

PCA Case No. 2016-39/AA641

In the Proceedings Between

Glencore Finance (Bermuda) Ltd.
(Claimant)

- VS -

The Plurinational State of Bolivia
(Respondent)

BOLIVIA'S REPLY POST-HEARING BRIEF ON QUANTUM

13 December 2021

Members of the Tribunal:

Prof. Ricardo Ramírez Hernández
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1. INTRODUCTION

1. Pursuant to the Tribunal's letter of 22 September 2021, Bolivia hereby submits its Reply Post-Hearing Brief (the "**Reply PHB**"),¹ following the Hearing on Quantum held between 28 March and 1 April 2021 (the "**Hearing**") and the Parties' Post-Hearing Briefs of 18 November 2021.
2. Claimant's Post-Hearing Brief ("**CPHB**") confirms that Claimant's case on quantum was built on mere speculation and exaggeration. Claimant has subverted the applicable standard, expecting the willing buyer to be unreasonable and pay the seller's asking price without any due diligence. In an attempt to provide support to its valuations, CPHB takes great liberties with the facts of the case, the Hearing's transcripts, and Bolivia's positions to distort the record of these proceedings. In light of Claimant's misrepresentations and the limitations of this Reply PHB, Bolivia urges the Tribunal to carefully review the sources cited by Claimant.
3. *First*, Claimant's valuations require the Tribunal to disregard the willing buyer perspective (as evidenced by the CPHB's eloquent silence about the applicable standard) for they are seller's models, aimed solely at maximizing the seller's profits, without consideration to what a diligent, informed, and prudent willing buyer would have agreed to pay for the Assets. Only a seller's model would take the Triennial Plan and the Old Tailings Project at face value and would expect the Colquiri Mine's production to increase against its historical performance without significant investment. Likewise, only a seller's model would consider that Vinto's tin ingot production would increase an extraordinary 22% without any investment being made to replace its decaying machinery from the 70s, and only a seller's model would ignore the Antimony Smelter's environmental remediation and demolition costs.
4. *Second*, as Claimant explained in its Reply on Quantum, "*Glencore Bermuda's purchase price has no bearing on the price a willing buyer would pay for those investments several years later under different assumptions regarding the Investments' prospects for future profits*" (Reply on Quantum, footnote 61). Yet, in direct contradiction with its own prior statement in this Arbitration, CPHB sought to divert the Tribunal's attention away from the proper standard (that of the willing buyer/seller) by referring to what Glencore purportedly paid for the Assets in 2005 as an "anchor" for its valuations. In addition to highlighting Claimant's desperation, this new and contradictory case is entirely futile. What Claimant may (or many not) have paid for the Assets several *years before* the date of valuation – and under very different macro-economic and political conditions – is irrelevant to a rational and informed willing buyer looking to assess the Assets' NPV. Such buyer would rely on historical data up to and projections as of the date of valuation. In any event, Claimant has withheld the evidence of what it really paid for each of the Assets. It is now too late for it to expect the Tribunal to rely on naked statements without proof. Ultimately, if one were to

¹ Unless otherwise indicated, the Reply Post-Hearing Brief adopts the definitions used by Bolivia in its prior submissions.

entertain (*quod non*) Claimant's argument, what it presents as the purchase price for Colquiri shows that Claimant's valuation is inflated.

5. *Third*, Claimant misconstrues and misquotes the Hearing's transcripts in an attempt to find support for its inflated valuations. Claimant, for example, alleges Dr. Rigby admitted that the Old Tailings had "*some value*." But these are *Claimant's* own words. Dr. Rigby stated that he did not conduct a valuation of the Old Tailings project because he found that it was not economically viable (CPHB, ¶ 4; D4:P621:L7-P622:L4, Rigby Cross). Similarly, Claimant alleges Dr. Rigby recognized Vinto was a valuable Asset, but he never did (Claimant did not even provide a citation to support this assertion; CPHB, ¶ 5).
6. *Fourth*, Claimant misrepresents Bolivia's case, portraying it in an overly simplistic manner, to fabricate points of agreement that do not exist. This tactic is most obvious in Claimant's newly-placed reliance on the March 2012 Investment Plan as a basis for valuing Colquiri – a plan which its own experts have admitted lacks any support. The CPHB goes as far as to state that Bolivia's experts would have valued Colquiri pursuant to the March 2012 Investment Plan (which is false) and, from there, attempts to create a non-existent agreement. Claimant repeats this strategy, for instance, when it states that the Parties agree that the Antimony Smelter's land would have value, that Colquiri was expanding at the time of the reversion and that the development of the Old Tailings Plant was underway (CPHB, ¶¶ 4-6). There is no agreement on any of these issues. Bolivia's position is that the land at the Antimony Smelter has no commercial value, that Colquiri was not expanding at the relevant time and that the Old Tailings Project had been analyzed and discarded by all operators, including Claimant itself, *before* the date of valuation.
7. *Fifth*, what Claimant does not say is also telling. Claimant's PHB avoids controversial issues such as the valuation date, the consequences of the Rosario Agreement for Colquiri's valuation and the issues with the *cooperativistas*. Claimant also did not address all the key value drivers for the Assets, as a diligent and informed willing buyer would have done (and as Bolivia did in its PHB); and omits the agreements that the experts reached while preparing the Joint Models, which only serve to highlight that Claimant's valuations are unreasonable and abusive.
8. Given that Claimant has not adduced additional arguments as to the value of the Tin Stock, Bolivia restates the position from its prior submissions. Bolivia also refers to its prior submissions regarding its jurisdictional objections and its defenses on the merits of Claimant's claims. Bolivia's arguments on quantum are thus without prejudice to said objections and defenses.
2. **CLAIMANT'S PHB CONFIRMS THAT ITS VALUATION OF COLQUIRI IS FLAWED AND GROSSLY INFLATED**
9. Claimant's PHB only addresses (superficially) three of the Colquiri Mine Lease's value drivers (mineable material, Colquiri's production rate, and the Old Tailings Project), conveniently

omitting important value drivers such as the valuation date and the Rosario Agreement, sustaining CAPEX, *catch-up* CAPEX, OPEX, and head grades, among others.

10. For instance, Claimant ignores the valuation date and the Rosario Agreement because it is evident that (i) its position in the Arbitration (that the FMV of Colquiri should be determined as of 29 May 2012) is inconsistent with its contemporaneous statements to the market (that “*the Colquiri mine was nationalized on 22 June 2012*” (R-257, p.71)) and, as a result, (ii) the FMV of the Mine Lease must consider the Rosario Agreement, whereby Claimant assigned the most valuable vein in the Mine to the *cooperativistas*. This, alone, reduces Claimant’s valuation by US\$ 54 million (Joint Model, select: (i) Abdala-Chavich as starting point, (ii) Flores’ Date of Valuation, and (iii) Flores’ Rosario Vein adjustment. See also, D5:P771:L14-22, Flores).
11. Claimant’s PHB also presents an oversimplistic and inaccurate description of the “*valuation options*” available to the Tribunal, which includes material misrepresentations of Bolivia’s position and its experts’ opinions. For example, as we will explain in detail in the following sub-sections:
 - It is false that Dr. Flores recommended a valuation of the Mine Lease based on the March 2012 Investment Plan (CPHB, ¶ 9(b));
 - It is false that the valuation option proposed by Dr. Flores for the Mine Lease assumes that Claimant would (i) “*not have [...] continued to explore for additional mineable minerals*” and (ii) “*that Mine operations would become less efficient than historic operations*” (CPHB, ¶ 9(d)); and
 - It is false that the valuation option proposed by Dr. Flores for the Old Tailings Project simply assumes that Claimant “*would not have constructed the [Old Tailings Plant]*” (CPHB, ¶ 10).
12. As a sign of its loss of confidence in its own case, Claimant now argues, for the first time in this Arbitration and in contradiction with its prior case on quantum, that a valuation of the Mine Lease pursuant to the March 2012 Investment Plan would be proper. It is not, as we discuss *infra*.
13. In light of the foregoing, Bolivia cautions the Tribunal to carefully review (i) the references included in CPHB as purported support for Claimant’s position and (ii) the many statements in CPHB that lack any reference whatsoever.

