



Vale S.A.
Conference Call
Fourth Quarter 2018 Earnings Results
March 28th, 2019

Operator: Good morning ladies and gentlemen. Welcome to Vale's conference call to discuss fourth quarter and fiscal year 2018 results. At this time, all participants are in a listen-only mode. Later, we will conduct a question and answer session and instructions will be given at that time.

If you should require assistance during the call, please press the star key followed by zero. As a reminder, this conference is being recorded and the recording will be available on the Company's website at: VALE.COM at the Investors link.

This conference call is accompanied by a slide presentation also available at the investors' link at the Company's website and transmitted via internet as well. The broadcasting via internet, both the audio and the slide changes, has a few seconds delay in relation to the audio transmitted via phone.

Before proceeding, let me mention that forward-looking statements are being made under the safe harbor of the Securities Litigation Reform Act of 1996. Actual performance could differ materially from that anticipated in any forward-looking comments as a result of macroeconomic conditions, market risks and other factors.

With us today is Mr. Luciano Siani Pires, CFO and IRO. First, Mr. Luciano will proceed to the presentation on Vale's 2018 performance, and after that he will be available for Questions and Answers.

It is now my pleasure to turn the call over to Mr. Luciano Siani Pires. Sir, you may now begin.

Luciano Siani Pires: Ladies and gentlemen, we are here in a moment of deep sadness and grief because we lost 131 of our sons and daughters, the employees of Vale, 121 brothers and sisters amongst our working partners, employees of suppliers of Vale, and 53 brothers and sisters, our neighbors from the community.

Nothing will bring back those lives, but everything that we can do now is dedicate ourselves 24 hours a day to alleviate the suffering of the families of the victims and all the people affected, recover and remediate the environment and the affected areas.

Every organization is made by people, and Vale, this abstract entity, is made up of 70,000 people, which are now suffering. But it is in these moments of suffering that the best within us come out, and I am here to particularly thank more than 600 colleagues which are tirelessly within Brumadinho and other communities working 24 hours a day, weekends included, to organize and deliver the necessary response.

We understand that no response can face the losses, but it is our belief that if there is a best that can be delivered, that Vale is capable of delivering this best. And we are here to be accountable to yourselves, our partners from the capital markets and our shareholders, about the efforts of the organization to support the victims, the affected people, to remediate the environment and hopefully engage yourselves in this roadmap and path towards revisiting the meaning and the purpose of Vale as an organization for the future.

Today I am by myself, my colleagues, which are leading now the businesses, Claudio Alves in Iron Ore and Mark Travers in Base Metals, they wish to be very soon sharing their own ideas with you about the lines of businesses, and Eduardo Bartolomeo, our acting CEO, he's fully dedicated in this moment, first



and foremost, to ensure the safety of our operations and prepare the organization to the challenges that will come, but in due time he will be with you sharing his ideas as well.

Today I'm going to speak a little more than usual because we do want to go through the efforts that I mentioned that we've been doing, so I will refer to the webcast presentation on **page 5** starting by the medical support and the help centers, which were established shortly after the tragedy. The picture you see is our knowledge station, it is a property of Vale within Brumadinho, very equipped, very capable, where we organized a very large help center. We mobilized containers very quickly to bring professionals health, professionals from other areas to Brumadinho, we also engaged the private health units around the city, not to stress the public hospitals, and we provided everything that was required for the very first aid and first assistant to the affected people.

On **page 6**, we obviously disrupted the lives of people of the community after the event, people moved to hotels and we are now working together with them to provide temporary housing as a step towards definitive housing for the people who were displaced from their homes. We are providing potable water for animal consumption, mineral water for human consumption, we are providing transportation, some more distant communities within Brumadinho town municipality they had their accesses cut from the main town, so we are recovering those accesses, we are providing alternative roads within our property, we are providing transportation for the public and we also thank the authorities for the help that they are doing in order to issue documentation and restore the formal lives of those who left their documents behind.

We acknowledge, the people who were affected and displaced they were temporarily housed in hotels, but they also lost part of their economic activities, so the week after the dam breach we provided donations for many affected people, we provided donations for the families of the victims, many of them lost their breadmaking, heads of families, we provided donations for those who had their residences affected, those who had their business activities affected, those who had any type of disturbance in a short term, and this was without any counterpart, we didn't want to characterize this as an indemnification whatsoever.

