ICSID Case No. ARB/19/1

Administered by the

INTERNATIONAL CENTRE FOR SETTLEMENT OF INVESTMENT DISPUTES

LEGACY VULCAN, LLC

Claimant

v.

UNITED MEXICAN STATES

Respondent

CLAIMANT'S POST-HEARING REPLY (ANCILLARY CLAIM AND JURISDICTION/ADMISSIBILITY OF THE COUNTERCLAIM)

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I. INTRODUCTION AND SUMMARY[1]

1. Mexico has failed to rebut Legacy Vulcan's showing that the Tribunal has jurisdiction to adjudicate the ancillary claim, that Mexico — through its President's capricious orders — shut down what remained of CALICA's operations in breach of NAFTA Article 1105, and that Legacy Vulcan lost the ability to tap La Rosita's remaining valuable reserves as a result. Mexico's Post-Hearing Brief illustrates this failure by ignoring key evidence (including the President's public admissions) and otherwise misrepresenting what the record shows as a whole. As this years-long arbitration proceeding finally comes to an end, the time has come to hold Mexico accountable for its wrongful frustration of the CALICA Project.

II. MEXICO'S JURISDICTIONAL OBJECTION FAILS.

2. Mexico fails to rebut Legacy Vulcan's showing that Mexico consented to arbitrate the ancillary claim under NAFTA, as Mexico's prior statements and the Tribunal's ruling in Procedural Order No. 7 ("PO No. 7") confirm. Because the Tribunal correctly found in PO No. 7 that Mexico consented to arbitrate the ancillary claim, the Tribunal should reject Mexico's USMCA objection. Regardless, USMCA Annex 14-C confirms that the ancillary claim falls within the scope of NAFTA Chapter 11.

A. THE TRIBUNAL DEFINITIVELY HELD IN PO NO. 7 THAT MEXICO CONSENTED TO ARBITRATE THE ANCILLARY CLAIM.

3. Mexico asserts that the Tribunal may address its jurisdictional objections to the ancillary claim without revisiting PO No. 7.[2] But in that Order, a majority of the Tribunal "reject[ed] Respondent's argument that it has not consented to the admission of an ancillary claim in this arbitration," and held "the ancillary claim to be *within the scope of the consent* of the Parties and within the jurisdiction of ICSID."[3] PO No. 7 is therefore a ruling finally deciding that Mexico consented to arbitrate the ancillary claim under NAFTA.[4] The Tribunal cannot entertain Mexico's belated USMCA-based jurisdictional objection without revisiting PO No. 7.

4. Mexico's USMCA-based objection seeks to relitigate the same issue of *consent* on which the Parties previously submitted extensive observations and briefing leading up to PO No 7. In that Order, the Tribunal made clear that it would accept "further written submissions and evidence [. . .] *not based on observations made to date*."[5] Since Mexico had a chance to and

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[1] Capitalized terms not defined in this Post-Hearing Reply have the same meaning as in Legacy Vulcan's prior submissions.

[2] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 13-14.

[3] Procedural Order No. 7, ¶¶ 118, 150 (emphasis added).

[4] *Id.*, ¶ 150 ("NAFTA Article 1122(1) provides for Mexico's consent."). It is of no moment that this ruling was made in a procedural order. Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 101.

[5] Procedural Order No. 7, ¶ 157 (emphasis added).

in fact did present observations about its consent to arbitrate Legacy Vulcan's ancillary claim *before* PO No. 7, Mexico's protest that it did not specifically rely on the USMCA fails.[6]

5. Mexico had ample opportunity to raise its USMCA-based objection but failed to do so "as soon as possible," as ICSID Arbitration Rule No. 41(1) requires. While Rule 41(1) provides that jurisdictional objections may not be made after the counter-memorial, this does not detract from Mexico's obligation to bring such an objection "as soon as possible;"[7] text Mexico omitted when quoting this rule.[8] Mexico's belated attempt to relitigate consent by relying on the USMCA thus fails, partly because its objection "could have been asserted previously."[9]

B. PO NO. 7 WAS CORRECTLY DECIDED AND SHOULD NOT BE REVISITED.

6. The Tribunal's ruling that the ancillary claim is "within the scope of consent of the Parties and within the jurisdiction of ICSID"[10] is correct and should not be revisited. Mexico consented to arbitrate the ancillary claim under NAFTA and cannot now unilaterally withdraw its consent. The Parties also agreed that NAFTA is the law applicable to the ancillary claim.[11]

7. Mexico itself repeatedly confirmed before PO No. 7 that (i) NAFTA, not the USMCA, governed its consent to arbitrate the ancillary claim,[12] and (ii) that NAFTA applies to events that occurred after the entry into force of the USMCA.[13] Mexico later reversed its position and now tries to downplay those prior admissions.

8. Mexico also misrepresents Legacy Vulcan's position by arguing that any reference to Mexico's prior statements is an attempt to manufacture consent through estoppel.[14] That is not Legacy Vulcan's position. Rather, its position is that Mexico's prior statements confirm that the Parties unambiguously understood NAFTA to apply to the ancillary claim. Where, as here, "the

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[6] *See* Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 14-15.

[7] Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 106.

[8] *See* Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 16.

[9] *JSC Tashkent Mechanical Plant et al. v. Kyrgyz Republic*, ICSID Case No. ARB(AF)/16/4, Award, ¶¶ 442-443 (17 May 2023) (Cremades Sanz-Pastor (P), Born, Douglas) (CL-0288-ENG); *see also* Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 101-102. *See also Landesbank Baden-Württemberg et al. v. Kingdom of Spain*, ICSID Case No. ARB/15/45, Decision on the Respondent's Application for Reconsideration of the Tribunal's Decision of 25 February 2019 Regarding the "Intra-EU" Jurisdictional Objection, ¶ 37 (11 November 2021) (Greenwood (P), Poncet, Clay) (CL-0298-ENG) (holding that, absent the discovery of a new decisive fact, "a decision on jurisdiction is *res judicata* as regards the matters which it decides").

[10] Procedural Order No. 7, ¶ 150.

[11] *Id.*, ¶¶ 118, 150.

[12] Respondent's Rejoinder on the Claimant's Request for Provisional Measures and Leave to File an Ancillary Claim, ¶ 69; Respondent's Response to the Claimant's Request for Provisional Measures and Leave to File an Ancillary Claim, ¶ 3.

[13] Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 98; Claimant's Comments on the Second Article 1128 Submission of the United States of America and the 30 June 2023 Letter of Mr. Quetzal Tzab, ¶¶ 20-22; Reply, ¶¶ 166, 170.

[14] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 26.

parties argue their case on the basis of the same law,"[15] their written submissions evidence an agreement to choose that law to apply to that issue. Mexico's prior statements confirm that the Parties had agreed that NAFTA — not the USMCA — governed their consent to arbitrate the ancillary claim.

9. Mexico tries to downplay its prior statements by arguing that Legacy Vulcan confuses the law governing the Parties' consent to arbitrate and the law applicable to the substance of the dispute.[16] Not true. As Mexico's prior statements confirm, there was no dispute between the Parties that NAFTA is the relevant instrument containing the Parties' consent[17] and the law governing questions of jurisdiction.[18]

10. Further, for any dispute the Parties have consented to arbitrate under NAFTA, that Treaty governs questions of both jurisdiction and merits, pursuant to Article 1131(1). [19] Professor Schreuer recognizes this "concordance of jurisdiction with the treaty's substantive standards" in the same authorities Mexico selectively quotes in its Post-Hearing Brief.[20] Having agreed with Legacy Vulcan that NAFTA governs jurisdiction over the ancillary claim, Mexico necessarily accepted that — if the ancillary claim fell within the scope of that consent, as the Tribunal held in PO No. 7 — NAFTA is the law applicable to the merits under Article 1131(1).[21] Mexico failed to address Article 1131(1) at all, leaving this point unrebutted.

11. Even without reference to Mexico's prior admissions, it is clear that the ancillary claim falls within the Parties' consent to arbitrate. That consent was perfected when Legacy Vulcan accepted Mexico's standing offer to arbitrate under NAFTA, [22] identifying the subject-matter of the dispute as the "adverse and illegal actions by Mexico [. . .] that have severely affected Legacy Vulcan's investments and operations in Mexico," including "disputes that have

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[15] *See* CHRISTOPH SCHREUER, THE ICSID CONVENTION: A COMMENTARY, Art. 42, p. 575. ¶ 77 (2009) (CL-0001-ENG). *See also* FOURCHARD GAILLARD GOLDMAN ON INTERNATIONAL COMMERCIAL ARBITRATION, ¶ 1427 (E. Gaillard and J. Savage eds., 1999) (CL-0281-ENG).

[16] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 21.

[17] *Id.*, ¶ 21 (*quoting* Christoph Schreuer, *Jurisdiction and Applicable Law in Investment Treaty Arbitration*, McGill Journal of Dispute Resolution, Vol. 1:1, p. 3 (2014) (CL-0284-ENG)); Respondent's Rejoinder on the Claimant's Request for Provisional Measures and Leave to File an Ancillary Claim, ¶ 69.

[18] Procedural Order No. 7, ¶¶ 118, 150.

[19] NAFTA, Art. 1131(1) ("A Tribunal established under this Section shall decide the issues in dispute in accordance with this Agreement and applicable rules of international law.").

[20] Christoph Schreuer, *Jurisdiction and Applicable Law in Investment Treaty Arbitration*, McGill Journal of Dispute Resolution, Vol. 1:1, pp. 7, 13-14 (2014) (CL-0284-ENG); *see* Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 24 (citing Professor Schreuer).

[21] Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 99.

[22] *Id.*, ¶¶ 96-97; Legacy Vulcan's Comments on the Second Article 1128 Submission of the United States and the 30 June 2023 Letter of Mr. Queztal Tzab, ¶ 7.

arisen or may arise in the future between the parties" with respect to that subject matter.[23] The scope of both Mexico's standing offer to arbitrate and Legacy Vulcan's acceptance of that offer therefore encompassed the ancillary claim, as the Tribunal correctly confirmed in PO No. 7.[24] Since the Parties' consent was perfected, Mexico cannot unilaterally withdraw it.[25]

C. USMCA ANNEX 14-C CONFIRMS THAT THE ANCILLARY CLAIM FALLS WITHIN THE SCOPE OF NAFTA CHAPTER 11.

12. Mexico's USMCA-based objection fails in any event because (i) this arbitration was initiated while NAFTA was in effect and may proceed to conclusion undisturbed by the entry into force of the USMCA, as paragraph 5 of Annex 14-C confirms;[26] and (ii) Legacy Vulcan's investments in the Project and La Rosita plainly meet the definition of "legacy investment" under Annex 14-C. The Treaty text is clear on both points, and as the Party with access to all relevant USMCA *travaux préparatoires*, Mexico has failed to provide a single negotiation document demonstrating a contrary interpretation of that text.

