Neutral Citation Number: [2024] EWHC 2566 (Comm)

Case No: CL-2022-000264

IN THE HIGH COURT OF JUSTICE
BUSINESS AND PROPERTY COURTS OF ENGLAND AND WALES
COMMERCIAL COURT (KBD)

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 10/10/2024

Before :

THE HON MR JUSTICE BUTCHER

- -

Between :

(1) BM BRAZIL I FUNDO DE INVESTIMENTO EM PARTICIPAÇÕES MULTISTRATEGIA
(2) BM BRAZIL 2 FUNDO DE INVESTIMENTO EM PARTICIPAÇÕES MULTISTRATEGIA
(3) ANRH COOPERATIEF U.A. **Claimants**

- and –

(1) SIBANYE BM BRAZIL (PTY) LTD
(2) SIBANYE STILLWATER LIMITED **Defendants**

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Andrew Green KC, Andrew Scott KC and Gayatri Sarathy (instructed by **Kirkland & Ellis International LLP**) for the **Claimants**
Sonia Tolaney KC, James MacDonald KC, Adam Rushworth and Thomas Pausey (instructed by **Clifford Chance LLP**) for the **Defendants**

Hearing dates: 13, 17-20, 24-27 June, 1-3, 10-11 July 2024

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Approved Judgment

This judgment was handed down remotely at 10.30am on 10 October 2024 by circulation to the parties or their representatives by e-mail and by release to the National Archives.

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MR JUSTICE BUTCHER

Mr Justice Butcher :

1. This judgment relates to the trial of liability in respect of the Claimants' claims for declaratory relief and damages in respect of what the Claimants contend to have been the Defendants' wrongful repudiation of two Sale and Purchase Agreements ('SPAs').

2. The principal issue on liability, and the one which took up almost all of the time at the trial, was whether a geotechnical event which occurred at one of the mines which was the subject-matter of one of the SPAs constituted a Material Adverse Effect (or 'MAE'), so as to discharge the Defendants from their obligation to close the transactions. The Defendants contended that it was, the Claimants that it was not.

The Parties

3. Appian Capital Advisory LLP ('Appian Capital'), which is a London-based investment advisor, advises two private equity funds which invest in the metals, mining and infrastructure sector, namely the Appian Natural Resources Fund ('Fund I') and the Appian Natural Resources Fund II ('Fund II'). The Funds are based in Jersey.

4. These funds have invested in two mines in Brazil which are relevant for present purposes (together, 'the Mines'). The first is the Santa Rita Mine, which is a nickel mine located in Bahia State, Brazil. It is the mine with which this trial has been mainly concerned. It is owned by a company known as Atlantic Nickel Mineração Ltda ('Atlantic Nickel'), which is ultimately owned by the Second Claimant ('FIP2'). Atlantic Nickel is a Fund I investment. The other is the Serrote Mine, a copper and gold mine located in Alagoas State, Brazil. It is owned by a company called Mineração Vale Verde do Brasil Ltda ('MVV'), which is ultimately owned by the First Claimant ('FIP1'). It is a combined Fund I and Fund II investment. Atlantic Nickel and MVV are managed by a local team operating in Brazil from an office in Belo Horizonte, which has been called 'Appian Capital Brazil'. Appian Capital Brazil is not a separate legal entity.

5. The Third Claimant is a Dutch cooperative that indirectly holds the shares in the FIPs through several Dutch companies. The Third Claimant is wholly owned and controlled by the two Funds.

6. The Defendants are both parts of a multinational mining and metals processing group, Sibanye Stillwater, which is based in South Africa. The Second Defendant is listed on the Johannesburg Stock Exchange and the NYSE. The First Defendant is a subsidiary of the Second Defendant, and a special purpose vehicle which was established for the purpose of the acquisition of the Mines. Sibanye-Stillwater was originally gold-focused, but came to acquire platinum group metal assets, and from 2019 adopted a strategy to increase its exposure to 'green metals', that is to say metals which are needed for low carbon technologies, including 'battery metals', ie those required for use in batteries for electric vehicles and which include nickel.

The Santa Rita Mine

7. The Santa Rita Mine was acquired by Fund I in 2018. Before that it was owned by an ASX-listed company called Mirabela Nickel Limited ('Mirabela Nickel'). Mirabela Nickel had invested significantly in developing, constructing and operating the Santa

Rita Mine, but had got into serious financial difficulties. Receivers commenced an international sales process of the assets. The Santa Rita Mine was placed on care and maintenance (ie effectively mothballed) in 2016. FIP2 acquired the Santa Rita Mine in 2018 for US$68 million in cash and the assumption of US$47 million of existing debt.

8. Following the acquisition the Santa Rita Mine was re-scoped to be a smaller open pit and work was also undertaken to define and quantify a planned underground mine expansion. The plant was restarted in the summer of 2019 and commissioning was completed in January 2020. Open pit mining at the Santa Rita Mine is projected to continue until 2028.

9. The Santa Rita Mine targets a magmatic nickel deposit located within a layered sequence of intrusive rocks (ie igneous rocks which, whilst molten, were forced into or between other rocks) called the Fazenda Mirabela, which is itself located within a much larger nickel belt.

Appian Capital's Sale of the Mines

10. From late 2020 Appian Capital ran a sales process for Atlantic Nickel and MVV, which ultimately led to the SPAs with the Defendants.

11. Appian Capital and its advisors contacted 106 potential buyers for Atlantic Nickel and 40 potential buyers for MVV. In total, 33 parties signed non-disclosure agreements which permitted them to access confidential information about the assets. One of those interested was Sibanye Stillwater. As part of its exploration of the possibility of buying the assets, there was an in person visit to the Mines by representatives of The Mineral Corporation ('TMC'), Sibanye Stillwater's technical advisers, in July 2021. By September 2021 there were two potential bidders still in contention, Sibanye Stillwater, and Global Battery Metals ('GBM'). Sibanye Stillwater's offer for both assets was of US$1,000 million in cash, plus a 5% net smelter return royalty on the Santa Rita Mine underground expansion.

12. On 1 September 2021 Appian Capital gave Sibanye Stillwater 14 days of exclusivity to negotiate, agree and execute long form documentation. This was subsequently extended to allow additional time to finalise the agreements. Though Sibanye Stillwater had offered a combined sum for both assets, the Mines had different owners. Therefore, a separate SPA was negotiated for each, but they were to be inter-conditional and had to be completed simultaneously.

13. The main commercial terms finally agreed were in line with Sibanye Stillwater's offer described above. Although Sibanye Stillwater had offered a combined price of US$1,000 million, this had to be allocated between Atlantic Nickel and MVV, as the sales proceeds would end up in different hands. The split, proposed by Appian Capital and agreed by Sibanye Stillwater was US$525 million for Atlantic Nickel and US$475 million for MVV.

The SPAs

14. The two SPAs were signed on 26 October 2021.

15. The agreement with which this case is principally concerned is the SPA in respect of Atlantic Nickel ('the Atlantic Nickel SPA'). This named the parties as follows: FIP2 as Vendor; the Third Claimant as Vendor Guarantor; the First Defendant as Purchaser; the Second Defendant as Purchaser Guarantor; and Atlantic Nickel as Subsidiary. Under the Atlantic Nickel SPA, FIP2 agreed to sell to the First Defendant its shares in Atlantic Nickel.

16. The Atlantic Nickel SPA contained, amongst others, the following provisions which are material for present purposes:

'**ARTICLE 1**

INTERPRETATION

…

"**Closing Date**" means the date that is ten (10) Business Days following the date upon which all of the conditions to the purchase and sale of the Corporation Shares set out in Sections 6.1, 6.3 and 6.5 … have been satisfied or waived, or such other date as may be agreed to in writing by the Parties.

…

"**Damages**" means any loss, damage, claim, settlement, award, fine, penalty, fee (including reasonable legal fees), charge, cost or expense actually incurred by an Indemnified Party; *provided*, however, that, except in the case of Third Party Claims, Damages shall not include lost profits, opportunity costs, damages based upon a multiple of earnings or similar financial measure, or consequential, incidental, special, indirect, aggravated, exemplary or punitive damages.

…

"**Group Companies**" means the Corporation [viz Mirabela Participações SA, a company owned by FIP2, and owner of Atlantic Nickel], the Subsidiary [viz Atlantic Nickel] and the Royalty Company [viz AMH (Jersey) Limited] …

…

"**Interim Period**" means the period from the date of this Agreement to the Closing Time.

…

"**Material Adverse Effect**" means any change, event or effect that individually or in the aggregate is or would reasonably be expected to be material and adverse to the business, financial condition, results of operations, the properties, assets, liabilities or operations of the Group Companies, taken as a whole, excluding any such change, event or effect arising out of, in connection with or resulting from (a) general global, national or regional economic, business, political, market, regulatory or social conditions (or changes therein), including in respect of interest or currency rates, inflation or deflation or the financial, credit or capital markets, (b) any change or proposed change in Law (the enforcement, implementation or interpretation thereof), except where such change

or proposed change is in respect of the Corporation or the Subsidiary specifically, (c) any change affecting the mining industry generally or metal or other commodity prices, (d) any change or proposed change in any applicable accounting practices or rules (or the enforcement, implementation or interpretation thereof), (e) any natural or man-made disaster, (f) any epidemic, pandemic, disease, outbreak of illness (including COVID-19), including the worsening thereof, other health crisis or public health event, (g) the commencement or continuation of any war, armed hostilities, civil unrest, including the escalation or worsening thereof, or acts of terrorism, (h) any action by the Purchaser or any of its Affiliates, (i) any action, omission, change, effect, circumstance or condition attributable to or contemplated by the execution, delivery or performance of this Agreement or the announcement of the transactions contemplated in this Agreement (including any adverse effect proximately caused by threatened or actual loss of, or disruption in, any customer, supplier, vendor, lender, contractor, employee, landlord, community or government relationships or loss of any personnel, or by reason of the identity of the Purchaser or any communication by the Purchaser regarding its plans or intentions with respect to the Group Companies or the Project [viz the Santa Rita Mine]), (j) compliance with the terms of this Agreement or Applicable Law (including COVID-19 Measures), (k) any action taken, or failure to take any action, or such other change or event, in each case, to which the Purchaser has consented or requested, or (l) the failure of the Project to meet internal projections, estimates, forecasts or revenue or earning predictions for any period.

…

"**Ordinary Course of Business**" when used in relation to the taking of any action by a Person means that (a) the action is consistent, in all material respects, with past practices of the Person or its business as the case may be, and is taken in the ordinary course of the normal day-to-day operations of the Person or its business, (b) in the case of the Subsidiary, includes the development, construction and operation of mining and processing operations in accordance with the Business Plan and (c) notwithstanding the foregoing, includes any COVID-19 Measures.

"**Outside Date**" means January 14, 2022, or such other date as the Parties agree to in writing.

…

ARTICLE 3

REPRESENTATIONS AND WARRANTIES

…

3.3 No Other Representations and Warranties. The Parties acknowledge and agree that, except for the representations and warranties contained in Sections 3.1 and 3.2, none of the Vendor, the Purchaser or any other Person makes any express or implied representation or warranty on behalf of any of the Vendor or the Purchaser, as the case may be, or any of their respective Affiliates, with respect to the proposed transactions, and each of the Vendor and the Purchaser disclaims any other representations or warranties. For the avoidance of doubt, the Vendor did not give or make any warranty or representation as to, and shall have no indemnification obligation or other liabilities

in respect of, the accuracy or reasonableness of any forecasts, estimates, projections, statements of intent or statements of opinion, whether oral or in writing, provided to the Purchaser, any of its Affiliates, or any of their respective Representatives on or prior to the date of this Agreement, any management presentations (including any questions posed or answers given and any related discussions, whether formal or informal) and any other information made available in the Data Room. The Purchaser acknowledges and agrees that neither the Vendor nor any other Person makes any representations or warranties to the Purchaser regarding the probable success or profitability of the Corporation, the Subsidiary or the Project.

…

ARTICLE 4

THE PURCHASER GUARANTOR AND THE VENDOR GUARANTOR

4.1 The Purchaser Guarantor.

(1) In consideration for the Vendor entering into this Agreement, the Purchaser Guarantor irrevocably and unconditionally guarantees to the Vendor the due and punctual performance of each obligation of the Purchaser contained in this Agreement. The Purchaser Guarantor shall pay to the Vendor from time to time on demand any sum of money which the Purchaser is at any time liable to pay to the Vendor under or pursuant to this and which has not been paid at the time the demand is made. The Purchaser Guarantor's obligations under this Article 4 are primary obligations and not those of a mere surety.

…

ARTICLE 5

CLOSING ARRANGEMENTS

5.1 Closing. The Closing shall take place at 8:00 a.m. on the Closing Date …

…

5.2 Vendor's Closing Deliveries. At the Closing, the Vendor shall deliver or cause to be delivered to the Purchaser, the following documents: [(a) to (n)]

…

ARTICLE 6

CONDITIONS OF CLOSING

6.1 Purchaser's Conditions. The Purchaser shall not be obligated to complete the transactions contemplated by this Agreement, including the purchase of the Corporation Shares, unless, at or before the Closing Time, each of the conditions listed below in this Section 6.1 has been satisfied, it being understood that the conditions in this Section 6.1 are included for the exclusive benefit of the Purchaser. The Vendor shall take all such actions, steps and proceedings as are reasonably within its control as may be necessary

to ensure that the conditions listed below in this Section 6.1 are fulfilled at or before the Closing Time.

(1) *Representations and Warranties.* The Vendor's Fundamental Representations shall be true and correct in each case as of the Closing Date as if made on and as of such date … and the other representations and warranties of the Vendor in Section 3.1 shall be true and correct in each case as of the Closing Date as if made on and as of such date …

(2) *Vendor's Compliance.* The Vendor shall have performed and complied in all material respects with all covenants, conditions and agreements required by this Agreement to be performed or complied with by the Vendor on or prior to the Closing Time …

(3) *Material Adverse Effect.* No Material Adverse Effect shall have occurred since the date hereof.

6.2 Condition Not Fulfilled. If (1) any condition in Section 6.1 has not been fulfilled at the Closing Time, (2) any condition in Section 6.1 has not been fulfilled at the Outside Date or (3) any such condition is, or becomes, impossible to satisfy, other than as a result of the failure of the Purchaser to comply with its obligations under this Agreement, then the Purchaser in its sole discretion may either:

(a) terminate this Agreement by notice to the Vendor

…

6.5 Mutual Conditions. Neither Party shall be obligated to complete the transactions contemplated by this Agreement unless, at or before the Closing Time, each of the conditions listed below in this Section 6.5 has been satisfied, it being understood that the conditions in this Section 6.5 are included for the benefit of both Parties. …

…

(3) *South African Reserve Bank Approval.* The Purchaser obtaining, to the extent required under South Africa laws and regulations, the consent of the Financial Surveillance Department of the South African Reserve Bank for the purposes of any South African applicable exchange control regulations, in respect of Closing.

…

ARTICLE 7

INDEMNIFICATION

…

7.3 Indemnity by the Purchaser. The Purchaser shall indemnify the Vendor's Indemnified Parties and save them fully harmless against, and will reimburse or compensate them for, any Damages arising from, or in connection with:

…

(b) any breach or non-fulfilment of any covenant or agreement on the part of the Purchaser contained in this Agreement.

…

7.16 Remedies. Except in cases of wilful misconduct by a Party or as otherwise specifically provided in this Agreement, the remedies provided in this Article 7 shall be the sole and exclusive remedies (other than specific performance to enforce any payment or performance due under this Agreement) of the Parties from and after the date hereof in connection with any breach of a representation or warranty, or any breach or non-fulfilment of any covenant or agreement contained in this Agreement or the transactions contemplated thereby.

…

ARTICLE 8

COVENANTS

…

8.3 Action During Interim Period

(1) *Operate in Ordinary Course.* During the Interim Period … the Vendor shall cause the Group Companies to operate the Project in the Ordinary Course of Business

…

ARTICLE 10

TERMINATION

10.1 Grounds for Termination.

This Agreement may be terminated on or prior to the Closing Date:

(a) by the mutual written agreement of the Vendor and the Purchaser;

(b) by written notice from the Purchaser to the Vendor as permitted in Section 6.2;

(c) by written notice from the Purchaser to the Vendor as permitted in Section 6.4;

(d) by written notice from either Party to the other Party if the Closing has not occurred on or before the Outside Date

…

10.2 Effect of Termination. If this Agreement is terminated:

…

(b) by a Party under Section 10.1(b), 10.1(c) or 10.1(d) and the right to terminate arose because of a breach of this Agreement or the MVV Purchase and Sale Agreement by

the other Party (including in a breach by the other Party resulting in a condition failing to be satisfied), then, the other Party shall remain fully liable for any and all Damages sustained or incurred by the terminating Party as a result thereof in accordance with Article 7.'

The Dispute in Outline

17. In order to facilitate understanding of the significance of the events and evidence considered below, I will briefly, at this stage, indicate the nature of the dispute between the parties.

18. At about 1.30 am on 9 November 2021, that is to say about two weeks after the signature of the SPAs, a geotechnical event occurred at the Santa Rita Mine. I will call this 'the GE'; and will say considerably more about it below.

19. On 24 January 2022 the First Defendant sent a letter to FIP2 saying that it was terminating the SPAs under Section 10.1 thereof on the basis that the GE constituted a MAE under the Atlantic Nickel SPA; or alternatively, that it was entitled to terminate by reason of the failure of FIP2 to satisfy the conditions in Sections 6.1 and 6.5 of the relevant SPA on or before the Outside Date. On 27 January 2022 the First Defendant sent a letter to FIP1 and FIP2 contending that it was entitled to terminate the SPAs because closing had not occurred by the Outside Date of 14 January 2022.

20. On 3 February 2022 the Claimants sent a letter to the Defendants saying that they were terminating the SPAs pursuant to Section 10.1 thereof and/or at common law by reason of the First Defendant's wrongful repudiation and/or renunciation of the SPAs; and demanding payment from the Second Defendant as Purchaser Guarantor of all sums due from the First Defendant to the Claimants. On 16 February 2022 the Claimants served a Claim Notice on the First Defendant and a Letter Before Claim on the First and Second Defendants. On 27 May 2022 the Claim Form in the present action was issued.

21. The evidence in the case has comprised the contemporary documentation, and substantial amounts of factual and expert witness evidence.

22. Insofar as relevant to the issues to be decided, the factual evidence related in particular to: what was done in response to the GE; the advice which the Claimants received about the GE; what the Defendants knew about the GE and when; the process by which and circumstances in which the Defendants came to rely on the GE as a MAE and as a reason for terminating the SPAs; and the dealings between the parties as to the Closing and Outside Dates under the SPAs.

23. The expert evidence was in three fields: (i) the geotechnics of open pit mines; (ii) mine engineering; and (iii) financial modelling. This evidence went to characterising the GE and quantifying its significance, extent and financial consequences and implications.

24. In what follows in this judgment I will first review the sequence of events. I will then consider the issues of expert evidence. After that, I will analyse the central issue of whether the GE was a MAE. This will involve a consideration of the correct approach to construction of the SPAs; of such guidance from authority as exists; of the issues of construction which separate the parties; and then of the ultimate question whether, on

the proper construction of the Atlantic Nickel SPA and a correct view of the facts, the GE was a MAE. Thereafter I will consider the other grounds for termination relied on by the Defendants. Finally, I will consider the Claimants' case that the Defendants were guilty of wilful misconduct.

The Facts

25. In this section of the judgment I will consider the sequence of events, insofar as germane, and will resolve any salient disputes between the parties.

26. As in most commercial cases, the primary and usually most reliable source of information as to what happened is the contemporary documentation. I also heard a considerable amount of oral evidence, though each party criticised the other for not calling further witnesses. None of the witnesses called sought deliberately to mislead the court. Their evidence was, to varying degrees, affected by an, undoubtedly unconscious, tendency to reconstruct matters in a way which accorded with their, and their employers', current stance. That is a typical feature of oral evidence. In assessing the witnesses' evidence, I have considered carefully the extent to which it was internally consistent and accorded with the contemporary documentation and with other evidence which I feel confident in relying upon.

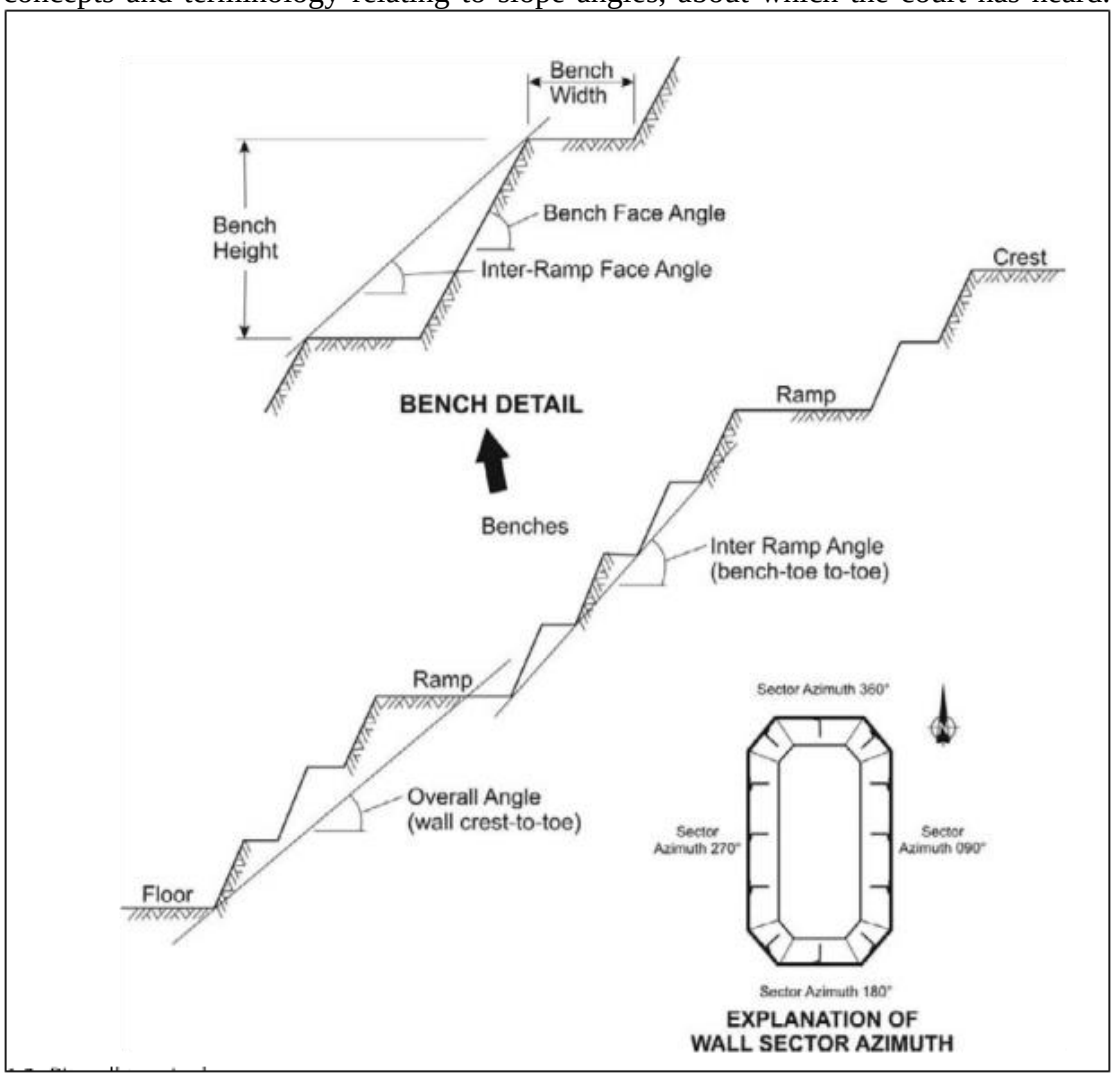
The Sequence of Events

Appian Capital's redesign and operation of the Santa Rita Mine

27. After Appian Capital had acquired the Santa Rita Mine in 2018, it undertook a redesign, planning to reduce the size of the open pit and operate with a lower strip ratio. The redesign was undertaken with the assistance of geotechnical consultants, Stantec Consultoria Chile Ltda ('Stantec') and SRK Consulting (Canada) Inc. ('SRK'). SRK conducted a structural geology study including of three generations of faults (called D_1 to D_3) present at the location. SRK produced a report dated 23 July 2019. Stantec conducted a geotechnical study for the Santa Rita open pit, with the objective of defining slope angles to be used as inputs for the final pit design. For the purposes of this study, Stantec oversaw the collection of further geotechnical data from 7 geotechnical drill holes. There were also acoustic and optical televiewer surveys, lugeon tests, point load tests and geomechanics laboratory testing.