We provided help to the public sector, which had its resources stressed to face the challenges. So, for example, 10 days ago we committed to equip the firefighters of the state of Minas Gerais, we received a list of equipment ranging from gloves to uniforms, to notebooks, to sophisticated equipment, excavators, special vehicles, trained dogs and everything that they needed, and they wanted in order to equip the whole of the Firefighters Corporation of Minas Gerais. We granted them, and this is a big thank for the heroes that were recognized by the nation as such because of their efforts following the tragedy, and we are also equipping their Training Academy, state-of-the-art facilities to make them better and better professionals.

We also compensated financially the town of Brumadinho in order to keep the public services in good conditions, because of the loss of taxes, we helped them buying emergency equipment, we helped the Legal Medical Institute of Belo Horizonte also with equipment, we compensated the state of Minas Gerais for the extraordinary expenses on the rescue operations. So we are trying to make **whole** also the public sector for all the disturbances that we caused.

We will talk later about the indemnification process, but, internally, our Board of Directors established three extraordinary committees to address the key issues in response to the dam breach. We acknowledge that the management of Vale, the Board of Directors of Vale, we have lost credibility, so we are resorting to external prominent specialists in their fields to address support in the recovery investigation and dam safety. Their work is ongoing, it will last many months, very careful work, we are receiving a lot of input and hopefully in due time we will make public their conclusions for the benefit of society as a whole.



We also established a Crisis Organization within Vale, today we have approximately 300 professionals fully dedicated to support the activities of everyone which is on the field. It's based in our Mutuca mine, which is nearby Brumadinho.

The Board of Directors also suspended shareholders' dividends and variable compensation for executives.

We announced – and we will talk about this – the decommissioning of upstream dams. We have a comprehensive technical investigation, which is led by the Law Firm Skadden with the help of a panel of experts from universities in the US, Canada and Australia. This has the role of determining the technical causes of the accident, of the tragedy. They will do mathematical modeling, they will go through all the records of measures from all the instruments, they will look at the dam designs, they will use the top-notch science that is available in the world in order to uncover what happened and led to the rupture. And this is different from what investigation committees are doing, which is a more of a forensic investigation, having access to internal documents, e-mails, reports, and trying to establish conclusions about, perhaps individual behaviors. So, there is the forensic investigation and there is a technical investigation ongoing in parallel.

In terms of indemnification, we established very quickly an agreement with the public authorities, the public prosecutors at the state and federal levels, for a preliminary indemnification. We acknowledge the grief and mourning of the communities, so maybe that's not the best time to engage in discussions about fair compensation, so in order to allow everyone involved the necessary time to make those very important discussions and decisions, we are providing financial support on a monthly basis for, we estimate ,100,000 people located in the town of Brumadinho and in the cities of the Paraopeba River.

This is a tremendous effort, we have 21 help centers being established, so we hired the locations, we equipped the help centers, we hired the staff, organized the back-office, put in place the systems in order to make the registration of all these 100,000 residents, and we've already paid about 2,000 people as of now, which is just a fraction of the 100,000, but over the next few weeks we will go through all of them, all of the communities to make whole all those people. We are putting the best of Vale's resources and knowledge and personnel in order to make this happen.

As a consequence – that we will discuss as well – of the increase safety standards across the industry for dams, we are now unfortunately disturbing the lives of more communities beyond Brumadinho. So, we've evacuated a number of communities, today we have about 1,000 people affected, and those are communities which are downstream dams, about which we have doubts about their security according to those new industry standards.

We are providing also drills within the towns that potentially could be reached by an eventual dam rupture, several hours downstream, we are doing all of this to ensure the safety, but, nevertheless those - about 1,000 people - will have their lives disrupted and we will engage in time as well how to..., we are already accommodating them in hotels, we will provide temporary housing, we will provide definitive housing, we will provide indemnification to all of those people as well.

And this, so you know, isn't constrained and limited to Vale. Many mining companies within Brazil are going through the same, because as I will explain further, this is a widespread consequence of these increased safety standards across the industry.

And finally, just so you know, you can read, we are also taking care of the fauna and have a full-service campaign hospital to deal with, to rescue and to treat and to house the animals in the affected regions.

I'm going to speak now about a very important issue, which is the environmental impact, especially on the Paraopeba River. I'm not going to follow quite the sequence of the slides now, but I do have some



important information for you. On the estimated 12 million m³ of tailings, we estimate that around 2 million have been carried by the river, the rest of it either stayed within the dam site or in the proximity of the dam site.

We are monitoring water quality on a daily basis and the sediments on a weekly basis through 65 monitoring points. Everywhere, in creeks, in affluents, in tributaries of the rivers, and even in São Francisco River, which is one of the key rivers within the country.