13. Indeed, the first point stands unrebutted and undisputed by Mexico, and the United States itself agrees that "[p]aragraph 5 provides that an arbitration initiated while the NAFTA was in force may proceed to conclusion, unaffected by the NAFTA's termination."[27]

14. Mexico focuses instead on the argument — made for the first time at the Hearing — that Legacy Vulcan purportedly lacks a "legacy investment" under Annex 14-C because its investments were not existing or acquired between 1 January 1994 and 30 June 2020.[28] This is false. Legacy Vulcan fully acquired its investment in Mexico in 2015, *after 1 January 1994* and while NAFTA was in effect, and that investment existed when the USMCA came into force on 1 July 2020.[29] It is also undisputed that Legacy Vulcan (including its predecessor Legacy Vulcan Corporation before the 2015 merger) made investments in La Rosita between 1994 and 2020.[30] These facts establish beyond doubt that Legacy Vulcan's investments in La Rosita constitute a "legacy investment" under the USMCA.[31] Because USMCA Annex 14-C extends NAFTA Chapter

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[23] Notice of Intent (3 September 2018) (C-0007-SPA.6).

[24] Procedural Order No. 7, ¶ 150.

[25] Legacy Vulcan's Comments on the Second Article 1128 Submission of the United States and the 30 June 2023 Letter of Mr. Queztal Tzab, ¶¶ 10-11.

[26] Claimant's Post Hearing Brief (Ancillary Claim), ¶ 7.

[27] Legacy Vulcan's Comments on the Second Article 1128 Submission of the United States and the 30 June 2023 Letter of Mr. Queztal Tzab, ¶ 35; *TC Energy Corp. & TransCanada Pipelines Limited v. United States*, ICSID Case No. ARB/21/63, Memorial on Preliminary Objections, ¶ 19 (12 June 2023) (C-0367-ENG).

[28] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 18-20.

[29] Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 109.

[30] *Id.*, ¶ 110.

[31] *Id.*, ¶¶ 108-114.

11 protections for three years (*i.e.*, until 30 June 2023) for "legacy investments" like Legacy Vulcan's Project in Mexico,[32] Mexico's USMCA-based jurisdictional objection fails.

III. MEXICO FAILS TO REBUT THE STRONG SHOWING THAT IT BREACHED ITS NAFTA OBLIGATIONS.

A. MEXICO HAS FAILED TO REFUTE THAT ITS SHUTDOWN OF LA ROSITA WAS ARBITRARY IN BREACH OF NAFTA.

1. Mexico Again Sidesteps the President's Publicly-Admitted Shutdown Order and Political Attacks on CALICA.

15. Mexico again all but ignored the core facts underlying Legacy Vulcan's ancillary claim: Mexico's President targeted Legacy Vulcan and CALICA for months, vilifying them (and government officials who granted relevant permits) as environmental wrongdoers without any legal or factual basis to do so, until he let the axe drop on 2 May 2022, conceding he had ordered the shutdown of CALICA's remaining operations hours before PROFEPA and heavily-armed marines were dispatched to execute it.[33]

16. The President's own words confirm that this shutdown bears no rational relation to the purported environmental reasons Mexico now touts. He openly admitted that he ordered the shutdown because he thought (wrongly) that Legacy Vulcan had "deceived" him.[34] Mexico had simply decided months earlier that CALICA would not be allowed to quarry anymore, regardless of whether the company had been authorized to do so or conducted its activities exactly as authorized.[35]

17. Mexico's purported environmental concerns — linked to quarrying *per se*, not CALICA's specific activities[36] — ring hollow because other quarries have been allowed to operate in the same area to supply the domestic market, including the Mayan Train, as the Tribunal saw during the Site Visit.[37] Mexico ignored the Tribunal's and Legacy Vulcan's questions about these

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[32] Legacy Vulcan's Comments on the Second Article 1128 Submission of the United States and the 30 June 2023 Letter of Mr. Queztal Tzab, ¶¶ 42-74; Reply (Ancillary Claim), ¶¶ 114-133.

[33] *See, e.g.*, Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 11-14; Memorial (Ancillary Claim), ¶ 62.

[34] Transcript of President's Morning Press Conference (2 May 2022) (C-0168-SPA.14) ("[M]e habían engañado en que ya no estaban extrayendo material [...] Entonces, he dado instrucciones a la secretaria para proceder de inmediato [...] hasta que se detenga la extracción.").

[35] *See, e.g.*, Transcript of President's Morning Press Conference (3 February 2022) (C-0178-SPA.22) ("Estos permisos los entregaron, el de ese predio que están explotando, lo entregaron antes del 2000. [...] No se va a permitir nada de extracción, nada.").

[36] *See, e.g.*, Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 68; Tr. (Spanish), Day 3, 636:15-637:11, 673:5-674:6 (Tavera addressing Tribunal questions) (acknowledging that purported environmental impacts complained of were inherent to quarrying itself and not to the way CALICA operated).

[37] *See, e.g.*, Tr. (English), Day 1, 12:6-18 (Claimant's Opening); Claimant's Opening (CD-0007.9-10).

quarries.[38] These facts illustrate that Mexico's shutdown of La Rosita was arbitrary, unreasonable, capricious, and discriminatory in breach of NAFTA.[39]

18. Mexico insists on spinning President López Obrador's public remarks and admissions, alleging that the President did not instruct PROFEPA to shut down La Rosita,[40] but this is demonstrably false. The President conceded on video that he had instructed SEMARNAT's Secretary to act immediately "*hasta que se detenga la extracción*."[41] And he did this after months of public CALICA bashing, including proclaiming that CALICA's operations would "no longer be allowed" *before* PROFEPA inspected La Rosita.[42]

19. Legacy Vulcan has not taken those statements "out of context," as Mexico claims.[43] Those statements speak for themselves, and the Tribunal is familiar with the "context." At the Hearing, Legacy Vulcan showed multiple clips and official transcripts of the President's tirades.[44] Mexico did not even try to show contrasting statements, choosing instead to sweep this extensive evidentiary record under the proverbial rug.

2. CALICA Has Always Had a Valid Environmental Impact Authorization for La Rosita.

20. Mexico insists that CALICA lacked an environmental impact authorization for La Rosita but fails to refute three established facts: (i) the 1986 Investment Agreement was a valid environmental impact authorization, as Mexico repeatedly recognized for decades; (ii) CALICA gave a copy of that Agreement to PROFEPA during the May 2022 inspection; and (iii) PROFEPA ignored that document when it shut down La Rosita.[45] These facts further show that Mexico's

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[38] *See* T-1, at 3 (Site Visit Minutes) (reflecting that the Tribunal inquired about the quarries near CALICA); T-2-D2-AM-1 at 1:15-3:10; T-2-D2-AM-3 at 00:37-1:10 (same); Tr. (English), Day 1, 12:9-18 (Claimant's Opening).

[39] *See Adel A Hamadi Al Tamimi v. Sultanate of Oman*, ICSID Case No. ARB/11/33, Award, ¶ 387 (3 November 2015) (Williams (P), Brower, Thomas) (RL-0228) (finding no deference to State environmental authorities is appropriate where the State's actions are carried out in bad faith, for an ulterior purpose, or in a procedurally unfair manner).

[40] *See* Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 77.

[41] Transcript of President's Morning Press Conference (2 May 2022) (C-0168-SPA.14) ("Entonces, *he dado instrucciones a la secretaria [de la SEMARNAT] para proceder de inmediato*. […] *Sí, hasta que se detenga la extracción*.") (emphasis added); Andrés Manuel López Obrador, Tren Maya Prioriza Cuidado de Zonas Arqueológicas y del Ambiente, YouTube (uploaded 2 May 2022), https://www.youtube.com/watch?v=VeiERG4QXhI (C-0188-SPA) (video online begins display at 02:00:50).

[42] *Id.*; *see also* Transcript of President's Morning Press Conference (3 February 2022) (C-0178-SPA.22) ("No se va a permitir nada de extracción, nada.").

[43] *See* Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 76.

[44] *See*, *e.g.*, Claimant's Opening (CD-0007.3, 7, 11, 16, 18).

[45] *See, e.g.*, Memorial (Ancillary Claim), ¶¶ 66-72; Reply (Ancillary Claim), ¶¶ 13-14, 39-53; PROFEPA Inspection Order and Report on Environmental Impact (2-5 May 2022) (C-0171-SPA.16).

shutdown of La Rosita was pretextual and arbitrary.[46] Unable to counter these facts, Mexico's Post-Hearing Brief strikes at strawmen.

21. For instance, Legacy Vulcan highlighted at the Hearing that Mexico's environmental authorities had reviewed and relied on the 1986 Investment Agreement as an environmental authorization multiple times, including during PROFEPA's 2012 inspection.[47] Mexico's response — that the 2012 inspectors did not verify CALICA's compliance with each provision of the 1986 Investment Agreement[48] — misses the point. The relevant issue in both the 2012 and the 2022 inspections was whether CALICA had an environmental impact authorization for La Rosita.[49] PROFEPA answered that question with a "yes" in 2012 and with a "no" in 2022, having been given the same document (the 1986 Investment Agreement) as proof of an environmental impact authorization.[50] The record explains this contradiction: in 2022, PROFEPA was acting on instructions to stop CALICA's quarrying.

22. Mexico attacks another strawman when it dismisses the multiple other instances in which environmental authorities reviewed and relied on the 1986 Investment Agreement (*e.g.*, the 2016 environmental audit, the 1993 PROFEPA inspection, the 2000 Corchalito/Adelita Federal Environmental Authorization).[51] According to Mexico, these instances fail to show that the 1986 Investment Agreement was "unlimited" or "undefined."[52] But this is not Legacy Vulcan's contention. Rather, as [redacted] explained at the Hearing, the environmental impact authorization in the Agreement does not set a specific term for quarrying but instead establishes other limiting parameters, such as the estimated volume of exploitable reserves.[53]

23. Mexico has failed to rebut that, for more than three decades of CALICA operations, Mexico's environmental authorities reviewed the 1986 Investment Agreement repeatedly and

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[46] *See* Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 10, 20, 26.

[47] *See Id.*, ¶¶ 22-23. *See also* Legacy Vulcan letter to the Tribunal, pp. 8-9 (29 January 2024) (citing R-0241-SPA.144).

[48] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 122.

