



Advanced Emissions Solutions, Inc.

Advancing Cleaner Energy

Fourth Quarter and Full Year 2018 Results Call

March 19, 2019





SAFE HARBOR

This presentation includes forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, which provides a "safe harbor" for such statements in certain circumstances. The forward-looking statements include statements or expectations regarding future cash flows from refined coal ("RC"); potential transactions with tax-equity investors; required capital investment to transition existing facilities to operating status; future amount and timing of production and sale of RC and potential growth opportunities. These statements are based on current expectations, estimates, projections, beliefs and assumptions of our management. Such statements involve significant risks and uncertainties. Actual events or results could differ materially from those discussed in the forward-looking statements as a result of various factors, including but not limited to, changes and timing in laws, regulations, IRS interpretations or guidance, accounting rules and any pending court decisions, legal challenges to or repeal of them; changes in prices, economic conditions and market demand; the ability of the RC facilities to produce and sell coal that qualifies for tax credits; the timing, terms and changes in contracts for RC facilities, or failure to lease or sell RC facilities; impact of competition; availability, cost of and demand for alternative tax credit vehicles and other technologies; technical, start-up and operational difficulties; availability of raw materials; loss of key personnel; and other factors discussed in greater detail in our filings with the SEC. You are cautioned not to place undue reliance on such statements and to consult our SEC filings for additional risks and uncertainties that may apply to our business and the ownership of our securities. Our forward-looking statements are presented as of the date made, and we disclaim any duty to update such statements unless required by law to do so.



FOURTH QUARTER AND FULL YEAR 2018 HIGHLIGHTS

- Obtained separate third party tax equity investors for an RC facilities in October 2018 and January 2019 that were previously in installation phase; both RC facilities are royalty bearing.
- Based on 19 invested RC facilities as of December 31, 2018 and cash distributions occurring in the three months ended December 31, 2018, the Company's expected future net RC cash flows to ADES are projected to be between \$200 million and \$225 million through the end of 2021;
- Tinum distributions to ADES were down slightly and totaled \$15.1 million during the fourth quarter of 2018, which was a result of costs incurred at Tinum related to the engineering and installation phases of RC facilities; Tinum distributions were \$52.7 million in 2018, compared to \$53.5 million during 2017;
- Completed acquisition of ADA Carbon Solutions, LLC ("Carbon Solutions") for a total purchase price of \$75.0 million, obtaining a market leader within activated carbon and building out the Company's product suite;
- Cash position decreased by \$6.9 million compared to December 31, 2017, ending with \$23.8 million of cash and cash equivalents and restricted cash as of December 31, 2018;
- Continued quarterly dividend; declared fourth quarter dividend of \$0.25 per share, paid in December 2018, and declared 2019 first quarter dividend payable on March 7, 2019 to stockholders of record as of business close on February 19, 2019;
- Returned \$19.1 million and \$45.5 million to shareholders during the three and twelve months ended December 31, 2018 through share repurchases and dividends declared;
- Other operating expenses increased due to restructuring charges of \$3.1 million and transaction costs related to the acquisition of Carbon Solutions of \$4.5 million for the twelve months ended December 31, 2018;
- Net income for the three and twelve months ended December 31, 2018 of \$7.0 million and \$35.5 million or \$0.36 and \$1.76 per diluted share, respectively;



EXECUTION OF 2018 PRIORITIES



INCREASE AND OPTIMIZE REFINED COAL NET CASH FLOWS:

Add Investors:

- Nurture current and add additional sales channels
- Leverage improving refined coal tax equity market and investor clarity as a result of tax reform

Optimization:

- Maximize operational performance to produce RC and further develop customer relationships to ensure retention of RC customers
- Optimize resources at ADES to support Tinum and public platform while also reducing expenses



RETURN CAPITAL TO SHAREHOLDERS:

Evaluate options and execute on continued progress for additional return of capital to shareholders, including:

- Stock repurchases (open market and/or periodic tender offers)
- Dividends (one-time and/or incremental recurring)



EVALUATE ALTERNATIVE OPTIONS:

Evaluate options, including:

- Monetization of current or future tax assets
- Look to build upon current public platform
- Properly position for market transformation

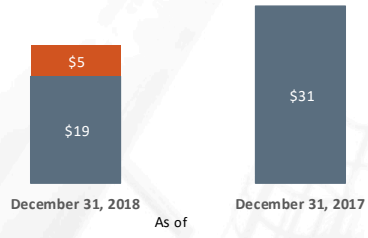
The background is a low-angle, grayscale photograph of an industrial facility, likely a refinery or chemical plant. It features large cylindrical storage tanks, complex piping, and structural steel beams against a cloudy sky. A semi-transparent logo, consisting of three overlapping curved shapes, is positioned to the left of the main text.