Over 300,000 analyses were performed by four special laboratories which were hired by Vale, 250 professionals are involved, and the post-graduation engineering body of the Federal University of Rio de Janeiro is auditing and validating the results.

A few key conclusions: first is that the tailings have a composition which is very similar to the soil in the area, which means the tailings they have heavy metals above legal limits, the tailings themselves, but this is no different from what happens in the soil of the region, which means carrying tailings to the river is no more harmful than carrying, for example, when it rains, heavily carrying soil from the river banks to the river. But, however, those heavy metals they are not free, and they will not be absorbed by the bio fauna within the river. They are isolated and encapsulated, they won't be assimilated. We know this because we conducted tests, ecological tests with several organisms in natural fauna of the river, including microcrustaceans, bacteria and fish, and between 97% and 100% of the sampling that we did indicate that there has been no contamination, and we are now conducting tests with the animals and the plantations nearby the river.

And also, we proved through our laboratory tests that once you make the water from the river go through what is called the "ultrafiltration", which is the usual kind of treatment that we have in treatment stations for water source, that the heavy metal levels they stayed below the legal limits. So, therefore, the water treated through ultrafiltration should be adequate for human consumption.

Finally, the Environment Institute of Minas Gerais together with other agencies and the Sanitation Company up to now have not observed any change in the quality of water downstream the power dam of Retiro Baixo. And that's important because downstream this power dam, there is another large power dam called Três Marias, which connects to the São Francisco river, which is one of the most important river basins in the whole of Brazil.

So, unlike what was reported, this Minas Gerais Institute confirmed, and now IBAMA - the Federal Agency - this morning also confirmed that the plumb has not reached the Três Marias big power dam, and therefore, not reached the São Francisco River. And even if the Retiro Baixo power dam doesn't hold all the remaining tailings, mathematical models show that about 3/4 of dam should stay at Retiro Baixo power dam, and only 1/4 of dam should go to Três Marias, and because of the size of the reservoir at Três Marias, again, the plumb should not reach the São Francisco River.

What is it we're doing and that you can read on the several slides? First, we need to stop the carrying of tailings by building dikes, hydraulic barriers, screening structures. We have already a full plan in order to remove the tailings which are today being carried to the river, we haven't started yet because of the firemen, they are still rescuing for additional bodies. We are working with the sanitation company to reestablish the sourcing from the river and we are investing in additional water treatment stations, and finally, on the city of Pará de Minas, which is the first one downstream from Brumadinho, we are building, again, a new pipeline in order to increase the sourcing level from other sources, so we will entirely replace the sourcing from the Paraopeba River with this new pipeline from other water sources, and as a result once the Paraopeba River recovers, the city will have a legacy of twice the necessary capacity for water sourcing and treatment. Other municipalities downstream they have alternatives.



So, with all of this that I told you, we believe that, from an environmental perspective, the containment of the impacts obviously continues to be a challenge but is a challenge that can be tackled and addressed and surpassed.

Now moving into financial and operational impacts. The first thing you see is a graph currently with the amount of production which is halted across Vale, reaching 93 million tons relative to four complexes. The question that arises from this graph is: when the uncertainty about the production levels of Vale will be removed? And that's what I'll try to address in the next few minutes.

The first thing for you to take out of your mind is, somehow because of the succession of announcements that we have been doing, all those legal actions and suits from prosecutors and also restrictions from the mining agency and others may give the impression that the authorities and Vale are adversaries and they are in trenches fighting against each other. That is not the case. We all have a common objective, we all want to ensure the safety of the dams and the operations, and the National Mining Agency and the public prosecutors they are exercising their role, when from the information they receive they believe some dams and operations are not safe. And Vale is on the same page. We are also working preventively with respect to, for example, the recent evacuation that we promoted and the stoppage of some operations. For example, in this graph, the mine of Alegria we were not triggered by any authority to stop this mine, but by our own evaluations and concerns about safety.

And what are those concerns? The question that is exposed is: has the safety perception within the industry, the regulators and Vale changed with respect to the upstream dams? The answer is yes, and this is a natural outcome of two tragedies within less than four years.

The perception of safety has changed, the National Mining Agency started to request a minimum safety factor in the undrained condition of 1.3 for upstream dams, and this was not required before hand. The engineering companies, that provided external audits of the safety of the dams, they are changing their methodologies to calculate those safety factors to more conservative methodologies. Within the conservative methodologies they are using more conservative parameters, for example, for materials resistance. They are introducing new methodologies, for example, now, upstream dams they not only have the drained safety factor and the undrained safety factor, but they now also have the post liquefaction safety factor, which is being calculated.