2.1 Claimant’s PHB confirms that its valuation of the Mine Lease is premised on a negligent and misinformed willing buyer that would take the unrealistic and unapproved Triennial Plan at face value while ignoring Colquiri’s historical performance

14. The Parties agree that the Tribunal must determine the FMV of the Mine Lease based on the willing buyer/seller standard, that is, the value that a well-informed, knowledgeable, and prudent willing buyer and seller would have agreed to assign to the Mine Lease as of the valuation date (Reply on Quantum, ¶¶ 51, 151, footnote 389; Rejoinder on Quantum, ¶ 335). In its CPHB, Claimant conveniently disregards this standard and, instead, presents a seller’s only valuation.
15. As Bolivia explained in its PHB, a diligent and informed willing buyer would have based the valuation of the Mine Lease on (i) the historical performance of the Mine up to the valuation date, (ii) the known mineral reserves and resources that could be mined in the future, as reported in the latest Glencore’s reserves and resources statement as of the valuation date (valued in accordance with industry standards), (iii) reasonable projections of the costs necessary to mine such mineable material and likely revenues, and (iv) the risks associated with the transaction, including the inherent social risks (D5:P893-898:L16-16; Bolivia’s PHB, ¶ 18). This is what Glencore purportedly did when it purchased the Mine Lease in 2005 (Bolivia’s PHB, ¶ 19; **C-196; R-302**).
16. Claimant’s PHB confirms that for, at least, 4 reasons its valuation of the Mine Lease is based on a seller’s only model and assumes a negligent and misinformed willing buyer:
17. *First, Glencore errs when it claims that “[t]he testimony of Bolivia’s witness and experts prove that the question before the Tribunal is not whether Glencore Bermuda would have expanded the Colquiri Mine but for Bolivia’s Treaty breaches. Rather, the question is whether Glencore Bermuda was expanding pursuant to the Triennial Plan or a less ambitious plan, such as the March 2012 Plan” (CPHB, ¶ 12).*
18. One, Colquiri’s historical production data shows that, as of the valuation date, Colquiri was not expanding. At the time, Colquiri’s production was below historic highs due to Claimant’s underinvestment. In the five years prior to the valuation date, Colquiri’s production (ore processed) averaged 277,309 tonnes. During this period, Colquiri achieved its highest production in 2007 (308,524 tonnes) and its lowest production in 2009 (228,298 tonnes). In 2011 (Claimant’s last full year before the valuation date), when it produced 289,888 tonnes, Colquiri was still trying to recover its highest production level, which would have needed considerable investment (Joint Model, “*Historical Data*” tab).
19. As Dr. Rigby explained, because of Claimant’s policy of underinvestment at Colquiri, US\$ 25 million in *catch-up* CAPEX would be needed to increase production from the five-year average of 277,309 tpa to Dr. Rigby’s proposed production rate of 307,000 tpa starting in 2012 (*i.e.*, 10% higher than Colquiri’s historic 5-year average) (SRK II, ¶¶ 44, 48; D4:P559:L12-20;

D4:P558:L11-18). Tellingly, at the Hearing, Claimant did not ask any questions to Dr. Rigby about his *catch-up* CAPEX estimate.

20. Claimant's own contemporaneous documents confirm its underinvestment at the Mine: (i) Colquiri's monthly reports show that production was frequently affected by maintenance problems and lack of machinery, equipment and tools (**R-454; R-458 to R-462**, p. 2; **R-477; R-478**), and (ii) Colquiri's budgets show that in the 4 years prior to reversion, Claimant did not invest what it had budgeted (a delta of US\$ 17.6 million) (**QE-50**, "CAPEX budget" tab; **CLEX-11-5-7**, pp. 43, 45, 45, respectively; **CLEX-47-4**). For Dr. Flores, Claimant consistently failing to meet the budgeted CAPEX is "*not the only basis upon which Dr. Rigby concludes that this catch-up CAPEX was needed. It's not only that [...] the budgeted amounts have not been spent, but [also that] the needs of the Mine and the Plant had not been tended to for a number of years*" (D5:P826:L10-15).
21. The need to invest in CAPEX to increase production at the Mine is consistent with a commonsense notion that Mr. Eskdale confirmed during his cross-examination: production simply cannot increase without investment ("**Q.** [...] *increasing production was just not as easy as just saying: 'I will simply produce more with what I have.' There had to be some investment; correct? A.* *That's absolutely right, yes. There needed to be investment*", D2:P204:L18-24).
22. Two, Claimant conveniently disregards the willing buyer standard, even though its own 2004 due diligence documents reveal how a willing buyer approaches the task of valuing the Mine Lease. Contrary to Claimant's proposition, the question is not whether Claimant had expansion *plans* and, if so, if it was implementing them before the valuation date (or not). The question is: would a willing buyer determine the FMV of the Mine Lease (i) based on Colquiri's "*long operating track-record*", as Glencore did in 2005 (**C-196**, p. 3) and Bolivia proposes, or (ii) based on the seller's unrealistic, unapproved, and untested expansion *plans*, as Claimant posits.
23. As common sense indicates, and Claimant's own documents confirm, willing buyers do not base valuations on sellers' untested expansion plans, but on the assets' operating track-record, which inform projections. According to Glencore's own statements when it acquired Colquiri:
 - "**No account has been taken of possible production expansions and extensions to mine life**" (Glencore inter-office correspondence from Mr. Eskdale, **C-196**, pp. 1 and 2, emphasis added); and
 - "*All the mines have a long operating track record [and] **there is excellent potential to either extend mine life or ramp up production** [...]. **We have not placed any value on this**" (**C-196**, p. 3, emphasis added).*

24. *Second*, and in any event, after more than 5 years of Arbitration and despite Bolivia’s many document requests, there is no evidence that Claimant ever approved, budgeted, or implemented the Triennial Plan.
25. In its CPHB, Claimant alleges that, at the Hearing, Mr. Eskdale would have “*testified that the Colquiri Mine was expanding pursuant to the Triennial Plan, and that he had personally approved the budget for the expansion*” (CPHB, ¶ 20). This is misleading, at best.
26. On cross-examination, Mr. Eskdale stated that there was no approval of the Triennial Plan in writing, but that such approval was given “*verbally*” (D1:P200:L1-13). It defies credulity – and speaks volumes about the credibility of Mr. Eskdale as a witness – that a plan calling for an investment of almost US\$ 50 million would not have required any written approval.
27. Later, in response to Claimant’s questions on re-direct, Mr. Eskdale alleged (for the first time in this Arbitration) that a document from Sinchi Wayra titled “*Budget 2012*” and dated November 2011 had become the budget for the Triennial Plan (Documents produced by Claimant for Request No. 21, **R-430-16**). This is hardly credible:
- As Respondent’s Demonstrative B shows, “*Budget 2012*” is materially different from the Triennial Plan: it considers lower production in 2012 (297,118 tonnes versus 360,113 tonnes), lower tin head grades in 2012, lower recovery and concentrate grades in 2012-2014, and higher maintenance costs, among others. Therefore, it cannot be the approval of the Triennial Plan;
 - The fact that Claimant produced the “*Budget 2012*” in reply to Bolivia’s Request No. 21 (related only to Claimant’s zinc concentrate price forecasts) and not in reply to Bolivia’s Requests No. 3 and 4 (seeking the approval, budgeting, and implementation of the Triennial Plan) confirms that not even Claimant believed that this document could be the Triennial Plans’ budget (Procedural Order No. 9, Annex 2); and
 - Out of more than 60 documents produced by Glencore in reply to Bolivia’s Requests No. 3 and 4, none refer to the approval or the implementation of the Triennial Plan (**R-420; R-421**).
28. Thus, Claimant’s last-minute attempt to introduce – through Mr. Eskdale’s rehearsed testimony at the Hearing – an alleged approval of the Triennial Plan only serves to highlight the lack thereof.
29. Additionally, in its PHB, Claimant argues that, prior to the valuation date, it had begun building the Main Ramp and expanding the Concentrator Plant’s capacity, which would prove that it had approved or implemented the Triennial Plan (CPHB, ¶ 13-15). This is also false.

30. It is not in dispute that both the Main Ramp and the expansion of the Concentrator Plant project were part of many other plans, both prior to and following the Triennial Plan (**R-302**, p. 6; **EO-7**, p. 16; Bolivia's Opening, Slide 24). As Bolivia explained, chronology does not suffice to establish causality (D1:P107-108:L25-21).
31. Claimant misleadingly states that "*Dr Rigby did admit that this expansion could be considered proof of 'partial approval' of the Triennial Plan*" (CPHB, ¶ 19). Dr. Rigby's full response to a hypothetical and circular question by Claimant shows that he did not make such admission:
- Q. Would you agree with me that evidence of the implementation of the Triennial Plan would be evidence of its approval?*
- A. Well, it may be partial approval. You know, I wanted to see a document from Glencore International head office or even Sinchi Wayra basically saying this has received Board approval, funds will be committed in this quantum, and let's say guaranteed so that the Mine could plan and start the procurement process for all the new equipment and things that would be needed, and that it was guaranteed that it would be supported with the appropriate level of funding* (D4:P574:L7-18).
32. To the contrary, Dr. Rigby expressly stated that he did not believe that Claimant ever approved the Triennial Plan: "*I don't believe [the Triennial Plan] was ever approved. We never saw a formal approval document, although we requested if one could be provided*" (D4:P565:L1-6).
33. As Bolivia has already established during this Arbitration, Claimant has never produced any document of the type that Dr. Rigby referred to in his answer. In any event, "*partial approval*" of the Triennial Plan would equate to the complete approval of a different plan that Claimant has not produced either and on which it does not base its case.
34. *Third*, the Triennial Plan is inconsistent with subsequent plans and documents prepared by Claimant, thereby confirming that the former was never approved or implemented (Bolivia's Opening, Slide 25):
35. One, while the Triennial Plan forecasted ore processing to reach 360,000 tonnes in 2012, Colquiri's 2012 Production Budget estimated an ore processing rate of 310,400 tonnes for the same period, *i.e.*, 14% lower (**C-108**, p. 36; **R-33**, "*Planta*" tab, cells O24, O26).
36. Two, Sinchi Wayra's 2012 Budget is inconsistent with the Triennial Plan in, at least, three key parameters: (i) it estimated ore processing rates of 297,118 tonnes in 2012 (compared to 360,000 tonnes in the Triennial Plan); (ii) it considered capital expenditures of only US\$ 10.4 million for 2012 (in contrast with US\$ 54.3 million in the Triennial Plan); and (iii) it estimated unit cost per tonne of US\$ 63.2 (in contrast with US\$ 57.9 in the Triennial Plan) (**C-108**, pp. 36, 109, 119; **R-431**, "*Colquiri*" tab, cells O14, O150 and rows 38 to 45).