FINANCIALS

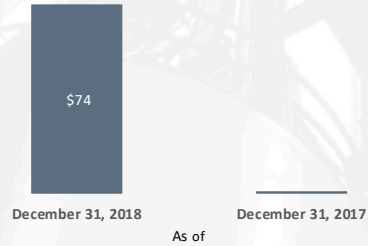


FINANCIAL HIGHLIGHTS

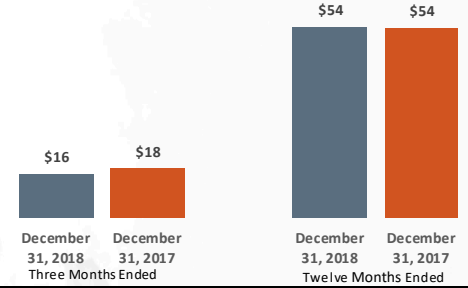
CASH, CASH EQUIVALENTS & RESTRICTED



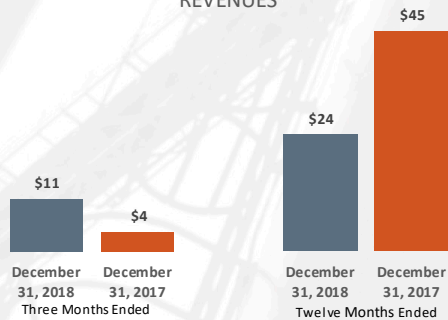
CURRENT & LONG TERM BORROWINGS



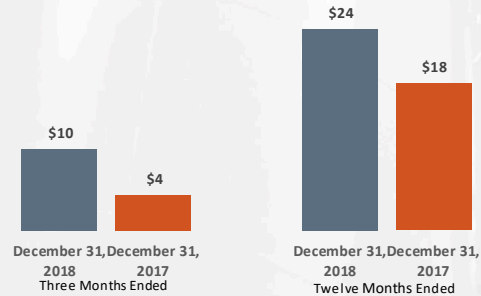
EQUITY METHOD EARNINGS



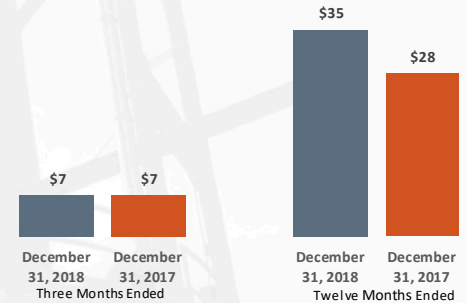
REVENUES



OTHER OPERATING EXPENSES⁽¹⁾



NET INCOME



(1) Other operating expenses represents Total operating expenses, exclusive of cost of revenue, as presented on the Condensed Consolidated Financial Statements.