So therefore, the safety factors being recalculated according to those new methodologies and standards are being reduced, and they now have to overcome a higher standard established by the Agency. So, for example, in February, Vale had already noticed that according to the new standards some of its dams would not get these stability certificates. So we decided to put in emergency level 2 some of our structures and evacuate some communities as a measure of precaution and safety.

We are also including in the priority structures three other dams raised by the centerline method and some smaller dikes, which, although they are not dams, they locate themselves within dam complexes and some of them have been built over tailings, so we are also monitoring those structures very carefully.

And as all those information are being available to Vale, to the external auditing companies, they are also being available to the prosecutors, and, as I said, in order to fulfill their mandates, they are asking for legal measures against those structures to ensure that they are not operated and they are not put at risk until there is a clearer picture about their safety.

And this is the priority of Vale, is to ensure the safety of all structures, of all the population, all workers downstream and not the resumption of production. To produce is not our priority. Safety is our priority. March 31st is very close, that's the deadline for all the mining industry in Brazil to present their safety reports on all the dams. So, with that proximity I'd say the good news is that we have now more confidence that we understand, under those new standards, what the situation is across all of our dams.



So therefore, although our goal is not to resume production, and safety instead, because we have the duty to inform you what the picture looks like in terms of production, I will provide now the following explanations. If we go to the graph, the Fábrica and Vargem Grande complexes, the first bar, the 30 million tons which are interrupted, they are now interrupted both by an injunction from the public prosecutors and interdiction by the National Agency, because in those complexes there are dams which we know we're not going to get stability certificates.

Some of those small dikes and dams are going to be decommissioned, some are going to be reinforced. We believe that over the long run we are able to operate some of the mines without using explosives - because explosives could trigger liquefaction in the nearby structures -, we presentative requested to the National Mining Agency in this regard, but because of all of this and because of our intent to decommission large dams on those complexes, we believe that we should be conservative and not assume that we will have that production coming back anytime soon, and if we do so, marginal volumes.

With respect to Brucutu, the next 30 million tons, the sensitive question now relates to Barragem Sul, the South dam of Brucutu. That's the one which is inactive, it is a conventional structure, it's been used by Brucutu until 2013- 14 approximately, but now is inactive, and we believe this dam will have its stability certificate issued in March 31st, even with a very conservative assessment. So therefore, we hope that with this stability certificate that we will be able to sit down with the authorities and appreciate or revert the injunction which is in place today to not use Brucutu.

If we cannot do that, the reason why this structure – Brucutu - is currently stopped is because the processing mills sometimes eventually discharge materials in this dam, for example, when there is a maintenance stoppage. So, whatever is in the pipelines of all the circuits of the processing plant has to be discharged, and this is discharged, very small volumes, at this dam. We can build what is called technically a “sump”, which is basically a protected small pit on the ground in order to receive those discharges from the processing plants, those eventual discharges, and we could run the processing mill in this regard.

We could also consider overtime dry processing at Brucutu, so we believe there are many alternatives for Brucutu, and because of the safety of Barragem Sul, we think we are going to find ways to resuming Brucutu operation, either in full or partially. So that's the operation where we are most confident about resumption.

Timbopeba, 13 million tons, had its safety questioned by the public prosecutors of three dams and dikes. We are going to decommission one centerline dam, which is called Doutor, and our plan is to license the Timbopeba exhausted pit in order to throw the tailings in there. We might have to use filtration, we might not, so also, we believe that Timbopeba has technical solutions to operate safely, but it may take more time as well.

And finally, with regards to Alegria, we still need more information. This has been a Vale initiative and we are undertaking more studies to assess the safety of Alegria right now. And according to all the information that we have today in our assessment, the remaining sites of all across Vale should not suffer any additional production impact and should have the renewal of their stability certificates going forward.

So, in summary, we believe we have a more clearer picture about the safety of the structures under the new standards, we are working towards technical solutions on all the structures that are not meeting the new standards, we believe we have circumscribed the impacts on production, and we believe there is upside, especially in the Brucutu.

And there is a lot of questions about how much would that upside be, so I'm going to give you some guidance on sales. The total impact on sales on the year, depending on several scenarios about



production, especially in Brucutu, and uses of inventories should be between 50 and 75 million tons on sales. And because sales for 2019 were forecast to be less than production, we are talking about anywhere between 307 and 332 million tons of sales for this year with a bias towards the conservative side. And again, reinforcing the message one more time, we are not concerned about production; what we want is to operate on a safety manner and ensure the safety of our workers and our communities.