28. It is convenient at this point to refer to an agreed figure from the geotechnical experts' joint memorandum on methodologies which illustrates and defines some of the

concepts and terminology relating to slope angles, about which the court has heard.



29. Stantec's report is dated December 2019. It recommended bench face angles of between 70° and 75° and inter ramp angles of between 45° and 55°.

30. Appian Capital's mine plan for the redesigned Santa Rita Mine, which was based in part on Stantec's report, was set out in a lengthy formal document called a National Instrument (NI) 43-101 Technical Report ('the NI 43-101'), prepared by independent Qualified Persons from Mine Technical Services Ltd, P&E Mining Consultants Inc, MM Consultores Ltda and Wood Environment and Infrastructure Solutions Inc. The SRK and Stantec Reports and the NI 43-101 were included in the virtual data room established during Appian Capital's sale process; and a version of the NI 43-101 issued in July 2021 was provided to interested parties in the second stage of that process.

31. The physical layout of the mine in 2021 can most readily be appreciated from the photograph which appears as Annex 1 to this judgment, which looks northwards. The high, steep wall to the left of the pit is the west wall and was already entirely mined out by the times material to this case. The site of the GE, as I will describe below, is on the, much less steep, east wall.

32. The management team at Appian Capital Brazil / Atlantic Nickel was, as far as I could and needed to judge, a competent and properly qualified one. The CEO of Appian

Capital Brazil was and is Paulo Castellari, a mining executive with some 15 years of experience as chief executive of large mining operations in Brazil and west Africa. Murilo Nagato was Appian Capital Brazil's Business Planning and Delivery Director. The General Manager of Atlantic Nickel from August 2020 to about August 2023 was Ricardo Campos da Silva. (When I refer in what follows to 'Mr da Silva', it is to Ricardo Campos da Silva). Ricardo Grandi was Mine Planning Coordinator; and Joter Siqueira was mine manager. Atlantic Nickel had a geotechnical team consisting of Leonardo Carvalho da Silva (Senior Geotechnist), Caio Pereira de Almeida (Geotechnist), Marcello Moreira and Ricardo Santana (Geotechnical technicians). Dominique Daman joined Atlantic Nickel on 8 December 2021 as Technical Services Manager.

33. I should also refer here to a matter on which the Defendants placed some emphasis at trial, but which appeared to me to be of only tangential relevance to the issues which I have to decide. This is that, in December 2020 a consultant, Eduardo Medina of Geomechanics and Environment ('G&E'), conducted a field visit and produced a report. Mr Medina identified a number of deficiencies as to blasting practices, the condition of bench faces, working conditions, operational protocols and reporting systems. These were, I would accept, matters of significance in relation to the operations of the Mine, but I would also accept Mr da Silva's evidence that in the period after the receipt of that report Appian Capital Brazil / Atlantic Nickel sought to improve the standard and safety of operations, including by taking into account many of Mr Medina's comments. In particular, radar monitoring of the slopes and the visual inspection regime were improved. I also accept Mr da Silva's evidence that safety was a priority for Atlantic Nickel, and that it had (and has) a very good safety record at the Santa Rita Mine.

The GE

34. The GE occurred, as I have said, on 9 November 2021. A helpful description of the GE is provided by Mr Major, the Claimants' geotechnical expert, as follows:

> 'In the early hours of 9 November 2021, a portion of the Phase 5 slope at the pit crest displaced by up to two meters, moving as a coherent block (ie as one solid unit of rock). This followed a blast on the afternoon of 8 November 2021 of a 12-meter-high production bench drilled from elevation 82 to elevation 70. The displacement was discovered by a truck operator, who observed cracks in the main access ramp above the area of the blast.
>
> Cracks resulting from the [GE] extended from elevation 70 to elevation 154 for a total height of approximately 84 meters…
>
> … the [GE] … involved a rock mass with a volume of approximately 120,000m³ to 170,000m³.'

35. Photographs of the GE appear at Annex 2 (taken on 16 November 2021) and Annex 3 (taken shortly after that date).

The immediate response to the GE

36. As described by Mr da Silva, by approximately 7 am on 9 November 2021, Mr Siqueira and the geotechnical team at Atlantic Nickel had defined a safety zone at level 70, with the main ramp being put out of use. Later that day, physical barriers were put up around the area of the GE to demarcate the safety zone. Mr Siqueira and his team had concluded that a 30-metre berm at level 70 (ie at the 'toe' of the displaced rock mass) would be sufficient. Mining, which had been suspended throughout the Mine after the GE, resumed later on 9 November 2021, in areas considered by Atlantic Nickel to be beyond any potential impact of the GE.

37. Atlantic Nickel established what was called a 'war room' on 9 November 2021, to control and report on the immediate response to the GE. The 'war room' was led by Mr Siqueira and included individuals from the operations, planning, geotechnical, plant maintenance and occupational safety departments of Atlantic Nickel, and from the contractors, Fagundes and Consorcio Santa Rita.

38. Also on 9 November 2021, the technical team at Atlantic Nickel contacted third party technical consultants at TEC3 Geotecnia e Recursos Hidricos Ltda ('Tec3') and Austra Mining Solutions ('Austra') to ask them to review the GE with a view to providing opinions as to the stability of the east wall and potential remediation of the GE.

39. Atlantic Nickel put in place twice daily visual inspections of the GE. They also, on 9 November 2021, positioned a slope stability radar to provide continuous monitoring of any further slope displacement. This monitoring was conducted by GroundProbe, who prepared reports, mostly twice daily, from 10 November 2021 until 26 December 2021, and thereafter, holidays apart, more or less daily until early April 2022. As it is put by Mr Major:

> 'This continuous radar monitoring confirmed the global stability of the [GE] by 11 November 2021, with no material slope deformations measured after that time.'

The Reaction of Appian Capital London

40. It is unclear as to exactly when Appian Capital in London were informed of the GE. Their immediate reactions demonstrated concern. The response of Mr Fisher, a Principal of Appian Capital, to being shown, on the morning of 10 November 2021, an image of the GE was 'Wow'. He accepted in evidence that he had been surprised. He sent an email to Mr Castellari saying that he understood there to have been a 'slope failure' and asking for an assessment of the situation 'as soon as practicable'. Mr Castellari's response on the same day, 10 November 2021, was:

> 'Thanks for your message …
>
> Important to mention that this is not – at least for now – a failure, so we need to ensure the right terminology is applied to avoid confusion.
>
> All measures around safety have taken place. This was identified early morning yesterday. I was at site for the safety day sessions and we were close to the issue.
>
> Mobiliaed (sic) the vendor for the radar system to work with us and set up a closer PMO to monitor the situation.

From a safety perspective I am confident we have covered the key aspects, and will continue to monitor via the PMO.

From a production perspective the area in question is where Fagundes is working. We are working to understand the impact and will revert soon.'

41. Mr Castellari forwarded Mr Fisher's email to Mr Nagato and Mr da Silva, saying 'I need you to help me so that the panic is controlled with these gringos.' My assessment is that this reflected a view in Brazil that Appian Capital London were overreacting. As to the attitude within Atlantic Nickel Mr da Silva's evidence, which I accept, was that:

'The general mood in the days following the [GE] was cautious optimism as it appeared that the displacement was the extent of the movement that was likely to occur. With monitoring in place and a period of observation having passed without further material movement being recorded, within a day or two of the [GE], the focus turned to assessing and implementing the solution necessary to address the instability.'

The Site Visit

42. From about the time of the signing of the SPAs, it had been planned that there would be a visit by representatives of Sibanye Stillwater to the Mines, to obtain an understanding of the operations, people and processes involved. By 1 November 2021 Mr Castellari was sharing initial ideas as to the visit with senior representatives of Sibanye Stillwater. The visit actually took place between 15 and 26 November 2021. Four senior people at Sibanye Stillwater, constituting what was known as the Integration Team, were on the trip: Robert van Niekerk (Group Chief Technical Officer), Dawie Mostert (Chief Organisational Growth Officer), Kevin Robertson (Senior Vice President Technical and Integration) and Wynand Smit (Vice President Projects).

43. The visit started in São Paulo, with meetings at the Renaissance Hotel. On 16 November the Integration Team left São Paulo to visit the Santa Rita Mine. The visit there lasted from 16 to 18 November. The visiting party then proceeded to the Serrote Mine and conducted the site visit there from 19-20 November. On 21 November they returned to São Paulo and conducted further meetings with Mr Castellari and his team on 22 and 23 November at the Renaissance Hotel. On 24 November, Mr van Niekerk and Mr Mostert having gone back to South Africa, Mr Robertson and Mr Smit returned to the Santa Rita Mine to make a more detailed assessment of the whole mining operation. It was planned that this should last for four days, but this had to be cut short because of a resurgence of the COVID-19 pandemic and new international travel restrictions. Mr Robertson and Mr Smit left São Paulo for South Africa on the evening of 27 November 2021.

44. There is no doubt that, during this visit, the representatives of Sibanye Stillwater were informed of, and saw, the GE. The Defendants contend, however, that Appian Capital (and Atlantic Nickel) arranged matters so that the seriousness of the GE was not appreciated by the Sibanye Stillwater representatives. In the Defendants' Opening Submissions for the trial, it was contended that 'Appian elected to give Sibanye a "nothing to see here" message about the GE when the visit did take place', and that there was 'heavily curated messaging to Sibanye that the GE was of no concern.' I do not accept that that is an accurate characterization of what occurred.

45. It is the case that Appian Capital / Atlantic Nickel did not inform the Defendants of the GE before the site visit. Mr Fisher gave evidence that that was not something which he considered needed to be done, as 'anything I told them would be superseded very quickly thereafter with an on-the-ground view for themselves'. He said further that his understanding was that 'the plan was to tell them about it [at the site visit] and not to shy away from it'; and that the GE had not registered with him as something that needed to be sent to Sibanye Stillwater ahead of the site visit. I consider that Mr Fisher's attitude was understandable.

46. Before, and in preparation for, the arrival of the Sibanye Stillwater Integration Team, Mr Castellari asked Mr da Silva to prepare some 'safety shares' which could be shown to the Integration Team. On 11 November 2021 Mr Castellari wrote:

> '… I wanted to ask you to be ready for some 'Safety shares' that you would like to do during our visits in the coming week.
>
> Right away, I think that this issue of geotechnics [viz the GE] and 'Stop' are topics that we have to address.
>
> My suggestion is that you work with MGN [Mr Nagato] and Thulio [Mr Leite] to prepare one or two slides on the issue of the geo technique (sic) of the mine for us to use in the initial meetings that we will have (without the ATN [Atlantic Nickel] or MVV team) on Monday 15 Nov. And the other topics you can work on in parallel.
>
> I suggest that you have four very clear themes in your head, covering different areas, with good and 'not so good' news, learnings, etc.
>
> See please to have these materials ready and with me by Suning (sic) 14 November…'

47. On 12 November 2021 Mr Leite sent Mr da Silva draft slides for the Safety Share addressing the 'Geotechnical Incident and the PARE Program' ('Pare' meaning 'Stop' in Portuguese). These were forwarded by Mr da Silva to Mr Nagato; and then by Mr Nagato to Mr Castellari. Those slides included three on the GE. On one, there was an overall picture of the mine, identifying where the GE was located, and another photograph of the GE, identifying the area of the GE by a dotted white line and providing a scale. The text to that slide read:

> 'The geotechnical incident occurred between Phase 05 and 06, passing through the main ramp, between elevations 142 and 70, which generated slump and transversal cracks in the access ramp. No injury or material loss were recorded.
>
> In the picture, the truck highlighted in A [which was a yellow circle] remained inside breaking area as safety measure while further geotechnical assessment has been provided. Equipment highlighted in B [viz a yellow circle outside the 'area of breaking'] (a truck and an excavator) were safely removed on Nov 10th.'

48. On the next slide appeared the following:

Immediate Safety Actions:	Risk Management Structured Plan:	Next Steps:

Evacuation of People	Creating a War Room to provide the required focus on risk mitigating actions	Elaboration of the Pushback design and its required quantities
Area Isolation	24-hours monitoring with hourly basis reports. Routine supported by Groundprobe	Review of monthly mine plan for November and December to measure all impacts on plant production outlook for 2021
Shutdown of activities at mine to communicate all mineworkers (sic) about the Geotech event	Daily Geotech in-field inspections at breaking area	Review of mine plan for Budget 2022
Access blocking for people, light vehicles and mine equipment	Topographic survey of the entire affected area	
	Delimitation of the affected area	
	Close contact with Stantec and TEC3 consultants to support ATN team	
	Assessment of blasting parameters near the affected area (radius of 500m)	
	Geotech in-field inspections after blasting	

49. Later on 12 November an updated version of the slides, which had been prepared by Mr Leite, was sent by Mr Nagato to Mr Castellari. The slide identifying the location of the GE was somewhat different from that sent earlier. It contained a more accurate indication of the location of the GE by reference to an aerial photograph of the mine, with scale. The photograph of the GE was a different one from that in the earlier version of this slide, this picture being from more directly opposite the GE. It had a dotted white line depicting the 'Breaking perimeter', but no scale, and did not include the yellow circles, or pictures of machinery in the area, as the previous one had. The text now read:

'The geotechnical incident occurred on Nov 09th at 01.00am at Phases 05 and 06, between elevations 142 and 70, generating slump and transversal cracks on the main ramp.

No injuries or material losses occurred.

Control actions have been taken since then, such as, Communication to all employees and contractors; Area isolation; Establishment of a War Room; 24-hours radar monitoring; Help-Chain definition; Engagement with geotech experts and safely (sic) removal of all equipment.

Note: Daily geotechnical inspections on previous days and fault model did not indicate the possibility of this event. External specialist reviews will confirm this assumption.'

50. There was a dispute at the trial as to how the Integration Team was informed of the GE once it had arrived in Brazil. Mr Smit's evidence in his witness statements was that it had been mentioned to him by Mr Nagato, 'in a relaxed manner', during a comfort break during the meetings in São Paulo on 15 November 2021; and that Mr Nagato was then unable to answer questions which Mr Smit had asked about the GE, including as to whether operations had been stopped, whether people had been evacuated, and whether equipment had been moved. I did not regard this evidence as reliable. In his first two witness statements Mr Smit did not accept that the Integration Team was shown a Safety Share. As I will say, I consider it clear that it was. This indicates that his recollection of the matter is imperfect. It also appears to me unlikely that Mr Nagato, who had known about the GE since the morning of 9 November 2021, had been managing the GE alongside the team at Atlantic Nickel, and who had been involved in the process of preparing the Safety Share slides which Mr Castellari had asked for on 11 November 2021, would not have been able to answer the basic questions which Mr Smit says that he asked. Indeed, the answers are contained in those slides.

51. In any event, I regard it as clear that the Integration Team was shown the Safety Share, on 15 or more probably on 16 November. I find this for the following reasons:

(1) It is the evidence of Mr Castellari and Mr da Silva that the Safety Share was presented. It is unclear from the evidence exactly what happened on 15 November. I think it likely that there was some discussion of the GE, which involved Mr Castellari, on that day. Be that as it may, Mr da Silva's evidence was clear that he had presented a Safety Share, which dealt with the GE, on 16 November 2021. I accepted that evidence. It appeared to me to be likely that the slides which he had presented included the later version of the slide with the photograph of the GE (ie that without the yellow circles).

(2) Given that the slides had been specifically commissioned by Mr Castellari, and had been prepared, for the purposes of being shown to the Integration Team, it seems likely that they were so presented.

(3) The Integration Team was about to be shown the Mine and the GE itself. It would clearly be helpful to the members of the Integration Team for the GE to be properly described to them before they were shown it *in situ*.

(4) At the time, it was envisaged that Sibanye Stillwater would soon be acquiring the Mine, and in all likelihood would be keeping on some of the existing managers. It would not have been conducive to establishing trust and confidence if the Mine's management had not given a proper and timely explanation of the GE, which it was expected would soon be Sibanye Stillwater's issue to deal with.

(5) Ultimately, in his evidence, Mr Smit did not dispute that the Safety Share was probably delivered, though he said he did not recall it.

52. On 16 November 2021 the Integration Team was taken into the Santa Rita Mine and the GE was pointed out to the Team's members. Mr Smit took a photograph of the GE from opposite it. This, as I find, was a good angle from which to observe the GE. That was the evidence of both Mr da Silva and Mr Daman; and is consistent with the fact that it was at that point that the radar had been placed, by or under the supervision of GroundProbe, to monitor whether there was any movement of the area of the GE.

53. After the Integration Team had returned to São Paulo, on 22 November 2021, Mr Castellari made a presentation as to operations at the Mines. One of the slides, of which Mr Smit took a photograph, was entitled 'Key aeras (sic) of Attention'. It ranked 24 points of attention according to urgency and importance. The 'SRT Geotech Incident' was ranked at the highest level of importance, and included in the box for the most urgent and important matters.

54. In light of these findings as to what happened, I conclude that the fact and significance of the GE were not concealed or deliberately understated by the management at Appian Capital Brazil or Atlantic Nickel. That they did not present the GE as more alarming than they did was because they did not consider that it deserved or required it, not because they intended to mislead Sibanye Stillwater.

55. After the Site Visit, as Mr da Silva gave evidence, Sibanye Stillwater did not ask Appian Capital Brazil / Atlantic Nickel for geological reports or other documentation regarding the GE until 15 January 2022.

The Integration Feedback Note

56. After the Site Visit, Sibanye Stillwater's Integration Team produced an Integration Feedback Note. The final version was dated 8 December 2021. The Note stated that:

> 'Quality time had been spent with the [Brazilian] corporate and operational teams; sufficient time was spent on visiting the open pit operations, the tailing storage facilities and the plants etc. Adequate time was spent sharing high-level information, which was very informative and allowed both teams to get to know one another.'

57. In relation to the GE, the following was stated:

> 'Notwithstanding minimum basic geotechnical functions available on site, the visit did coincide with a geotechnical event temporarily sterilizing ~ 4-5 benches in the eastern hanging wall. Subsequent repositioning of a Groundprobe radar indicates movement stabilisation, whilst geotechnical investigations and mitigation plans are being considered. This level of geotechnical risk is to be anticipated in mature mining operations, and sufficient buffer in mine designs and plans must be considered going forward.'

The design for remediation

58. As I have already said, Atlantic Nickel approached Tec3 and Austra shortly after the GE to consider it and possible remediation. These consultants were the first to be contacted because they were already working on projects at the Santa Rita Mine.

59. Atlantic Nickel's technical team had concluded immediately that the technical solution to the GE was to implement a 'pushback' to remove the displaced rock mass involved in the GE. First plans for the pushback were drawn up by Atlantic Nickel's technical team after initial discussions with Austra and Tec3. Atlantic Nickel produced a proposed design for the pushback on 11 November 2021 which it provided to Austra.

Austra

60. Austra provided a letter dated 17 November 2021 ('the Austra Letter'). It stated that the review it contained was 'based on the assessment of limited materials provided to Austra's team'. Austra said that it had reviewed the pushback design which had been provided by Atlantic Nickel, and said that:

> '…There are a number of isolated areas where the cut-back design needs to be optimized. Essentially, parts of the cut-back design will lead to the formation of wedges near crests… In addition, the cut-back design has a large re-entrant where the cut-back meets the existing wall to the south. This may potentially lead to a failure of this design element… It is also noted that cut-back bench faces have been designed at 75°. Based on the kinematic analyses above a probability of failure of around 60% is anticipated for benches in the cut-back in this zone. If possible, bench face angles should be reduced to 50°-55° to ensure more acceptable probability of bench failure.'

61. In its conclusions, Austra stated:

> 'The cut-back design, in principle, is acceptable. However, the current design may lead to the formation of wedges on crests of certain sections of the design. A number of design changes were recommended, with parts of the design pushed-back a further 8 m to 10 m.'

62. On 2 December 2021, Austra presented to Atlantic Nickel its 'proposal … to undertake the East Wall remedial design review' for the Santa Rita Mine ('the Austra Proposal'). The Austra Proposal stated, in part:

> 'A number of initial recommendations were made [sc. in the Austra Letter] with respect to the cut-back design, which significantly, contained a recommendation to reduce bench face angles to 55°, to reduce the impact of bench scale failures in this section of the pit. The recommended reduction of bench face angles in the proposed cut-back design has led to inter-ramp slope reduction from approximately 47° to around 36°, which although restricted to the failure area, will have an impact on the economics of the operation.
>
> …
>
> It is noted that the current operating pit wall design parameters are based on PFS level design recommendations only, which were based on limited geotechnical data, especially for deeper sections of the pit. Concern has also been raised whether similar design changes need to be applied in other sectors of pit phases and final walls to

maintain safety of operations. Such changes which could represent a significant economic impact to the operation and a potential business risk for Atlantic Nickel. To reduce pit wall performance uncertainty and risks, it is strongly recommended that final designs should be based on more robust FS level geotechnical recommendations.'

63. Austra then proposed a 'roadmap' of works which it would do, if its proposal was accepted, divided into Priority Stages 1, 2 and 3, and provided a budget for the work and proposed terms for any engagement contract.

Tec3

64. Tec3 provided initial recommendations by email on 29 November 2021. They recommended a reduction of bench face angles to 50°, and a 50 m containment berm at the foot of the slope below the GE. Mr Grandi of Atlantic Nickel went back to Tec3 on the same date, saying that 'our drills are not capable of drilling holes with the proposed inclination (50 degrees).' Mr Grandi's email continued: 'Can we then use a 13.20 metre berm with a 70 degree face angle, as proposed below? Would this geometry be equivalent to the one you proposed, since the overall angle would remain the same?' On 3 December 2021 Mr Panitz of Tec3 responded to Mr Grandi (in translation):

'We have completed the request checks below and a 70° face angle can be used. However, the width of the berm should be 14 m.

We also re-evaluated the containment berm at the foot of the slope at elevation 70, and this can be 30 m wide. We reaffirm the need to continue with the monitoring and execution of activities to identify and occur the horizon greenish lesions present on the slope evaluated.'

65. On 14 December 2021 Tec3 provided their 'Stability Analysis of Rupture of East Slopes and Geotechnical Assessment of the Padding Push Back'.

66. Tec3's Stability Analysis recorded that, at the base of the area where the GE occurred, the slopes were constituted by a Class III rocky mass, with Class IV higher up. Tec3 stated:

'The rupture, in the portions in Class III mass can be classified as structurally controlled type, involving three main families [sc of faults], which established the limits of the geometry of the blocks that moved. …'

Tec3's view as to the causes of the GE was that it was primarily the result of the presence of structures in the rock, an increase in water pressure because of rainfall, the presence of low strength material in part of the rock wall in that area and a blast which removed the base of one of the identified blocks.