37. Three, Colquiri’s 2012 Capital Expenditure and Project Statement approved an expansion capital almost 10 times lower than the expansion capital in the Triennial Plan for the same year (US\$ 5.4 million versus US\$ 43.7 million) (**R-432**, “Colquiri” tab, row 372; **C-108**, p. 119).
38. Four, as RPA admitted at the Hearing, the March 2012 Investment Plan meant that Claimant had abandoned or was moving away from the Triennial Plan: “**Q**: Now, would it be relevant also for you to see that the March 2012 Investment Plan did not reach by quite a stretch, I would say, that 550 figure that you have assumed will be constant for 17 years in [the Triennial Plan]? **A**.: [W]e looked at it, and we said plans change all the time [...] I don't recall that they were talking about in terms of their investments, the time, but clearly they weren't proceeding or were slowing down the [Triennial] Plan” (D3:P478:L3-16, emphasis added).
39. Fourth, Claimant misrepresents Bolivia’s experts’ opinion by stating that they “suggested that the expanded Colquiri Mine should be valued pursuant to the March 2012 Plan. For example, in his First Expert Report, Dr Flores introduced the March 2012 Plan as an alternative to the Triennial Plan, and in his Second Expert Report, Dr Rigby wrote that the March 2012 Plan would be a ‘good starting point’ to value the expanded Mine. During the Hearing, Dr Flores also called the March 2012 Plan ‘a good starting point’ to value Colquiri” (CPHB, ¶ 18).
40. In limine, Claimant’s desperate attempt to validate the March 2012 Investment Plan through misrepresenting the testimony of Bolivia’s experts is surprising, to say the least, given that Claimant’s own experts admitted that the March 2012 Investment Plan is not a reliable source for purposes of valuation. Indeed, Claimant’s experts admitted that said plan is unsupported, lacks detail, and was not prepared in the normal course of business:
- **RPA**: “[W]e relied on the Triennial Plan because it has the most detail behind it [...] we had nothing behind the [March 2012 Investment Plan] of any consequence”, (D4:P523:L9-16, emphasis added); “I don’t know what's behind the March 2012 plan” (D3:P486:L16-17, emphasis added); and
 - **Compass Lexecon**: “We understand that the March 2012 Plan was a plan prepared in the context of negotiations with the government, and not as an investment plan prepared during the normal course of business” (CLEX II, ¶ 156, emphasis added).
41. Even Claimant admits that “there is no evidence that the March 2012 Plan had been approved by Glencore Bermuda” (CPHB, ¶ 22).
42. One, Dr. Rigby and Dr. Flores explained in their reports that the March 2012 Investment Plan is evidence that Claimant had not approved the Triennial Plan and, additionally, Dr. Flores expressly stated at the Hearing that he had not relied on the March 2012 Investment Plan:

- **Dr. Flores:** “*In my First Report I referred to the March 2012 Investment Plan as evidence that the Triennial Plan was not a finalized plan that had been approved for implementation. I did not rely upon it in my valuation of the Colquiri Lease*” (Flores II, ¶ 214, emphasis added); “*I do not rely on the March 2012 Investment Plan in my valuation*” (Flores II, ¶ 216, emphasis added); and
- **Dr. Rigby:** “*Evidence that the Triennial Plan was not a finalized plan for implementation includes the March 2012 Investment Plan, which was created closer to the Colquiri Mine Lease valuation date of June 19, 2012, and projected much lower production levels, a longer ramp-up period, and greater Capital Expenditures*” (SRK II, ¶ 23).
- In his second expert report, Dr. Rigby had explained that, although the March 2012 Investment Plan could be a good starting point to evaluate a nominal increase in Colquiri’s production, it had “*significant uncertainty*” and, thus, could not support any definitive expansion plan:

Given these underground ore transportation challenges, I therefore assumed maintaining the status quo with a nominal increase in production rate to 1,000 tpd or 307,000 tpa. Even this would require substantial catch-up and sustaining capital to maintain operations after a long history of undercapitalization. There would no doubt be opportunities for nominal increases in production rate beyond this as the mine is re-capitalized under my scenario. However, these were not adequately defined in terms of scope, timing and cost in 2012 to support any definitive expansion plan. The March 2012 Investment Plan was a good starting point but even this had significant uncertainty in terms of the low level of future “quantified” resources and reserves, ramp deepening, mine development to access identified ore, on-going exploration and on-going debottlenecking of the mine and the process plant (SRK II, ¶ 48, emphasis added).

43. Hence, contrary to Claimant’s misrepresentation, Dr. Rigby never stated that “*the March 2012 Plan would be a ‘good starting point’ to value the expanded Mine*” (CPHB, ¶ 23).
44. Similarly, Dr. Flores did not explain that “*the March 2012 Plan was ‘a good starting point’ to value Colquiri*”. In reply to a question from Prof. Gotanda, Dr. Flores explained that his March 2012 Investment Plan sensitivity calculation (on the basis of Compass Lexecon’s valuation) is not a valuation based on the March 2012 Plan because it only adjusts for production; many other adjustments would be needed:

Arbitrator Gotanda: *You note on Page 106 of your I think it's Annex A of your Report that you would reduce what Compass Lexecon’s assessment of that plan to 212 million, you say all else being equal [...] Is that your opinion of the value based on the March 2012 plan, or is that something else?*

A. (Dr. Flores) *Thank you for the question. No, it's not my opinion because this \$212 million that you see in Paragraph 218, it only changes the production profile from the*

Compass Lexecon model; right? But it doesn't address all the other ingredients that you still would need to be adjusting like, for example, the G&A, let's say, right? But it could be a good starting point, if you want to study the waterfall, you could pursue that adjustment, so replace the production profile in the Triennial Plan with the last available one, which was the March 2012, but then do the other quarter adjustments you have decided. For example, importantly, these \$212 million is evaluated using Compass Lexecon Discount Rates; right? Not my Discount Rate. So, it's a certain point, but it wouldn't be the ending point of my opinion if we were to assume that the production profile to be used is that in March 2012 Investment Plan (D5:P-875-876:L8-15, emphasis added).

45. Two, the 7-page long March 2012 Investment Plan lacks substance and is silent about important value drivers (e.g. metallurgical recovery rate, sustaining CAPEX, and OPEX). As a result, there are material differences among the Parties' experts on how such Plan could be implemented into a valuation.

46. To conclude, Claimant's PHB confirms that it has presented a seller's only model and that its case is premised on a negligent and misinformed willing buyer that would take such model at face value. Claimant's case is inconsistent with the willing buyer standard, its own conduct when it acquired the Mine Lease, and industry practice. Claimant's desperate attempt to save its inflated valuation with the March 2012 Investment Plan is futile and evidences the weakness of its case.

2.2 Claimant's PHB confirms that Claimant artificially extends the life of the Mine by including hypothetical mineable material and attributing full value to inferred mineral resources that lack sufficient geological and economic certainty

47. As Bolivia explained in its PHB, Dr. Rigby estimates the Mine's mineable material based on the *in situ* reserves (1.555 Mt) and resources (4.182 Mt) reported by Glencore closest to the valuation date (**RPA-31**, p. 72) and on industry-based discounts that account for (i) the geological uncertainty of resources and (ii) the fact that not all the *in situ* mineral can be mined (thus, Dr. Rigby applies a mining recovery factor to reserves and resources) (Bolivia's PHB, Section 2.3.1).

48. Dr. Rigby concludes that a willing buyer would have considered, at most, 4.16 Mt of mineable material as of the valuation date. This estimate is consistent with Claimant's mineable material analysis during the 2004 due diligence and even less conservative than Claimant at the time (e.g. Claimant applied an average 21% uncertainty discount to resources, while Dr. Rigby applies a 15% discount) (Bolivia's PHB, ¶ 36).

49. In contrast, Claimant's mineable material "*estimate*" (10.7 Mt) results from an unsupported assumption: that the Mine will magically replenish all reserves and resources until the end of the Mine Lease in 2030. This is how Claimant reverse-engineers what is needed to sustain the 100% production increase projected by the Triennial Plan. Claimant's assumption disregards Colquiri's reserves and resources statement closest to the valuation date, industry standards, and its own

conduct when it acquired the Mine Lease (when it stated that “*There is excellent potential to either extend mine life or ramp up production, should new reserve[s] continue to be identified as it has been in the past. We have not placed any value on this*” (C-196, p. 3)).