[49] *See e.g.*, Claimant's Opening (CD-0007.30.31).

[50] PROFEPA Inspection Resolution (10 December 2012) (C-0043-SPA.6-7); PROFEPA Inspection Report on Environmental Impact (2-5 May 2022) (C-0171-SPA.71-72); *see also* Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 23-24, n.66.

[51] Claimant's Opening (CD-0007.29) (listing and citing such instances); Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 104-106, 120-124.

[52] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 120-124.

[53] Tr. (Spanish), Day 3, 822:19-823:3 ([redacted] cross-examination: "Yo nunca he dicho que esta [Autorización de 1986] sea indefinida; he dicho que los parámetros de definición no están en función a una fecha calendario o un plazo fijo y concreto."); Tr. (English), Day 1, 232:10-19 [redacted] cross-examination: "[T]he 1986 Agreement [...] allowed for the exhaustion of reserves [...] and [...] these references [...] [to 25 and 40 years] were just general approximate references on the rhythm of extraction [...].").

only questioned its validity as an environmental impact authorization after President López Obrador ordered his government to stop CALICA's quarrying. CALICA's history of operations — under the purview and approval of Mexican authorities — made it unnecessary to seek any "confirmation" of the authorization's validity, as Mexico now argues.[54]

3. CALICA Did Not Need a CUSTF to Quarry La Rosita.

24. Mexico's Post-Hearing Brief fails to rebut that the lack of a CUSTF was yet another pretext PROFEPA used to effectuate President López Obrador's wishes. Two facts stand out.

25. *First*, La Rosita has never required a CUSTF because it was never zoned as a "forested terrain" and has been quarried for decades, making La Rosita's land use incompatible with forestry.[55] According to Mexico, the link between the definition of "forested terrain" and local zoning regimes appeared only in the 2018 forestry law,[56] but this misses the point. As [redacted] explained at the Hearing, CUSTF authorizations are necessary to give a forested terrain a non-forestry ***use***, so whether a lot qualifies as "forested" has always depended in part on the uses indicated in the applicable local zoning regime.[57] While the 2018 forestry law expressly makes this link,[58] that link existed long before 2018. [redacted] has consistently so confirmed.[59]

26. The 2014 Agreements do not show otherwise.[60] Those Agreements sought an amendment to the 2009 POEL for ***Solidaridad*** (affecting La Adelita), not Cozumel, where La Rosita is located.[61] The POEL never applied to La Rosita, which has been subject to a zoning regime suitable for quarrying and incompatible with forestry for decades.[62]

27. *Second*, as Mexico has acknowledged, its environmental authorities are legally bound to act upon identifying indicia of possible environmental violations,[63] and no authority ever — in almost 40 years — enforced or even suggested a CUSTF "requirement" for La Rosita

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[54] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 89 (free translation).

[55] *See* Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 29.

[56] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 96-97.

[57] Tr. (Spanish), Day 3, 794:4-20 [redacted] cross-examination: "mientras el programa de ordenamiento establezca que el predio no es forestal, no le es aplicable aquellas obligaciones que son propias únicamente a un terreno forestal [...] la vocación de terrenos forestales es necesario [...] para identificar si un terreno debe ser o no considerado forestal. Y si es forestal, estará sujeto al [CUSTF]; y si no es forestal, no lo estará."); *see also* Expert Report-[redacted]-Environmental Law-Claimant Ancillary Claim Memorial-Third Report-SPA, § IV.B.1.

[58] General Law on Sustainable Forestry Development, Article 93 (5 June 2018) (R-0026-SPA.49).

[59] *See* Expert Report-[redacted]-Environmental-Claimant's Memorial-SPA, ¶ 121.

[60] *But see* Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 90, 98 (relying on 2014 Agreements).

[61] Addendum to the Binding MOU entered into between Calica, API Quintana Roo, the State of Quintana Roo, and the Municipality of Solidaridad (13 May 2015) (C-0022-SPA.3, 10).

[62] Expert Report-[redacted]-Environmental Law-Claimant Ancillary Claim Memorial-Third Report-SPA, ¶¶ 116-121.

[63] Counter-Memorial (Ancillary Claim), ¶ 209, n.206; *see also* Claimant's Post Hearing Brief (Ancillary Claim), ¶ 30.

before the President's 2022 shutdown order.[64] Mexico cannot reasonably deny the ample record evidence that it knew — for decades — that CALICA removed vegetation in La Rosita.[65] Either Mexico's authorities engaged in a decades-long dereliction of duty or they agreed that a CUSTF was not required for La Rosita. The latter is much more plausible. Mexico's retort that its authorities "did not consent to Claimant's illegal activities"[66] is another strawman: rather than "consent" to illegality, Mexico's longstanding conduct supports the inference that there was *no* illegality from the lack of a CUSTF for La Rosita.

B. MEXICO'S EFFORT TO DISTRACT WITH DEBUNKED RED HERRINGS FAILS.

28. Unable to defend the arbitrariness of the shutdown, Mexico tries to revive allegations of bad faith and fraud that Legacy Vulcan has already refuted.[67] Mexico also largely ignores or glosses over Legacy Vulcan's evidence — highlighted at the Hearing — that allegations of 1986 Investment Agreement breaches and environmental violations or harms are fiction.[68] Mexico's laundry list of red herrings (old and new) are briefly addressed below.

29. *The 1986 Investment Agreement Lacks a 25-Year Term*: Mexico insists that the Agreement has such a term,[69] but this is a *post-hoc* attempt to justify Mexico's shutdown of La Rosita. Mexico cannot point to a *single* document supporting its theory before this ancillary-claim proceeding, because none exists. Mexico continues to ignore provisions of the Agreement showing that there was no 25-year limit to extraction,[70] as well as public admissions by SEMARNAT, PROFEPA, and President López Obrador that there is no such limit.[71] Mexico still has no good answer to the Tribunal's question why CALICA was allowed to quarry La Rosita for more than 25 years.[72] By contrast, Legacy Vulcan has established that references to "vida útil" in the 1986 Investment Agreement concern estimates of how long it would take to quarry reserves

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[64] Claimant's Post Hearing Brief (Ancillary Claim), ¶¶ 33-40.

[65] *See id.*, ¶¶ 31-40; Claimant's Opening (CD-0007.40-42); Reply (Ancillary Claim), ¶ 61. *See also* Legacy Vulcan letter to the Tribunal, p. 9 (29 January 2024) (citing R-0240-SPA.64, 136; R-0241-SPA.57, 131-132, 217; R-0242-SPA.6, 194).

[66] Respondent's Post-Hearing Brief (Ancillary Claim), Part III.C.4.a. (free translation of the heading).

[67] *See id.*, ¶¶ 47, 50-51; *but see* Reply (Ancillary Claim), Part II.E; Procedural Order No. 10, ¶ 12 (excluding Mexico's fraud allegations from the issues to focus on at the Hearing).

[68] *See* Respondent's Post-Hearing Brief (Ancillary Claim), Parts III.B, III.C; Claimant's Post-Hearing Brief (Ancillary Claim), Part II.B.3.

[69] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 84-85, 116.

[70] *See* Reply (Ancillary Claim), ¶¶ 75-79.

[71] Transcript of President's Morning Press Conference (3 February 2022) (C-0178-SPA.22*)* ("no le pusieron ni siquiera un límite […] ni siquiera hay fecha."); Transcript of President's Morning Press Conference (31 May 2022) (C-0198-SPA.26) (government-commissioned video aired during a *Mañanera* stating: "En 1986 […] otorgaron a Calica la primera autorización para la extracción de roca caliza por debajo del manto freático en La Rosita […]. Esta autorización no especificaba ni la vigencia ni el volumen de explotación del proyecto […]."); PROFEPA Press Release (6 May 2022) (C-0174-SPA.3).

[72] *See* Respondent's Post-Hearing Brief (Ancillary Claim), Question 6.

in La Rosita at the estimated rate of extraction projected there.[73] Those references did not impose a 25-year term to that extraction.

30. *The 1986 Investment Agreement Was Not Invalid* Ab Initio.[74] Mexico's theory that the 1986 Investment Agreement never came into effect is equally baseless. During the Hearing, SOLCARGO acknowledged that they came up with this theory and no environmental authority had ever supported it before this ancillary-claim proceeding.[75] To the contrary, Mexico's environmental authorities — including PROFEPA — treated the Investment Agreement as *valid* for decades.[76] PROFEPA recently flip-flopped, asserting in an *Acuerdo de Emplazamiento* notified hours before the Post-Hearing Brief deadline that the Agreement never came into force because CALICA failed to secure a CUSTF.[77] But CALICA did not require a CUSTF for La Rosita, and Respondent's self-serving new argument is belied by decades of conduct by Mexico showing the opposite.[78] The *Acuerdos de Emplazamiento* only reinforce Mexico's arbitrary conduct here.[79]

31. *Mexico's Allegations of Bad Faith and Deception Are Unsupported and Fictional*. Mexico repeats its debunked conspiracy theory that Legacy Vulcan engaged in a decades-long fraud.[80] Legacy Vulcan has already rebutted these allegations.[81]

32. *Vulcan Has Made No Misrepresentations to the SEC*. Mexico's repeated allegation to the contrary is baseless.[82] As [redacted] explained, VMC's SEC filings are in line with the regulations governing disclosures for quarrying companies, and Mexico misrepresents those regulations.[83] Mexico chose not to cross-examine [redacted] at the Hearing and has failed to engage with Legacy Vulcan's rebuttal evidence on this precise issue. Neither has Mexico offered any expert evidence on SEC regulations to support its frivolous accusations.

33. *CALICA Did Not Quarry More than Was Authorized in La Rosita*. Mexico insists that CALICA exceeded its permissible extraction depth,[84] while ignoring evidence to the

[73] *See, e.g.*, Tr. (English), Day 1, 24:15-25:14 (Claimant's Opening); Tr. (English), Day 1, 236:15-239:18 [redacted] addressing Tribunal questions); Tr. (Spanish), Day 3, 771:5-772:1 ([redacted] direct).
[74] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 103, 114.
[75] Tr. (Spanish), Day 4, 987:15-20, 994:17-995:9 (SOLCARGO cross-examination); Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 52.
[76] *See, e.g.*, Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 22, Figure 2.
[77] Acuerdo de Emplazamiento en materia de Impacto Ambiental (R-0238-SPA.78, 80).
[78] *See, e.g.*, Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 22-23; Claimant's Opening (CD-0007.29).
[79] Claimant's Letter to the Tribunal Regarding the *Acuerdos de Emplazamiento* (28 November 2023).
[80] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 47-53.
[81] Reply (Ancillary Claim), Part II.E; Claimant's Letter to the Tribunal, pp. 2-3 (29 January 2024).
[82] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 81; *but see* Reply (Ancillary Claim), ¶¶ 104-106.
[83] Witness Statement-[redacted]-Claimant's Ancillary Claim Reply-First Statement-ENG, ¶¶ 26-29.
[84] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 69-72.

contrary.[85] For example, Mexico ignores expert evidence showing that a reading of [redacted] at one single spot was not the result of excess underwater extraction but a reflection of the karstic nature of the soil — a fact that Mexico acknowledged during the Site Visit.[86] That evidence also shows extraction in all other spots well within the allowed depth.

