Final Transcript

Q4 2018 Ramaco Resources, Inc. Earnings Call

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Corporate Participants

Michael Windisch *Ramaco Resources, Inc. - Chief Accounting Officer*

Randall Atkins *Ramaco Resources, Inc. - Founder, Executive Chairman, Chief Financial Officer and Director*

Michael Bauersachs *Ramaco Resources, Inc. – Founder, President, Chief Executive Officer and Director*

Chris Blanchard *Ramaco Resources, Inc. – Chief Operating Officer*

Conference Call Participants

Jeremy Sussman *Clarksons - Analyst*

Curt Woodworth *Credit Suisse — Analyst*

Mark Levin *Seaport Global — Analyst*

Michael Dudas *Vertical Research — Analyst*

Lucas Pipes *B. Riley FBR — Analyst*

Nathan Martin *Seaport Global — Analyst*

Presentation

Operator

Good day, ladies and gentlemen, and welcome to the Ramaco Resources' Fourth Quarter 2018 Earnings Conference Call. At this time, all participants are in a listen-only mode. Later we will conduct a question-and-answer session and instructions will follow at that time. As a reminder, this conference call is being recorded.

I would now like to introduce your host for today's conference, Chief Accounting Officer, Michael Windisch. Mr. Windisch, you may begin.

Michael P. Windisch — *Chief Accounting Officer*

Thank you, Josh. On behalf of Ramaco Resources, I would like to welcome all of you to our fourth quarter earnings conference call. With me this morning is Randy Atkins, our Executive Chairman and CFO; Mike Bauersachs, our President and CEO; and Chris Blanchard, our Chief Operating Officer.

Before we begin, I would like to share our normal cautionary statement regarding forward-looking statements. Certain statements discussed on today's call constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements represent Ramaco's expectations or beliefs, concerning future events and it is possible that the results discussed will not be achieved. These forward-looking statements are subject to risks, uncertainties and other factors, many of which are outside of Ramaco's control, which could cause actual result to differ materially from the results discussed in the forward-looking statements.

Any forward-looking statement speaks only as of the date on which it is made and except as required by law, Ramaco does not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise. New factors emerge from time-to-time and it is not possible for Ramaco to predict all such factors. When considering these forward-looking statements, you should keep in mind, the risk factors and other cautionary statements found in the Company's filings with the Securities and Exchange Commission, included on our Annual Report on Form 10-K. The risk factors and other factors noted in the Company's SEC filings could cause its actual results to differ materially from those contained in any forward-looking statements.

With that said, I'd like to introduce Randy Atkins, our Chairman and CFO.

Randall W. Atkins — *Founder, Executive Chairman, Chief Financial Officer and Director*

Thanks, Mike. As always, I want to thank everyone for joining us today to discuss our fourth quarter and year-end results. I also want to share some remarks on our 2019 guidance. As an overview from where we sit today, we are very positive about Ramaco's long-term prospects for growth, our capability to generate significant free cash flow, and ultimately our ability to return cash to shareholders by dividend. We also remain in an aggressive growth mode to basically double the size of our Company over the next three to four years. But, let's start with 2018.

As we've looked back on Q4, the defining event was the silo failure at our Elk Creek prep plant in early November. As you know, we were able to get back to substantial throughput with a belt workaround by early December. We are ramping back to full capacity by Q2 of this year. Needless to say, not being able to wash and sell coal for three weeks negatively impacted Q4. Revenue dropped about 30% quarter-over-quarter to $44 million and we went from an $11 million adjusted EBITDA in Q3 to only $7 million in Q4.

For the full year, however we had strong positive results both financially and operationally, certainly in comparison to 2017. Revenue rose about 270% to $228 million on about 1.75 million tons produced. We had almost a $52 million positive swing in EBITDA to $42 million, and net income similarly rose by $40 million to $25 million in 2018. We spent about $48 million on CapEx in 2018, and on a normalized basis we expect that number to drop in '19 by about 25% to somewhere in the $35 million to $40 million range. That figure is inclusive of the CapEx needed to get our Elk Creek prep plant back to full capacity.

There are always going to be unexpected issues in the coal business, but had we not had the silo failure at Elk Creek and the sandstone wash-out at Berwind, we would have had a much stronger normalized 2018 result. A bit later, Mike Windisch will review some accounting results for the quarter and year-end as well.

As we look ahead to 2019, we have started strongly and we are predicting a materially better year than 2018. Production at Elk Creek we estimate at roughly 1.8 million tons. We have one more year of lower volume development mining and Berwind at about 250,000 tons this year, until we hit the lower cost and thicker Pocahontas number four low-vol seam by mid-year 2020. Combined, our two mines should put us over 2 million tons of production overall for '19, which is about a 14% bump from last year.

We also hope to sell over 2.2 million tons as we work down some large stockpiles from Q4 at Elk Creek. We currently have about 175,000 tons of clean coal equivalent inventory at Elk and we'd like to get that number down to a more normalized level of about 50,000 tons by year-end. As of today, we have sold forward almost 2 million tons or about 90% of our overall projected sales. We have sold to both domestic and export customers. All of our export — pardon me, all of our domestic business this year is to repeat customers. We have sold coal at both fixed and indexed prices. And our fixed price sales should provide us cash margins from our Elk Creek operation in roughly the $50 per ton range.