50. Claimant attempts to support its assumption that the Mine would replenish all reserves and resources *ad infinitum* through 4 improper ways in the CPHB:
51. *First, Claimant mischaracterizes Dr. Rigby’s testimony by stating that he “repeatedly admitted at the Hearing that Colquiri would likely continue to replenish minerals after May 2012, just as it had over a hundred years prior to May 2012” (CPHB, ¶ 24). In addition, Claimant incorrectly mischaracterizes Dr. Rigby’s estimate by alleging that he did not consider the Mine’s replenishment history and that, as a result, Dr. Rigby would have to increase its mineable material estimate to account for such replenishment. Lastly, Claimant also mischaracterizes Bolivia’s position by stating that, according to Bolivia, Colquiri “would not have identified a single additional ounce of mineable material after May 2012”. These counts are false.*
52. As Bolivia explained in its PHB, Dr. Rigby’s analysis gives credit to the Mine’s replenishment history by including a substantial amount of inferred resources as mineable material (1.17 Mt, that is, 28% of Dr. Rigby’s mineable material). Pursuant to industry standards, had Dr. Rigby not accounted for replenishment, he should have excluded all inferred resources from the valuation (D4:P605-606:L19-15).
53. Dr. Rigby explained this at the Hearing: “***Q. So, Dr. Rigby, in both of your Reports, you acknowledge that Colquiri had a ‘history of replenishing reserves right? A. Yes. Q. Well, in light of this history, isn’t it reasonable to conclude that Glencore Bermuda would have continued to identify new Reserves in 2012 onward, just as it had in years prior? A. Well, that’s what I assumed. In 2012, I gave you my assessment of mineable material, and that assumed a substantial amount of the Resource, including Inferred Resource, continued to be converted. Bear in mind, there is only 1.555 million tons of Proven and Probable Ore Reserves reported in 2011. I’ve given Colquiri the benefit of the doubt by converting a substantial portion of the Resources available to be mineable. I’ve actually overstepped my boundary by including Inferred Resources. So, I have given a lot of credit for ongoing exploration and replenishment of Resources and Reserves over that period*” (D4:P605-606:L19-15, emphasis added).**
54. Claimant’s own PHB acknowledges that Dr. Rigby’s valuation accounts for replenishment (CPHB, footnote 29: “*Dr Rigby confirmed at the Hearing that his own valuation assumes replenishment*”).
55. Dr. Rigby’s reply also underscores a key fact: as of the valuation date, per Claimant’s own reserves and resources statement, Colquiri only had 1.555 Mt of *in situ* proven and probable reserves. That

is, Claimant's opinion at the time was that only 1.555 Mt of *in situ* ore was "economically mineable" (CIMVAL Code, **R-435**, p. 37). It is only because of Colquiri's reserves and resources replenishment history that Dr. Rigby reached his estimate of 4.16 Mt of mineable material.

56. *Second*, Claimant asserts that "Mr. Clow testified in detail that the results of Colquiri's exploration activities conducted as of 2012 evidenced that it is likely that abundant minerals exist in the deeper levels of the Colquiri Mine that were yet to be exploited and would support future replenishment" (CPHB, ¶¶ 27). In addition, Claimant mentions that "the investment plans in the record demonstrate that Glencore Bermuda had approved significant budgets for exploration activities at Colquiri that would have identified the minerals needed to continue the historic replenishment" (CPHB, ¶¶ 27). This is misleading, at best:
57. One, Claimant's reserves and resources statement closest to the valuation date reflects Claimant's contemporaneous interpretation of the results of any drilling conducted prior to 2012. As Dr. Rigby explained, such statements to the market are subject to strict internal and external scrutiny (D4:P635:L10-14). If the results of drilling before 2012 had really indicated that "abundant minerals exist in the deeper levels of the Colquiri Mine that were yet to be exploited and would support future replenishment" (as Claimant now suggests), that would already be accounted for in the published reserves and resources statement (on which Dr. Rigby bases his mineable material estimate). If Glencore did not account for it, it is either because it would have been too speculative to do so or because RPA's statement is unsupported.
58. Two, Claimant cannot support its mineable material estimate on drilling that would be conducted *after* the valuation date. The fact that Claimant budgeted such drilling is irrelevant because, as of the valuation date, a willing buyer would not have access to its results. Yet, this is what RPA assumes: "Q. Now, if I understand correctly, what you're telling the Tribunal is in addition to the Reserves and Resource Statement as of December 2011, you're assuming that exploration will be performed, you're assuming that exploration will be successful, and all of that would allow you to get enough Resources and Reserves to produce everything that the Triennial Plan was forecasting; correct? A. (Mr. Clow) Yes." (D3:P491-492:L24-7, emphasis added).
59. Claimant also mischaracterizes Bolivia's position by stating that, according to Bolivia, Colquiri "would have stopped exploring on 1 January 2012" (CPHB, ¶ 30). This is simply wrong: without exploration after the valuation date, Colquiri would have been unable to upgrade the inferred resources to indicated or measured resources, and hence to convert them into reserves. With such exploration, Dr. Rigby's mineable material estimate would have been lower.
60. Three, Claimant's argument disregards the defining characteristic of mineral reserves. Mineral reserves are "the economically mineable part of a Measured or Indicated Mineral Resource

demonstrated by at least a Preliminary Feasibility Study” (R-264, p. 5, emphasis added). This means that it is not enough to establish (through drilling) that mineral material is present underground. It is also necessary to establish “*by at least a preliminary feasibility study*” that mining such mineral material would be profitable. This is key in Colquiri because, as Claimant admitted during its due diligence in 2004, “[a]s the Mine gets deeper it will be difficult to maintain the same costs for the next 5 years, we estimated an increase [in] value each 2 years of 5% in mine cost and 2% in maintenance by deeper exploitation” (R-302, p. 6).

61. Claimant’s self-serving assumption underlying its mineable material “*estimate*” is twofold: sufficient mineable material to double production would not only be found through drilling, but it also would be economic to mine it and process it despite the increasing mining and maintenance costs. A well-informed, prudent, and diligent willing buyer would not make such assumptions as of the valuation date without serious analysis and proof.
62. Such willing buyer would also not take at face value Claimant’s assumption that, contrary to its own opinion when it acquired the Mine Lease, OPEX would magically decrease as the mine goes deeper because of economies of scale that would supposedly result from doubling production under the Triennial Plan. As Dr. Flores explained during the Hearing, as of the valuation date, there was no evidence that Colquiri had ever achieved economies of scale (D5:P766-769:L17-7). To the contrary, Colquiri’s OPEX had increased constantly before the valuation date. Additionally, mining literature shows that mining executives “*have found that productivity decreased as operations got larger*” (QE-61, pp. 2, 5; Flores Direct, Slide 9).
63. In reply to the Tribunal’s request that the Parties “*provide an estimate of OPEX without regard to the Triennial Plan*” (PO 13, Annex, ¶ 6), Claimant proposed an OPEX of US\$ 61.5 per tonne based on Colquiri’s actual OPEX from January to May 2012 only (Joint Letter, pp. 4, 5). This estimate is not reliable, as it does not account for the seasonal variations in Colquiri’s OPEX. Indeed, it is a fact that, January through May of 2011 represent 5 of the 6 lowest months of OPEX per tonne in 2011 (see “*Production Cost*” in Colquiri’s Monthly Reports included in R-428, at page 46 of each report). The January through May 2011 OPEX per MT numbers are consistent with the OPEX per tonne over the same five-month period in 2012. This indicates that using only data from the first five months of 2012, as Claimant proposes, underestimates the OPEX. A yearly OPEX figure is more reliable to project OPEX costs for the following 18 years. Consequently, in a scenario “*without regard to the Triennial Plan*”, a willing buyer would have adopted Colquiri’s actual 2011 OPEX (US\$ 69.9 per tonne calculated on a yearly basis (not selecting only those months with the lowest OPEX)), as Bolivia’s experts have estimated.
64. *Third*, at the Hearing, RPA admitted that, “*accord[ing to] CIMVal standards it’s unacceptable to extend mine plan to include potential replacement of future undiscovered and unmeasured*

Resources.” Nevertheless, RPA considers that CIMVal standards are not mandatory and “*it’s really in the judgment of the valuator*” whether to include undiscovered and unmeasured resources (or not), as Claimant has done (D3:P444-445:L23-5). According to RPA, the Mine’s replenishment history allows them to depart from the CIMVal guidelines.