Very important as well to address the supply to the domestic market, more concerned to the Brazilian audience, but this is just to say that we are using a lot of logistics alternatives to supply the domestic market because Vargem Grande and Fábrica, especially on the pellet supply, are halted. So this is requiring a lot of creativity.

And for the seaborne market, there are questions about what the mix of products of a Vale will look like. Our goal is to stabilize the supply of the Brazilian Blend Fines, ensure the contractual volumes of Carajás and try to mitigate the impact on pellet production. As a result of that, some of the pellet feed, which formally was blended to make up some niche products, are being redirected towards the pellet plants, those niche products are being removed from the market, and also, because some of the operations might operate with dry processing and because the quality of the remaining production is lower, we will need to blend proportionately more Carajás in order to ensure the quality of the Brazilian Blend Fines. And as a result, the supply of Carajás, which would be forecast to increase because of the ramp-up of S11D, will probably be not increased as much as initially intended.

This is a scenario that I am describing that can have several changes, especially depending on the amount of dry processing and the use of inventories of lower quality material, but that is the intent.

Moving to the financial implications, freezing of funds. We today have R\$16.5 billion which are freezed, there are different reasons why they are freezed, but the most recent freezings they pertain to the evacuation that we made in the communities that do not relate to Brumadinho. That acknowledges that almost 1,000 people that we have displaced will have to be indemnified, and also, on those safety drills, evacuation drills at the more downstream communities, maybe some indemnifications also will be required, especially to the handicapped people, to children and to schools and to some structures that will need to be reallocated because in an emergency they present some challenges for evacuation if need be.

But on the other hand, we are working with the authorities to concentrate all those civil lawsuits within one single jurisdiction in order to make sure that the judge, whoever he is, has the bigger picture of everything which is seized and blocked and everything, so therefore, we can limit the amount of funds seized and even, hopefully, free part of the funds and replace them with letter of credit and surety bonds.

So, we have indications, for example, that the environmental impact, the very first bond, the R\$5 billion, which are seized, might be the first one to be centralized with the same judge, which is responsible for the 1 billion which is seized, where we had the conciliation hearing and a preliminary agreement. So, this might be piece of good news for the following weeks.

On indebtedness, obviously to face those seizures of funds, we had to increase our gross debt, so we withdrew - just updating the number here - not 1.8, but rather 1.9 billion in commercial credit lines. We were able to show the agencies our strength and we believe it's a good result that we had only Moody's downgrading us to less than investment grade. We did have an increase in cost of funds, so those credit facilities were raised with the banks have an average cost, which is higher than what we used to do.

Fines. The state of Minas Gerais we've already paid R\$99 million, IBAMA (the National Environmental Agency) we are in negotiations to perhaps change this into compensation measures. And finally, the accounting impacts, the view is that this is a subsequent event to 2018, so the figures you saw today have not been impacted, but they will be heavily in the first quarters of 2019. Several provisions will be



made for the potential indemnifications for the agreements which already have been established, and some of the numbers you can see in the footnotes in the financial statements.

Most importantly, the amounts to be used for the decommissioning of dams will be fully provisioned in the first quarter. It will not be treated as Capex or investments, for the reason because they do not generate any further future capacity of cash flow generation, so they need to be expensed, and because you know how much they... full expenditures will have to be provisioned in the first quarter. And finally, there will be write offs of assets on the dams to be decommissioned, and obviously on Córrego do Feijão, the production site in Brumadinho.

Before we open to questions and answers, I'd like to close saying that perhaps we won't have all the answers that you demand simply because the full attention of Vale is dedicated towards alleviating the suffering, compensating, remediating, reducing the inconveniences of all that we have caused to the nearby communities. And the safety of those communities is our priority and not resumption of production. That's what we will be working relentlessly, and over time, as everything subsides and if we do our job correctly, we will be able to start thinking about addressing the business implications.

Thanks for hearing this long explanation. The intent now we will extend a little bit past the hour, the intent would be to give you 20, maybe 25 minutes of Q&A opportunities. Thank you.

Question-and-Answer Session

Operator: Thank you. Ladies and gentlemen, we will now begin the question-and-answer session. If you have a question, please press the star key followed by the 1 key on your touchtone phone now. If at any time you would like to remove yourself from the questioning queue, press star 2.

Please, restrict to two questions at a time.

Our first question comes from Tina Tanners, Bank of America Merrill Lynch.