34. *CALICA Met Its Reforestation Obligations*. Mexico continues to accuse CALICA of deceiving authorities in its 2011 Environmental Audit by overstating the amount of land it reforested.[87] This allegation has been debunked.[88] Mexico authorized CALICA to plant trees either inside or outside its lots, and uncontested evidence shows CALICA has done so in both.[89]

35. *CALICA Has Not Destroyed Cenotes*. Mexico accuses CALICA of destroying "cenotes" because, according to environmental audit reports, there were seven "cenotes" in CALICA's properties, and Legacy Vulcan "was unable" to identify them during the Site Visit.[90] But identifying every cenote was not among the goals of that Visit; had it been, Legacy Vulcan would have pointed them all out to the Tribunal (rather than just some). The audit reports also used the word "cenote" loosely to refer to bodies of water or wells, as evidenced by the fact that CALICA has concessions to extract water from some of those spots.[91] Simply put, CALICA has not destroyed any cenote,[92] and Mexico has failed to offer any credible evidence to support its allegation.

36. *CALICA Has Not Overused Water*. Mexico accused CALICA for the first time in its Post-Hearing Brief of exceeding its permissible water use.[93] Mexico cites only the *Dictamen* for support,[94] but that document's water model was thoroughly discredited by Dr. Bianchi's unrebutted expert report and Hearing testimony.[95] CALICA has not exceeded water-use limits.

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[85] *See, e.g.*, Reply (Ancillary Claim), ¶ 83.

[86] Bathymetric study of the extraction area of CALICA in Quintana Roo Mexico (February 2018) (C-0126-SPA.15-16); T-2-D2-PM-01 at 9:00 to 10:40; *see also* Claimant's Post-Site Visit Brief, n.41.

[87] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 63-64.

[88] Claimant's Response On Counterclaim (Admissibility And Jurisdiction), ¶¶ 69-70; Claimant's Letter to the Tribunal, pp. 5-6 (29 January 2024).

[89] *See, e.g.*, Second Amendment to the Corchalito/Adelita State Environmental Impact Authorization (19 May 2011) (C-0075-SPA.40); Claimant's Response On Counterclaim (Admissibility And Jurisdiction), nn.200-201 (listing reforestation evidence); Claimant's Letter to the Tribunal, pp. 5-6 (29 January 2024).

[90] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 65-66 (free translation).

[91] Expediente PFPA/29.4/1S.3/00008-11 (R-0234-SPA.32); *see also* Claimant's Letter to the Tribunal, pp. 3-4 (29 January 2024); Tr. (English) Day 3, 719:18-21 (Bianchi direct, explaining that the audit reports use the term "cenote" to refer to other bodies of water).

[92] Tr. (English), Day 1, 214:8-11 [redacted] Direct).

[93] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 67-68.

[94] *Id.*, n.87.

[95] *See* Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 66; Claimant's Letter to the Tribunal, pp. 6-7 (29 January 2024).

37. *CALICA Has Not Breached Procedural Order No. 8 ("PO8")*. Piling on baseless accusations, Mexico's Post-Hearing Brief alleges that Legacy Vulcan breached PO8 by referencing the Site Visit in a local proceeding.[96] Legacy Vulcan has explained that this is not the case; under Mexico's unreasonable position CALICA was unable to service its machinery and access its properties, an issue that was brought to the attention of Mexican courts and this Tribunal.[97]

38. *CALICA Never Misrepresented Facts in Connection with Its Environmental Audits*. Mexico's repeated accusation to the contrary is false.[98] Legacy Vulcan already refuted Mexico's accusation that CALICA somehow deceived Mexico based on a stray suggestion by PROFEPA-certified auditors that quarrying had ceased in La Rosita in 2003.[99] CALICA in no way hid the fact that quarrying continued thereafter in La Rosita, though at a reduced pace, and other environmental audit reports clearly show that extraction at La Rosita continued after 2003.[100]

39. Nor did CALICA misrepresent that it sought, obtained, or needed a CUSTF for La Rosita, as Mexico claims for the first time in its Post-Hearing Brief.[101] The 2011 environmental audit report Mexico cites[102] merely refers to CALICA's policy of complying with necessary legal requirements and specifically to the CUSTF for *La Adelita*,[103] which — as was discussed during the first phase of this arbitration — became an issue in light of the 2009 POEL.[104]

40. In fact, CALICA's environmental audits and PROFEPA's issuance of multiple Clean Industry Certificates confirm that no CUSTF was required for La Rosita.[105] PROFEPA's head of environmental audits, Enrique Castañeda, corroborated this fact at the Hearing.

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[96] Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 78-79.

[97] Claimant's Letter to the Tribunal (6 August 2023); Tr. (English), Day 5, 1193:17-1194:16, 1197:9-1198:12.

[98] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 57-59; *but see* Claimant's Response on Counterclaim (Admissibility And Jurisdiction), ¶¶ 71-72; Claimant's Letter to the Tribunal, pp. 2-3 (29 January 2024); Witness Statement-[redacted]-Claimant's Memorial-ENG, ¶ 24 (noting that, in 2001, CALICA started quarrying El Corchalito and "it was not efficient to have quarrying operations in more than two sites at the same time").

[99] Claimant's Response on Counterclaim (Admissibility And Jurisdiction), ¶¶ 71-72; *but see* Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 51(i), 57 (repeating Mexico's accusation of deception without engaging with Legacy Vulcan's refutation).

[100] *See* Claimant's Response on Counterclaim (Admissibility And Jurisdiction), ¶¶ 71-72; Tr. (Spanish), Day 2, 536:18-538:6 (Castañeda cross-examination); Claimant's Letter to the Tribunal, pp. 2-3 (29 January 2024).

[101] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 51(iii), 61.

[102] *Id*., n.77-78 (citing R-0234-SPA).

[103] Expediente PFPA/29.4/1S.3/00008-11 (R-0234-SPA.252) (stating in the 2011 environmental audit report: "se tiene establecido como parte de sus políticas ambientales, no iniciar algún aprovechamiento y/o actividad de preparación, hasta obtener de la autoridad competente, los permisos de cambio de uso de suelo y demás requerimientos aplicables"); *id*., at 260 ("la empresa decidió no iniciar ningún trámite de cambio de uso del suelo" regarding La Adelita).

[104] *See* Claimant's Post-Hearing Brief (Original Claim), ¶ 63.

[105] *See, e.g*., Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 39; Claimant's Letter to the Tribunal, p. 9 (29 January 2024).

He stressed that the 2016 environmental audit "specifically evaluated" the Corchalito/Adelita Federal Environmental Authorization.[106] This evaluation concluded that CALICA complied with its obligations and that the company "does not require nor required [...] a [CUSTF]" for El Corchalito.[107] If that was true for El Corchalito, whose zoning made *quarrying compatible* and forestry incompatible, it was also true *a fortiori* for La Rosita, whose zoning was for *quarrying* and made forestry incompatible.[108]

IV. LEGACY VULCAN IS ENTITLED TO FULL REPARATION

A. LEGACY VULCAN HAS MET ITS BURDEN OF PROOF.

41. Legacy Vulcan has met its burden to prove its damages with reasonable certainty.[109] Brattle's valuation is supported by documents and data kept in the ordinary course of business and sworn witness testimony of individuals with first-hand knowledge of relevant facts. It is consistent with well-documented evidence of CALICA's past performance as one of Legacy Vulcan's most profitable businesses.[110] Mexico's criticisms of this evidence fail for three main reasons.[111]

42. *First*, Brattle has not blindly relied on Legacy Vulcan's witness testimony: their valuation is supported by key data and documents Legacy Vulcan collected and retained in the normal course of business.[112] This includes [redacted]

[106] *See* Tr. (English), 452:10-11 (Castañeda cross-examination).

[107] Environmental Audit Report (March 2016) (C-208-SPA.12, 255) (free translation, the original reads: "La Organización no requiere ni requirió para el caso de las instalaciones auditadas de autorizaciones de aprovechamiento de recursos forestales, de cambio de uso de suelo forestal o en materia de impacto ambiental.").

[108] *See* Claimant's Post-Hearing Brief (Original Claim), ¶¶ 50-62; Tr. (Spanish), Original Claim Hearing, Day 1, 210:7-10 ("[Professor Tawil]: no se ha objetado por falta de autorización la explotación de El Corchalito [?] // [Counsel for Respondent]: No."); Tr. (Spanish), Original Claim Hearing, Day 3, 676:21-677:9, 682:1-16 ([redacted] Direct); *id.* at 705:12-706:2 ([redacted] cross-examination, confirming that a CUSTF was not required to quarry El Corchalito).

[109] The standard of proof for damages is a "balance of probabilities," *Ioannis Kardassopoulos & Ron Fuchs v. Republic of Georgia*, ICSID Case Nos. ARB/05/18 and ARB/07/15, Award, ¶ 229 (3 March 2010) (Fortier (P), Vicuña, Lowe) (CL-0136-ENG); *Impregilo SpA v. Argentine Republic*, ICSID Case No. ARB/07/17, Award, ¶ 371 (21 June 2011) (Danelius (P), Brower, Stern) (CL-0137-ENG), which requires evidence that "is enough for the judge to be able to admit with sufficient probability the existence and extent of the damage," *Sapphire International Petroleum Ltd v. National Iranian Oil Company*, Award, p. 27 (15 March 1963) (Cavin) (CL-0067-ENG). "[T]he fact that damages cannot be fixed with certainty is no reason not to award damages when a loss has been incurred." *Compañía de Aguas del Aconquija S.A. & Vivendi Universal S.A. v. Argentine Republic*, ICSID Case No. ARB/97/3, Award, ¶ 8.3.16 (20 August 2007) (Rowley (P), Bernal Verea, Kaufmann-Kohler) (CL-0087-ENG); *see* Reply (Ancillary Claim), ¶¶ 208-214; Reply, ¶¶ 217-218.