65. Aware that 60% of its mineable material is “*undiscovered and unmeasured*” (*i.e.* not included in the 2011 reserves and resources statement nor the result of drilling), Claimant argues that, at the Hearing, (i) RPA confirmed “*the practice of willing buyers paying for un-delineated minerals ‘represents both the previous practice and the current reality’ in the mining industry*” and (ii) Mr. Eskdale testified that, when Claimant purchased the Mine Lease, it paid for un-delineated resources (CPHB, ¶ 28). Additionally, Claimant misleadingly asserts that, at the Hearing, Dr. Rigby “*conceded that willing buyers pay for minerals that have not yet been characterized as Resources or Reserves and that Colquiri, an operating mine with a track record of replenishment, would present a relatively low level of risk for a willing buyer*” (CPHB, ¶ 25). This is incorrect.
66. One, as Dr. Rigby explained at the Hearing, none of the transactions on which RPA bases its conclusions (some of which Dr. Rigby was involved in) are comparable to the acquisition of the Mine Lease in 2012, because most of the assets in question (i) had gold, silver or uranium (which are considerably more expensive than tin or zinc, which none of those other assets had), (ii) unlike Colquiri, were greenfield and/or open-pit projects; and (iii) were considerably larger in size than Colquiri. Additionally, none of the assets are in Bolivia and Claimant has provided no evidence showing that any of them were subject to a lease agreement. All of this shows that, unlike Colquiri, the assets mentioned by Claimant presented a great upside. For that reason, the purchasers departed from the industry standards and paid for undiscovered and unmeasured resources, making a business gamble. However, it is not reasonable to assume that a *prudent* and diligent willing buyer would have made such gamble with the Mine Lease. As Mr. Eskdale explained during the Hearing, Glencore had not done so in 2005 (“*[W]e’re not taking chances with company money*” (D1:P172-173:1-2)). Neither should the Tribunal.
67. Two, Mr. Eskdale’s allegations at the Hearing that Claimant paid for un-delineated resources are contradicted by the memo that he sent to his superiors in 2004 recommending the acquisition of the Mine Lease, where he states 3 times that he did not “*place any value*” on the potential to extend Colquiri’s mine life (C-196, pp. 1-3).
68. *Fourth*, in an attempt to validate RPA’s unsupported mineable material “*estimate*”, Claimant turns to *ex post* information, *i.e.* hindsight. Claimant argues that “*the parties presented data at the Hearing regarding Colquiri’s post-May 2012 operations that proves that it is reasonable that Colquiri would have continued to replenish minerals through 2031 but for Bolivia’s measures*” (CPHB, ¶ 29). Claimant argues that *ex post* information shows that the “*Mine has added an*

average of 800,000 tonnes of Reserves per year between 2012 and 2020” and that, at such rate, the Mine would have been able “to sustain increased production levels through 2031” (CPHB, ¶ 29). This is also misleading.

69. *In limine*, given that the Parties agree to an *ex ante* valuation, *ex post* information is irrelevant because a willing buyer would not have had access to it.
70. Additionally, the problem with relying on *ex post* information to value the operation of an asset as complex as the Mine is that, to make an apples-to-apples comparison, the valuator would have to conduct a detailed analysis of the *ex post* operation of the Mine and consider all available information to ensure that pre and post-date of valuation operations are compared on a consistent basis (*i.e.*, like for like) (D1:P110-P113:L13-7).
71. Yet, Colquiri’s post-2012 operations (under the State’s control) are substantially different from, and not comparable to Colquiri’s operations prior to 2012. For instance, post-reversion Colquiri almost tripled the number of employees (from 458 employees in 2011 to 1,249 employees by 2014), invested 3.3 million Euro to purchase the Zitrón winze (to replace the obsolete San José winze), and invested US\$ 3.4 million to carry out a large and ambitious exploration program, among others, all of which allowed Colquiri to delineate new resources and reserves and to increase its production (Flores II, footnote 51; **R-449; R-450; R-38**). Additional data generated by exploration was not available as of the valuation date. As explained by Dr. Rigby (and confirmed by Mr. Lazcano at the Hearing), as of that date, “*there ha[d] been little to no exploration work*” (SRK I, ¶ 43; D2:P279:L1). This is consistent with Glencore’s history of underinvestment in Colquiri, and with Glencore’s assignment of the Rosario vein, in early June 2012, to the *cooperativistas*.
72. Therefore, Glencore cannot rely on the *ex post* reality to confirm the reasonability of its mineable material estimate (or any other) as of the valuation date. If anything, *ex post* data confirms that Claimant’s valuation of the Mine unduly underestimates costs and inflates revenues.
- 2.3 Claimant’s PHB confirms that, as of the valuation date, a willing buyer would not have assigned any value to the Old Tailings Project as its feasibility had still not been proven after over 40 years of preliminary studies**
73. Claimant conveniently assumes that, right after the reversion, it would have implemented an Old Tailings Project that would have operated at full capacity of 3,000 tpd (*i.e.*, 300% of Colquiri’s actual production before the reversion) within only 2 years. As Bolivia explained in its PHB, as of 2012, more than 40-years after the Old Tailings Project was first evaluated, it had still not been implemented by any operator (Bolivia, Comsur, or Claimant). Hence, a diligent and informed willing buyer would consider that the Old Tailings Project’s feasibility is not established and, as a result, would ascribe no value to it.

74. Cognizant of the weakness of its claim, in its PHB, Claimant attempts to salvage it in 2 improper ways:

75. *First*, by citing short extracts of Dr. Rigby’s testimony without any context. This is how Claimant mischaracterizes Dr. Rigby’s testimony by claiming that he admitted that the Old Tailings Project was feasible, and that Claimant had begun implementing it before the valuation date (CPHB, ¶ 31). This is false.

76. One, as the following extract from Dr. Rigby’s testimony shows, Claimant misleadingly attempts to pass Dr. Rigby’s description of the contents of the 2004 Feasibility Study as if it were Dr. Rigby’s own expert opinion:

Q. And the [2004 Feasibility Study] then says they consider the Project to be feasible; correct?

A. Hold on, but there--I see the statement there, but, you know, if I had been writing that, I would—first of all, “feasible.” What is it? Technically feasible? Yeah, we can do it. Physically, we can do it. But is it economically viable? That's why I never, when I'm doing reports, when we're doing studies like these, the final conclusion is the results of the work, our work confirm that this project is both technically feasible--i.e., we can do it technically and practically--and economically viable; i.e., we can get an acceptable return on the capital investment from the Project. That's a difference. That's maybe how things have changed (D4:P626:L1-15).

77. Dr. Rigby’s full answer confirms that he does not consider the 2004 Feasibility Study to be evidence that the Old Tailings Project was really feasible, since no action was taken on it.

78. Two, Dr. Rigby acknowledged that a document prepared by Sinchi Wayra in January 2007 (C-315) states that Sinchi Wayra had spent US\$ 1.2 million on the Project in “*preparatory works and drilling*”. However, Dr. Rigby also noted that the amount spent “*was a tiny fraction of the Capital Costs to implement the Project*” (D4:P629:L8-19), which the same document puts at US\$ 26 million (C-315, p. 3). Additionally, Sinchi Wayra’s January 2007 monthly report notes that the US\$ 1.2 million “*includes all costs which occurred from October 2004 until [...] February 2007*” (R-428-5, p. 11) (that is, it includes investments by Sinchi Wayra *before* being acquired by Glencore in March 2005). For what we know, it may even include the costs of the 2004 Feasibility Study.

79. At the Hearing, when asked a similar question about the Sinchi Wayra’s January 2007 Management Report, Dr. Flores explained that the works that Claimant argues would prove the implementation of the Project in reality show that it was still studying its feasibility:

Q. Would you agree--would you agree with me that works had already started--started--in relation to the Tailings Project as of January 2007?

A. What I see here is that there is some movement in January 2007 whereas the prior document [QE-58, p. 11] said that everything should have been completed by January 2007. So, you're not only accumulating a huge delay, and at end of the day what this is saying is that there's only an additional AFE of \$60,000 for drilling costs. To me, what drilling cost means, it's still exploration. You have to do drills to see really how much mineral there is. It needs to convert everything into Approved Reserve or Approved or Probable Reserve. So, that's the status at which the Project was in January 2007. They're still drilling. That's not--that's not development of the Project, that's still exploration about whether it's feasible. You don't know whether the Project is feasible until you have enough samples throughout the site so that you are able to see what you're dealing with and what is really economically feasible or not (D5: P581-582:L9-3, emphasis added; R-518, p. 11).

80. In its PHB, Claimant states that it “invested over one million dollars in the development of the Project prior to its taking in May 2012” (CPHB, ¶ 33). By omitting specific dates, Claimant misleadingly attempts to create the impression that it invested in the Project continuously. This is not true. Claimant has not produced any evidence showing that it invested any more capital in the Project after January 2007 (*i.e.* 5 years prior to the date of valuation), which a willing buyer would see as a red flag.
81. Additionally, Claimant’s May 2011 IPO Prospectus shows that, at the time, Glencore was still evaluating the Project, not implementing it (“*The plan is currently being considered further by management, but such a plan is expected to include a project to reprocess old tailings containing significant levels of zinc and tin at the Colquiri mine*”, R-193, p. 87). As Dr. Rigby (who has prepared several Competent Person’s Reports for IPOs (D4:P635:L10-18)) explained, the IPO Prospectus confirms that, at the time, Glencore was still evaluating the Project’s feasibility (“*when I read that and interpret it [...] clearly, the Plan is currently being considered further by management, period. [...] I don't see that that's any statement of commitment or implementation. It's being considered further by management*” (D4:P635-637:L15-1)).
82. Glencore’s 2011 Annual Report includes tailing plants at other mines that, at the time, were operating or developing projects (*i.e.* on which a decision had been made to go forward with the project). However, Claimant did not report the Old Tailings Project at Colquiri. None of Glencore’s contemporaneous documents mention the Project either (*i.e.*, the Triennial Plan, the March 2012 Plan, and the 2012 Budget). Thus, contrary to Claimant’s contentions, as of the valuation date it had not approved or implemented the Project.
83. *Second*, Claimant states that, at the Hearing, Dr. Rigby admitted that the Old Tailings Project had “*some value*”. Additionally, Claimant states that, based on the 2004 Feasibility Study, it paid US\$ 31.8 million for the Project in 2005. On this basis, Claimant argues that, at a minimum, it “*should be awarded the price it paid in March 2005 [...] indexed for inflation to the date of taking in May 2012 for a total of US\$38.3 million*”, *i.e.*, its sunk costs.