We will continue to explore ways in 2019 to increase overall production and sales. At our Elk Creek prep plant, we are looking at expanding the throughput capability levels and accelerating some new production we have slated for the 2021 period. We are also considering adding some possible new high vol A production of our Knox Creek complex, both of which Mike will discuss shortly. We are not ready to pull the trigger on these projects at this time, but assuming we start a bit later in the year, most of the impact on our CapEx would be in 2020 forward.

I now want to spend a moment and discuss cash mining costs, because I want to make sure that investors understand that there is a clear distinction between our cost structure at our two mine complexes, as they analyze our results. We ended 2018 with overall average cash cost of about $63 a ton, that broke out a $60 a ton average at Elk Creek and $127 per ton at our Berwind development mine. As mentioned, at Elk Creek we should hit about 1.8 million tons production this year, as we ramp up to ultimately roughly 2.3 million tons over the next three years. We expect cash mining cost at Elk in the mid '60s per ton, up about 5% this year. About 75% — pardon me, about 70% of that increase is due to higher sales related cost based on higher sales realizations.

At Berwind, 2019 is again going to be another year of development mining. We expect production of about 250,000 tons this year in the thin 30-inch Pocahontas number 3 seam, with overall mining related cost at roughly $125 a ton. We reached the much thicker 60-inch Pocahontas number 4 seam in mid 2020.

At full capacity, we expect production at Berwind at over 750,000 tons and cash margins near the $50 per ton level. As Berwind ramps up and Elk Creek continues to produce as expected, we should reach close to a 3 million ton annual production rate in 2021. By 2022, '23, we plan to have production in the 4.5 million ton range. As we start generating meaningful cash flow — free cash flow, and as we've said before, we would anticipate in exploring with our board to start to return that cash to shareholders in the form of recurring dividend. Ultimately, we anticipate being a coal Company that is both growing as well as returning cash to shareholders.

I'd now like to turn to some of our forward views on the macro environment. We obviously like the conditions in this market and don't see either meaningful new capital or new production entering the US met space anytime soon. As such, we continue to remain encouraged that the market still has legs well into the 2019-'20 period. A few signposts we are looking at, met coal spot prices are now at $213 a metric ton. The 2021 forward curve is up to $176 a ton. At the time of our last call in November, the 2021 curve within the 160 level. So we were up about 10%. So while spot prices continue to be volatile, the forward curve continues to move higher.

Peabody recently noted in their view, industry CapEx is down over half from the peak, and we believe this lack of new investment is a big reason why the curve continues to flatten at higher levels. In addition, Chinese met coal production fell about 2% last year despite prices generally remaining strong all year. For three years in a row, Chinese met production has either been flat or down. We think it's safe to say that the government continues to push for supply side reform and again, that's another reason for the flattening of the forward curve at these higher levels.

M&A activity, especially international, in the met space continues to be one of the more active commodity areas. We owe Rio Tinto's $4 billion sale of its producing Hail Creek and Kestrel mines was big news in '18. But we've also seen some under the radar development projects in 2019. Gina Rinehart, as many of you may know is one of Australia's richest women and the Chairman of Hancock Prospecting, recently put in a bid to buy the 80% of Riversdale Resources she doesn't already own in Canada. Riversdale is basically an unpermitted non-producing reserve with a 4 million ton per year potential. That is a big number for a met mine that is not permitted, nor producing. Indeed, if you look at it, that is almost our profile, and of course we are in production and about a 2x valuation from where we are trading now for that particular metric.

Lastly, for those of you following trading metrics, I would note that we are now selling for about 1.5 times book value and under 3 times our consensus 2019 EBITDA. Given the twin black swans of 2018 with both the silo and the sandstone, I can understand that the market might be waiting to see some forward momentum for us to trade in a more normalized range with our peers. We hope that 2019 will be the year that we can demonstrate that momentum and then let both our cash flows in the market appropriately reflect that.

So with that, I'd now like to turn over the floor to Mike Bauersachs.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Thank you, Randy. The fourth quarter of 2018 was very solid from an operating standpoint. Our mines continue to operate even while we were addressing the silo issue at Elk Creek. The ability to continue to run our mines has allowed us to keep our workforce intact. In fact the productivities in our Elk Creek deep mines during January were some of the best we've experienced since inception. Included in the accompanying PowerPoint slide that illustrates the production build out at Elk Creek.

The high productivities and temporary capacity limitations at the plant have created unprecedented raw coal inventories at Elk Creek. We continue to be challenged by the size of the stockpiles, which were 330,000 raw tons at the end of 2018 and increased over 430,000 raw tons at the end of January 2019. These inventories have caused us to occur additional handling costs, and in multiple cases to lose unit shifts during the first two months of 2019. This issue should dissipate as we enter the second quarter, but it will take most of the year to fully work through the stock piles.