Tina Tanners: Hey, good morning, and from all of us our sincere sympathies with your situation and the tragedy. I wanted to know if you could... I got your message loud and clear on the focus on safety over supply, but can you just explain, within your guidance number you said the big swing factor is Brucutu, but what's entailed in that number - and sorry if I missed it - with regards to any additional volumes from some of the tonnage you have been ramping up in S11D and elsewhere, and any updates on the thinking of those projects in light of the shortfalls over the next couple of years.

Luciano Siani: Sorry Tina, the second question, any updates from...?

Tina Tanners: Your thinking regarding the increases in volumes from separate projects that you've been talking about. Do you accelerate those in light of the shortfalls? Is there any acceleration of the timing of bringing on that additional iron ore volume from other projects? Thank you.

Luciano Siani: Okay. So, the guidance we just gave you includes the ramp-up of S11D, which is forecast to produce around 80 million tons this year. The production that we've guided last year is close to 400 million tons, but the sales would be less than initially intended, so therefore, the sales will be more like 382, that was what was budgeted. But we are revising the inventories flow in order to try to compensate some of the loss of production, so therefore, we came down to the 50 to 75 million impact



on sale estimate that we just gave you, which if you subtract 382 you subtract those two numbers you get to 307 to 332.

The swing factor is mostly Brucutu, yes, and secondarily, the swing factor is the amount of dry processing that we will be able to do, and the amount of inventories that we will consume.

In terms of future volumes, the spare capacity that we've always said that we had to you, part of it has also been affected by the interruptions, so out of the 50 million spare capacity, about 30 million is in the areas which are currently stopped. So we haven't done yet a full assessment of the possibilities to bring over time back other volumes, we are more, I would say, working in the scenarios for the current year, and as you may understand, those scenarios they are changing on a daily basis. But we hope, as I mentioned in my explanation, from now on, because we do know what the stability certificates we will have, we hope that the scenario will stabilize, and one of the key messages today is that we believe the scenario is stabilizing. But the fact is that part of that spare capacity is within the mine complexes that have been halted. So, we don't have an estimate of what volumes could be brought over the next one to three years to compensate.

Important to notice as well that even though we've always said that we have spare capacity, that spare capacity needs time to be brought online, because you need to hire the personnel, you need to buy some equipment, so that's not just a switch that you turn on and off. And finally, the additional tonnages in the Northern system is also too soon to see how much we can anticipate, but as I mentioned, in due time, once the heat of the moment stabilizes, we will be able to address those questions.

Tina Tanners: Okay, very helpful. If I can ask one more, just on that cost side, you know, fixed costs absorb [00:46:38] across the company [unintelligible], but some of these closed mines may be higher cost. Have you any... I know you didn't want to quantify it quite yet, but roughly speaking, what are you able to guidance us on directionally for costs?

Luciano Siani: Directionally, if you do the math, assuming that cost dilution will lose those 90 million tons of volumes or slightly less depending on Brucutu, so there is a clear behavior between the first and second half that will repeat itself, because production in the second half is higher than the first half, so you have a proxy for the effects of cost dilution depending on volumes, and you can apply those proxies here.

Operator: The next question comes from Carlos de Alba, Morgan Stanley.

Carlos de Alba: Yes, hello and good afternoon everyone. I can see with sadness the situation that Vale is going through. Luciano, do you have an estimate of the potential impact on the force majeure... sorry, on the lost volumes where you could not plan force majeure, how much Vale could be facing interest of having to buy outside from what the company produces or compensate customers.

And then second question: is there any potential precaution in the production of other minerals, copper in the North in Brazil, or even what have you seen in terms of the reaction of other jurisdictions, like Canada or Vale New Caledonia? Thank you.

Luciano Siani: Okay. Look, one of the reasons why Vale has volumes in the spot market is because of seasonality of production, right? So, you cannot ensure a stable supply of products for customers if you had contracted all of your volumes, because they vary across the year. So, we did have some spot volumes, and also, especially because of the ramp-up of S11D, we were testing with different



alternatives, so, for example, supplying Carajás directly to Chinese pelletizing plants to grind and to use as pellet feed. So, we were actually in the process of developing new markets for some of our products. That process will be reversed, so we will prioritize attending to the existing contracts.

So, we don't foresee any disruption in contracts in *force majeure*, but in specific cases on pellet contracts we have, yes, specific contracts declared *force majeure*. So, so far, the effects of *force majeure* will be limited to those pellet contracts.

In terms of reaction of other jurisdictions, we have not had any regulatory reaction. But just anecdotally, I've been talking to my peers across the industry and there is a sense across the industry that safety standards will need to be raised everywhere, and even ICNM, which is the body association for the major mining companies, is working on a proposal in this regard. But no reactions specific from regulators or any impact in our operations outside of Brazil.