84. In limine, Claimant’s request to be awarded, at a minimum, its alleged sunk costs for the Old Tailings Projects constitutes a belated new claim (which is inadmissible at this late stage of the proceedings) and for which, in any event, Claimant has provided no legal basis. As a result, it must be dismissed outright by the Tribunal.
85. One, contrary to Claimant’s assertions, Dr Rigby did not testify that the Old Tailings Project had “some value”. Claimant is citing Claimant’s own words. During his examination, Dr. Rigby explained:
- A. I do not assign the Assets zero value. I concluded that there were serious uncertainties and issues with the old Tailings Project which [...] tested or questioned the economic viability of the Project. My understanding is that, because of those concerns and the fact that I couldn’t demonstrate economic viability, [...] Quadrant Economics ascribed zero value [...].*
- Q. So, Dr. Rigby, if I'm understanding you, it sounds like you would attribute some value to the Tailings Project, but you're just not certain how much?*
- A. I certainly don't know how much, and I stand by my opinion that I think there are sufficient issues that questioned the economic viability of the Project (D4:P621-622:L12-4, emphasis added).*
86. Two, as Dr Rigby explained at the Hearing, “irrespective of what Glencore paid for [the Project], [...] it had been evaluated since 1978; and, as of today [...] it has not been implemented. Now, there has to be genuine reasons why it’s not being implemented, and what I tried to do in my valuation was identify areas of uncertainty which collectively posed the question: Is that project economically viable? And the fact that nobody had implemented it is no coincidence, in my opinion” (D4:P622:L5-15). Claimant’s lack of implementation of the Old Tailings Project during the 7 years between its purchase and the Reversion confirms that the Project was not feasible. Had it really paid for this project, then Claimant simply made a bad business decision for which investment arbitration is not an insurance.
87. Three, in its Reply on Quantum, Claimant admitted that the price that it (allegedly) paid for the Assets “has no bearing on the price a willing buyer would pay for those investments several years later” (Reply on Quantum, footnote 61). This is consistent with Dr. Flores’s testimony at the Hearing (“valuations are forward-looking. You don’t look at what happened eight years earlier. You look at what’s going to happen next” (D5:P772:L4-7)). If, nevertheless, comparisons were to be made, they must be rigorous (unlike Claimant’s) and account for all the relevant changes in the market conditions and the Assets’ operations (Flores Direct, Slides 15, 16).
88. Four, in any event, as Dr. Flores explained at the Hearing, there is no evidence of how much Claimant actually paid for the Old Tailings Project or any of the Assets (D5:P819:L7-21).

89. Five, if purchase price were of any relevance to a willing buyer (*quod non*), it is not surprising that Claimant did not refer in its CPHB to the price it allegedly paid for the Mine Lease. Claimant states that it paid US\$ 61.7 million for the Mine Lease in 2005. Yet, as of the valuation date (with 8 less years remaining in the Mine Lease, after exploiting the Mine for 8 years and having assigned the Rosario Vein to the *cooperativistas*, and after Bolivia passed in 2007 a new income (of 12.5%) for the mining industry), Claimant disingenuously pretends that the Mine Lease would be worth 3.5 times more than what it allegedly paid (Flores, Slide 16).

90. As a result of the foregoing, the Tribunal must conclude that (i) Claimant has not discharged its burden of proof with respect to the technical and economic feasibility of the Old Tailings Project, and (ii) as of the valuation date, a willing buyer would not assign any value to it.

3. CLAIMANT INSISTS ON VALUING VINTO FROM A SELLER'S ONLY PERSPECTIVE AND FAILS TO ADDRESS THE EVIDENCE ABOUT VINTO'S HISTORICAL PERFORMANCE (INCLUDING UNDER GLENCORE'S MANAGEMENT), WHICH ANY DILIGENT AND INFORMED WILLING BUYER WOULD HAVE CONSIDERED

91. Claimant's PHB confirms that Claimant would be unjustly enriched (i) [REDACTED] and (ii) by valuing Vinto from a seller's only perspective.

3.1 [REDACTED]

92. [REDACTED]

93. [REDACTED]

94. [REDACTED]

95.

[REDACTED]

96.

[REDACTED]

97.

[REDACTED]

98.

[REDACTED]

3.2 Claimant’s PHB reflects a seller’s only valuation of Vinto and ignores the evidence that a diligent and informed willing buyer would have considered to calculate Vinto’s FMV

99. It is undisputed that Vinto’s FMV must be objectively determined based on the willing buyer standard (Agreed Outline of Issues prior to the Hearing, No. 2), yet Claimant refuses to apply such standard. The CPHB adopts a new approach and seeks to “anchor” the US\$ 51.6 million Glencore

allegedly paid for Vinto in March 2005 as the starting point for Vinto's valuation as of February 2007 (CPHB, ¶ 37). Claimant's attempt must be rejected outright for the following reasons:

100. *First*, as Dr. Flores explained at the Hearing, there is no evidence of the price actually paid by Glencore for Vinto or any of the Assets in 2005 (D5:P819:L7-21). It should be undisputed that Claimant bears the burden of proving the price it paid (and has all the information to do so). Yet, Claimant has withheld such evidence. Any reference to the purchase price purportedly paid by Glencore is, thus, unsupported, and speculative.
101. *Second*, Claimant's newfound reliance on the price it allegedly paid for Vinto in 2005 as a frame of reference (*i.e.*, by assessing whether value increased or decreased after 2005) to assess Vinto's FMV as of February 2007 is not only misplaced but in direct contradiction with its own position in this Arbitration. Per Claimant's own admission in its Reply on Quantum, "*Glencore Bermuda's purchase price has no bearing on the price a willing buyer would pay for those investments several years later under different assumptions regarding the Investments' prospects for future profits*" (Reply on Quantum, footnote 61). Indeed, no diligent and informed willing buyer would take the 2005 purchase price at face value to determine its offer price in 2007 (that is, 2 years later, during which Vinto was operated with the same equipment and without any capital investment, exhausting the equipment to the point it could not even process all the acquired concentrates, and under very different economic and political conditions). A diligent and informed willing buyer would have conducted its own due diligence of Vinto's production capacity as of February 2007 to project its future cash-flows (considering all historical information available as of the valuation date, as discussed *infra*). Thus, it is not Bolivia's burden – contrary to Claimant's allegations – to justify the evolution of Vinto's FMV *compared to Glencore's purported acquisition price since 2005*; this is the wrong frame of reference as Claimant itself conceded.
102. Even assuming that Glencore had paid US\$ 51.6 million for Vinto in 2005 (*quod non*), actual data and Claimant's own contemporaneous documents show that Glencore likely overpaid. Glencore's alleged DCF model for the acquisition of the Assets (C-311, Tab "Vinto") compared to post-acquisition data shows that Glencore overestimated Vinto's future performance when it calculated the alleged purchase price in 2005. At the time, Glencore projected that Vinto would process over 30,000 tonnes of tin concentrate (Row 13) and produce 16,000 tonnes of tin ingots per year (Row 17). However, it is undisputed that, under Claimant's management in 2005 and 2006, Vinto only processed 24,995 and 25,277 tonnes of concentrate respectively to produce 11,400 tonnes of ingots (RPA-55bis; D4:P563:L5-6, Rigby Direct). Glencore's alleged purchase price is thus not a reliable proxy for any FMV assessment of Vinto. There is no need for Bolivia to "*identify specific circumstances that would justify the decrease in value [between 2005 and 2007]*" (CPHB, footnote 58).

103. *Third*, even assuming that the price allegedly paid by Glencore in 2005 were relevant to value Vinto as of February 2007 (which is denied), the macroeconomic and political changes in Bolivia between 2005 and 2007 impacted investment outlooks and thereby Vinto’s valuation in the eyes of a willing buyer. As Bolivia explained in response to Prof. Gotanda’s question: “[In] 2004, whatever outlook Glencore may have made of the politics and how the State would change is different from what someone would do in early 2007. [In 2006], the [MAS] Party had [recently] gotten into power. Policies were in place. It was early on, and I think there was a lot of uncertainty and concern out there for what the future of Bolivia [would] look[] like. The m[a]croeconomic policies ultimately were – [have] been very success and praised by, as you know, even the multilaterals. So, that would have led to a different assessment in the 2007” (D5:P901:L10-20).
104. Dr. Flores also explained that “[t]he valuation that we do for Vinto as of 2007 is affected by the uncertainty surrounding the moment of having a new government with uncertain knowledge about what kind of economic policies it would pursue going forward” (D5:P786:L5-16).
105. Moreover, Bolivia also pointed to “what happened at the sources of [Vinto’s tin concentrate] supply. [...] for example, Huanuni was for a long time a very strong supplier of [Vinto]. Huanuni went through, we understand significant [problems] back in 2006. So, that is something a willing Buyer would have considered that was not there back in 2004” (D5:P901:L21-P902:L2). Any willing buyer would consider that such issues and uncertainty at one of Vinto’s main tin concentrate suppliers would put a strain in its supply and production chain and negatively impact its cash flow projections as of February 2007.
106. *Fourth*, also assuming that the 2005 purchase price allegedly paid by Glencore could serve as a reference to calculate Vinto’s FMV in 2007 (*quod non*), Claimant’s reference to the increase in tin prices between 2005 and 2007 (CPHB, ¶ 37b) to justify a material increase in Vinto’s value is ill-advised. The fluctuation of tin prices is a *non sequitur* for valuing a smelter, because tin is both an output and an input to the smelting business (unlike for a tin mine).
107. As Dr. Flores explained, “[s]melters do not acquire more value when prices go up because their costs are [also] going up” (D5:P774:L1-2, Flores Direct and Slide 19). Indeed, smelting “[is] a different business because what you sell you’re going to make more revenue when the metal prices are higher, but your costs also go up because your input is the concentrate. And when metal prices are higher, concentrate prices go higher as well. [...] Higher prices do not mean more value necessarily for a smelter” (D5:P773:L8-17, Flores Direct).
108. This is precisely what Glencore explained [REDACTED]
[REDACTED]
[REDACTED]

tin concentrate per year to produce 11,720 tonnes of ingots per year from 2007 until 2026 (as forecasted by Dr. Flores) because:

114. One, as Dr. Rigby pointed out at the Hearing, “*the production rate of tin ingots was relatively flat throughout the privatization periods [2000 to February 2007], levels approximately 20 percent below those projected by RPA and Compass Lexecon*” (D4:P564:L24-P565:L3, Direct). Indeed, any willing buyer would have seen that Vinto was the same “*ghost plant*” acquired by Glencore in 2004 (**C-310**), with only 3 smelting furnaces from the 70s that had not received any capital investment since 1997 (D3:P412:L23-P413:L7, Villavicencio Cross; Villavicencio I, ¶ 36) and could not even process all the tin concentrates it acquired in 2005 and 2006 (D2:P229:L4-17, Eskdale Cross; Figure 12 of Flores II; **R-401bis**).
115. Two, as Eng. Villavicencio – the only witness with direct knowledge of Vinto’s operations – confirmed at the Hearing: “*definitely there was no plan or budget [by Glencore] to increase the production of metal*” (D3:P416:L19-20, Cross). Because Eng. Villavicencio’s testimony at the Hearing is fatal to its case, Claimant did not make a single reference to him in its PHB. Instead, Claimant refers to Mr. Lambert, of RPA, who never visited Vinto, to argue that in 2007 Vinto would have had the capacity to produce 14,000 tonnes of ingots per year, and that it was allegedly in the process of optimizing its operations to achieve that output (CPHB, ¶ 38). Yet, Mr. Lambert admitted on cross-examination that the optimization projects had already been implemented before 2006 (**RPA-53**) and only increased production in 2006 by 0.578% (D4:P518:L15-19, Cross).
116. Three, as Dr. Rigby explained, “*there’d been a consistent trend of increasing operating costs per unit of tin production*” in 2005 and 2006 (**RPA-19; RPA-20; RPA-21**; Table 11 of RPA I), that is, the opposite of the economies of scale assumed by Compass Lexecon.
117. Four, Claimant did not make any capital investments to expand Vinto’s operations in 2005-2006 nor planned to do so as of February 2007 (PHB, ¶ 109 and D2:P234:L14-15, Eskdale Cross). Although Claimant now conveniently argues that, “*by the date of the taking, it had approved a US\$2.3 million budget for 2007 to complete projects to improve the Tin Smelter and increase its output*” (CPHB, ¶ 38), Claimant’s experts had initially not included any expansion CAPEX to increase production by 22% (D4:P513:L1-19, RPA Cross). It was only after Bolivia noted the absurdity of this proposition and the fact that RPA and Compass Lexecon had ignored the CAPEX planned by Glencore itself that Claimant instructed its experts to include additional CAPEX on the eve of the Hearing. In any event, neither Claimant nor its experts have demonstrated how US\$ 2.3 million in CAPEX for the acquisition of parts for routine maintenance of the existing smelting furnaces, a forklift, a new ambulance, and physiotherapy equipment for personnel (**QE-72**, p. 82) would justify a 22% increase in production. At most, such budget would maintain the existing production rate of 11,400 tonnes of tin ingots per year, as explained by Dr. Flores.

118. Five, there was “*significant*” and “*noticeable*” contamination flagged by Glencore at Vinto (**C-310**). Claimant has failed to demonstrate that a willing buyer would be satisfied with the US\$ 5.5 million provision for remediation in Vinto’s 2006 Financial Statements, whereas Dr. Rigby has shown that a willing buyer would have factored in costs of, at least, US\$ 23.2 million (PHB, ¶¶ 134-136).

119. In light of the foregoing as well as all the arguments developed by Bolivia in its written submissions and at the Hearing, the Tribunal must conclude that Bolivia does not owe any damages to Claimant for Vinto.

4. CLAIMANT’S PHB CONFIRMS THAT ITS VALUATION OF THE ANTIMONY SMELTER IS GROSSLY INFLATED AS IT DISREGARDS ITS OBLIGATION TO REMEDIATE THE EXISTING CONTAMINATION

120. The CPHB disingenuously argues that the Antimony Smelter’s land has value and that “*Bolivia provided no evidence of the[] alleged remediation obligations and costs*” (CPHB, ¶ 5; see also footnote 66; Claimant’s letter to the Tribunal of 17 November 2021). Claimant is mistaken. Bolivia has established that no willing buyer would assign any value to the Antimony Smelter given the existing contamination at the site (**C-310**) and Claimant’s remediation obligations (Statement of Defense, Section 7.3.6; Rejoinder on Quantum, Section 4.3; PHB, Section 4):

121. *First*, in Section 4.3.3.2 of the Rejoinder on Quantum and in its PHB, Bolivia explained that: one, per the 2009 Constitution, operators of environmentally risky activities (such as, smelting) are obligated to remediate the environmental harm caused (**C-95**, art. 347); two, Claimant failed to prove that the “*significant*” and “*noticeable*” contamination it had observed in 2004 (**C-310**) and was observed again by Ms. Russo in 2019 (Russo II, ¶ 3.4.8) would have been caused prior to its acquisition of the Antimony Smelter (**R-523**, art. 16); three, Claimant has not established that Comsur performed an environmental baseline study in 2002. Consequently, Comsur assumed liability for any existing contamination (**C-9**, clause 10.1); and four, Claimant did not perform a baseline study either when it acquired the Antimony Smelter from Comsur, rather it expressly waived “*rights*” and “*claims for contribution or other rights of recovery arising out of or relating to any Environmental Laws*” (**C-198**, p. 32), thereby assuming liability for the environmental remediation at the Antimony Smelter regardless of when it was caused. Claimant has not rebutted these obligations.

122. *Second*, Bolivia does not have the burden of quantifying the remediation and demolition costs beyond showing that they exceed Claimant’s estimated FMV (CPHB, ¶ 41). Bolivia has shown that remediation and demolition costs are higher than the US\$ 1.9 million residual value of the Antimony Smelter estimated by Claimant’s expert (SRK, ¶ 114; Flores, ¶¶ 127-128).

123. At the Hearing, Dr. Rigby explained that “*to achieve any real-estate value[, the Antimony Smelter] would require excavation, removal and capping, disposal of the excavated material, and then demolition of all buildings” and that “*the costs of this work was likely to be greater than the value of the land [...]*” based on: one, Claimant’s own due diligence describing “*significant*” and “*noticeable*” contamination (C-310); two, his 47 years of experience, during which he “[*has*] *actually been involved with smelters in different parts of the world being closed, and we’ve researche[d] costs, estimates*” (D4:P641:L17-P642:L3, Cross, emphasis added); three, photographic evidence of his site visit in 2017 “*that I put in my First Report [at pp. 17-18 showing that] [i]t’s just derelict, [...] abandoned, it had been broken into, a lot of things stolen, just a derelict set of buildings*” (D4:P567:L18-P568:L4, Direct) as well as four, the example of Asarco’s Everett Smelter US\$ 44 million clean-up (SRK II, ¶ 108). Claimant did not even address this evidence at the Hearing.*

124. The Tribunal must, therefore, find that any diligent and informed willing buyer would conclude that the Antimony Smelter is a liability and lacks commercial value.

5. CLAIMANT’S PHB CONFIRMS THAT ITS INTEREST CLAIM IS GROSSLY INFLATED

125. The Tribunal’s Question No. 1 asked whether interest rates “*published by the Central Bank of Bolivia for commercial loans denominated in US dollars granted by banks to corporations in Bolivia*” (Reply on Quantum, ¶ 177), proposed by Claimant, should be applied as fixed or variable rates. Bolivia opposes the application of such rates and reiterates that among all possible rates applicable in Bolivia, the Tribunal should apply a risk-free rate, such as a rate equivalent to the 6-month or 1-year yield of US Treasury Bills. Bolivia refers to its prior submissions and restates that interest should be compensatory, *i.e.* should only compensate Claimant for the time value of money and not for risks associated with the operation of the Assets, which Claimant ceased to bear after the reversions (Rejoinder on Quantum, Section 5.1.1).