REFINED COAL

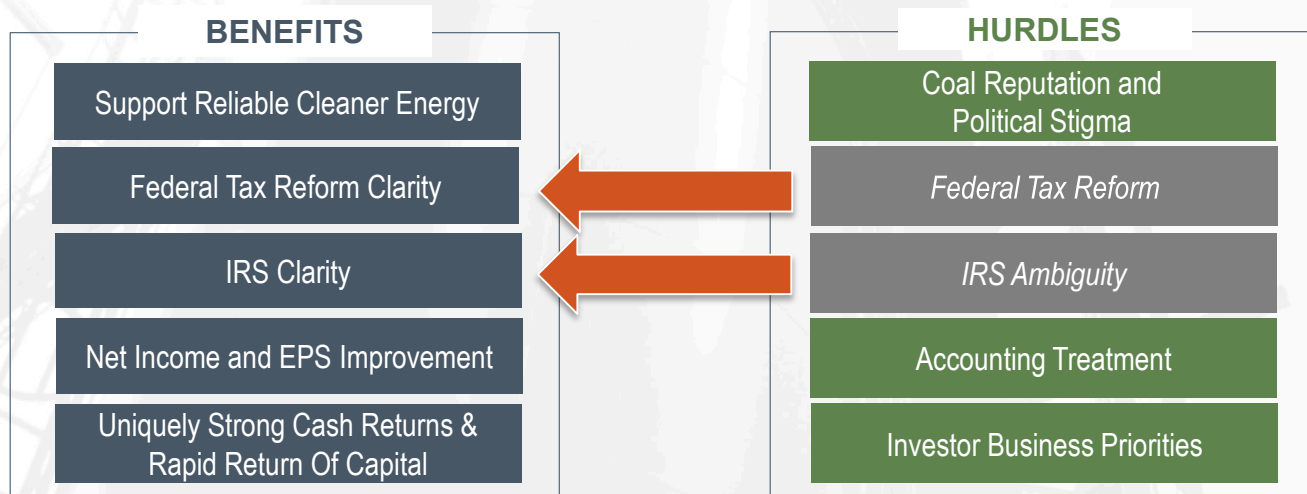


REFINED COAL ENVIRONMENT

The refined coal business is proven and yields many benefits to utilities, investors and the environment, and while the outlook has improved, there remain hurdles to overcome

A significant number of major public and private companies have invested in RC Tax Equity since its inception

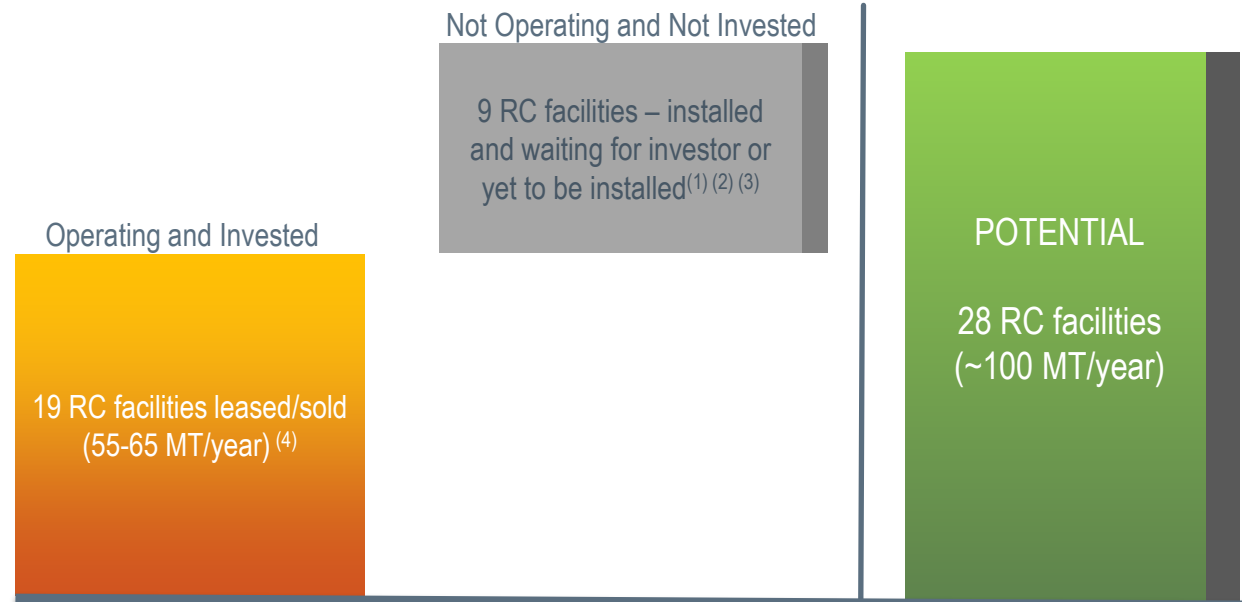
There are benefits *if* hurdles can be overcome





REFINED COAL FACILITIES TODAY AND TOMORROW

FULL-TIME OPERATIONS ROADMAP



RC Facility information as of December 31, 2018

2019 - 2021

- (1) Certain facilities would require capital investment to transition to operating status
- (2) Four facilities were in the engineering and construction phase
- (3) One facility that is not operating was placed in service in 2009 and available Section 45 tax credit generation ability for this facility will expire during the year ended 2019
- (4) One facility that is operating was placed in service in 2009 and available Section 45 tax credit generation ability for this facility will expire during the year ended 2019