Limited plant capacity has also cost us to miss multiple plant shipments to our customers. While we will continue to see some near-term impacts, we believe that we will be able to manage these challenges and meet our core issued guidance. It is a testament to our management team that we were able to quickly address the impacts of the silo failure at Elk Creek. And three weeks after the incident, resumed processing and shipping coal in December.

While we have not been processing at 100% of our nameplate capacity, we were able to meet the most pressing needs of our customers. I thought that it might be a good idea to provide some visuals to illustrate one infrastructure we have in place at the Elk Creek plant, post the silo failure. Included in the PowerPoint is picture of the processing facilities prior to the loss of the silo. This slide also contains picture of the internal failure of the cone on the day of the collapse. The next slide is of the facilities today, as well as a picture of where the permanent bypass system discharges into the plant. The following slide is of the temporary bypass which was constructed primarily by a group of our deep mine employees at Elk Creek. This simple, but effective bypass has served us well.

Both the temporary and permanent bypass will remain in place until we have made all of the necessary upgrades to the silos. We're in the process of bolstering the cones in the two remaining silos from the bottom utilizing separate and dedicated foundation work. This should be complete in early April, at which time we project returning to a 100% of our nameplate capacity of 700 raw tons per hour. As we have previously relayed, we have insurance in place for both property damage and business interruption. To date, we have not collected insurance payments and have funded our extra expense, capital improvements and corrective measures out of cash flows.

We remain firmly committed to the pursuit of a fair resolution and our outstanding agreement with our insurance company, who to date has chosen not to accept the claim or provide coverage. We strongly believe that it was impossible to predict any sort of defect or to determine exactly what caused the silo failure.

We continue to make good progress in our development work at our Berwind mine. I've included a high-level mind map in our presentation to help illustrate the ongoing work at Berwind. The map depicts both the old works as well as the projections that lead to the area where we will slope up into the Pocahontas number four seam. It also illustrates, in red, two horizontal long hole drilling results.

These penetrations have confirmed that coal is in place in areas that we intend to mine. Extensions of these holes also encountered the location and limitations of the sandstone wash-out that caused us to alter the path of our development mining last year. Both holes were successful in helping us gain confidence and what lies ahead and our goal of reaching the interesting slope location. We have been fortunate to be able to sell Berwind low volatile coal in 2019 for development mining at what we project to be a slight profit. While our development mining cost distort what would be our average costs, it is obviously preferable to generate cash while conducting what might have been capitalized mine development under less favorable circumstances.

Note that we have also added a second section to this mine. It is currently operating at one shift per day, but we anticipate it to be fully functional in the second quarter. The capital cost to bring on this additional production is fairly minor due to the existing infrastructure and should help us lower our operating costs as the year progresses.

This additional production will also beat the Knox Creek plant where we have available capacity. This active section will also help us to smooth out our coal sales to customers, while we are migrating our mining to the Pocahontas number 4 seam. Since it will likely take a large portion of the year to work through our stockpiles at Elk Creek, our near-term focus on increasing production is continuing to develop Berwind as well as evaluating the Jawbone high volatile A reserve at our Knox Creek property, which we estimate could produce approximately 500,000 tons per year from two sections. One of the ways to reach the high-quality Jawbone is to utilize existing infrastructure in the idle Tiller seam mine, that lies slightly below the Jawbone seam. This could significantly reduce the capital cost of the Jawbone seam mine. We've recently viewed the old works in the Tiller seam mine and the conditions are promising for a restart. While it is premature to announce that we've committed to develop the Jawbone mine, our review of the economics to date has been positive. We will continue to update you on our progress relating to this near-term opportunity as the year advances.

During 2018, we determined that the biggest and most material miss in our original projections and our go-forward mine plans was that our surface mine will make up a smaller portion of our future production. In particular, we will likely only have one surface mine, not two. But that being said, our existing surface mine has steadily improved its productivities and consistency throughout 2018. I've included a slide that highlights these trends. This mine should operate at approximately 350,000 tons per year. We look forward to operating what will likely be our lowest cost form of production for a decade or more to come.

The only other major variance is the delay in the development of the Berwind Pocahontas 4 seam, which is now back on track. We are working hard to find a way to bridge the gap created by less prolific surface mining. The Jawbone opportunity mentioned before is one of the additional organic developments that we are reviewing to reach our previously projected 4.5 million ton per year run rate. One additional opportunity that we are also reviewing, is not in the form of a new coal mine, but instead upgrading the Elk Creek plant to increased raw feed rate. This would potentially allow us to increase production by 500,000 tons and it would likely push forward planned production from new mines. The analysis of this opportunity is ongoing and we will continue to update this capital project as the year progresses.

Recently, we've seen an announcement from one of our competitors to develop a new longwall mine. We also saw an announcement from an additional competitor relative to a potential new mine. Both — or will be high volatile A mines. As we look at our plans, we continue to be encouraged by the low volatile marketplace and the future needs of our current and prospective customers for our Berwind coal. The fact that there are no new announcements in the US for substantial new low volatile production, continues to reinforce the value of our Berwind coal in the domestic and international marketplace. Overall, we believe the lack of available capital and the decisions by many of our competitors to issue dividends, substantial special dividends as well as buy back stock will keep supply in check.