126. Claimant has replied to the Tribunal’s Question No. 1 by defending the use of the rates published by the Central Bank of Bolivia as of the valuation dates of each of the Assets (with the exception of the Antimony Smelter) as fixed rates.

127. Bolivia maintains that Claimant’s position is as inconsistent with Claimant’s own compounding of interest as it is self-serving: the sensitivity provided by Claimant shows that using a fixed rate increases Claimant’s interest claim by US\$ 8.1 million, as opposed to using average rates from the valuation dates to the date of the award (CPHB, ¶ 48).

128. Claimant argues that international tribunals frequently apply fixed rates for the entire relevant period, but this is highly contingent on the facts of the case. The caselaw cited by Claimant shows

that tribunals used a fixed rate because the rate was either undisputed (*OKO v. Estonia*, **RLA-79**, ¶ 355), had been previously agreed by the parties in a promissory note (*ADC v. Hungary*, **CLA-64**, ¶ 521) or was a proxy rate created by the tribunal (*Vivendi v. Argentina*, **CLA-70**, ¶ 9.2.8). Here, Claimant argues for the fixed application of a rate that is by definition variable.

129. Claimant also refers to the interest rate applied by the tribunals in *Rurelec* and *South American Silver*. Bolivia has previously demonstrated that both decisions are inherently contradictory, as they hold that interest rates should not compensate investors for risk they have not borne, but nevertheless award interest at risked rates (Rejoinder on Quantum, ¶¶ 885-892). In *Rurelec*, the tribunal decided that applying the claimant’s proposed rate would include “*an ex ante allowance for forward-looking business risks which should not be applied ex post, since Rurelec has not faced them since May 2010*” (**CLA-120**, ¶ 615). In *South American Silver*, the tribunal held that applying a risked rate “*would be inappropriate – and, moreover, speculative given the circumstances of the case in light of the uncertainty of how each investor may invest the funds*” (**CLA-252**, ¶ 889). The rates published by the Central Bank of Bolivia, however, account for the risks related to the product that generated those interests: loans granted to Bolivian companies, which operate in Bolivia and are exposed to risks related to such operations (Rejoinder on Quantum, ¶ 889).
130. Claimant presents 3 reasons to justify the application of a fixed rate, all of which are unavailing:
131. *First*, Claimant argues that the use of a fixed rate is consistent with the *ex ante* valuation approach. Yet, the financial product generating any interest payments in this case would be the Tribunal’s award. Accordingly, the interest rate is necessarily applied *ex post* to bring a past value to the award payment’s date.
132. *Second*, Claimant asserts that the fixed rate is consistent with economic reality as Bolivia generally borrows money at a fixed rate. As Bolivia has previously argued, this position is inconsistent with the principle that, under international law, compensation should repair the harm actually suffered by *the victim*, which is unrelated to the perpetrator of the allegedly wrongful act. As such, compensatory interest should not be equated to a State’s borrowing rate (Rejoinder on Quantum, ¶ 905). Claimant’s proposed comparison would lead to the award on interest being totally dissociated from Claimant’s alleged loss.
133. *Third*, Claimant states that averaging the rates would reward Bolivia for its “*decade-long*” delay in providing compensation and would disincentivize payment. This consequential argument is disingenuous as it fails to consider that both Parties engaged in good faith negotiations for ten years before this Arbitration commenced (Rejoinder on Quantum, ¶ 892). Claimant’s interest

claim, in fact, asks the Tribunal to penalize Bolivia for engaging in these negotiations through the application of unjustifiably high interest rates.

6. CLAIMANT’S PHB CONFIRMS THAT ANY COMPENSATION AWARDED TO CLAIMANT (QUOD NON) SHOULD NOT BE EXEMPT OF APPLICABLE TAXES

134. Claimant responded to the Tribunal’s Question No. 2 (to comment on a statement by the *Crystallex* tribunal rejecting a request for an award exempt of taxes) by (i) stating that the Parties have agreed on the applicable taxes and deducted them from the Joint Models; (ii) referring to case law in which tribunals have provided awards net of taxes; and (iii) describing Bolivia’s objection to its request as “*untimely*” and “*misplaced*” (CPHB, Section III.B).

135. *First*, the fact that the Parties have agreed on the impact of the taxes included in the DCF calculations for Colquiri and Vinto only emphasizes the speculative character of Claimant’s request. Claimant is seeking compensation for future hypothetical damages that may not materialize, and such claim is barred by international law.

136. *Second*, the case law cited by Claimant is either (i) comprised of awards issued against Venezuela in circumstances that are particular to the Venezuelan political context (**CLA-133**; **RLA-203**; **CLA-131**; **CLA-113**; **RLA-65**); (ii) provides no reasoning regarding the tax exemption, as it is only stated in the operative part of the award (*Siemens v. Argentina*, **CLA-67**, ¶ 403.11); or (iii) is disingenuously misquoted by Claimant, such as the *Burlington* decision. The tribunal in *Burlington v. Ecuador* stated that it:

*agrees that the amounts awarded to Burlington in this Award are net of income and labor participation taxes, and that Ecuador may not impose or attempt to impose these taxes on the Award. By contrast, the Tribunal is unable on the record before it to make a general declaration about “all taxes”, as Burlington has not sufficiently substantiated this request (**CLA-134**, ¶ 547, emphasis added).*

137. Accordingly, the tribunal in *Burlington* issued an award net of only the specific taxes that had been computed in the cash flows and did not grant the general tax-exemption that Claimant requests (**CLA-134**, ¶ 635.C.2).

138. Bolivia reiterates that the ruling of the *Crystallex* tribunal has recently been affirmed by several other tribunals, such as *Eiser v. Spain* (**CLA-226**, ¶ 456) and *RREEF v. Spain* (**RLA-214**, ¶ 55), which have rejected requests similar to Claimant’s due to their speculative and premature character.

139. *Third*, although Claimant alleges that Bolivia’s objection is belated, Claimant did not establish a case for a tax-exempt award in its prior submissions. The fact that Claimant’s alternative request for an order “*to gross up the amount of compensation paid so that the net compensation received by Glencore Bermuda corresponds to the damages awarded by this Tribunal*” was presented to

the Tribunal for the first time in its CPHB (¶ 63) demonstrates that Claimant has developed this specific claim only at the end of these proceedings.

140. *Finally*, Bolivia reiterates that taxation is an essential attribute of sovereignty, and that the Tribunal cannot prevent the State from levying lawful taxes over amounts awarded to Claimant consistent with its own laws of general application. For instance, an award exempt of all taxes could facilitate tax evasion, considering that it would prevent Bolivia from collecting *any* taxes, including those that may be currently owed by Claimant (and its group of companies) to the State and which have not been considered in the Parties' submissions nor in the Joint Models.

7. PRAYER FOR RELIEF

141. Bolivia hereby incorporates the Prayers for Relief as contained in its Statement of Defense of 18 December 2017, its Rejoinder on the Merits of 24 October 2018 and its Rejoinder on Quantum of 8 June 2020.

142. In the event that:

- a. the Tribunal finds that it has jurisdiction over Claimant's claims and that such claims are admissible; and
- b. the Tribunal upholds the merits of some or all of Claimant's claims,

143. Bolivia respectfully requests the Tribunal to:

- a. DECLARE that Claimant has failed to demonstrate it has suffered damages that are certain, and thus DISMISS all of Claimant's requests for compensation (including Claimant's new request to be awarded, at a minimum, its alleged sunk costs for the Old Tailings Project);
- b. Should the Tribunal find that Claimant has suffered damages that are certain, DECLARE that Claimant's own conduct caused the reversion of the Assets (thus severing the chain of causation) and, thus, REJECT any compensation for the Assets' alleged expropriation; and REJECT any compensation request in relation to Claimant's FET and FPS claims, as Claimant has offered no causation analysis in support of said claims;
- c. Should the Tribunal find that Bolivia was responsible for Claimant's damages, DECLARE that any compensation due to Claimant is limited to that calculated by Bolivia's experts;
- d. REDUCE any compensation due to Claimant for the reversion of Vinto by [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] and

- e. REDUCE any compensation due to Claimant by, at least, 75% for the Colquiri Mine and the Antimony Smelter, and 50% for the Tin Smelter on account of Claimant's material contribution to its own losses.
144. In the event the Tribunal decides to award interest on any compensation owed to Claimant, Bolivia respectfully requests that simple interest be awarded at a risk-free rate. Should the Tribunal award interest at a rate rewarding risk, the rate should not be higher than US LIBOR (or its equivalent) +1%.
145. In the event any compensation is awarded to Claimant, Bolivia respectfully requests the Tribunal to REJECT the request for an award exempt of taxes and to REJECT Claimant's request to gross up the amount of compensation.
146. Finally, Bolivia respectfully requests that the Tribunal
- a. ORDER Claimant to reimburse Bolivia all costs and expenses incurred in this arbitration, including interest thereon due and payable from the date Bolivia incurred such costs and expenses until the date of full payment; and
 - b. ORDER any other relief as the Tribunal may consider appropriate.

Respectfully submitted this 13th day of December 2021

Dechert (Paris) LLP

Dechert (Paris) LLP