67. Tec3 said that they had been asked to consider the pushback design provided by Atlantic Nickel, which had involved 75° bench face angles, 12 m bench heights, and berm widths of 7-7.5 m. In line with their initial recommendations, the Stability Analysis recommended that bench face angles should be reduced from those of Atlantic Nickel's design, to between 49° and 62°, depending on the sector of the remediation zone, while proposed berm widths and bench heights could be retained. The recommended overall

foot to crest ramp angles were between 35° and about 46°, and foot to foot ramp angles of between about 33° and 41°.

G&E

68. On 30 November 2021, Atlantic Nickel had approached Mr Medina of G&E to carry out an exercise similar to that which it had asked Austra and Tec3 to perform.

69. On 12 December 2021, G&E provided a 'Conceptual Draft' with preliminary views and a scope of work which G&E would do on the project, if retained. This 'Conceptual Draft' included the following:

'At this time, the slope failure appears to have occurred due to the presence of various key factors including; major and minor structures that create anisotropy in the rock mass environment, poor to moderate rock mass conditions, development of high transient pore pressures in the discontinuities and its zone of influence in the rock masses around that are fully saturated, and inadequate operational practices that possibly might have included uncontrolled blasting.

…

A preliminary back analysis has been carried out, however … more information is required for a final back analysis …

A preliminary assessment of the proposed pushback was not yet conducted since results from back analysis tell us the rock mass strength completely differs from strength in the design reports. Accordingly, it is required to review/validate available information in the area of the pushback for a geotechnical evaluation of the pushback's design.

The pushback will be constructed on less disturbed rock masses with higher strength, which must be verified with a detailed rock mass characterisation above the instability area. The pushback's design is required to be a long term solution provided that best operational practices including controlled blasting and controlled excavation can be implemented on-site. In addition, a deep seated rock mass failure during and after construction of the pushback is not probable to occur based on the location of structures in the model.'

70. At least by the time of Mr Medina's Conceptual Draft it seems to have been decided within Atlantic Nickel that they should proceed with G&E as consultants in relation to the remediation, and not with Austra or Tec3. On 22 December 2021, G&E produced its 'Final Report' on 'East wall instability conditions'. This 'Final Report' contained the following:

'**7.1 PRELIMINARY PUSHBACK DESIGN**

A detailed assessment of different pushback configurations was conducted based on the strength results from back analysis of the geotechnical event and total and partial removal of the flat angle structure. Accordingly, it is required to review/validate available information in the area of the pushback specially by characterization of the flat angle structure with geotechnical core drilling and logging for a reliable evaluation

of the pushback's design. In this final draft we have considered the following for the pushback's design:

- BFA = 70° and, 80°
- IRA = 45° and 50°
- The flat angle structure has been mined out partially / totally to reduce / eliminate the risk
- D = 0.6, and D = 0.4 assuming good to best practices for blasting and mining activities

Stability analysis results were satisfactory with a partial removal of the flat angle structure since total height of the material on top of the structure was removed. …

7.2 EVALUATION OF THE PUSHBACK DESIGN BY MINE PLANNING

For stability analysis purposes of the pushback design made by mine planning we have received four sections, and we have analysed three sections. The following conclusions were obtained:

- The parallel structure that caused the slope instability was completely removed as shown in the four sections;
- The northern and southern edges of the pushback consist of sharp geometries with nose shapes that will develop tensile stresses. In addition, these edges might probably cut the parallel structure should it extends (sic) beyond the northern and southern edges. This condition must be verified in the geology model;
- The three sections that were analysed have shown high safety factors considering good blasting practices D=0.6, partially saturated conditions in the Gabro R=0.35, and saturated conditions in the sub vertical structures;
- We discard any slope instability with the structures present in the geology model with the pushback design provided by the mine;

With these considerations we endorse the implementation for the pushback design by mine planning provided good operational practices will be implemented for design compliance.

…

10. GENERAL CONCLUSIONS

- The slope stability analysis results of three sections of the pushback design made by mine planning are satisfactory (high safety factors) after the complete removal of the parallel structure. With this proposed remedial solution from the analysis it is possible to steepen inter ramp slope angles with assumed favorable values of Ru (pore-pressures coefficient) and D

factor (stress relief and blasting) provided that good/best operational practices can be implemented on-site;

- It is endorsed the immediate implementation of the pushback design once the recommendations proposed have been incorporated, including review of the structural geology and the geometry of the pit walls at the ends of the pushback, and the implementation of good operational practices for design compliance…'

71. G&E produced a further version of the report on Christmas Day 2021. This confirmed the conclusions of the 'Final Report' that Bench Face Angles of between 70° and 80°, with Inter Ramp Angles of between 45° and 50°, were acceptable and that the Atlantic Nickel pushback design was, in essence and subject to various caveats, satisfactory.

72. At trial the Defendants made the case that Mr Medina had been approached and retained because Appian Brazil / Atlantic Nickel were 'not happy' with the recommendations made in the Austra Letter or the initial recommendations of Tec3 made on 29 November 2021, because those recommendations were too conservative. The suggestion was apparently that Mr Medina had been retained because he was, to put it colloquially, a 'soft touch' and would sign off on what Atlantic Nickel wanted. I was unpersuaded by this, which lacked any cogent evidential basis. I accepted Mr da Silva's evidence that Mr Medina was chosen because he was regarded by the Atlantic Nickel technical team as very experienced, able, responsive and with good availability.

The 'Appian Disclosure Investigation'

73. During the Site Visit, Mr Castellari had shared with the Sibanye Stillwater Integration Team a slide with the 2022 budget for the Serrote Mine which indicated forecast operating costs higher than had been included in the NI 43-101 report, and a corresponding fall in the EBITDA for MVV from US$82.7 million as forecast in the NI 43-101 report to US$60.2 million.

74. The Defendants contend that on the day that this slide was presented, Mr Castellari told Mr van Niekerk that he had been aware that the numbers were out prior to the signing of the SPAs but had been told by Appian Capital London that the 'deal was done' and nothing further should be done. Mr Castellari denied having said this. Mr van Niekerk did not give evidence.

75. I do not need to decide whether Mr Castellari made any such statement. More generally, the reasons for the revision of the estimates as to the Serrote Mine are not of direct relevance to the issues in this trial. The significance for present purposes of what Mr Castellari said about the Serrote Mine during the Site Visit is that it prompted concerns within Sibanye Stillwater as to whether there had been misrepresentations / non-disclosures by Appian Capital prior to the conclusion of the SPAs. Senior figures at the Defendants lost trust in Appian Capital. Sibanye Stillwater began to investigate the possibility of making a misrepresentation claim, at least for the purposes of conducting a re-negotiation of the price for the Mines. By the end of November 2021 Sibanye Stillwater had retained litigation solicitors from Clifford Chance. As part of the investigation, the Defendants asked for information on various matters from the Claimants, but without disclosing that they were looking for a basis for lowering the price agreed and possibly refusing to complete the purchase. In a document called

'Disclosure Investigation' dated 7 December 2021, which was sent by Mr Philpot, Vice President of the Second Defendant, to Mr Froneman, CEO of the Second Defendant. The Executive Summary included the following bullet point:

'We are reviewing potential options to open a discussion with Appian around price which are presented in the following slides. Our current approach is to get as much information from Appian as possible, and as amicably as possible, concerning the adjustments to the projected costs without giving Appian any indication we would be unwilling to Close the transaction, before likely having to open a more forceful dialogue.'

76. Again, I do not need to decide whether this was 'duplicity', as the Claimants characterised it, or just 'business', as Mr Froneman saw it. What is significant is that the 'Appian Disclosure Investigation' by Sibanye Stillwater appears to have come to an end on about 13 January 2022. On that date, Mr Philpot sent an email to Mr Froneman which attached a 'technical note', which has been called the 'Appian Note', and also legal advice from Clifford Chance. The Defendants, as they were entitled to, withheld this advice from disclosure. The Appian Note was described by Mr Philpot as looking 'to summarize the issues that we believe could be identified as being poorly disclosed and/or incongruent to the NI 43 101 model provided by Appian and to identify valuation buckets that can be used in the negotiation of the price.'

77. The day after Mr Philpot's email, Mr Froneman sent a message to Mr Charbonnier, Chief Commercial and Development Officer of the Second Defendant, which said: 'Laurent I remain very concerned about our ability to renegotiate and litigation will be an absolute mess and I suspect we will be on the receiving end.' Following this, no misrepresentation claim was in fact brought, and there was no attempt to re-negotiate the price based on any allegation of misrepresentation or relevant non-disclosure. Instead, what happened was that, from about 14 January 2022, Sibanye Stillwater pivoted away from exploring the possibility of making a misrepresentation claim and seeking to re-negotiate the price on the back of such a claim towards investigating the GE as a potential MAE.

Communications between the parties as to Closing

78. On 13 December 2021 Mr Philpot was notified that consent from the South African Reserve Bank ('SARB') had been obtained. On the following day, he informed Mr Fisher of Appian Capital that approval from the SARB had been obtained, and later that day he forwarded the approval by email. On the same day, one of Appian's lawyers at McCarthy Tetrault LLP circulated, including to Mr Philpot and to Clifford Chance, a 'Closing Agenda' and 'Closing Timeline' which specified 4 January 2022 as the 'Closing Date', on the basis that this would be 'T' (namely 13 December 2021 on which date there had been 'satisfaction of all conditions to closing (other than those conditions that will be satisfied at the Closing)') '+ 10' (ie plus 10 Business Days).

79. On 17 December 2021 there was a discussion between Mr Philpot and Mr Muston, Senior Vice President of Appian Capital, on the telephone. Mr Muston's evidence was that they had agreed to push back the Closing Date to 7 January 2022. Mr Philpot's evidence was that, though they had agreed that the Closing Date should not be 4 January, and though they had agreed that the parties would 'work towards' 7 January, there had been no 'formally agreed' new Closing Date.

80. I preferred Mr Muston's account. In my judgment the two men must have agreed that the Closing Date would be deferred to 7 January 2022, rather than simply agreeing that the existing Closing Date should not apply and that no other date was put in its place. Mr Muston's account is, in my view, strongly supported by the email which he sent, at 14.34 on 17 December 2021, to others in the Appian Capital team. This email had, as its Subject line: 'Athena [the project name] Closing Date Confirmation – Jan 7th'. It proceeded to state, in part:

'I have confirmed the closing date will be Friday January 7th with Robert Philpot.

…

Sibanye will initiate the wiring process on Tuesday 4th, and then we have until Friday the 7th to receive the funds and perform the various FX transactions.'

81. Mr Muston's account is likewise supported by a number of emails sent within Sibanye Stillwater, which indicated that the authors considered that 7 January 2022 was the Closing Date. An example is the email of 27 December 2021 which Ms Bryony Watson, Senior Vice President of the Second Defendant, sent to Mr Charbonnier and Mr Philpot, which referred to the fact that 'currently closing is scheduled to take place on the 7th and all work needs to happen to ensure we are ready to close on the 7th … There is a lot of preparation and paperwork that needs to be dealt with for closing…'. There is, by contrast, no email in which Mr Philpot said that there was now no agreed Closing Date, or that he had been careful to ensure that there was no formal agreement to a Closing Date.

82. On 31 December 2021, Mr Fisher spoke to Mr Charbonnier on the telephone. Mr Fisher's evidence, which I accept, was that on the call Mr Charbonnier said that Sibanye Stillwater would not be ready to close on 7 January 2022, and that it required an extension of two weeks to review the latest budget; and that Mr Fisher had said that Appian would consider the request and that he would revert to Mr Charbonnier later that day. Mr Fisher then consulted with other members of the Appian Capital London team, and thereafter spoke to Mr Charbonnier again, this time on Zoom. Mr Jarvis, Appian Capital's General Counsel, Mr Muston and Mr Philpot joined the call. There was a discussion focused on the timeline for Sibanye Stillwater to consider the new 2022 budget. Mr Fisher agreed that Appian Capital would seek to assist Sibanye Stillwater in an expedited review of the budget but said that Sibanye Stillwater had a contractual obligation to close and that Appian Capital would not agree to extend the Closing Date beyond 14 January 2022.

83. On 5 January 2022, Mr Fisher sent an email to Mr Charbonnier and Mr Philpot which said, in part, that: 'In support of your request we [ie Appian Capital] are okay with accommodating the following revised timeline to close, which still results in a Closing on or before the Outside Date of January 14th.' On 7 January 2022, in response to chasing from Mr Fisher, Mr Charbonnier sent an email suggesting that the Outside Date be extended until 29 January 2022 to allow Sibanye Stillwater sufficient time to review the 2022 budget. On the following day, Mr Fisher responded to say that Appian Capital was not prepared to extend the Outside Date unless Sibanye Stillwater agreed to a number of matters, including that the Sellers' representations and warranties under the SPAs and the no MAE condition should not apply after 14 January 2022.

84. In emails on 9 and 11 January 2022 Mr Charbonnier said that Sibanye Stillwater considered that it would be preferable just to extend the Outside Date without conditions. On 11 January 2022 Mr Fisher emailed Mr Charbonnier to say that Appian Capital was not prepared to agree simply to extend the Outside Date and that 'from our perspective the Closing Date and Outside Date remain January 14th.' McCarthy Tetrault had by 14 January 2022 provided Clifford Chance with the sellers' closing deliverables. Closing did not take place on that date, and on 15 January 2022 Mr Fisher sent an email to Mr Charbonnier saying that Sibanye Stillwater's failure to complete on the previous day was a breach of the SPAs, and 'We reserve all of our rights under the SPAs in respect of the breaches committed.'

Sibanye Stillwater's consideration of the GE as a MAE

85. At 16.14 on 14 January 2022, Mr Philpot asked Mr Smit for 'more detail' about the GE, the purpose of the request being to '[try] to unpack the impact of the Ni sold bucket between under performance of contractors vs mine plan changes as result of the Geotech event.' This was a reference to one of the 'buckets' identified in slide 5 of the Appian Note, namely 'Ni Sold', said to be worth BRL 209 million and to have resulted 'from lower feed linked to revised mine plan as a consequence of contractor underperformance and geotechnical event.'

86. At 16.18 on 14 January 2022 Mr Philpot asked Mr Portela of TMC to consider what documents and reports TMC would require to assess the impact of the GE. At 20.12 Mr Portela responded:

> 'Ok so to understand the "**materiality**" of the geotechnical event(s) we should request the Stantec and Tec3 reports described in the Operational Reports, however they may not yet be complete. This will assist everyone in understanding the, when, where and why.
>
> With regards to geotechnical event(s) vs contractor performance, it is my opinion that we will never be able to fully understand these impacts individually, there are just to (sic) many moving parts to consider like, fleet availability, blasting performance and low productivity.'
>
> (emphasis in original)

87. Thereafter, representatives of the Defendants worked with TMC and Moelis in an exercise seeking to quantify the impact of the GE. The Defendants also sought further information from the Claimants. The Defendants did not, at this stage, inform the Claimants that they were considering whether the GE was a MAE, or that they were seeking the further information for the purpose, at least in part, of that consideration.

88. Thus, on 15 January 2022 at 08.48 Mr Smit asked Mr Nagato to share the 'findings of the [Geotechnical Specialist Study] and potentially how [the GE] is influencing 2022 and 2023.' Mr Nagato responded, on the same day, with a copy of reports from Tec3 (in their original Portuguese), and three slides. As to these slides:

> (1) The first contained a photograph of the GE, with superimposed dotted lines indicating the area of the GE, the area of mining which it was thought had initiated the GE, and an area where piezometers indicating higher water pressure were located. The

slide further stated that the 'main root cause for this event is the fact that major geomechanical structures are parallel to the slope and combined with the wet-season higher water levels and mining activity below this portion'; that a pushback had been 'designed with external experts'; and that 'there is no evidence that a global instability failure can materialize and the final design criteria are now validated'.

(2) The second indicated new practices of blasting and mine scheduling.

(3) The third indicated the nature of the pushback (IRAs of 45°, BFAs of 70°; bench widths of 7.6 m and bench heights of 12 m) and its 'Ore Impact', said to be validated by G&E. This showed that the pushback would require that some 4.7 Mt of waste be mined, of which rather over 2 Mt would have been mined anyway, meaning that the additional or 'out of pit' amount was some 2.64 Mt.

89. Mr Smit's evidence in his witness statement was that the receipt of these documents had caused him to become 'very concerned' and to realise that 'the slope failure was a much bigger issue than I had thought during the site visit'. This was because, his witness statement continued: (1) he now saw aerial photographs which showed the size and scale of the failure to be 'substantially larger than I had been able to view' when visiting the mine during the Site Visit, showed areas of altered rock, showed that the failure 'had started to propagate backwards', and showed a truck 'within the failure area' indicating that 'people and equipment were operating in a geotechnically unstable area just before, and during, the failure'; and (2) he saw the recommendation for a 30 meter buffer zone at the bottom of the GE area and thought 'this was inadequate from a safety perspective'.

90. In my judgment, these concerns on the part of Mr Smit were in very large part, if not entirely, the product, not of their intrinsic significance, but of the new perspective with which he was looking at the GE. At the time of the Site Visit, he was considering the Santa Rita Mine as an asset which Sibanye Stillwater would shortly be taking over and which was in what seemed to him, then, to be competent hands. By the time he was reviewing the slides and the Tec3 report in January 2022, by contrast, he was aware that it might be of advantage to Sibanye Stillwater to magnify rather than minimise the significance of the GE.

91. More specifically, the Tec3 report did not suggest that the failure had started to propagate backwards. Furthermore, I reject the suggestion that Mr Smit had not been shown the scale of the GE during the Site Visit. He had, as I have found, been shown the Safety Share on that visit, which: (i) had included an aerial image of the Mine, with the GE marked, and with a scale; (ii) had included a photograph which showed that six benches were involved; and (iii) had stated that the GE was between elevations 142 and 70. He had also seen the GE itself and had it pointed out to him.

92. Mr Smit's suggestion that the photograph which showed that a truck within the failure area indicated that there were concerns that Atlantic Nickel had been operating in 'a geotechnically unstable area' is, I consider, one which would only have been made by someone who was now looking to find fault. He had been told during the Site Visit, as part of the Safety Share, that 'daily geotechnical inspections on previous days and fault model did not indicate the possibility of this event'. In other words, he had been told that the area had not been known to be geotechnically unstable prior to the occurrence of the GE. Furthermore, the photograph in the Tec3 Report was of the truck which had

been left where it was by the driver who first discovered the GE in the early hours of 9 November 2021. The photograph was not of the truck being operated, as Mr Smit would undoubtedly have been told had he asked Atlantic Nickel about it. He also knew from the Site Visit that the truck and other equipment which had been in the vicinity of the GE when it occurred had been removed by the time of that visit.

93. As to concerns about the 30-meter exclusion zone, these were in fact unfounded, as I will set out in more detail below. If, as he says in his witness statement, Mr Smit developed a concern about the 30-meter exclusion zone after receipt of the documents on 15 January to which I have referred, this was not based on any detailed calculation or assessment.

94. On 16 January 2022, Mr Smit emailed Mr Nagato asking for further geotechnical and mine plan-related information and asked for a two-hour Teams meeting with Mr Grandi for the following morning. What was in the event a three-hour Teams meeting with various representatives of Atlantic Nickel / Appian Capital Brazil then took place on the morning of 17 January 2022.

95. During that meeting, representatives of Atlantic Nickel / Appian Capital Brazil took Mr Smit and the Sibanye Stillwater team through a presentation regarding the GE. The focus was on the impact of Tec3's and Mr Medina's recommendations on mine design and mine plan, including the remediation. There were certain differences as to what occurred at the meeting between Mr Smit's evidence and that of Mr Daman and Mr da Silva. Where they differed, I preferred the evidence of Mr Daman, which was corroborated by Mr da Silva.

96. In particular, I do not accept that Mr Grandi told the Sibanye Stillwater team that Tec3's reports were too conservative or would be too expensive and time consuming to carry out. Further, while it is clear that Atlantic Nickel / Appian Capital Brazil explained that they had decided to bring in Mr Medina, I do not accept that Mr Grandi said that this was because Atlantic Nickel / Appian Capital Brazil disagreed with Tec3's recommendations.

97. Mr Smit gave evidence that he had asked, on the call, 'numerous times' for a copy of Mr Medina's report. While I do not regard it as of great significance, I doubt that he did ask for a copy of the report and am confident that he did not do so 'numerous times'. Atlantic Nickel / Appian Capital Brazil had no reason not to provide Mr Medina's report, had it been asked for. Furthermore, although Mr Nagato provided further documents on 17 January 2022, and a link to a shared folder which included the revised mine plan and the slope geometries recommended by Mr Medina, but not Mr Medina's report, Mr Smit did not send a chaser seeking that report.

98. Mr Smit gave evidence that the information shared at and after this meeting caused him two significant concerns. One, again, was that the revised mine plan confirmed that mining would continue below the GE area whilst remediation work was continuing above. Mr Smit had not said during the call that he considered that mining below the GE would be unsafe, but it is the case that he asked Atlantic Nickel / Appian Capital Brazil to do some calculations as to whether the 30-metre exclusion zone was safe. These had not been supplied prior to termination, as it appears that Atlantic Nickel was seeking to reconcile different estimates of the volume of material involved. Mr Smit, however, did not chase up those calculations. Nor did he ask TMC to do any such

calculations. This may have been because, as he appeared to accept in his evidence, he did not regard TMC as being a specialist capable of doing them.

99. What Mr Smit said that he did do, probably on 18 January 2022, was himself make 'a couple of … basic volumetric calculations' on his calculator. He said that he had not documented these calculations and accepted that he had not informed Appian Capital Brazil / Atlantic Nickel about them. As he acknowledged in evidence, he is not a geotechnical engineer, and he did not profess to be familiar with standard industry methodologies used for calculating appropriate exclusion zones. Given these matters, and given that he knew that he had no expert support, based on any analysis, for his concerns as to the 30 meter exclusion zone, I conclude that Mr Smit's calculations were not, and could not reasonably have been regarded as a sound basis to conclude that a 30 meter exclusion zone was inadequate to contain any potential runout.

100. The other concern to which Mr Smit said the material presented at and after the meeting on 17 January 2022 gave rise was that it indicated that 2.6 Mt of additional waste development would be required. That had, in fact, been apparent from one of the slides sent by Mr Nagato on 15 January 2022. Reasonably regarded, such an amount was not, as I find, of a magnitude to cause particular concern. As explained by Mr Daman, it amounted to a c. 1% increase in waste mined.

101. Sibanye Stillwater, and in particular Mr Smit, proceeded to work with TMC and Moelis on an assessment of the financial impact of the GE. TMC had, on 18 January 2022, made an initial high-level estimate of the impact of the GE of some US$20 million. This had been reached by multiplying BRL 209 million (ie the shortfall in 'Ni Sold' as identified in the Appian Note) by 52% (ie the pro rata split between the waste to be mined as a result of the GE and that due to the contractor waste mining backlog). Thus the 5 Mt 'shortfall' was allocated 2.6 Mt to the waste to be mined as a result of the GE, and the remaining 2.4 Mt to contractor underperformance, giving a ratio of 52/48.