We entered 2019 with only around 100,000 tons being carried over from 2018. This carryover business on average is priced below what we have sold in 2019, creating a small negative variance to our realizations for the first quarter. We've incurred no cover or related claims associated with the silo issues from our customers.

We have continued to enhance our sales mix with domestic customers in the fourth quarter of 2018 and early 2019. We enter 2019 with one of the strongest and most diverse customer bases in the sector. We currently have business in place with six domestic customers and have the index business with four customers for coal that is designated for export. While the sales mix has changed, we have retained business with all of our domestic customers for 2019.

I've illustrated these commitments in the accompanying PowerPoint. Note that we will likely shift a significant larger number of tons versus production in 2019 due to existing stockpiles. 2019, from a marketing perspective, with a year where our coal will meet its realization potential and becomes fully aligned with the quality in shift. The sheer number of return customers and new business is a testament to how well the coke plants that use our coal like the quality in their plants.

While our capital deployment in 2018 exceeded both our budget and guidance, the multiple items that we focused on will serve us well going forward. We have added a set of dual plate presses to our Elk Creek infrastructure, a picture of one of the plate presses is included in the PowerPoint. This equipment will allow us to better and will more fully utilize our impoundment as well as extend the life of the current refuse and impoundment footprint to somewhere around 20 years.

One of the most critical capital investments in 2018 was to pave our main haul road at Elk Creek. With the negative weather impacts incurred during the winter months, paved haul road allowed us to keep feed on the plant, and is one of the key reasons why we had a positive fourth quarter.

Let me also note that the largest negative variance to our projected capital spend was associated with our Berwind development in the form of capitalized mining costs. Most of this was incurred as we explored and worked our way around the previously disclosed sandstorm wash-out.

Another notable capital expenditure was the purchase of mobile news reports for our Eagle mine at Elk Creek. This equipment is a unique design that was developed through a partnership with J.H. Fletcher. It allows for supports to operate in a base range of 6 feet to 18 feet. It also accommodates add on components to extend the already elevated reach of 18 feet to a total of 21 feet. I have attached a picture of one section of the equipment. These supports are also a byproduct of our commitment to safety.

While completing what should be highly productive secondary recovery, let me also note that in a competitive market for quality miners, the deployment of safety-driven capital assists with employee retention.

Our projected CapEx of between $35 million and $40 million for 2019, contains the plans for advancing Berwind development, potential stockpile improvements at Elk Creek, which includes finishing the previously deferred third clean coal stockpiles too. It also includes the spending for the silo upgrades and bypass system. This estimate includes only nominal work associated with the Jawbone seam, which should be an addition to the aforementioned range.

We are poised to generate substantial free cash flow during 2019. Moreover, we anticipate a substantial jump in production and sales during 2020. I would like to conclude my remarks with a focus on employees and safety. Thankfully all employees were safe in conjunction with the silo failure. While other companies might have made a decision to reactivate remaining silos at Elk Creek sooner, it was never really a consideration for us. Our employees and their safety are just too important.

We're going to great lengths to make safety-enhancing improvements to the remaining silos, as well as ensure their use for the life of our mines. In conjunction with all of this, we also took great care and safely demolishing the silo as well as found ways to continue produce coal, while the plant was idle. In return, our employees have been very loyal on understanding. Turnover has been very low, even as we have had to eliminate some unit shifts to control stockpile.

On that note, I will turn things over to Mike Windisch for some final comments relative to our fourth quarter and full year 2018 financial performance.

Michael P. Windisch — *Chief Accounting Officer*

Thank you, Mike. I'd like to refocus the discussion on our fourth quarter and full year results. During the three month period, we reported net income of $3.4 million or $0.08 per share and adjusted EBITDA of approximately $7 million. Both represent decreases sequentially over the third quarter, but obviously a huge increase year-over-year. For the full year, 2018 net income totaled $25.1 million or $0.62 per share and adjusted EBITDA was just over $42 million.

Total revenues during the fourth quarter were $44.2 million, down significantly from the prior quarter. Our margins on company produced coal however did improve in the quarter to $28 per ton, up from $25 per ton in the preceding three months. For the full year revenue totaled $228 million, which was a 273% increase over 2017 levels. Our cash mine costs saw considerable improvement during 2018 as well, dropping from $73 per ton in the prior year to $63 per ton in 2018. Including significant capitalized development costs at our Berwind mine, CapEx totaled approximately $8.3 million during the quarter and $48.1 million for the full year. This includes some incremental CapEx at Elk Creek relating to our silo failure and related workaround.

During the fourth quarter, we greatly improved our working capital flexibility with the closing of a combined $40 million two-year amortizing equipment loan and a three-year ABL with KeyBank. We had only $9.6 million of outstanding borrowings with an additional $33.4 million of available liquidity at year-end.

This now concludes management's prepared remarks. This time, I'd like to open up the line for any questions you might have on our 2018 results or outlook for 2019.

Questions and Answers

Operator

Thank you. (Operator Instructions) Our first question comes from Jeremy Sussman of Clarksons. You may proceed with your question.

Jeremy Sussman — *Clarksons — Analyst*

Hi, good morning, and thanks very much for taking my questions.