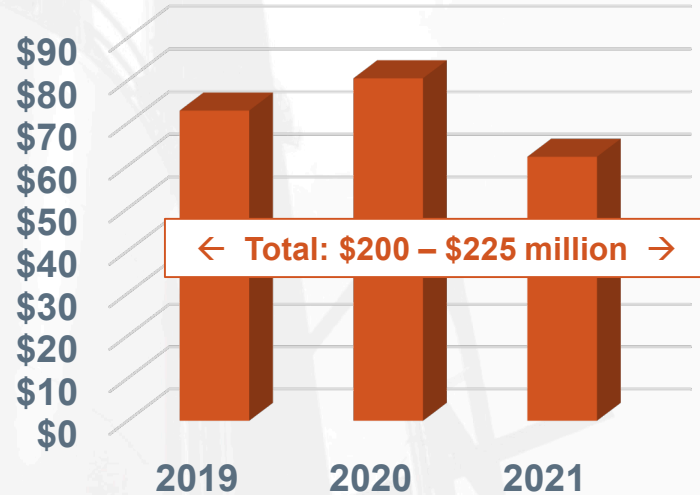


Future Cash Flows for ADES & 2019 Priorities

EXPECTED FUTURE RC CASH FLOWS

EXPECTED FUTURE CASH FLOWS FROM RC BUSINESS ⁽¹⁾ *(in millions)*

- Based on 19 invested facilities as of December 31, 2018 and includes all net RC cash flows of ADES ⁽¹⁾
- Results in expected future net RC cash flows of \$200M to \$225M to ADES in total through 2021 ⁽²⁾
- Each additional refined coal facility could add between \$5-7 million annually to ADES ⁽³⁾
- Subsequent to December 31, 2018, obtained third party tax equity investor for an additional RC facility in January 2019



- (1) Net projected RC cash flows include the impact of all expected Tinuum distributions and royalty payments offset by the Company's federal and state tax payments as well as interest payments
- (2) The expectation is based on the following four key assumptions: 1) Tinuum Group continues to not operate retained facilities; 2) Tinuum Group does not have material CapEx or unusual operating expenses; 3) tax equity lease renewals are not terminated or repriced; and 4) coal-fired generation remains consistent
- (3) Estimates based on coal-fired utility that burns 4.0 million tons per year

Carbon Solutions INVESTMENT RATIONALE

1

Market Leader

45% share in North American mercury control activated carbon market

Recurring revenue; multi-year requirements-based contracts

R&D driving momentum in premium, specialty product

2

Strategic Asset Base

Built for a larger MATS market, with nearly \$400 million of investment

Low-cost operator

Estimated \$2-3 million run rate synergies per year by 2Q19

3

Industry Inflection

Smaller players exiting & larger competitors shuttering/moving capacity to adjacent markets