102. This was, as it had been described, a 'high-level' estimate, and Sibanye Stillwater commissioned further modelling to be done. Over the next five days, Moelis, in consultation with Mr Smit and his team and TMC, produced six estimates. They were as follows:

- The First Moelis Estimate was circulated by Mr Chen on 19 January 2022 (05.01). It used the commodity prices in the IC Memo (namely the 'Project Athena/Serena Investment Committee Memorandum' dated 2 August 2021 which Moelis had prepared during the course of Sibanye Stillwater's bidding for the Mines). Moelis assessed the impact of the GE at US$80 million, which was made up of two bridge items: (i) 'Geotech Impact (2022)' of US$53 million, and (ii) 'Geotech Impact (2023+)' of US$28 million.

- The Second Moelis Estimate was circulated by Mr Chen on 19 January 2022 (14.11). It used the commodity prices in the IC Memo. Moelis assessed the impact of the GE at US$59 million. That was made up of the same two bridge items. The estimate for 'Geotech Impact (2022)' remained the same; but the estimate for 'Geotech Impact (2023+)' was reduced to US$6 million to adjust for unrelated changes to the Mine.

- The Third Moelis Estimate was circulated by Mr Chen on 20 January 2022 (12.37). There was no change in the assessment of the impact of the GE, which remained at US$59 million.

- The Fourth Moelis Estimate was circulated by Mr Chen on 21 January 2022 (12.50). It included certain further assumptions: (i) that slope remediation work would be required in Q3 and Q4 of each of 2023 and 2024; (ii) that ore production would be reduced in Q1 and Q2 of 2023; (iii) that additional waste mining would be required in Q3 and Q4 of each of 2023 and 2024; and (iv) plant feed between 2022 and 2024 would be reduced. The NPV impact of the GE was estimated as US$62 million. The estimate for 'Geotech Impact (2022)' remained the same; but that for 'Geotech Impact (2023+)' increased to US$9 million.

- The Fifth Moelis Estimate was circulated by Mr Chen on 21 January 2022 (15.39). This assessed the NPV impact of the GE at US$75 million. That figure was derived from three bridge items: (i) US$53 million in respect of 'Geotech Impact (2022)'; (ii) US$13 million in respect of 'Geotech Impact (2023+)'; and (iii) US$9 million in respect of 'Mine Plan – Geotech (2023+)'.

- The Sixth, and final, Moelis Estimate was circulated by Mr Chen on 22 January 2022 (01.35). The NPV impact of the GE was assessed at US$85 million. That figure was made up of the same three bridge items as in the Fifth Moelis Estimate; but the estimate in respect of 'Mine Plan – Geotech (2023+)' had increased to US$19 million.

103. After the circulation of the Sixth Moelis Estimate, Mr Froneman identified what he considered to be an error in the pricing used in the Moelis estimates. He wished the impact to be calculated using spot prices instead of the consensus pricing that the Moelis Bridge Analyses had employed hitherto. This request was passed on by Mr Philpot to Moelis. At 14.42 on the same day, 22 January 2022, Mr Chen calculated that using spot prices, but otherwise on the same assumptions as the Sixth Moelis Estimate, the NPV effect of the GE was US$119 million. Moelis's Bridge Analysis compared this to the IC Memo value, recalculated at spot prices, of US$941 million. Mr Froneman's evidence was that he had, instead, regarded the appropriate comparison to be of the US$119 million with the purchase price which he said, for reasons which I did not understand, to have been US$475 million.

The Decision to Terminate

104. While the process of development of Moelis's Estimates was going on, steps were taken within Sibanye Stillwater to permit the SPAs to be terminated on the basis that there had been a MAE.

105. On 20 January 2022 Ms Watson sent an email to Mr Philpot, which referred to a Sibanye Stillwater C-Suite meeting which had occurred that day. The email said:

'Please could you start thinking/tweaking the following:

1. Tweak your board pack on the assumption that today's conversation is the way we move forward. We will need to include a conclusion (the discussion today) on the

decision taken and why, risks with the decision and possible exposure (unknown but could be up to xxx). Laurent [Charbonnier] has had some discussions with me on the xxx, let's pick up tomorrow. I don't know what Neal [Froneman] will want to send but let's be prepared.

2. I don't think it's clear from the approval framework but could you review and see what approval we believe is necessary. I don't think we'll be able to tell and this is going to be a discussion between Neal and Charl [Keyter, CFO of Sibanye Stillwater].

3. We also need to have a call with Jake in the morning to discuss as he's worked in a similar situation before so worth just speaking to him.

4. [Redacted]

5. For the meeting in the afternoon we will need to raise disclosure including both an announcement (I am checking with Neal when he wants to discuss with James – Laurent wants him in the meeting) as well as in our financials (again, when do we discuss with Charl and thereafter auditors etc.).'

106. What the email shows, in my view, is that there had been a discussion at the C-Suite of relying on the GE as a MAE, and that it had been decided by the C-Suite that that was the right way forward, subject to any necessary approval. Having heard him give evidence, and in the light of other evidence, I am in no doubt that Mr Froneman was the ultimate decision-maker for Sibanye Stillwater, and that it was, effectively, he who had taken this decision, and the other members of the C-Suite had agreed.

107. Later the same day Mr Philpot replied to Ms Watson in relation to the issue of approvals:

'On the second point –

Litigation in excess of US$2.5 million requires board notification.'

108. Either on 20 or 21 January 2022, Mr Froneman told Mr Charbonnier to instruct litigation lawyers at Clifford Chance to draft a letter of termination. When asked as to the basis on which, at that point, he knew that the materiality threshold had been satisfied, Mr Froneman's evidence was: 'I had a good feeling that it was going to be satisfied … on the basis of the feedback I had received and the feedback from my team.' By this date, Mr Froneman had not himself read the MAE definition in the SPAs. Nor had he seen any Moelis NPV Bridge Analyses: his evidence was that the only Moelis Bridge Analyses he saw were two versions produced on 22 January 2022.

109. Mr Froneman intended to ask for the support of the Board of the Second Defendant for the course of terminating the SPAs based on the GE. By 23 January 2022 he was, as he said in evidence, of the 'firm view' and 'convinced in his own mind' that the GE was material. On that date (at 10.24) he sent an email to the Board members, which stated, in part:

'Dear Board members

As per my previous correspondence I promised to revert on the Appian issue and the way forward. I have also included a number of attachments which I will reference in my note below.

We have continued to investigate, using both internal and external technical experts. Based on the studies conducted to date, we have determined that the impact of the geotechnical event is material with a financial impact at least 20% of the value of Santa Rita. The attached presentation contains significant technical detail that graphically illustrates the stability issues for those of you who would find this helpful to appreciate the mining implications.

[Redacted] we are proposing to cancel the contract based on this event, [redacted]

We would like your support to proceed down this route and I am available to provide further clarity or discuss at your convenience should that be required. I apologise for the short notice but we have only really been able to complete the work early this morning (Sunday) and in the interests of time distribute to the Board at the earliest opportunity.

…'

110. Attached to this email was a Board Update document. The version the Court has seen contains redactions, but it is clear that the document was light on detail. It did not, as the covering email had suggested it would, contain significant technical detail. There was no mention of the fact that the assessment that the GE was material depended on the assumption that there should be no mining below the area of the GE pending remediation; none of the Moelis Estimates was included; and there were, as Mr Froneman accepted, no financial information which would have enabled the members of the Board to reach a properly informed view as to the likely adverse financial impact of the GE. There was, in particular, no evidence that material was provided which would have allowed a Board member to understand how the 20% figure referred to in the covering email had been reached.

111. At 19.48 on the same day, 23 January 2022, Mr Froneman sent an email to a large number of recipients at Sibanye Stillwater and at Clifford Chance, which stated, in part:

'… I have completed my Board interactions. Please go ahead and issue notice to Appian and initiate the appropriate disclosure as we have discussed, pre market opening and after the notice letter has been transmitted to Appian. Appian should receive notice before start of business their time so that we can announce on the JSE Market opening. Rob/Laurent will you please let James know when you have emailed the letter and please don't take any sleeping tablets…'

112. By the time Mr Froneman sent that email, only five out of the other 12 members of the Second Claimant's Board had responded to his email. No further responses were received by 05.11 the next morning, when Mr Charbonnier on behalf of the First Defendant sent the letter saying that the SPA was being terminated under section 10.1, referred to above. During the course of the 24 January 2022 four further responses were received from Board members.

113. Given this sequence of events, it is clearly not right to say that, at the time when the letter of termination was sent, there had been a unanimous, or even a majority, expression of support by the Board for the course to be taken. Not only had the majority of the Board not responded by then, but there had been no indication of a deadline by which they were to reply, or an indication that, failing such reply within that time, they would be treated as having agreed the proposal. The position, as Mr Froneman agreed in his evidence, was that to some extent it was a matter of indifference to him as to whether he had received any communication of assent by the time the termination letter was sent, because he regarded it as highly unlikely that any Board member would resist a request to support the executive's view that the company should not go forward with a transaction because 'there are serious misrepresentations of financial figures and a major geotechnical event.'

114. If it matters, as to which the parties disagree, it is also apparent from this sequence of events that the decision to terminate and to send the termination letter was not taken in accordance with the Second Defendant's Memorandum of Incorporation. There was no meeting of the Board, in person or virtual. Equally there was no Round Robin Resolution in accordance with the Memorandum. It is doubtful that there can be said to have been the circulation of a 'Resolution', as Mr Froneman seemed inclined to accept in cross examination before changing his stance. In any event a valid Round Robin Resolution would have required a majority of the directors to have provided written consent (clause 1.2.12) and a vote in favour of the matter to be decided (clause 29.13). By the time the decision was taken, and indeed by the time the letter was sent, a majority of the directors had not provided written consent.

115. I have already referred above to the letters of 24 and 27 January 2022 in which FIP2 stated that it was entitled to terminate the SPAs and gave reasons for that. Those letters precipitated the present litigation.

Events after Termination and the Remediation Effected at the Santa Rita Mine

116. Atlantic Nickel implemented a pushback, as a new Phase 10. Mr Daman's evidence, uncontradicted by any other evidence, was that, as the new mine design incorporating Phase 10 was within the parameters of the mine design approved by the Brazilian regulators, no further regulatory approvals were required. The pushback was carried out in accordance with Atlantic Nickel's plans, as approved by Mr Medina. As I have said, the initial design of the pushback would have required some 4.7 Mt of waste material to be mined, of which some 2.1 Mt would have been mined anyway. The initial schedule also planned a reduction of ore mined in 2022 of 329,736t of ore, as against a pre-GE planned amount of 6.39 Mt. That ore would, according to the initial plan, have been mined later in the life of the mine.

117. According to Mr Daman, the pushback started in late December 2021. On 31 December 2021 the contractor commenced mining the top two benches of the pushback, which was necessary to 'unload' (ie reduce the weight upon) the rock below.

118. In February 2022 the contractor, Fagundes, was making good progress, which was being monitored by Mr Medina and Mr Daman's team. On 12 February 2022 there was a single bench movement in the vicinity of Phase 10 between levels 130 and 142. There were no injuries or damage to equipment. A number of safety precautions were implemented but, with these in place, mining continued without further disruption.

119. This incident was escalated to Appian Capital London, including Mr Scherb, the CEO. I accept Mr Fisher's evidence that this was because there was a 'heightened sensitivity' within Appian Capital, following Sibanye Stillwater's termination of the SPAs on the basis of the occurrence of the GE. As Mr Fisher said, single bench failures and similar sized geotechnical events are not uncommon. It is plausible that, in the absence of Sibanye Stillwater's termination in reliance on the GE this incident would not have been given any significant attention by Appian Capital London.

120. In March 2022 there was a modification of the geometry of the slope by moving an intermediate catch bench from elevation 94 up to elevation 106.

121. In May 2022 there was new evidence of movement and the widening of cracks behind the east slope pit crest which had originally been identified in February 2022. Subsequent analysis indicated that these cracks were aligned with the SRK D_1 fault set; that development of these cracks had pre-dated the GE; and that the rate of their development was not affected by the Phase 10 remediation. These cracks were thus not related to the GE.

122. The Phase 10 remediation continued. Single bench failures occurred in July, during the course of work on Phase 10, because of instabilities. Mr Daman said in his evidence that 'that happens', and that such occurrences were catered for by leaving a pit between the excavator and the wall. There was no evidence that these failures were, or were treated as, of any real consequence. The remediation was completed on 31 July 2022. Until the remediation was completed, there was no mining within the 30-metre exclusion zone, or berm, at the foot of the GE.

123. By its end, this remediation had involved 4.272 Mt of rock being mined, which was somewhat less than originally planned. This represented, according to paragraph 88 of Mr Daman's first witness statement, 2.4 Mt of additional waste. Mr da Silva's evidence was, however, that 2.1 Mt would have been mined anyway; and thus, in accordance with his evidence, the amount of additional waste was some 2.2 Mt.

124. There was also, in the event, no delay in ore production in 2022. Mr Daman's evidence was that, as a result of changes to the mine plan during 2022, ore production reached 6.6 Mt in 2022, which was about 0.2 Mt more than had been planned. Mr Daman's evidence was also that no scheduled ore tonnes were lost over the life of the mine as a result of the pushback.

The Bullnose Incident

125. On 16 August 2022 there occurred what was called 'the Bullnose incident' or 'Bullnose instability'. This was an instability which was observed to affect a convex portion of slope in the middle of the east wall, immediately north of the Phase 10 pushback. The instability was approximately 150 metres wide and 6 benches high.

126. The geometry of the Phase 10 pushback had contributed to the occurrence of the Bullnose instability. As Mr Daman explained, it was very difficult to avoid there being any bullnose, because of the shape of the mine. When the Phase 10 pushback had been designed it was recognised that there would be a bullnose, and that care would have to be taken in relation to it.

127. Remediation of the Bullnose instability involved what was called the Phase 10N pushback. This process of remediation does not appear to have been a matter of great urgency, and it was completed in August 2023. According to Mr Tutton's evidence, the additional mining required for both Phases 10 and 10N was 6.7 Mt. As I have said, Phase 10 involved the mining of 4.272 Mt. It thus appears that Phase 10N involved in the region of 2.43 Mt. There is no evidence of the Phase 10N remediation having reduced or delayed ore production.

The BGC Investigation

128. As a result of recommendations by Mr Medina, in February 2022 Atlantic Nickel engaged BGC to assist it in evaluating and, if necessary, improving the stability of the entire east wall of the Santa Rita Mine.

129. BGC did considerable investigatory and analytical work over many months, including the review and assessment of existing geotechnical data, the conduct of photogrammetric mapping of the east wall, updating the engineering geology model, conducting 2D back analyses of the GE and of the Bullnose instability and analysing the 2D stability of Atlantic Nickel's proposed mitigation plan for the Bullnose instability.

130. BGC produced a first report on 5 December 2022. It recommended further drilling and geotechnical logging, laboratory shear testing on samples obtained from the campaign of drilling, and the installation of downhole slope deformation monitoring instrumentation. It also recommended the continued monitoring of an existing piezometer, and the installation of other piezometers in areas of the east wall to assist in the understanding of the groundwater surface and its impact on east wall stability. Further, it was said:

> 'Once additional structural orientation data is available, the structural geology model of the East Wall should be expanded to include areas outside of the Bullnose and Phase 10 Instability zones. If similarly oriented shallow to moderate dipping fault structures are found outside of these areas, instabilities such as those that occurred in the Bullnose and Phase 10 areas are possible. Future East Wall pit geometries proposed by ATN should be evaluated using the updated structural geology model, with consideration of the pit wall design guidance prepared by Stantec (2019), to determine if inter-ramp and overall wall angles are in conformance with those designs and still achievable, and whether the walls are steeper than the interpreted structural fabric will allow.'

131. On 8 May 2023 BGC produced a Technical Memorandum, entitled 'Santa Rita Open Pit East Wall Review and Preliminary Design Guidance'. This contained preliminary slope design guidance for various combinations of bench height cases (12 m and 18 m high benches) and bench face angle cases. BGC presented preliminary guidance based on the 50th percentile of measured effective bench face angles (viz, the mean of what was being achieved by way of steepness of bench face angles, which was 53°) and the 75th percentile (ie towards the top end of steepness of bench face angles being achieved, which was 60°). If the former were used, BGC recommended inter ramp angles of 37°; and if the latter, of 39-40°.

132. Since the 2023 Technical Memorandum, BGC has made changes in its geotechnical model, its new model being released in March 2024. This updated model incorporates

differences with respect to the fault model, discontinuity set orientation and discontinuity shear strength characterisations. BGC also eliminated a pegmatite fault set which had been 'inferred' in the 2023 Report, given that further drilling had not confirmed its existence.

133. BGC's preliminary design guidance in its May 2023 Report would, as Mr Major said, need to be updated to reflect these changes. That preliminary guidance has not been implemented. There have not been any further major instabilities at the Mine.

Post-termination re-sale attempts

134. The Claimants began a new sales process for the shares in the entities holding the Mines shortly after Sibanye Stillwater's termination of the SPAs. The sales process will, doubtless, be subject to more detailed examination in the trial of quantum, which has been hived off. In brief summary and on the material currently adduced:

(1) In September 2022, Appian Capital received all-cash offers from Zijin Mining Group and Rio Tinto. Zijin bid US$1,090 million for both Mines. Rio Tinto bid US$600 million for Atlantic Nickel alone. Shortly thereafter GBM made a series of bids for both Mines, culminating in May 2023 with a US$1,100 million offer.

(2) Appian did not proceed with Zijin, Rio Tinto or GBM. Instead, it pursued a deal with ACG Acquisition Co Ltd ('ACG'). A SPA with ACG was entered into on 12 June 2023 for both Mines for US$1,100 million. That did not proceed, but the Claimants and ACG negotiated revised terms, with a headline purchase price of US$1,000 million. The Claimants say, however, that ultimately they considered that this offer, taken as a whole, undervalued the assets. The Claimants therefore decided, on 28 September 2023, not to proceed with ACG but to seek a better deal with GBM. That did not, apparently, materialise.

(3) There have been some further bids, at least for MVV. Appian Capital has not, however, concluded a sale of either Mine to date.

The Expert Evidence and Issues

135. Expert evidence was adduced in three disciplines: mine geotechnics, mine engineering and financial modelling. The issues between the experts in relation to mine geotechnics underlie many of the differences between the approaches of the experts in the other two areas.

Mine geotechnics

136. In the field of mine geotechnics, the expert evidence adduced on behalf of the Claimants was that of Mr Graeme Major, and on behalf of the Defendants that of Dr Alan Guest. Both have considerable experience in the area. Mr Major qualified for a Bachelor of Engineering in Mining Engineering from the University of Melbourne in 1971 and holds a Master of Science in Engineering Rock Mechanics and a D.I.C from UCL. He has worked as a consultant in the mining industry for 50 years, commencing at Dames & Moore, before working for Geo Hydro Consulting and Golder Associates, and in 2018 founded Major Geotech PLLC. Dr Guest has a BSc from Natal University (1971), an MSc from the Rand Afrikaans University (1985) and a PhD from the University of

Queensland (2005). He worked for 34 years for various mining houses, including Rio Tinto, Anglo American and De Beers Group. For the last 17 years he has practised independently as a specialist mining geotechnical consultant. He has been Senior Lecturer and Professor in Mine Geotechnical Engineering at the University of Los Andes, Chile and Queensland University, Australia.

137. While both experts were appropriately qualified and experienced, I considered that the evidence of Mr Major was distinctly the more reliable. His evidence was authoritative, well-informed, marked by appropriate concessions, practical and realistic. Dr Guest's evidence was, in my judgment, markedly less realistic, and subject to significant errors. Furthermore, it was apparent, when Dr Guest gave evidence, that he was not fully familiar with the contents of his own reports, and in particular of Appendix GE5.5, which had been the product of a team working for him. Moreover, and as will be returned to below, the SLIDE model used for his stability analysis employed as an input that the east wall was comprised of altered (ie weathered and weak) gabbro, but this was not identified in his first report. In cross-examination he put forward the justification that the use of altered gabbro was a convenient proxy for fresh gabbro with anisotropic qualities, but he had not disclosed any analysis which demonstrated that that was so. He used other assumptions without sufficient justification. His evidence was also, on occasion, unclear and imprecise.

138. Each of the geotechnical experts was asked to opine as to the nature, causes, categorisation, effects and remediation of the GE. As it developed in the experts' reports and evidence at the trial, a principal issue between the experts concerned Dr Guest's evidence as to the need for investigation, and remediation of the entire east wall of the Santa Rita Mine as a consequence of the GE.

139. Before examining that evidence, it is important to consider the other aspects of the experts' evidence, in many of which there was little difference between them.

The nature and origins of the GE

140. The experts agreed that the GE extended over a height of 6 benches or 72 m and was approximately 200 m wide at its widest point. The headscarp and rear shear surface developed along a fault that dips to the west and which is interpreted to be a member of a set of faults designated as D_1 faults by SRK. The lower or toe portion of the GE developed along a flatter-dipping structure that has generally been associated with an observed zone of altered gabbro.

141. The experts further agreed that the immediate (or, as they put it in their joint memorandum, 'proximate') cause of the GE was that blasting at the toe of Phase 5 removed the lateral support for the toe of the area of the GE. Blast vibrations did not play a significant role. They also agreed that the controls of the event were structural, with the headscarp and back surface controlled by the D_1 or similar fault, and the toe of the event controlled by the flatter-dipping structure. They agreed that water pressure may have had a minor role, but that the GE would almost certainly have occurred regardless of the presence of groundwater pressures.

142. The area of difference in relation to the causes of the GE was that Dr Guest considered that the GE was an indication that similar structures could result in the risk of similar structurally controlled events occurring at other locations. I considered convincing,

however, Mr Major's evidence to the effect that there could only be another failure equivalent to, or a repeat of, the GE in the zone where altered gabbro existed. I also accepted his evidence that the primary controls of the Bullnose instability were not the same as the primary controls of the GE.

Categorisation of the GE

143. In terms of a categorisation of the GE, the experts agreed that the GE met the criteria of a 'failure' as that term is often used. Mr Major said, however, that it was also consistent with the classification of 'movement' or 'dilation' given by Read & Stacey in *Guidelines for Open Pit Slope Design*, the leading text on slope design. Specifically, he said, the notion of 'failure' suggests that there was a collapse or detachment, and that that did not happen. For that reason, he considered that to use the term 'failure' was misleading. Mr Major is clearly right to point out that the GE was not a 'failure' if that conveys the impression that there was a detachment as opposed to a movement or dislocation. In my view, however, the precise definition of 'failure' in this context, and whether the GE counts as a 'failure', is not important. What is of more importance is to assess the nature and significance of the GE in the round.

144. The experts were also agreed that size alone is not a reliable indicator of the consequences of an event but is useful for a comparison with similar events. They agreed that the GE was disruptive to operations until risks had been identified and mitigated.

145. In terms of a comparison with other events, Mr Major gave cogent evidence that the GE was relatively small by most measures of documented mine slope failures. As he said, the GE was at the smaller end of the events recorded in the TAMU-MineSlope database, and that the maximum estimated failure volume of the GE was only about 5% of the average volume of events in the database; and that the GE was also at the smaller end of the statistics compiled for the purposes of two evaluations of runout of mine slope failures. Mr Major's evidence, which I accept, was that the GE amounted to the eventuation of a level of geotechnical risk which was to be anticipated in a mature mining operation. It was, as he put it, 'not exceptional or unusual in my experience' and was the type of event 'that I'm dealing with and seeing all of the time…'.

Mining below the GE

146. One matter which was the subject of evidence from the geotechnical experts was whether, and when, it was safe to mine below the area of the GE. In this regard, Mr Major had conducted, as Schedule D to his first Expert Report, a Runout Calculation. This exercise was designed to assess the adequacy of the 30 m exclusion zone which Atlantic Nickel had established at the foot of the GE. Mr Major's evidence was that:

'Because the overall toe to crest angle of the [GE] was so flat (approximately 29° to 30°), the conclusion of a standard runout analysis would be that there was no potential for runout and therefore any exclusion zone could be limited to rockfall containment.