Randall W. Atkins — *Founder, Executive Chairman, Chief Financial Officer and Director*

Hey, Jeremy.

Jeremy Sussman — *Clarksons — Analyst*

Randy, I guess starting here, you noted that as production increases you anticipate exploring with the Board the possibility of returning cash to shareholders in the form of a recurring dividend. Can you give us a bit more color on, on maybe what you are thinking here?

Randall W. Atkins — *Founder, Executive Chairman, Chief Financial Officer and Director*

Sure. So last year of course we did not have free cash flow, we basically were slightly below. This year, we anticipate our first year of free cash flow and that sort of begins the trend as we project forward to have pretty meaningful cash flow as we go out between now and let's call it 2021, 2022. So I think once we get to a point where we're comfortable on having a fairly steady recurring level of free cash flow, we have always said from the very beginning that we would explore dividend policy and we continue to do so.

Jeremy Sussman — *Clarksons — Analyst*

Thank you for that. That makes sense. And maybe, secondly, Mike, maybe a question for you. I guess two projects that you talked about caught my eye. First, the potential to add a 0.5 million tons or so of high vol A at Knox Creek. And then secondly, you noted that you're looking at ways to add 0.5 million tons of — secondly, you noted, you're looking at ways to add about 0.5 million tons or so of throughput at the Elk Creek prep plant, which could allow you to accelerate some production. So I guess could you expand on these opportunities? And maybe in particular what are you seeing that could make them attractive enough to pull the trigger on later this year?

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Yes, sure, Jeremy. I think, since we have Chris Blanchard with us, I'm going to go ahead and let Chris address those. He's a little bit closer to it than even I am.

Christopher L. Blanchard — *Chief Operating Officer*

Jeremy, starting at Elk Creek, we have two permitted mine that are high vol A quality. They are thinner than some of the seams that we're currently mining, but their quality is far superior and they are fully permitted that we could bring online, they were there in our intermediate-term plans anyway, but we could accelerate them given extra capacity at the Elk Creek plant, both located in pretty close proximity and — both through the plants. So they've got a good cost profile, even though they are a slightly thinner. But obviously we need to upgrade plant throughput a little bit.

When the plant was designed and built, there is some excess capacity on certain ones at the circuit, some of the fine coal circuit. So we don't have to do a full build on the plant to, we are — we have to do some of the chorus call and some of the conveyors have to be beefed up a little bit. So it appears to be relatively modest capital for the improvements at Elk Creek and the increased throughput.

Switching to Knox Creek, we just have — we have a permitted coal mine, we've explored it, reactivated the permit and the deep mine and explored it and found the conditions underground to be really quite good for a mine that had been idled for six or eight years. So the incremental CapEx to develop the — to develop into the Jawbone seam at Knox Creek, which is a high vol A product is also relatively minor compared to having to sink shafts and slopes or do major development work there. We think we could bring on 0.5 million tons there over 18, 24 months, and the labor in that area is also pretty conducive to bringing on that extra production, the labor availability that is.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Yeah. Just to add a couple of things to the Knox Creek thing, having the availability to access an existing prep plant with all the infrastructure there is also a big thing that I think probably makes that Knox Creek project even more compelling, maybe even than some of the stuff at Elk Creek. And having a high vol A coal on the Norfolk Southern as you guys know is a big plus, because there's more low vol really there than the high vol. So we're really excited about that opportunity.

Jeremy Sussman — *Clarksons — Analyst*

That's very helpful, guys. Thank you very much and good luck.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Thank you.

Operator

Thank you. And our next question comes from Curt Woodworth of Credit Suisse. You may proceed with your question.

Curt Woodworth — *Credit Suisse — Analyst*

Hey, good morning, guys.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Hi, Curt.

Curt Woodworth — *Credit Suisse — Analyst*

First question just on Berwind for 2020. So if you get into Pocahontas number 4, say mid-year, what's the timing from then to ramp up to the 750? And then just from a modeling basis for 2020, how should we be thinking about costs, I assume would be 125 at the start of the year and then trending down, but any color on that would be appreciated.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

You talk about production. Go ahead.

Christopher L. Blanchard — *Chief Operating Officer*

So, this is Chris. At Berwind we'll, obviously we should reach mid year development with one of our operating sections. It will start branching out and driving mains for the other section, and that will be the remaining six months of 2020 would probably be, I sort of hesitate to call it development mining, but it will be setting up to put the mine in full production mode for two sections. We'll move the second section in 2021 and we'll have two sections operating full year in '21, we should see the production ramp up. But we're really not expecting the full run rate until the latter half of '21, and so won't get full production until 2022 out of the Berwind mine, with two sections running full year at full production in the Pocahontas 4 seam.

Curt Woodworth — *Credit Suisse — Analyst*

Okay. So, would you say that cash costs in 2020 should be somewhat similar to 2019 or slightly lower as you enter the first section?

Christopher L. Blanchard — *Chief Operating Officer*

So, the first half of the year should be similar to 2019. As we get into the second half of the year, we should see the improved cash costs on the number one section. So for the second half of the year, I would expect us to be halfway between '19 and full run rate production for the blend and then '21 and onward, when you have both in there, we should be toward our long range cost guidance.