Carbon Solutions recently re-signed new contracts with more attractive terms

Strong contribution margin

4

Growth-Oriented Assets

Large, under-utilized plant

Advantaged low-cost PAC position

Mercury control growth through share gains and refined coal sunset

Long-term opportunities in adjacent activated carbon markets

5

Unique Strategic Fit

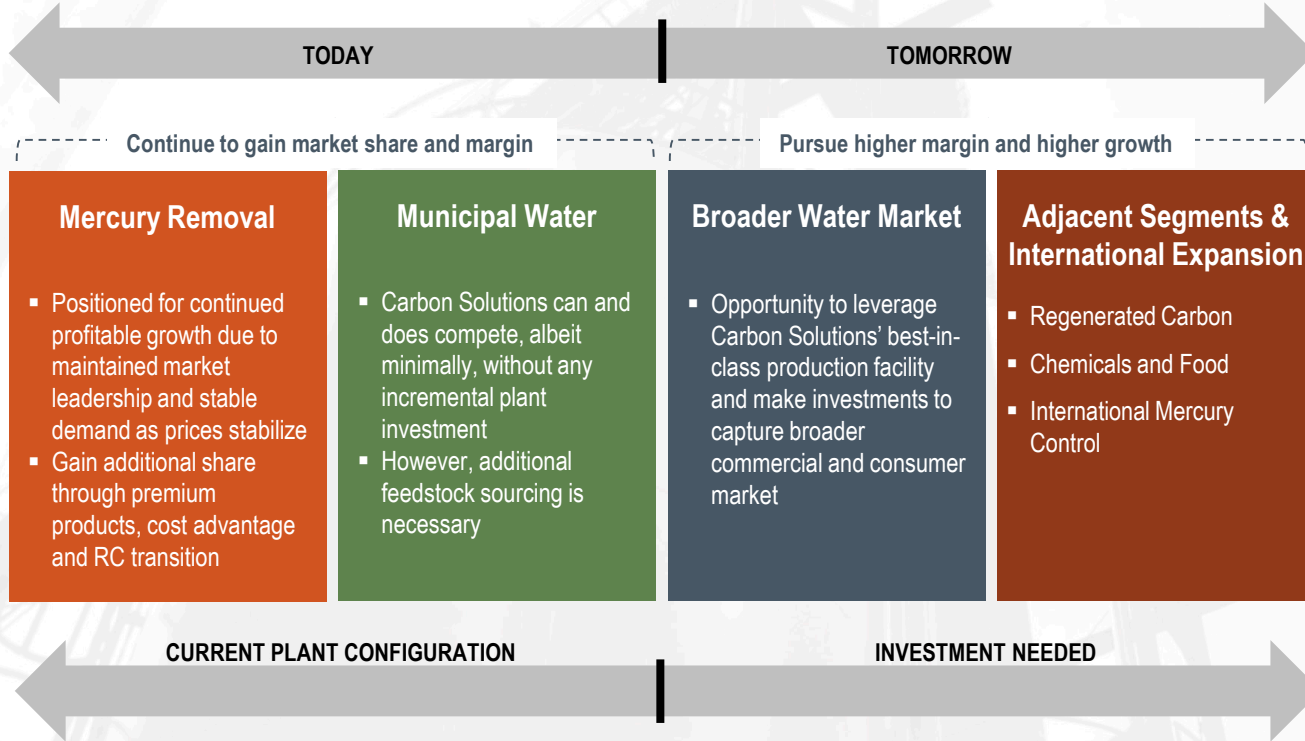
Founding investor and owner of Carbon Solutions

Tangible SG&A-driven operating and potential revenue synergies

Utilize existing tax assets

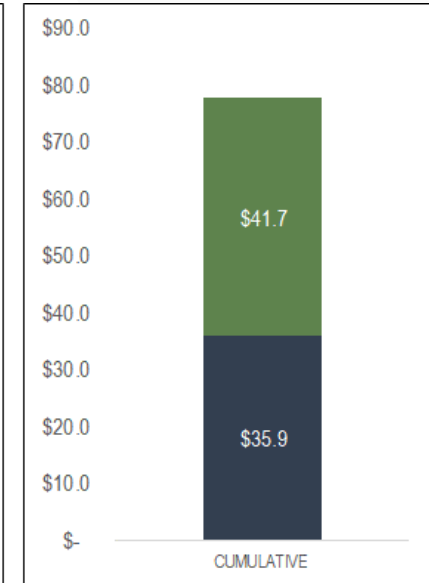
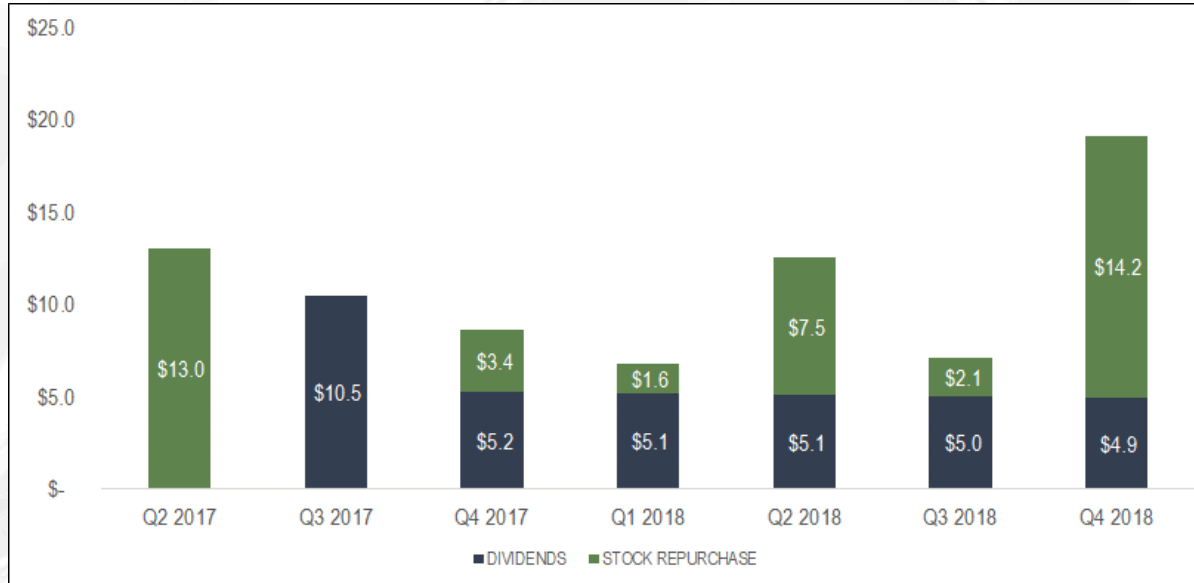