Operator: The next question comes from Andreas Bokkenheuser, UBS.

Andreas Bokkenheuser: Thank you very much and, you know, before I ask my question, Luciano, thank you very much for being available and also to the entire investor relations team. Since January I know you guys have been working around-the-clock, even doing very, very late-night calls, so thank you very much for that.

Just one question from me. On the lost shipments that you are guiding for this year, do you have any take-or-pay contracts within that? And if so, how do you expect to kind of meet those obligations? The obligations, would that be buying iron ore from other major minors around the world, or how would that dynamic actually work?

Luciano Siani: The dynamics for freight is similar to the dynamics for commercial contracts, so we do have a significant amount in the spot market because of seasonality, and we believe that spot contracted freight provides the cushion that we need in order to absorb that variation. So, yes, we do have take-or-pay contracts, but we believe we do have the production and the sales and the volumes to be shipped in order to absorb all of that capacity.

Where we do face, perhaps, a challenge is in the railway MRS, where we do have take-or-pay, but on the other hand, we do have some flexibility. The contract provides some leeway for reduced volumes, but there might be some impact at MRS. But reminding you that Vale owns 40% of it, so in some way part of this impact is within our own turf.

Operator: The next question comes from Alex Hacking, Citi.

Alex Hacking: Thank you, Luciano, and let me add my condolences. My first question would be, again, around production. You mentioned earlier some of the constraints around using the flex capacity. Does that imply that, in all probability, would take Vale probably at least to three years to get back to sort of a 400 million ton per year rate?

And then the second question would be around dry processing. If you choose to move to dry processing at Brucutu or other mines, do you have an estimate of what that would cost in terms of Capex per ton? Thank you.

Luciano Siani: Okay. Well, Alex, thanks for the question. It might be too early to assess how long will it take for us to go back to previous guidance. If one thing I learned on 11 years within Vale is that the



set of assets that we have, they do have a lot of flexibility. Obviously, we've never gone through a situation like this, which impaired that flexibility, but I'm confident that we will be able to find mitigations over time. But again, this is not the priority right now.

Conversion into dry processing is easy, you just don't flow the concentrates through... the run of mine through the concentration phases of the mill, you just go it through grinding and screening, and obviously, the resulting product has less quality. So that's the reason I pointed in my presentation that because the resulting product will have less quality, that it will be required more Carajás in order to blend and guarantee the supply of the Brazilian Blend Fines. So that's one wildcard as well.

Dry processing should not be confused with dry concentration. Dry processing you change the granularity and the physical properties of the ore and usually you get the ore and you mix with other ores, then you blend to get to the final quality. Dry concentration is something that has never been achieved on a larger scale, and it is our goal with the acquisition of New Steel earlier this year. So, yes, we will invest more heavily on those technologies to try to achieve dry concentration, which increases the grade of the ore.

Another alternative which we'll certainly be accelerating over time and we were already investing is dry stacking, which means you still continue to use water to increase the grade of the ore, but the tailings they are filtered and the amount of slimes and tailings that are actually deposited on tailings dams is reduced by 75%, and the rest is stacked into wasted dumps, for example.

So, we have investments ongoing, but, again, this takes time, and this is not, I would say, significant investment that would change dramatically the size of our capital expenditures. Where probably will expand more is on decommissioning, but it will not be accounted for as Capex, we will account it for as a large provision in the first quarter of 19.

Operator: The next question comes from Gustavo Allevato, Banco Santander.

Gustavo Allevato: Hi, good afternoon. So, two questions regarding investments. So how should we think going forward for like investments regarding safety and other bank balance for Vale? Does the company expect any increase in Capex guidance for not just 2019 but the next years?

And the second question is also regarding investments. How does the accident impact the projects that the company was developing for this year and also for 2020? Thank you.

Luciano Siani: I'm sorry, I did not understand your second question. If you could repeat, please.

Gustavo Allevato: Does the accident affects the projects the company has for this year and 2020 and to increase production in other sites or not?

Luciano Siani: Okay. One thing that needs to be very clear on the first question on Capex guidance is: Vale never did a trade-off between safety and Capex. The amount of money which needs to be spent to ensure the safety of operation is not meaningful compared to the overall Capex program on the company, so therefore, there wasn't and there is no reason to make any kind of calculation regarding those safety investments.

To give you an example, last year, for example, we approved a few individual investments of U\$15 to US\$20 million just for the removal of pipelines, of tailings that would be passing through communities. We don't want to spill in this community, we want to spill in inhabited areas, so let's move it from there.