[110] Reply (Ancillary Claim), ¶¶ 212-217, 219-221; Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 80-83.

[111] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 167-172.

[112] Reply (Ancillary Claim), ¶¶ 213-217; Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 80-87.

[redacted].[113] These ordinary-course documents conclusively show that (i) the CALICA Network had unique competitive advantages and generated superior profits relative to Vulcan's other quarries;[114] (ii) Legacy Vulcan expected CALICA to remain a highly profitable business and invested accordingly;[115] and (iii) Mexico's latest shutdown caused Legacy Vulcan large losses.[116]

43. *Second*, Mexico's allegations about unsupported witness testimony are incorrect.[117] Brattle demonstrated that ordinary-course-of-business sales data [redacted] confirmed [redacted] testimony regarding lost sales and profits. That data showed the enormous profit shortfall [redacted] for areas served by CALICA, while the rest of Vulcan's Southern Gulf Coast region significantly exceeded expectations due to strong market conditions.[118] This real-world evidence validates Brattle's estimates of the substantial losses Legacy Vulcan incurred. Similarly, the superior quality and profitability of the CALICA aggregates has been thoroughly proven, including through evidence that predates this dispute. For example, the company's [redacted] shows the superior profitability of CALICA relative to Legacy Vulcan's other quarries.[119] Even Mexico's witnesses conceded the superior properties of CALICA's rock — features described in the testimony and supporting exhibits of [redacted].[120]

44. *Third*, as Brattle explained at the Hearing, their valuation is consistent with the proven historical earnings of the business — [redacted] — as well as the adverse impact that Vulcan disclosed to its shareholders, *i.e.*, US$80-100 million of lost earnings in May-December 2022 alone resulting from the La Rosita shutdown.[121]

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[113] These data sources were discussed in the Fourth Brattle Report at Appendix B. [redacted] *See* Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 94.

[114] *See* Brattle Direct Presentation (CD-0012.007-008, 011-13, 035-037); Tr. (English), Day 4, 963:2-14; 966:1-967:2 (Brattle direct).

[115] Brattle Direct Presentation (CD-0012.009); Tr. (English), Day 4, 963:2-964:16 (Brattle direct).

[116] Brattle Direct Presentation (CD-0012.015, 022); Tr. (English), Day 4, 968:9-971:15 (Brattle direct).

[117] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 170-173.

[118] Brattle Direct Presentation (CD.0012.022); Tr. (English), Day 4, 971:2-972:1. This reflects an expected profit shortfall at the U.S. Yards alone – in other words, it does not include lost CALICA and Vulica profits.

[119] Tr. (English), Day 4, 966:1-9 (Brattle direct); *id.*, at 1034:2-15 (Brattle cross-examination); Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 75; Brattle Direct Presentation (CD-0012.014).

[120] Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 72.

[121] *Id.*, ¶¶ 80-81.

B. LEGACY VULCAN IS ENTITLED TO FULL REPARATION FOR ALL LOSSES CAUSED BY MEXICO'S NAFTA BREACHES.

45. Mexico again argues that Legacy Vulcan cannot claim damages for elements of the CALICA supply chain outside Mexico, but this misconstrues Legacy Vulcan's damages case.

46. Mexico's continued emphasis on distinguishing between Claimant's investment "in Mexico" and the elements of the CALICA Network outside Mexico misapplies NAFTA.[122] Under NAFTA, Legacy Vulcan is entitled to full reparation for *all* loss or damage incurred "by reason of, or arising out of" Mexico's breach.[123] There is no territorial limit on compensable losses. Rather, the standard for compensation under NAFTA is whether the losses claimed reflect "when, as a proximate cause of a Chapter 11 breach, there is interference with the investment and the financial benefit to the investor is diminished."[124] Legacy Vulcan's claim for its reduction in FMV meets this test because it reflects the harm suffered by Legacy Vulcan, as an investor and as the sole owner of CALICA, proximately caused by Mexico's wrongful conduct against Legacy Vulcan's investments *in Mexico*.[125]

47. Mexico's continued emphasis on the legal entities involved in the CALICA Network is similarly misplaced: the evidence showing that the CALICA Network is an integrated project to extract, export, and market CALICA aggregates in the U.S. Gulf Coast dates back to the late 1980s, when the Project was conceived, and is well-established in the record.[126] As [redacted] testimony and company documents show, the CALICA Network is a single economic unit developed, managed, and operated as an integrated business to capture the competitive advantage of CALICA's reserves for sales along the U.S. Gulf Coast.[127] This integrated business is evidenced not only by [redacted] — all ordinary-course-of-business documents used to manage CALICA and the CALICA Network for years before this dispute arose.[128]

48. This integration is not undermined by the limited commercial activities that each component undertakes outside of the Network. While CALICA sells some aggregates in Mexico,

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[122] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 174-175.
[123] NAFTA, Article 1116; Reply (Ancillary Claim), ¶ 191.
[124] *S.D. Myers, Inc. v. Government of Canada*, UNCITRAL, Second Partial Award (Damages), ¶ 121 (21 October 2002) (Hunter (P), Chiasson, Schwartz) (CL-0132-ENG); Reply (Ancillary Claim), ¶ 194.
[125] *See* Reply (Ancillary Claim), ¶¶ 190-196.
[126] Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 73-76.
[127] *Id.*, ¶¶ 73-76.
[128] *Id.*; Expert Report-Darrell Chodorow and Fabricio Núñez-Claimant's Ancillary Claim Reply-Fourth Expert Report-ENG ("Fourth Brattle Report"), ¶ 230.

those sales are generally of lower quality products (*e.g.*, fill and fines by-products) or, in limited instances, are strategic, modest sales of export-quality product.[129] And, while the Vulica ships and the U.S. Yards are now used, to varying degrees, to ship and distribute aggregates from other sources, their principal intended use is to capture the maximum value from the CALICA reserves.[130] [redacted] That is why the CALICA Network's value derives principally from the value of the CALICA reserves: the strategically-located, high-quality aggregates are the key asset, and Vulica and the U.S. Yards exist to maximize their value.[132]

49. Finally, Mexico's suggestion that Brattle's approach assumes Vulica and the U.S. Yards suffered no harm as a result of Mexico's measures misses the point.[133] As Brattle explained, their estimate of damages reflects the reduction of Legacy Vulcan's FMV resulting from the loss of access to the CALICA reserves, *i.e.*, the lost netback value of the reserves.[134] They start with the CALICA Network and then ***deduct*** the value of Vulica and the U.S. Yards to isolate the FMV of CALICA alone.[135] Losses are roughly equal for CALICA and the CALICA Network because the value of the CALICA Network is derived primarily from CALICA's reserves.[136] In fact, Brattle's [redacted] damages estimate is consistent with a damages estimate using a CALICA Mexico-only approach that applies the proper CALICA Ex-Works Price, as discussed in Legacy Vulcan's response to the Tribunal's Question No. 9.[137]

C. BRATTLE'S VALUATION IS RELIABLE AND WELL-SUPPORTED.

50. As described in Part III.A, Legacy Vulcan has met its burden to prove its damages with reasonable certainty. Mexico splits hairs in an effort to identify purported evidentiary inconsistencies that would undermine Brattle's analysis. These criticisms lack merit.

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[129] Witness Statement-[redacted]-Claimant's Memorial-ENG, ¶ 41. It would be economically inefficient to sell the majority of the product sold locally in the U.S. markets, as Mr. Hart admitted during the Hearing. *See* Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 93; Tr. (English), Day 5, 1164-1165:3 (Hart and Vélez cross-examination). *See also* Rebuttal to Mexico's Response to Tribunal Question 9.

[130] Fourth Brattle Report, ¶¶ 37-38. Tr. (English), Day 4, 958:10-17 (Brattle direct).

[131] Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 75.

[132] Tr. (English), Day 2, 283:6-9 [redacted] cross-examination); Witness Statement-[redacted]-Claimant's Ancillary Claim Reply-First Statement-ENG, ¶¶ 22-23; Fourth Brattle Report, ¶¶ 37-38.

[133] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 182-183.

[134] Tr. (English), Day 4, 957:19-959, 976:18-977 (Brattle direct); Brattle Direct Presentation (CD.0012.002, 27-29); Expert Report-Darrell Chodorow and Fabricio Núñez-Claimant's Ancillary Claim Memorial-Third Expert Report-ENG, ¶¶ 57-61, Fourth Brattle Report, ¶¶ 35-53.

[135] Tr. (English), Day 4, 958-959:11, 976:18-977 (Brattle direct); Tr. (English) Day 4, 1000:4-1002:21 (Brattle cross-examination); Fourth Brattle Report, ¶¶ 50-51.

[136] Tr. (English), Day 4, 977:2-14 (Brattle direct); Fourth Brattle Report, § III.B.

[137] Claimant's Post-Hearing Brief (Ancillary Claim), Question 9.

51. *First*, Mexico's focus on the supposed changing number of U.S. Yards mischaracterizes the evidence.[138] The 11 yard total in [redacted] excludes direct-shipping locations operated by customers [redacted], whereas the 17 yard total referenced by Mexico includes them.[139] The 17 yards also include [redacted].[140] Mexico's claim that the number of U.S. Yards has "fluctuated capriciously" is thus false.[141] Further, Legacy Vulcan's new or renewed yard leases following the Prior Measures do not undermine the harm Mexico caused.[142] Legacy Vulcan reasonably expected to, and but-for the New Measures would have, continued supplying from CALICA through those yards.[143]

52. *Second*, Mexico's criticisms of Brattle's mitigation analysis are misplaced. As a preliminary matter, Mexico is trying to place a double burden on Legacy Vulcan to prove both its harm and that it cannot fully mitigate that harm. But Legacy Vulcan must only prove its loss, including mitigation, as a result of Mexico's breaches by a preponderance of the evidence. It is Mexico's burden to prove that Legacy Vulcan could have ***further mitigated*** that loss, including by fully replacing CALICA's lost sales and profits (as Mexico claims with no support).[144] While Mexico claims that Legacy Vulcan did not submit information Mexico deems "necessary" for a mitigation analysis,[145] Mexico had a full opportunity to request additional documents to those

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[138] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 184, 188, 191.

[139] *Id.*, ¶ 186. [redacted] and Mr. Chodorow clarified this point at the hearing. *See* Tr. (English), Day 5, 1068:5-1066:17 (Brattle cross-examination).

[140] *See* Witness Statement-[redacted]-Claimant's Ancillary Claim Memorial-ENG, ¶ 17. Mr. Chodorow reiterated this fact in his testimony. *See* Tr. (English), Day 5, 1062:14-1063:20 (Brattle cross-examination).

