicals and are not currently regulated under the Act. However, certain HFC refrigerants are highly weighted greenhouse gases that are believed to contribute to global warming and climate change and, as a result, are now subject to various state and federal regulations relating to the sale, use and emissions of HFC refrigerants. The Company expects that HFC refrigerants eventually will be replaced by HFOs or other types of products with lower global warming potentials.

In October 2016, more than 200 countries, including the United States, agreed to amend the Montreal Protocol to phase down production of HFCs by 85% between now and 2047. The amendment establishes timetables for all developed and developing countries to freeze and then reduce production and use of HFCs, with the first reductions by developed countries starting in 2019. The amendment became effective January 1, 2019 as more than twenty countries have ratified the amendment. To date, the amendment has not been ratified by the United States.

The Act, and the federal regulations enacted under authority of the Act, have mandated and/or promoted responsible use practices in the air conditioning and refrigeration industry, which are intended to minimize the release of refrigerants into the atmosphere and encourage the recovery and re-use of refrigerants. The Act prohibits the venting of CFC, HFC and HCFC refrigerants, and prohibits and/or phases down the production of CFC and HCFC refrigerants.

The Act also mandates the recovery of CFC and HCFC refrigerants and also promotes and encourages re-use and reclamation of CFC and HCFC refrigerants. Under the Act, owners, operators and companies servicing cooling equipment utilizing CFC and HCFC refrigerants are responsible for the integrity of the systems regardless of the refrigerant being used. In November 2016, the EPA issued a final rule extending these requirements to HFCs and to certain other refrigerants that are approved by the EPA as alternatives for CFC and HCFC refrigerants (the “608 Rule”). In January 2017, petitions objecting to, and seeking review of the 608 Rule were filed by certain industry groups. Those petitions are still pending and are currently being held in abeyance pending further rulemaking by the EPA. In September 2018, the EPA issued a proposed rule proposing to amend the 608 Rule to rescind certain portions of the 608 Rule relating to leak testing and leak repairs and proposing to retain the remaining aspects of the 608 Rule. A final rule amending the 608 Rule is expected to be issued in the second quarter of 2019.

Product and Services

From its inception, the Company has sold refrigerants, and has provided refrigerant reclamation and refrigerant management services that are designed to recover and reuse refrigerants, thereby protecting the environment from release of refrigerants to the atmosphere and the corresponding ozone depletion and global warming impact. The reclamation process allows the refrigerant to be re-used thereby eliminating the need to destroy or manufacture additional refrigerant and eliminating the corresponding impact to the environment associated with the destruction and manufacturing. The Company believes it is the largest refrigerant reclaimer in the United States. In addition, the Company is pursuing potential opportunities for the creation and monetization of verified emission reductions.

The Company has also created alternative solutions to reactive and preventative maintenance procedures that are performed on commercial and industrial refrigeration systems. These services, known as RefrigerantSide® Services, complement the Company’s refrigerant sales and refrigerant reclamation and management services. The Company has also developed SmartEnergy OPS® that identify inefficiencies in the operation of air conditioning and refrigeration

systems and assists companies to improve the energy efficiency of their systems and save operating costs and improve system reliability.

Refrigerant and Industrial Gas Sales

The Company sells reclaimed and virgin (new) refrigerants to a variety of customers in the air conditioning and refrigeration industry. The Company continues to sell reclaimed CFC based refrigerants, which are no longer manufactured. Virgin, non-CFC refrigerants, including HCFC and HFC refrigerants, are purchased by the Company from several suppliers and resold by the Company, typically at wholesale. Additionally, the Company regularly purchases used or contaminated refrigerants, some of which are CFC based, from many different sources, which refrigerants are then reclaimed using the Company's high speed proprietary reclamation equipment, its proprietary Zugibeast® system, and then are resold by the Company. With the acquisition of ARI, the Company has access to an expanded customer base and to a broader variety of the industry for the sale of its refrigerant and industrial gas products and for the purchase of contaminated refrigerants for reclamation and resale.

The Company also sells industrial gases to a variety of industry customers, predominantly to users in or involved with the US Military. In July 2016, the Company was awarded, as prime contractor, a five-year fixed price contract, including a five-year renewal option, awarded to it by the United States Defense Logistics Agency (“DLA”) for the management and supply of refrigerants, compressed gases, cylinders and related items to US Military Commands and Installations, Federal civilian agencies and Foreign Militaries. Primary users include the US Army, Navy, Air Force, Marine Corps and Coast Guard.

Refrigerant Management Services

The Company provides a complete offering of refrigerant management services, which primarily include reclamation of refrigerants, laboratory testing through the Company’s laboratory, which has been certified by the Air Conditioning, Heating and Refrigeration Institute (“AHRI”), and banking (storage) services tailored to individual customer requirements. The Company also separates “crossed” (i.e. commingled) refrigerants and provides re-usable cylinder refurbishment and hydrostatic testing services.

Carbon Offset Projects

CFC refrigerants are ozone depleting substances and are also highly weighted greenhouse gases that contribute to global warming and climate change. The destruction of CFC refrigerants may be eligible for verified emission reductions that can be converted and monetized into carbon offset credits, which then can be traded in the emerging carbon offset markets. The Company is pursuing opportunities to acquire CFC refrigerants and is developing relationships within the emerging environmental markets in order to develop opportunities for the creation and

monetization of verified emission reductions from the destruction of CFC refrigerants.

In October 2015, the American Carbon Registry ("ACR") established a methodology to provide, among other things, a quantification framework for the creation of carbon offset credits for the use of certified reclaimed HFC refrigerants. The Company is pursuing opportunities to acquire HFC refrigerants and is developing relationships within the emerging environmental markets in order to develop opportunities for the creation and monetization of verified emission reductions from the reclamation of HFC refrigerants.

RefrigerantSide® Services

The Company provides decontamination and recovery services that are performed at a customer's site through the use of portable, high volume, high-speed proprietary equipment, including the patented Zugibeast® system. Certain of these RefrigerantSide® Services, which encompass system decontamination, and refrigerant recovery and reclamation, are also proprietary and are covered by process patents.

In addition to the decontamination and recovery services previously described, the Company also provides predictive and diagnostic services for its customers. The Company offers diagnostic services that are intended to predict potential problems in air conditioning and refrigeration systems before they occur. The Company's Chiller Chemistry® offering integrates several fluid tests of an operating system and the corresponding laboratory results into an engineering report providing its customers with an understanding of the current condition of the fluids, the cause for any abnormal findings and the potential consequences if the abnormal findings are not remediated. Fluid Chemistry®, an abbreviated version of the Company's Chiller Chemistry® offering, is designed to quickly identify systems that require further examination.

The Company has also been awarded several US patents for its SmartEnergy OPS®, which is a system for measuring, modifying and improving the efficiency of energy systems, including air conditioning and refrigeration systems, in industrial and commercial applications. This service is a web-based real time continuous monitoring service applicable to a facility's chiller plant systems. The SmartEnergy OPS® offering enables customers to monitor and improve their chiller plant performance and proactively identify and correct system inefficiencies. SmartEnergy OPS® is able to identify specific inefficiencies in the operation of chiller plant systems and, when used with Hudson's RefrigerantSide ® Services, can increase the efficiency of the operating systems thereby reducing energy usage and costs. Improving the system efficiency reduces power consumption thereby directly reducing CO_2 emissions at the power plants or onsite. Lastly, the Company's ChillSmart® offering, which combines the system optimization with the Company's Chiller Chemistry® offering, provides a snapshot of a packaged chiller's operating efficiency and health. ChillSmart® provides a very effective predictive maintenance tool and helps our customers to identify the operating chillers that cause higher operating costs.

The Company’s engineers who developed and support SmartEnergy OPS® are recognized as Energy Experts and Qualified Best Practices Specialists by the United States Department of Energy (“DOE”) in the areas of Steam and Process Heating under the DOE “Best Practices” program, and are the Lead International Energy Experts for steam, chillers and refrigeration systems for the United Nations Industrial Development Organization (“UNIDO”). The Company’s staff have trained more than 4,000 industrial plant personnel in the US and internationally and have developed, and are currently delivering, training curriculums in 12 different countries. The Company’s staff have completed more than 200 industrial ESAs in the US and internationally.

Summary of Revenues

The following is a summary of revenues by product category over the last three years:

Years Ended December 31, **(in thousands)**	2018	2017	2016
Product and related sales	$162,229	$136,016	$101,344
RefrigerantSide ® Services	4,296	4,364	4,137
Total	$166,525	$140,380	$105,481

Hudson's Network

Hudson operates from a network of facilities located in:

Pearl River, New York	—Company headquarters and administrative offices
Champaign, Illinois	—Reclamation and separation of refrigerants and cylinder refurbishment center; RefrigerantSide® Service depot
Nashville, Tennessee	—Reclamation and separation of refrigerants and cylinder refurbishment center
Ontario, California	—Reclamation and cylinder refurbishment center
Auburn, Washington	—RefrigerantSide® Service depot
Baton Rouge, Louisiana	—RefrigerantSide® Service depot
Charlotte, North Carolina	—RefrigerantSide® Service depot
Escondido, California	—Refrigerants and Industrial Gases
Stony Point, New York	—RefrigerantSide® Service depot
Tulsa, Oklahoma	—Energy Services
Riverside, California	—Storage facility
Hampstead, New Hampshire	—Telemarketing office
Pottsboro, Texas	—Telemarketing office
Smyrna, Georgia	—Reclamation and separation of refrigerants and cylinder refurbishment center
Long Island City, New York	—Administrative, sales and marketing offices, and refrigerant storage & shipping

Long Beach, California —Telemarketing office

Strategic Alliances

The Company believes that the international market for refrigerant reclamation, sales and services is equal in size to the United States market for those sales and services. The Company has Alliances in Europe and South Africa, and over time, the Company expects to introduce its technology and offerings to several other markets around the world.

Suppliers

The Company's financial performance and its ability to sell refrigerants is in part dependent on its ability to obtain sufficient quantities of virgin, non-CFC based refrigerants, and of reclaimable CFC and non-CFC based, refrigerants from manufacturers, wholesalers, distributors, bulk gas brokers and from other sources within the air conditioning, refrigeration and automotive aftermarket industries, and on corresponding demand for refrigerants. The Company's refrigerant sales include CFC based refrigerants, which are no longer manufactured. Additionally, the Company's refrigerant sales include non-CFC based refrigerants, including HCFC and HFC refrigerants, which are the most-widely used refrigerants. Effective January 1, 1996, the Act limited the production of virgin HCFC refrigerants, which production was further limited in January 2004. Federal regulations enacted in January 2004 established production and consumption allowances for HCFCs and imposed limitations on the importation of certain virgin HCFC refrigerants. Under the Act, production of certain virgin HCFC refrigerants is scheduled to be phased out by 2020 and production of all virgin HCFC refrigerants is scheduled to be phased out by 2030. In October 2014, the EPA published the Final Rule providing further reductions in the production and consumption allowances for virgin HCFC refrigerants for the years 2015 through 2019. In the Final Rule, the EPA has established a linear annual phase down schedule for the production or importation of virgin HCFC-22 that started at approximately 22 million pounds in 2015 and is being reduced by approximately 4.5 million pounds each year and will end at zero in 2020.

In October 2016, more than 200 countries, including the United States, agreed to amend the Montreal Protocol to phase down production of HFCs by 85% between now and 2047. The amendment establishes timetables for all developed and developing countries to freeze and then reduce production and use of HFCs, with the first reductions by developed countries starting in 2019. The amendment becomes effective January 1, 2019 as more than twenty countries have ratified the amendment. To date, the amendment has not been ratified by the United States.

Customers

The Company provides its products and services to commercial, industrial and governmental customers, as well as to refrigerant wholesalers, distributors, contractors and to refrigeration equipment manufacturers. Agreements with larger customers generally provide for standardized pricing for specified services. The Company generates sales by purchase

order on a real-time basis and therefore does not carry a backlog of sales.

For the year ended December 31, 2018, one customer accounted for 11% of the Company’s revenues; no other customers accounted for greater than 10% of the Company’s revenues. At December 31, 2018, there were $2.9 million of outstanding receivables from this customer.

For the year ended December 31, 2017, two customers each accounted for 10% or more of the Company’s revenues and, in the aggregate these two customers accounted for 33% of the Company’s revenues. At December 31, 2017, there were $2.7 million of outstanding receivables from these customers.

For the year ended December 31, 2016, two customers each accounted for 10% or more of the Company’s revenues and, in the aggregate these two customers accounted for 30% of the Company’s revenues. At December 31, 2016, there were no outstanding receivables from these customers.

Marketing

Marketing programs are conducted through the efforts of the Company's executive officers, Company sales personnel, and third parties. Hudson employs various marketing methods, including direct mailings, technical bulletins, in-person solicitation, print advertising, response to quotation requests and the internet through the Company’s websites (www.hudsontech.com and www.ASPENRefrigerants.com). Information on the Company's websites are not part of this report.

The Company's sales personnel are compensated on a combination of a base salary and commission. The Company's executive officers devote significant time and effort to customer relationships.

Competition

The Company competes primarily on the basis of the performance of its proprietary high volume, high-speed equipment used in its operations, the breadth of services offered by the Company, including proprietary RefrigerantSide® Services and other on-site services, and price, particularly with respect to refrigerant sales.

The Company competes with numerous regional and national companies that market reclaimed and virgin refrigerants and provide refrigerant reclamation services. Certain of these competitors possess greater financial, marketing, distribution and other resources for the sale and distribution of refrigerants than the Company and, in some instances, serve a more extensive geographic area than the Company. Prior to the acquisition, ARI was a national competitor of Hudson in the sale of reclaimed and virgin refrigerants and in refrigerant reclamation services.

Hudson's RefrigerantSide® Services provide solutions to certain problems within the refrigeration industry and, as such, the demand and market acceptance for these services are subject to uncertainty. Competition for these services primarily consists of traditional methods of solving the industry's problems. The Company’s marketing strategy is to educate the marketplace that its alternative solutions are available and that RefrigerantSide® Services are superior to traditional methods.

Insurance

The Company carries insurance coverage that it considers sufficient to protect the Company's assets and operations. The Company currently maintains general commercial liability insurance and excess liability coverage for claims up to $11,000,000 per occurrence and $12,000,000 in the aggregate. The Company attempts to operate in a professional and prudent manner and to reduce potential liability risks through specific risk management efforts, including ongoing employee training.

The refrigerant industry involves potentially significant risks of statutory and common law liability for environmental damage and personal injury. The Company, and in certain instances, its officers, directors and employees, may be subject to claims arising from the Company's on-site or off-site services, including the improper release, spillage, misuse or mishandling of refrigerants classified as hazardous or non-hazardous substances or materials. The Company may be held strictly liable for damages, which could be substantial, regardless of whether it exercised due care and complied with all relevant laws and regulations.

Hudson maintains environmental impairment insurance of $10,000,000 per occurrence, and $10,000,000 annual aggregate, for events occurring subsequent to November 1996.

Government Regulation

The business of refrigerant and industrial gas sales, reclamation and management is subject to extensive, stringent and frequently changing federal, state and local laws and substantial regulation under these laws by governmental agencies, including the EPA, the United States Occupational Safety and Health Administration ("OSHA") and the United States Department of Transportation ("DOT").

Among other things, these regulatory authorities impose requirements which regulate the handling, packaging, labeling, transportation and disposal of hazardous and non-hazardous materials and the health and safety of workers, and require the Company and, in certain instances, its employees, to obtain and maintain licenses in connection with its operations. This extensive regulatory framework imposes significant compliance burdens and risks on the Company.

Hudson and its customers are subject to the requirements of the Act, and the regulations promulgated thereunder by the EPA, which make it unlawful for any person in the course of maintaining, servicing, repairing, and disposing of air conditioning or refrigeration equipment, to knowingly vent or otherwise release or dispose of ozone depleting substances, and non-ozone depleting substitutes, used as refrigerants.

Pursuant to the Act, reclaimed refrigerant must satisfy the same purity standards as newly manufactured, virgin refrigerants in accordance with standards established by AHRI prior to resale to a person other than the owner of the equipment from which it was recovered. The EPA administers a certification program pursuant to which applicants certify to reclaim refrigerants in compliance with AHRI standards. The Company is one of only four certified refrigerant testing laboratories in the United States under AHRI's laboratory certification program, which is a voluntary program that certifies the ability of a laboratory to test refrigerant in accordance with the AHRI 700 standard.

In addition, the EPA has established a mandatory certification program for air conditioning and refrigeration technicians. Hudson's technicians have applied for or obtained such certification.

The Company may also be subject to regulations adopted by the EPA which impose reporting requirements arising out of the importation of certain HCFCs, and arising out of the importation, purchase, production, use and/or emissions of certain greenhouse gases, including HFCs.

The Company is also subject to regulations adopted by the DOT which classify most refrigerants and industrial gases handled by the Company as hazardous materials or substances and imposes requirements for handling, packaging, labeling and transporting refrigerants and which regulate the use and operation of the Company's commercial motor vehicles used in the Company's business.

The Resource Conservation and Recovery Act of 1976, as amended ("RCRA"), requires facilities that treat, store or dispose of hazardous wastes to comply with certain operating standards. Before transportation and disposal of hazardous wastes off-site, generators of such waste must package and label their shipments consistent with detailed regulations and prepare a manifest identifying the material and stating its destination. The transporter must deliver the hazardous waste in accordance with the manifest to a facility with an appropriate RCRA permit. Under RCRA, impurities removed from refrigerants consisting of oils mixed with water and other contaminants are not presumed to be hazardous waste.

The Emergency Planning and Community Right-to-Know Act of 1986, as amended, requires the annual reporting by the Company of Emergency and Hazardous Chemical Inventories (Tier II reports) to the various states in which the Company operates and requires the Company to file annual Toxic Chemical Release Inventory Forms with the EPA.

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (“CERCLA”), establishes liability for clean-up costs and environmental damages to current and former facility owners and operators, as well as persons who transport or arrange for transportation of hazardous substances. Almost all states have similar statutes regulating the handling and storage of hazardous substances, hazardous wastes and non-hazardous wastes. Many such statutes impose requirements that are more stringent than their federal counterparts. The Company could be subject to substantial liability under these statutes to private parties and government entities, in some instances without any fault, for fines, remediation costs and environmental damage, as a result of the mishandling, release, or existence of any hazardous substances at any of its facilities.

The Occupational Safety and Health Act of 1970, as amended mandates requirements for a safe work place for employees and special procedures and measures for the handling of certain hazardous and toxic substances. State laws, in certain circumstances, mandate additional measures for facilities handling specified materials.

The Company is also subject to regulations adopted by the California Air Resources Board which impose certain reporting requirements arising out of the reclamation and sale of refrigerants that takes place within the State of California.

The Company believes that it is in material compliance with all applicable regulations material to its business operations.

Quality Assurance & Environmental Compliance

The Company utilizes in-house quality and regulatory compliance control procedures. Hudson maintains its own analytical testing laboratories, which are AHRI certified, to assure that reclaimed refrigerants comply with AHRI purity standards and employs portable testing equipment when performing on-site services to verify certain quality specifications. The Company employs twelve persons engaged full-time in quality control and to monitor the Company's operations for regulatory compliance.

Employees

On December 31, 2018, the Company had 243 full time employees including air conditioning and refrigeration technicians, chemists, engineers, sales and administrative personnel. None of the Company's employees are represented by a union. The Company believes it has good relations with its employees.

Patents and Proprietary Information

The Company holds several U.S. and foreign patents, as well as pending patent applications, related to certain RefrigerantSide® Services and supporting systems developed by the Company for systems and processes for measuring and improving the efficiency of refrigeration systems, and for certain refrigerant recycling and reclamation technologies. These patents will expire between August 2019 and April 2031.

The Company believes that patent protection is important to its business. There can be no assurance as to the breadth or degree of protection that patents may afford the Company, that any patent applications will result in issued patents or that patents will not be circumvented or invalidated. Technological development in the refrigerant industry may result in extensive patent filings and a rapid rate of issuance of new patents. Although the Company believes that its existing patents and the Company's equipment do not and will not infringe upon existing patents or violate proprietary rights of others, it is possible that the Company's existing patent rights may not be valid or that infringement of existing or future patents or violations of proprietary rights of others may occur. In the event the Company's equipment or processes infringe, or are alleged to infringe, patents or other proprietary rights of others, the Company may be required to modify the design of its equipment or processes, obtain a license or defend a possible patent infringement action. There can be no assurance that the Company will have the financial or other resources necessary to enforce or defend a patent infringement or proprietary rights violation action or that the Company will not become liable for damages.

The Company also relies on trade secrets and proprietary know-how, and employs various methods to protect its technology. However, such methods may not afford complete protection and there can be no assurance that others will not independently develop such know-how or obtain access to the Company's know-how, concepts, ideas and documentation. Failure to protect its trade secrets could have a material adverse effect on the Company.

SEC Filings

The Company makes available on its internet website copies of its Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments thereto, as soon as reasonably practicable after they are filed with the Securities and Exchange Commission.

Item 1A. Risk Factors

There are many important factors, including those discussed below (and above as described under “Patents and Proprietary Information”), that have affected, and in the future could affect Hudson’s business including, but not limited to, the factors discussed below, which should be reviewed carefully together with the other information contained in this report. Some of the factors are beyond Hudson’s control and future trends are difficult to predict.

Our existing and future debt obligations could impair our liquidity and financial condition.

Our existing credit facilities, consisting of an asset-based lending facility of up to $150 million from PNC Bank and a term loan of $105 million from funds advised by FS Investments, are secured by substantially all of our assets and the PNC Bank facility contains formulas that limit the amount of our future borrowings under that facility. Moreover, the terms of our credit facilities also include financial and negative covenants that, among other things, may limit our ability to incur additional indebtedness. If we violate any loan covenants and do not obtain a waiver from our lenders, our indebtedness under the credit facilities would become immediately due and payable, and the lenders could foreclose on their security, which could materially adversely affect our business and future financial condition and could require us to curtail or otherwise cease our existing operations.

Our revenues, results of operations and cash flows could be materially and adversely affected by changes in commodity prices.

Our revenues, results of operations and cash flows are affected by market prices for refrigerant gases. Commodity prices generally are affected by a wide range of factors beyond our control, including weather, seasonality, the availability and adequacy of supply, government regulation and policies and general political and economic conditions. We are exposed to fluctuating commodity prices as the result of our inventory of various refrigerant gases. At any time, our inventory levels may be substantial. Non-cash charges for inventory adjustments of our refrigerant gases due to decline in refrigerant gas prices totaled $35.9 million in 2018. Further declines in refrigerant gas prices could result in additional inventory adjustments and impairment charges. We have processes in place to monitor exposures to these risks and engage in strategies to manage these risks. If these controls and strategies are not

successful in mitigating our exposure to these fluctuations, we could be materially and adversely affected.

We may need additional financing to satisfy our future capital requirements, which may not be readily available to us.

Our capital requirements may be significant in the future. In the future, we may incur additional expenses in the development and implementation of our operations. Due to fluctuations in the price, demand and availability of new refrigerants, our existing credit facility with PNC Bank that expires in October 2022 may not in the future be sufficient to provide all of the capital that we need to acquire and manage our inventories of new refrigerant. As a result, we may be required to seek additional equity or debt financing in order to develop our RefrigerantSide® Services business, our refrigerant sales business and our other businesses. We have no current arrangements with respect to, or sources of, additional financing other than our existing credit facility and term loan. There can be no assurance that we will be able to obtain any additional financing on terms acceptable to us or at all. Our inability to obtain financing, if and when needed, could materially adversely affect our business and future financial condition and could require us to curtail or otherwise cease our existing operations.

Adverse weather or economic downturn could adversely impact our financial results.

Our business could be negatively impacted by adverse weather or economic downturns. Weather is a significant factor in determining market demand for the refrigerants sold by us, and to a lesser extent, our RefrigerantSide® Services. Unusually cool temperatures in the spring and summer tend to depress demand for, and price of, refrigerants we sell. Protracted periods of cooler than normal spring and summer weather could result in a substantial reduction in our sales which could adversely affect our financial position as well as our results of operations. An economic downturn could cause customers to postpone or cancel purchases of the Company's products or services. Either or both of these conditions could have severe negative implications to our business that may exacerbate many of the risk factors we identified in this report but not limited, to the following:

Liquidity

These conditions could reduce our liquidity, which could have a negative impact on our financial condition and results of operations.

Demand

These conditions could lower the demand and/or price for our product and services, which would have a negative impact on our results of operations.

Financial Covenants

These conditions could impact our ability to meet our loan covenants which, if we are unable to obtain a waiver from our lenders, could materially adversely affect our business and future financial condition and could require us to curtail or otherwise cease our existing operations.

The nature of our business exposes us to potential liability.

The refrigerant recovery and reclamation industry involves potentially significant risks of statutory and common law liability for environmental damage and personal injury. We, and in certain instances, our officers, directors and employees, may be subject to claims arising from our on-site or off-site services, including the improper release, spillage, misuse or mishandling of refrigerants classified as hazardous or non-hazardous substances or materials. We may be strictly liable for damages, which could be substantial, regardless of whether we exercised due care and complied with all relevant laws and regulations. Our current insurance coverage may not be sufficient to cover potential claims, and adequate levels of insurance coverage may not be available in the future at a reasonable cost. A partially or completely uninsured claim against us, if successful and of sufficient magnitude would have a material adverse effect on our business and financial condition.

Our business and financial condition is substantially dependent on the sale and continued environmental regulation of refrigerants.

Our business and prospects are largely dependent upon continued regulation of the use and disposition of refrigerants. Changes in government regulations relating to the emission of refrigerants into the atmosphere could have a material adverse effect on us. Failure by government authorities to otherwise continue to enforce existing regulations or significant relaxation of regulatory requirements could also adversely affect demand for our services and products.

Our business is subject to significant regulatory compliance burdens.

The refrigerant reclamation and management business is subject to extensive, stringent and frequently changing federal, state and local laws and substantial regulation under these laws by governmental agencies, including the EPA, the OSHA and DOT. Although we believe that we are in material compliance with all applicable regulations material to our business operations, amendments to existing statutes and regulations or adoption of new statutes and regulations that affect the marketing and sale of refrigerant could require us to continually alter our methods of operation and/or discontinue the sale of certain of our products resulting in costs to us that could be substantial. We may not be able, for financial or other reasons, to comply with applicable laws, regulations and permit requirements, particularly as we

seek to enter into new geographic markets. Our failure to comply with applicable laws, rules or regulations or permit requirements could subject us to civil remedies, including substantial fines, penalties and injunctions, as well as possible criminal sanctions, which would, if of significant magnitude, materially adversely impact our operations and future financial condition.

A number of factors could negatively impact the price and/or availability of refrigerants, which would, in turn, adversely affect our business and financial condition.

Refrigerant sales continue to represent a significant majority of our revenues. Therefore, our business is substantially dependent on the availability of both new and used refrigerants in large quantities, which may be affected by several factors including, without limitation: (i) commercial production and consumption limitations imposed by the Act and legislative limitations and ban on HCFC refrigerants; (ii) the amendment to the Montreal Protocol, if ratified, and any legislation and regulation enacted to implement the amendment, could impose limitations on production and consumption of HFC refrigerants; (iii) introduction of new refrigerants and air conditioning and refrigeration equipment; (iv) price competition resulting from additional market entrants; (v) changes in government regulation on the use and production of refrigerants; and (vi) reduction in price and/or demand for refrigerants. We do not maintain firm agreements with any of our suppliers of refrigerants and we do not hold allowances permitting us to purchase and import HCFC refrigerants from abroad. Sufficient amounts of new and/or used refrigerants may not be available to us in the future, particularly as a result of the further phase down of HCFC production, or may not be available on commercially reasonable terms. Additionally, we may be subject to price fluctuations, periodic delays or shortages of new and/or used refrigerants. Our failure to obtain and resell sufficient quantities of virgin refrigerants on commercially reasonable terms, or at all, or to obtain, reclaim and resell sufficient quantities of used refrigerants would have a material adverse effect on our operating margins and results of operations.

As a result of competition, and the strength of some of our competitors in the market, we may not be able to compete effectively.

The markets for our services and products are highly competitive. We compete with numerous regional and national companies which provide refrigerant recovery and reclamation services, as well as companies which market and deal in new and reclaimed alternative refrigerants, including certain of our suppliers, some of which possess greater financial, marketing, distribution and other resources than us. We also compete with numerous manufacturers of refrigerant recovery and reclamation equipment. Certain of these competitors have established reputations for success in the service of air conditioning and refrigeration systems. We may not be able to compete successfully, particularly as we seek to enter into new markets.

Issues relating to potential global warming and climate change could have an impact on our business.

Refrigerants are considered to be strong greenhouse gases that are believed to contribute to global warming and climate change and are now subject to various state and federal regulations relating to the sale, use and emissions of refrigerants. Current and future global warming and climate change or related legislation and/or regulations may impose additional compliance burdens on us and on our customers and suppliers which could potentially result in increased administrative costs, decreased demand in the marketplace for our products, and/or increased costs for our supplies and products. In addition, an amendment to the Montreal Protocol has established timetables for all developed and developing countries to freeze and then reduce production and use of HFCs by 85% between now and 2047, with the first reductions by developed countries starting in 2019. The amendment became effective January 1, 2019. To date, the amendment has not been ratified by the United States. It is unclear if the United States will ratify the amendment and, if it does ratify the amendment, it is unclear what legislation and/or regulations will be enacted to implement the amendment.

The loss of key management personnel would adversely impact our business.

Our success is largely dependent upon the efforts of Kevin J. Zugibe, our Chief Executive Officer and Chairman. The loss of his services would have a material adverse effect on our business and prospects.

We have the ability to designate and issue preferred stock, which may have rights, preferences and privileges greater than Hudson's common stock and which could impede a subsequent change in control of us.

Our Certificate of Incorporation authorizes our Board of Directors to issue up to 5,000,000 shares of "blank check" preferred stock and to fix the rights, preferences, privileges and restrictions, including voting rights, of these shares, without further shareholder approval. The rights of the holders of our common stock will be subject to, and may be adversely affected by, the rights of holders of any additional preferred stock that may be issued by us in the future. Our ability to issue preferred stock without shareholder approval could have the effect of making it more difficult for a third party to acquire a majority of our voting stock, thereby delaying, deferring or preventing a change in control of us.

If our common stock were delisted from NASDAQ it could be subject to "penny stock" rules which would negatively impact its liquidity and our shareholders' ability to sell their shares.

Our common stock is currently listed on the NASDAQ Capital Market. We must comply with numerous NASDAQ Marketplace rules in order to continue the listing of our common stock on NASDAQ. There can be no assurance that we can continue to meet the rules required to maintain the NASDAQ listing of our common stock. If we are unable to maintain our listing on NASDAQ, the market liquidity of our common stock may be severely limited.

Our management has significant control over our affairs.

Currently, our officers and directors collectively own approximately 14% of our outstanding common stock. Accordingly, our officers and directors are in a position to significantly affect major corporate transactions and the election of our directors. There is no provision for cumulative voting for our directors.

We may fail to successfully integrate any additional acquisitions made by us into our operations.

As part of our business strategy, we may look for opportunities to grow by acquiring other product lines, technologies or facilities that complement or expand our existing business. We may be unable to identify additional suitable acquisition candidates or negotiate acceptable terms. In addition, we may not be able to successfully integrate any assets, liabilities, customers, systems or management personnel we may acquire into our operations and we may not be able to realize related revenue synergies and cost savings within expected time frames. There can be no assurance that we will be able to successfully integrate any prior or future acquisition.

Our information technology systems, processes, and sites may suffer interruptions, failures, or attacks which could affect our ability to conduct business.

Our information technology systems provide critical data connectivity, information and services for internal and external users. These include, among other things, processing transactions, summarizing and reporting results of operations, complying with regulatory, legal or tax requirements, storing project information and other processes necessary to manage the business. Our systems and technologies, or those of third parties on which we rely, could fail or become unreliable due to equipment failures, software viruses, cyber threats, terrorist acts, natural disasters, power failures or other causes. Cybersecurity threats are evolving and include, but are not limited to, malicious software, cyber espionage, attempts to gain unauthorized access to our sensitive information, including that of our customers, suppliers, and subcontractors, and other electronic security breaches that could lead to disruptions in mission critical systems, unauthorized release of confidential or otherwise protected information, and corruption of data. Although we utilize various procedures and controls to monitor and mitigate these threats, there can be no assurance that these procedures and controls will be sufficient to prevent security threats from materializing. If any of these events were to materialize, the costs related to cyber or other security threats or disruptions may not be fully insured or indemnified and could have a material adverse effect on our reputation, operating results, and financial condition.

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Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

The Company's headquarters are located in a multi-tenant building in Pearl River, New York, which houses the Company' executive officers, its accounting and administrative staff, and its information technology staff and equipment, and the Company also maintains administrative and sales offices for ARI in Long Island City, New York. The Company's key reclamation, processing and cylinder refurbishment facilities are located in Champaign, Illinois and Smyrna, Georgia. The Company also sells industrial gases out of facilities located in Escondido, California and in Champaign, Illinois. The Company maintains smaller reclamation and cylinder refurbishing facilities in Ontario and California. The Company also maintains four smaller service depots for the performance of its RefrigerantSide® Services and maintains three sales and telemarketing offices.

Hudson's key operational facilities are as follows:

Location	**Owned or Leased**	**Description**
Pearl River, New York	Leased	Company headquarters and administrative offices
Champaign, Illinois	Owned	Reclamation and separation of refrigerants and cylinder refurbishment
Champaign, Illinois	Leased	Refrigerant packaging, cylinder refurbishment, RefrigerantSide® Service depot, refrigerant and industrial gases storage
Smyrna, Georgia	Leased	Reclamation and separation of refrigerants and cylinder refurbishment center
Smyrna, Georgia	Owned	Refrigerant Storage
Long Island City, New York	Leased	Administrative, sales and marketing offices, refrigerant storage & shipping
Escondido, California	Leased	Refrigerant and Industrial gas storage
Ontario, California	Leased	Refrigerant reclamation and cylinder refurbishment center
Tulsa, Oklahoma	Leased	Energy Services

Item 3. Legal Proceedings

On April 1, 1999, the Company reported a release of approximately 7,800 lbs. of R-11 refrigerant (the “1999 Release”), at its former leased facility in Hillburn, NY (the “Hillburn Facility”), which the Company vacated in June 2006.

Since September 2000, last modified in March 2013, the Company signed an Order on Consent with the New York State Department of Environmental Conservation (“DEC”) whereby the Company agreed to operate a remediation system to reduce R-11 refrigerant levels in the groundwater under and around the Hillburn Facility and agreed to perform periodic testing at the Hillburn Facility until remaining groundwater contamination has been effectively abated. The Company accrued, as an expense in its consolidated financial statements, the costs that the Company believes it will incur in connection with its compliance with the Order of Consent through December 31, 2018. There can be no assurance that additional testing will not be required or that the Company will not incur additional costs and such costs in excess of the Company’s estimate may have a material adverse effect on the Company financial condition or results of operations. The Company has exhausted all insurance proceeds available for the 1999 Release under all applicable policies.

In May 2000 the Hillburn Facility, as a result of the 1999 Release, was nominated by EPA for listing on the National Priorities List (“NPL”) pursuant to CERCLA. In September 2003, the EPA advised the Company that it had no current plans to finalize the process for listing of the Hillburn Facility on the NPL.

The remaining liability on our Balance Sheet as of December 31, 2018 with respect to the Hillburn Facility is approximately $144,000. There can be no assurance that the ultimate outcome of the 1999 Release will not have a material adverse effect on the Company's financial condition and results of operations. There can be no assurance that the EPA will not change its current plans and seek to finalize the process of listing the Hillburn Facility on the NPL, or that the ultimate outcome of such a listing will not have a material adverse effect on the Company's financial condition and results of operations.

Item 4. Mine Safety Disclosures

Not Applicable.

Part II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

The Company's common stock trades on the NASDAQ Capital Market under the symbol “HDSN”.

The number of record holders of the Company's common stock was approximately 120 as of March 13, 2019. The Company believes that there are 7,152 beneficial owners of its common stock.

To date, the Company has not declared or paid any cash dividends on its common stock. The payment of dividends, if any, in the future is within the discretion of the Board of Directors and will depend upon the Company's earnings, its capital requirements and financial condition, borrowing covenants, and other relevant factors. The Company presently intends to retain all earnings, if any, to finance the Company's operations and development of its business and does not expect to declare or pay any cash dividends on its common stock in the foreseeable future. In addition, the Company has a credit facility with PNC Bank National Association (“PNC”) and a separate term loan that, among other things, restrict the Company's ability to declare or pay any cash dividends on its capital stock.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

Certain statements, contained in this section and elsewhere in this Form 10-K, constitute “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements involve a number of known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such factors include, but are not limited to, changes in the laws and regulations affecting the industry, changes in the demand and price for refrigerants (including unfavorable market conditions adversely affecting the demand for, and the price of refrigerants), the Company's ability to source refrigerants, regulatory and economic factors, seasonality, competition, litigation, the nature of supplier or customer arrangements that become available to the Company in the future, adverse weather conditions, possible technological obsolescence of existing products and services, possible reduction in the carrying value of long-lived assets, estimates of the useful life of its assets, potential environmental liability, customer concentration, the ability to obtain financing, the ability to meet financial covenants under our financing facilities, any delays or interruptions in bringing products and services to market, the timely availability of any requisite permits and authorizations from governmental entities and third parties as well as factors relating to doing business outside the United States, including changes in the laws, regulations, policies, and political, financial and economic conditions, including inflation, interest and currency exchange rates, of countries in which the Company may seek to conduct business, and any other assets it acquires from third parties into its operations, and other risks detailed in the this report and in the Company’s other subsequent filings with the Securities and Exchange Commission (“SEC”). The words “believe”, “expect”, “anticipate”, “may”, “plan”, “should” and similar expressions identify forward-looking statements. Reader cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date the statement was made.

Critical Accounting Policies

The Company's discussion and analysis of its financial condition and results of operations are based upon its consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. Several of the Company's accounting policies involve significant judgments, uncertainties and estimates. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ from these estimates under different assumptions or conditions. To the extent that actual results differ from management's judgments and estimates, there could be a material adverse effect on the Company. On a continuous basis, the Company evaluates its estimates, including, but not limited to, those estimates related to its inventory reserves, and valuation allowance for the deferred tax assets relating to its net operating loss carry forwards (“NOLs”) and goodwill and intangible assets.

Inventory

For inventory, the Company evaluates both current and anticipated sales prices of its products to determine if a write down of inventory to net realizable value is necessary. Net realizable value represents the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion and disposal. The determination if a write-down to net realizable is necessary is primarily affected by the market prices for the refrigerant gases we sell. Commodity prices generally are affected by a wide range of factors beyond our control, including weather, seasonality, the availability and adequacy of supply, government regulation and policies and general political and economic conditions. At any time, our inventory levels may be substantial.

During 2018, the Company recorded a $35.9 million lower of cost or net realizable value adjustment to its inventory resulting from a challenging pricing environment affecting the industry and the market during 2018. Further declines in refrigerant gas prices could result in additional inventory net realizable value adjustments.

Goodwill

The Company has made acquisitions that included a significant amount of goodwill and other intangible assets. The Company applies the purchase method of accounting for acquisitions, which among other things, requires the recognition of goodwill (which represents the excess of the purchase price of the acquisition over the fair value of the net assets acquired and identified intangible assets). We test our goodwill for impairment on an annual basis (the first day of the fourth quarter) and between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of an asset below its carrying value. Other intangible assets that meet certain criteria are amortized over their estimated useful lives.

Beginning in 2017, the Company adopted, on a prospective basis, ASU No. 2017-04, which simplifies the accounting for goodwill impairment by eliminating Step 2 of the current goodwill impairment test that requires a hypothetical purchase price allocation to measure goodwill impairment. Under the new standard, a company will record an impairment charge based on the excess of a reporting unit’s carrying amount over its fair value. An impairment charge would be recognized when the carrying amount exceeds the estimated fair value of a reporting unit. These impairment evaluations use many assumptions and estimates in determining an impairment loss, including certain assumptions and estimates related to future earnings. If the Company does not achieve its earnings objectives, the assumptions and estimates underlying these impairment evaluations could be adversely affected, which could result in an asset impairment charge that would negatively impact operating results.

In 2017, the Company performed the annual goodwill impairment assessment using a qualitative approach to determine whether it is more likely than not that the fair value of goodwill is less than its carrying value. In performing the qualitative assessment, the Company identified and considered the significance of relevant key factors, events, and circumstances that affect the fair value of its goodwill. These factors include external factors such as macroeconomic, industry, and market conditions, as well as entity-specific factors, such as actual and planned financial performance. If the results of the qualitative assessment conclude that it is not more likely than not that the fair value of goodwill exceeds its carrying value, additional quantitative impairment testing is performed. In 2018, due to a significant selling price correction leading to unfavorable market conditions, the Company performed a quantitative test by weighing the results of an income-based valuation technique, the discounted cash flows method, and a market-based valuation technique to determine its fair value. The market approach was used as a test of reasonableness of the conclusions reached in the income approach. Under the income approach assumptions critical to our fair value estimates are: (i) discount rates used to derive the present value factors used in determining the fair value; (ii) projected revenue growth rates; and (iii) projected long-term growth rates used in the derivation of terminal year values. The market approach estimates fair value using comparable marketplace fair value data from within a comparable industry grouping. There were no impairment losses recognized in any of the three years ended December 31, 2018, 2017 and 2016.

Other Intangibles

Intangibles with determinable lives are amortized over the estimated useful lives of the assets currently ranging from 2 to 13 years. The Company reviews these useful lives annually to determine that they reflect future realizable value.

Income Taxes

The Company is taxed at statutory corporate income tax rates after adjusting income reported for financial statement purposes for certain items. Current income tax expense (benefit) reflects the tax results of revenues and expenses currently taxable or deductible. The Company utilizes the asset and liability method of accounting for deferred income taxes, which provides for the recognition of deferred tax assets or liabilities, based on enacted tax rates and laws, for the differences between the financial and income tax reporting bases of assets and liabilities.

The tax benefit associated with the Company’s net operating loss carry forwards (“NOLs”) is recognized to the extent that the Company expects to realize future taxable income. As a result of a prior year “change in control”, as defined by the Internal Revenue Service, the Company’s ability to utilize its existing NOLs is subject to certain annual limitations. To the extent that the Company utilizes its NOLs, it will not pay tax on such income. However, to the extent that the Company’s net income, if any, exceeds the annual NOL limitation, it will pay income taxes based on the then existing statutory rates. In addition, certain states either do not allow or limit NOLs and as such the Company will be liable for certain state income taxes.

As of December 31, 2018, the Company had NOLs of approximately $38.3 million: $32.9 million have no expiration date and are subject to annual limitations of 80% of earnings, $5.4 million expiring through 2023, which are subject to annual limitations of approximately $1.3 million. As of December 31, 2018, the company had state tax NOLs of approximately $21.9 million expiring in various years. We review the likelihood that we will realize the benefit of our deferred tax assets, and therefore the need for valuation allowances, on an annual basis in the fourth quarter of the year, and more frequently if events indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results are considered, along with all other available positive and negative evidence.

Concluding that a valuation allowance is not required is difficult when there is significant negative evidence that is objective and verifiable, such as cumulative losses in recent years. We utilize a rolling twelve quarters of pre-tax income or loss adjusted for significant permanent book to tax differences, as well as non-recurring items, as a measure of our cumulative results in recent years. Based on the operating loss experienced as of December 31, 2018, our analysis indicated that we had cumulative three year historical losses on this basis, which represented significant negative evidence that is objective and verifiable and, therefore, difficult to overcome. Based on our assessment as of December 31, 2018, we concluded that due to the uncertainty that the deferred tax assets will not be fully realized in the future, we recorded a net valuation allowance of approximately $11.3 million during the year ended December 31, 2018.

Overview

Sales of refrigerants continue to represent a significant majority of the Company's revenues. The Company's refrigerant sales are primarily HCFC and HFC based refrigerants and to a lesser extent CFC based refrigerants that are no longer manufactured. Currently the Company purchases virgin HCFC and HFC refrigerants and reclaimable HCFC, HFC and CFC refrigerants from suppliers and its customers. Effective January 1, 1996, the Clean Air Act (the "Act") prohibited the production of virgin CFC refrigerants and limited the production of virgin HCFC refrigerants, which production was further limited in January 2004. Federal regulations enacted in January 2004 established production and consumption allowances for HCFCs and imposed limitations on the importation of certain virgin HCFC refrigerants. Under the Act, production of certain virgin HCFC refrigerants is scheduled to be phased out by 2020, and production of all virgin HCFC refrigerants is scheduled to be phased out by 2030. In October 2014, the EPA published the Final Rule providing further reductions in the production and consumption allowances for virgin HCFC refrigerants for the years 2015 through 2019. In the Final Rule, the EPA has established a linear annual phase down schedule for the production or importation of virgin HCFC-22 that started at approximately 22 million pounds in 2015 and is being reduced by approximately 4.5 million pounds each year and ends at zero in 2020.

In July 2016 the Company was awarded, as prime contractor, a five-year contract, including a five-year renewal option, by the DLA for the management, supply, and sale of refrigerants, compressed gases, cylinders and related terms.

Recent Acquisition

On October 10, 2017, the Company and its wholly-owned subsidiary, Holdings, completed the Acquisition of ARI and effective October 11, 2017, ARI's name was changed to Aspen Refrigerants, Inc. At closing, Holdings paid net cash consideration to Airgas of approximately $209 million, which includes preliminary post-closing adjustments relating to: (i) changes in the net working capital of ARI as of the closing relative to a net working capital target, (ii) the actual amount of specified types of R-22 refrigerant inventory on hand at closing relative to a target amount thereof, and (iii) other consideration pursuant to the stock purchase agreement.

The cash consideration paid by Holdings at closing was financed with available cash balances, plus $80 million of borrowings under an enhanced asset-based lending facility of $150 million from PNC Bank and a new term loan of $105 million from funds advised by FS Investments.

Results of Operations

Year ended December 31, 2018 as compared to the year ended December 31, 2017

Revenues for the year ended December 31, 2018 were $166.5 million, an increase of $26.1 million or 18.6% from the $140.4 million reported during the comparable 2017 period primarily due to the acquisition of ARI. Excluding the impact of that acquisition, revenues for the year ended December 31, 2018 decreased by $42 million from the comparable 2017 period. This decrease in revenues was mainly attributable to a decrease in the selling price per pound of certain refrigerants sold, which accounted for a decrease in revenues of $33 million, and a decrease in the number pounds of certain refrigerants sold, which accounted for a decrease in revenues of $9 million.

Cost of sales for the year ended December 31, 2018 was $173.9 million or 104% of sales. Cost of sales for the year ended December 31, 2017 was $102.4 million or 73% of sales. During 2018, the Company recorded a $35.9 million lower of cost or net realizable value adjustment to its inventory due to a price correction. The $35.9 million adjustment included a $17.6 million write-down of a previously recorded step-up in inventory basis associated with the acquisition of ARI and an $18.3 million write-down for a lower of cost or net realizable value adjustment. The Company's performance has been negatively impacted by the challenging pricing environment affecting the industry and the market during 2018, leading to an increase in inventory reserves for certain gases. The increase in the cost of sales percentage between the periods is primarily due to the decrease in the selling price per pound of certain refrigerants sold for the year ended December 31, 2018 compared to the same period in 2017. The cost of sales percentage was also negatively impacted by $3.7 million from the amortization of the step up to fair value of R-22 refrigerant inventory acquired in the ARI acquisition that was sold during the year ended December 31, 2018.

Selling, general and administrative ("SG&A") expenses for the year ended December 31, 2018 were $32.3 million, an increase of $10.6 million from the $21.7 million reported during the comparable 2017 period. The 2017 period contained approximately three months of SG&A expenses from ARI since the ARI acquisition was not consummated until October 2017. Excluding the impact of the ARI acquisition, SG&A increased by $0.8 million primarily due to increased professional fees relating to the ARI acquisition. In addition, during the year ended December 31, 2018 and 2017, the Company incurred $6.1 million and $6.3 million, respectively, of nonrecurring charges, mainly consisting of acquisition, integration and related fees relating to the acquisition of ARI.

Amortization expense for the year ended December 31, 2018 was $3.0 million, an increase of $1.9 million from the $1.1 million reported during the comparable 2017 period. The variance is almost entirely due to increased amortization expense of intangible assets relating to the ARI acquisition.

Interest expense for the year ended December 31, 2018 was $14.8 million, compared to the $3.2 million reported during the comparable 2017 period. The difference is mainly due to the increase in interest expense relating to additional borrowings as a result of the acquisition of ARI in October 2017. In addition, the margin payable to the term loan and asset-based lenders increased as a result of amendments enacted to the respective credit agreements in 2018, as more fully described in the Liquidity and Capital Resources section.

The income tax benefit for the year ended December 31, 2018 was $1.7 million compared to income tax expense of $0.8 million for the year ended December 31, 2017. Based on the operating loss experienced in 2018, our analysis indicated that we had cumulative three year historical losses, which represented significant negative evidence that is objective and verifiable and, therefore, difficult to overcome. Based on our assessment as of December 31, 2018, we concluded that due to the uncertainty that the deferred tax assets will not be fully realized in the future, we recorded a valuation allowance of approximately $11.3 million. Further, the two main drivers of the December 31, 2018 income tax benefit of $1.7 million are as follows: (1) approximately $12.4 million of establishment of the deferred tax asset valuation allowance and (2) approximately ($1.0) million related to the deferred tax asset valuation allowance, for the establishment of the deferred tax liability “naked credit”.

During the year ended December 31, 2017, income tax expense was $0.8 million, which included the following: (1) approximately $1.4 million from the effect of new federal tax legislation enacted during the fourth quarter of 2017, and (2) approximately $2.4 million of excess tax benefits associated with the exercise of stock options in 2017.

The net loss for the year ended December 31, 2018 was $55.7 million, as compared to $11.2 million of net income reported during the comparable 2017 period, primarily due to the lower of cost or net realizable value adjustment described above, increased interest expense, the compression of gross margin attributable to a decrease in the selling price per pound of certain refrigerants sold, and a decrease in the number pounds of certain refrigerants sold, which was partially offset by the inclusion of ARI results in 2018 for a full fiscal year.

Year ended December 31, 2017 as compared to the year ended December 31, 2016

Revenues for the year ended December 31, 2017 were $140.4 million, an increase of $34.9 million or 33.1% from the $105.5 million reported during the comparable 2016 period. Included in the increase in revenues of $34.9 million is $14.8 million from ARI revenue subsequent to the acquisition date of October 10, 2017. The remaining increase in revenues of $20.1 million results from an increase in Hudson’s historical businesses. The increase in Hudson’s historical refrigerant and related revenue is primarily related to an increase in the selling price per pound of certain refrigerants sold, which accounted for an increase in revenues of $16.2 million, as well as an increase in the number of pounds of certain refrigerants sold, which accounted for an increase in revenues of $3.9 million.

Cost of sales for the year ended December 31, 2017 was $102.4 million or 73% of sales. The cost of sales for the year ended December 31, 2016 was $74.4 million or 71% of sales. The increase in the cost of sales percentage from 71% for the year ended December 31, 2016 to 73% for the year ended December 31, 2017 is primarily due to the increase in the cost per pound of certain refrigerants sold for the twelve month period ended December 31, 2017 compared to the same period in 2016. In addition, subsequent to the acquisition of ARI during the fourth quarter of 2017, the Company recorded approximately $0.8 million of amortization relating to the step-up of basis of newly acquired inventories.

Selling, general and administrative (“SG&A”) expenses for the year ended December 31, 2017 were $21.7 million, an increase of $10.0 million from the $11.7 million reported during the comparable 2016 period. The increase in SG&A is primarily due to $6.3 million of nonrecurring acquisition and related fees relating to the acquisition of ARI, which was consummated on October 10, 2017; and $4.0 million of additional operating expense relating to the ARI operations.

Amortization expense for the year ended December 31, 2017 was $1.1 million, an increase of $0.6 million from the $0.5 million reported during the comparable 2016 period. The variance is almost entirely due to increased amortization expense of other intangible assets, such as customer relationships, relating to the ARI acquisition during the fourth quarter of 2017.

Interest expense for the year ended December 31, 2017 was $3.2 million, compared to the $1.1 million reported during the comparable 2016 period. The $2.1 million difference is mainly due to a $2.0 million increase in interest expense relating to additional borrowings as a result of the ARI acquisition, offset by the $0.6 million reduction in Other expense, namely the absence of any 2017 earnout-related expense from prior acquisitions, which existed in 2016.

Income tax expense for the year ended December 31, 2017 was $0.8 million compared to income tax expense for the year ended December 31, 2016 of $6.6 million. In 2017, there were two key drivers of a reduction in income tax expense: (1) approximately $1.4 million from the effect of new federal tax legislation enacted during the fourth quarter of 2017, and (2) approximately $2.4 million of excess tax benefits associated with the exercise of stock options in 2017. For 2017 and 2016, income tax expense was reported for federal and state income taxes using statutory rates applied to adjusted pre-tax income.

Net income for the year ended December 31, 2017 was $11.2 million, an increase of $0.6 million from the $10.6 million net income reported during the comparable 2016 period, primarily due to the increase in revenues and a lower effective tax rate, partially offset by an increase in operating expenses and other expenses.

Liquidity and Capital Resources

At December 31, 2018, the Company had working capital, which represents current assets less current liabilities, of $63.2 million, a decrease of $50.4 million from the working capital of $113.6 million at December 31, 2017. The decrease in working capital is primarily attributable to reduced inventory levels, partially offset by lower amounts of short-term debt due to payments made in 2018.

Inventory and trade receivables are principal components of current assets. At December 31, 2018, the Company had inventory of $102.0 million, a decrease of $70.5 million from $172.5 million at December 31, 2017. The decrease in the inventory balance is primarily due to the lower of cost or net realizable value adjustment recorded during 2018. In addition, inventory declined as a result of sales and improved inventory management. The Company's ability to sell and replace its inventory on a timely basis and the prices at which it can be sold are subject, among other things, to current market conditions and the nature of supplier or customer arrangements and the Company's ability to source CFC based refrigerants (which are no longer being produced), HCFC refrigerants (which are currently being phased down leading to a full phase out of virgin production), or non-CFC based refrigerants. At December 31, 2018, the Company had trade receivables, net of allowance for doubtful accounts, of $14.1 million, a decrease of $0.7 million from $14.8 million at December 31, 2017. The Company's trade receivables are concentrated with various wholesalers, brokers, contractors and end-users within the refrigeration industry that are primarily located in the continental United States.

The Company has historically financed its working capital requirements through cash flows from operations, the issuance of debt and equity securities, and bank borrowings.

Net cash provided by operating activities for the year ended December 31, 2018 was $36.3 million, an increase of $17.9 million compared with the net cash provided by operating activities of $18.4 million for the comparable 2017 period. Net cash provided by operating activities in the 2018 period improved despite the net loss reported in the period due to the timing of inventory sales and purchases during the period and income tax refunds received from the Internal Revenue Service.

Net cash used in investing activities was $1.1 million for the year ended December 31, 2018, a decrease of $208.9 million compared with $210.0 million net cash used in investing activities during the comparable 2017 period. The net cash used in investing activities for the 2018 period was primarily related to investment in general purpose equipment for the Company's facilities while net cash used in 2017 primarily consisted of funds to acquire ARI.

Net cash used in financing activities for the year ended December 31, 2018 was $38.0 million compared with net cash provided by financing activities of $162.7 million for the comparable 2017 period. During the year ended December 31, 2018, the Company reduced its borrowing under the PNC Facility and the Term Loan Facility by $36.1 million while during the comparable 2017 period, the Company borrowed $170 million to consummate the ARI acquisition.

At December 31, 2018, cash and cash equivalents were $2.3 million, or approximately $2.7 million lower than the $5.0 million of cash and cash equivalents at December 31, 2017. During the year ended December 31, 2018 cash flow from operations was used mainly to pay down debt.

Bank Credit Line

On October 10, 2017, Hudson Technologies Company (“HTC”), an indirect subsidiary of Hudson Technologies, Inc. (the “Company”), and HTC’s affiliates Hudson Holdings, Inc. and Aspen Refrigerants, Inc. (formerly known as Airgas-Refrigerants, Inc.), as borrowers (collectively, the “Borrowers”), , and the Company as a guarantor, became obligated under an Amended and Restated Revolving Credit and Security Agreement (the “PNC Facility”) with PNC Bank, National Association, as administrative agent, collateral agent and lender (“Agent” or “PNC”), PNC Capital Markets LLC as lead arranger and sole bookrunner, and such other lenders as may thereafter become a party to the PNC Facility.

Under the terms of the PNC Facility, the Borrowers may borrow, from time to time, up to $150 million at any time consisting of revolving loans in a maximum amount up to the lesser of $150 million and a borrowing base that is calculated based on the outstanding amount of the Borrowers’ eligible receivables and eligible inventory, as described in the PNC Facility. The PNC Facility also contains a sublimit of $15 million for swing line loans and $5 million for letters of credit.

Amounts borrowed under the PNC Facility were used by the Borrowers to consummate the acquisition of ARI and for working capital needs, certain permitted future acquisitions, and to reimburse drawings under letters of credit. At December 31, 2018, total borrowings under the PNC Facility were $29.0 million, and total availability was approximately $34.4 million. In addition, there was a $130,000 outstanding letter of credit at December 31, 2018.

Interest on loans under the PNC Facility is payable in arrears on the first day of each month with respect to loans bearing interest at the domestic rate (as set forth in the PNC Facility) and at the end of each interest period with respect to loans bearing interest at the Eurodollar rate (as set forth in the PNC Facility) or, for Eurodollar rate loans with an interest period in excess of three months, at the earlier of (a) each three months from the commencement of such Eurodollar rate loan or (b) the end of the interest period. Interest charges with respect to loans were initially computed on the actual principal amount of loans outstanding during the month at a rate per annum equal to (A) with respect to domestic rate loans, the sum of (i) a rate per annum equal to the higher of (1) the base commercial lending rate of PNC, (2) the federal funds open rate plus 0.5% and (3) the daily LIBOR plus 1.0%, plus (ii) between 0.50% and 1.00% depending on average quarterly undrawn availability and (B) with respect to Eurodollar rate loans, the sum

of the Eurodollar rate plus between 1.50% and 2.00% depending on average quarterly undrawn availability.

Borrowers and the Company granted to the Agent, for the benefit of the lenders, a security interest in substantially all of their respective assets, including receivables, equipment, general intangibles (including intellectual property), inventory, subsidiary stock, real property, and certain other assets.

The PNC Facility contains a financial covenant requiring the Company to maintain at all times a Fixed Charge Coverage Ratio (FCCR) of not less than 1.00 to 1.00, as of the end of each trailing period of four consecutive quarters. The FCCR (as defined in the PNC Facility) is the ratio of (a) EBITDA for such period, minus unfinanced capital expenditures made during such period, minus the aggregate amount of cash taxes paid during such period, to (b) the aggregate amount of all scheduled payments of principal (excluding principal payments relating to outstanding revolving loans under the PNC Facility) and all cash payments of interest, plus cash dividends and distributions made during such period, plus payments in respect of capital lease obligations made during such period.

On December 6, 2017, the Borrowers and the Company as a guarantor, entered into a First Amendment to Amended and Restated Revolving Credit and Security Agreement (the “First Amendment”) with PNC. The First Amendment, which was entered into in connection with the syndication of the credit facility, amended the PNC Facility to allow syndicate lenders to provide certain cash management and hedging products and services to the Borrowers, and made amendments to the PNC Facility with respect to lender approval requirements of specified matters and other administrative matters.

On November 30, 2018, the Borrowers and the Company as a guarantor, entered into a Second Amendment to Amended and Restated Revolving Credit and Security Agreement, Consent and Waiver (the “Second Revolver Amendment”) with PNC Bank, National Association, as administrative agent, collateral agent and lender (“Agent” or “PNC”) and the lenders thereunder.

The Second Revolver Amendment amends the Amended and Restated Revolving Credit and Security Agreement dated October 10, 2017 (as amended to date, the “PNC Facility”), to replace the existing fixed charge coverage ratio until September 30, 2019 with an EBITDA covenant requiring minimum EBITDA for the four fiscal quarters ended on the following dates: September 30, 2018 - $9,240,000; December 31, 2018 - $9,428,000; March 31, 2019 - $9,270,000; June 30, 2019 - $14,195,000. The minimum fixed charge coverage ratio of 1.00:1.00 shall recommence for the quarter ending September 30, 2019.

The Second Revolver Amendment also increases the applicable interest rate margin to 3% for Eurodollar Rate Loans (as defined in the PNC Facility) and 2% for Domestic Rate Loans (as defined in the PNC Facility) through September 30, 2019, with applicable margins thereafter of between 2.5% and 3% for Eurodollar Rate Loans and 1.5% and 2% for Domestic Rate Loans based on the applicable fixed charge coverage ratio. In connection with the Second Revolver Amendment, the Borrowers also paid the Agent a waiver and amendment fee of $250,000.

The Company evaluated the First and Second Revolver Amendments in accordance with the provisions of ASC 470 to determine if the Amendments were a modification or an extinguishment of debt and concluded that amendments were a modification of the original term loan agreement for accounting purposes. As a result, the Company capitalized an additional $250,000 of deferred financing costs in connection with the Second Amendment, which are being amortized over the remaining term.

The PNC Facility also contains customary non-financial covenants relating to the Company and the Borrowers, including limitations on Borrowers' ability to pay dividends on common stock or preferred stock, and also includes certain events of default, including payment defaults, breaches of representations and warranties, covenant defaults, cross-defaults to other obligations, events of bankruptcy and insolvency, certain ERISA events, judgments in excess of specified amounts, impairments to guarantees and a change of control.

The commitments under the PNC Facility will expire and the full outstanding principal amount of the loans, together with accrued and unpaid interest, are due and payable in full on October 10, 2022, unless the commitments are terminated and the outstanding principal amount of the loans are accelerated sooner following an event of default.

In connection with the closing of the PNC Facility, the Company also entered into an Amended and Restated Guaranty and Suretyship Agreement, dated as of October 10, 2017 (the "Revolver Guarantee"), pursuant to which the Company affirmed its unconditional guarantee of the payment and performance of all obligations owing by Borrowers to PNC, as Agent for the benefit of the revolving lenders.

Term Loan Facility

On October 10, 2017, HTC, Holdings, and ARI, as borrowers, and the Company, as guarantor, became obligated under a Term Loan Credit and Security Agreement (the "Term Loan Facility") with U.S. Bank National Association, as administrative agent and collateral agent ("Term Loan Agent") and funds advised by FS Investments and such other lenders as may thereafter become a party to the Term Loan Facility (the "Term Loan Lenders").

Under the terms of the Term Loan Facility, the Borrowers immediately borrowed $105 million pursuant to a term loan (the "Initial Term Loan") and could borrow up to an additional $25 million for a period of eighteen months after closing to fund additional permitted acquisitions (the "Delayed Draw Commitment", and together with the Initial Term Loan, the "Term Loans").

On June 29, 2018, HTC, Holdings and ARI, as borrowers, and the Company as a guarantor, entered into a Limited Waiver and First Amendment to Term Loan Credit and Security Agreement and Other Documents (the "First

Amendment”) with U.S. Bank National Association, as collateral agent and administrative agent, and the various lenders thereunder. The First Amendment terminated the Delayed Draw Commitment and provided an interim waiver with respect to compliance with the existing TLR covenant at June 30, 2018.

The Term Loans mature on October 10, 2023. Principal payments on the Term Loans are required on a quarterly basis, commencing with the quarter ended March 31, 2018, in the amount of 1% per annum of the original principal of the outstanding Term Loans. Commencing with the fiscal year ending December 31, 2018, the Term Loan Facility also requires annual principal payments of up to 50% of Excess Cash Flow (as defined in the Term Loan Facility) if the Company’s Total Leverage Ratio (as defined in the Term Loan Facility) for the applicable year is greater than 2.75 to 1.00. The Term Loan Facility also requires mandatory prepayments of the Term Loans in the event of certain asset dispositions, debt issuances, and casualty and condemnation events. The Term Loans may be prepaid at the option of the Borrowers at par in an amount up to $30 million. Additional prepayments are permitted after the first anniversary of the closing date and were originally subject to a prepayment premium of 3% in year two, 1% in year three and zero in year four and thereafter.

Interest on the Term Loans is generally payable on the earlier of the last day of the interest period applicable to such Eurodollar rate loan and the last day of the Term Loan Facility, as applicable. Interest was originally payable at the rate per annum of the Eurodollar Rate (as defined in the Term Loan Facility) plus 7.25%. The Borrowers have the option of paying 3.00% interest per annum in kind by adding such amount to the principal of the Term Loans during no more than five fiscal quarters during the term of the Term Loan Facility.

Borrowers and the Company granted to the Term Loan Agent, for the benefit of the Term Loan Lenders, a security interest in substantially all of their respective assets, including receivables, equipment, general intangibles (including intellectual property), inventory, subsidiary stock, real property, and certain other assets.

The Term Loan Facility originally contained a financial covenant requiring the Company to maintain a Total Leverage Ratio (TLR) of not greater than 4.75 to 1.00, tested as of the last day of the fiscal quarter. The Term Loan Facility was amended on August 14, 2018, including a waiver of the TLR covenant at June 30, 2018, as described below. The TLR (as defined in the Term Loan Facility) is the ratio of (a) funded debt as of such day to (b) EBITDA for the four consecutive fiscal quarters ending on the last day of such fiscal quarter. Funded debt (as defined in the Term Loan Facility) includes amounts borrowed under the PNC Facility and the Term Loan Facility as well as capitalized lease obligations and other indebtedness for borrowed money maturing more than one year from the date of creation thereof. As of December 31, 2018 and 2017, the TLR was approximately 11.82 to 1 and 3.03 to 1, respectively.

The Term Loan Facility also contains customary non-financial covenants relating to the Company and the Borrowers, including limitations on their ability to pay dividends on common stock or preferred stock, and also includes certain events of default, including payment defaults, breaches of representations and warranties, covenant defaults, cross-defaults to other obligations, events of bankruptcy and insolvency, certain ERISA events, judgments in excess of specified amounts, impairments to guarantees and a change of control.

In connection with the closing of the Term Loan Facility, the Company also entered into a Guaranty and Suretyship Agreement, dated as of October 10, 2017 (the “Term Loan Guarantee”), pursuant to which the Company affirmed its unconditional guarantee of the payment and performance of all obligations owing by Borrowers to Term Loan Agent, as agent for the benefit of the Term Loan Lenders.

The Term Loan Agent and the Agent have entered into an intercreditor agreement governing the relative priority of their security interests granted by the Borrowers and the Guarantor in the collateral, providing that the Agent shall have a first priority security interest in the accounts receivable, inventory, deposit accounts and certain other assets (the “Revolving Credit Priority Collateral”) and the Term Loan Agent shall have a first priority security interest in the equipment, real property, capital stock of subsidiaries and certain other assets (the “Term Loan Priority Collateral”).

On August 14, 2018, HTC, Holdings and ARI, as borrowers, and the Company as a guarantor, entered into a Waiver and Second Amendment to Term Loan Credit and Security Agreement (the "Second Amendment") with U.S. Bank National Association, as collateral agent and administrative agent, and the various lenders thereunder. The Second Amendment superseded interim waivers and amended the Term Loan Facility, to waive compliance with the existing TLR covenant at June 30, 2018.

In addition, the Second Amendment also: (i) increases the interest rate by 300 basis points effective July 1, 2018; (ii) waives the existing prepayment premium in the Term Loan Facility in the event the term loan is repaid in full prior to March 31, 2020; (iii) adds an exit fee equal to three percent (3.00%) of the outstanding principal balance of the term loans on the date of the Second Amendment (provided, that payment of the exit fee is waived in the event that the term loan is repaid in full prior to January 1, 2020, and provided further that the exit fee is reduced to one-and-one-half percent (1.50%) in the event that the term loan is repaid in full on or after January 1, 2020 but prior to March 31, 2020); (iv) restricted acquisitions and other equity investments prior to September 30, 2018; and (v) required payment of a one-time waiver fee equal to one percent (1.00%) of the outstanding term loans.

On November 30, 2018, the Borrowers, and the Company as a guarantor, entered into a Waiver and Third Amendment to Term Loan Credit and Security Agreement (the "Third Amendment") with U.S. Bank National Association, as collateral agent and administrative agent, and the various lenders thereunder.

The Third Amendment superseded interim waivers and amended the Term Loan Facility to reset the maximum Total Leverage Ratio covenant contained in the Term Loan Facility at the indicated dates as follows: (i) June 30, 2018 - 10.15:1.00; (ii) September 30, 2018 - 12.45:1.00; (iii) December 31, 2018 – 12.75:1.00; (iv) March 31, 2019 – 12.95:1.00; (v) June 30, 2019 – 8.25:1.00; September 30, 2019 – 6.40:1.00; (vi) December 31, 2019 – 5:70:1.00; and (vii) March 31, 2020 and each fiscal quarter thereafter – 4:75:1.00.

The Third Amendment increased the scheduled quarterly principal repayments to $525,000 effective December 31, 2018. In addition the Third Amendment requires a further repayment of principal on or before November 14, 2019 in an amount equal to (x) 100% of Excess Cash Flow (as defined in the Term Loan Facility) for the four fiscal quarter period ending September 30, 2019 if after giving effect to the payment thereof, the Borrowers have minimum aggregate Undrawn Availability (as defined in the Term Loan Facility) of at least $35,000,000, (y) 50% of Excess Cash Flow for the four fiscal quarter period ending September 30, 2019 if after giving effect to the payment thereof, the Borrowers have minimum aggregate Undrawn Availability of at least $15,000,000 but less than $35,000,000, and (z) 0% of Excess Cash Flow for the four fiscal quarter period ending September 30, 2019 if after giving effect to the payment thereof, the Borrowers have minimum aggregate Undrawn Availability less than $15,000,000, with any such payment subject to reduction by the amount of any voluntary prepayments made following the date of the Third Amendment. Any voluntary prepayments will not be subject to the prepayment premium or make-whole provisions of the Term Loan Facility. The Third Amendment also adds a minimum liquidity requirement (consisting of cash plus undrawn availability on the Borrowers' revolving loan facility) of $28 million, measured monthly.

The Third Amendment also amended the exit fee payable to the term loan lenders to five percent (5.00%) of the outstanding principal balance of the term loans on November 30, 2018 (the "Exit Fee"), which Exit Fee shall be payable in full in cash upon the earlier to occur of (x) repayment in full of the term loans, or (y) any acceleration of the term loans. The Exit Fee will be reduced by one-tenth of one percent (0.10%) for every $1,000,000 in voluntary prepayments made prior to January 1, 2020; provided, that, in no event shall the Exit Fee be reduced below three percent (3.00%) as a result of any such prepayments, (ii) payment of the Exit Fee shall be waived in the event that repayment in full of the term loans occurs prior to January 1, 2020, and (iii) the Exit Fee shall be reduced by an amount equal to fifty percent (50%) of the amount that would otherwise payable in the event that repayment in full occurs on or after January 1, 2020 but prior to March 31, 2020.

The Company evaluated the First, Second and Third Amendments in accordance with the provisions of Accounting Standards Codification ("ASC") 470, Debt, to determine if the Amendments were a modification or an extinguishment of debt and concluded that the amendments were a modification of the original term loan agreement for accounting purposes. As a result, the Company capitalized an additional $1.0 million of deferred financing costs in connection with the Second Amendment, which are being amortized over the remaining term.

The Company was in compliance with all covenants, under the PNC Facility and the Term Loan Facility, as amended, as of December 31, 2018. The Company's ability to comply with these covenants in future quarters may be affected by events beyond the Company's control, including general economic conditions, weather conditions, regulations and refrigerant pricing. Therefore, we cannot make any assurance that we will continue to be in compliance during future periods.

The Company believes that it will be able to satisfy its working capital requirements for the foreseeable future from anticipated cash flows from operations and available funds under the PNC Facility. Any unanticipated expenses, including, but not limited to, an increase in the cost of refrigerants purchased by the Company, an increase in

operating expenses or failure to achieve expected revenues from the Company’s RefrigerantSide® Services and/or refrigerant sales or additional expansion or acquisition costs that may arise in the future would adversely affect the Company’s future capital needs. There can be no assurance that the Company’s proposed or future plans will be successful, and as such, the Company may require additional capital sooner than anticipated, which capital may not be available on acceptable terms, or at all.

Inflation

Inflation has not historically had a material impact on the Company's operations.

Reliance on Suppliers and Customers

The Company participates in an industry that is highly regulated, and changes in the regulations affecting our business could affect our operating results. Currently the Company purchases virgin HCFC and HFC refrigerants and reclaimable, primarily HCFC and CFC, refrigerants from suppliers and its customers. Under the Act the phase-down of future production of certain virgin HCFC refrigerants commenced in 2010 and is scheduled to be fully phased out by the year 2020, and production of all virgin HCFC refrigerants is scheduled to be phased out by the year 2030. To the extent that the Company is unable to source sufficient quantities of refrigerants or is unable to obtain refrigerants on commercially reasonable terms or experiences a decline in demand and/or price for refrigerants sold by it, the Company could realize reductions in revenue from refrigerant sales, which could have a material adverse effect on the Company’s operating results and financial position.

For the year ended December 31, 2018, one customer accounted for 11% of the Company’s revenues; no other customer accounted for more than 10% of the Company’s revenues. At December 31, 2018, there were $2.9 million of outstanding receivables from this customer.

For the year ended December 31, 2017, two customers each accounted for 10% or more of the Company’s revenues and, in the aggregate these two customers accounted for 33% of the Company’s revenues. At December 31, 2017, there were $2.7 million outstanding receivables from these customers.

For the year ended December 31, 2016, two customers each accounted for 10% or more of the Company’s revenues and, in the aggregate these two customers accounted for 30% of the Company’s revenues. At December 31, 2016, there were no outstanding receivables from these customers.

The loss of a principal customer or a decline in the economic prospects of and/or a reduction in purchases of the Company's products or services by any such customer could have a material adverse effect on the Company's operating results and financial position.

Seasonality and Weather Conditions and Fluctuations in Operating Results

The Company's operating results vary from period to period as a result of weather conditions, requirements of potential customers, non-recurring refrigerant and service sales, availability and price of refrigerant products (virgin or reclaimable), changes in reclamation technology and regulations, timing in introduction and/or retrofit or replacement of refrigeration equipment, the rate of expansion of the Company's operations, and by other factors. The Company's business is seasonal in nature with peak sales of refrigerants occurring in the first nine months of each year. During past years, the seasonal decrease in sales of refrigerants has resulted in losses particularly in the fourth quarter of the year. In addition, to the extent that there is unseasonably cool weather throughout the spring and summer months, which would adversely affect the demand for refrigerants, there would be a corresponding negative impact on the Company. Delays or inability in securing adequate supplies of refrigerants at peak demand periods, lack of refrigerant demand, increased expenses, declining refrigerant prices and a loss of a principal customer could result in significant losses. There can be no assurance that the foregoing factors will not occur and result in a material adverse effect on the Company's financial position and significant losses. The Company believes that to a lesser extent there is a similar seasonal element to RefrigerantSide® Service revenues as refrigerant sales. The Company is continuing to assess its RefrigerantSide® Service revenues seasonal trend.

Off-Balance Sheet Arrangements

None.

Recent Accounting Pronouncements

In January 2017, the FASB issued Accounting Standards Update ("ASU") No. 2017-04, “Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment” (ASU 2017-04) which simplifies the accounting for goodwill impairment by eliminating Step 2 of the current goodwill impairment test which requires a hypothetical purchase price allocation to measure goodwill impairment. Under the new standard, a company will record an impairment charge based on the excess of a reporting unit’s carrying amount over its fair value. ASU 2017-04 does not change the guidance on completing Step 1 of the goodwill impairment test and still allows a company to perform the optional qualitative goodwill impairment assessment before determining whether to proceed to Step 1. The standard is effective for annual and interim goodwill impairment tests in fiscal years beginning after December 15, 2019 with early adoption permitted for any impairment test performed on testing dates after January 1, 2017. The Company adopted this standard on January 1, 2017 and has applied its guidance in its impairment assessments.

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments - Credit Losses." This ASU requires an organization to measure all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. Financial institutions and other organizations will now use forward-looking information to better inform their credit loss estimates. The amendments in this ASU are effective for fiscal years beginning after December 15, 2019, and for interim periods therein. The Company does not expect the amended standard to have a material impact on the Company’s results of operations.

In March 2016, the FASB issued ASU No. 2016-09, “Improvements to Employee Share-Based Payment Accounting.” This guidance involves several aspects of accounting for employee share-based payments including: (a) income tax consequences; (b) classification of awards as either equity or liabilities; and (c) classification on the statement of cash flows. The Company adopted this ASU on a prospective basis on January 1, 2017. Excess tax benefits and deficiencies are recognized in the consolidated statement of operations rather than capital in excess of par value of stock. Excess tax benefits within the consolidated statement of cash flows are presented as an operating activity. The impact of the adoption on the Company’s income tax expense or benefit and related cash flows during and after the period of adoption are dependent in part upon grants and vesting of stock-based compensation awards and other factors that are not fully controllable or predicable by the Company, such as the future market price of the Company's common stock, the timing of employee exercises of vested stock options, and the future achievement of performance criteria that affect performance-based awards. The Company adopted this ASU at the beginning of 2017 and during 2017, the impact of this standard reduced the Company’s income tax expense and increased net income by approximately $2.4 million.

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, Leases (Topic 842) (ASU 2016-02), as amended, which generally requires lessees to recognize operating and financing lease liabilities and corresponding right-of-use assets on the balance sheet and to provide enhanced disclosures surrounding the amount, timing and uncertainty of cash flows arising from leasing arrangements. In July 2018, the FASB issued ASU No. 2018-11, Leases – Targeted Improvements, as an update to the previously-issued guidance. This update added a transition option which allows for the recognition of a cumulative effect adjustment to the opening balance of retained earnings in the period of adoption without recasting the financial statements in periods prior to adoption. We will use the modified

retrospective transition approach in ASU No. 2018-11 and apply the new lease requirements through a cumulative-effect adjustment in the period of adoption. We will elect the package of practical expedients permitted under the transition guidance, which allows us to carryforward our historical lease classification, our assessment on whether a contract is or contains a lease, and our initial direct costs for any leases that exist prior to adoption of the new standard. We will also elect to combine lease and non-lease components and to keep leases with an initial term of 12 months or less off the balance sheet and recognize the associated lease payments in the consolidated statements of operations on a straight-line basis over the lease term. We estimate approximately $8.7 million would be recognized as total right-of-use assets and total lease liabilities on our consolidated balance sheet as of January 1, 2019. Other than as disclosed, we do not expect the new standard to have a material impact on our remaining consolidated financial statements.

In September 2015, the FASB issued Accounting Standards Update No. 2015-16, “Business Combinations (Topic 805): Simplifying the Accounting for Measurement-Period Adjustments”, or ASU 2015-16. This amendment requires the acquirer in a business combination to recognize in the reporting period in which adjustment amounts are determined, any adjustments to provisional amounts that are identified during the measurement period, calculated as if the accounting had been completed at the acquisition date. Prior to the issuance of ASU 2015-16, an acquirer was required to restate prior period financial statements as of the acquisition date for adjustments to provisional amounts. The amendments in ASU 2015-16 are to be applied prospectively upon adoption. The Company adopted ASU 2015-16 in the fourth quarter of 2016. The adoption of the provisions of ASU 2015-16 did not have a material impact on its results of operations or financial position.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Sensitivity

We are exposed to market risk from fluctuations in interest rates on the PNC Facility and on the Term Loan Facility. The PNC Facility is a $150,000,000 secured facility, and the Term Loan Facility provides for Term Loans of $105,000,000.

Interest on loans under the PNC Facility is payable in arrears on the first day of each month with respect to loans bearing interest at the domestic rate (as set forth in the PNC Facility) and at the end of each interest period with respect to loans bearing interest at the Eurodollar rate (as set forth in the PNC Facility) or, for Eurodollar rate loans with an interest period in excess of three months, at the earlier of (a) each three months from the commencement of such Eurodollar rate loan or (b) the end of the interest period. As stated previously in Liquidity and Capital Resources, the Second Revolver Amendment increases the applicable interest rate margin to 3% for Eurodollar Rate Loans (as defined in the PNC Facility) and 2% for Domestic Rate Loans (as defined in the PNC Facility) through September 30, 2019, with applicable margins thereafter of between 2.5% and 3% for Eurodollar Rate Loans and 1.5% and 2% for Domestic Rate Loans based on the applicable fixed charge coverage ratio. There was a $29,000,000 outstanding balance on the PNC Facility as of December 31, 2018. Future interest rate changes on our borrowing under the PNC Facility may have an impact on our consolidated results of operations.

Interest on the Term Loans is payable at the rate per annum of the Eurodollar Rate (as defined in the Term Loan Facility) plus 10.25% and is generally payable on the earlier of the last day of the interest period applicable to such Eurodollar rate loan and the last day of the Term Loan Facility, as applicable. There was a $104,212,500 outstanding balance on the Term Loan Facility as of December 31, 2018. Future interest rate changes on our borrowing under the Term Loans may have an impact on our consolidated results of operations.

If the loan bearing interest rate changed by 1%, the effect on interest expense would be approximately $1.3 million as of December 31, 2018.

Refrigerant Market

We are also exposed to market risk from fluctuations in the demand, price and availability of refrigerants. To the extent that the Company is unable to source sufficient quantities of refrigerants or is unable to obtain refrigerants on commercially reasonable terms, or experiences a decline in demand and/or price for refrigerants sold by the Company, the Company could realize reductions in revenue from refrigerant sales or write downs of inventory, which could have

a material adverse effect on our consolidated results of operations.

Item 8. Financial Statements and Supplementary Data

The financial statements appear in a separate section of this report following Part IV.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not Applicable.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

The Company, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures, as defined in Rule 13a-15(e) of the Securities Exchange Act of 1934, as amended ("Exchange Act"), as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and the Chief Financial Officer have concluded that the Company's disclosure controls and procedures were effective and provided reasonable assurance that information required to be disclosed in reports filed under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission, and that such information is accumulated and communicated to the Company's management, including its principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. Because of the inherent limitations in all control systems, any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management necessarily is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Furthermore, the Company's controls and procedures can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the control and misstatements due to error or fraud may occur and not be detected on a timely basis.

Changes in Internal Control over Financial Reporting

As required by Rule 13a-15(d) of the Exchange Act, our management, including our principal executive officer and our principal financial officer, conducted an evaluation of the internal control over financial reporting to determine whether any changes occurred during the quarter ended December 31, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Based on that evaluation, our principal executive officer and principal financial officer concluded there were no such changes, except for the changes to controls to remediate a material weakness previously identified for lack a sufficient complement of competent finance personnel to appropriately account for, review, and disclose the completeness and accuracy of transactions entered into by the Company. (Also see Part I, Item 4 of our third quarter 2018 Form 10-Q filed on November 30, 2018).

Remediation Plan Completed

The material weakness during the second quarter of 2018 was due in part to the reduction in size of the finance staff resulting from various staff departures that occurred during the first half of 2018, as a result of the relocation of the finance staff of ARI, which was acquired during the fourth quarter of 2017.

As part of our remediation plan, we hired additional employees and external consultants who have the technical skillset to improve our financial reporting; implement new policies, procedures and controls; properly review transactions recorded and classified in the financial statements; and ensure proper accounting and related disclosures for complex accounting matters when necessary. We hired these individuals in September 2018 and fully remediated this material weakness, including documentation and testing, by December 31, 2018.

Management's Report on Internal Control over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting for the Company as defined in Rule 13a-15(f) under the Exchange Act. The Company's internal control over financial reporting is designed to provide reasonable assurance to the Company's management and board of directors regarding the preparation and fair presentation of published financial statements and the reliability of financial reporting.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

The Company's Chief Executive Officer and Chief Financial Officer have assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2018. In making this assessment, the Company's Chief Executive Officer and Chief Financial Officer have used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in *Internal Control – Integrated Framework (2013)*. Based on our assessment, the Company's Chief Executive Officer and Chief Financial Officer believe that, as of December 31, 2018, the Company's internal control over financial reporting is effective based on those criteria.

BDO USA, LLP, the independent registered public accounting firm which audits our financial statements, has audited our internal control over financial reporting as of December 31, 2018 and has expressed an unqualified opinion thereon.

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Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors

Hudson Technologies, Inc.

Pearl River, NY

Opinion on Internal Control over Financial Reporting

We have audited Hudson Technologies, Inc. and subsidiaries' (the "Company's") internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO criteria"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Company and subsidiaries as of December 31, 2018 and 2017, the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and our report dated March 15, 2019 expressed an unqualified opinion.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Item 9A, Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit of internal control over financial reporting in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and

testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ BDO USA, LLP

Stamford, CT

March 15, 2019

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Item 9B. Other Information

None.

Part III

Item 10. Directors, Executive Officers and Corporate Governance

Reference is made to the disclosure required by Items 401, 405, 406, and 407(c)(3), (d)(4), and (d)(5) of Regulation S-K to be contained in the Registrant's definitive proxy statement to be mailed to stockholders on or about April 29, 2019, and to be filed with the Securities and Exchange Commission.

Item 11. Executive Compensation

Reference is made to the disclosure required by Items 402 and 407(e)(4) and (e)(5) of Regulation S-K to be contained in the Registrant's definitive proxy statement to be mailed to stockholders on or about April 29, 2019, and to be filed with the Securities and Exchange Commission.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Reference is made to the disclosure required by Item 403 of Regulation S-K to be contained in the Registrant's definitive proxy statement to be mailed to stockholders on or about April 29, 2019, and to be filed with the Securities Exchange Commission.

Equity Compensation Plan

The following table provides certain information with respect to all of Hudson’s equity compensation plans as of December 31, 2018.

Plan Category	Number of securities to be issued upon exercise of outstanding options (a)	Weighted-average exercise price of outstanding options (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	4,415,397	$ 1.20	3,143,009

Item 13. Certain Relationships and Related Transactions, and Director Independence

Reference is made to the disclosure required by Items 404 and 407(a) of Regulation S-K to be contained in the Registrant's definitive proxy statement to be mailed to stockholders on or about April 29, 2019, and to be filed with the Securities and Exchange Commission.

Item 14. Principal Accountant Fees and Services

Reference is made to the proposal regarding the approval of the Registrant's independent registered public accounting firm to be contained in the Registrant's definitive proxy statement to be mailed to stockholders on or about April 29, 2019, and to be filed with the Securities and Exchange Commission.

Part IV

Item 15.	**Exhibits and Financial Statement Schedules**
(A)(1)	Financial Statements
	The consolidated financial statements of Hudson Technologies, Inc. appear after Item 16 of this report
(A)(2)	Financial Statement Schedules
	None
(A)(3)	Exhibits
2.1	Stock Purchase Agreement, dated August 9, 2017, by and among Hudson Technologies, Inc., Hudson Holdings, Inc. and Airgas, Inc. (21)
3.1	Certificate of Incorporation and Amendment. (1)
3.2	Amendment to Certificate of Incorporation, dated July 20, 1994. (1)
3.3	Amendment to Certificate of Incorporation, dated October 26, 1994. (1)
3.4	Certificate of Amendment of the Certificate of Incorporation dated March 16, 1999. (2)
3.5	Certificate of Correction of the Certificate of Amendment dated March 25, 1999. (2)
3.6	Certificate of Amendment of the Certificate of Incorporation dated March 29, 1999. (2)
3.7	Certificate of Amendment of the Certificate of Incorporation dated February 16, 2001. (3)
3.8	Certificate of Amendment of the Certificate of Incorporation dated March 20, 2002. (4)
3.9	Amendment to Certificate of Incorporation dated January 3, 2003. (5)
3.10	Amended and Restated By-Laws adopted July 29, 2011. (11)
3.11	Certificate of Amendment of the Certificate of Incorporation dated September 15, 2015. (16)
10.1	Assignment of patent rights from Kevin J. Zugibe to Registrant. (1)
10.2	2004 Stock Incentive Plan. (8)*
10.3	Commercial Mortgage, dated May 27, 2005, between Hudson Technologies Company and Busey Bank. (6)
10.4	Commercial Installment Mortgage Note, dated May 27, 2005, between Hudson Technologies Company and Busey Bank. (6)
10.5	Amended and Restated Employment Agreement with Kevin J. Zugibe, as amended. (10)*
10.6	Agreement with Brian F. Coleman, as amended. (10)*
10.7	Agreement with Charles F. Harkins, as amended. (10)*
10.8	Agreement with Stephen P. Mandracchia, as amended. (10)*
10.9	2008 Stock Incentive Plan. (9)*
10.10	Form of Incentive Stock Option Agreement under the 2008 Stock Incentive Plan with full vesting upon issuance. (10)*
10.11	Form of Incentive Stock Option Agreement under the 2008 Stock Incentive Plan with options vesting in equal installments over two year period. (10)*
10.12	Form of Non-Incentive Stock Option Agreement under the 2008 Stock Incentive Plan with full vesting upon issuance. (10)*
10.13	Form of Non-Incentive Stock Option Agreement under the 2008 Stock Incentive Plan with options vesting in equal installments over two year period. (10)*
10.14	First Amendment to Amended and Restated Employment Agreement with Kevin J. Zugibe, dated December 30, 2008. (10)*
10.15	Long Term Care Insurance Plan Summary. (12)*

10.16	Amendment No. 1 to the Hudson Technologies, Inc. 2008 Stock Incentive Plan adopted October 22, 2013. (13)*
10.17	2014 Stock Incentive Plan (14)*
10.18	Form of Incentive Stock Option Agreement under the 2014 Stock Incentive Plan with full vesting upon issuance. (15)*
10.19	Form of Incentive Stock Option Agreement under the 2014 Stock Incentive Plan with options vesting in equal installments over two year period. (15)*
10.20	Form of Non-Incentive Stock Option Agreement under the 2014 Stock Incentive Plan with full vesting upon issuance. (15)*
10.21	Form of Non-Incentive Stock Option Agreement under the 2014 Stock Incentive Plan with options vesting in equal installments over two year period. (15)*
10.22	Form of Incentive Barrier Stock Option Agreement under the 2014 Stock Incentive Plan with full vesting upon issuance. (15)*
10.23	Form of Non-Incentive Barrier Stock Option Agreement under the 2014 Stock Incentive Plan with full vesting upon issuance. (15)*
10.24	Form of Incentive Barrier Stock Option Agreement under the 2008 Stock Incentive Plan with full vesting upon issuance. (15)*
10.25	Form of Non-Incentive Barrier Stock Option Agreement under the 2008 Stock Incentive Plan with full vesting upon issuance. (15)*
10.26	Second Amended and Restated Employment Agreement with Kevin J. Zugibe. (17)*
10.27	Amended and Restated Agreement with Brian Coleman (17)*
10.28	Fifth Amendment to Revolving Credit, Term Loan and Security Agreement between Hudson Technologies Company and PNC, dated April 8, 2016. (18)
10.29	Second Amended and Restated Revolving Credit Note, dated April 8, 2016 by Hudson Technologies Company as borrower in favor of PNC. (18)
10.30	Guarantor's' Ratification, dated April 8, 2016 by the Registrant and Hudson Holdings, Inc. (18)
10.31	Agreement, dated September 5, 2016, between Hudson Technologies, Inc. and Nat Krishnamurti. (19)*
10.32	Underwriting Agreement among William Blair & Company, L.L.C. and Craig-Hallum Capital Group LLP, for themselves and as representatives of several underwriters, and Hudson Technologies, Inc. dated December 8, 2016. (20)
10.33	Amended and Restated Revolving Credit and Security Agreement dated October 10, 2017 with PNC Bank, National Association (22)
10.34	Amended and Restated Guaranty and Suretyship Agreement dated October 10, 2017 by Hudson Technologies, Inc. (22)
10.35	Term Loan Credit and Security Agreement dated October 10, 2017 with U.S. Bank National Association as Administrative Agent and Collateral Agent for the Term Lenders (22)
10.36	Guaranty and Suretyship Agreement dated October 10, 2017 by Hudson Technologies, Inc. (22)
10.37	First Amendment to Amended and Restated Revolving Credit and Security Agreement with PNC Bank, National Association (23)
10.38	2018 Stock Incentive Plan (24)*
10.39	Form of Incentive Stock Option Agreement under the 2018 Stock Incentive Plan with full vesting upon issuance (30)*
10.40	Form of Incentive Stock Option Agreement under the 2018 Stock Incentive Plan with vesting in equal installments over a specified of time. (30)*
10.41	Form of Non-Qualified Stock Option Agreement under the 2018 Stock Incentive Plan with full vesting upon issuances (30)*
10.42	

	Form of Non-Qualified Stock Option Agreement under the 2018 Stock Incentive Plan with vesting in equal installments over a specified period of time. (30)*
10.43	Form of Non-Qualified Stock Option Agreement under the 2018 Stock Incentive Plan with conditional vesting provisions. (30)*
10.44	Waiver and Second Amendment to Term Loan Credit and Security Agreement (25)
10.45	Extension Letter dated October 15, 2018 (26)
10.46	Second Extension Letter dated November 14, 2018 (27)
10.47	Third Extension Letter dated November 21, 2018 (28)
10.48	Waiver and Third Amendment to Term Loan and Security Agreement (29)
10.49	Second Amendment to Amended and Restated Revolving Credit and Security Agreement, Consent and Waiver (29)

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14	Code of Business Conduct and Ethics. (7)
21	Subsidiaries of the Company. (30)
23.1	Consent of BDO USA, LLP. (30)
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (30)
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (30)
32.1	Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of Sarbanes-Oxley Act of 2002. (30)
32.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of Sarbanes-Oxley Act of 2002. (30)
101	Interactive data file pursuant to Rule 405 of Regulation S-T. (30)

(1) Incorporated by reference to the comparable exhibit filed with the Company's Registration Statement on Form SB-2 (No. 33-80279-NY).

(2) Incorporated by reference to the comparable exhibit filed with the Company's Quarterly Report on Form 10-QSB for the quarter ended June 30, 1999.

(3) Incorporated by reference to the comparable exhibit filed with the Company's Annual Report on Form 10-KSB for the year ended December 31, 2000.

(4) Incorporated by reference to the comparable exhibit filed with the Company’s Annual Report on Form 10-KSB for the year ended December 31, 2001.

(5) Incorporated by reference to the comparable exhibit filed with the Company's Annual Report on Form 10-KSB for the year ended December 31, 2002.

(6) Incorporated by reference to the comparable exhibit filed with the Company’s Quarterly Report on Form 10-QSB for the quarter ended June 30, 2005.

(7) Incorporated by reference to the comparable exhibit filed with the Company’s Current Report on Form 8-K, for the event dated March 3, 2005, and filed May 31, 2005.

(8) Incorporated by reference to Appendix B to the Company’s Definitive Proxy Statement on Schedule 14A filed August 18, 2004 .

(9) Incorporated by reference to Appendix I to the Company’s Definitive Proxy Statement on Schedule 14A filed July 29, 2008.

(10) Incorporated by reference to the comparable exhibit filed with the Company’s Annual Report on Form 10-K for the year ended December 31, 2008.

(11) Incorporated by reference to the comparable exhibit filed with the Company’s Quarterly Report on Form-10-Q for the quarter ended June 30, 2011.

(12) Incorporated by reference to the comparable exhibit filed with the Company’s Quarterly Report on Form 10-Q for the quarter ended September 30, 2012.

(13) Incorporated by reference to the comparable exhibit filed with the Company’s Annual Report on Form 10-K for the year ended December 31, 2013.

(14) Incorporated by reference to Appendix B to the Company’s Definitive Proxy Statement on Schedule 14A filed August 12, 2014.

(15) Incorporated by reference to the comparable exhibit filed with the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014.

(16) Incorporated by reference to the comparable exhibit filed with the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015.

(17) Incorporated by reference to the comparable exhibit filed with the Company Annual Report on form 10-K for the year ended December 31, 2015.

(18) Incorporated by reference to the comparable exhibit filed with the Company's Current Report on Form 8-K filed April 14, 2016.

(19) Incorporated by reference to the comparable exhibit filed with the Company's Current Report on Form 8-K filed September 9, 2016.

(20) Incorporated by reference to the comparable exhibit filed with the Company's Current Report on Form 8-K filed December 9, 2016.

(21) Incorporated by reference to the comparable exhibit filed with the Company's Current Report on Form 8-K filed August 9, 2017.

(22) Incorporated by reference to the comparable exhibit filed with the Company's Current Report on Form 8-K filed October 11, 2017.

(23) Incorporated by reference to the comparable exhibit filed with the Company's Current Report on Form 8-K filed December 7, 2017.

(24) Incorporated by reference to the comparable exhibit filed with the Company's Registration Statement on Form S-8 filed December 21, 2018.

(25) Incorporated by reference to the comparable exhibit filed with the Company's Current Report on Form 8-K filed August 15, 2018.

(26) Incorporated by reference to the comparable exhibit filed with the Company's Current Report on Form 8-K filed October 16, 2018.

(27) Incorporated by reference to the comparable exhibit filed with the Company's Current Report on Form 8-K filed November 15, 2018.

(28) Incorporated by reference to the comparable exhibit filed with the Company's Current Report on Form 8-K filed November 23, 2018.

(29) Incorporated by reference to the comparable exhibit filed with the Company's Current Report on Form 8-K filed December 3, 2018.

(30) Filed herewith

(*) Denotes Management Compensation Plan, agreement or arrangement.

Item 16. Form 10-K Summary

None.

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Hudson Technologies, Inc.

Consolidated Financial Statements

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Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors

Hudson Technologies, Inc.

Pearl River, NY

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Hudson Technologies, Inc. (the “Company”) and subsidiaries as of December 31, 2018 and 2017, the related consolidated statements of operations, stockholders’ equity, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company and subsidiaries at December 31, 2018 and 2017, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”) and our report dated March 15, 2019 expressed an unqualified opinion.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ BDO USA, LLP

We have served as the Company's auditor since 1994.

Stamford, CT

March 15, 2019

Hudson Technologies, Inc. and Subsidiaries

Consolidated Balance Sheets

(Amounts in thousands, except for share and par value amounts)

	December 31, 2018	2017
Assets		
Current assets:		
Cash and cash equivalents	$2,272	$5,002
Trade accounts receivable – net	14,065	14,831
Inventories	101,962	172,485
Income tax receivable	—	9,664
Prepaid expenses and other current assets	5,287	6,934
Total current assets	123,586	208,916
Property, plant and equipment, less accumulated depreciation	27,395	30,461
Goodwill	47,803	49,464
Intangible assets, less accumulated amortization	29,451	32,419
Other assets	106	184
Total Assets	$228,341	$321,444
Liabilities and Stockholders' Equity		
Current liabilities:		
Trade accounts payable	$8,671	$10,885
Accrued expenses and other current liabilities	19,023	15,221
Accrued payroll	1,046	3,052
Current maturities of long-term debt	2,672	1,050
Short-term debt	29,000	65,152
Total current liabilities	60,412	95,360
Deferred tax liability	443	1,473
Long-term debt, less current maturities, net of deferred financing costs	98,273	101,158
Total Liabilities	159,128	197,991
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, shares authorized 5,000,000: Series A Convertible preferred stock, $0.01 par value ($100 liquidation preference value); shares authorized 150,000; none issued or outstanding	—	—
Common stock, $0.01 par value; shares authorized 100,000,000; issued and outstanding 42,602,431 and 42,398,140	426	424
Additional paid-in capital	115,719	114,302
Retained earnings (Accumulated deficit)	(46,932)	8,727

Total Stockholders' Equity	69,213	123,453
Total Liabilities and Stockholders' Equity	$228,341	$321,444

See Accompanying Notes to the Consolidated Financial Statements.

Hudson Technologies, Inc. and Subsidiaries

Consolidated Statements of Operations

(Amounts in thousands, except for share and per share amounts)

	For the years ended December 31,		
	2018	2017	2016
Revenues	$166,525	$140,380	$105,481
Cost of sales	173,890	102,396	74,395
Gross profit (loss)	(7,365)	37,984	31,086
Operating expenses:			
Selling, general and administrative	32,270	21,745	11,651
Amortization	2,973	1,107	488
Total operating expenses	35,243	22,852	12,139
Operating income (loss)	(42,608)	15,132	18,947
Other expense:			
Interest expense	(14,755)	(3,156)	(1,118)
Other income (expense)	—	28	(564)
Total other expense	(14,755)	(3,128)	(1,682)
Income (loss) before income taxes	(57,363)	12,004	17,265
Income tax expense (benefit)	(1,704)	847	6,628
Net income (loss)	$(55,659)	$11,157	$10,637
Net income (loss) per common share – Basic	$(1.31)	$0.27	$0.31
Net income (loss) per common share – Diluted	$(1.31)	$0.26	$0.30
Weighted average number of shares outstanding – Basic	42,484,972	41,764,230	34,104,476
Weighted average number of shares outstanding – Diluted	42,484,972	42,766,843	35,416,910

See Accompanying Notes to the Consolidated Financial Statements.

Hudson Technologies, Inc. and Subsidiaries

Consolidated Statements of Stockholders' Equity

(Amounts in thousands, except for share amounts)

	Common Stock		Additional Paid-in Capital	Retained Earnings (Accumulated Deficit)	Total
	Shares	Amount			
Balance at January 1, 2016	32,804,617	$ 328	$ 62,163	$ (13,066)	$49,425
Sale of common stock	7,392,856	74	48,282	—	48,356
Issuance of common stock upon exercise of stock options and warrants	1,251,199	13	2,691	—	2,704
Excess tax benefits from exercise of stock options	—	—	189	—	189
Issuance of common stock for services	17,148	—	105	—	105
Value of share-based arrangements	—	—	601	—	601
Net income	—	—	—	10,637	10,637
Balance at December 31, 2016	41,465,820	$ 415	$ 114,032	$ (2,430)	$112,017
Issuance of common stock upon exercise of stock options and warrants	1,207,729	12	795	—	807
Tax withholdings related to net share settlements of stock option awards	(281,645)	(3)	(2,023)	—	(2,026)
Issuance of common stock for services	6,236	—	47	—	47
Value of share-based arrangements	—	—	1,451	—	1,451
Net income	—	—	—	11,157	11,157
Balance at December 31, 2017	42,398,140	$ 424	$ 114,302	$ 8,727	$123,453
Issuance of common stock upon exercise of stock options and warrants	5,000	—	17	—	17

Issuance of common stock for services	199,291	2	346	—	348
Value of share-based arrangements	—	—	1,054	—	1,054
Net income	—	—	—	(55,659)	(55,659)
Balance at December 31, 2018	42,602,431	$ 426	$ 115,719	$ (46,932)	$69,213

See Accompanying Notes to the Consolidated Financial Statements.

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Hudson Technologies, Inc. and Subsidiaries

Consolidated Statements of Cash Flows

(Amounts in thousands)

	For the years ended December 31,		
	2018	2017	2016
Cash flows from operating activities:			
Net income (loss)	$ (55,659)	$ 11,157	$ 10,637
Adjustments to reconcile net income (loss) to cash provided by operating activities:			
Depreciation	4,158	2,272	1,737
Amortization of intangible assets	2,973	1,107	488
Amortization of step-up of basis in inventories	2,520	833	—
Lower of cost or net realizable value inventory adjustment	26,337	—	—
Allowance for doubtful accounts	479	136	21
Amortization of deferred finance cost	1,060	218	154
Value of share-based payment arrangements	1,402	1,498	706
Excess tax benefits from stock option exercise	—	—	(189)
Deferred tax expense	(1,030)	4,005	1,080
Other non cash (income) expenses	—	—	564
Changes in assets and liabilities (net of acquisitions):			
Trade accounts receivable	287	4,498	(404)
Inventories	43,327	(840)	(6,704)
Prepaid and other assets	1,236	(3,039)	523
Income taxes receivable/payable	9,664	(9,986)	562
Accounts payable and accrued expenses	(423)	6,507	173
Cash provided by operating activities	36,331	18,366	9,348
Cash flows from investing activities:			
Payments for acquisitions	—	(208,969)	—
Additions to property, plant and equipment	(1,092)	(1,022)	(1,733)
Cash used in investing activities	(1,092)	(209,991)	(1,733)
Cash flows from financing activities:			
Net proceeds from issuances of common stock and exercises of stock options	17	807	51,060
Tax payment withholdings related to settlements of stock option awards	—	(2,026)	—
Excess tax benefits from stock-based compensation	—	—	189
Payment of deferred financing costs	(1,045)	(5,385)	—
(Repayments of) borrowing from short-term debt – net	(36,054)	65,000	(20,227)
Proceeds from long-term debt	—	105,000	61
Repayment of long-term debt	(887)	(172)	(4,349)
Payment of deferred acquisition cost	—	(528)	(1,676)

Cash (used in) provided by financing activities	(37,969)	162,696	25,058
(Decrease) increase in cash and cash equivalents	(2,730)	(28,929)	32,673
Cash and cash equivalents at beginning of period	5,002	33,931	1,258
Cash and cash equivalents at end of period	$ 2,272	$ 5,002	$ 33,931
Supplemental disclosure of cash flow information:			
Cash paid during period for interest	$ 13,603	$ 2,028	$ 964
Cash (refund) paid for income taxes- net	$ (10,269)	$ 6,829	$ 4,985

See Accompanying Notes to the Consolidated Financial Statements

Hudson Technologies, Inc. and Subsidiaries

Notes to the Consolidated Financial Statements

Note 1 - Summary of Significant Accounting Policies

Business

Hudson Technologies, Inc., incorporated under the laws of New York on January 11, 1991, is a refrigerant services company providing innovative solutions to recurring problems within the refrigeration industry. The Company’s operations consist of one reportable segment. The Company's products and services are primarily used in commercial air conditioning, industrial processing and refrigeration systems, and include refrigerant and industrial gas sales, refrigerant management services consisting primarily of reclamation of refrigerants and RefrigerantSide® Services performed at, a customer's site, consisting of system decontamination to remove moisture, oils and other contaminants. In addition, the Company’s SmartEnergy OPS™ service is a web-based real time continuous monitoring service applicable to a facility’s refrigeration systems and other energy systems. The Company’s Chiller Chemistry® and Chill Smart® services are also predictive and diagnostic service offerings. As a component of the Company’s products and services, the Company also participates in the generation of carbon offset projects. The Company operates principally through its wholly-owned subsidiaries, Hudson Technologies Company and Aspen Refrigerants, Inc., which was formerly known as Airgas-Refrigerants, Inc. prior to the acquisition described below. Unless the context requires otherwise, references to the “Company”, “Hudson”, “we", “us”, “our”, or similar pronouns refer to Hudson Technologies, Inc. and its subsidiaries.

On October 10, 2017, the Company and its wholly-owned subsidiary, Hudson Holdings, Inc. (“Holdings”) completed the acquisition (the “Acquisition”) from Airgas, Inc. (“Airgas”) of all of the outstanding stock of Airgas-Refrigerants, Inc., a Delaware corporation (“ARI”), and effective October 11, 2017, ARI’s name was changed to Aspen Refrigerants, Inc. At closing, Holdings paid net cash consideration to Airgas of approximately $209 million, which includes preliminary post-closing adjustments relating to: (i) changes in the net working capital of ARI as of the closing relative to a net working capital target, (ii) the actual amount of specified types of R-22 refrigerant inventory on hand at closing relative to a target amount thereof, and (iii) other consideration pursuant to the stock purchase agreement.

The cash consideration paid by Holdings at closing was financed with available cash balances, plus $80 million of borrowings under an enhanced asset-based lending facility of $150 million from PNC Bank and a new term loan of $105 million from funds advised by FS Investments.

In preparing the accompanying consolidated financial statements, and in accordance with Accounting Standards Codification ("ASC") 855-10 "Subsequent Events", the Company's management has evaluated subsequent events through the date that the financial statements were filed.

In the opinion of management, all estimates and adjustments considered necessary for a fair presentation have been included and all such adjustments were normal and recurring.

Consolidation

The consolidated financial statements represent all companies of which Hudson directly or indirectly has majority ownership or otherwise controls. Significant intercompany accounts and transactions have been eliminated. The Company's consolidated financial statements include the accounts of wholly-owned subsidiaries Hudson Holdings, Inc., Hudson Technologies Company and Aspen Refrigerants, Inc. The Company does not present a statement of comprehensive income (loss) as its comprehensive income (loss) is the same as its net income (loss).

Fair Value of Financial Instruments

The carrying values of financial instruments including trade accounts receivable and accounts payable approximate fair value at December 31, 2018 and December 31, 2017, because of the relatively short maturity of these instruments. The carrying value of debt approximates fair value, due to the variable rate nature of the debt, as of December 31, 2018 and December 31, 2017. Please see Note 2 for further details on fair value description and hierarchy of the Company's deferred acquisition cost.

Credit Risk

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist principally of temporary cash investments and trade accounts receivable. The Company maintains its temporary cash investments in highly-rated financial institutions and, at times, the balances exceed FDIC insurance coverage. The Company's trade accounts receivable are primarily due from companies throughout the United States. The Company reviews each customer's credit history before extending credit.

The Company establishes an allowance for doubtful accounts based on factors associated with the credit risk of specific accounts, historical trends, and other information. The carrying value of the Company's accounts receivable is reduced by the established allowance for doubtful accounts. The allowance for doubtful accounts includes any accounts receivable balances that are determined to be uncollectible, along with a general reserve for the remaining

accounts receivable balances. The Company adjusts its reserves based on factors that affect the collectability of the accounts receivable balances.

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For the year ended December 31, 2018, one customer accounted for 11% of the Company’s revenues; no other customer accounted for greater than 10% of the Company’s revenues. At December 31, 2018, there were $2.9 million of outstanding receivables from this customer.

For the year ended December 31, 2017, two customers each accounted for 10% or more of the Company’s revenues and, in the aggregate these two customers accounted for 33% of the Company’s revenues. At December 31, 2017, there were $2.7 million of outstanding receivables from these customers.

For the year ended December 31, 2016, two customers each accounted for 10% or more of the Company’s revenues and, in the aggregate these two customers accounted for 30% of the Company’s revenues. At December 31, 2016, there were no outstanding receivables from these customers.

The loss of a principal customer or a decline in the economic prospects of and/or a reduction in purchases of the Company's products or services by any such customer could have a material adverse effect on the Company's operating results and financial position.

Cash and Cash Equivalents

Temporary investments with original maturities of ninety days or less are included in cash and cash equivalents.

Inventories

Inventories, consisting primarily of refrigerant products available for sale, are stated at the lower of cost, on a first-in first-out basis, or net realizable value. Where the market price of inventory is less than the related cost, the Company may be required to write down its inventory through a lower of cost or net realizable value adjustment, the impact of which would be reflected in cost of sales on the Consolidated Statements of Operations. Any such adjustment would be based on management’s judgment regarding future demand and market conditions and analysis of historical experience.

Property, Plant and Equipment

Property, plant and equipment are stated at cost, including internally manufactured equipment. The cost to complete equipment that is under construction is not considered to be material to the Company's financial position. Provision for depreciation is recorded (for financial reporting purposes) using the straight-line method over the useful lives of the respective assets. Leasehold improvements are amortized on a straight-line basis over the shorter of economic life or terms of the respective leases. Costs of maintenance and repairs are charged to expense when incurred.

Due to the specialized nature of the Company's business, it is possible that the Company's estimates of equipment useful life periods may change in the future.

Goodwill

The Company has made acquisitions that included a significant amount of goodwill and other intangible assets. The Company applies the purchase method of accounting for acquisitions, which among other things, requires the recognition of goodwill (which represents the excess of the purchase price of the acquisition over the fair value of the net assets acquired and identified intangible assets). We test our goodwill for impairment on an annual basis (the first day of the fourth quarter) and between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of an asset below its carrying value. Other intangible assets that meet certain criteria are amortized over their estimated useful lives.

Beginning in 2017, the Company adopted, on a prospective basis, ASU No. 2017-04, which simplifies the accounting for goodwill impairment by eliminating Step 2 of the current goodwill impairment test that requires a hypothetical purchase price allocation to measure goodwill impairment. Under the new standard, a company will record an impairment charge based on the excess of a reporting unit's carrying amount over its fair value. An impairment charge would be recognized when the carrying amount exceeds the estimated fair value of a reporting unit. These impairment evaluations use many assumptions and estimates in determining an impairment loss, including certain assumptions and estimates related to future earnings. If the Company does not achieve its earnings objectives, the assumptions and estimates underlying these impairment evaluations could be adversely affected, which could result in an asset impairment charge that would negatively impact operating results.

In 2017, the Company performed the annual goodwill impairment assessment using a qualitative approach to determine whether it is more likely than not that the fair value of goodwill is less than its carrying value. In performing the qualitative assessment, the Company identified and considered the significance of relevant key factors, events, and circumstances that affect the fair value of its goodwill. These factors include external factors such as macroeconomic, industry, and market conditions, as well as entity-specific factors, such as actual and planned financial performance. If the results of the qualitative assessment conclude that it is not more likely than not that the fair value of goodwill exceeds its carrying value, additional quantitative impairment testing is performed. In 2018, due to a significant selling price correction leading to unfavorable market conditions, the Company performed a quantitative test by weighing the results of an income-based valuation technique, the discounted cash flows method, and a market-based valuation technique to determine its fair value. The Company initially established a forecast of the

estimated future net cash flows, which were then discounted to their present value using a market rate of return. There were no impairment losses recognized in any of the three years ended December 31, 2018, 2017 and 2016.

Cylinder Deposit Liability

The cylinder deposit liability, which is included in Accrued expenses and other current liabilities on the Company's Balance Sheet, represents the amount due to customers for the return of refillable cylinders. ARI charges its customers cylinder deposits upon the shipment of refrigerant gases that are contained in refillable cylinders. The amount charged to the customer by ARI approximates the cost of a new cylinder of the same size. Upon return of a cylinder, this liability is reduced. The cylinder deposit liability was assumed as part of the ARI acquisition and the balance was $11.7 million and $9.8 million at December 31, 2018 and 2017, respectively.

Revenues and Cost of Sales

Beginning on January 1, 2018, the Company adopted, on a modified retrospective basis, Accounting Standards Codification (ASC) 606, Revenue from Contracts with Customers, which provides accounting guidance related to the recognition of revenue from contracts with customers. Based on the evaluation performed, the Company concluded that the adoption of this standard had no impact on its financial position, results of operations or cash flows and will not have a significant impact on its internal controls over financial reporting.

The Company's products and services are primarily used in commercial air conditioning, industrial processing and refrigeration systems. Most of the Company's revenues are realized from the sale of refrigerant and industrial gases and related products. The Company also generates revenue from refrigerant management services performed at a customer's site and in-house. The Company conducts its business primarily within the US.

The Company applies the FASB's guidance on revenue recognition, which requires the Company to recognize revenue in an amount that reflects the consideration the Company expects to be entitled in exchange for goods or services transferred to its customers. In most instances, the Company's contract with a customer is the customer's purchase order and the sales price to the customer is fixed. For certain customers, the Company may also enter into a sales agreement outlining a framework of terms and conditions applicable to future purchase orders received from that customer. Because the Company's contracts with customers are typically for a single customer purchase order, the duration of the contract is usually less than one year. The Company's performance obligations related to product sales are satisfied at a point in time, which may occur upon shipment of the product or receipt by the customer, depending on the terms of the arrangement. The Company's performance obligations related to reclamation and RefrigerantSide® services are generally satisfied at a point in time when the service is performed. Accordingly, revenues are recorded upon the shipment of the product, or in certain instances upon receipt by the customer, or the completion of the service.

In July 2016 the Company was awarded, as prime contractor, a five-year contract, including a five-year renewal option, by the United States Defense Logistics Agency ("DLA") for the management, supply, and sale of refrigerants, compressed gases, cylinders and related services. Due to the contract containing multiple performance obligations, the Company assessed the arrangement in accordance with ASC 606. The Company determined that the sale of refrigerants and the management services provided under the contract each have stand-alone value. Accordingly, the performance obligations related to the sale of refrigerants is satisfied at a point in time, mainly when the customer receives and obtains control of the product. The performance obligation related to management service revenue is satisfied over time and revenue is recognized on a straight-line basis over the term of the arrangement as the management services are provided; such management fees are included in the below table as Product and related sales and were approximately $2.3 million for each of the 12 months ended December 31, 2018 and 2017.

Cost of sales is recorded based on the cost of products shipped or services performed and related direct operating costs of the Company's facilities. In general, the Company performs shipping and handling services for its customers in connection with the delivery of refrigerant and other products. In accordance with ASC 606-10-25-18B, the Company accounts for such shipping and handling as activities to fulfill the promise to transfer the good. To the extent that the Company charges its customers shipping fees, such amounts are included as a component of revenue and the corresponding costs are included as a component of cost of sales.

The Company's revenues are derived from Product and related sales and RefrigerantSide® Services revenues. The revenues for each of these lines are as follows:

Years Ended December 31,	2018	2017	2016
(in thousands)			
Product and related sales	$162,229	$136,016	$101,344
RefrigerantSide ® Services	4,296	4,364	4,137
Total	$166,525	$140,380	$105,481

Income Taxes

The Company is taxed at statutory corporate income tax rates after adjusting income reported for financial statement purposes for certain items. Current income tax expense (benefit) reflects the tax results of revenues and expenses currently taxable or deductible. The Company utilizes the asset and liability method of accounting for deferred income taxes, which provides for the recognition of deferred tax assets or liabilities, based on enacted tax rates and laws, for the differences between the financial and income tax reporting bases of assets and liabilities.

The tax benefit associated with the Company's net operating loss carry forwards ("NOLs") is recognized to the extent that the Company expects to realize future taxable income. As a result of a prior year "change in control", as defined by the Internal Revenue Service, the Company's ability to utilize its existing NOLs is subject to certain annual limitations. To the extent that the Company utilizes its NOLs, it will not pay tax on such income. However, to the extent that the Company's net income, if any, exceeds the annual NOL limitation, it will pay income taxes based on the then existing statutory rates. In addition, certain states either do not allow or limit NOLs and as such the Company will be liable for certain state income taxes.

As of December 31, 2018, the Company had NOLs of approximately $38.3 million: $32.9 million have no expiration date and are subject to annual limitations of 80% of earnings, $5.4 million expiring through 2023, which are subject to annual limitations of approximately $1.3 million. As of December 31, 2018, the company had state tax NOLs of approximately $21.9 million expiring in various years. We review the likelihood that we will realize the benefit of our deferred tax assets, and therefore the need for valuation allowances, on an annual basis in the fourth quarter of the year, and more frequently if events indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results are considered, along with all other available positive and negative evidence.

Concluding that a valuation allowance is not required is difficult when there is significant negative evidence that is objective and verifiable, such as cumulative losses in recent years. We utilize a rolling twelve quarters of pre-tax income or loss adjusted for significant permanent book to tax differences, as well as non-recurring items, as a measure of our cumulative results in recent years. Based on the operating loss experienced as of December 31, 2018, our analysis indicated that we had cumulative three year historical losses on this basis, which represented significant negative evidence that is objective and verifiable and, therefore, difficult to overcome. Based on our assessment as of December 31, 2018, we concluded that due to the uncertainty that the deferred tax assets will not be fully realized in the future, we recorded a net valuation allowance of approximately $11.3 million during the year ended December 31, 2018.

On December 22, 2017, the U.S. enacted the Tax Cuts and Jobs Act ("2017 Tax Act"), which lowered the federal statutory income tax rate from, generally, 35% to 21% for tax years beginning after December 31, 2017. Furthermore, the 2017 Tax Act contains a number of changes related to NOLs including the repeal of the two-year carryback period for NOLs arising in taxable years ending after December 31, 2017. The 2017 Tax Act permits NOLs to be carried forward for an unlimited period as opposed to 20 years under prior law and, with respect to NOLs arising in taxable years beginning after December 31, 2017, the 2017 Tax Act imposes an annual limit of 80% on the amount of taxable income that such NOLs can offset (effectively resulting in a minimum tax of 4.2%) but no such limitation is imposed on the use of NOLs that arose in earlier taxable years. In addition, the 2017 Tax Act limits the annual deductibility of net business interest by imposing a 30% cap computed based on adjusted taxable income, effective for taxable years beginning after December 31, 2017. There is no grandfathering provided for existing debt and no transition period. The 2017 Tax Act treats disallowed net interest expense as a separate tax attribute, rather than merely an increase to that year's NOLs. Disallowed net business interest is carried over indefinitely, similar to NOLs generated in taxable years beginning after December 31, 2017. As a result of the enactment of the 2017 Tax Act, the Company recorded a benefit of approximately $1.4 million during the fourth quarter of 2017 to reflect the net impact of lower future federal

income tax rates on the NOLs and the other cumulative differences in financial reporting and tax bases of assets and liabilities, which were, primarily, fixed assets and accumulated depreciation.

As a result of an Internal Revenue Service audit, the 2013 and prior federal tax years have been closed. The Company operates in many states throughout the United States and, as of December 31, 2018, the various states' statutes of limitations remain open for tax years subsequent to 2010. The Company recognizes interest and penalties, if any, relating to income taxes as a component of the provision for income taxes.

The Company evaluates uncertain tax positions, if any, by determining if it is more likely than not to be sustained upon examination by the taxing authorities. As of December 31, 2018 and 2017, the Company had no uncertain tax positions.

Income per Common and Equivalent Shares

If dilutive, common equivalent shares (common shares assuming exercise of options and warrants) utilizing the treasury stock method are considered in the presentation of diluted earnings per share. The reconciliation of shares used to determine net income per share is as follows (dollars in thousands):

	Years ended December 31,		
	2018	2017	2016
Net income (loss)	$(55,659)	$11,157	$10,637
Weighted average number of shares – basic	42,484,972	41,764,230	34,104,476
Shares underlying options	—	1,002,613	1,312,434
Weighted average number of shares outstanding – diluted	42,484,972	42,766,843	35,416,910

During the years ended December 31, 2018, 2017 and 2016, certain options aggregating 4,415,397, none and 73,034 shares, respectively, have been excluded from the calculation of diluted shares, due to the fact that their effect would be anti-dilutive.

Estimates and Risks

The preparation of financial statements in conformity with generally accepted accounting principles in the United States requires the use of estimates and assumptions that affect the amounts reported in these financial statements and footnotes. The Company considers these accounting estimates to be critical in the preparation of the accompanying consolidated financial statements. The Company uses information available at the time the estimates are made. However, these estimates could change materially if different information or assumptions were used. Additionally, these estimates may not ultimately reflect the actual amounts of the final transactions that occur. The Company utilizes both internal and external sources to evaluate potential current and future liabilities for various commitments and contingencies. In the event that the assumptions or conditions change in the future, the estimates could differ from the original estimates.

Several of the Company's accounting policies involve significant judgments, uncertainties and estimates. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ from these estimates under different assumptions or conditions. To the extent that actual results differ from management's judgments and estimates, there could be a material adverse effect on the Company. On a continuous basis, the Company evaluates its estimates, including, but not limited to, those estimates related to its allowance for doubtful accounts, inventory reserves, and valuation allowance for the deferred tax assets relating to its NOLs and commitments and contingencies. With respect to accounts receivable, the Company estimates the necessary allowance for doubtful accounts based on both historical and anticipated trends of payment history and the ability of the customer to fulfill its obligations. For inventory, the Company evaluates both current and anticipated sales prices of its products to determine if a write down of inventory to net realizable value is necessary. In determining the Company’s valuation allowance for its deferred tax assets, the Company assesses its ability to generate taxable income in the future.

The Company participates in an industry that is highly regulated, and changes in the regulations affecting our business could affect our operating results. Currently the Company purchases virgin hydrochlorofluorocarbon (“HCFC”) and hydrofluorocarbon (“HFC”) refrigerants and reclaimable, primarily HCFC, HFC and chlorofluorocarbon (“CFC”), refrigerants from suppliers and its customers. Effective January 1, 1996, the Clean Air Act (the “Act”) prohibited the production of virgin CFC refrigerants and limited the production of virgin HCFC refrigerants. Effective January 2004, the Act further limited the production of virgin HCFC refrigerants and federal regulations were enacted which established production and consumption allowances for HCFC refrigerants which imposed limitations on the importation of certain virgin HCFC refrigerants. Under the Act, production of certain virgin HCFC refrigerants is scheduled to be phased out during the period 2010 through 2020, and production of all virgin HCFC refrigerants is

scheduled to be phased out by 2030. In October 2014, the EPA published a final rule providing further reductions in the production and consumption allowances for virgin HCFC refrigerants for the years 2015 through 2019 (the "Final Rule"). In the Final Rule, the EPA established a linear draw down for the production or importation of virgin HCFC-22 that started at approximately 22 million pounds in 2015 and was reduced by approximately 4.5 million pounds each year ending at zero in 2020.

To the extent that the Company is unable to source sufficient quantities of refrigerants or is unable to obtain refrigerants on commercially reasonable terms or experiences a decline in demand and/or price for refrigerants sold by the Company, the Company could realize reductions in revenue from refrigerant sales, which could have a material adverse effect on its operating results and its financial position.

The Company is subject to various legal proceedings. The Company assesses the merit and potential liability associated with each of these proceedings. In addition, the Company estimates potential liability, if any, related to these matters. To the extent that these estimates are not accurate, or circumstances change in the future, the Company could realize liabilities, which could have a material adverse effect on its operating results and its financial position.

Impairment of Long-lived Assets

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of the assets to the future net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less the cost to sell.

Recent Accounting Pronouncements

In January 2017, the FASB issued Accounting Standards Update ("ASU") No. 2017-04, "Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment" (ASU 2017-04), which simplifies the accounting for goodwill impairment by eliminating Step 2 of the current goodwill impairment test that requires a hypothetical purchase price allocation to measure goodwill impairment. Under the new standard, a company will record an impairment charge based on the excess of a reporting unit's carrying amount over its fair value. ASU 2017-04 does not change the guidance on completing Step 1 of the goodwill impairment test and still allows a company to perform the optional qualitative goodwill impairment assessment before determining whether to proceed to Step 1. The standard is effective for annual and interim goodwill impairment tests in fiscal years beginning after December 15, 2019 with early adoption permitted for any impairment test performed on testing dates after January 1, 2017. The Company adopted this standard on January 1, 2017 and has applied its guidance in its impairment assessments.

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In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments - Credit Losses." This ASU requires an organization to measure all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. Financial institutions and other organizations will now use forward-looking information to better inform their credit loss estimates. The amendments in this ASU are effective for fiscal years beginning after December 15, 2019, and for interim periods therein. The Company does not expect the amended standard to have a material impact on the Company’s results of operations.

In March 2016, the FASB issued ASU No. 2016-09, “Improvements to Employee Share-Based Payment Accounting.” This guidance involves several aspects of accounting for employee share-based payments including: (a) income tax consequences; (b) classification of awards as either equity or liabilities; and (c) classification on the statement of cash flows. The Company adopted this ASU on a prospective basis on January 1, 2017. Excess tax benefits and deficiencies are recognized in the consolidated statement of operations rather than capital in excess of par value of stock. Excess tax benefits within the consolidated statement of cash flows are presented as an operating activity. The impact of the adoption on the Company’s income tax expense or benefit and related cash flows during and after the period of adoption are dependent in part upon grants and vesting of stock-based compensation awards and other factors that are not fully controllable or predicable by the Company, such as the future market price of the Company's common stock, the timing of employee exercises of vested stock options, and the future achievement of performance criteria that affect performance-based awards. The Company adopted this ASU at the beginning of 2017 and during 2017, the impact of this standard reduced the Company’s income tax expense and increased net income by approximately $2.4 million.

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, Leases (Topic 842) (ASU 2016-02), as amended, which generally requires lessees to recognize operating and financing lease liabilities and corresponding right-of-use assets on the balance sheet and to provide enhanced disclosures surrounding the amount, timing and uncertainty of cash flows arising from leasing arrangements. In July 2018, the FASB issued ASU No. 2018-11, Leases – Targeted Improvements, as an update to the previously-issued guidance. This update added a transition option which allows for the recognition of a cumulative effect adjustment to the opening balance of retained earnings in the period of adoption without recasting the financial statements in periods prior to adoption. We will use the modified retrospective transition approach in ASU No. 2018-11 and apply the new lease requirements through a cumulative-effect adjustment in the period of adoption. We will elect the package of practical expedients permitted under the transition guidance, which allows us to carryforward our historical lease classification, our assessment on whether a contract is or contains a lease, and our initial direct costs for any leases that exist prior to adoption of the new standard. We will also elect to combine lease and non-lease components and to keep leases with an initial term of 12 months or less off the balance sheet and recognize the associated lease payments in the consolidated statements of operations on a straight-line basis over the lease term. We estimate approximately $8.7 million would be recognized as total right-of-use assets and total lease liabilities on our consolidated balance sheet as of January 1, 2019. Other than as disclosed, we do not expect the new standard to have a material impact on our remaining consolidated financial statements.

In September 2015, the FASB issued Accounting Standards Update No. 2015-16, “Business Combinations (Topic 805): Simplifying the Accounting for Measurement-Period Adjustments”, or ASU 2015-16. This amendment requires

the acquirer in a business combination to recognize in the reporting period in which adjustment amounts are determined, any adjustments to provisional amounts that are identified during the measurement period, calculated as if the accounting had been completed at the acquisition date. Prior to the issuance of ASU 2015-16, an acquirer was required to restate prior period financial statements as of the acquisition date for adjustments to provisional amounts. The amendments in ASU 2015-16 are to be applied prospectively upon adoption. The Company adopted ASU 2015-16 in the fourth quarter of 2016. The adoption of the provisions of ASU 2015-16 did not have a material impact on its results of operations or financial position.

Note 2- Fair Value

ASC Subtopic 820-10 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Company often utilizes certain assumptions that market participants would use in pricing the asset or liability, including assumptions about risk and/or the risks inherent in the inputs to the valuation technique. These inputs can be readily observable, market-corroborated, or generally unobservable inputs. The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. Based upon observable inputs used in the valuation techniques, the Company is required to provide information according to the fair value hierarchy.

The fair value hierarchy ranks the quality and reliability of the information used to determine fair values into three broad levels as follows:

Level 1: Valuations for assets and liabilities traded in active markets from readily available pricing sources for market transactions involving identical assets or liabilities.

Level 2: Valuations for assets and liabilities traded in less active dealer or broker markets. Valuations are obtained from third-party pricing services for identical or similar assets or liabilities.

Level 3: Valuations for assets and liabilities include certain unobservable inputs in the assumptions and projections used in determining the fair value assigned to such assets or liabilities.

In instances where the determination of the fair value measurement is based on inputs from different levels of the fair value hierarchy, the level in the fair value hierarchy within which the entire fair value measurement falls is based on the lowest level input that is significant to the fair value measurement in its entirety. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgement and considers factors specific to the asset or liability. The valuation methodologies used for the Company's financial instruments measured on a recurring basis at fair value, including the general classification of such instruments pursuant to the valuation hierarchy, is set forth in the tables below.

The following is a rollforward of deferred acquisition costs in 2017 and 2018.

(in thousands)	2015 Acquisition	Total Deferred Acquisition Cost Payable
Balance at January 1, 2016	$ 789	$ 789
Payments	(789)	(789)
Total adjustments included in earnings	—	—
Balance at December 31, 2018, 2017 and 2016	$ —	$ —

See Note 12 for determination of fair value relative to acquisitions.

Note 3 - Trade accounts receivable – net

At December 31, 2018, 2017, and 2016 trade accounts receivable are net of reserves for doubtful accounts of $1.2 million, $0.7 million and $0.4 million, respectively. The following table represents the activity occurring in the reserves for doubtful accounts in 2018, 2017 and 2016.

(in thousands)	Beginning Balance at January 1	Net additions charged to Operations	Deductions and Other	Ending Balance at December 31
2018	$ 722	$ 479	$ (23)	$ 1,178
2017	$ 365	$ 136	$ 221	$ 722
2016	$ 335	$ 21	$ 9	$ 365

Note 4- Inventories

Inventories consist of the following:

(in thousands)	December 31, 2018	December 31, 2017
Refrigerants and cylinders	$ 115,348	$ 174,262
Less: net realizable value adjustments	(13,386)	(1,777)
Total	$ 101,962	$ 172,485

During 2018, the Company recorded a $35.9 million lower of cost or net realizable value adjustment to its inventory due to deteriorating market conditions. The $35.9 million adjustment included a $17.6 million write-down of a previously recorded step-up in inventory basis associated with the acquisition of ARI and a $18.3 million write-down for a lower of cost or net realizable value adjustment. The Company's performance has been negatively impacted by the challenging pricing environment affecting the industry and the market during 2018.

Note 5 - Property, plant and equipment

Elements of property, plant and equipment are as follows:

December 31 ,	2018	2017	Estimated Lives
(in thousands)			
Property, plant and equipment			
- Land	$1,255	$1,255	
- Land improvements	319	319	6-10 years
- Buildings	1,446	1,446	25-39 years
- Building improvements	3,045	3,045	25-39 years
- Cylinders	13,369	13,390	15-30 years
- Equipment	24,078	23,524	3-10 years
- Equipment under capital lease	315	315	5-7 years
- Vehicles	1,535	1,612	3-5 years
- Lab and computer equipment, software	3,090	3,056	2-8 years
- Furniture & fixtures	684	656	5-10 years
- Leasehold improvements	873	711	3-5 years
- Equipment under construction	464	385	
Subtotal	50,473	49,714	
Accumulated depreciation	23,078	19,253	
Total	$27,395	$30,461	

Depreciation expense for the years ended December 31, 2018, 2017 and 2016 was $4.2 million, $2.3 million, and $1.7 million, respectively, of which $2.4 million, $2.0 million, and $1.7 million, respectively, were included as cost of sales in the Company’s Consolidated Statements of Operations.

Note 6 - Income taxes

Income tax expense (benefit) for the years ended December 31, 2018, 2017 and 2016 was ($1.7 million), $0.8 million and $6.6 million, respectively. The income tax expense for each of the years ended December 31, 2018, 2017 and 2016 was for federal and state income tax at statutory rates applied to the adjusted pre-tax income for each of the periods.

The following summarizes the (benefit) / provision for income taxes:

Years Ended December 31, (in thousands)	2018	2017	2016
Current:			
Federal	$(507)	$(3,690)	$4,981
State and local	(167)	532	567
	(674)	(3,158)	5,548
Deferred:			
Federal	(693)	4,293	949
State and local	(337)	(288)	131
	(1,030)	4,005	1,080
(Benefit) expense for income taxes	$(1,704)	$847	$6,628

Reconciliation of the Company's actual tax rate to the U.S. Federal statutory rate is as follows:

Years ended December 31,	2018	2017	2016
Income tax rates			
- Statutory U.S. federal rate	21 %	35 %	35 %
- State income taxes, net of federal benefit	0 %	4 %	3 %
- Excess tax benefits related to stock compensation	-- %	(20)%	--
- Effect of 2017 Tax Act	2 %	(12)%	--
- Effect of 2018 net deferred tax asset valuation	(20 %)	--	--
Total	3 %	7 %	38 %

As of December 31, 2018, the Company had NOLs of approximately $38.3 million: $32.9 million have no expiration date and are subject to annual limitations of 80% of earnings, $5.4 million expiring through 2023, which are subject to annual limitations of approximately $1.3 million. As of December 31, 2018, the company had state tax NOLs of approximately $21.9 million expiring in various years.

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Deferred income tax represents the tax effect of the differences between the book and tax bases of assets and liabilities. The net deferred income tax assets (liabilities) consisted of the following at:

December 31 ,	2018	2017
(in thousands)		
- Depreciation & amortization	$(5,865)	$(3,665)
- Reserves for doubtful accounts	159	115
- Inventory reserve	2,503	218
- Non qualified stock options	778	409
- Net operating losses	9,574	1,450
- Amt credit	86	-
- Deferred interest	3,637	-
- Valuation allowance	(11,315)	-
Total	(443)	(1,473)

We review the likelihood that we will realize the benefit of our deferred tax assets, and therefore the need for valuation allowances, on an annual basis in the fourth quarter of the year, and more frequently if events indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results are considered, along with all other available positive and negative evidence.

Concluding that a valuation allowance is not required is difficult when there is significant negative evidence that is objective and verifiable, such as cumulative losses in recent years. We utilize a rolling twelve quarters of pre-tax income or loss adjusted for significant permanent book to tax differences, as well as non-recurring items, as a measure of our cumulative results in recent years. Based on the operating loss experienced as of December 31, 2018, our analysis indicated that we had cumulative three year historical losses on this basis, which represented significant negative evidence that is objective and verifiable and, therefore, difficult to overcome. Based on our assessment as of December 31, 2018, we concluded that due to the uncertainty that the deferred tax assets will not be fully realized in the future, we recorded a valuation allowance of approximately $11.3 million during the year ended December 31, 2018.

On December 22, 2017, the U.S. enacted the Tax Cuts and Jobs Act (“2017 Tax Act”), which lowered the federal statutory income tax rate from, generally, 35% to 21% for tax years beginning after December 31, 2017. As a result of the enactment of the 2017 Tax Act, the Company recorded a benefit of approximately $1.4 million during the fourth quarter of 2017 to reflect the net impact of lower future federal income tax rates on the NOLs and the other cumulative differences in financial reporting and tax bases assets and liabilities, which were, primarily, fixed assets and accumulated depreciation.

As a result of an Internal Revenue Service audit, the 2013 and prior federal tax years have been closed. The Company operates in many states throughout the United States and, as of December 31, 2018, the various states' statutes of limitations remain open for tax years subsequent to 2010. The Company recognizes interest and penalties, if any, relating to income taxes as a component of the provision for income taxes.

The Company evaluates uncertain tax positions, if any, by determining if it is more likely than not to be sustained upon examination by the taxing authorities. As of December 31, 2018 and 2017, the Company had no uncertain tax positions.

Note 7 – Goodwill and intangible assets

Goodwill represents the excess of the purchase price over the fair value of the net assets acquired in business combinations accounted for under the purchase method of accounting. In 2017, the Company performed the annual goodwill impairment assessment using a qualitative approach to determine whether it is more likely than not that the fair value of goodwill is less than its carrying value. In performing the qualitative assessment, the Company identified and considered the significance of relevant key factors, events, and circumstances that affect the fair value of its goodwill. These factors include external factors such as macroeconomic, industry, and market conditions, as well as entity-specific factors, such as actual and planned financial performance. If the results of the qualitative assessment conclude that it is not more likely than not that the fair value of goodwill exceeds its carrying value, additional quantitative impairment testing is performed. In 2018, due to a significant selling price correction leading to unfavorable market conditions, the Company performed a quantitative test by weighing the results of an income-based valuation technique, the discounted cash flows method, and a market-based valuation technique to determine its reporting units' fair values.

There were no impairment losses recognized in any of the three years ended December 31, 2018, 2017 or 2016.

Based on the results of the impairment assessments of goodwill and intangible assets performed, we concluded that the fair value of our goodwill exceeds the carrying value and that there are no impairment indicators related to intangible assets.

At December 31, 2018 the Company had $47.8 million of goodwill, of which $47.0 million is attributable to the acquisition of Airgas-Refrigerants, Inc. on October 10, 2017 and $0.4 million is attributable to the acquisition of Polar Technologies, LLC and $0.4 million is attributable to the acquisition of a supplier of refrigerants and compressed gases.

The Company's other intangible assets consist of the following:

December 31, (in thousands)		2018			2017		
	Amortization Period (in years)	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Intangible Assets with determinable lives							
Patents	5	$386	$ 380	$6	$386	$ 374	$12
Covenant Not to Compete	6 – 10	1,270	629	641	1,270	475	795
Customer Relationships	3 – 12	31,660	3,952	27,708	31,660	1,288	30,372
Above Market Leases	13	567	54	513	567	10	557
Trade Name	2	30	30	—	30	30	—
Licenses	10	1,000	417	583	1,000	317	683
Totals identifiable intangible assets		$34,913	$ 5,462	$29,451	$34,913	$ 2,494	$32,419

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Intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or asset group may not be recoverable. No impairments were recognized for the years ended December 31, 2018, 2017 and 2016.

The amortization of intangible assets for the years ended December 31, 2018, 2017, and 2016 were $3.0 million, $1.1 million and $0.5 million respectively. Future estimated amortization expense is as follows: 2019 - $3.0 million, 2020 - $3.0 million, 2021 - $2.9 million, 2022 - $2.9 million, 2023- $2.9 million and thereafter - $14.8 million.

Note 8 - Short-term and long-term debt

Elements of short-term and long-term debt are as follows:

December 31 ,	2018	2017
(in thousands)		
Short-term & long-term debt		
Short-term debt:		
- Revolving credit line and other debt	$29,000	$65,152
- Long-term debt: current	2,672	1,050
Subtotal	31,672	66,202
Long-term debt:		
- Term Loan Facility- net of current portion of long-term debt	101,588	103,950
- Vehicle and equipment loans	4	39
- Capital lease obligations	6	20
- Less: deferred financing costs on term loan	(3,325)	(2,851)
Subtotal	98,273	101,158
Total short-term & long-term debt	$129,945	$167,360

Bank Credit Line

On October 10, 2017, Hudson Technologies Company (“HTC”), Hudson Holdings, Inc. (“Holdings”) and Aspen Refrigerants, Inc. (“ARI”), as borrowers (collectively, the “Borrowers”), and the Company as a guarantor, became obligated under an Amended and Restated Revolving Credit and Security Agreement (the “PNC Facility”) with PNC Bank, National Association, as administrative agent, collateral agent and lender (“Agent” or “PNC”), PNC Capital

Markets LLC as lead arranger and sole bookrunner, and such other lenders as may thereafter become a party to the PNC Facility.

Under the terms of the PNC Facility, the Borrowers may borrow, from time to time, up to $150 million at any time consisting of revolving loans in a maximum amount up to the lesser of $150 million and a borrowing base that is calculated based on the outstanding amount of the Borrowers' eligible receivables and eligible inventory, as described in the PNC Facility. The PNC Facility also contains a sublimit of $15 million for swing line loans and $5 million for letters of credit.

Amounts borrowed under the PNC Facility were used by the Borrowers to consummate the acquisition of ARI and for working capital needs, certain permitted future acquisitions, and to reimburse drawings under letters of credit. At December 31, 2018, total borrowings under the PNC Facility were $29.0 million, and total availability was approximately $34.4 million. In addition, there was a $130,000 outstanding letter of credit at December 31, 2018.

Interest on loans under the PNC Facility is payable in arrears on the first day of each month with respect to loans bearing interest at the domestic rate (as set forth in the PNC Facility) and at the end of each interest period with respect to loans bearing interest at the Eurodollar rate (as set forth in the PNC Facility) or, for Eurodollar rate loans with an interest period in excess of three months, at the earlier of (a) each three months from the commencement of such Eurodollar rate loan or (b) the end of the interest period. Interest charges with respect to loans were initially computed on the actual principal amount of loans outstanding during the month at a rate per annum equal to (A) with respect to domestic rate loans, the sum of (i) a rate per annum equal to the higher of (1) the base commercial lending rate of PNC, (2) the federal funds open rate plus 0.5% and (3) the daily LIBOR plus 1.0%, plus (ii) between 0.50% and 1.00% depending on average quarterly undrawn availability and (B) with respect to Eurodollar rate loans, the sum of the Eurodollar rate plus between 1.50% and 2.00% depending on average quarterly undrawn availability.

Borrowers and the Company granted to the Agent, for the benefit of the lenders, a security interest in substantially all of their respective assets, including receivables, equipment, general intangibles (including intellectual property), inventory, subsidiary stock, real property, and certain other assets.

The PNC Facility contains a financial covenant requiring the Company to maintain at all times a Fixed Charge Coverage Ratio (FCCR) of not less than 1.00 to 1.00, as of the end of each trailing period of four consecutive quarters. The FCCR (as defined in the PNC Facility) is the ratio of (a) EBITDA for such period, minus unfinanced capital expenditures made during such period, minus the aggregate amount of cash taxes paid during such period, to (b) the aggregate amount of all scheduled payments of principal (excluding principal payments relating to outstanding revolving loans under the PNC Facility) and all cash payments of interest, plus cash dividends and distributions made during such period, plus payments in respect of capital lease obligations made during such period.

On December 6, 2017, the Borrowers and the Company as a guarantor, entered into a First Amendment to Amended and Restated Revolving Credit and Security Agreement (the “First Amendment”) with PNC. The First Amendment, which was entered into in connection with the syndication of the credit facility, amended the PNC Facility to allow syndicate lenders to provide certain cash management and hedging products and services to the Borrowers, and made amendments to the PNC Facility with respect to lender approval requirements of specified matters and other administrative matters.

On November 30, 2018, the Borrowers and the Company as a guarantor, entered into a Second Amendment to Amended and Restated Revolving Credit and Security Agreement, Consent and Waiver (the “Second Revolver Amendment”) with PNC Bank, National Association, as administrative agent, collateral agent and lender (“Agent” or “PNC”) and the lenders thereunder.

The Second Revolver Amendment amends the Amended and Restated Revolving Credit and Security Agreement dated October 10, 2017 (as amended to date, the “PNC Facility”), to replace the existing fixed charge coverage ratio until September 30, 2019 with an EBITDA covenant requiring minimum EBITDA for the four fiscal quarters ended on the following dates: September 30, 2018 - $9,240,000; December 31, 2018 - $9,428,000; March 31, 2019 - $9,270,000; June 30, 2019 - $14,195,000. The minimum fixed charge coverage ratio of 1.00:1.00 shall recommence for the quarter ending September 30, 2019.

The Second Revolver Amendment also increases the applicable interest rate margin to 3% for Eurodollar Rate Loans (as defined in the PNC Facility) and 2% for Domestic Rate Loans (as defined in the PNC Facility) through September 30, 2019, with applicable margins thereafter of between 2.5% and 3% for Eurodollar Rate Loans and 1.5% and 2% for Domestic Rate Loans based on the applicable fixed charge coverage ratio. In connection with the Second Revolver Amendment, the Borrowers also paid the Agent a waiver and amendment fee of $250,000.

The Company evaluated the First and Second Revolver Amendments in accordance with the provisions of ASC 470 to determine if the Amendments were a modification or an extinguishment of debt and concluded that amendments were a modification of the original term loan agreement for accounting purposes. As a result, the Company capitalized an additional $250,000 of deferred financing costs in connection with the Second Amendment, which are being amortized over the remaining term.

The PNC Facility also contains customary non-financial covenants relating to the Company and the Borrowers, including limitations on Borrowers' ability to pay dividends on common stock or preferred stock, and also includes certain events of default, including payment defaults, breaches of representations and warranties, covenant defaults, cross-defaults to other obligations, events of bankruptcy and insolvency, certain ERISA events, judgments in excess of specified amounts, impairments to guarantees and a change of control.

The commitments under the PNC Facility will expire and the full outstanding principal amount of the loans, together with accrued and unpaid interest, are due and payable in full on October 10, 2022, unless the commitments are terminated and the outstanding principal amount of the loans are accelerated sooner following an event of default.

In connection with the closing of the PNC Facility, the Company also entered into an Amended and Restated Guaranty and Suretyship Agreement, dated as of October 10, 2017 (the "Revolver Guarantee"), pursuant to which the Company affirmed its unconditional guarantee of the payment and performance of all obligations owing by Borrowers to PNC, as Agent for the benefit of the revolving lenders.

Term Loan Facility

On October 10, 2017, HTC, Holdings, and ARI, as borrowers, and the Company, as guarantor, became obligated under a Term Loan Credit and Security Agreement (the "Term Loan Facility") with U.S. Bank National Association, as administrative agent and collateral agent ("Term Loan Agent") and funds advised by FS Investments and such other lenders as may thereafter become a party to the Term Loan Facility (the "Term Loan Lenders").

Under the terms of the Term Loan Facility, the Borrowers immediately borrowed $105 million pursuant to a term loan (the "Initial Term Loan") and could borrow up to an additional $25 million for a period of eighteen months after closing to fund additional permitted acquisitions (the "Delayed Draw Commitment", and together with the Initial Term Loan, the "Term Loans").

On June 29, 2018, HTC, Holdings and ARI, as borrowers, and the Company as a guarantor, entered into a Limited Waiver and First Amendment to Term Loan Credit and Security Agreement and Other Documents (the "First

Amendment") with U.S. Bank National Association, as collateral agent and administrative agent, and the various lenders thereunder. The First Amendment terminated the Delayed Draw Commitment and provided an interim waiver with respect to compliance with the existing TLR covenant at June 30, 2018.

The Term Loans mature on October 10, 2023. Principal payments on the Term Loans are required on a quarterly basis, commencing with the quarter ended March 31, 2018, in the amount of 1% per annum of the original principal of the outstanding Term Loans. Commencing with the fiscal year ending December 31, 2018, the Term Loan Facility also requires annual principal payments of up to 50% of Excess Cash Flow (as defined in the Term Loan Facility) if the Company's Total Leverage Ratio (as defined in the Term Loan Facility) for the applicable year is greater than 2.75 to 1.00. The Term Loan Facility also requires mandatory prepayments of the Term Loans in the event of certain asset dispositions, debt issuances, and casualty and condemnation events. The Term Loans may be prepaid at the option of the Borrowers at par in an amount up to $30 million. Additional prepayments are permitted after the first anniversary of the closing date and were originally subject to a prepayment premium of 3% in year two, 1% in year three and zero in year four and thereafter.

Interest on the Term Loans is generally payable on the earlier of the last day of the interest period applicable to such Eurodollar rate loan and the last day of the Term Loan Facility, as applicable. Interest was originally payable at the rate per annum of the Eurodollar Rate (as defined in the Term Loan Facility) plus 7.25%. The Borrowers have the option of paying 3.00% interest per annum in kind by adding such amount to the principal of the Term Loans during no more than five fiscal quarters during the term of the Term Loan Facility.

Borrowers and the Company granted to the Term Loan Agent, for the benefit of the Term Loan Lenders, a security interest in substantially all of their respective assets, including receivables, equipment, general intangibles (including intellectual property), inventory, subsidiary stock, real property, and certain other assets.

The Term Loan Facility originally contained a financial covenant requiring the Company to maintain a Total Leverage Ratio (TLR) of not greater than 4.75 to 1.00, tested as of the last day of the fiscal quarter. The Term Loan Facility was amended on August 14, 2018, including a waiver of the TLR covenant at June 30, 2018, as described below. The TLR (as defined in the Term Loan Facility) is the ratio of (a) funded debt as of such day to (b) EBITDA for the four consecutive fiscal quarters ending on the last day of such fiscal quarter. Funded debt (as defined in the Term Loan Facility) includes amounts borrowed under the PNC Facility and the Term Loan Facility as well as capitalized lease obligations and other indebtedness for borrowed money maturing more than one year from the date of creation thereof. As of December 31, 2018 and 2017, the TLR was approximately 11.82 to 1 and 3.03 to 1, respectively.

The Term Loan Facility also contains customary non-financial covenants relating to the Company and the Borrowers, including limitations on their ability to pay dividends on common stock or preferred stock, and also includes certain events of default, including payment defaults, breaches of representations and warranties, covenant defaults, cross-defaults to other obligations, events of bankruptcy and insolvency, certain ERISA events, judgments in excess of specified amounts, impairments to guarantees and a change of control.

In connection with the closing of the Term Loan Facility, the Company also entered into a Guaranty and Suretyship Agreement, dated as of October 10, 2017 (the “Term Loan Guarantee”), pursuant to which the Company affirmed its unconditional guarantee of the payment and performance of all obligations owing by Borrowers to Term Loan Agent, as agent for the benefit of the Term Loan Lenders.

The Term Loan Agent and the Agent have entered into an intercreditor agreement governing the relative priority of their security interests granted by the Borrowers and the Guarantor in the collateral, providing that the Agent shall have a first priority security interest in the accounts receivable, inventory, deposit accounts and certain other assets (the “Revolving Credit Priority Collateral”) and the Term Loan Agent shall have a first priority security interest in the equipment, real property, capital stock of subsidiaries and certain other assets (the “Term Loan Priority Collateral”).

On August 14, 2018, HTC, Holdings and ARI, as borrowers, and the Company as a guarantor, entered into a Waiver and Second Amendment to Term Loan Credit and Security Agreement (the "Second Amendment") with U.S. Bank National Association, as collateral agent and administrative agent, and the various lenders thereunder. The Second Amendment superseded interim waivers and amended the Term Loan Facility, to waive compliance with the existing TLR covenant at June 30, 2018.

In addition, the Second Amendment also: (i) increases the interest rate by 300 basis points effective July 1, 2018; (ii) waives the existing prepayment premium in the Term Loan Facility in the event the term loan is repaid in full prior to March 31, 2020; (iii) adds an exit fee equal to three percent (3.00%) of the outstanding principal balance of the term loans on the date of the Second Amendment (provided, that payment of the exit fee is waived in the event that the term loan is repaid in full prior to January 1, 2020, and provided further that the exit fee is reduced to one-and-one-half percent (1.50%) in the event that the term loan is repaid in full on or after January 1, 2020 but prior to March 31, 2020); (iv) restricted acquisitions and other equity investments prior to September 30, 2018; and (v) required payment of a one-time waiver fee equal to one percent (1.00%) of the outstanding term loans.

On November 30, 2018, the Borrowers, and the Company as a guarantor, entered into a Waiver and Third Amendment to Term Loan Credit and Security Agreement (the "Third Amendment") with U.S. Bank National Association, as collateral agent and administrative agent, and the various lenders thereunder.

The Third Amendment superseded interim waivers and amended the Term Loan Facility to reset the maximum Total Leverage Ratio covenant contained in the Term Loan Facility at the indicated dates as follows: (i) June 30, 2018 - 10.15:1.00; (ii) September 30, 2018 - 12.45:1.00; (iii) December 31, 2018 – 12.75:1.00; (iv) March 31, 2019 – 12.95:1.00; (v) June 30, 2019 – 8.25:1.00; September 30, 2019 – 6.40:1.00; (vi) December 31, 2019 – 5:70:1.00; and (vii) March 31, 2020 and each fiscal quarter thereafter – 4:75:1.00.

The Third Amendment increased the scheduled quarterly principal repayments to $525,000 effective December 31, 2018. In addition the Third Amendment requires a further repayment of principal on or before November 14, 2019 in an amount equal to (x) 100% of Excess Cash Flow (as defined in the Term Loan Facility) for the four fiscal quarter period ending September 30, 2019 if after giving effect to the payment thereof, the Borrowers have minimum aggregate Undrawn Availability (as defined in the Term Loan Facility) of at least $35,000,000, (y) 50% of Excess Cash Flow for the four fiscal quarter period ending September 30, 2019 if after giving effect to the payment thereof, the Borrowers have minimum aggregate Undrawn Availability of at least $15,000,000 but less than $35,000,000, and (z) 0% of Excess Cash Flow for the four fiscal quarter period ending September 30, 2019 if after giving effect to the payment thereof, the Borrowers have minimum aggregate Undrawn Availability less than $15,000,000, with any such payment subject to reduction by the amount of any voluntary prepayments made following the date of the Third Amendment. Any voluntary prepayments will not be subject to the prepayment premium or make-whole provisions of the Term Loan Facility. The Third Amendment also adds a minimum liquidity requirement (consisting of cash plus undrawn availability on the Borrowers' revolving loan facility) of $28 million, measured monthly.

The Third Amendment also amended the exit fee payable to the term loan lenders to five percent (5.00%) of the outstanding principal balance of the term loans on November 30, 2018 (the "Exit Fee"), which Exit Fee shall be payable in full in cash upon the earlier to occur of (x) repayment in full of the term loans, or (y) any acceleration of the term loans. The Exit Fee will be reduced by one-tenth of one percent (0.10%) for every $1,000,000 in voluntary prepayments made prior to January 1, 2020; provided, that, in no event shall the Exit Fee be reduced below three percent (3.00%) as a result of any such prepayments, (ii) payment of the Exit Fee shall be waived in the event that repayment in full of the term loans occurs prior to January 1, 2020, and (iii) the Exit Fee shall be reduced by an amount equal to fifty percent (50%) of the amount that would otherwise payable in the event that repayment in full occurs on or after January 1, 2020 but prior to March 31, 2020.

The Company evaluated the First , Second and Third Amendments in accordance with the provisions of ASC 470 to determine if the Amendments were a modification or an extinguishment of debt and concluded that the amendments were a modification of the original term loan agreement for accounting purposes. As a result, the Company capitalized an additional $1.0 million of deferred financing costs in connection with the Second Amendment, which are being amortized over the remaining term.

The Company was in compliance with all covenants, under the PNC Facility and the Term Loan Facility, as amended, as of December 31, 2018. The Company's ability to comply with these covenants in future quarters may be affected by events beyond the Company's control, including general economic conditions, weather conditions, regulations and refrigerant pricing. Therefore, we cannot make any assurance that we will continue to be in compliance during future periods.

Vehicle and Equipment Loans

The Company has entered into various vehicle and equipment loans. These loans are payable in 60 monthly payments through March 2020 and bear interest ranging from 0.0% to 6.7%.

Capital Lease Obligations

The Company rents certain equipment with a net book value of approximately $0.1 million at December 31, 2018 under leases which have been classified as capital leases. Scheduled future minimum lease payments under capital leases, net of interest, are as follows:

Years ended December 31, (in thousands)	Amount
-2019	$ 48
-2020	9
-2021	3
-2022	0
-2023	0
Subtotal	60
Less interest expense	(1)
Total	$ 59

Scheduled maturities of the Company's long-term debt and capital lease obligations are as follows:

Years ended December 31, (in thousands)	Amount
-2019	$2,672
-2020	2,109
-2021	2,103
-2022	2,100
-2023	2,100
Thereafter	93,186
Total	$104,270

Note 9 - Stockholders' equity

On December 8, 2016 the Company entered into an Underwriting Agreement with two investment banking firms for themselves and as representatives for two other investment banking firms (collectively, the “Underwriters”), in connection with an underwritten offering (the “Offering”) of 6,428,571 shares of the Company’s common stock, par value $0.01 per share (the “Firm Shares”). Pursuant to the Underwriting Agreement, the Company agreed to sell to the Underwriters, and the Underwriters agreed to purchase from the Company, an aggregate of 6,428,571 shares of common stock and also granted the Underwriters a 30 day option to purchase up to 964,285 additional shares of its common stock to cover over-allotments, if any. The Company also agreed to reimburse certain expenses incurred by the Underwriters in the Offering.

The closing of the Offering was held on December 14, 2016, at which time the Company sold 7,392,856 shares of its common stock to the Underwriters (including 964,285 shares to cover over-allotments) at a price to the public of $7.00 per share, less underwriting discounts and commissions, and received gross proceeds of $51.7 million. The Company incurred approximately $3.3 million of transaction fees in connection with the Offering, resulting in net proceeds of $48.4 million.

Note 10 - Commitments and contingencies

Rents and operating leases

Hudson utilizes leased facilities and operates equipment under non-cancelable operating leases through July 2030. Below is a table of key properties :

Properties

Location	Annual Rent	Lease Expiration Date
Auburn, Washington	$54,000	8/2019
Baton Rouge, Louisiana	$24,000	5/2019
Champaign, Illinois	$610,000	12/2019
Charlotte, North Carolina	$26,000	5/2019

Escondido, California	$163,000	6/2022
Hampstead, New Hampshire	$52,000	8/2022
Nashville, Tennessee	$164,000	3/2020
Long Beach, California	$26,400	2/2020
Long Island City, New York	$756,000	7/2021
Ontario, California	$92,000	12/2021
Pearl River, New York	$150,000	12/2021
Pottsboro, Texas	$9,600	Month to
Riverside, California	$27,000	Month
Smyrna, Georgia	$465,000	7/2030
Stony Point, New York	$101,000	6/2021
Tulsa, Oklahoma	$27,000	Month to Month

The Company rents properties and various equipment under operating leases. Rent expense for the years ended December 31, 2018, 2017 and 2016 totaled approximately $2.7 million, $1.7 million, and $1.4 million, respectively. In addition to the properties above, the Company does at times utilize public warehouse space on a month to month basis. The Company typically enters into short-term leases for the facilities and wherever possible extends the expiration date of such leases.

Future commitments under operating leases are summarized as follows:

Years ended December 31, (in thousands)	Amount
-2019	$2,952
-2020	2,055
-2021	1,619
-2022	684
-2023	498
Thereafter	3,422
Total	$11,230

Legal Proceedings

On April 1, 1999, the Company reported a release of approximately 7,800 lbs. of R-11 refrigerant (the “1999 Release”), at its former leased facility in Hillburn, NY (the “Hillburn Facility”), which the Company vacated in June 2006.

Since September 2000, last modified in March 2013, the Company signed an Order on Consent with the New York State Department of Environmental Conservation (“DEC”) whereby the Company agreed to operate a remediation system to reduce R-11 refrigerant levels in the groundwater under and around the Hillburn Facility and agreed to perform periodic testing at the Hillburn Facility until remaining groundwater contamination has been effectively abated. The Company accrued, as an expense in its consolidated financial statements, the costs that the Company believes it will incur in connection with its compliance with the Order of Consent through December 31, 2018. There can be no assurance that additional testing will not be required or that the Company will not incur additional costs and such costs in excess of the Company’s estimate may have a material adverse effect on the Company financial condition or results of operations. The Company has exhausted all insurance proceeds available for the 1999 Release under all applicable policies.

In May 2000, the Hillburn Facility as a result of the 1999 Release, was nominated by EPA for listing on the National Priorities List (“NPL”) pursuant to CERCLA. In September 2003, the EPA advised the Company that it had no current plans to finalize the process for listing of the Hillburn Facility on the NPL.

The remaining liability on our Balance Sheet as of December 31, 2018 with respect to the Hillburn Facility is approximately $144,000. There can be no assurance that the ultimate outcome of the 1999 Release will not have a material adverse effect on the Company's financial condition and results of operations. There can be no assurance that the EPA will not change its current plans and seek to finalize the process of listing the Hillburn Facility on the NPL, or that the ultimate outcome of such a listing will not have a material adverse effect on the Company's financial condition and results of operations.

Note 11 - Share-Based Compensation

Share-based compensation represents the cost related to share-based awards, typically stock options or stock grants, granted to employees, non-employees, officers and directors. Share-based compensation is measured at grant date, based on the estimated aggregate fair value of the award on the grant date, and such amount is charged to compensation expense on a straight-line basis over the requisite service period. For the years ended December 31, 2018, 2017 and 2016, the share-based compensation expense of $1.4 million, $1.5 million and $0.6 million, respectively, is reflected in general and administrative expenses in the consolidated Statements of Operations.

Share-based awards have historically been made as stock options, and recently also as stock grants, issued pursuant to the terms of the Company's stock option and stock incentive plans, (collectively, the "Plans"), described below. The Plans may be administered by the Board of Directors or the Compensation Committee of the Board or by another committee appointed by the Board from among its members as provided in the Plans. Presently, the Plans are administered by the Company's Compensation Committee of the Board of Directors. As of December 31, 2018, the Plans authorized the issuance of stock options to purchase 7,000,000 shares of the Company's common stock and, as of December 31, 2018 there were 3,143,009 shares of the Company's common stock available for issuance for future stock option grants or other stock based awards.

Stock option awards, which allow the recipient to purchase shares of the Company's common stock at a fixed price, are typically granted at an exercise price equal to the Company's stock price at the date of grant. Typically, the Company's stock option awards have vested from immediately to two years from the grant date and have had a contractual term ranging from three to ten years.

During the years ended December 31, 2018, 2017 and 2016, the Company issued options to purchase 3,864,197 shares, 1,400,203 shares, and 1,170,534 shares, respectively. During the years ended December 31, 2018, 2017 and 2016, the Company issued stock grants of 199,291 shares, 6,236 shares, and 17,148 shares, respectively.

Effective September 10, 2004, the Company adopted its 2004 Stock Incentive Plan ("2004 Plan") pursuant to which 2,500,000 shares of common stock were reserved for issuance (i) upon the exercise of options, designated as either incentive stock options ("ISOs") under the Internal Revenue Code of 1986, as amended (the "Code") or nonqualified options, or (ii) as stock, deferred stock or other stock-based awards. ISOs could be granted under the 2004 Plan to employees and officers of the Company. Non-qualified options, stock, deferred stock or other stock-based awards could be granted to consultants, directors (whether or not they are employees), employees or officers of the Company. Stock appreciation rights could also be issued in tandem with stock options. Effective September 10, 2014, the Company's ability to grant options or other awards under the 2004 Plan expired.

Effective August 27, 2008, the Company adopted its 2008 Stock Incentive Plan ("2008 Plan") pursuant to which 3,000,000 shares of common stock were reserved for issuance (i) upon the exercise of options, designated as either ISOs under the Code or nonqualified options, or (ii) as stock, deferred stock or other stock-based awards. ISOs may be granted under the 2008 Plan to employees and officers of the Company. Non-qualified options, stock, deferred stock or other stock-based awards may be granted to consultants, directors (whether or not they are employees), employees or officers of the Company. Stock appreciation rights could also be issued in tandem with stock options. Effective August 27, 2018, the Company's ability to grant options or other awards under the 2008 Plan expired.

Effective September 17, 2014, the Company adopted its 2014 Stock Incentive Plan ("2014 Plan") pursuant to which 3,000,000 shares of common stock were reserved for issuance (i) upon the exercise of options, designated as either ISOs under the Code or nonqualified options, or (ii) as stock, deferred stock or other stock-based awards. ISOs may be granted under the 2014 Plan to employees and officers of the Company. Non-qualified options, stock, deferred stock or other stock-based awards may be granted to consultants, directors (whether or not they are employees), employees or officers of the Company. Stock appreciation rights may also be issued in tandem with stock options. Unless the 2014 Plan is sooner terminated, the ability to grant options or other awards under the 2014 Plan will expire on September 17, 2024.

ISOs granted under the 2014 Plan may not be granted at a price less than the fair market value of the common stock on the date of grant (or 110% of fair market value in the case of persons holding 10% or more of the voting stock of the Company). Nonqualified options granted under the 2014 Plan may not be granted at a price less than the fair market value of the common stock. Options granted under the 2014 Plan expire not more than ten years from the date of grant (five years in the case of ISOs granted to persons holding 10% or more of the voting stock of the Company).

Effective June 7, 2018, the Company adopted its 2018 Stock Incentive Plan ("2018 Plan") pursuant to which 4,000,000 shares of common stock were reserved for issuance (i) upon the exercise of options, designated as either ISOs under the Code or nonqualified options, or (ii) as stock, deferred stock or other stock-based awards. ISOs may be granted under the 2016 Plan to employees and officers of the Company. Non-qualified options, stock, deferred stock or other stock-based awards may be granted to consultants, directors (whether or not they are employees), employees or officers of the Company. Stock appreciation rights may also be issued in tandem with stock options. Unless the 2018 Plan is sooner terminated, the ability to grant options or other awards under the 2018 Plan will expire on June 7, 2028.

ISOs granted under the 2018 Plan may not be granted at a price less than the fair market value of the common stock on the date of grant (or 110% of fair market value in the case of persons holding 10% or more of the voting stock of the Company). Nonqualified options granted under the 2018 Plan may not be granted at a price less than the fair market value of the common stock. Options granted under the 2018 Plan expire not more than ten years from the date of grant (five years in the case of ISOs granted to persons holding 10% or more of the voting stock of the Company).

All stock options have been granted to employees and non-employees at exercise prices equal to or in excess of the market value on the date of the grant.

The Company determines the fair value of share based awards at the grant date by using the Black-Scholes option-pricing model, and is incorporating the simplified method to compute expected lives of share based awards with the following weighted-average assumptions:

Years ended December 31,	2018	2017	2016
Assumptions			
Dividend yield	0 %	0 %	0 %
Risk free interest rate	2.51%-2.86%	1.97%-2.08%	0.%-1.0%
Expected volatility	43%-65 %	44%-46 %	47%-53%
Expected lives	3 years	3 years	3 years

A summary of the activity for the Company's Plans for the indicated periods is presented below:

Stock Option Plan Totals	Shares	Weighted Average Exercise Price
Outstanding at December 31, 2015	2,633,589	$ 2.06
-Exercised	(589,725)	$ 2.43
-Granted	1,170,534	$ 3.95
Outstanding at December 31, 2016	3,214,398	$ 2.68
-Exercised	(1,545,161)	$ 2.27
-Granted	1,400,203	$ 5.72
Outstanding at December 31, 2017	3,069,440	$ 4.28
-Cancelled	(2,523,243)	$ 4.92
-Exercised	(5,000)	$ 3.43
-Granted	3,874,200	$ 1.19
Outstanding at December 31, 2018	4,415,397	$ 1.20

Options to purchase approximately 3.8 million shares were granted in 2018, of which approximately 1.7 million options vested in 2018, and approximately 2.2 million will vest in 2019. In 2018, options to purchase approximately 2.5 million shares were cancelled, mainly relating to barrier options, which were cancelled once the stock price declined below a predetermined barrier price for five consecutive trading days.

The following is the weighted average contractual life in years and the weighted average exercise price at December 31, 2018 and 2017 of:

2018	Number of Options	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price
Options outstanding	4,415,397	2.7 years	$ 1.20
Options vested	2,258,338	2.6 years	$ 1.29
Options unvested	2,157,059	2.9 years	$ 1.10

2017	Number of Options	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price
Options outstanding	3,069,440	2.4 years	$ 4.28
Options vested	2,977,440	2.4 years	$ 3.94
Options unvested	92,000	3.0 years	$ 5.76

The intrinsic values of options outstanding at December 31, 2018 and 2017 are $0 million and $5.5 million respectively.

The intrinsic value of options unvested at December 31, 2018 and 2017 are approximately $0 for both periods.

The intrinsic values of options vested and exercised during the years ended 2018, 2017 and 2016 were as follows**:**

	2018	2017	2016
Intrinsic value of options vested	$0	$462,369	$4,843,774

Intrinsic value of options exercised	$13,950	$8,025,527	$1,777,476

Note 12 - Acquisition

On October 10, 2017, the Company completed the Acquisition of ARI.

At closing, the Company paid net cash consideration of approximately $209 million, which included preliminary post-closing adjustments relating to: (i) changes in the net working capital of ARI as of the closing relative to a net working capital target, (ii) the actual amount of specified types of R-22 refrigerant inventory on hand at closing relative to a target amount thereof, and (iii) other consideration pursuant to the Stock Purchase Agreement.

The fair values of the assets that we acquired and the liabilities that we assumed were finalized in 2018. Any future changes to the acquired assets and liabilities will be recorded in the Company's Consolidated Statement of Operations. The Company is currently engaged with Airgas with respect to finalizing the post-closing adjustment, as defined in the Stock Purchase Agreement.

The following table summarizes the Company's estimates of the fair values of the assets acquired and the liabilities assumed on the date the Company completed the Acquisition of ARI, as previously reported as of December 31, 2017 and December 31, 2018:

	Amortization life (in months)	**As previously reported**	**Adjustments (1)**	**As finalized (in thousands)**
Accounts receivable		$ 14,668	$	$ 14,668
Other assets		734		734
Inventories		103,876	1,661	105,537
Property and equipment		24,179		24,179
Customer relationships	144	29,660		29,660
Above-market leases	153	567		567
Goodwill		48,609	(1,661)	46,948
Total assets acquired		$ 222,293	$ -	$ 222,293
Accounts payable and accrued expenses		$ 3,210	$	$ 3,210
Other current liabilities		10,114		10,114
Total liabilities assumed		$ 13,324	$ -	$ 13,324
Total purchase price		$ 208,969	$ -	$ 208,969

[1] The Company obtained further information regarding the fair value of acquired inventory based on information that existed as of the acquisition date.

The customer relationships were valued using the multi-period excess-earnings method, a form of the income approach. The above-market leases were valued using the differential cash flow method of the income approach.

The acquisition resulted in the recognition of $46.9 million of goodwill, which should be deductible for tax purposes. Goodwill largely consists of expected growth in revenue from new customer acquisitions over time.

The cash consideration paid by the Company at closing was financed with available cash balances, plus $80 million of borrowings under the PNC Facility and a new term loan of $105 million from the Term Loan Facility.

The following table provides unaudited pro forma total revenues and results of operations for the 12 months ended December 31, 2017 and 2016 as if ARI had been acquired on January 1, 2016. The unaudited pro forma results reflect certain adjustments related to the acquisition, such as a step-up in basis in inventory, amortization expense on intangible assets arising from the acquisition, and interest on the acquisition financing. The pro forma results do not include any anticipated cost synergies or other effects of any planned integration. Accordingly, such pro forma amounts are not necessarily indicative of the results that actually would have occurred had the acquisitions been completed at the beginning of 2016, nor are they indicative of the future operating results of the combined companies.

	12 Months Ended December 31,	
(unaudited, in thousands, except per share amounts)	2017	2016
Revenues	$255,701	$239,626
Net income	$23,405	$17,109
Net income per share:		
Basic	$0.56	$0.50
Diluted	$0.55	$0.48

The unaudited pro forma earnings for the 12 months ended December 31, 2017 were also adjusted to exclude $6.3 million of acquisition-related expenses incurred in 2017. Also included in the operating results for the year ended December 31, 2017 are $14.8 million of revenue from ARI and $1.5 million in pretax losses since the acquisition date, which includes the amortization of newly acquired intangible assets and amortization of step-up in the basis of inventories.

Note 13- Quarterly Financial Data (Unaudited)

The Company’s operating results vary from period to period as a result of weather conditions, requirements of potential customers, non-recurring refrigerant and service sales, availability and price of refrigerant products (virgin or reclaimable), changes in reclamation technology and regulations, timing in introduction and/or retrofit or replacement of refrigeration equipment, the rate of expansion of the Company's operations, and by other factors.

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(in thousands, except share and per share data)	For the Year Ended 2018				
	Q1	Q2	Q3	Q4 (b)	Total (a)
Revenues	$42,428	$57,831	$40,545	$25,721	$166,525
Gross profit (loss)	$7,905	$(26,082)	$7,729	$3,083	$(7,365)
Operating expenses	$8,819	$11,346	$8,098	$6,980	$35,243
Operating income (loss)	$(914)	$(37,428)	$(369)	$(3,897)	$(42,608)
Other expense	$(3,206)	$(3,346)	$(4,064)	$(4,139)	$(14,755)
Income (loss) before income taxes	$(4,120)	$(40,774)	$(4,433)	$(8,036)	$(57,363)
Income tax expense (benefit)	$(1,064)	$(10,158)	$9,447	$71	$(1,704)
Net loss	$(3,056)	$(30,616)	$(13,880)	$(8,107)	$(55,659)
Net loss per common share – Basic (a)	$(0.07)	$(0.72)	$(0.33)	$(0.19)	$(1.31)
Net loss per common share – Diluted (a)	$(0.07)	$(0.72)	$(0.33)	$(0.19)	$(1.31)
Weighted average number of shares outstanding – Basic	42,403,029	42,403,140	42,530,476	42,600,898	42,484,972
Weighted average number of shares outstanding – Diluted	42,403,029	42,403,140	42,530,476	42,600,898	42,484,972

	For the Year Ended 2017				
	Q1	Q2	Q3	Q4 (b)	Total (a)
Revenues	$38,830	$52,231	$24,706	$24,613	$140,380
Gross profit	$12,467	$17,420	$5,070	$3,027	$37,984
Operating expenses	$3,074	$3,520	$3,594	$12,664	$22,852
Operating income (loss)	$9,393	$13,900	$1,476	$(9,637)	$15,132
Other (expense)	$(85)	$(61)	$(24)	$(2,958)	$(3,128)
Income (loss) before income taxes	$9,308	$13,839	$1,452	$(12,595)	$12,004
Income tax expense (benefit)	$3,574	$5,314	$(652)	$(7,389)	$847
Net income (loss)	$5,734	$8,525	$2,104	$(5,206)	$11,157
Net income (loss) per common share – Basic (a)	$0.14	$0.21	$0.05	$(0.12)	$0.27
Net income (loss) per common share – Diluted (a)	$0.13	$0.20	$0.05	$(0.12)	$0.26
Weighted average number of shares outstanding – Basic	41,507,941	41,567,848	41,869,528	42,216,987	41,764,230
Weighted average number of shares outstanding – Diluted	43,503,889	43,550,226	43,463,982	42,216,987	42,766,843

(a) The sum of the net earnings per share may not add up to the full year amount due to rounding and because the quarterly calculations are based on varying numbers of shares outstanding.

(b) As discussed previously, the fourth quarter 2017 results include the results of ARI subsequent to the acquisition on October 10, 2017.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15 (d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

HUDSON TECHNOLOGIES, INC.

By: /s/ Kevin J. Zugibe
Kevin J. Zugibe, Chairman and Chief Executive Officer

Date: March 15, 2019

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Kevin J. Zugibe Kevin J. Zugibe	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	March 15, 2019
/s/ Nat Krishnamurti Nat Krishnamurti	Chief Financial Officer (Principal Financial and Accounting Officer)	March 15, 2019
/s/ Vincent P. Abbatecola Vincent P. Abbatecola	Director	March 15, 2019
/s/ Brian F. Coleman Brian F. Coleman	Director and President and Chief Operating Officer	March 15, 2019
/s/ Dominic J. Monetta Dominic J. Monetta	Director	March 15, 2019
/s/ Otto C. Morch Otto C. Morch	Director	March 15, 2019

/s/ Richard Parrillo Richard Parrillo	Director	March 15, 2019
/s/ Eric A. Prouty Eric A. Prouty	Director	March 15, 2019