[00:58:39] tailings dams, depending on the size of the dam, could cost perhaps US\$30 - US\$40 million, for example, so this spread over two years. So, we never did that kind of calculation, and therefore, safety will continue to be our priority and will not affect Capex guidance going forward but for the decommissioning of the dams, which require, yes, more significant interventions.

In terms of projects, the main project that the company is developing is Salobo III, will continue; Voisey's Bay mine extension, will continue; and the projects in the North, the expansion of S11D to 100 million tons with increased capacity on the railway, and the Gelado project to recover tailings and to decommission the Gelado tailings dam. So, these will all continue. We believe all those projects are in the right direction.

Operator: The next question comes from Tyler Broda, RBC.

Tyler Broda: Hey gentlemen, thank you. Thank you, Luciano, thanks very much for the call and sympathies from us for you on the tragedy. Two questions. The first one is just on pellets. I guess from what I understood, and apologies if I missed this, but you were able to shift tons down to the pellet plants. Is there any impact [1:00:16]?

And then secondly, could you just walk through the current status to the Asian stock piles, where they are and how much we need to run down within this guidance? Thank you.

Luciano Siani: Hi. If I understood, your first question has to do with pellet production. Even if we shift additional pellet feed to feed the pellets, we are going to be short, and our last estimate is that we are going to be short 11 million tons.

And as regards the stock piles, we do not disclose this information. We believe this is part of our commercial strategy, and I hope you understand that.

Operator: The next question comes from Chris Terry, from Deutsche Bank.

Chris. Terry: Hi gentlemen, thank you for taking my questions. Sympathies with you as well. The first question is just on inventory. You've given the guidance on the sales of 50 to 75 million tons of offline. We calculated around the 40 million ton mark is being built over the last three years or so, just taking a simple sales and production number. Just wondering if you can comment on the stability to use some of that inventory within China or Malaysia and etc.

The second question is specifically around the 65% and 62% processing mechanism that you've worked very hard on the 65-blending strategy. Just wondering if you could give an update on whether there is any target, policies around the 65% material, or whether this stays because you are focusing on safety, the process of iron ore will be or whether you've got a specific strategy around that sort of US\$20 margin, and I think you've previously talked about between the 62 and 65. Thank you.

Luciano Siani: Okay. So, the inventories that we have flexibility to use in order to offset production or sales losses they are located in China, they are located in Malaysia, but they are also located in Brazil, at the mines, especially material of lower quality that we can use and ship. And because of being lower quality, it requires more Carajás to fix the quality.

In terms of the policy and strategy, the most important goal is to provide the supply of Brazilian Blend Fines that we are committed to, to our customers, we are committed to the product, we need to position the Brazilian Blend Fines as a premium product in the 62% segment.



The reason why the premium, and obviously the 65%, is our flagship, the use of more Carajás in order to fix the quality and to provide the necessary amount of Brazilian Blend Fines will somehow affect the supply and demand of the 65%. So, as I mentioned, the growth in the supply of, let's say, unblended free 65% is not going to be the same as intended before. The reason why you are seeing now more weakness on the 65% is because of the low steel margins. We had pointed out in a few events before that steel margins and coking coal prices are the main drivers of the price of 65%, and that's exactly what is happening now.

February was a month... and because the prices have come up very quickly, because of the expectations relating to Brumadinho and because it was a month of slower economic activity, the market was very slow in terms of trades.

One thing for you to have in mind is that the impact of the production lost and those shipments lost at Vale will start to be felt now, because of that time it takes for the ships to arrive in Asia. So, so far, the price increases have been driven by expectations. Now the physical consequences will start to reach the market, at a moment where we expect that the economic activity will go up. So therefore, we don't have a crystal ball, but one needs to have a lot of attention what will happen in the second quarter because it could be a completely different dynamic. But steel margins, in any respect, will continue to wait on the 65% premium over the 62 now.

Well, as final remarks, first I would like to thank all of you that offered your condolences and your sympathies, we are feeling the support of all of our partners on a daily basis, and this gives us a lot of strength to move forward. And to move forward means make whole, compensate, alleviate, reduce the suffering, ensure the safety, and if we do that properly we will be able and we will have the sympathies and we will have the support to resume production, to resume generating wealth and to try to establish, as I mentioned in the start, a new meaning, a new purpose for the relationship between Vale and the surrounding communities and estates and towns.

Our efforts will be relentless, we are committed to continue to inform you on a timely basis, and we hope you understand that this is the best path towards restoring Vale to its former position. Thank you very much.

Operator: That concludes Vale's conference call for today. Thank you very much for your participation. You may now disconnect.