Curt Woodworth — *Credit Suisse — Analyst*

Okay. And then, Mike on Jawbone, what is the reserve base there? And what would you estimate cash cost to be?

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Yeah. The reserve base I think is somewhere around 5 million tons or so, 5 to 6 million tons recoverable. The — when we — I guess, when we think about the cost structures, which — it's going to be a little bit thinner than some of our Elk Creek coals, which obviously are exceptional. I think you've probably got costs in the high 70s and low 80s depending on the fluctuating clean ton per foot. So, still very, very compelling for high vol A coal, of which you know it will, until we put the Glen Allen tunnel seam in at Elk Creek, it would be our best product that we have. So, really excited about it, because really slightly higher costs are offset by what we believe will be substantially higher revenues.

Curt Woodworth — *Credit Suisse — Analyst*

Okay. That's helpful. And then just last question on the — into the portion of your business that's priced on an index basis. Can you talk about, how that math works? Is the index based on, like a US east coast high vol A number and then discounted back or how should we think about incorporating that into our models?

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Yeah. We've got some different pieces of business. But the right way really to look at it for us is to kind of take a look at a high vol A number on the east coast and a B and really kind of strike a number sort of in the middle of that. You know most of our coals, although we do, we sell some coal — purely off the high vol A minus a certain amount and some B plus. But really, when you take it and you put it all together, it's really, it's a high vol AB coal. So just strike it right down the middle, I think it would be pretty good for your projections.

Curt Woodworth — *Credit Suisse — Analyst*

And would that be based on like a quarterly lag or a monthly lag, in terms of how the price resets?

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Yeah, it's really the month that it ships for the most part. So, you kind of come back and calculate it. And they're not all exactly the same, but that's really kind of how it works.

Curt Woodworth — *Credit Suisse — Analyst*

All right, great. Thanks a lot.

Operator

Thank you. And our next question comes from Mark Levin of Seaport Global. You may proceed with your question.

Mark Levin — *Seaport Global — Analyst*

Great, thanks. So two questions, one more modelling and then the other bigger picture. So on the modeling one, what type of rail and port rate should we assume in 2019? So not — the rail plus the port charge.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Yeah, it's — we've seen a little bit of escalation in our port rate. When things get pretty good, the numbers are fairly substantial. So, I mean you're going to see depending on how the pricing goes from the mid to high $30 to $40 with — both those numbers. So it's obviously, it moves around a lot based on the market, we've seen just a little bit of especially port charge. seen a little bit escalation there from what we saw in '18.

Mark Levin — *Seaport Global — Analyst*

And Mike just putting a finer point on that, how much do you think that would be up year-over-year in '19 versus '18?

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Yes, a couple dollars for sure on the port stuff and the rail has been fairly consistent. So I would say, maybe even on the rail, maybe it's $3 or $4 up from where we were all in.

Mark Levin — *Seaport Global — Analyst*

All in. Got it. Okay, great. And then this is bigger picture, so I think you mentioned — Randy, you may have mentioned getting to 4.5 million tons in the kind of '22 to 2023 timeframe. So two more specific questions around that.

When you think about the 4.5 million tons of potential production. Can you maybe put them into different buckets, whether it's Elk Creek, Berwind, Knox, just the different buckets? And then as a corollary, when you think about what the overall cash cost profile might look like of the enterprise when you do get to 4.5 million tons, and I realize there's a lot that goes into that, whether it's sales related cost or inflation, all sorts of things to try to make it cost call — several years out. I understand the complexity of that, but just generally speaking, where the production is going to come from and what the ultimate cost profile could look like get at a 4.5 million ton production rate.

Randall W. Atkins — *Founder, Executive Chairman, Chief Financial Officer and Director*

Yeah. I think — it's a little bit of a moving target, I assure you can appreciate looking several years out, but I think if you just sort of took large buckets at Elk, we're probably going to be 2.5 to 2.75. We've got our RAM Mine up in Pennsylvania, which is about 300,000 ton operation. Knox Creek, let's call it a 0.5 million tons there. Berwind will be just under 1 million tons. So that gets you in sort of the 4.5 million ton range. And I think in terms of our cost structure, I think probably overall, particularly with some of the new mines we're talking about, we would probably be in the sort of low mid-70s, somewhere in that range.

Mark Levin — *Seaport Global — Analyst*

Great. Perfect. Thanks so much. Appreciate it guys.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Thanks, Mark.

Operator

Thank you. And our next question comes from Michael Dudas of Vertical Research. You may proceed with your question.

Michael Dudas — *Vertical Research — Analyst*

Good morning, gentlemen.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Hey, Mike. How you're doing?

Michael Dudas — *Vertical Research — Analyst*

Well, thank you, Mike. First question maybe follow up on Mark's on the outlook longer term. What type of return requirements do you guys look at relative to these capital investments? And if you look at the balance sheet, look at obviously the potential for free cash balancing the growth, the investment, what the capital structure of the company should look like optimally or how would you like to see it over the next couple of years, as you are meeting this balance between growth and CapEx and returning cash to shareholders? Mindful of the stock that's trading as you mentioned, something times EBITDA?