[141] Mexico made similar errors in its yard counts based on other sources.

[142] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 191. [redacted] *See* Fourth Brattle Report, Figure 11.

[144] Reply (Ancillary Claim), ¶ 237; *see Cairn Energy PLC and Cairn UK Holdings Limited v. The Republic of India*, PCA Case No. 2016-07, Final Award, ¶ 1887 (21 December 2020) (Lévy (P), Alexandrov, Thomas) (CL-0219-ENG) ("[W]hile the Claimants bear the burden of proving their loss, it is for the Respondent to prove the assertions or defences that it pleads, such as its mitigation defence. To discharge that burden, the Respondent must show that the Claimants could reasonably have avoided the loss."); *Middle East Cement v. Egypt*, ICSID Case No. ARB/99/6, Award, ¶ 170 (12 April 2002) (Böckstiegel (P), Bernardini, Wallace) (CL-0220-ENG) ("[T]he Respondent has the burden of proof for the facts establishing such a duty [of mitigation] and the failure of Claimant to carry it out.").

[145] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 197.

submitted by Legacy Vulcan and chose not to take advantage of it, even withdrawing document requests when Legacy Vulcan requested reciprocity.

53. Mexico has failed to meet its burden of establishing its mitigation defense. Mexico simply speculates — without any support — that Legacy Vulcan has suffered no loss because it has allegedly replaced *all* lost CALICA *volumes and profits* from alternative sources by passing on the added transportation costs to customers.[146] But Mexico's unsupported claim that "transportation costs make no difference in the comparative cash-margin analysis between CALICA aggregates and replacement aggregates"[147] defies basic economic logic and common sense. As Ms. Vélez admitted, "transportation costs can be a significant component of the cost of the product."[148]

54. Instead of proving its mitigation defense, Mexico accuses Vulcan, a publicly-traded company, of misleading its shareholders when it disclosed in May 2022 an adverse earnings impact of US$80-100 million for May-December 2022 alone (about 5% of VMC's 2022 earnings guidance).[149] Tom Hill, Vulcan's Chairman, President, and CEO confirmed in August 2022 Vulcan's inability to replace lost volumes: "we took the [US]$80 million to [US]$100 million hit. We're not backfilling those tons."[150] Mexico's speculation to the contrary is unsubstantiated.

55. Regardless, Legacy Vulcan has proven that it cannot replace the lost sales and, critically, the lost profits that would have been generated by CALICA aggregates. Brattle's analysis of the [redacted] showed that Legacy Vulcan experienced large annualized losses in both volumes and profits.[151]

56. Mexico also argues that "Claimant has not provided any concrete evidence of lost sales."[152] But, in addition to all of the evidence already described, record evidence shows examples of Vulcan curtailing shipments to customers in Houston following the New Measures.[153] Further, the third-party industry analyst Loop Capital (relied on by Hart and Vélez) anticipated that Vulcan

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[146] Tr. (English), Day 5, 1137:20-1139:4 (Hart and Vélez cross-examination); Tr. (English), Day 4, 969-971:1 (Brattle direct).

[147] Tr. (English), Day 5, 1138:19-22 (Hart and Vélez cross-examination).

[148] *Id*. at 1150:11-14 (Hart and Vélez cross-examination).

[149] Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 80-81.

[150] S&P Capital IQ, Vulcan Materials Company NYSE:VMCFQ2 2022 Earnings Call Transcripts, dated 2 August 2022, p. 12 (DC-0265).

[151] Fourth Brattle Report, ¶¶ 121, 125. [redacted] do not include the full margin information relevant to CALICA and therefore understate the lost profits. *See id.*, ¶ 130.

[152] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 201 (free translation).

[153] Letter from [redacted] to [redacted] "Re: Conditions Affecting Deliveries to Bid Invitation No. S88-S29222 (the 'Project')", dated 20 July 2022 (DC-0168) and [redacted] "Re: NOTICE concerning Purchase Order Agreement No. HSC-PO6", dated 2 June 2022 (DC-0169).

would lose volumes and that Martin Marietta "will likely pick up some, if not most of the slack."[154] The loss expectation was realized, as confirmed by Mr. Hill on the November 2022 earnings call ("[t]he impact is still going to be that [US]$80 million to [US]$100 million for the full year") and by Vulcan's February 2023 earnings release ("[q]uarterly shipments were also impacted by the absence of tons available from the Company's Mexico operations").[155]

57. Even where some volumes could be replaced, Loop Capital warned investors that "clearly it will come at a lower margin."[156] This expectation of significant lost profits led Vulcan to report to shareholders that the New Measures would reduce estimated 2022 earnings by US$80-US$100 million just for May-December 2022.[157] As Brattle showed, the yards able to serve CALICA customers experienced an annualized shortfall of profits of about [redacted] (even without considering the corresponding reduction in CALICA or Vulica profits), while profits at other Southern Gulf Coast yards increased dramatically due to strong market conditions.[158] This shortfall makes clear that Legacy Vulcan suffered losses due to Mexico's shutdown of La Rosita; a shortfall that was not replaced from other sources.[159]

58. Mexico's assumption that Legacy Vulcan can replace 100% of lost profits by passing on to customers 100% of any cost increase resulting from higher transportation costs from alternative quarries defies all economic logic.[160] Again, it is squarely contradicted by the Loop Capital analysis: "What is clear though, is that the margin on domestic aggregates will be lower due to higher shipping costs as railing or trucking longer distances is traditionally less profitable than Vulcan's well-established long-haul shipping network including Sac Tun."[161]

59. Vulcan's [redacted], prepared in the ordinary course, shows that higher costs from other quarries would have resulted in far lower profit margins when

[154] Loop Capital, "Vulcan Materials Company: Updated Thoughts on The Sac Tun Closure", dated 16 May 2022, p. 1 (DC-0202); The Wall Street Transcript, "Garik Shmois" (DC-0264).

[155] S&P Capital IQ, Vulcan Materials Company NYSE: VMC FQ3 2022 Earnings Call Transcripts, dated 2 November 2022, p. 10 (DC-0266); VMC Q4 2022 Earnings Release, p. 2 (CRED-100).

[156] Loop Capital, "Vulcan Materials Company: Updated Thoughts on The Sac Tun Closure", dated 16 May 2022, p. 1 (DC-0202).

[157] S&P Capital IQ, Vulcan Materials Company NYSE:VMCFQ2 2022 Earnings Call Transcripts, dated 2 August 2022, p. 12 (DC-0265); Tr. (English), Day 4, 971:2-972:10 (Brattle direct). Brattle Direct Presentation (CD.0012.021).

[158] Tr. (English), Day 4, 971:2-972:10 (Brattle direct); Brattle Direct Presentation (CD-0012.022).

[159] Fourth Brattle Report, ¶ 122.

[160] Tr. (English), Day 5, 1137:20-1139:4 (Hart and Vélez cross-examination); Tr. (English), Day 4, 969-971:1 (Brattle direct).

[161] Loop Capital, "Vulcan Materials Company: Updated Thoughts on The Sac Tun Closure", dated 16 May 2022, p. 1 (DC-0202).

sold to CALICA customers.[162] That is why Legacy Vulcan invested in expanding CALICA's production capacity: it found that the alternative sources "are not cost effective versus capacity at CALICA."[163] Nor is it the case that the loss of CALICA could simply be offset by price increases.[164] As Brattle has explained, CALICA represents too small a share (less than 4%) of the total volume of the markets it serves to materially impact prices.[165] And Brattle's analysis of the [redacted] confirms that Mexico's claim is wrong — the [redacted] profits shortfall observed is evidence that Legacy Vulcan was not able to make up for lost profits on CALICA aggregates through higher prices on sales of replacement aggregates.[166]

60. *Third*, Mexico's allegations that Legacy Vulcan's damages claim is inconsistent with its financial reporting and public disclosures are false. [redacted] explained at the Hearing that [redacted] As Brattle demonstrated, if Vulcan had tested the impact of a permanent loss of La Adelita and El Corchalito reserves, it would have confirmed that no impairment was needed.[169] [redacted]

[162] CALICA tons cost [redacted] less than feasible alternatives. *See* Brattle Direct Presentation (CD-0012.014); *see* [redacted] dated 24 April 2015 (C-0089-ENG.9).

[163] [redacted] (C-0089-ENG.9).

[164] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 207-210.

[165] Expert Report-Darrell Chodorow and Fabricio Núñez-Claimant's Memorial-First Expert Report-ENG ("First Brattle Report"), ¶ 104.

[166] Brattle Direct Presentation (CD.0012.021). Mr. Hart dismissed the [redacted] analysis, stating that it failed to consider that losses at CALICA Yards could be made up from sales of replacement aggregates (*see* Tr. (English), Day 5, 1112:16-1113:19 (Hart and Vélez direct). However, that is exactly what Brattle analyzed using [redacted], confirming that lost CALICA volumes were not supplied through alternative Vulcan facilities. *See* Tr. (English), Day 4, 970:6-972:10 (Brattle direct).

[167] Tr. (English), Day 2, 338 [redacted] ASC 360-10-35 (CRED-58).

[168] Tr. (English), Day 2, 338-341:16 [redacted]

[169] Expert Report-Darrell Chodorow and Fabricio Núñez-Claimant's Reply-Second Expert Report-ENG, ¶ 76; Tr. (English), (Original Claim Hearing), Day 5, 1001:11-1003:4 (Brattle direct), *id.*, at 1029:6-1030:20 (Brattle cross-examination).

[redacted]

[redacted]

61. In short, Mexico's attempts to undermine Legacy Vulcan's ample evidence of its losses fail. Legacy Vulcan's damages claim is consistent with its disclosures to investors, which reflect significant harm to the company directly caused by Mexico's actions, and which underscore that the Hart and Vélez estimate of [redacted] in damages is simply not credible.

V. THE TRIBUNAL LACKS JURISDICTION OVER THE COUNTERCLAIM.

62. Mexico's Post-Hearing Brief ignores Legacy Vulcan's showing that Mexico's counterclaim fails to meet any of the conditions necessary for jurisdiction and NAFTA's Article 1121 waiver requirement. Instead, Mexico (A) tries to justify its counterclaim on entirely new and ill-founded grounds; (B) incorrectly posits that the counterclaim should survive if Legacy Vulcan's ancillary claim is dismissed for lack of jurisdiction; and (C) tries to skirt the limitations period by pleading ignorance of the purported "magnitude" of CALICA's environmental harms. These arguments lack merit. Mexico's counterclaim should be dismissed.