In order to estimate maximum potential runout, I carried out the runout calculations using only the steepest sections of the [GE] (ie between the toe and the outslope crest of the ramp, which have an effective slope height of 40 to 50 m, about four mine benches). This is a conservative estimation which evaluates runout considering only

> those parts of the slope that produce the largest estimated runouts, even though there was no identified credible failure mechanism for those steeper slope sections…
>
> My calculations, based on conservative assumptions, indicate that the potential runout distances were 16 and 22 meters at the two representative sections that I analyzed, meaning that the containment capacity exceeded the conventional standards by 8 to 14 m.
>
> Thus, even applying a conservative and unrealistic approach, my calculations conclude that the 30 m safety exclusion zone implemented by Atlantic Nickel was conservative based on the application of current industry experience and practices.
>
> Moreover, at the time of my initial site reconnaissance in January / February 2022, in addition to the safety exclusion zone defined at elevation 70/82, there was an access ramp and part of a production bench beyond the safety exclusion zone that afforded additional protection to any operations below elevation 70….'

147. Mr Major's runout calculation was not contested by Dr Guest. I accept it, and the evidence which I have quoted.

148. It was suggested to Mr Major in cross-examination that it would, nevertheless, not have been safe to mine below the safety exclusion zone under the GE without the installation of robotic monitoring stations, which although recommended by Mr Medina in 2020 had not been installed by the time of the GE or indeed by April 2022. Mr Major's evidence was that mining below the GE without robotic monitoring was not unsafe in circumstances where: (i) there was monitoring of the area of the GE by the superior method of radar observation; (ii) the structures that were interpreted to have caused the GE, in particular the oxidised gabbro seam, did not occur below elevation 70; and (iii) the mining below the exclusion zone was, at least to start with, of a limited depth. I considered that this was reliable evidence. It was, to my mind, supported by the fact that none of the reports of consultants asked by Atlantic Nickel to consider the GE and its aftermath had suggested that there should not be mining below the GE; and also by the fact that Mr Major was on site in January 2022 and did not recommend that there should be no mining below the GE. This, I am sure having heard and seen him give evidence, is because Mr Major did not consider what was being done to be unsafe or other than in accordance with normal industry practices. Had he thought otherwise I am confident he would have said so.

The implications of the GE for the operations of the Santa Rita Mine

149. The major difference between the Santa Rita mine geotechnics experts was in relation to the steps which should have been taken in response to the GE, and their implications for the output of the Mine.

150. This was not a dispute as to what the short and medium term responses in the area of the GE were or should have been. The experts agreed that Atlantic Nickel's short and medium term responses in the area of the GE and its immediate vicinity were appropriate, although it would have been better had they been documented with more formal detail.

151. The experts also agreed that it was an entirely appropriate response to the GE for Atlantic Nickel to have engaged BGC to carry out a wider investigation of the geotechnics of the east wall and to review the design of the slope. In Mr Major's view, as it emerged from his expert reports taken with his oral evidence, such an investigation was 'outside the scope of evaluating and remediating the GE', but was 'a natural evaluation following an incident'. As he said during cross-examination: '… you don't limit your evaluation at the boundaries of that incident. You look … to improve your geotechnical structural model in general to see if there's risks of, if not identical, at least similar types of events elsewhere'. And: 'I agree that a typical response following an event is to look beyond and update … continually your … structural model for the pit slope'.

152. Where the experts disagreed was as to the consequences for the operations at the Mine pending the investigation which BGC was commissioned to carry out, and whether the effect of the GE, or the investigations which it prompted, had been to reveal inadequacies in the design of the east wall which needed to be addressed by a substantial re-design. In Dr Guest's view, there should have been no mining below the GE until there had been a full evaluation of the geotechnics of the east wall, and an understanding gained of its complex structural controls on stability; and that mining to north and south should only have proceeded in the period between the GE and a re-design of the east wall slopes if it was subject to 'tactical monitoring, and with a reduced slope angle.'

153. This view was put by Dr Guest in his second report as follows:

> 'The direct effects of the remediation required were not limited to the Phase 10 pushback. The [GE] had large-scale ramifications. Critically, the failure demonstrated that the recommendations upon which the mine design for the Santa Rita operation was premised was flawed; the slope angles were unsafe. Therefore, the remedial work resulting from the [GE] could not reasonably be confined to its locality. A fact proven by the occurrence of the Bullnose Instability, which was structurally connected to the [GE], and should have been included as part of the remedial works. … it is my opinion that the [GE] necessitated an in-depth investigation lasting approximately 17-18 months, in addition to the re-design of the majority of the East Wall.'

154. Dr Guest's re-design of the east wall would have involved very substantial changes in slope angles, and, necessarily, concomitant very large increases in waste to be mined.

155. Dr Guest's opinion was that, relatedly, the remedial design recommendations for the GE area itself were inappropriate because they did 'not meet requisite FoS [factor of safety] for the East Wall.'

156. Integral to these opinions was Dr Guest's stability analysis contained in Appendix GE5.5 to his first report. This analysis is said to have been derived from an analysis using SLIDE into which the BGC material input properties from the BGC 2023 report were specified.

157. I was not persuaded that I could place any weight on Dr Guest's stability analysis. Instead, I considered it to be unreliable. I have already referred to the fact that Dr Guest appeared unfamiliar with aspects of the analysis, when giving evidence. Furthermore:

(1) Adjustments had been made, for the purposes of calculations of the OSAs for his stability analysis, to the actual IRAs provided by the relevant consultants (Stantec, Medina, Tec3 and BGC). Dr Guest was unable satisfactorily to explain the nature or rationale of those adjustments.

(2) Dr Guest's stability analysis was carried out on the basis that the whole of the east wall was comprised of altered gabbro. This was one of the inputs into his SLIDE models, although this was not spelled out in his reports. BGC's stability analysis had been based on fresh gabbro, not altered gabbro, and accordingly what had been input into Dr Guest's SLIDE models was not the same as to this material property as that in the BGC report. (The only analysis which BGC carried out using altered gabbro was a back analysis of the GE, which is not relevant for present purposes.) Dr Guest's explanation of this was that altered gabbro was used as a proxy for fresh gabbro with anisotropic characteristics. As he explained it, it was a 'modelling trick'. He also suggested that he had done a comparative analysis and had seen, in effect, that it was a good proxy. I did not consider that I could place any reliance on this evidence or on the models which had used altered gabbro throughout the east wall. Dr Guest did not provide the material which would have allowed the court to make a comparison between the use of altered gabbro and fresh gabbro with anisotropic characteristics. Mr Major gave evidence, which appeared cogent, as to the reasons why the one was not a reliable proxy for the other: as he put it '… there cannot be a general correlation between a strength function that's directional and a strength function that's not directional…'.

(3) Dr Guest's stability analysis incorporates the 'inferred' pegmatite fault set from BGC's 2023 report. Mr Major had considered that the existence of this fault set was too speculative to be included in a slope stability analysis; and in fact, BGC has more recently removed these inferred faults from its model. Dr Guest did not, in my view, provide a plausible justification for continuing to use these inferred faults in his stability analysis.

(4) BGC's stability analysis applies a detailed hydrogeological model developed by Flo Solutions, which had been engaged by Atlantic Nickel since 2021. That model predicts that there will be a 'drawdown' of the groundwater behind the pit slope, so that the rock immediately behind the pit slope will not be saturated but will be 'dewatered' and 'depressurized'. Dr Guest accepted that he had not followed BGC's approach. Mr Major's evidence appeared to me to be the more reliable, namely that it was appropriate to follow the conclusions of Flo Solutions, who had looked at the effects of infiltration. Mr Major confirmed that, while hydrogeology was not his area of specialism, it was consistent with his experience that the water table would draw down as the pit was mined.

158. Furthermore, I considered that Dr Guest's analysis, and opinions based on it, did not accord with the realities. Mining has continued since early 2022, using the mine design produced in 2019 by Stantec. There have not been slope failures as a result of unsafe slope angles as would be indicated by Dr Guest's analysis. Dr Guest's analysis of the slopes which used Stantec's angles produced results in which all seven sections had a FoS below 1.3, which was the acceptance criterion which he used to benchmark the results. Moreover, on his analysis five of the sections had a FoS of less than 1. On Dr Guest's evidence, a slope with a FoS of less than 1 will fail. Those slopes should therefore have failed, but have not. Dr Guest said, in cross-examination, that his

analysis had been on a deterministic basis and that, given that there is variability in nature, it would have been preferable to do a probabilistic analysis (ie as to the probability of the FoS of a given slope being less than the acceptance criterion). He had not, however, produced such an analysis, and I was therefore unable to attach any significant weight to this as a possible explanation of the apparent discrepancy between the result of his deterministic analysis and what has happened (or not happened).

159. Mr Major gave evidence that, having received the stability analysis included in Dr Guest's first report, he had carried out his own stability analysis. For these purposes Mr Major had used the same SLIDE computer software, and the same properties and characteristics as in Dr Guest's analysis, save where he had made intentional adjustments, namely using fresh gabbro for the area below the saprolite/transition, using the groundwater assumptions applied by BGC based on the Flo Solutions hydrogeological analysis, and removing the inferred pegmatite faults. This analysis had shown that the Stantec mine design had FoS values which exceeded reasonable acceptance criteria in all but one section analysed (namely IV-IV'). In relation to section IV-IV', Mr Major gave evidence that the low FoS for this section was probably the result of fault modelling and/or fault strength assumptions being too conservative, given that Section III-III' has a rather similar configuration to the indicated structures in section IV-IV', but is stable. The design solution, in Mr Major's opinion, was likely be a design incorporating step outs or buttresses, rather than a full height slope lay-back.

160. Mr Major also explained that, for the purpose of his re-working of Dr Guest's stability analysis, he had not included anisotropy, because Dr Guest's analysis had not done so. He nevertheless said that he had run his model using the 2024 BGC structural model, assuming fresh gabbro but with anisotropy, and the results were that there was a FoS over 2 for all sections other than IV-IV'.

161. I found the evidence of Mr Major, which I have summarised in the previous two paragraphs, convincing.

162. As to BGC's Preliminary Design Guidance of May 2023, Mr Major considered that a suggested angle of 53° was too conservative, given the rock quality and typical structural conditions. More significantly, Mr Major pointed to BGC's 2024 updated geotechnical model. The changes made had, as he put it, increased FoS, and the elimination of the inferred pegmatite fault set had reduced the risk of structurally-controlled instability in various sections. Taking this model into account, as I have already said, Mr Major's stability analysis indicated that all existing slope designs have acceptable FoS values other than IV-IV'. I have already set out his evidence in relation to that section.

163. Finally, insofar as Dr Guest's evidence as to the severity of the implications of the GE for the Mine depended on there being no mining below the GE, I have already given my reasons for concluding that there was no safety reason why, if there was a 30 m berm below the GE area, mining should not have occurred below the GE, as indeed it did, without incident.

Mine Engineering

164. In the field of mine engineering expert evidence was adduced by the Claimants from Mr David Tutton and by the Defendants from Mr Bruce Pilcher. Both were appropriately qualified to opine on mine engineering. Mr Tutton had, however, very much greater experience of mining in Brazil. He has lived and worked in Brazil, and speaks Portuguese, and in the last 22 years he has regularly provided mining consultancy services to Brazilian mining companies.

165. The approaches of the two experts in their initial reports were different. In Mr Tutton's case, he prepared hypothetical mine plan scenarios reflecting the mine configuration prior to and after the GE. The five scenarios which he considered in his first report were:

(1) Scenario 1: an attempt to reproduce the approach in the 2021 NI 43-101, incorporating the mining backlog which had developed in 2021, but not taking into account the GE. In other words, this was intended to be the expected performance of the mine in the absence of the GE.

(2) Scenario 2: adjusted Scenario 1 to incorporate the mitigation measures adopted in response to the GE, and in particular the Phase 10 pushback, in order to reflect Atlantic Nickel's planned mining schedule.

(3) Scenario 3: adjusted Scenario 2 to incorporate the subsequent mitigation measures to address the Bullnose instability, in particular the Phase 10N pushback.

(4) Scenario 4: adjusted Scenario 1 to incorporate a modified version of the Phase 10/10N mining plan and an alternative mining schedule, which Mr Tutton had prepared to maximise value. It is the plan that he would have recommended had he been engaged to advise on mine planning in late December 2021 and January 2022. On that plan, there would have been a smoother slope transition in the northern part of the phase, so that the bullnose configuration, which led to the Bullnose instability, would not have occurred. Other phases were left unchanged.

(5) Scenario 5: maximised the size of the open pit, without any constraint with respect to a transition to an underground mine.

166. The results of Mr Tutton's modelling of these five scenarios were as follows:

(1) On scenario 1, the simplified NPV of the Mine after tax as at 31 December 2021 was US$521 million.

(2) On scenario 2, the simplified NPV of the Mine after tax was US$505 million, ie a decrease from the base case of about US$16 million.

(3) On scenario 3, the simplified NPV of the Mine after tax was US$500 million, ie a decrease from the base case of about US$21 million.

(4) On scenario 4, the simplified NPV of the Mine after tax was US$503 million, ie a decrease from the base case of about US$18 million.

(5) On scenario 5, the simplified NPV after tax was US$675 million.

167. Mr Tutton also considered the additional tonnage which would have needed to be mined had the Tec3 slope recommendations for the remediation been adopted for Phases 10 and 10N. This would have produced an additional amount, by comparison with the designs adopted by Atlantic Nickel, of some 210,000 t of waste, or about three days of mine movement.

168. Mr Pilcher's first report principally sought to model the effects of adopting Dr Guest's slope angle recommendations. His calculation was that the adoption of those angles would have meant an additional 109.9 Mt of waste. Taking into account that the revised pit design would have intersected the Eastern Waste Rock Dump there would have been an additional 2.6 Mt needing to be moved; and so in total an additional 112.4 Mt of waste would need to be mined.

169. In his second report, Mr Tutton commented that the adoption of Dr Guest's slope angles, which would have meant a reduction of angles of approximately 20° from those used in the 2021 NI 43-101 would have been unprecedented in his experience. His evidence, which I accept, was that:

> 'In 48 years of open pit mining experience, I have not worked at, or consulted for, a hard rock mine where slopes have undergone such a large reduction in overall slope angles over a substantial slope height (of almost 200 meters). While I have observed such reductions in mines with saturated soft clays in weathered slopes and less than 75 meters of vertical height, I have not observed this at a mine like Santa Rita where hard rock is generally observed below the relatively shallow surface of oxidation …'.

170. Mr Tutton stated that he had not been instructed to duplicate Mr Pilcher's analyses based on Dr Guest's slope angles. He said, however, that Mr Pilcher's analyses 'clearly demonstrate the impact of shallow slope angles on the East Wall and resultant ore loss and waste gain.' Mr Tutton did, however, add a 'Scenario 6' to the five he had modelled in his first report. This used the slope designs in BGC's 2023 Preliminary Design Guidance for the east wall; and considered also the possibility of some in-pit dumping. Mr Tutton thus produced:

> (1) Scenario 6a: a hypothetical case that adopts BGC's 2023 Preliminary Design Guidance for the East Wall. Mr Tutton calculated a simplified NPV of about US$456 million, ie a decrease from the base case of about US$65 million.
>
> (2) Scenario 6b: a hypothetical case that adopts BGC's 2023 Preliminary Design Guidance for the East Wall but considers the upside of some in pit dumping. Mr Tutton calculated a simplified NPV of about US$458, ie a decrease from the base case of about US$63 million.
>
> For the purposes of his Scenario 6, Mr Tutton had adopted the 75th percentile bench angles in the BGC Technical Memorandum of 8 May 2023.

171. For the purposes of his exercises in relation to his Scenarios, Mr Tutton had first prepared mine plans, using the surveyed topography as at 31 December 2021 as the basis to schedule mining to the end of the life of mine; and for each scenario had prepared operating mine and dump planning plans, a haulage analysis, assessed technical reference quantities and performed equipment dimensioning and capital and operating costing.

172. Mr Pilcher did not comment on Mr Tutton's costings or economic assumptions, and did not produce his own. To the extent that there was expert criticism of Mr Tutton's approach to these matters it came from Mr Rosen. As I understood it, Mr Pilcher did not dispute Mr Tutton's analyses contained in his Scenarios 1-6, utilising the premises on which those scenarios were based, save as follows:

(i) He did not consider Mr Tutton's Scenario 5 to be realistic, because of the depth of the Mine and the adverse waste/ore ratio;

(ii) He considered that it was reasonable not to assume in pit dumping for Scenario 6, and that Mr Tutton had not included the costs for moving waste or low-grade stockpile which would be required in Scenario 6;

(iii) He considered that in Scenario 6, the 50th percentile angles should have been used rather than the 75th percentile angles.

173. Mr Tutton's approach to cost estimation was nevertheless the subject of challenge, including, as I have said, by Mr Rosen. One point which was raised was that Mr Tutton had assumed a transition to owner (as opposed to contractor mining), something which has not, in the event, happened. Given that the expectation in December 2021 was of a transition to owner mining, and given that Mr Tutton applied this assumption to all his scenarios, this did not, in my view, undermine the usefulness of Mr Tutton's exercises as estimates of the *comparative* values to be given to the Mine as at 31 December 2021 on various hypotheses.

174. A further point on which Mr Tutton was challenged was as to the reliability of his costings, on the basis that they had been compiled from sources which significantly predated January 2022, namely the 2021 Production Model and the 2021 NI 43-101. Mr Tutton's evidence was that he had adopted a conventional mine engineering approach to cost estimation, which was the method he has used routinely in Brazil during the last 22 years for a number of mining companies for mine budget reviews, feasibility audits and owner/contractor trade-off studies. This had involved, in part, an assessment of unit prices and labour costs which had been derived from his own costs database. As he said, during 2021 he was actively working in Brazil, and 'was exposed on a routine basis to fuel costs, explosives costs, labour costs, consumable costs. So I was in a position to make an independent cost estimate.'

175. In my judgment, and in the absence of any critique of Mr Tutton's costs estimation by someone with comparable experience of Brazilian mining, there was no sound basis for doubting Mr Tutton's approach to costings for the purposes of the exercises he had performed.

176. The mine engineering experts expressed different opinions about two particular matters on which the mine geotechnics experts had also expressed opinions, and it is convenient to give my conclusions on those differences at this stage.

177. In the first place, the mine engineering experts differed on the characterisation of the GE. Mr Tutton said it was a 'relatively minor incident'. Mr Pilcher considered it to be 'significant'. It is only of limited use to choose between these adjectives, because the scale being used is unclear. Nevertheless, I found credible Mr Tutton's evidence that:

> 'Based on my experience, I routinely observe geotechnical incidents that are handled as part of normal mining operations. These often impact significantly greater tonnage and areas of mine operations to that of that (sic) at Santa Rita; thus my usage of the word relatively.
>
> …
>
> I rarely visit sites without observing current or historical geotechnical events.'

178. Secondly, Mr Pilcher expressed the view that it was unsafe to mine below the GE, even with a 30 meter step out in place. For his part, Mr Tutton said that, in his experience 'in larger incidents at other mines, including experience from this year at other mines that I've been visiting, that a 30-metre stand-off is a very common practice.'

179. I did not consider Mr Pilcher's evidence on this point to be reliable. Mr Pilcher does not have geotechnical expertise, and his view was not based on any mathematical or other analysis. I considered that I should rely on Mr Major's run out analysis and evidence on this issue. Mr Tutton's evidence, limited though it was, tends to confirm that there is nothing unusual about the adoption of a 30 m exclusion zone as a response to incidents of this sort.

Financial modelling experts

180. Expert evidence was adduced from Mr Mark Bezant of FTI Consulting, on behalf of the Claimants, and from Mr Howard Rosen of Secretariat, on behalf of the Defendants. Each is a well-qualified expert in the fields of business valuations, damages quantification and corporate finance related matters.

181. Mr Rosen had been instructed to assess the financial impact of the GE based on Dr Guest's mining recommendations and Mr Pilcher's revised pit design based on those recommendations of Dr Guest. The result of this exercise produced very large numbers. Using an adjusted Santa Rita 2022 Financial Model, and three mine schedules used by Mr Pilcher, Mr Rosen calculated decreases in the NPV of Atlantic Nickel as a result of the GE of between US$244 million and US$286 million. As a percentage of an NPV but for the GE, which Mr Rosen had calculated as US$604 million, those represented decreases of between 40% and 47%; or of between 46% and 54% by comparison with the SPA price of $525 million.

182. Mr Bezant had a number of caveats as to this exercise of Mr Rosen's. I do not, however, need to consider the details of this any further. As will appear both from what I have said above and from what I will say below, I do not consider Dr Guest's recommendations to be realistic or reliable and accordingly the financial consequences of their implementation are not a matter which needs further examination.

183. In his Second Report, Mr Bezant conducted a different exercise. He commented on Mr Tutton's economic assumptions (and, in particular, metal prices, inflation, royalties and discounting). He agreed that Mr Tutton's assessments were unlikely to be sensitive to economic assumptions because these assumptions were not affected by the GE and were held constant between Mr Tutton's different scenarios.

184. Mr Bezant did consider that, for a valuation of the Santa Rita open pit mine as at 1 January 2022, he would make two adjustments to Mr Tutton's model. One was in respect of metal price forecasts. He would use metal price forecasts based on analyst consensus forecasts close to the valuation date, rather than the metal prices in the 2021 NI 43-101. Mr Bezant had carried out a sensitivity analysis on this. This exercise showed that Mr Tutton's assessments of the impact of the GE in scenarios 2, 3 and 4 were not sensitive to commodity price assumptions in this sensitivity analysis.

185. Mr Bezant also did an analysis of applying an adjustment of one year of inflation to Mr Tutton's costs estimates. In part this appears to have been done because Mr Bezant originally considered that Mr Tutton's cost estimates had been based on the 2021 NI 43-101 and an Atlantic Nickel production model dated 5 March 2021. Mr Tutton had subsequently explained that in fact he had used costs estimates based, in part, on his database, as at late 2021.

186. In any event, Mr Bezant's sensitivity analysis, applying one year's inflation, showed that Mr Tutton's assessments in relation to Scenarios 2, 3 and 4 were not sensitive to this inflation assumption; and furthermore, that those assessments were not particularly sensitive to the exact inflation rate used for the purpose of the analysis, except if the rate used was very high.

187. Mr Rosen made a number of criticisms of Mr Tutton's costs estimation. These were not, however, based on any comparable exercise of using unit prices applicable at the end of 2021. I accepted, as Mr Tutton opined, that Mr Rosen's approach was not consistent with that typically used in mine budget reviews, feasibility audits, owner/contractor trade-off studies or NI 43-101 reporting. I therefore did not accept that Mr Rosen's criticisms undermined the substantial reliability of Mr Tutton's assessments, and, in particular, their indication of the scale of the impact of the GE, in Scenarios 2, 3 and 4, judged by comparison with the base case of an NPV calculated by reference to the expected performance of the Mine in the absence of the GE.

188. A further aspect of the evidence of both Mr Rosen and Mr Bezant was a critique of the exercise carried out by Moelis for Sibanye Stillwater in January 2022. That evidence I have taken into account, to the extent necessary, in my consideration of that exercise which appears at a later stage in this judgment.

Analysis

189. It is now possible to address the central issues as to liability with which this trial has been concerned.

Was there a MAE?