Randall W. Atkins — *Founder, Executive Chairman, Chief Financial Officer and Director*

So, Mike, this is Randy. Let me kind of start in reverse order. So I think our mantra has always been to be sort of a no debt or relatively low debt operation. And we don't see any reason to discontinue that outlook. All the things that we're talking about are pretty much organic projects. We are not talking about any type of large acquisitions. It's really taking reserves that we've now got and then essentially just developing those and frankly trying to develop under a fairly low cost manner. So, I don't think that you would see us layering on a lot of debt into our capital structure. We've got a revolver now, which of course is very helpful for cash management, but we don't anticipate putting on a lot of new term debt or anything of that nature to kind of ramp up to do deals, that addresses where you're coming from there.

And the first part of your question again was — he was waking on return. On a return calculation. So I think we don't approach it necessarily with a strict mathematics, you know that we're going to try and get a 15%, 20% return. Although, any of our projects would frankly exceed that by a reasonably substantial measure. A lot of what we're trying to do is to sort of strategically position ourselves, so that we've got a pretty good blend out there of various products that we think have got high margin potential.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Yeah, Mike, you know...

Michael Dudas — *Vertical Research — Analyst*

On that — all right, go ahead.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

I was just going to add, in the coal business with all the potential for revenues fluctuating, key component of course is low-cost. And we will run the numbers, absolutely a net present value type calculation that has discount rates of 20% plus, just because of the risk. So...

Randall W. Atkins — *Founder, Executive Chairman, Chief Financial Officer and Director*

I think that just to echo that, I mean, again, if you go back to our sort of original mantra, we were trying to be both low cost and little or no debt, we sort of figure that if we're in that position, we will be able to ride out a few storms and certainly be able to — to be comfortable in terms of whatever market conditions an otherwise somewhat volatile commodity might bring us.

Michael Dudas — *Vertical Research — Analyst*

And Randy just to maybe follow up. How do your major shareholder feel about how things are working in the plant, et cetera, and their long-term visibility potentially in the investment?

Randall W. Atkins — *Founder, Executive Chairman, Chief Financial Officer and Director*

Well, our largest shareholder is a private equity group called Yorktown, which of course has been with us since the inception. They are frankly very happy about where we are. Their long-term expectations are to approach us as a core portfolio investment, where they have essentially modeled their outlook on a couple of other deals that they have done which frankly they've held for over 30 years, which are very nice low debt, high cash flow, producing entities where you essentially have the same strategic plan we have, which is to return shareholder cash in the good years and be able to be flexible in the bad years, perhaps even consider buying back some stock. So, our long-term plans are to have a very healthy cash flow producing machine and that gives us a lot of optionality.

Michael Dudas — *Vertical Research — Analyst*

Terrific. Just one final quick one for me for Mike Bauersachs. Mike, as you look into '19, maybe you can share some views on the acquisition market maybe on what you're looking at, your small deals, you'd like to swap in, especially to enhance what you guys have around your reserving your deposits. But also like how — see given the cost pressures and the lack of growth, et cetera. How is that going to be more competition or some more decisions in the marketplace especially in Central Appalachian met coal front that could maybe enhance ramp those opportunities on a relative basis.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Yeah. We're constantly looking at things next door. We kind of — we like smaller deals, we like to do things that a lot of people don't, we'll buy assets that are not accretive and we believe that we're pretty good at deploying the capital and geologically advantage properties and indeed, there are some properties that we're looking at. We've got the potential to lease some additional reserves that are very close to our existing properties. These are things from a risk standpoint that are, that are very low risk wise.

We've got some infrastructure projects that — or some infrastructure opportunities that are kind of close to some of our properties that we think might be cost enhancement type acquisitions, but as far as larger transactions, a lot of the stuff that we see — we just hate liabilities Mike, as you know, it's been sort of one of my focuses is in the past and large mergers that have large amounts of ARO liabilities and those kinds of things, are not things we're interested in. We — over time, we want to keep the balance sheet pretty clean, because we think we win over time with that sort of balance sheet. So as far as the larger picture, nobody has a lot of cash to do deals with, nobody's stock currency is such that you feel like there could be some sort of stock deal. So, as far as the domestic side, it's pretty tough to envision anything substantial happening from at least my view.

Randall W. Atkins — *Founder, Executive Chairman, Chief Financial Officer and Director*

I will say, Mike, to go back again to sort of a macro. If you look at what we're trying to do organically, which admittedly is kind of hitting a lot of singles maybe couple of doubles, but certainly not trying to go for homers. There's not a lot of people out there we see that are trying to essentially double the footprint of their company in the next couple of years. So at least in that respect, I think we somewhat stand out from the crowd...

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

And do it from free cash flow, which is the right way to do it.

Randall W. Atkins — *Founder, Executive Chairman, Chief Financial Officer and Director*

Yeah.

Michael Dudas — *Vertical Research — Analyst*

I think keeping that balance sheet clean is a very good priority. Thank you, gentlemen.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Thanks, Mike.