GROWTH OPPORTUNITIES



RETURN OF CAPITAL

- 1 Since the start of the Capital Allocation program ⁽¹⁾, the Company has paid \$41.7 million in dividends and utilized capital of \$35.9 million to repurchase shares
- 2 Since March 31, 2017, the Company has returned approximately \$3.52 per share to its shareholders⁽²⁾; the stock price for the same period has increased from \$9.54 as of March 31, 2017 to \$10.55 as of December 31, 2018
- 3 As of December 31, 2018, dividend yield was ~9% on an annualized basis



(1) The Company started its current Capital Allocation program in the second quarter of 2017.

(2) Return was calculated based on shares outstanding as of March 31, 2017.



2019 PRIORITIES



INCREASE AND OPTIMIZE REFINED COAL NET CASH FLOWS:

Add Investors:

- Nurture current & add additional sales channels
- Leverage improving refined coal tax equity market and investor clarity as a result of tax reform

Optimization:

- Maximize operational performance to produce RC and further develop customer relationships to ensure retention of RC customers
- Optimize resources at ADES to support Tinum and public platform while also reducing expenses



INTEGRATION AND GROWTH:

Integration:

- Efficiently combine the teams, expertise, operations and product suite of Carbon Solutions

Growth:

- Immediately address market share capture in North American PAC market, as well as evaluate and pursue adjacent market opportunities in Water



RETURN CAPITAL TO SHAREHOLDERS:

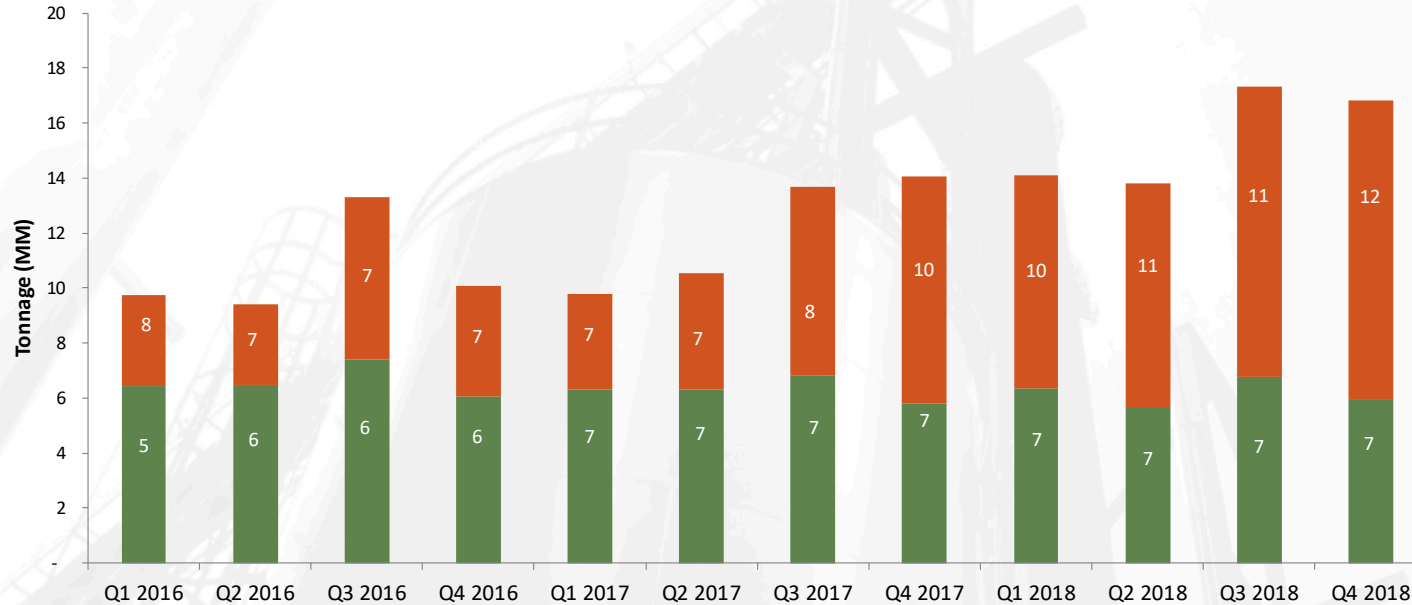
Evaluate options and execute on continued progress for additional return of capital to shareholders, including:

- Stock repurchases (open market and/or one-time tender offers)
- Dividends (one-time and/or incremental recurring)



APPENDIX

OPERATING TONS: ROYALTY VS. NON-ROYALTY



Three Month Ended December 31, 2018	Operating Tons		QTD - Total
	Royalty	Non-Royalty	
Tonnage ⁽¹⁾	10,875	5,948	16,823
Count (#) ⁽²⁾	12	7	19

Twelve Months Ended December 31,	Operating Tons		YTD - Total
	Royalty	Non-Royalty	
Tonnage ⁽¹⁾	37,294	24,745	62,039
Count (#) ⁽²⁾	12	7	19

Note: Numbers within bar graph represent the number of facilities per category as of the end of each quarter presented

(1) Tonnage information is based upon RC production for the three and nine months ended December 31, 2018 (in thousands)

(2) Counts are based upon the number of facilities of which a royalty has been earned during the period

Appendix A: 10-K Balance Sheet⁽¹⁾

<i>(In thousands, except share data)</i>	As Of	
	December 31, 2018	December 31, 2017
ASSETS		
Current assets:		
Cash, cash equivalents and restricted cash	\$ 18,577	\$ 30,693
Receivables, net	9,554	1,113
Receivables, related party	4,284	3,247
Inventories	21,791	74
Prepaid expenses and other assets	5,570	1,761
Total current assets	59,776	36,888
Restricted cash, long-term	5,195	-
Property and equipment, net of accumulated depreciation of \$1,499 and \$1,486, respectively	42,697	410
Intangible assets, net	4,830	805
Equity method investments	6,634	4,351
Deferred tax assets	32,539	38,661
Other assets	7,993	1,503
Total Assets	\$ 159,664	\$ 82,618
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 6,235	\$ 1,000
Accrued payroll and related liabilities	8,279	1,384
Current portion of borrowings	24,067	-
Other current liabilities	2,138	4,494
Total current liabilities	40,719	6,878
Long-term portion of borrowings	50,058	-
Other long-term liabilities	940	2,285
Total Liabilities	91,717	9,163
Stockholders' equity:		
Preferred stock: par value of \$.001 per share, 50,000,000 shares authorized, none outstanding	-	-
Common stock: par value of \$.001 per share, 100,000,000 shares authorized, 22,640,677 and 22,465,821 shares issued and 18,576,489 and 20,752,055 shares outstanding at December 31, 2018 and 2017, respectively	23	22
Treasury stock, at cost: 4,064,188 and 1,713,766 shares as of December 31, 2018 and 2017, respectively	(41,740)	(16,397)
Additional paid-in capital	96,750	105,308
Retained earnings (accumulated deficit)	12,914	(15,478)
Total stockholders' equity	67,947	73,455
Total Liabilities and Stockholders' Equity	\$ 159,664	\$ 82,618

(1) See complete Consolidated Financial Statements and Notes related thereto within the Annual Report on Form 10-K for the period ended December 31, 2018.