190. The first two of those issues are: (1) was the GE a MAE? And (2) if *prima facie* it was a MAE, because it fell within the general words of the definition, was it nevertheless not a MAE because it fell within exclusion (i) to the definition? These questions are to be answered by applying the facts to the terms of the Atlantic Nickel SPA properly construed.

Approach to construction

191. The parties differ as to certain limited, but important, issues as to the meaning and effect of the Atlantic Nickel SPA. It is accordingly necessary to address the proper approach to be adopted in relation to such issues.

192. It was not in dispute that the approach which the court should adopt is to apply the ordinary principles of construction of contracts governed by English law. These have been stated in decisions of high authority on a number of occasions. The essential principles were summarised in the judgment of Lord Hodge in Wood v Capita Insurance Services Ltd [2017] UKSC 24 at [10]-[13] as follows:

> '[10] The court's task is to ascertain the objective meaning of the language which the parties have chosen to express their agreement. It has long been accepted that this is not a literalist exercise focused solely on a parsing of the wording of the particular clause but that the court must consider the contract as a whole and, depending on the nature, formality and quality of drafting of the contract, give more or less weight to elements of the wider context in reaching its view as to that objective meaning. In *Prenn v Simmonds* [1971] 1 WLR 1381 (1383H-1385D) and in *Reardon Smith Line Ltd v Yngvar Hansen-Tangen* [1976] 1 WLR 989 (997), Lord Wilberforce affirmed the potential relevance to the task of interpreting the parties' contract of the factual background known to the parties at or before the date of the contract, excluding evidence of the prior negotiations. When in his celebrated judgment in *Investors Compensation Scheme Ltd v West Bromwich Building Society* [1998] 1 WLR 896 Lord Hoffmann (pp 912-913) reformulated the principles of contractual interpretation, some saw his second principle, which allowed consideration of the whole relevant factual background available to the parties at the time of the contract, as signalling a break with the past. But Lord Bingham in an extra-judicial writing, *A new thing under the sun? The interpretation of contracts and the ICS decision* Edin LR Vol 12, 374-390, persuasively demonstrated that the idea of the court putting itself in the shoes of the contracting parties had a long pedigree.
>
> [11] Lord Clarke elegantly summarised the approach to construction in *Rainy Sky* at para 21f. In *Arnold* all of the judgments confirmed the approach in *Rainy Sky* (Lord Neuberger paras 13-14; Lord Hodge para 76; and Lord Carnwath para 108). Interpretation is, as Lord Clarke stated in *Rainy Sky* (para 21), a unitary exercise; where there are rival meanings, the court can give weight to the implications of rival constructions by reaching a view as to which construction is more consistent with business common sense. But, in striking a balance between the indications given by the language and the implications of the competing constructions the court must consider the quality of drafting of the clause (*Rainy Sky* para 26, citing Mance LJ in *Gan Insurance Co Ltd v Tai Ping Insurance Co Ltd (No 2)* [2001] 2 All ER (Comm) 299 paras 13 and 16); and it must also be alive to the possibility that one side may have agreed to something which with hindsight did not serve his interest: *Arnold* (paras 20 and 77). Similarly, the court must not lose sight of the possibility that a provision may be a negotiated compromise or that the negotiators were not able to agree more precise terms.
>
> [12] This unitary exercise involves an iterative process by which each suggested interpretation is checked against the provisions of the contract and its commercial consequences are investigated: *Arnold* para 77 citing *In re Sigma Finance Corpn* [2010] 1 All ER 571, para 10 per Lord Mance. To my mind once one has read the language in dispute and the relevant parts of the contract that provide its context, it

does not matter whether the more detailed analysis commences with the factual background and the implications of rival constructions or a close examination of the relevant language in the contract, so long as the court balances the indications given by each.

[13] Textualism and contextualism are not conflicting paradigms in a battle for exclusive occupation of the field of contractual interpretation. Rather, the lawyer and the judge, when interpreting any contract, can use them as tools to ascertain the objective meaning of the language which the parties have chosen to express their agreement. The extent to which each tool will assist the court in its task will vary according to the circumstances of the particular agreement or agreements. Some agreements may be successfully interpreted principally by textual analysis, for example because of their sophistication and complexity and because they have been negotiated and prepared with the assistance of skilled professionals. The correct interpretation of other contracts may be achieved by a greater emphasis on the factual matrix, for example because of their informality, brevity or the absence of skilled professional assistance. But negotiators of complex formal contracts may often not achieve a logical and coherent text because of, for example, the conflicting aims of the parties, failures of communication, differing drafting practices, or deadlines which require the parties to compromise in order to reach agreement. There may often therefore be provisions in a detailed professionally drawn contract which lack clarity and the lawyer or judge in interpreting such provisions may be particularly helped by considering the factual matrix and the purpose of similar provisions in contracts of the same type. The iterative process, of which Lord Mance spoke in *Sigma Finance Corpn* (above), assists the lawyer or judge to ascertain the objective meaning of disputed provisions.'

Authority and academic commentary

193. I have also been referred to decided cases, and to some academic writings, on MAE or Material Adverse Change (or 'MAC') clauses. The authorities cited have included both cases from this jurisdiction, and also from the USA. Cockerill J in Travelport Ltd v WEX Inc [2020] EWHC 2670 (Comm) recognised that there was a 'dearth of relevant English authority' on such clauses and there was a 'better developed body of case law in the US, notably in Delaware' (at [175]-[176]). She continued:

'While I would agree that the [US] cases are not admissible as factual matrix, this is just the kind of situation where a review of the authorities from a foreign court is called for. Those authorities will obviously not be binding or formally persuasive, but to ignore the thinking of the leading forum for the consideration of these clauses, a forum which is both sophisticated and a common law jurisdiction, would plainly be imprudent – as well as discourteous to that court. The same goes for the academic learning which is often cited in the Delaware Court.'

I entirely agree with that, and, in this trial both parties agreed that it was, in certain respects, helpful to look at the US authorities. In the case of the Defendants, this was subject to a particular caveat, to which I will revert.

194. In having regard to authority, whether from the USA or from this jurisdiction, it is clearly essential to be aware of whether the clauses being considered were the same or different from those at issue here, and of any other points of material dissimilarity between the issues there debated and those raised here.

US Authorities

195. In *Re IBP Inc. Shareholders Litigation* Del. Ch., 789 A.2d 14 (2001), the Court of Chancery of Delaware (Strine VC), considered a term (Section 5.10) in a merger agreement, whereby it was warranted that there had not since the Balance Sheet Date been 'any event, occurrence or development of a state of circumstances or facts which has had or reasonably could be expected to have a Material Adverse Effect' … 'on the condition (financial or otherwise), business, assets, liabilities or results of operations of [IBP] and [its] Subsidiaries taken as a whole…' At [30]-[31] Strine VC said:

'To a short-term speculator, the failure of a company to meet analysts' projected earnings for a quarter could be highly material. Such a failure is less important to an acquiror who seeks to purchase the company as part of a long-term strategy. To such an acquiror, the important thing is whether the company has suffered a Material Adverse Effect in its business or results of operations that is consequential to the company's earnings power over a commercially reasonable period, which one would think would be measured in years rather than months. It is odd to think that a strategic buyer would view a short-term blip in earnings as material, so long as the target's earnings-generating potential is not materially affected by that blip or the blip's cause.

…

Practical considerations lead me to conclude that a New York court would incline toward the view that a buyer ought to have to make a strong showing to invoke the Material Adverse Effect exception to its obligation to close. Merger contracts are heavily negotiated and cover a large number of specific risks specifically. As a result, even where a Material Adverse Effect condition is as broadly written as the one in the Merger Agreement, that provision is best read as a backstop protecting the acquiror from the occurrence of unknown events that substantially threaten the overall earnings potential of the target in a durationally-significant manner. A short-term hiccup in earnings should not suffice; rather the Material Adverse Effect should be material when viewed from the longer-term perspective of a reasonable acquiror.'

196. In *Frontier Oil Corp. v Holly Corporation* (Court of Chancery of Delaware, Memorandum Opinion 29 April 2005, Noble VC), there was an issue as to whether there was a breach of warranty that litigation would not, or would not reasonably, be expected to have a MAE, which was defined as 'a material adverse effect with respect to (A) the business, assets and liabilities (financial or otherwise) or prospects of a party and its Subsidiaries on a consolidated basis…'. Noble VC said (at p.92) that the test of 'would have' or 'would not reasonably be expected to have' is an objective one; and further (at footnote 209) stated that the use of 'would' connoted 'a greater degree (although quantification is difficult) of likelihood than 'could' or 'might,' which would have suggested a stronger degree of speculation (or a lesser probability of adverse consequences'. Noble VC continued, having commented that '[i]t would be neither original nor perceptive to observe that defining a 'Material Adverse Effect' as a 'material adverse effect' is not especially helpful', that the clause involved 'a forward-looking analysis', especially because of the use of the words 'would not reasonably be expected to have'. He also found that the approach in *IBP Shareholders Litigation*, in the passage which I have cited above, which had been applying New York law, represented the approach of Delaware law as well.

197. Later, Noble VC stated (at p.104):

'The question of whether a particular "problem" would have an MAE has both quantitative and qualitative aspects.'

198. In *Hexion Spec. Chemicals v Huntsman Corp* Del. Ch. 965 A. 2d. 715 (2008), Lamb VC in the Court of Chancery of Delaware adopted much of the language of *IBP Shareholders Litigation* quoted above, and also said (at [3-6]):

'Many commentators have noted that Delaware courts have never found a material adverse effect to have occurred in the context of a merger agreement. This is not a coincidence.'

199. Lamb VC held that the burden of proving that a MAE had occurred lay on the buyer, irrespective of the form in which the MAE clause was drafted (ie whether as a representation, warranty or condition to closing), absent clear wording to the contrary.

200. In *Akorn Inc v Fresenius Kabi AG* (Court of Chancery of Delaware, Memorandum Opinion 1 October 2018, Laster VC), the judge considered what might be a MAE in two contexts in his judgment. In the course of the first consideration (in relation to the 'General MAE'), Laster VC rejected the submission that a MAE cannot be claimed if it is based on risks that the buyer knew of or should have known of when entering into the agreement. In *IBP* there had been a reference to a MAE clause applying to 'unknown events', but 'unknown events' were not the same as contemplated risks. The MAE clause at issue in *Akorn* was 'forward looking and focuses on events. It does not look backwards at the due diligence process and focus on risks.'

201. In the course of the second consideration (in relation to a so-called Bring Down Condition) he considered the wording 'would reasonably be expected to have a Material Adverse Effect'. He stated that the 'reasonably be expected to' standard is an objective one. He continued:

'When this phrase is used, "[f]uture occurrences qualify as material adverse effects". As a result, an MAE "can have occurred without the effect on the target's business being felt yet." Even under this standard, a mere risk of an MAE cannot be enough. "There must be some showing that there is a basis in law and in fact for the serious adverse consequences prophesied by the party claiming the MAE".'

The footnote to this passage contains the following:

'One commentator argues that the "would reasonably be expected" formulation is best thought of as meaning '"likely to happen', with likely, in turn, meaning 'a degree of probability greater than five on a scale of one to ten'"… In other words, it means more likely than not.'

202. Laster VC continued that, when evaluating whether a particular issue would reasonably be expected to result in a MAE, the court must consider "quantitative and qualitative aspects."' Looking at the quantitative dimension in that case, Laster VC found that a decline in the standalone equity value of the target company of some 21% was a MAE. That assessment, Laster VC said, was based on the evidence in the record and his own 'intuition and experience (admittedly as a lawyer and judge rather than as a buyer or

seller of businesses).' Laster VC referred to a series of 'cross checks' which supported his 'intuitive belief' that a drop in value of more than 20% would be material to a reasonable strategic acquirer. These included:

'First, there is the general magnitude of a 20% change … By one common definition, a bear market occurs when stock prices fall at least 20% from their peak, which suggests a broad cultural sense that this level of losses is viewed as material…

Second, there are the levels at which parties renegotiate after one side asserts an MAE. One unpublished study found that "[w]hen the target experiences a firm-specific MAE, the subsequent renegotiation reduces the price by 15%, on average". The fact that acquirers force renegotiations and then reach agreement (on average) at the 15% level suggests that an acquirer would regard a drop in value of 20% as material.'

In his footnote 740 Laster VC cautioned, however, that 'No one should fixate on a particular percentage as establishing a bright-line test.'

203. In *Snow Phipps Group LLC v KCake Acquistion Inc* (Court of Chancery of Delaware, Memorandum Opinion 30 April 2021, McCormick VC), at p. 68 the judge said:

'There is no "bright-line test" for evaluating whether an event has caused a material adverse effect. To assess whether a financial decline has had or would reasonably be expected to have a sufficiently material effect, this court will look to "whether there has been an adverse change to the target's business that is consequential to the company's long-term earnings power over a commercially reasonable period.' …

What constitutes durational significance is also context specific. "A short-term hiccup in earnings should not suffice" to constitute a material adverse effect. The effect "should be material when viewed from the longer-term perspective of a reasonable acquiror". Generally, it is expected that the "commercially reasonable period" will be "measured in years rather than months".'

204. Finally, I should refer to a closely-reasoned article by Professor Robert T Miller entitled 'A New Theory of Material Adverse Effects', published in *The Business Lawyer*, vol 76 (Summer 2021), p.749-816. This contains a number of thoughtful observations, even if one does not subscribe to Professor Miller's 'new theory' itself. In particular:

(1) At p.761-2, Professor Miller considers the fact that MAE clauses typically contain a list of facets of the business which may be affected by the 'material adverse effect'. He says:

'… a Material Adverse Effect requires a material adverse effect on the company's business *or* on its financial condition *or* on any other of a long list of MAE Objects. This logical structure, however, is misleading. Especially when the list of MAE Objects becomes long, the impression may be created that the scope of the definition is being significantly expanded, with the result that more and more events would fall within the meaning of the phrase "Material Adverse Effect" as used in the agreement. This impression is largely, probably entirely, erroneous. The Delaware Court of Chancery has consistently ignored the list of MAE Objects and asked simply whether the "company" had suffered a material adverse effect. While surprising at first blush, there is nevertheless a good reason for this. For, what might it mean for the business of the

company to have suffered a material adverse effect but not its financial condition, or its financial condition but not its results of operations, and so on? Probably, transactional lawyers should drop the whole concept of MAE Objects and draft MAE clauses in accordance with the principle from the caselaw that an MAE requires a material adverse effect "on the company".'

(2) At p.784-5, the author considers the reference in *Frontier Oil* to a MAE having quantitative and qualitative aspects. He refers to this as 'unguarded language' and comments:

'But the problems with these qualitative analyses runs even deeper. In particular, it seems that any event that passes the quantitative test will necessarily pass the qualitative one (for how could an event that substantially reduces the target's overall earnings in a durationally significant manner *not* be a qualitative material adverse effect?), and any event that fails the quantitative tests will necessarily fail the qualitative one (for why would a rational acquirer think a change is material if it did *not* reduce the overall earnings potential of the target in a durationally significant manner?) If this is right, then the qualitative test adds nothing to the quantitative and could be eliminated without affecting the outcome of cases. …. Indeed, without falling back on the quantitative understanding of a material adverse effect, it is not even clear what it means to say that an event is a "qualitative" material adverse effect.'

Cases in England and Wales

205. I have already referred to the observation of Cockerill J in *Travelport Ltd v WEX Inc* that there is a comparative dearth of English authority in relation to MAE clauses. She noted that most cases which have considered similar clauses have done so in the context of banking, not share purchase, transactions.

206. The comparative dearth is beginning to be made good; and I was referred to four authorities from this jurisdiction which it is convenient to consider at this point.

207. In *Grupo Hotelero Urvasco v Carey Added Value SL* [2013] EWHC 1039, Blair J was considering a MAC clause in a loan agreement. At [364] he summarised the proper approach to such clauses in that context, which clearly differs from that relevant here, as follows:

'The interpretation of a "material adverse change" clause depends on the terms of the clause construed according to well established principles. In the present case, the clause is in simple form, the borrower representing that there has been no material adverse change in its financial condition since the date of the loan agreement. Under such terms, the assessment of the financial condition of the borrower should normally begin with its financial information at the relevant times, and a lender seeking to demonstrate a MAC should show an adverse change over the period in question by reference to that information. However, the enquiry is not necessarily limited to the financial information if there is other compelling evidence. The adverse change will be material if it significantly affects the borrower's ability to repay the loan in question. However, a lender cannot trigger such a clause on the basis of circumstances of which it was aware at the time of the agreement. Finally, it is up to the lender to prove the breach.'

208. In *Decura IM Investments LLP v UBS AG* [2015] EWHC 171 (Comm), Burton J considered an Additional Termination Event in an Introduction and Outsourcing Agreement. In very brief summary, there would be an Additional Termination Event if UBS ceased to carry on a material part of its business which had 'a material adverse effect' on the marketing of the services which were the subject of the Introduction and Outsourcing Agreement. Again, the nature of the agreement and context differ from those relevant here. Burton J referred to the *Grupo Hotelero* case. At [12] and [28(ii)] he said that the question of whether there had been a material adverse effect was to be answered objectively, 'and does not depend, for example, on what Decura believed was *material* when they served the notice.' He then said, at [28(iv)], that 'the time to assess materiality is when the notice is served on the basis of the asserted entitlement of Decura to terminate by reference to it …'

209. At [29]-[31] Burton J considered what was meant by 'material'. He recorded, at [29] the submission on behalf of the defendant, by reference to US cases and commentary, that the threshold was a very high one, and that a party asserting a material adverse effect bore a heavy burden. Burton J commented:

> 'Although such American authority is of course not binding on me, as it was not on Blair J, the fact that such a clause is relied on to discharge a party's obligations and terminate a contract obviously emphasises its significance.'

210. At [30] Burton J said that the question of materiality had to be considered 'in the context of the factual matrix of the contract.' He identified a number of matters which he considered relevant, including that the agreement was for an unlimited duration, subject only to the termination provisions; and that some of the changes relied upon by the claimant had been known to it at the time of the agreement. He then said, at [31]:

> 'I consider that both parties' espousal of the epithets significant or substantial as the proper interpretation of *material* in this case is right. I consider that I am entitled to take into account, in assessing *materiality,* all the matters set out above. I conclude that I do not need any further assistance by way of the interpolation of the word "very"…'

211. The third case is the decision in *Travelport v WEX* to which I have already referred. The nature of the agreement there was much more similar to that at issue here: a Share Purchase Agreement for the purchase of shares in two companies, with a transaction value of over US$1 billion. The particular issues with which Cockerill J was concerned were, however, different from those raised here. The essential issue was as to the meaning and interrelationship of a Carve Out to the MAE Definition (viz, 'conditions resulting from … pandemics'), and a Carve Out Exception (for events which have 'a disproportionate effect on [the target companies], as compared to other participants in the industries in which [they] operate'). This involved a consideration of what were the relevant industries for the purposes of the MAE definition.

212. The following matters are, nevertheless, of some relevance to the current case:

> (1) At [133]-[134] Cockerill J recorded that the sellers had 'rightly' not pursued an argument that, by analogy with US cases, there was any special principle applicable to MAE clauses whereby such clauses were narrowly construed, or that a party invoking such a clause bore a 'high burden'.

(2) Nevertheless, as I have already said, Cockerill J did decide that a consideration of US authorities was helpful ([176]-[190]).

(3) While the buyers there bore the burden of proving that the general definition of the MAE clause was applicable, it was the sellers who bore the burden of proving that a Carve Out applied ([276]-[279]), and buyers who bore the burden of establishing that a Carve Out Exception applied ([311(a)]).

213. The final decision to which I should refer is *Finsbury Food Group PLC v Axis Corporate Capital UK Ltd* [2023] EWHC 1559 (Comm). In that case, Mr Persey KC, sitting as a Deputy High Court Judge, was considering the terms of a warranty in a sale and purchase agreement that there had been no material adverse change in the trading position of the target companies or their financial position, prospects or turnover, and none of the target companies had had its business, profitability or prospects adversely affected by the loss of any customer representing more than 20% of the total sales of the target companies or by any factor not affecting similar businesses to a like extent. Mr Persey KC held that there were two warranties involved here: one that there had been no material adverse change in the trading position of the target companies or their turnover and a separate warranty that there had been no loss of a customer representing more than 20% of the target companies' total sales. The judge further concluded (at [123]-[124]), that a material adverse change did not mean a loss of 20% in turnover; and that a material adverse change must exceed 10% of the total group sales of the target companies.

Factual matrix

214. The Defendants sought to rely on certain features of what they termed the factual matrix of the SPAs as supportive of their case on construction. In opening Ms Tolaney KC pointed to four features, three of which I did not understand the Claimants to object to. Those three were (i) that the anticipated life of the Santa Rita Mine was only of some 7 years, with a speculative additional period if an underground mine was pursued; (ii) that there was a significant gap between the signing of the SPAs and intended closing, in which adverse events could, plainly, occur in mines such as these; and (iii) that if an adverse event did occur, Sibanye Stillwater would (subject to being able to rely on the MAE clause) be owner of the mine 'with responsibility for clearing up the mess', as Ms Tolaney KC put it. I have borne all those features in mind.

215. Ms Tolaney KC also sought to rely on documents which indicated that both parties knew that Sibanye Stillwater was seeking to acquire an 'essentially off-the-shelf' mine, which would give a 'ready supply of low-cost nickel' and was 'not bargaining for significant complications or delays.' The Claimants objected to reliance on this material as factual matrix given that it had not been pleaded as it should have been, if it were to be relied upon, in accordance with C.1.3(h) of the Commercial Court Guide. That appeared to me to be a fair objection. Furthermore, at least some of the documents relied upon by the Defendants postdated the SPAs.

216. In any event, it appeared to me that this material was of a rather general nature and did not afford any real assistance in resolving the specific issues of construction of the, carefully negotiated, SPAs which separate the parties.

The construction issues

217. There are three important issues of construction or interpretation of the SPAs which arise, which, in broad terms, concern: (1) whether and how the MAE provisions apply to revelatory occurrences; (2) whether the assessment of what would reasonably be expected involves consideration of a range of possible views; and (3) the meaning of 'material'.

218. I will come to deal with these three issues in turn. Before doing so, it is convenient to consider certain other features of the MAE provisions which were the subject of some debate at the hearing, or which are of some assistance in relation to the principal questions of construction. In dealing with matters in this way, I have not overlooked the fact that construction should be both a unitary and an iterative process, and I have considered the significance of each of the points in the context of the others, and of the entirety of the relevant provisions of the SPAs.

219. In the first place, section 6.1 makes it a condition of the Purchaser's obligation to complete that no MAE shall have occurred since signing. There cannot be a MAE relevant to section 6.1(3) unless a relevant 'change, event or effect' has 'occurred' between signing and closing of the SPA. In the present case there is no dispute that the GE was a 'change, event or effect' which occurred after the date of signing of the SPAs.

220. The parties disagreed as to the significance or otherwise of the use of the uncapitalised term 'effect' in the phrase 'change, event or effect' in the MAE definition. This was said to be relevant principally to the debate about 'revelatory occurrences', and I will consider it further in that context.

221. Secondly, the definition of MAE refers to the actual or reasonably to be expected impact of the 'change, event or effect' on 'the business, financial condition, results of operations, the properties, assets, liabilities or operations of the Group Companies'. While of course it is necessary to give effect to the terms of the clause as written, there is force in Prof Miller's point that the list of what he calls 'MAE Objects' could be considerably shortened without any significant change in meaning.