A. MEXICO CANNOT JUSTIFY ITS COUNTERCLAIM ON ENTIRELY NEW GROUNDS.

63. Mexico asserts for the first time in its Post-Hearing Brief that its counterclaim is based on a breach of NAFTA Article 1101.4,[173] despite having asserted previously that its counterclaim was based on an alleged breach of "environmental obligations contained in NAFTA Article 1114."[174] Yet Article 1101.4 — just like NAFTA Article 1114 — imposes no obligations on investors.[175]

64. Mexico's new argument that the Tribunal's jurisdiction over Legacy Vulcan's "investment" extends to Mexico's counterclaim *per se* is similarly baseless.[176] Jurisdiction *ratione materiae* is just one of several jurisdictional elements that Mexico must, but has failed to, prove.[177] As Mexico has acknowledged, its counterclaim must be within the scope of

[171] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 216.

[172] Tr. (English), Day 2, 326:15-327:21 [redacted]

[173] Respondent's Post-Hearing Brief (Ancillary Claim), Heading II.B.1.

[174] Counterclaim Memorial (Admissibility And Jurisdiction), Heading III.B.

[175] Claimant's Response on Counterclaim (Admissibility And Jurisdiction), ¶¶ 139-147.

[176] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 30 ("[S]i el Tribunal tiene jurisdicción sobre una inversión conforme al Artículo 25 del Convenio CIADI, las demandas reconvencionales que se deriven de la misma inversión deberían ser competencia del CIADI y, en consecuencia, el Tribunal debería tener jurisdicción sobre ellas.").

[177] Claimant's Response on Counterclaim (Admissibility And Jurisdiction), ¶ 77.

the Parties' consent, implicate investor obligations under NAFTA, and have a close legal connection to Legacy Vulcan's ancillary claim.[178] None of these conditions are met here.[179]

65. Finally, Mexico invokes ICSID Arbitration Rule 38(2) for the first time in its Post-Hearing Brief, asking the Tribunal to consider its counterclaim-related allegations and evidence (specifically, the *Dictamen*) even with respect to the original phase of this arbitration and even if the counterclaim is dismissed for lack of jurisdiction.[180] But that rule applies only in "exceptional circumstances" where "new evidence of a decisive nature" is discovered after the closing of proceedings and before the award.[181] Mexico's debunked *Dictamen* — designed precisely to provide *post-hoc* support to President López Obrador's anti-CALICA attacks and Mexico's baseless counterclaim in 2022 — cannot reasonably constitute "exceptional circumstances" to reopen the record of the long-concluded first phase of this arbitration, as required by both Rule 38(2) and this Tribunal's Procedural Orders.[182] The *Dictamen* is also in no way "decisive" over the issues raised in that first phase and, in purporting to address impacts of CALICA's long-standing quarrying activities, fails to present new core "facts" unknown before 2022. It would also prejudice Legacy Vulcan to reopen the first phase of this arbitration to new evidence without giving Legacy Vulcan the opportunity to rebut that evidence in respect of the issues addressed in the first phase of this proceeding. The Tribunal should deny Mexico's Rule 38(2) request.

B. LACK OF NAFTA JURISDICTION OVER THE ANCILLARY CLAIM WOULD DEFEAT JURISDICTION OVER THE COUNTERCLAIM.

66. Mexico erroneously claims that the Tribunal's jurisdiction over the counterclaim does not depend on having jurisdiction over the ancillary claim because "the only requirement is that there be a factual connection between the counterclaim and the dispute under Rule 40 of the 2006 ICSID Arbitration Rules."[183] This is incorrect. As Mexico's own pleadings show, its

[178] Counterclaim Memorial (Admissibility And Jurisdiction), ¶¶ 142-143.

[179] Claimant's Response on Counterclaim (Admissibility And Jurisdiction), ¶¶ 77-118.

[180] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 41-46.

[181] ICSID Arbitration Rule 38(2) (2006); *Perenco Ecuador Limited v. Republic of Ecuador*, ICSID Case No. ARB/08/6, Decision on Ecuador's Reconsideration Motion, ¶ 70 (10 April 2015) (Tomka (P), Kaplan, Thomas) (RL-0248-ENG).

[182] Procedural Order No. 1, ¶ 16.3; Procedural Order No. 6, ¶ 62. This is particularly true with respect to elements of the counterclaim relating to the original proceedings regarding El Corchalito, where Mexico undeniably knew of the purported damage it claims with respect to that lot. *See Rand Investments, et al. v. Serbia*, ICSID Case No. ARB/18/8, Procedural Order No. 9, ¶¶ 20-21 (12 March 2021) (Kaufmann-Kohler (P), Vasani, Kohen) (CL-0299-ENG) ("[I]f a Party chose not to submit evidence that was available to it at the time of filing its written submissions, that situation would, in and of itself, not be exceptional.").

[183] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 38 (free translation, the original reads: "el único requisito es que exista una conexión fáctica entre la reconvención y la diferencia conforme a la Regla 40 de las Reglas de Arbitraje CIADI de 2006").

counterclaim must not only have a factual connection with the ancillary claim, but it must also (i) fall within the Parties' consent to arbitrate, (ii) implicate an investor obligation under NAFTA, and (iii) have a legal connection with the primary claim such that the cause of action for both claims arise from the same treaty.[184] Mexico's counterclaim meets none of these conditions.[185]

67. If, as Mexico claims, the purported cause of action for the counterclaim arises under NAFTA (it really arises under Mexican law), the Tribunal's jurisdiction over the counterclaim would necessarily depend on jurisdiction over the ancillary claim. If the Tribunal lacked jurisdiction over the ancillary claim because — as Mexico mistakenly claims — NAFTA obligations terminated in July 2020, then the cause of action on which Mexico bases its counterclaim likewise terminated before Mexico filed its counterclaim.[186] Mexico's counterclaim would also fail to satisfy the requirement of being closely related to the primary claim such that it is based on the same investment treaty.[187]

C. THE COUNTERCLAIM IS TIME-BARRED.

68. Mexico has failed to address Legacy Vulcan's showing that its claim is time-barred under NAFTA Articles 1116 and 1117. Instead, Mexico appears to claim ignorance over "*the magnitude of the damage* caused by CALICA activities"[188] before the *Dictamen* was issued to excuse its delay. This argument fails. The *Dictamen* has been thoroughly debunked after the Hearing, including through the unrebutted expert testimony of Dr. Bianchi.[189] In any event, Mexico has known of (i) CALICA's activities in La Rosita, as well as what it now claims is "damage" from those activities, for decades, and (ii) of purported environmental damage in El Corchalito since at least January 2018.[190] NAFTA's limitations period starts to run when a claimant has actual or constructive knowledge of any damage relating to its claim; knowledge of the "magnitude" of the alleged damage is not necessary.[191]

VI. REPLIES TO MEXICO'S RESPONSES TO THE TRIBUNAL'S QUESTIONS.

A. QUESTION NO. 1

69. Legacy Vulcan addresses Mexico's response to Question No. 1 in Parts II.A-B.

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[184] Counterclaim Memorial (Admissibility And Jurisdiction), ¶¶ 142-145; Tr. (Spanish), Day 1, 204:4-11, 208:4-7 (Respondent's Opening).

[185] Claimant's Response on Counterclaim (Admissibility And Jurisdiction), ¶¶ 77-184; Tr. (English), Day 1, 173:11-179:17 (Claimant's Opening on the Counterclaim).

[186] Mexico has not made any claims that the Tribunal would have jurisdiction over its counterclaim under the USMCA.

[187] Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 155.

[188] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 35 (emphasis added).

[189] *See, e.g.*, Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 58-69.

[190] *See, e.g.*, *id.*, ¶¶ 150-154.

[191] Claimant's Response on Counterclaim (Admissibility And Jurisdiction), ¶¶ 121-126.

B. QUESTION NO. 2

70. Legacy Vulcan addresses Mexico's response to Question No. 2 in Part II.C.

C. QUESTION NO. 3

71. The Parties agree that Mexican law has generally provided for a permit to use forested terrains since 1986,[192] but disagree on whether a CUSTF was ever required for La Rosita. It was not.[193] As explained in Part III.A.3, while local zoning has been expressly linked to the CUSTF since the 2018 forestry law, local zoning on permissible and incompatible land uses has always been necessary to determine whether a lot qualifies as a "forested terrain" for land-use-change purposes.[194] La Rosita has always been *incompatible with forestry use* and *compatible with quarrying*, so it does not qualify as a "forested terrain" requiring a CUSTF, as decades of Mexico's conduct confirm.

D. QUESTION NO. 4

72. Question 4(a): The Parties agree that Clause 11 of the 1986 Investment Agreement applied only *before* the Project commenced and would thus be irrelevant to permits, licenses, or authorizations that became applicable after 1986.[195]

73. Question 4(b): As explained in Part III.A.3, CALICA was not required to obtain a CUSTF at the time the Project commenced, nor thereafter.[196]

E. QUESTION NO. 5

74. The Parties agree that Mexico has never declared the termination of the 1986 Investment Agreement under Clause 12.[197] Mexico's argument that this termination occurred "automatically" is both entirely new and untenable.[198] The lone legal commentator Mexico cites undermines Mexico's argument because he confirms that an automatic termination clause must be express.[199] Clause 12 is not. It states that "[any] faults and omissions of [CALICA]

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[192] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 95.

[193] *See, e.g.*, Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 115-116.

[194] *See, e.g.*, Part III.A.3 above.

[195] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 232 ("la Cláusula 11 únicamente hace referencia a los permisos, licencias y autorizaciones que deben ser obtenidos previo al inicio del Proyecto").

[196] *See also* Tr. (Spanish), Day 3, 758:8-768:10 [redacted] direct); Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 115-116.

[197] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 236 ("La Demandada no ha declarado la recisión del Acuerdo").

[198] *Id.*, ¶¶ 110, 236. *See* also *id.*, ¶ 113 (suggesting Mexico presented this argument in prior submissions); *but see generally* Counter-Memorial (Ancillary Claim) (containing no references to "*pacto comisorio*"); Rejoinder (Ancillary Claim) (same); SOLCARGO Third Expert Report (same); SOLCARGO Fourth Expert Report (same).

[199] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 110 (citing to R-0107-SPA); Bejarano Sánchez, Manuel, Obligaciones Civiles, Editorial Oxford, Sexta Edición, México, 2010 (R-0107-SPA.17) ("la rescisión

shall be sanctioned by the competent authorities, in accordance with the applicable legal provisions,"[200] and nowhere provides for automatic recission of the 1986 Investment Agreement.