Randall W. Atkins — *Founder, Executive Chairman, Chief Financial Officer and Director*

Thanks, Mike.

Operator

Thank you. And our next question comes from Lucas Pipes of B. Riley FBR. You may proceed with your question.

Lucas Pipes — *B. Riley FBR — Analyst*

Hey, good morning, everyone and thanks for squeezing in my question. I wanted to ask if you could remind us of the capital intensity of the various growth projects, kind of what would be required this year, next year, the year after that, and then any updated thoughts on maintenance capital as well? Thank you.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Yeah. I'm going to go ahead and defer — to defer to Chris. I can say that we're continuing to not to evaluate a couple of these things. So there's some of this, is sort of a moving target. But for the most part, a lot of the mining type stuff is more or less equipment and or driving slopes and accessing existing infrastructure, for example at Knox Creek. But with that being said, I'll kind of turn this over to Chris, let him give you an idea, and then he can also talk about sort of maintenance CapEx overall for the Company and what our baseline numbers are?

Lucas Pipes — *B. Riley FBR — Analyst*

Thank you.

Christopher L. Blanchard — *Chief Operating Officer*

Yeah. So for the growth CapEx that we are considering, it might be a little bit premature to throw a number out to you guys on those. But as far as what we're projecting in sort of our ongoing plan and in our public numbers, we've got about $10 million of capital that we're going to deploy at our Elk Creek plant, which is — both related to our third clean coal, two in handling facility, that has to do with completing the silo repairs and the workarounds and some other small projects around the plant. So that's about — between the third and the quarter of the total spend for Ramaco for '19 will be at the Elk Creek plant. And then on an ongoing basis, our mines are still relatively new — most of our underground mines are continuing to develop. So we're advancing belt, advancing structure, buying — drive that type of maintenance CapEx. And as we get a little bit more mature, we will have continuous miner rebuild and that sort of thing come in. If you want to use a rough number somewhere in the 6 to 6.50 per clean ton of production number for maintenance CapEx ongoing at our underground operations unless at our surface on our plan.

And then, just rough numbers, really, really broad brush. Some of these expansion projects that we're talking about were in the range of $5 million to $10 million incremental a piece over several years. So, that keeps me from having myself in too tightly but gives you little bit of a flavor for the size projects we're working at.

Lucas Pipes — *B. Riley FBR — Analyst*

Okay, that's very helpful. Thank you. And Randy, Mike, maybe a higher level industry question. Where would you expect kind of US met coal production as a whole in the aggregate to shake out in 2019 versus 2018?

Randall W. Atkins — *Founder, Executive Chairman, Chief Financial Officer and Director*

I think from a production standpoint, overall I think we had about what 750 million tons produced last year, just in both thermal and met markets. I see that we'll still be trying to produce as strongly as we can next year or rather this year given the state of the markets. So I would see a slight incremental jump. I think the governor on all that production is frankly capacity, I think most of the mines that we survey seem to be running at fairly full out. And I think couple of the development projects, particularly the larger ones like Arches and Warriors probably not going to hit here for a — maybe a couple of years. So, I think this year, I would say a modest incremental bump.

Lucas Pipes — *B. Riley FBR — Analyst*

Very helpful. Thank you very much and best of luck.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Thanks.

Randall W. Atkins — *Founder, Executive Chairman, Chief Financial Officer and Director*

Thanks, Lucas.

Operator

Thank you. (Operator Instructions) Our next question comes from Nathan Martin of Seaport Global. You may proceed with your question.

Nathan Martin — *Seaport Global — Analyst*

Hey guys, just a quick modeling related question. I mean, in the past you guys have given guidance on purchase coal, I guess you did about 427,000 tons in 2018. Any thoughts on purchased coal in 2019? Obviously, you do have the unprecedented stockpiles there. So, is there any color you could give us there would be great.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

Yeah. We have — we've really turned our Knox Creek plant to focus on our internal production, although we are purchasing some coal. But this year I envision that number going down to somewhere around 100,000 from one mine that we're focused on. I will say that, that as we get past this year and we begin focusing on some other international markets, from a future standpoint, I think that number could grow. But from a modeling standpoint this year, I would show about a 100,000 tons.

Nathan Martin — *Seaport Global — Analyst*

Thanks. Thanks for that, Mike. That was all I had.

Michael D. Bauersachs — *Founder, President, Chief Executive Officer and Director*

And that by the way is probably going to be low vol.

Randall W. Atkins — *Founder, Executive Chairman, Chief Financial Officer and Director*

Yeah, it will be low vol. Yeah.

Nathan Martin — *Seaport Global — Analyst*

Got it. Perfect. Thank you.

Operator

Thank you. And I'm not showing any further questions at this time. I would now like to turn the call back over to Randy Atkins for any further remarks.

Randall W. Atkins — *Founder, Executive Chairman, Chief Financial Officer and Director*

Once again, we just appreciate everybody being on the line this morning and look forward to catching up with you very shortly as we talk about our Q1 results in May. Thank you very much.

Operator

Thank you. Ladies and gentlemen, thank you for participating in today's conference. This does conclude today's program. And you may all disconnect. Everyone have a wonderful day.