222. Thirdly, the Defendants argued that whether there was a 'Material Adverse Effect', and in particular whether a matter was material and adverse, had both quantitative and qualitative aspects. As I have already set out, this was said in *Frontier Oil v Holly Corp* and has been repeated in some subsequent US cases. The intended distinction is, as I understand it, between matters which can be measured in financial terms and those which cannot. Here I agree with Prof Miller that it is very difficult to think, at least in relation to a commercial agreement such as the SPAs, that a 'change, event or effect' which was not quantitively material and adverse to the business, financial condition (etc) of the Group Companies could nevertheless be a MAE because of 'qualitative' factors. Any relevant qualitative factors will, of course, almost invariably have an effect on the quantitative significance of the 'change, event or effect'. But if there is no significant impact in financial, or 'quantitative', terms on the Group Companies or their business, then it is difficult to see that such 'qualitative' matters could on their own mean that the 'change, event or effect' was 'material and adverse'.

223. Fourthly, there are, as was common ground, two limbs to the definition of a MAE, namely whether the 'change, event or effect' (i) 'is', or (ii) 'would reasonably be expected to be', material and adverse to the business, financial condition (etc) of the Group Companies.

224. The parties did not dispute that the point at which it was to be assessed whether the 'change, event or effect' was or would reasonably be expected to be material and adverse was the point at which a notice of termination was served relying on the 'change, event or effect' as being a MAE. This is consistent with *Decura v UBS*, and I agree that that is the appropriate point at which the matter is to be judged.

225. The parties also agreed, correctly, that the test for what would reasonably be expected was an objective one and did not depend on what either party subjectively thought at the time. The parties disagreed, however, as to whether there could be a range of what was reasonably to be expected. I return to that issue below.

226. Fifthly, the Defendants were at pains to stress that what they characterised as a 'special rule' in the USA that MAE clauses are to be narrowly construed and that a party relying on such a clause bears a 'heavy burden' had no application in relation to SPAs governed by English law. The Claimants, for their part, said that it was inaccurate to say that the US cases proceeded on the basis of such a 'special rule'; and in any event, they said that they were not relying on any such 'special rule'.

227. I accept and proceed on the basis that there is in English law no 'special rule' as to the construction or application of MAE clauses or as to the burden on a party who invokes such a clause. That is consistent with what was said by Cockerill J in *Travelport v WEX* at [134], which is in my judgment clearly right.

228. I now turn to the three main issues of construction or interpretation of the MAE provisions which divided the parties.

229. The first is as to whether what the Claimants described as a 'revelatory event' would be a MAE for the purposes of the SPAs. While the Claimants denied that the GE had revealed, or led to the revelation, of wider problems with the east wall of the Santa Rita pit as contended for by the Defendants, they submitted that, even if there had been such revelatory effects, that did not qualify the GE as a MAE. The state of the wider east wall, whether regard is had to its underlying geology, or to its slope angles, were matters which existed at the time of signature of the SPAs. In the case of the former, it had existed for millennia. No 'change, event or effect' had occurred in them by the happening of the GE, which was the only matter relied upon by the Defendants as a MAE.

230. The Claimants emphasised that the terms of the MAE definition looked to whether the 'change, event or effect' itself 'is or would reasonably be expected to be material and adverse'. They argued that, unlike the exceptions part of the MAE definition, the general part does not direct any enquiry into the causes of the relevant 'change, event or effect'; rather that part directs enquiry to, and only to, the characteristics of the relevant 'change, event or effect' itself: is *it* material and adverse? It would be an abuse of language to say that a 'change, event or effect' occurring between signing and closing was 'material and adverse' because it reveals some other problem or issue. And further, to construe the clause as meaning that revelatory events may be MAEs would enable the temporal requirement of the clause to be circumvented, in that it would allow a party to identify a relevant 'change, event or effect' within the period between signing and closing even though the problem or issue predated the contract, and would or could have been picked up by the buyer's due diligence, and the risk of which will have been assumed by the seller to the extent of the representations and warranties given, but

which are otherwise for the buyer's account. In the present case, the Claimants pointed out, the representations and warranties in Article 3 of the SPAs are exhaustive and do not include any relating to the geotechnical situation at, or the suitability of the mine design of, the Santa Rita Mine, or any general representations or warranties about the costs of, or operations at, the Mine.

231. In my judgment, the Claimants' argument here is correct. The MAE definition and its deployment in the context of Article 6 is only one of a number of risk allocation techniques employed under the SPAs, of which the representations and warranties are another. The MAE provisions have to be read in the context of the SPAs, including their other risk allocation provisions, as a whole. The terms of Article 6 and the MAE definition show that these provisions are concerned with a 'change, event or effect' which has occurred since signing. Further, the terms of the MAE definition dictate that a matter is only a MAE if that 'change, event or effect' is material and adverse, not with what such a 'change, event or effect' may indicate about the possibility that there may be other problems which existed at the time of the signing of the SPA.

232. Thus, the language of the definition involves the question of whether the 'change, event or effect' 'is or would reasonably be expected to be material and adverse…'. The materiality and adversity have to be features of the 'change, event or effect' itself for there to be a MAE. It is true that the definition employs the words 'individually or in the aggregate.' Those words apply, however, to the 'change, event or effect'. In my view they mean that where there are different aspects of a change event or effect, including where a matter can be said to be a change and an event or a change and an effect, they should be considered both individually and in the aggregate to assess whether they are or would reasonably be expected to be material and adverse. But they do not mean that the 'change, event or effect' extends to something distinct and pre-existing.

233. In the present case, the only 'change, event or effect' which is alleged to have been a MAE is the GE (see RAD [2.2], [18]). The Defendants do not allege that what they contend is the unsafe or unsatisfactory state of the remainder of the east wall, or even the alerting of Atlantic Nickel to this, themselves constituted a MAE. I accordingly consider that the relevant question in the present case is whether the GE itself was or would reasonably be expected to be material and adverse, and that what might have been revealed as a consequence of the GE and the investigations it triggered as to problems in the rest of the east wall are not germane.

234. The Defendants raised a number of arguments against the construction outlined above.

235. Thus, the Defendants contended that the Claimants' construction sought to draw a distinction between the 'change, event or effect', on the one hand, and, on the other, the consequences of the 'change, event or effect', such as the product of an investigation initiated as a result of the 'change, event or effect'. That, the Defendants said, was an impossible or at least unprincipled distinction, and in any event the Claimants were inconsistent, in that they acknowledged that some consequences of the GE, such as the costs of the remediating push back, were to be taken into account in assessing whether it was material and adverse. Given that the clause directs attention to whether the 'change, event or effect' was 'or could reasonably be expected to be' material and adverse, it was necessary to have regard to all consequences which would reasonably be expected as a result of the 'change, event or effect'.

236. To this the answer given by the Claimants was that some consequences of the 'change, event or effect' are to be taken into account, but only insofar as they 'shed light on' whether the 'change, event or effect' is itself material and adverse. I agree, although I would phrase this as that the consequences which will be taken into account are those which quantify or illuminate the significance which the 'change, event or effect' itself has or would reasonably be expected to have, while consequences which quantify or illuminate the significance of some other, distinct, problem to which attention has been drawn are not to be taken into account. I recognise that that line may not always be easy to draw on particular facts, but that does not mean that it is not a line which is drawn by the contract, nor that the court should not draw it when giving effect to the contract. It does, in my view, reflect a real and intelligible distinction between the 'change, event or effect' itself, and a different issue or problem which already existed, and which could have been identified irrespective of the occurrence of the 'change, event or effect'.

237. A second particular answer given by the Defendants was that the Claimants' construction concentrated too much on the word 'change' in the MAE definition and did not give sufficient weight to the fact that a MAE may be an 'effect'. I did not consider that this was a point of great significance. Where the MAE definition refers to a 'change, event or effect', it is that change, event or effect which, if material and adverse, is the MAE. The reference here to an 'effect' is not to the effects or consequences of another change, event or effect.

238. When the definition refers to an 'effect' in the phrase 'change, event or effect', the word is not being used to indicate that it is significant that the matter has a cause. For one thing, it is very difficult to think that a 'change' or an 'event' will not have some cause or causes. The reference to 'effect' here is rather, in my view, a reference to an effect, in the sense of some sort of alteration or influence, on the business of the company. It may not be easy to think of cases where there will be such an 'effect' where there is no 'change' or 'event', but there might, for example, be a case in which a virus was circulating before signature of the SPA, but where it only became significant and had any effect on the business of the target company after closing. Putting aside the application of exclusion (f), that might be a case in which the matter was most naturally seen as being the occurrence of an 'effect', rather than of a 'change' or 'event' after signature of the SPA. The question would remain, however, as to whether that effect was, or would reasonably be expected to be material; it would not be whether the effects of that effect were or would reasonably be expected to be material.

239. A third answer given by the Defendants was that the Claimants' construction focuses on the cause of the 'change, event or effect' and asserts that a matter cannot be a MAE if its cause predates the signing of the SPA or was a risk which was then disclosed or which was discoverable by due diligence. This, I think, is a mischaracterisation of the Claimants' case. The Claimants did not contend, and I would not have accepted, that a matter could not be a MAE because it was a known risk at the time the SPA was entered into. The Claimants' argument, which I do accept, is that it is not permissible to take a 'change, event or effect' which occurs between signing and closing, and which is not itself material, and to consider it material by reference to what it reveals about something else which was in existence at the time of entry into of the SPA.

240. Accordingly, I consider that the Claimants are correct in relation to this first issue of construction. Given, however, that it is a contentious point, I have, in what I say below,

considered whether the GE was material and adverse both on the basis that this point of construction is right, and on the alternative assumption that it is not. As will be apparent, it makes no difference to my ultimate conclusions because, in summary, I do not consider that the GE or any consequences of it which were reasonably to be expected were material.

241. The second significant issue of construction relates to what is involved in the assessment of what 'would reasonably be expected to be material and adverse'. As I have already said, it was common ground that that required an objective not a subjective assessment. The Claimants, however, contended that what was required was an assessment of whether or not it would reasonably be expected that the matter was material and adverse, and that this would give a single answer, yes or no. The Defendants, by contrast, contended that the 'reasonable to expect' limb of the MAE definition would be satisfied 'provided that the expectation that the event will be material falls within the reasonable range': in other words, they argued that there might be a range of views held by reasonable people in the position of the parties, and if any of those was that the matter was expected to be material, then it was 'reasonably expected to be material.'

242. In my view, the Claimants' construction is preferable. The question is whether the relevant matter 'would reasonably be expected to be material and adverse'. The use of the word 'would' indicates that this is not an assessment which anyone needs to have made at the time. Thus, it is not concerned with whether a conclusion actually reached was within a range of reasonable answers, because no conclusion on the subject need have been reached at all. What is involved is an evaluative judgment, which will ultimately be for the court in the event of a dispute, as to what was reasonably to be expected. There is no requirement in the words used that that process involves assessing what might be the range of reasonable views, and it would add an extra degree of uncertainty to the applicability of the clause if that was part of the judgment called for. In my view such additional uncertainty is unlikely to have been intended by the parties in adopting the language of the definition. I also note that the suggestion that a MAE clause would be triggered if the expectation was within a reasonable range finds no support in any of the authorities to which I was referred.

243. In assessing what would reasonably have been expected, however, the court will not ignore the parties' contemporaneous assessment of the position, because that may shed light on what it was reasonable to expect. Indeed, such a contemporaneous assessment, if made carefully and in good faith, might carry considerable weight in the court's assessment.

244. The assessment is to be made from the perspective of a reasonable person in the position of the parties at the time when cancellation on the basis of the alleged MAE is notified. A question might arise as to what information it is to be assumed that such a person had, and whether she is to be treated as being possessed of information only actually known to one party. In my view, the notional reasonable person is to be regarded as having the information which was available to either party which was relevant to the question of whether the 'change, event or effect' would reasonably be expected to be material and adverse.

245. There is the further question of what degree of likelihood is implied by 'would reasonably be expected'. I certainly agree with what was said in *Akorn*, namely that a

mere risk that a matter may turn out to be material cannot be enough. Instead, given the use of both the words 'would' (as opposed, for example, to 'could') and 'expected' (as opposed, for example, to a word such as 'apprehended'), I consider that the assessment is whether a reasonable person would have considered it more likely than not that the matter would turn out to be material. That appears consistent with what I understand was being said in the footnote in *Akorn*, quoted above. But if that is wrong, there must at least be 'some showing that there is a basis in law and in fact for the serious adverse consequences prophesied by the party claiming the MAE', as it was put in the body of the paragraph in the judgment in *Akorn* to which I have referred above.

246. That involves an assessment of what a reasonable person would have regarded as the position as at the time when the MAE was relied upon to cancel the contract, but looking forward from that date. I understood the parties to agree that, when making that assessment, the court can have regard to what subsequently, in fact, transpired, as that may shed some light on what was, as at the relevant date, reasonably to be expected. I would agree that that is so, but recognise that this exercise must be treated with some caution so that regard to what actually occurred does not overwhelm and subvert what is intended to be an assessment of what would have been said looking forward.

247. The third issue is as to what is meant by 'material'. Each party submitted that it would not be necessary for me to reach any very precise conclusion on this. This is because one side submitted that the GE was of very limited significance such that any assessment of its financial consequence would be clearly below any threshold which could plausibly be adopted for 'materiality' in the MAE definition; while the other contended that the GE was of such importance and with such consequences that it was clearly above any plausible threshold for 'materiality'.

248. It is in my view necessary for the court to form some rather more definite view as to what is intended by the concept of materiality than these beguiling positions of the parties suggest.

249. In this regard, I agree with what was said by Strine VC in *IBP* and which has been reiterated, using various different forms of words, in subsequent US authorities, that for an acquiror who seeks to purchase the target company as part of a long-term strategy 'the important thing is whether the company has suffered a Material Adverse Effect in its business or results of operations that is consequential to the company's earnings power over a commercially reasonable period, which one would think would be measured in years rather than months'.

250. I also agree with Burton J's formulation in *Decura* that 'material' is intended to mean 'significant or substantial'. I agree with his comment that 'the fact that such a clause is relied on to discharge a party's obligations and terminate a contract obviously emphasises its significance'. While at one point of her submissions Ms Tolaney KC suggested that a matter was to be regarded as material if it was 'more than *de minimis*' I do not consider that it is helpful to make that comparison. The concept of *de minimis* is not found in the clause. If that comparison is nevertheless made then, in my view, not everything more than *de minimis* counts as 'material' as that term appears in the MAE definition (or counts as 'significant or substantial' to use Burton J's epithets). A higher level of significance or substance is, in my view, required than that the matter should simply be more than *de minimis*.

251. I agree with what was said in *Akorn* and in *Snow Phipps Group* that there is no bright line test for what constitutes materiality which will be applicable to all MAE clauses. A number of considerations will be relevant as to what is to be regarded as material in a particular case. In the present case, I consider that the size of the transaction, the nature of the assets concerned, including that they are susceptible to such matters as geotechnical events, the length of the process of the sale of the Mines and the complexity of the SPAs are all relevant, and all militate against setting the bar of materiality too low. To echo and adapt what Burton J said in *Decura*, the MAE clause is relied on to discharge a party's obligations under and to terminate a very large contract to whose conclusion the parties had devoted considerable time and effort.

252. In *Akorn* Laster VC expressed his view based in part on his intuition and experience that an over 20% reduction in the equity value of the target was material in that case. I do not regard that decision as being based on any 'special rule' which has no part of English law. It is, furthermore, a decision which is of itself significant because of the extensive experience and jurisprudence of the Delaware Court of Chancery in relation to business combination agreements in general and MAE clauses in particular. I do not, however, read *Akorn* as saying that, even in that case, a reduction in the equity value of the target of anything less than 20% would necessarily not have been material.

253. My intuitive response in the present case is that a reduction in equity value of 20% or more would indeed be material, but that a somewhat lesser reduction might also be material. I tend to think that a reduction of more than 15% might well be material.

254. I recognise that in *Finsbury Food Group* a reduction of 10% of total group sales since the account date was regarded as sufficient to qualify as a material adverse change for the purposes of the contract in that case. That case does not consider what might constitute a material change in the value of the company, and in any event considered a contract which was in various ways dissimilar to the SPAs here. In my view, a 10% reduction in the value of the company in the present case, where the contract had the characteristics to which I have drawn attention, is rather too low to count as material for the purposes of the MAE provisions here.

255. Notwithstanding this view, in what follows, I have considered the significance of the GE against each of the levels of a 10%, 15% and 20% reduction in the value of the target. As will become apparent, I conclude that whichever level is taken, the GE was not material.

The ultimate question: was the GE a MAE?

256. Having considered the facts and the expert evidence, and the proper construction of the relevant provisions of the SPAs here, it is possible to turn to the essential question which divides the parties of whether the GE was a MAE.

257. The bases on which the Defendants contended that it was a MAE developed over the course of the litigation, and indeed during the trial. I will consider all aspects of the case which I understood to be pursued.

'Qualitative' aspects of the GE

258. One aspect, as I understood it, was that the Defendants contended that the 'qualitative' aspects of the GE made it, or significantly contributed to its being, material.

259. I have already indicated that I am sceptical that 'qualitative' aspects of a 'change, event or effect' will ever, at least in a commercial setting such as that relevant here, mean that a 'change, event or effect' is material if its 'quantitative' aspect does not make it so. Whether that is right as a matter of generality, I am clear that the 'qualitative' aspects of the GE in this case did not mean that it was material.

260. The GE, as I have said, was an occurrence of a type of adverse development which often happens at open pit mines. The Santa Rita Mine had recorded 166 geotechnical events, ranging from minor phenomena to multi-bench failures, during the course of 2021. While the GE's scale made it large in comparison with others at the Mine in the previous year, it was, as Mr Major's evidence showed, by no means large compared with many geotechnical events occurring in other mines. It involved a dislocation, not a detachment, of part of the slope. No one was killed or injured. No equipment was lost. Movement stopped very shortly after the GE. Operations at the Mine resumed on 9 November 2021. The GE was not shown to have had any adverse regulatory consequences.

'*Quantitative' aspects*

261. I turn, therefore, to consider the Defendants' case on materiality in its 'quantitative' or quantifiable aspects.

262. As I have set out, it was common ground that there were two relevant limbs of the MAE definition to consider: namely whether the GE (i) 'is', and (ii) 'would reasonably be expected to be' material.

263. It was also common ground that (ii) was to be judged as at the date of termination. I consider that, strictly, (i) should be judged at that date too. It might of course be argued that the future development or consequences of the 'change, event or effect', looking forward from the date of termination, have an effect on the target's business as at that date, for example by having an effect on its value as at that date, and thus affects whether the 'change, event or effect' 'is' material as at that date. As I see it, such an approach raises a question which is materially the same as whether the 'change, event or effect' 'would reasonably be expected to be' material. Certainly, I do not consider that a potential future development or consequence could be taken into account for the assessment of whether the 'change, event or effect' 'is' material as at the date of termination if it were not something which 'would reasonably be expected' as at that date.

Limb (i): 'is' material

264. In the present case, any actual financial effect already sustained by the date of termination in terms of cost of waste actually removed by then, or planned ore not mined by that date, was undoubtedly immaterial, and I did not understand it to be suggested otherwise.

265. Furthermore, if one does not confine the analysis of what financial loss was actually sustained by reason of the GE to that incurred up to the date of termination, but looks

at what subsequently happened and takes into account the remediation in fact done, the answer is equally plain that this was not material. The GE did not lead to ore being lost, or to any extension of the life of mine. While it was initially anticipated that there would be a c. 5% reduction in ore mining in 2022, in the event improvements in the mine plan resulted in ore production being c 6.6 Mt over the year, which was some 0.2 Mt more than had, prior to the GE, been planned to be mined. Even without those improvements, the anticipated delay in ore mining would have had an impact of only c. US$5.4 million. There was also the cost of the mining of additional waste. The amount of additional waste involved in the Phase 10 pushback was some 2.2 Mt. Mining this had a cost of some US$7.26 million.

266. The Defendants make the case that the Bullnose incident was the result of the GE, and it is right that one contributor to that incident was the geometry of the pushback adopted to remediate the GE. A different geometry could have been adopted which would have avoided the Bullnose incident. Even if the cost of the Bullnose incident is added, however, the conclusion is that the GE's actual cost was not material. The Bullnose incident did not reduce or delay ore production. Its remediation did involve the mining of some 2.43 Mt of additional waste. Applying to that amount a mining cost comparable to that used for the Phase 10 pushback (which appears to be a reasonable cost to take given the figures in the monthly operating and financial performance summary), that yields a cost of some US$8 million.

267. Thus, even making certain assumptions favourable to the Defendants' case, the actual cost of the GE and Bullnose incident and their remediation was not more than some US$20 million. I am not in any doubt that that was not material; and it is an amount, for comparison, well below 5% of the purchase price of Atlantic Nickel under the SPA.

268. A cross-check on these amounts is Mr Tutton's scenarios 2 and 3, which estimate the decline in NPV as at 3 December 2021 to take account of the mitigation measures adopted in relation to the GE (scenario 2) and the GE and Bullnose incident (scenario 3). These, as I have set out above, show reductions from the base case of some US$16 million (scenario 2) and US$21 million (scenario 3). Figures of that order of magnitude are significantly less than 5% of the sale price for Atlantic Nickel of US$525 million, and of Mr Tutton's NPV of Atlantic Nickel but for the GE of US$521 million; and they are a still smaller proportion of Sibanye Stillwater's contemporaneous assessment of the NPV of Atlantic Nickel in its Investment Case Model, which was of US$581 million, and of the NPV of Atlantic Nickel but for the GE calculated by Mr Rosen of US$604 million.

269. Even if, which, for reasons I have given, I am not persuaded is appropriate, one were to apply Mr Rosen's sensitivity analyses to Mr Tutton's figures for scenario 3, that would indicate a NPV impact of up to US$35 million (Sensitivity 2). Such an amount would, in my view, still fall markedly below the level of materiality. It still falls significantly below the level of 10%, which, as I have said, I would in any event tend to think was too low a level to amount to a material effect.

Limb (ii): would reasonably be expected to be material

270. It is necessary now to turn to the Defendants' case that the GE would reasonably have been expected to be material as at the date of notice of termination. This was put, as I understood it, on four bases, which may be described as (i) the Austra case, (ii) the

Guest case, (iii) the BGC case; and (iv) the Sibanye Stillwater contemporary assessment case. I will consider each in turn.

The Austra case

271. What may be called the Austra case is that the contents of the Austra Letter and Austra Proposal indicated that the GE's consequences would be material, because it had revealed that slope angles on the east wall (not confined to the area of the GE) were too steep and needed to be reduced.

272. I considered that this case depended on the Defendants being correct in relation to the issue of construction as regards what were described as 'revelatory events'. On the basis of what I consider to be the correct construction of the MAE provisions, which I have explained above, this case cannot succeed because matters do not count as material for the purposes of the MAE definition by reason only of their 'revelatory' effects.

273. I will nevertheless consider the case on the assumption that I am wrong as to that point of construction. On that alternative basis, the Defendants still need to establish that a reasonable person in the position of the parties, as at the date of the termination notice, would have expected the GE to be material because of what the two Austra documents showed about the east wall and what needed to be done in relation to it.

274. The first, and most significant, objection to this is that the Austra documents would not have been taken on their own by such a reasonable person. They would instead have been assessed in light of the other material available, which included the views and responses of the Atlantic Nickel personnel, including of its geotechnical team and of highly competent managers such as Mr Daman. It included, also, the advice which was given by Mr Medina, whose instruction by Atlantic Nickel I consider to have been entirely reasonable.