F. QUESTION NO. 6

75. Mexico fails to answer why it allowed CALICA to continue operating after 25 years had passed from the time the 1986 Investment Agreement was signed.[201] Mexico's acknowledgment that PROFEPA was duty-bound to check CALICA's environmental compliance[202] confirms that, by quarrying for well over 25 years after the Investment Agreement was signed, CALICA did not breach any of its obligations.[203]

G. QUESTION NO. 7

76. Mexico has not provided a response to Question 7.

H. QUESTION NO. 8

77. The Parties agree that CALICA's only relevant legal recourse was the *amparo*.[204] They disagree on whether an *amparo* could reverse Mexico's shutdown. While CALICA could file and has filed several *amparos* to preserve its rights, they could not realistically have resulted in the lifting of an environmental shutdown order.[205] Mexico asserts that an *amparo* would have been viable and that CALICA has used such a recourse "successfully."[206] But none of CALICA's multiple *amparos* has dislodged Mexico's shutdown. The two examples Mexico cites do not support its position.[207] Amparo 431/2022 *preceded* the shutdown and was ultimately overturned.[208] Amparo 84/2023 referred only to PROFEPA's expansive interpretation of the shutdown order (as prohibiting entry of personnel for even maintenance and security purposes) and found that interpretation too broad.[209] It did not lift the shutdown.

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debe ser pronunciada por el juez, a menos que las partes hubieren estipulado expresamente y reglamentado la cláusula rescisoria automática.").

[200] Investment Agreement (6 August 1986) (C-0010-SPA.7, 16) (free translation).

[201] *See* Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 237-238.

[202] *Id.*, ¶ 237 ("PROFEPA está obligada a hacer uso de sus facultades de inspección y vigilancia [...]"); Counter-Memorial (Ancillary Claim), ¶ 209, n.206.

[203] *See, e.g.*, Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 22-23, 123-125.

[204] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 141, 150; Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 129.

[205] *See* Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 129, 133-134.

[206] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 153 ("La Demandante ha utilizado este medio de defensa [*amparo*] en contra de la medida de seguridad en dos ocasiones y ha obtenido un resultado favorable").

[207] *Id.*, ¶¶ 154-155, 157.

[208] Judgment of Cancún District Court in Amparo 431/2022 (6 December 2022) (C-0307-SPA).

[209] *See* Claimant's Post-Hearing Brief (Ancillary Claim), ¶¶ 134; JPMA-30.10 (ordering that "*Continúe surtiendo sus efectos la clausura temporal total*[.] [...] Y por lo que hace al restante efecto de la medida cautelar solicitado, consistente en que se inaplique (sic.) la interpretación consistente en que no se puede ingresar a los predios mediante las entradas de acceso, se concede la suspensión provisional[.]").

I. QUESTION NO. 9

78. Mexico's proposed CALICA Ex-Works Price fails to represent the market prices CALICA could command from exporting its aggregates.[210] Further, both estimates proposed by Mexico result in damages over ten times higher than the Hart and Vélez quantum estimate (*i.e.*, [redacted] — a clear indication that Mexico's quantum estimates are flawed.[211]

1. Mexico's "Scenario 1" Is Flawed in Principle and Application

79. Mexico's "Scenario 1" assumes that the CALICA Ex-Works Price should equal the price at which CALICA sells very limited amounts of Base aggregates into the local market.[212] Mexico's approach is flawed for at least three reasons.

80. *First*, the price for local sales of CALICA's Base aggregates is not a reasonable proxy for the CALICA Ex-Works Price. [redacted]

81. *Second*, even assuming that a domestic sales price is a reasonable proxy for the export price, Mexico's selection of the price for Base is unreasonable because nearly half of the volumes exported to the U.S. Gulf Coast are Clean stone, which command a higher price.[215] Even in the domestic market, the price for Clean aggregates is substantially higher than the price for Base.[216] Mexico's approach completely ignores this.

82. *Third*, Mexico erroneously applies its Scenario 1 price to Brattle's CALICA Network DCF model, arguing that using its [redacted] price in the Brattle DCF results in damages of

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[210] In calculating their damages estimates, Hart and Vélez rely on an export price that is US$1.20/ton <u>*lower than their local price*</u> for CALICA aggregates. *See* Hart and Vélez Direct Presentation (RD-0009.2).

[211] Damages increase from US$3.5 million, *see* Fourth Credibility Report, tab 1 (Exhibit 1), to between US$38 and US$44 million. *See* Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 249, 254.

[212] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 243.

[213] *See* Workpaper P, tab P9 (DC-00247). [redacted]

[215] *See* Workpaper P, tab P9 (DC-00247).

[216] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 246. [redacted]

[redacted].[217] This implementation is conceptually flawed because the Brattle DCF deducts the cost of shipping and U.S. Yard operations. Deducting these costs from revenues derived using the CALICA Ex-Works Price makes no sense in a CALICA-only valuation, as these costs are not borne by CALICA.

2. Mexico's "Scenario 2" Is Similarly Flawed

83. Mexico's second measure of the CALICA Ex-Works Price is the 2021 transfer price [redacted]

[217] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 249.
[218] Brattle Direct Presentation (CD-0012.024-27).
[219] Respondent's Post-Hearing Brief (Ancillary Claim), ¶¶ 251-252.
[220] Brattle Direct Presentation (CD-0012.024-27); Tr. (English), Day 4, 990:22-994:4 (Brattle cross-examination). [redacted]

85. Mexico assumes that the 2021 transfer price must reflect the CALICA Ex-Works Price.[222] Mexico is wrong again. A CALICA Ex-Works Price should reflect the price that would be agreed to between independent parties with a commercial relationship that simply starts and ends with the sale of CALICA aggregates. This is not the case for transfer prices. [redacted] Additionally, Mexico makes the same mistake as in Scenario 1 by inputting its Scenario 2 price into the Brattle DCF and erroneously deducting shipping and U.S. Yard costs.

3. Legacy Vulcan's Approach to Damages Based on the Ex-Works Price Is Appropriate and Reliable

86. In contrast, Legacy Vulcan's top-down and bottom-up estimates of the CALICA Ex-Works Price reflect the market price that CALICA's aggregates would command in a sale transaction to an independent third party for export. The estimates are also reasonable and consistent with actual ex-works prices received by CALICA on its limited volumes of sales to third parties for export, which are well documented.[225]

87. The top-down estimate of the CALICA Ex-Works Price reflects that Legacy Vulcan can leverage its control over Vulica and the U.S. Yards to negotiate a lower price for aggregates with a third-party seller [redacted]

88. The bottom-up price is tied to the actual market prices [redacted]

[222] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 243.

[redacted]

[224] Tr. (English), Day 4, 974:18-976:4 (Brattle direct); 990:14-994:3 (Brattle cross examination). [redacted]

[225] Claimant's Post-Hearing Brief (Ancillary Claim), ¶ 136.

[redacted] *Id.*, ¶ 143, Figure 17.

[227] *Id.*, ¶ 141.

[redacted]

89. Critically, Legacy Vulcan's estimates of the CALICA Ex-Works Price result in damages in a CALICA-only approach that are consistent with Brattle's estimate of [redacted][231]

J. QUESTION NO. 10

90. The Parties agree that there is no overlap between the original damages claims, and the ancillary claim.[232] Mexico nonetheless argues that there are "incongruences" in Brattle's estimate damages in the first and second phases of the arbitration.[233] Mexico is wrong.

91. *First*, Mexico complains that Brattle's mitigation estimate in the first phase is lower than in the second phase.[234] There is no incongruence. Consistent with well-established practice, Brattle calculated damages *ex-ante*, reflecting expectations based on information that was known or knowable as of the valuation date for each breach.[235] While Brattle's analysis during the second phase assumes a higher capacity to mitigate than in the first phase, this reflects a change in market conditions.[236] The potential for replacement [redacted] arose only after the valuation dates for the first phase.

92. *Second*, Mexico asserts that Legacy Vulcan has failed to consider the sale of El Corchalito, La Adelita, and Punta Venado as part of mitigation during the first phase, but did consider sales proceeds of La Rosita during the second phase.[237] This is beside the point, as it is Mexico's burden to establish the facts underlying its mitigation defense.[238] In any case, Mexico's argument is also false. In the case of La Adelita, "the zoning restrictions that prevent extraction

[228] *Id.*, ¶ 143, Figure 17.
[229] *Id.*
[230] *Id.*, ¶ 143.
[231] *Id.*, ¶ 146.
[232] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 255 ("No hay empalme de los daños *per se*.").
[233] *Id.*, ¶ 255 (free translation).
[234] *Id.*, ¶ 255.
[235] Claimant's Post-Hearing Brief (17 November 2021), Appendix B, row 8.
[236] Tr. (English), Day 1, 68:21-69:7 (Claimant's Opening).
[237] Respondent's Post-Hearing Brief (Ancillary Claim), ¶ 256.
[238] *See* Part IV.C above.

from that lot also prevent other uses that would generate material value from that property."[239] Similarly for El Corchalito, Legacy Vulcan's experts explained that "the closure imposed by PROFEPA on that site severely burdens its value" and there is virtually no surface area left on the site.[240] In this phase, Brattle modelled the immediate sale of the La Rosita site based on Mexico's tax valuation of CALICA, but explained that this assumption was conservative, and that Credibility's alternative figure was not reliable since it was based on sale listings — not transactions — of properties not comparable to CALICA.[241] Mexico has thus failed to provide evidence sufficient to establish its mitigation defense.

K. QUESTION NO. 11

93. Mexico has not provided a response to Question 11.

L. QUESTION NO. 12

94. Legacy Vulcan addresses Mexico's response to Question No. 12 in Part V.C.

M. QUESTION NO. 13

95. Legacy Vulcan addresses Mexico's response to Question No. 13 in Part V.B.

[239] Claimant's Post-Hearing Brief (17 November 2021), Appendix B, row 64 (citing First Brattle Report, ¶ 167; Tr. (English), (Original Claim Hearing), Day 5, 1009:6-1010:5).

[240] Claimant's Post-Hearing Brief (Original Claim), Appendix B, row 64.

[241] Fourth Brattle Report, ¶¶ 88-89. The value of La Rosita also is now adversely affected by Mexico's latest efforts to declare the lots a natural protected area. *See* Transcript of President's Morning Press Conference (20 October 2023) (C-0371-SPA.14-15); Gobierno creará Centro de Inclusión para personas con discapacidad. Conferencia presidente AMLO, YouTube, at 1:47:50 to 1:49:14 (uploaded 20 October 2023) (C-0372-SPA), https://www.youtube.com/live/aVTCR-AgOQ0?si=s5TlVWDLWrL4KEV1.

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