Appendix B: 10-K Income Statement⁽¹⁾

	Years Ended December 31,	
	2018	2017
<i>(in thousands, except per share data)</i>		
Revenues:		
Consumables	\$ 8,733	\$ 4,246
License royalties, related party	15,140	9,672
Equipment sales	72	31,446
Total revenues	<u>23,945</u>	<u>45,364</u>
Operating expenses:		
Consumables cost of revenue, exclusive of depreciation and amortization	6,606	3,434
Equipment cost of revenue, exclusive of depreciation and amortization	(353)	28,451
Payroll and benefits	10,639	7,669
Rent and occupancy	1,141	795
Legal and professional fees	8,230	4,354
General and administrative	3,359	4,014
Depreciation, amortization, depletion, and accretion	723	789
Total operating expenses	<u>30,345</u>	<u>49,506</u>
Operating loss	<u>(6,400)</u>	<u>(4,142)</u>
Other income (expense):		
Earnings from equity method investments	54,208	53,843
Interest income	239	54
Interest expense	(2,151)	(3,024)
Litigation settlement and royalty indemnity expense, net	—	3,269
Other	(19)	2,025
Total other income	<u>52,277</u>	<u>56,167</u>
Income before income tax expense	45,877	52,025
Income tax expense	10,423	24,152
Net income	<u>\$ 35,454</u>	<u>\$ 27,873</u>
Earnings per common share (Note 1):		
Basic	\$ 1.78	\$ 1.30
Diluted	\$ 1.76	\$ 1.29
Weighted-average number of common shares outstanding:		
Basic	19,901	21,367
Diluted	20,033	21,413
Cash dividends declared per common share outstanding:	\$ 1.00	\$ 0.75

(1) See complete Consolidated Financial Statements and Notes related thereto within the Annual Report on Form 10-K for the period ended December 31, 2018.

Appendix C: 10-K Cash Flow⁽¹⁾

<i>(in thousands)</i>	Years Ended December 31,	
	2018	2017
Cash flows from operating activities		
Net income	\$ 35,454	\$ 27,873
Increase (decrease) in valuation allowance on deferred tax assets	4,462	(474)
Depreciation, amortization, depletion, and accretion	723	789
Amortization of debt issuance costs	94	109
Provision for accounts receivable and other receivables	153	385
Share-based compensation expense, net	2,490	2,209
Earnings from equity method investments	(54,208)	(53,843)
Other non-cash items, net	136	508
Changes in operating assets and liabilities, net of effects of acquired businesses:		
Receivables	(1,847)	6,743
Related party receivables	(1,037)	(1,313)
Prepaid expenses and other assets	(757)	(351)
Costs incurred on uncompleted contracts	15,945	27,048
Inventories	237	—
Deferred tax asset, net	771	23,208
Other long-term assets	(753)	41
Accounts payable	(197)	(920)
Accrued payroll and related liabilities	(59)	(738)
Other current liabilities	(869)	(1,586)
Billings on uncompleted contracts	(15,945)	(30,140)
Other long-term liabilities	(182)	154
Legal settlements and accruals	—	(16,088)
Distributions from equity method investees, return on investment	5,500	4,638
Net cash used in operating activities	<u>(9,889)</u>	<u>(11,748)</u>

(1) See complete Consolidated Financial Statements and Notes related thereto within the Annual Report on Form 10-K for the period ended December 31, 2018.

Appendix D: 10-K Cash Flow (continued)⁽¹⁾

<i>(in thousands)</i>	Years Ended December 31,	
	2018	2017
Cash flows from investing activities		
Distributions from equity method investees in excess of cumulative earnings	\$ 47,175	\$ 48,875
Acquisition of business, net of cash acquired	(62,501)	—
Acquisition of property, equipment, and intangible assets, net	(467)	(428)
Purchase of and contributions to equity method investee	(750)	(61)
Net cash (used in) provided by investing activities	(16,543)	48,386
Cash flows from financing activities		
Borrowings, net of debt discount - related party	67,900	—
Debt issuance costs paid	(2,036)	—
Dividends paid	(20,165)	(15,690)
Repurchase of common shares	(25,343)	(16,397)
Repurchase of shares to satisfy tax withholdings	(769)	(566)
Borrowings on Line of Credit	—	808
Repayments on Line of Credit	—	(808)
Short-term borrowing loan costs	—	(236)
Other	(76)	—
Net cash provided by (used in) financing activities	19,511	(32,889)
Increase (Decrease) in Cash and Cash Equivalents and Restricted Cash	(6,921)	3,749
Cash, Cash Equivalents and Restricted Cash, beginning of year	30,693	26,944
Cash, Cash Equivalents and Restricted Cash, end of year	\$ 23,772	\$ 30,693
Supplemental disclosure of cash flow information:		
Cash paid for interest	\$ 1,400	\$ 3,644
Cash paid for income taxes, net of refunds received	\$ 7,460	\$ 1,672
Supplemental disclosure of non-cash investing and financing activities:		
Acquisition consideration payable	\$ 661	\$ —
Dividends payable	\$ 125	\$ 139

(1) See complete Consolidated Financial Statements and Notes related thereto within the Annual Report on Form 10-K for the period ended December 31, 2018.