275. The two Austra documents must also be considered for what they are. The Austra Letter was prepared within a week based on a desktop review of existing documentation and imagery, without a further visit to the site. It was specifically stated that it was based on the 'assessment of limited materials provided to Austra's team'. Furthermore, the Austra Letter can reasonably be read as validating the pushback proposed by Atlantic Nickel, subject only to the recommendations in Table 4, which did not include flattening of bench faces.

276. The evaluation in the Austra Letter of probabilities of bench face failure would, I consider, have been regarded by a reasonable person at the material time as very dubious. As Mr Daman said, the analysis was a 'statistical study' which did not take into account operational controls which would reduce the probability of failure. Mr Daman further said that he thought that Austra were completely wrong in suggesting a 60% probability of failure with bench faces at 75°. I consider that this was a reasonable view to take. And it may be noted that it accords with the realities, in which there have not been significant slope failures at the Mine other than the GE and the Bullnose instability, which had causes other than steepness of the bench faces. Mr Major's evidence was that he himself thought that it was clear that Austra's evaluation was wrong.

277. As to the Austra Proposal, this was, as Mr Daman noted, not a report, but a proposal for further work of geotechnical investigation and the review of mine design and of drill and blasting practices. As Mr Major stated: 'they're consultants, of course they're recommending a broader scope of work, that is the nature of consulting'. This Proposal did not contain any recommendations or other detailed findings from which it would reasonably have been expected that the GE would be material.

278. I should also refer here to the Tec3 and Medina reports. As I understood it, the Defendants did rely on these, to some extent, and in addition to the Austra documents, as suggesting that it was reasonable to expect the GE to be material.

279. As to Tec3, they did not address bench or inter ramp angles in the east wall generally, but only evaluated the pushback design. Further, although initially recommending a reduction of bench face angles in the GE area to 50°, they subsequently validated bench angles of 70° with inter ramp angles of between 33.2° and 38°. Mr Tutton estimated that, had these been implemented for both Phases 10 and 10N, it would have involved an additional amount of waste mined of about 210,000 t. That sort of amount would have made no difference to the materiality or otherwise which the GE would reasonably have been expected to have.

280. As to the Medina Report, it had included a section on 'Long Term Scope of Work'. That can also, like the Austra Proposal, be seen as a pitch for further work.

281. I accept, as Mr Major accepted, that it was a responsible and reasonable response to the GE for Atlantic Nickel to commission further investigations of the east wall more generally: and that, in fact, was done in commissioning BGC's work. I do not, however, consider that any of the Austra, Tec3 or Medina reports, or other material available by the time of termination, indicated that the result of such investigations would be that there would be significant further costs of altering the east slope. There was nothing which would have led a reasonable person to conclude that that was more likely than not. On the contrary, a reasonable person would have considered that, at most, there was a risk that they might.

The Guest case

282. I can deal relatively briefly with the case founded on Dr Guest's evidence. This case again depends on the Defendants being right as to the point of construction in relation to revelatory events. But even assuming that the Defendants are correct in relation to that point of construction, Dr Guest's assessment of the east wall, and his recommendations had - plainly - not been produced as at January 2022. I do not consider that a reasonable person in the position of the parties would have forecast such an assessment or regarded as likely that recommendations such as Dr Guest's would need to be implemented. As I have set out above, I do not accept Dr Guest's stability analysis. Equally I did not accept his evidence as to mining beneath the GE. I preferred Mr Major's evidence where they differed. I do not consider that a reasonable mine operator would have implemented Dr Guest's recommendations. Consistently with this, they have not, in fact, been implemented.

The BGC case

283. A case based on BGC's reports assumed a greater prominence during the course of the trial, perhaps because of the difficulties in the way of the Guest case. I can, however, again deal with it briefly. It too depends on the point as to revelatory events. And in any case, the BGC Report of May 2023 was, of course, not available as at January 2022. Again, I do not consider that a reasonable person considering the matter then would have forecast such a report. Even if such a person is putatively endowed with considerable foresight, it is impossible to say that she would have regarded the May 2023 BGC Report, or equivalent guidance, as more than a risk. Furthermore, the May 2023 Report has been rendered out of date by the receipt of further information, as I have described, and BGC's preliminary guidance requires revision. I can see no basis on which it can be said that, in January 2022, it would reasonably have been expected that the GE would have the consequences suggested by the interim but now superseded BGC Report of May 2023.

The contemporaneous assessment case

284. Finally, I turn to the case based on Sibanye Stillwater's contemporaneous assessment, which was done with the aid of Moelis and which involved the six Moelis Estimates which I have described above. As I have already said, I accept that a contemporaneous assessment, if it was performed objectively and reasonably could be of some assistance in indicating what a reasonable person in the position of the parties would have expected in January 2022.

285. In my judgment, however, the Moelis Estimates were arrived at on bases which were, and would have been seen by a reasonable person in the position of the parties to have been, based on a process and on assumptions which were flawed and unreliable.

286. At a general, but important, level there are two features of the exercise which undermined its reliability. The first is that this analysis was, as I find, influenced by Sibanye Stillwater's desire to be able to argue that the materiality threshold was met, rather than as an objective exercise. This is a conclusion I would have reached based on the nature of some of the assumptions adopted, and the circumstances in which the exercise was being carried out. But it was also accepted at one point by Mr Smit in his evidence. When asked about the reliability of the First Moelis Estimate as compared with the Second Moelis Estimate, Mr Smit's evidence was this:

'Q. And those are items C and D, and having received this second bridge analysis, did you personally regard the 60 million as less reliable than the 80 million from the first analysis?

A. Personally I would have believed that 60 is not as convincing as 80.

Q. Because 80 was higher and therefore closer to your objective of establishing a material adverse event?

A. That's correct.'

287. The second general point is that the exercise, its assumptions and conclusions were not shared with Appian Capital or Atlantic Nickel or with anyone at the Santa Rita Mine at any stage prior to termination. Not to show these assumptions and calculations to those involved in running the Mine and not to ask those so involved whether they were correct

or reasonable vitiated, and to my mind obviously vitiated, the integrity and reliability of the exercise. While the reasons why the exercise was not shared with Appian Capital Brazil / Atlantic Nickel may not greatly matter, it is difficult to avoid the conclusion that this was because Sibanye Stillwater were primarily concerned, not to produce a reliable estimate, but to justify a position which it wanted to adopt as to the significance of the GE, and did not wish to permit Appian Capital Brazil / Atlantic Nickel to contradict the bases on which that justification was founded.

288. The unreliability of the exercise, and the fact that it should have been apparent to Sibanye Stillwater that the exercise was unreliable, is demonstrated by a closer examination of some of the important assumptions made.

289. The first relates to the assumption that there should be no mining below the GE. By 18 January 2022 Mr Smit, in conjunction with Mr Buckley of TMC, had agreed on an assumption, as follows:

> 'In line with industry practice and based on recent events TMC is of the opinion that no mining activity should be allowed below the slope failure area until the planned corrective work is complete. It should also be noted that very little ore remains in Phase 4, which will be depleted in the first half of 2022. On this basis for the first three quarters of 2022 only two mining fronts will be available which will limit the amount of ore delivered to the RoM'.

The assumption that there should be no mining below the GE was included in all the Moelis Estimates; and an assumption in very nearly the exact terms here quoted, albeit correcting the mistake in the last sentence so as to make it clear that it would be two mining fronts which would be available, appeared in the Second to Sixth Moelis Estimates.

290. Mr Smit accepted that, at the time this assumption was adopted, the Defendants knew that without it they could not satisfy the materiality requirement. It was, as I find, an obviously flawed assumption.

291. Thus, there was no 'industry practice' that there should be no mining below the affected area. This Mr Smit conceded in his evidence. Mr Smit said that it would probably have been more accurate to have referred, as the basis of the assumption, to his and Mr Buckley's experience. It appeared from his evidence, however, that any discussion between them as to such experience must have been very limited. There was no discussion as to what size of geotechnical event it would be inappropriate to mine beneath; yet that must, on any view, be an important matter for consideration.

292. I do not consider that Mr Smit can have had a genuine concern, whether based on his own experience or otherwise, that it was unsafe to mine beneath the 30-meter exclusion zone. If he had really had such a concern, he would have been bound to tell Appian Capital Brazil / Atlantic Nickel that the plan for the mine involved danger to those working there. He did not. In any event, and even if Mr Smit had experience of mining below a geotechnical event being avoided, that experience may have been in relation to mines which did not have the same characteristics as the Santa Rita Mine, or for companies which had particular policies, or in relation to geotechnical events which were materially different from that relevant to this case. Any such experience was, in

circumstances where Mr Smit knew that there was no industry practice, an inadequate basis for the making of the assumption.

293. Furthermore, the assumption that there should be no mining below the affected area could only be justified if the 30 m exclusion zone which was being adopted by Appian Capital Brazil / Atlantic Nickel was inadequate. Mr Smit accepted that he knew 'that a properly calculated safety exclusion zone could make it perfectly safe to mine below a geotechnical event without any risk of runout'. As I have already said, however, he (and TMC) had not carried out any exercise which could have allowed them reasonably to conclude that the 30 m exclusion zone was not adequate for this purpose.

294. In addition, the Moelis Estimates proceeded on the basis that, because there could be no mining below the GE, there would be a 30% reduction in ore mined for the first three quarters of 2022. Even accepting that there should be no mining below the GE, there was, as a reasonable person in Mr Smit's position would have known, no adequate justification for assuming that ore production would be reduced by 30%. In the first place, if there were to be no mining below the GE, then the operator of the Mine would have wanted to consider the resequencing of mining to optimise ore production taking this into account. While Mr Smit said that he thought that there was no resequencing which would have been effective, he did not discuss the matter with TMC, and did not go back to Appian Capital Brazil / Atlantic Nickel for their views or input. That was, in my view obviously, an unsatisfactory basis for an important assumption.

295. Secondly, and in any event, there was no information available which provided a proper basis for an assumption of a 30% reduction. Mr Smit accepted that at the time that this assumption was introduced into the estimation process he did not know how much ore was to be mined in the parts of Phase 5 which would be affected by the assumption that there should be no mining below the GE until remediation was completed. It equally appears that he had no information which would identify the amount of ore which was to be mined in that small part of Phase 6A which would be below the remediation area. He did not seek this information from Appian Capital Brazil / Atlantic Nickel. He had nevertheless produced an estimate of a 30% reduction in ore production, and TMC had adopted it. Mr Smit said that he had discussed the matter with TMC and 'workshopped' it, but in the absence of any documentation as to those discussions or evidence from TMC, I am unable to accept that any such discussions provided, or could reasonably have been thought to have provided, an adequate basis for the assumption.

296. Thirdly, it is agreed between the parties that the Moelis modelling embodied a further assumption that the reduction in ore mined in 2022 would be 'lost' rather than delayed. This, the parties also agreed, was not a justifiable assumption. A model which included this assumption would, as Mr Smit accepted, be fundamentally flawed.

297. This error in the Moelis modelling was not suggested by the Claimants to have been deliberate; nor was it put to Mr Smit that he knew of it or should have spotted it. But it was a significant error. It appears to me likely that it was made as a result of the time pressure under which the exercise was being conducted, and that it was the type of error which, had Sibanye Stillwater shared its exercise with Atlantic Nickel / Appian Capital Brazil, would probably have been identified.

298. A further assumption for which there was no reasonable basis was that there would be a reduction in ore mining in Q3 and Q4 of 2023 and 2024. The assumption was that

remedial work, similar to that required in 2022, would be required in the two subsequent years, in each case involving 2.6 Mt of additional waste being mined, and that because no ore mining would be allowed in the open pit below the slope, ore production would be reduced to 70% of the original plan. This appears to be based on an assumption that, despite the remediation in 2022, there would be further but similar geotechnical events, or instabilities, in both 2023 and 2024. I have seen no basis on which that was a reasonable assumption.

299. Mr Smit sought at one point in his evidence to suggest that the assumption had been incorporated because the Bullnose instability had been anticipated. I was unable to accept this explanation, which is not reflected in any contemporaneous document, and not contained in Mr Smit's witness statements. Furthermore, even if there had been some anticipation of an instability, it would have been arbitrary to have assumed that dealing with it would involve the same amount of additional waste as would be required for the planned remediation of the GE; and would not in any event have justified making the assumption of another remediation, involving the same amount of waste and the same reduction in ore production in 2024 in addition to that assumed for 2023.

300. Unreasonable also was Mr Froneman's instruction to Moelis to recalculate the NPV impact of the GE on the basis that the then Nickel spot price would remain unchanged over the next six years. That was not an approach supported by the financial modelling experts. Insofar as Mr Froneman went further and made, as he suggested in his evidence that he had, a comparison of a NPV impact calculated on the basis of spot prices with the amount of US$475 million, that appeared to me to be clearly unjustifiable.

301. For these reasons, I do not consider that the contemporaneous estimates made by Sibanye Stillwater, with Moelis's assistance, were reliable or based on reasonable assumptions, and would not have been considered to be so by a reasonable person in the position of the parties at the time.

302. In contrast to the Sibanye Stillwater estimation exercise Atlantic Nickel / Appian Capital Brazil had, by 24 January 2022 made their own estimate of the likely effect of the GE. This was shown in their revised Mine Plan and was explained by Mr Daman. What was anticipated, as I have said, was that there would need to be the mining of additional waste of some 2.6 Mt. It was envisaged also that there would be a reduction of ore mined in 2022 from approximately 6.4 Mt to approximately 6.1 Mt, but with the mine having caught up with its monthly budgeted amounts by November 2022, and with more ore being mined than previously projected in November and December 2022. This assessment, made by what I considered to be competent and responsible management of the Mine, is of relevance when it comes to considering what, as at the date of termination, would reasonably have been expected. Consequences of that order would clearly not, in my judgment, be material.

Conclusion on materiality

303. I have therefore concluded that, at the date of termination, the GE was not and would not reasonably have been expected to be material, and none of the bases relied on by the Defendants demonstrates that it was or would.

304. This is consistent with how the bidders in phase 3 of the sales process, to which I have referred above, responded. They knew about the GE. The Austra Letter was available to them. I have set out the bids above. While it is not possible to place too much weight on this point, as the level of the bids will have depended on what was known to the bidders, and this has not been explored in detail, bids of the order that there were are very difficult to reconcile with the idea that the GE had had a material impact on Atlantic Nickel's business, financial condition, results of operations, properties, assets, liabilities or operations. Had it done so, one would not have expected the experienced market participants concerned to have made bids of that magnitude. This, to my mind, in turn makes it less plausible that the GE would reasonably have been expected to be material in January 2022.

Did Exclusion (i) apply?

305. Given that I have found that the GE was not material, it is not strictly necessary to decide whether, had I found that it was, it would nevertheless have fallen within Exclusion, which was also described as 'carve out', (i) to the MAE definition.

306. To recap, the argument of the Claimants on this point was that: (i) the Atlantic Nickel SPA had required the continued operation of the Project, which meant the continued operation of the Mine, in accordance with the Ordinary Course of Business; (ii) that the GE had been caused, at least in part, by the conduct of mining operations, and in particular by blasting towards the bottom of the GE area; (iii) such mining was an act contemplated by or attributable to the performance of the Atlantic Nickel SPA; (iv) the GE was therefore a change which 'arose out of, in connection with or resulted from' such an act; and therefore (v) carve out (vi) applied.

307. This argument has striking implications. It would mean that any change, event or effect which arose out of, in connection with or resulted from the continued carrying on of the business was not a MAE.

308. In my judgment, the Claimants' construction of carve out (i) is wrong. While the first two stages of the argument I have summarised above can be accepted, I do not accept that the continued operation of the Mine, or blasting in the course of that operation, constituted the type of performance of the Atlantic Nickel SPA which is referred to in carve out (i). It is important to recall the full terms of that carve out:

> '… any action, omission, change, effect, circumstance or condition attributable to or contemplated by the execution, delivery or performance of this Agreement or the announcement of the transactions contemplated in this Agreement (including any adverse effect proximately caused or threatened or actual loss of, or disruption in, any customer, supplier, vendor, lender, contractor, employee, landlord, community or government relationships or loss of any personnel, or by reason of the identity of the Purchaser or any communication by the Purchaser regarding its plans or intentions with respect to the Group Companies or the Project)'.

309. In my view it is clear from the terms of the carve out as a whole that what is being referred to as relevant actions, omissions, changes, effects, circumstances or conditions attributable to or contemplated by the execution, delivery or performance of the SPA are matters which are done or occur as a result of the entry into of the SPA and which would not have occurred if it had not been entered into; and it does not refer to matters

which would have happened during the ordinary operation of the Mine. The focus, and to my mind the clear purpose, of the clause is on the effect of the seller entering the SPA, and on that becoming known.

310. Thus, had the matter arisen, I would have concluded that the GE did not fall within carve out (i).

Other Grounds of Termination

311. On the pleadings there was an issue as to whether, subject to the Defendants' case that the GE was a MAE, the First Defendant had an obligation to close under the SPAs on 14 January 2022. I did not understand any argument on this point to be maintained at the end of the trial. I have, however, set out the facts in relation to this issue. The Closing Date was extended to 7 January 2022 during a telephone call between Mr Philpot and Mr Muston on 17 December 2021; and the vendors indulged requests from the Defendants to extend the Closing Date to 14 January 2022. Subject to its case as to the GE being a MAE, and its case in relation to section 6.1(2), considered below, the First Defendant was obliged to close on that date.

312. The two other grounds of termination which the Defendants maintained at the end of the trial were: (i) that the First Defendant had been entitled to terminate under section 10.1(d) once the Outside Date of 14 January 2022 had passed; and (ii) that it had been entitled to terminate due to the FIPs' failure to comply with applicable conditions precedent as provided for by section 6.1(2). I will deal with these in turn.

Section 10.1(d)

313. The argument here is that Closing had not occurred on or before the Outside Date of 14 January 2022, and therefore the First Defendant had the right to terminate under section 10.1(d) of the SPAs.

314. The simple answer to this argument is that a party is entitled to terminate under section 10.1 only 'on or prior to the Closing Date'. The Closing Date was 14 January 2022, and the First Defendant gave notice of termination of the SPAs on 24 January 2022, or 27 January 2022 relying on this clause. As each was after the Closing Date section 10.1(d) did not apply.

315. The Defendants' contention was that the argument that there could not be termination under section 10.1(d) after the Closing Date 'finds no support in the words of the SPAs.' I found that submission difficult to understand as section 10.1 commences with the words: 'This Agreement may be terminated on or prior to the Closing Date…'.

Section 6.1(2)

316. The argument here was that section 6.1(2) of the SPAs made it a condition of closing that the FIPs had complied with all covenants and agreements in the SPAs, and had supplied a certificate to that effect. By section 5.2 of the SPAs, one of the FIPs' covenants and agreements was to supply various documents at closing. However, due to an error in the loan documentation, the documents required by section 5.2 were not and could not have been executed by FIP2 on the Outside Date of 14 January 2022. In particular the Defendants contended (i) that as late as 22 January 2022 Appian Capital

had identified that the 'Corporation Price' and 'Appian Loan Price' as stated in the 'Transaction Documents' was incorrect; (ii) that error affected the amount of consideration payable by Sibanye Stillwater to different parties under the SPAs and required an update on the transaction documentation; and (iii) this was of some significance, at least in relation to tax consequences for Sibanye Stillwater. Accordingly, the Claimants had not been in a position to certify compliance with all covenants and agreements in the SPAs as at the Outside Date.

317. I do not consider that this argument is well-founded. What was required by section 5.2 was that 'the following documents', which were listed at (a) – (n), should be delivered at Closing. Documents of those descriptions were sent to the Defendants' lawyers on 11 January 2022. Although, subsequently, on 20 January 2022, which was after the Closing Date, an accounting error was identified in relation to the calculation of the 'Appian Loan Price' that did not, in my judgment, mean that the documents which were made available on 11 January 2022 were not documents which fell within section 5.2, and which could have been delivered on the Closing Date. I therefore accept Mr Muston's evidence that the parties would have been able to close without this error being corrected. Furthermore, even if, which I do not consider to have been the position contractually, it had been necessary for this error, once detected, to be corrected before Closing could occur, this could have been done in short order. Indeed, it appears that it could have been done before the First Defendant gave notice that it was terminating the SPAs on 24 January 2024, had the Defendants agreed the documents circulated by McCarthy Tetrault on 22 January 2022 which are described by Mr Muston in paragraph 107 of his first Witness Statement.

318. Accordingly, I do not consider that this accounting error afforded the First Defendant with a good ground for termination.

Wilful Misconduct

319. The Claimants made a case that Sibanye Brazil had been guilty of wilful misconduct in terminating the SPAs. It was said that this entitled them, pursuant to section 7.16 of the Atlantic Nickel SPA, to alternative common law remedies rather than contractual 'Damages'.

320. It was far from apparent that the relief to which the Claimants would be entitled would be any different under either scenario. I considered that it was unfortunate that the Court should be asked to make findings of misconduct when it was far from clear that it could have any significance.

321. I can, in any event, express my views on the point relatively briefly.

322. The Claimants' pleaded case was put on two bases. First, that the First Defendant had had no genuine belief that the GE was a MAE; and secondly that it had had no reasonable basis for believing the GE to be a MAE. The second, in my view, was not capable of amounting to an allegation of wilful misconduct, but was more akin to an allegation of negligence, and, as I understood it, was not pursued by the Claimants as a basis for a finding of wilful misconduct.

323. The other pleaded case, that the First Defendant had not genuinely believed that there had been a MAE, was not advanced at the trial, at least in those terms. I should however

make clear that I do not consider that such a case was made out. The most relevant individuals are Mr Froneman and Mr Charbonnier. While, as I have set out above, the GE was not a MAE, and while, in my judgment, those two men did not have reasonable grounds for considering that it was, I nevertheless find that they each believed that it was. That was a belief born out of what they perceived as the best interests of Sibanye Stillwater, but nevertheless it was their belief.

324. The case which was advanced by the Claimants at trial was that the First Defendant had been reckless as to whether the GE was a MAE. This was put in the Claimants' written closing submissions as being that Sibanye Brazil termination 'involved taking a risk which it knew that it ought not to take'; and further that the decision to terminate was taken 'regardless, reckless as to whether that was lawful.'

325. The Defendants contended that that was an unpleaded case, but in any event answered it. I consider that the case was not made out. While all the relevant individuals, and in particular Mr Froneman, realised, I am sure, that there was a risk that the termination would be found to be unjustified and a breach of contract, I do not consider that they knew that it was a risk which 'ought not' to be taken. Nor do I find that they decided to terminate reckless as to whether it was lawful. They believed that they were entitled to terminate. Although the decision was taken in an overly hurried manner, where relevant information was not adequately shared and by a process which did not accord with the Second Defendant's Memorandum of Incorporation, it was nevertheless a decision which appeared to those concerned to be justified by and in accordance with the views of Sibanye Stillwater's Business Development and Integration teams, and the input from technical and financial advisors. Although the analysis conducted by Moelis was, in the respects I have found, based on unjustified assumptions and unreliable, nevertheless the fact that the analysis had been undertaken, and went through a number of iterations, counts against the idea that Sibanye Brazil simply did not care whether the GE was a MAE or not.

326. I therefore reject the Claimants' case on wilful misconduct.

Overall Conclusions

327. For the reasons I have given, I have reached the following principal conclusions:

(1) That the GE was not a MAE;

(2) That the First Defendant was under an obligation to close on 14 January 2022;

(3) That there was no other basis on which the First Defendant was entitled to terminate the SPAs when they did; and

(4) That the Claimants' case that the First Defendant was guilty of wilful misconduct is not made out.

328. I will receive further submissions as to the correct order to be made in the light of this judgment.

Annex 1:

Annex 2:

Annex 3: