

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 BRIEF

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I. INTRODUCTION

1. The Hearing confirmed that Mexico has taken deliberate action to thwart Legacy Vulcan, LLC's ("Legacy Vulcan") one-of-a-kind investment in Mexico by effectively precluding production of high-quality aggregates from over [REDACTED] of Legacy Vulcan's limestone reserves in Mexico. Mexico has in this way failed to accord fair and equitable treatment ("FET") in accordance with NAFTA Article 1105.¹ As highlighted at the Hearing, Mexico's NAFTA breaches resulted from the following measures:

- Mexico's effective bar of production from Legacy Vulcan's largest and untapped quarrying lot, La Adelita, by reneging on an express, written commitment to make explicit within that lot's zoning regime what government authorities had previously made clear — that quarrying was possible in that lot.
- Mexico's effective bar of production from a second quarrying lot, El Corchalito, by shutting down operations there based on an irregular administrative proceeding with a predetermined outcome. In particular, Legacy Vulcan's Mexican enterprise, Calizas Industriales del Carmen, S.A. de C.V. ("CALICA"), was denied its right to submit evidence, sanctioned for purported violations against which it could not defend itself, and trapped in a bureaucratic vortex designed to preserve the shutdown indefinitely.
- Mexico's disregard of the final ruling of its own judiciary confirming that a Mexican instrumentality had charged millions of dollars in port fees for the use of CALICA's private port terminal in violation of CALICA's rights.

2. These measures were arbitrary, violated due process, and frustrated Legacy Vulcan's legitimate expectations, derived from specific representations and concrete obligations assumed by Mexico in various instruments culminating in the 2014 Agreements. By disregarding the final rulings of its own courts, Mexico also subverted the rule of law.

3. Respondent and its fact and expert witnesses failed to disprove these breaches at the Hearing. To the contrary, cross-examination of those witnesses only confirmed that Mexico acted arbitrarily against CALICA, adversely affecting Legacy Vulcan's investments without regard to fact or law. For example, Mexico's experts confirmed that Mexico made a solemn commitment to carry out "*all necessary actions*" to clarify La Adelita's zoning regime and that Mexico's instrumentalities were capable of doing so. Yet those instrumentalities indisputably repudiated their commitments because of the political and biased caprice of its officials. Cross-examination at the Hearing also confirmed that Mexico's justifications for the shutdown of El Corchalito are pretextual and contrived.

¹ Undefined terms herein have the same meaning provided in Claimant's Memorial and Reply.

4. As the testimony of Legacy Vulcan's damages expert and witnesses at the Hearing confirmed, Legacy Vulcan has suffered significant losses resulting from its inability to quarry and produce aggregates from La Adelita and El Corchalito as a direct consequence of Mexico's wrongful measures. These losses span the integrated quarrying, shipping, and distribution business revolving around CALICA (the "CALICA Network"), and are the direct and foreseeable result of Mexico's breaches of its NAFTA obligations. Under well-established principles of international law, Legacy Vulcan is entitled to full reparation, including compensation for *all* losses Legacy Vulcan has suffered across the CALICA Network as a result of Mexico's breaches.

5. These points are addressed in more detail below, highlighting some of the key takeaways from the Hearing regarding jurisdiction, the merits, and damages. While several of the Tribunal's Questions to the Parties of 11 August 2021 are addressed in the narrative below, Appendix A contains Legacy Vulcan's specific answers to each question except Question No. 15, which is contained in Appendix B.

II. THE HEARING CONFIRMED THAT THE TRIBUNAL HAS JURISDICTION TO RESOLVE LEGACY VULCAN'S CLAIMS

6. Throughout this arbitration, Mexico has argued that certain issues — such as the nature of Legacy Vulcan's investment, the existence of proceedings in Mexican courts, and the nature of certain fees charged by Mexico — limit the Tribunal's jurisdiction.² Legacy Vulcan established in its pleadings and again at the Hearing that this is incorrect. The Tribunal has jurisdiction over the claims in this case, and both the facts and principles of international law Mexico largely ignores so confirm.

A. LEGACY VULCAN'S INVESTMENT IS PROTECTED UNDER NAFTA ARTICLE 1139

7. The facts about Legacy Vulcan's investment in Mexico, including its origins, development, and purpose, stand un rebutted after the Hearing. Legacy Vulcan's investment resulted from its vision that U.S. Gulf Coast markets — with little to no indigenous limestone deposits for the production of aggregates — could be profitably supplied by sea from deposits in Mexico.³ After searching for years, Legacy Vulcan found a one-of-a-kind site for such deposits

² Tr. (Spanish), Day 1, 267:19-273:20 (Respondent's Opening Statement) [English, 221:10-227:2].

³ Tr. (English), Day 1, 25:6-13 (Claimant's Opening Statement); Witness Statement- [REDACTED] - Claimant's Memorial-ENG, ¶ 10.

south of Playa del Carmen, Quintana Roo, next to the coast, where aggregates could be loaded onto the most economical mode of transport in the industry: seagoing vessel.⁴

8. Legacy Vulcan's investment in Mexico was therefore devised and established from the outset as a fully-integrated business to produce construction aggregates in Mexico for export to dedicated yards in the United States.⁵ As was highlighted at the Hearing, the 1986 Investment Agreement between Mexico and CALICA confirms this fact. It refers to Legacy Vulcan's Project as "*Exportation of Aggregates, Quintana Roo, México.*"⁶ It also notes that, through this Project, aggregates would "be destined, principally for maritime export" and that the Project encompassed "the construction, at the same site, of the infrastructure works and facilities necessary for the management and export of the products, via suitable vessels for the transport of large volumes."⁷ Other contemporaneous documents confirm the integrated nature of the business.⁸

9. As was explained at the Hearing, this integrated business comprises three segments: production, transportation, and distribution.⁹ The production segment consists of CALICA's operations and quarrying lots in Mexico: La Rosita, La Adelita, and El Corchalito.¹⁰ The shipping segment is anchored in Punta Venado, a lot neighboring La Rosita where CALICA holds a port concession and built Quintana Roo's only deep-water port through a multimillion-dollar investment.¹¹ There, aggregates quarried in CALICA's lots are stockpiled and mixed in

⁴ See Tr. (English), Day 1, 25:6-26:1 (Claimant's Opening Statement); Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶¶ 10-12.

⁵ See e.g., Tr. (English), Day 1, 25:14-26:1 (Claimant's Opening Statement).

⁶ Claimant's Opening Presentation, Slide 8 (CD-0001); C-0010-SPA.14 (free translation) (emphasis added).

⁷ Claimant's Opening Presentation, Slide 8 (CD-0001); C-0010-SPA.12 (free translation).

⁸ C-0027-ENG.107 (Vulcan Materials Company's 1989 10-K Form, stating that the Project involved "the mining and shipping of crushed stone from a quarry on the Yucatan Peninsula of Mexico to various U.S. Gulf Coast markets," including dedicated U.S. Yards); *id.*, at 105 (describing the venture as one "to supply certain U.S. Gulf Coast markets by ocean-going vessels."); *id.*, at 113 ("The harbor work and shiploading facilities were completed [...] sales yards were established in Houston, Galveston and New Orleans; and the first shipments from the Yucatan quarry to two of these yards were made in January 1990. [...] The establishment of additional sales yards in Tampa and New Orleans should be completed in 1990."); see C-0046-ENG.56 ("Early in 2001, the Company acquired all of its former joint venture partner's [...] interests in [...] the former Vulcan/ICA joint venture. These companies produce aggregates on the Yucatan Peninsula and transport and sell them in various markets primarily along the U.S. Gulf Coast. [...] The businesses of these companies include: [a limestone quarry, aggregates processing plant, deepwater harbor and other properties[,] [aggregates transportation involving two ships used to transport aggregates from Mexico [...] and] [aggregates production and various distribution facilities primarily on the Gulf Coast[.]").

⁹ See e.g., Tr. (English), Day 1, 26:4-8, 27:16-28:3 (Claimant's Opening Statement).

¹⁰ See e.g., Tr. (English), Day 1, 26:6-15 (Claimant's Opening Statement); Claimant's Opening Presentation, Slides 9-13 (CD-0001); C-0031-ENG.6; C-0034-SPA; C-0035-SPA; Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶ 22.

¹¹ Claimant's Opening Presentation, Slides 2-3 (CD-0001); Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶ 16; C-0027-ENG.113.

different proportions to meet the precise specifications of the U.S. markets where they will be sold.¹² They are then loaded through an automated system onto Legacy Vulcan's vessels, specifically acquired by Legacy Vulcan through its subsidiary Vulica¹³ to serve the CALICA Network.¹⁴ The third segment is comprised of Legacy Vulcan's shipyards along the U.S. Gulf Coast and Atlantic Seaboard, developed by Legacy Vulcan specifically to receive and market CALICA aggregates.¹⁵

10. Based on these facts, Legacy Vulcan's investment in Mexico squarely falls within the broad definition of "investment" under NAFTA Article 1139, which includes "an interest in an enterprise" entitling "the owner to share in income or profits"; "real estate or other property, tangible or intangible," acquired for "economic benefit or other business purpose"; and "interests arising from the commitment of capital or other resources in the territory of a Party [...] including concessions [...]." ¹⁶

11. Mexico cannot seriously dispute this. CALICA is a corporation constituted under the laws of Mexico and an "enterprise" under NAFTA that is indirectly owned and controlled by Legacy Vulcan.¹⁷ Legacy Vulcan indirectly owns and controls the limestone reserves located in La Rosita, El Corchalito, and La Adelita,¹⁸ which are not subject to concessions.¹⁹ This means that those limestone reserves are not Respondent's property; instead, they belong to CALICA's subsidiary, RAPICA, and indirectly, to Legacy Vulcan.²⁰ Legacy Vulcan also indirectly owns Punta Venado and, through CALICA, holds a concession to operate a private port terminal to load

¹² Memorial, ¶ 46; Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶ 36.

¹³ See Organizational Chart of Legacy Vulcan, LLC (as of 2015) (submitted to the Tribunal on 28 July 2021).

¹⁴ Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶¶ 49, 53, 57.

¹⁵ Tr. (English), Day 1, 112:18-22 (Claimant's Opening Statement); Memorial, ¶ 49.

¹⁶ NAFTA, Article 1139 (C-0009-ENG). See also NAFTA, Article 201 (C-0009-ENG) (defining "enterprise").

¹⁷ Memorial, ¶¶ 20, 165; C-0005-ENG; C-0006-SPA; Tr. (Spanish), Day 1, 308:7-9 (Respondent's Opening Statement: "Sólo Calica es una inversión conforme a la definición del artículo 1139.") [English, 255:8-9].

¹⁸ Memorial, ¶¶ 4, 29, 37; C-0029-SPA; C-0030-SPA; C-0034-SPA; C-0035-SPA.

¹⁹ Tr. (Spanish), Day 3, 667:3-14 ([REDACTED] presentation: "de acuerdo a la legislación nacional la actividad desarrollada por Calica, [...] no es una actividad concesionada, es decir, el producto que Calica obtiene no es propiedad de la Nación; el producto que Calica obtiene es propiedad del particular.") [English, 579:13-580:1].

²⁰ *Id.*; see also Expert Report-[REDACTED]-Environmental-Claimant's Memorial-SPA, ¶ 20.

aggregates (the “CALICA Port Concession”).²¹ Legacy Vulcan made all of these investments in Mexico for the sole purpose of exporting its Mexican limestone reserves to the U.S. Gulf Coast.²²

12. Though the CALICA Network has been since its inception a vertically integrated business, Mexico at the Hearing continued to mischaracterize the CALICA Network and the interactions between Legacy Vulcan subsidiaries as mere trade in goods. It argued that “*productos derivados relacionados con el comercio de bienes producidos por una inversión, como se trata del caso de este arbitraje claramente, no están destinados a ser cubiertos por una inversión, conforme al artículo 1139.*”²³ This argument fails in light of the proven facts discussed above regarding the integrated nature of Legacy Vulcan’s investment in Mexico.²⁴ That investment is an integral and indispensable element of the CALICA Network, which was developed for the sole purpose of exporting construction aggregates from Mexico to the United States.²⁵ Mexico’s attempts to distort the nature of Legacy Vulcan’s business does not reflect reality.

B. AS AN “INVESTOR OF A PARTY,” LEGACY VULCAN IS ENTITLED TO BRING A CLAIM UNDER NAFTA ARTICLE 1116 FOR LOSSES INCURRED “BY REASON OF, OR ARISING OUT OF” MEXICO’S BREACHES

13. As Legacy Vulcan explained in its pleadings and at the Hearing, Legacy Vulcan is asserting claims as a U.S. company under NAFTA Article 1116 on its own behalf and also on behalf of CALICA under NAFTA Article 1117.²⁶ To succeed on claims brought under NAFTA Article 1116, Legacy Vulcan must show (i) that Mexico breached an obligation under Section A of NAFTA Chapter 11; (ii) that Legacy Vulcan “incurred loss or damage;” and (iii) that this loss or damage was caused by Mexico’s breach.²⁷ Legacy Vulcan has established each of these elements.²⁸

14. At the Hearing, Mexico repeated its argument that the Tribunal lacks jurisdiction over Legacy Vulcan’s claims involving the CALICA Network based on the false legal premise that

²¹ Memorial, Part II.E.1.a; C-0012-SPA; C-0013-SPA; C-0014-SPA; C-0015-SPA; C-0016-SPA.

²² Memorial, Part II.C.2-4; Reply, ¶¶ 222-223; Witness Statement-[REDACTED]-Claimant’s Memorial-ENG, ¶¶ 18, 22, 49; *supra*, ¶ 8.

²³ Tr. (Spanish), Day 1, 308:19-309:2 (Respondent’s Opening Statement) [English, 255:16-21]; *see also id.*, at 313:18-22 (“los daños que están siendo reclamados en este arbitraje se relacionan meramente con comercio de bienes, y dichos daños no pueden dar lugar a una compensación en un arbitraje de inversión”) [English, 259:17-20].

²⁴ *See supra* ¶¶ 8-9.

²⁵ Tr. (English), Day 1, 111:13-113:18, 119:9-12 (Claimant’s Opening Statement).

²⁶ Tr. (English), Day 1, 77:1-12 (Claimant’s Opening Statement); Memorial, ¶ 20; Reply, ¶ 121.

²⁷ Tr. (English), Day 1, 121:12-18 (Claimant’s Opening Statement); NAFTA, Article 1116(1) (C-0009-ENG).

²⁸ Memorial, ¶ 172; Reply, ¶ 123; Tr. (English), Day 1, 121:19-122:9 (Claimant’s Opening Statement).

Legacy Vulcan's damages are limited solely to those suffered by CALICA within Mexico.²⁹ According to Mexico, "*conforme al artículo 1116(1) y 1117(1), el Tribunal tiene jurisdicción únicamente sobre la inversión de la demandante en México, y eso no incluye su subsidiaria en las Bahamas, Vulica, o sus instalaciones en Estados Unidos.*"³⁰ This objection is misplaced for at least two reasons.

15. *First*, as Legacy Vulcan has explained at length, it is not bringing a claim on behalf of the CALICA Network, and Legacy Vulcan *agrees* with Respondent that only investments located in Mexico qualify for protection under the Treaty.³¹ Mexico has conflated this undisputed territoriality requirement for jurisdiction with Legacy Vulcan's entitlement to full reparation for *all* losses flowing from Mexico's breaches of NAFTA to Legacy Vulcan.³² Mexico's objection is therefore not jurisdictional in nature; rather, it addresses causation in an effort to limit Legacy Vulcan's damages.³³

16. *Second*, NAFTA Article 1116 does not — as Mexico falsely claims — restrict the categories of "loss or damages" that Legacy Vulcan can recover, so long as the loss or damages have been caused by a breach of NAFTA Chapter Eleven. As Legacy Vulcan explained at the Hearing,³⁴ and as the Tribunal in *S.D. Myers v. Canada* confirmed:

"To be recoverable, a loss must be linked causally to interference with an investment located in a host state. There is no provision that requires that all of the investor's losses must be sustained within the host state in order to be recoverable. The test is that the loss to the (foreign) investor must be suffered as a result of the interference with its investment in the host state."³⁵

17. That same principle applies here. Mexico breached its NAFTA obligations through measures that preclude CALICA from quarrying its reserves in La Adelita and El Corchalito, adversely affecting Legacy Vulcan's investment in Mexico.³⁶ Just as the *S.D. Myers* tribunal concluded that "compensation should be awarded for the overall economic losses sustained by [the claimant] that are a proximate result of [the Respondent's] measure," Legacy Vulcan is

²⁹ Tr. (Spanish), Day 1, 270:3-272:6 (Respondent's Opening Statement) [English, 223:14-225:14].

³⁰ Tr. (Spanish), Day 1, 270:19-271:1 (Respondent's Opening Statement) [English, 224:6-10].

³¹ Tr. (English), Day 1, 120:22-121:11 (Claimant's Opening Statement).

³² See, e.g., Tr. (Spanish), Day 1, 301:18-22 (Respondent's Opening Statement) [English, 250:4-7].

³³ Tr. (English), Day 1, 121:7-122:17 (Claimant's Opening Statement).

³⁴ Tr. (English), Day 1, 122:10-123:2, 127:14-128:16 (Claimant's Opening Statement).

³⁵ Claimant's Opening Presentation, Slide 109 (CD-0001) (citing *S.D. Myers, Inc. v. Government of Canada*, UNCITRAL, Second Partial Award (Damages), ¶ 118 (21 October 2002) (Hunter (P), Chiasson, Schwartz) (CL-0132-ENG) (hereinafter, "*S.D. Myers v. Canada* (Damages)")).

³⁶ See also *infra*, Part III.

entitled here to compensation for lost profits that, but for Mexico's breaches, it would have earned, regardless of whether any of those losses were incurred in Mexico.³⁷

18. Legacy Vulcan has shown it suffered losses that are the direct result of Mexico's breaches of NAFTA Chapter 11.³⁸ As Legacy Vulcan explained at the Hearing, CALICA is the heart of an integrated business that includes the shipping and distribution of aggregates quarried in Mexico.³⁹ Through arbitrary actions and the repudiation of representations and commitments made by its instrumentalities, Mexico has deprived Legacy Vulcan of its rightful access to its reserves in La Adelita and El Corchalito.⁴⁰ Mexico did so even though it knew (or should have known) the damages its actions would cause to Legacy Vulcan's supply chain and throughout the CALICA Network, having itself acknowledged in the 1986 Investment Agreement that Legacy Vulcan's investment in Mexico was for the "exploitation, processing and shipment of construction aggregates for subsequent commercialization in the U.S. market."⁴¹

19. As a result of Mexico's breaches of its NAFTA obligations and CALICA's resulting inability to access its reserves, Legacy Vulcan has shown that it suffered losses in the amount of [REDACTED], as described in Part IV below. These damages are directly related to Legacy Vulcan's investment in Mexico and flow directly from Mexico's NAFTA breaches. There is no legal (or economic) basis to exclude them, let alone on purported jurisdictional grounds.

C. PROCEEDINGS IN MEXICAN COURTS HAVE NO BEARING ON THE TRIBUNAL'S JURISDICTION

20. Mexico's emphasis at the Hearing on CALICA's domestic litigation proceedings is misplaced.⁴² These proceedings have no bearing on the Tribunal's jurisdiction. They do not involve claims for compensatory damages, but rather are limited to claims for declaratory judgments establishing that CALICA's rights have been violated under Mexican law.⁴³ None of

³⁷ *S.D. Myers v. Canada* (Damages), ¶ 122 (CL-0132-ENG). See also *Cargill, Inc. v. United Mexican States*, ICSID Case No. ARB(AF)/05/2, Award, ¶¶ 523, 526 (18 September 2009) (Pryles (P), Caron, McRae) (CL-0017-ENG) (hereinafter, "*Cargill v. Mexico* (Award)").

³⁸ Memorial, ¶¶ 264-337; Reply, ¶¶ 216-232.

³⁹ Tr. (English), Day 1, 113:1-18, 114:17-115:3, 119:9-12 (Claimant's Opening Statement).

⁴⁰ See *infra*, Part. III.

⁴¹ C-0010-SPA.47 ("Objetivos Del Proyecto: Explotación, procesamiento y embarque de agregados para la construcción para su posterior comercialización en el mercado de los Estados Unidos de Norteamérica"). See also, Tr. (English), Day 2, 403:14-404:3 ([REDACTED] responding to questions from the Tribunal).

⁴² See, e.g., Tr. (Spanish), Day 1, 228:4-229:14, 243:5-244:14 (Respondent's Opening Statement) [English, 189:20-191:2, 201:17-202:17]; Respondent's Opening Presentation, Slides 28, 72 (RD-0001).

⁴³ Tr. (English), Day 1, 74:5-14 (Claimant's Opening Statement).

CALICA's pending proceedings in Mexico relate to CALICA's ability to quarry La Adelita.⁴⁴ The pending proceedings are expressly permitted by NAFTA Article 1121, and — consistent with how other tribunals have addressed similar circumstances — they do not impact the Tribunal's ability to award compensation for Mexico's NAFTA breaches.

1. CALICA Is Not Seeking Compensatory Relief in Domestic Proceedings

21. As a result of Mexico's administrative proceeding concerning El Corchalito, CALICA commenced five legal actions challenging measures adopted by PROFEPA and SEMARNAT.⁴⁵ Of those five actions, only two remain pending: (i) the annulment proceeding against PROFEPA's administrative resolution dated 30 October 2020 (the "Resolution"), and (ii) the *amparo* proceeding against SEMARNAT's decision to suspend its consideration of CALICA's application to renew and amend the Corchalito/Adelita Federal Environmental Authorization.⁴⁶ As explained at the Hearing, these proceedings seek only a declaration that CALICA's rights under Mexican law were violated or the annulment of certain measures.⁴⁷ CALICA is not seeking damages through these proceedings,⁴⁸ nor is it claiming that the measures at issue violate NAFTA or international law.

22. For example, on 8 January 2021, CALICA commenced an action to annul PROFEPA's Resolution based solely on Mexican law.⁴⁹ It is undisputed that the court overseeing this action may side with CALICA and declare the Resolution either entirely or partially null.⁵⁰ If CALICA were successful in its request to annul the Resolution in whole or in part, PROFEPA could challenge that decision through proceedings that may take many years to be resolved,⁵¹ as the decade-long Port Fees Litigation illustrates. No damages would be awarded in the annulment

⁴⁴ Respondent's Opening Presentation, Slides 28, 72 (RD-0001); SOLCARGO Presentation, Slide 18 (RE-0002).

⁴⁵ Tabla I: Impugnaciones de CALICA en contra de las Medidas de PROFEPA y SEMARNAT (RD-0003).

⁴⁶ See *id.* The information in this table, which lists three actions, is no longer current. On 29 July 2021, the Mexican Federal Court of Administrative Justice confirmed the dismissal (*sobreseimiento*) of CALICA's *amparo* action against PROFEPA's "supplemental" inspection. There are no additional proceedings pending regarding this matter.

⁴⁷ Tr. (English), Day 1, 74:9-75:13, 75:22-76:13 (Claimant's Opening Statement).

⁴⁸ *Id.* Under Mexican law, it is in fact not even possible for CALICA to seek damages through an *amparo* or annulment proceeding. JAC-0037.27-28, Article 77; R-0110-SPA.29-30, Article 52.

⁴⁹ See R-0076-SPA.2.

⁵⁰ See Tr. (Spanish), Day 3, 698:9-700:6 (██████ cross-examination) [English, 606:3-607:14]; Tr. (Spanish), Day 2, 569:4-14 (Rodríguez stating that the annulment lawsuit could result in a total or partial annulment of the Resolution) [English, 497:19-498:1].

⁵¹ See Tr. (Spanish), Day 3, 699:13-22 (██████ cross-examination) [English, 607:2-9].

proceeding, because none are being sought. This proceeding is therefore one “for injunctive, declaratory or other extraordinary relief, not involving the payment of damages” that does not preclude arbitration and that does not need to be waived under NAFTA Article 1121.⁵² In addition, as a practical matter, an ultimate domestic ruling in favor of CALICA would be a pyrrhic victory because [REDACTED]

[REDACTED].⁵³

23. Mexico has repeatedly suggested, however, that domestic proceedings should somehow inform the Tribunal’s decision.⁵⁴ Mexico is wrong for at least two reasons. *First*, as multiple NAFTA tribunals have held, pending domestic proceedings seeking declaratory relief do not prevent a tribunal from determining liability for treaty claims premised on the same adverse measures.⁵⁵ *Second*, the existence of pending domestic proceedings does not affect this Tribunal’s ability to award compensation to Legacy Vulcan regarding the El Corchalito dispute. As the tribunal in *Chevron v. Ecuador* explained, “the Claimants’ recovery should not be reduced based on the uncertain possibility of a favorable outcome in the national court proceedings” and “in any case, international law and decisions as well as domestic court procedures offer numerous mechanisms for preventing the possibility of double recovery.”⁵⁶ The *Chevron* tribunal also emphasized that, where a claimant has undertaken to prevent duplicative recovery for the same

⁵² NAFTA, Article 1121(1)(b), (2)(b) (C-0009-ENG). *See also, e.g.*, Sergio Puig, *Investor-State Tribunals and Constitutional Courts: The Mexican Sweeteners Saga*, 5 Mexican L. Rev. 199, 220 (2013) (CL-0167-ENG) (explaining that, under NAFTA Article 1121, an investor “may bring a claim for damages before a NAFTA tribunal and simultaneously or subsequently seek declaratory or injunctive relief in domestic courts on domestic law grounds”).

⁵³ *See* Appendix A, Answer to the Tribunal’s Question No. 13.

⁵⁴ Tr. (Spanish), Day 1, 243:5-15 (Respondent’s Opening Statement) [English, 201:19-202:4]. *See also* Tr. (Spanish), Day 3, 695:2-700:11 (Counsel for Respondent during [REDACTED] cross-examination) [English, 604:9-607:17].

⁵⁵ *Detroit Int’l Bridge Co. v. Government of Canada*, PCA Case No. 2012-25, Award on Jurisdiction, ¶ 176 (12 April 2015) (Derains (P), Chertoff, Lowe) (CL-0168-ENG) (“Article 1121(1)(b) and (2)(b) contain a limited exception for injunctive and declaratory proceedings brought against Canada in Canada, as long as those proceedings are ‘not involving the payment of damages.’”). *See also Marvin Roy Feldman Karpa v. United Mexican States*, ICSID Case No. ARB(AF)/99/1, Award, ¶ 78 (16 December 2002) (RL-008-SPA) (“[W]e are not barred from making that determination by the fact that not all of the issues have yet been resolved by Mexican courts. Otherwise, any arbitral tribunal could be prevented from making a decision simply by delaying local court proceedings. Nor is an action determined to be legal under Mexican law by Mexican courts necessarily legal under NAFTA or international law.”) (English version of the Award); *Cargill v. Mexico* (Award), ¶ 303 (CL-0017-ENG) (“[T]he Tribunal does not, and need not, rest its holding on the import permit requirement being domestically unlawful given its conclusion that the requirement is manifestly unjust and akin to an act in bad faith [...] the lawfulness of a domestic law does not presuppose its lawfulness under international law. Indeed, this is the very rationale for the customary international law minimum standard of treatment of aliens: regardless of the views of each State, there is a minimum, a floor below which a State will be held internationally responsible for its conduct.”).

⁵⁶ *Chevron Corp. (U.S.A.) & Texaco Petroleum Corp. (U.S.A.) v. Republic of Ecuador I*, PCA Case No. 2007-02/AA277, Partial Award on the Merits, ¶ 557 (30 March 2010) (RL-093-ENG).

harm — just as Legacy Vulcan undertakes to do here — “there is no danger of double recovery.”⁵⁷ A NAFTA tribunal has reached a similar result.⁵⁸

24. In short, pending domestic proceedings do not preclude an award of compensation as a result of Mexico’s NAFTA breaches.

2. Legacy Vulcan and CALICA Were Not Required to Challenge Mexico’s Measures in Domestic Court or Exhaust Local Remedies Before this Arbitration Was Commenced

25. Mexico’s suggestion that Legacy Vulcan has no valid international claim because domestic remedies are available and pending⁵⁹ is also wrong because NAFTA does not require a claimant to pursue domestic remedies before bringing a treaty claim.⁶⁰ To the contrary, NAFTA, “rather than confirming or repeating the classical rule of exhaustion of local remedies, envisages a situation where domestic proceedings with respect to the same alleged breach [...] are either available or even pending in a court or tribunal operating under the law of any Party.”⁶¹ Numerous NAFTA tribunals have confirmed this principle.⁶²

⁵⁷ *Id.* ¶¶ 517, 557 (RL-093-ENG) (finding that “there is no danger of double recovery” where the claimants had undertaken to prevent such an outcome in the event that the tribunal rendered an award in favor of claimants for the full amount sought, and upon receiving full payment from the respondent).

⁵⁸ *Lion Mexico Consolidated L.P. v. United Mexican States*, ICSID Case No. ARB(AF)/15/2, Award, ¶¶ 797-798 (20 September 2021) (Fernández-Armesto (P), Cairns, Boisson de Chazournes) (CL-0169-ENG) (rejecting Mexico’s request to reduce compensation owed to the claimant based on pending related domestic proceedings).

⁵⁹ See Tr. (Spanish), Day 1, 243:16-244:3 (Counsel for Respondent responding to questions from the Tribunal: “[L]a posición de nosotros es que efectivamente no hay ninguna -- en la relación que hay con la obligación internacional de nivel mínimo de trato, o de trato justo y equitativo, es: la empresa ha podido agotar todos los recursos que tiene a su alcance, y los sigue agotando.”) [English, 202:5-15].

⁶⁰ See NAFTA, Article 1121(1)(b) (C-0009-ENG) (requiring only waiver of the right to initiate or continue any actions in local courts or other fora relating to the disputed measure “except for proceedings for injunctive, declaratory or other extraordinary relief, not involving the payment of damages”).

⁶¹ *Marvin Roy Feldman Karpa v. United Mexican States*, ICSID Case No. ARB(AF)/99/1, Award, ¶ 73 (16 December 2002) (Kerameus (P), Bravo, Gantz) (CL-0170-ENG). See also Sergio Puig, *Investor-State Tribunals and Constitutional Courts: The Mexican Sweeteners Saga*, 5 Mexican L. Rev. 199, 215 (2013) (CL-0167-ENG) (“[T]he NAFTA model allows foreign investors to bring claims without first exhausting local remedies; in some circumstances it even permits simultaneous or subsequent use of the domestic and international fora.”).

⁶² *Merrill & Ring Forestry L.P. v. Government of Canada*, NAFTA/UNCITRAL, Award (31 March 2010), ¶¶ 26-32 (CL-0005-ENG) (finding the implementation of Canada’s timber export regime by provincial and federal agencies inconsistent with NAFTA Chapter Eleven even though that action had not first been challenged in Canadian court); *William Ralph Clayton, et al. v. Government of Canada*, UNCITRAL (NAFTA), Award on Jurisdiction and Liability, ¶¶ 36, 742 (17 March 2015) (Simma (P), McRae, Schwartz) (CL-0009-ENG) (hereinafter, “*Bilcon v. Canada* (Award)”) (finding in favor of claimants’ challenge to actions and omissions by the Canadian Minister of Environment and provincial regulators without requiring exhaustion of domestic remedies).

26. While exhaustion of domestic remedies has been required for denial of justice claims based on judicial conduct, no such requirement exists for fair and equitable treatment claims premised on administrative conduct that is arbitrary or lacking in due process, which is the case here.⁶³ As the tribunal in *Thunderbird v. Mexico* explained, administrative proceedings are subject to a different due process threshold as compared to judicial processes and “should be tested against the standards of due process and procedural fairness applicable to administrative officials.”⁶⁴ Legacy Vulcan’s claims here relate only to administrative actions or inaction, not to the conduct of Mexico’s judiciary.

D. THE TRIBUNAL HAS JURISDICTION OVER THE DISPUTE REGARDING THE PORT FEES MEXICO UNLAWFULLY COLLECTED BETWEEN 2007 AND 2017

27. As Legacy Vulcan explained in its pleadings, on 25 January 2017, Mexico’s Supreme Court affirmed lower court rulings holding that it was unlawful for the Integral Port Administration (*Administración Portuaria Integral* or “API”) of Quintana Roo (“API Quintana Roo”) to collect port fees (*tarifas de puerto*) from vessels docking at CALICA’s private port terminal between 2007 and 2017.⁶⁵ Almost five years later, Mexico has yet to reimburse CALICA the [REDACTED] in port fees that — according to its own judiciary — it unlawfully charged.

28. Contrary to what Respondent again suggested at the Hearing,⁶⁶ the [REDACTED] that API Quintana Roo unlawfully charged in port fees (*tarifas de puerto*) are not taxation measures under Mexican law. Mexican law unambiguously distinguishes between port fees (*tarifas de puerto*) and port duties (*derechos de puerto*).⁶⁷ According to the Mexican Ports Law (*Ley de Puertos*), port fees (*tarifas de puerto*) are amounts that port concessionaires — such as CALICA — may charge a third party for using *their* infrastructure or for services provided in

⁶³ CAMPBELL McLACHLAN, LAURENCE SHORE, & MATTHEW WEINIGER, INTERNATIONAL INVESTMENT ARBITRATION: SUBSTANTIVE PRINCIPLES ¶ 7.104 (Oxford, 2007) (CL-0003-ENG) (“[T]he investor may pursue a claim for breach of the treaty standards that is based directly upon allegations of administrative misconduct, irrespective of whether he has sought redress before the local courts. The claim cannot be impugned, either as a matter of jurisdiction or substance, solely on the ground of a failure to resort to national judicial remedies.”). See also UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, FAIR AND EQUITABLE TREATMENT, n.87 (United Nations, 2012) (CL-0043-ENG) (hereinafter, “UNCTAD, Fair and Equitable Treatment”) (“the due process requirement appears to be independent from denial of justice and thus there is no need to exhaust local remedies”).

⁶⁴ *Int’l Thunderbird Gaming Corp. v. United Mexican States*, UNCITRAL, Award, ¶ 200 (26 January 2006) (van den Berg (P), Wälde, Ariosa) (CL-0004-ENG) (hereinafter, “*Thunderbird v. Mexico* (Award)”).

⁶⁵ Memorial, ¶ 132 (citing C-0059-SPA.18-19; C-106-SPA.271-272); Reply, ¶ 108.

⁶⁶ Tr. (Spanish), Day 1, 272:7-273:20 (Respondent’s Opening Statement) [English, 225:15-227:2].

⁶⁷ Reply, ¶ 112 (citing Mexican Ports Law, Article 40, Section X (C-0155-SPA)).

relation thereto.⁶⁸ Port duties (*derechos de puerto*), by contrast, are levies paid to the Mexican government for the use of *public assets*, including public ports.⁶⁹ Mexico's own witness, José Atempa, confirmed this distinction, explaining that, while "port duties are contributions [...] *port fees are not contributions*."⁷⁰

29. Importantly, Mexico acknowledges that the relevant port fees arose from vessels docking at CALICA's private port terminal.⁷¹ In its pleadings and at the Hearing, Mexico failed to explain how those fees — which its witness concedes are not fiscal contributions — constitute taxes under Mexican law. Mexico tried to remedy this deficiency by falsely suggesting that, because CALICA's terminal is concessioned to an API (it is not because CALICA is the sole concessionaire of the Punta Venado infrastructure), the sums API Quintana Roo charged are somehow fiscal contributions even if they constitute port fees.⁷² But this statement is wholly unsupported and directly at odds with the distinction between port fees and port duties drawn by Mexico's own witness, Mr. Atempa.⁷³

30. Mexico's jurisdictional defense against Legacy Vulcan's port-fees claim lacks merit. Since the port fees at issue here are not tax measures under Mexican law or under NAFTA Article 2103, the Tribunal has jurisdiction to decide Legacy Vulcan's claim.⁷⁴

III. THE HEARING CONFIRMED THAT MEXICO BREACHED ITS NAFTA OBLIGATIONS

A. THE APPLICABLE LEGAL STANDARD

1. The Parties Agree on the Applicable Legal Standard under NAFTA Article 1105

31. The Hearing confirmed that Legacy Vulcan and Mexico agree that the applicable standard under NAFTA Article 1105 is the one articulated by the tribunal in *Waste Management*

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ Witness Statement of José A. Atempa, ¶ 17 (RW-006) (free translation) (emphasis added).

⁷¹ Rejoinder, ¶ 423 (acknowledging that the fees charged by API Quintana Roo derive from vessels arriving at the private terminal in Punta Venado).

⁷² *Id.* ¶ 281. *See also* Tr. (Spanish), Day 1, 272:19-273:10 (Respondent's Opening Statement) [English, 226:5-16]

⁷³ Witness Statement of José A. Atempa, ¶ 17 (RW-006). *See also* R-0061-SPA.2-3, Article 2 (encompassing taxes and duties within the concept of "*contribuciones*," but not fees).

⁷⁴ For additional information, *see also* Appendix A, Answer to the Tribunal's Questions Nos. 2-3.

v. Mexico.⁷⁵ This standard prohibits arbitrary conduct founded on prejudice or preference, rather than on reason or fact, and conduct that is contrary to due process and good faith.⁷⁶

32. The Parties also agree that State conduct that frustrates investors' legitimate expectations constitutes a breach of NAFTA Article 1105.⁷⁷ While Mexico has not embraced the concept of "legitimate expectations," it has accepted the *Waste Management* standard,⁷⁸ which — as later summarized by another NAFTA tribunal — "calls for a consideration of representations made by the host state which an investor relied on to its detriment."⁷⁹ Mexico has also acknowledged that NAFTA Article 1105 is breached where a State has acted contrary to its "specific representations" or "repeated encouragements" to an investor.⁸⁰ Mexico's quarrel with the concept of "legitimate expectations" is therefore immaterial. In reality, both Parties agree that NAFTA Article 1105 is breached where a NAFTA Party makes specific assurances or representations to an investor that cause the investor to reasonably act in reliance on those representations, such that a failure by the State Party to honor those assurances or representations could cause the investor (or the investment) to suffer damages.⁸¹

33. The Parties similarly agree that NAFTA Article 1105 requires NAFTA Parties to act in good faith.⁸² As the *Waste Management* tribunal explained, "[a] basic obligation of the State

⁷⁵ See Tr. (Spanish), Day 1, 275:7-17 (Respondent's Opening Statement, reciting the *Waste Management* standard: "el Tribunal está limitado a decidir si ha habido una violación del estándar mínimo de trato conforme al derecho internacional consuetudinario, es decir, si hubo una conducta que haya sido arbitraria, notoriamente injusta, antijurídica o idiosincrática y discriminatoria, si la demandante es objeto de [prejuicios] raciales o regionales, o si involucra una ausencia de debido proceso que lleva a un resultado que ofende la discrecionalidad judicial.") [English, 228:9-18]; Respondent's Opening Presentation, Slide 64 (RD-0001). See also Memorial, ¶ 188; Reply, ¶ 127; Counter-Memorial, ¶ 297; Rejoinder, ¶ 321.

⁷⁶ See Memorial, ¶¶ 188, 200; Reply, ¶¶ 127, 154; *Waste Management v. United Mexican States (II)*, ICSID Case No. ARB(AF)/00/3, Award, ¶ 98 (30 April 2004) (Crawford (P), Civiletti, Magallón Gómez) (CL-0007-ENG) (hereinafter "*Waste Management v. Mexico* (Award)").

⁷⁷ See Counter-Memorial, ¶ 306 (acknowledging that NAFTA tribunals have confirmed that "[o]rdinarily, reasonable or legitimate expectations of the kind protected by NAFTA are those that arise through targeted representations or assurances made explicitly or implicitly by a state party") (citing *Grand River Enterprises Six Nations, Ltd., et al. v. United States of America*, UNCITRAL, Award, ¶ 141 (12 January 2011) (Nariman (P), Crook, Anaya) (CL-0018-ENG) (hereinafter "*Grand River v. United States* (Award)").

⁷⁸ Rejoinder, ¶ 326.

⁷⁹ *Bilcon v. Canada* (Award), ¶ 589 (CL-0009-ENG). See also Memorial, ¶¶ 188-198; Reply, ¶¶ 132-133.

⁸⁰ Rejoinder, ¶ 326.

⁸¹ See *id.* (acknowledging the existence of a standard of "legitimate expectations" applicable where there are "specific representations" and "repeated encouragements" provided by a State to an investor).

⁸² Tr. (English), Day 1, 89:15-86:1 (Claimant's Opening Statement); Claimant's Comments on NAFTA Article 1128 Submissions, ¶¶ 17-21; *Metalclad Corp. v. United Mexican States*, ICSID Case No. ARB(AF)/97/1, Mexico's Counter-Memorial, ¶ 841 (22 May 1998) (Lauterpacht (P), Civiletti, Siqueiros) (CL-0042-ENG) ("The fair and equitable treatment standard requires the Respondent to act in good faith, reasonably, without abuse, arbitrariness or discrimination.").

under Article 1105(1) is to act in good faith and form, and not deliberately to set out to destroy or frustrate the investment by improper means.”⁸³ Further, the touchstone of the FET standard, encompassed within the minimum standard of treatment under NAFTA, is to be found “in the legitimate and reasonable expectations of the parties, which derive from the obligation of good faith.”⁸⁴ As a cornerstone of the FET standard, the obligation to act in good faith requires Mexico to “not manifestly violate the requirements of consistency, transparency, even-handedness and non-discrimination.”⁸⁵ A State’s repudiation of explicit and repeated representations made to an investor about its investment may evidence a failure by that State to act in good faith.⁸⁶

34. Under the standard set forth in *Waste Management* and subsequently confirmed by numerous NAFTA tribunals, Mexico’s treatment of Legacy Vulcan and its investment falls far short of the treatment Mexico is obligated to accord investors under NAFTA Article 1105.

2. Under NAFTA Article 1103, Legacy Vulcan and Its Investments Are Entitled to the More Favorable Treatment Mexico Provides to Third-Party Investors

35. While the Parties agree on the applicable Article 1105 standard set forth in *Waste Management*, and the evidence shows Mexico breached it, the Parties have debated and the Tribunal has asked about the application of the autonomous FET standard in this case.⁸⁷ Legacy Vulcan’s position — adopted by multiple tribunals — is that the minimum standard under customary international law has been shaped by, *inter alia*, the autonomous FET standard contained in numerous bilateral investment treaties (“BITs”) such that the former affords essentially the same level of protection as the latter.⁸⁸

⁸³ *Waste Management v. Mexico* (Award), ¶ 98 (CL-0007-ENG). See also Memorial, ¶¶ 188-198; Reply, ¶¶ 127-130.

⁸⁴ *El Paso Energy International Company v. Argentine Republic*, ICSID Case No. ARB/03/15, Award, ¶ 339 (31 October 2011) (Caflich (P), Stern, Avila) (CL-0153-ENG) (hereinafter, “*El Paso v. Argentina* (Award)”). See also *Gavrilovic v. The Republic of Croatia*, ICSID Case No. ARB/12/39, Award, ¶ 954 (26 July 2018) (Pryles (P), Alexandrov, Thomas) (CL-0154-ENG) (confirming the quoted passage from *El Paso*).

⁸⁵ *Saluka Investments B.V. v. Czech Republic*, Partial Award, ¶ 307 (17 March 2006) (Watts (P), Yves Fortier, Behrens) (CL-0027-ENG).

⁸⁶ *Abengoa, S.A. y COFIDES, S.A. v. United Mexican States*, ICSID Case No. ARB(AF)/09/2, Award, ¶ 643 (Mourre (P) Siqueiros, Fernández-Armesto) (CL-0047-SPA) (hereinafter “*Abengoa v. Mexico* (Award)”) (“El Tribunal Arbitral estima también que el nivel mínimo de trato acorde con el derecho internacional consuetudinario es una expresión y parte constitutiva del principio de buena fe.”). See also Claimant’s Comments on NAFTA Parties’ Article 1128 Submissions, ¶¶ 18-19.

⁸⁷ See Appendix A, Answer to the Tribunal’s Question No. 4.

⁸⁸ Tr. (English), Day 1, 86:5-13 (Claimant’s Opening Statement); Claimant’s Opening Presentation, Slide 62 (CD-0001). See also Memorial, ¶¶ 192-193; Reply, ¶ 128.

36. Even if the protection afforded by NAFTA Article 1105 were found to be more restrictive than that available under the autonomous FET standard, however, Legacy Vulcan would still be entitled to protection under the autonomous FET standard by virtue of NAFTA Article 1103. Pursuant to that article, Mexico agreed to accord to investors of the United States, such as Legacy Vulcan, and their investments, such as CALICA, most-favored-nation (“MFN”) treatment.⁸⁹ Under Mexico’s Schedule to NAFTA Annex IV, Mexico sought to restrict its MFN obligation to the same treatment that Mexico accords to other countries’ investors under Mexico’s post-NAFTA investment treaties.⁹⁰

37. Mexico’s argument that the NAFTA Free Trade Commission (“FTC”) interpretative note precludes the application of the autonomous FET standard as a result of NAFTA Article 1103⁹¹ is wrong.⁹² According to that note, NAFTA Article 1105 “prescribes the customary international law minimum standard of treatment of aliens as the minimum standard of treatment to be afforded to investments of investors of another Party.”⁹³

38. This interpretive note is immaterial to the application here of a FET standard Mexico afforded to third-country investors in post-NAFTA treaties by virtue of NAFTA Article 1103. The FTC interpretative note did not impact or interpret Article 1103 or NAFTA Annex IV — provisions that the NAFTA Parties have not amended. The FTC interpretation therefore has no bearing on Legacy Vulcan’s claim under NAFTA Article 1103. As one NAFTA tribunal explained: “[E]very NAFTA investor is entitled, by virtue of Article 1103, to the treatment accorded to nationals of other states under BITs containing the fairness elements unlimited by customary international law. The [FTC] Interpretation did not purport to change that fact, nor could it.”⁹⁴

⁸⁹ NAFTA, Article 1103 (C-0009-ENG.9).

⁹⁰ Memorial, ¶ 195; NAFTA, Annex IV - Schedule of Mexico: Exceptions from Most-Favored-Nation Treatment (Chapter 11) (C-0133-ENG). *See also* Reply, ¶¶ 185-187 (explaining that this is the proper reading of Annex IV under the Vienna Convention on the Law of Treaties).

⁹¹ Tr. (Spanish), Day 1, 277:4-18 (Respondent’s Opening Statement) [English, 230:4-17].

⁹² At the Hearing, Mexico also asserted that Legacy Vulcan’s claims under Article 1103 must fail because Legacy Vulcan has not provided a comparator investor, which Mexico argues is necessary for an analysis under Article 1103. Tr. (Spanish), Day 1, 277:18-22 (Respondent’s Opening Statement) [English, 230:17-20]. As Legacy Vulcan has explained, however, no such comparator investor is needed when invoking the MFN clause to import a provision from another treaty. *See* Reply, ¶ 194.

⁹³ NAFTA FTC, Notes of Interpretation of Certain Chapter 11 Provisions, Section B(1) (31 July 2001) (C-0132-ENG). The FTC’s interpretive note also states that “[a] determination that there has been a breach of another provision of the NAFTA, or of a separate international agreement, does not establish that there has been a breach of Article 1105(1).” *Id.*, Section B(3).

⁹⁴ *Pope & Talbot Inc. v. Government of Canada*, UNCITRAL, Damages Award, n.54 (31 May 2002) (Dervaird (P), Greenberg, Belman) (CL-0031-ENG). *See also* *United Parcel Service of America Inc. v. Government of Canada*, ICSID Case No. UNCT/02/1, Award on Jurisdiction, ¶ 97 (22 November 2002).

39. Mexico has also failed to address the fact that it is differently situated from other NAFTA Parties with respect to the importation of substantive standards of treatment through NAFTA Article 1103. As explained by Professor Patrick Dumberry, former attorney for the Canadian Ministry of Foreign Affairs' Trade Law Bureau, FET provisions contained in BITs concluded by the United States and Canada mirror the FTC interpretative note by explicitly linking FET obligations to the level of treatment existing under "international law."⁹⁵ "The situation is a bit more complicated" for Mexico, as Professor Dumberry notes, because a number of Mexico's post-NAFTA BITs contain FET obligations lacking such a reference.⁹⁶ Further noting that "there is a large consensus in support of the proposition that a broad MFN clause contained in the basic treaty can be used by an investor to claim the benefit of better FET protection as found in other BITs,"⁹⁷ Professor Dumberry concludes that "importation of better FET clauses [provided in Mexico's post-NAFTA BITs] should be allowed" under NAFTA Article 1103.⁹⁸

40. Legacy Vulcan is accordingly entitled to treatment consistent with the autonomous FET standard under NAFTA Article 1103 by virtue of the more comprehensive protection Mexico provides to investors from Korea, Germany, Greece, and the Netherlands pursuant to Mexico's post-NAFTA BITs with those countries.⁹⁹ Whether measured against the minimum standard of treatment under customary international law or the autonomous FET standard imported from Mexico's other BITs, Mexico has failed to accord Legacy Vulcan and CALICA fair and equitable treatment, as described in greater detail below.

41. Legacy Vulcan is also entitled to the protections Mexico affords to Swiss investors under the Mexico-Switzerland BIT, which requires Mexico to "observe any other obligation it has assumed with regard to investments in its territory by investors of [Switzerland]."¹⁰⁰ As explained

(Keith (P), Yves Fortier, Cass) (CL-0035-ENG) (emphasizing the "likely availability to the investor of the protection of the most favoured nation obligation in article 1103, by reference to other bilateral investment treaties").

⁹⁵ Patrick Dumberry, *The Importation of "Better" Fair and Equitable Treatment Standard Protection Through MFN Clauses: An Analysis of NAFTA Article 1103*, 14(1) TDM 1 (2017) (CL-0038-ENG.13-14).

⁹⁶ *Id.* (CL-0038-ENG.15).

⁹⁷ *Id.* (CL-0038-ENG.16) (concluding also that "a number of treaties entered into by Mexico can indeed be considered as providing investors with a better protection than under NAFTA Article 1105").

⁹⁸ *See id.* (CL-0038-ENG.4, 15).

⁹⁹ Memorial, ¶ 197, n.430 (quoting relevant language from Mexico's BITs with Korea, Germany, Greece, and the Netherlands); Reply, ¶ 129, n.290 (same).

¹⁰⁰ C-0138-ENG.10.

in Claimant's pleadings, this obligation requires Mexico to comply with the 2014 Agreements, which Mexico repudiated, offering yet another ground for liability under NAFTA in this case.¹⁰¹

B. MEXICO HAS BREACHED NAFTA ARTICLES 1105 AND 1103 BY EFFECTIVELY PRECLUDING QUARRYING IN LA ADELITA DESPITE SPECIFIC REPRESENTATIONS AND COMMITMENTS TO THE CONTRARY

42. The Hearing further highlighted that Mexico failed to accord fair and equitable treatment to Legacy Vulcan's investment by repudiating express commitments aimed at allowing CALICA to quarry its largest untapped lot, La Adelita, in early 2016.¹⁰²

1. Mexico Repeatedly Made Specific Representations and Assurances to CALICA that It Would Be Able to Quarry La Adelita

43. As Legacy Vulcan showed at the Hearing, CALICA (through its subsidiary, RAPICA) owns La Rosita, El Corchalito, and La Adelita, as well as the limestone reserves of these lots.¹⁰³ There is no dispute that these reserves have never been part of a concession limiting CALICA's rights and activities there.¹⁰⁴ CALICA has therefore been free to use and quarry these lots, subject only to applicable land-use zoning and environmental permitting.¹⁰⁵ As Legacy Vulcan explained at the Hearing, Mexico repeatedly made explicit representations to Legacy Vulcan and CALICA confirming that CALICA would be able to quarry La Adelita.¹⁰⁶

44. Tribunals have recognized that representations, such as those Mexico has made here (discussed in greater detail below), constitute specific assurances sufficient for an investor to develop legitimate expectations. For instance, in *Bilcon v. Canada* — a case that Mexico acknowledges should guide the Tribunal's legitimate expectations analysis in this case¹⁰⁷ — the tribunal found that repeated assurances made by government officials directly to the claimant created legitimate expectations in the investor regarding the viability of a quarry investment in Nova Scotia.¹⁰⁸ The representations made by Mexico in this case go well beyond the minimum

¹⁰¹ Memorial, ¶¶ 243-245; Reply ¶¶ 198-200.

¹⁰² Tr. (English), Day 1, 90:12-107:2 (Claimant's Opening Statement).

¹⁰³ Tr. (English), Day 1, 19:16-20:5, 83:12-18 (Claimant's Opening Statement).

¹⁰⁴ Tr. (Spanish), Day 3, 667:3-14 (████████ presentation) [English, 579:13-580:1].

¹⁰⁵ See *id.*

¹⁰⁶ Tr. (English), Day 1, 90:12-93:18 (Claimant's Opening Statement); see also Memorial, ¶¶ 230-235; Reply ¶ 144.

¹⁰⁷ Rejoinder, ¶ 326.

¹⁰⁸ *Bilcon v. Canada* (Award), ¶¶ 468-471, 589 (CL-0009-ENG) (describing the various assurances provided by State officials and determining they led the claimants to form legitimate expectations).

threshold set in *Bilcon*. They took the form of multiple permits and authorizations, obtained from Mexican authorities at the federal, state, and municipal levels, affirming time and again — from an environmental and zoning perspective — that CALICA could quarry limestone in its lots.¹⁰⁹ These representations culminated in the 2014 Agreements, in which Mexico assured Legacy Vulcan that it would take all necessary actions to amend the POEL by 5 December 2015 to allow CALICA to begin quarrying in La Adelita.¹¹⁰

a) The Investment Agreement and Launch of Quarrying Operations

45. Mexico's representations and assurances regarding CALICA's quarrying operations began more than 30 years ago. In the 1986 Investment Agreement, Mexico authorized CALICA — as “the owner of the land where the Project will be developed” — to carry out the Project, which Mexico deemed “feasible from an environmental standpoint.”¹¹¹ By the early 1990s, CALICA had secured all applicable environmental permits and started quarrying La Rosita, a lot it has continued to quarry to this day.¹¹² Mexico has submitted no evidence and has not otherwise alleged that quarrying in La Rosita has occurred without applicable permits or has violated Mexican law.¹¹³ CALICA has cleared vegetation and conducted quarrying activities there without an Authorization for Soil-Use Change in Forested Terrains (*Autorización de Cambio de Uso de Suelo en Terrenos Forestales* or “CUSTF”).¹¹⁴ Despite having inspected CALICA's operations, Mexican authorities have never indicated that this authorization was required for operations in La Rosita, even though the law governing forested areas was in force at the time La

¹⁰⁹ See, e.g., Tr. (Spanish), Day 3, 684:18-22 (██████████ presentation: “Los derechos adquiridos de Calica en materia de explotación se encuentran intactos en virtud de que, derivado de sus permisos, tiene la posibilidad de explotar.”) [English, 595:5-8]; *id.* at 723:17-724:3 (“[Counsel for Claimant]: ¿Calica tiene derechos adquiridos a extraer roca caliza en base a las licencias, permisos y autorizaciones ambientales que la empresa ha obtenido? // [██████████]: Sí, totalmente, porque todas las licencias y autorizaciones que requiere para el desarrollo de la actividad las tiene y las tiene vigentes.”) [English, 624:14-20].

¹¹⁰ Tr. (English), Day 1, 93:14-18 (Claimant's Opening Statement). See also Memorial, ¶ 199; Reply, ¶¶ 19-21.

¹¹¹ C-0010-SPA.6-7, 14, 16, (First and Eleventh Clauses).

¹¹² Memorial, ¶¶ 30, 38; Witness Statement-██████████-Claimant's Memorial-ENG, ¶¶ 10-17.

¹¹³ The applicable zoning regime for La Rosita was similar to that of La Adelita under the POET. That regime zoned La Rosita as UGA 19, which allows quarrying, and El Corchalito and La Adelita as UGA 30, which allows quarrying under certain conditions. See C-0078-SPA.9, 13.

¹¹⁴ Tr. (English), Day 2, 303:4-7 (██████████ cross-examination: “We carried out quarrying operations in La Rosita and El Corchalito without [a CUSTF] for decades in the full knowledge of both SEMARNAT and PROFEPA without any objection having ever been raised.”).

Rosita operations commenced in the early 1990s.¹¹⁵ As these facts indicate, no such authorization was required for quarrying there.¹¹⁶

b) Expansion of the Project to El Corchalito and La Adelita

46. As highlighted at the Hearing, Mexico's representations that CALICA could quarry its production lots extended to El Corchalito and La Adelita. In April 1996, before Legacy Vulcan acquired El Corchalito and La Adelita, CALICA sought from the State of Quintana Roo a "Feasibility for Land Use" certificate (*Factibilidad para el Uso de Suelo*) confirming that "activities related to the extractive industry" could be carried out in those lots.¹¹⁷ Extraction activities above the water table in them are subject to state environmental regulation.¹¹⁸ In September 1996, the Municipality of Solidaridad, where El Corchalito and La Adelita are located, confirmed that it had no objection to the quarrying activities envisioned in those lots.¹¹⁹ It is undisputed that the Municipality is the instrumentality empowered by Mexican law to regulate local zoning.¹²⁰

c) Corchalito/Adelita State Environmental Authorization

47. In December 1996, a few months after RAPICA acquired El Corchalito and La Adelita, the State of Quintana Roo granted the Corchalito/Adelita State Environmental Authorization, allowing CALICA to quarry those lots above the water table and acknowledging that the vegetation in the areas to be quarried would be removed.¹²¹ This authorization was valid for five years from the initiation of quarrying activities,¹²² which began in 2001.¹²³ The State of Quintana Roo renewed this environmental impact authorization in March 2006 for another five-

¹¹⁵ Tr. (English), Day 2, 303:12-15 (██████████ cross-examination: "we carried out activities in [...] La Rosita for many years, 2000 onwards, without anyone requesting us for [a CUSTF]."); C-0075-SPA.28-30 (*Considerando* 14 states that inspection visits were carried out at La Rosita and maps out the areas where extraction — and thus, vegetation removal — was taking place, without referencing any missing authorizations) (see pp. 8-10 for clearer legibility).

¹¹⁶ See Appendix A, Answer to the Tribunal's Question No. 7.

¹¹⁷ Claimant's Opening Presentation, Slide 16 (CD-0001); C-0073-SPA.3.

¹¹⁸ Expert Report-██████████-Environmental-Claimant's Memorial-SPA, ¶ 12.

¹¹⁹ Claimant's Opening Presentation, Slide 16 (CD-0001); C-0071-SPA.3; C-0072-SPA.2; C-0073-SPA.1.

¹²⁰ Expert Report-██████████-Environmental-Claimant's Memorial-SPA, ¶¶ 22-24; Counter-Memorial, ¶ 134.

¹²¹ Claimant's Opening Presentation, Slide 16 (CD-0001); C-0018-SPA.8-9 (last paragraph before "CONDICIONANTES" and CONDICIONANTE 7 regarding "*desmante*" and "*despalme*").

¹²² C-0018-SPA.11 ("Los permisos de explotación a que se refiere la presente autorización tendrá una vigencia de 5 años contados a partir de la fecha de inicio de los trabajos de explotación [...]").

¹²³ C-0074-SPA.14 ("teniendo como fecha de inicio el día veintitrés de Agosto del año dos mil uno, por lo que la vigencia de la autorización tendría su vencimiento el día veintitrés de Agosto del año dos mil seis, además que el objeto de la autorización no ha sido totalmente cumplido ni agotado.").

year term, conditioning renewal on submitting a renewal application 30 days before expiration and demonstrating compliance with the authorization's conditions.¹²⁴

48. In this 2006 renewed authorization, the State of Quintana Roo made clear that zoning for El Corchalito and La Adelita allowed “mining” and listed “forestry” (“*forestal*”) as an *incompatible* use.¹²⁵ Having confirmed compliance with the authorization's terms, the State of Quintana Roo again renewed CALICA's environmental impact authorization in 2011 — when the POEL was already in force — for a renewable five-year term.¹²⁶ In doing so, the State of Quintana Roo reaffirmed that the zoning applicable to El Corchalito and La Adelita (discussed further below) allowed “mining” and listed “*forestal*” as an incompatible use.¹²⁷ In 2016, the State of Quintana Roo — in compliance with its obligations under the 2014 Agreements — amended this authorization to extend (i) its term through 2036, and (ii) the yearly quarrying area above the water table from 25 to 50 hectares.¹²⁸

d) Corchalito/Adelita Federal Environmental Authorization

49. In November 2000, Mexico's federal government, through SEMARNAT, granted the Corchalito/Adelita Federal Environmental Authorization, allowing CALICA to quarry El Corchalito and La Adelita under the water table and — like the state authorization — envisioning that the vegetation in the areas to be quarried would be removed.¹²⁹ This authorization was valid for 20 years (through November 2020) and renewable upon CALICA's filing with SEMARNAT of a renewal application at least 30 days before the authorization expired, along with PROFEPA's “validation” of CALICA's latest compliance report.¹³⁰ As further explained below, CALICA submitted a renewal application with SEMARNAT more than 30 days before the Corchalito/Adelita Federal Environmental Authorization was due to expire, along with the latest compliance reports it had provided to PROFEPA, which had never formally “validated” any prior

¹²⁴ C-0074-SPA.17, *Condicionantes* Tercero & Cuarto.

¹²⁵ C-0074-SPA.15.

¹²⁶ C-0075-SPA.31 (“ha resuelto AUTORIZAR en materia de Impacto Ambiental de manera CONDICIONADA la renovación de la autorización para llevar a cabo el aprovechamiento de material pétreo [...]”); *id.*, at 39-40 (VIGÉSIMA OCTAVA) (stating that the authorization was valid for five years, subject to CALICA's filing of periodic compliance reports, and renewable in accordance with Article 49 of the State's *Reglamento en Materia de Impacto Ambiental de la Ley de Equilibrio y la Protección al Ambiente*).

¹²⁷ C-0075-SPA.26-27 (see pp. 4-5 for clearer legibility).

¹²⁸ C-0019-SPA.5 (Condicionante 2).

¹²⁹ Claimant's Opening Presentation, Slide 17 (CD-0001); C-0017-SPA.31, 33 (Término Primero provides, in part: “Las actividades que se llevarán a cabo para la operación del proyecto son las siguientes: 1. — Preparación del sitio. a) Desmonte y limpieza del terreno. b) Despalme. [...]”).

¹³⁰ C-0017-SPA.35 (Término Segundo).

report up to that point.¹³¹ To date, SEMARNAT has refused to process that renewal application as a result of PROFEPA's unlawful administrative proceeding and shutdown of operations at El Corchalito.¹³²

e) The POET and Its Aftermath

50. In 2001, the governing zoning instrument known as the POET confirmed that quarrying could be undertaken in El Corchalito and La Adelita. The POET assigned an Environmental Management Unit (*Unidad de Gestión Ambiental* or "UGA") to those lots that expressly envisioned "mining" as a conditionally permitted activity (UGA 30).¹³³ The POET also specified that those lots were *incompatible* for forestry ("*forestal*") use.¹³⁴

51. In light of the POET and the multiple permits discussed above, among others, CALICA commenced quarrying operations in El Corchalito in 2001.¹³⁵ CALICA cleared vegetation and conducted extractive activities there without a CUSTF.¹³⁶ As Respondent acknowledged at the Hearing, Mexican authorities never indicated that this authorization was required for operations in El Corchalito.¹³⁷ As this fact shows, no such authorization was required for quarrying there.¹³⁸

¹³¹ C-0149-SPA.2 (showing SEMARNAT's receipt of CALICA's renewal application); *id.* at 26-303 (CALICA's second compliance report of 2019); Witness Statement-[REDACTED]-Claimant's Reply-Second Statement-ENG, ¶¶ 10-13.

¹³² See Witness Statement-[REDACTED]-Claimant's Reply-Second Statement-ENG, ¶ 15 (citing to [REDACTED]-0013.2, indicating that the processing of CALICA's application is "suspended due to PROFEPA proceeding"). See also C-0154-SPA.9; C-0150-SPA.2.

¹³³ C-0078-SPA.13, 42. See also C-0078-SPA.9 (the POET also zoned La Rosita and Punta Venado as UGA 19, which lists mining as a predominant activity); Tr. (Spanish), Day 3, 680:3-6 ([REDACTED] presentation: "de acuerdo al POET Corredor Cancún-Tulum, un uso condicionado, es decir, un uso permitido para el predio de La Adelita, era la minería.") [English, 591:8-10]; *id.* at 680:17-20 ("en el 2001 la vocación de suelo reconocida por el instrumento normativo que aplicaba a La Adelita identifica que su vocación es minera.") [English, 591:21-592:1]; Expert Report-[REDACTED]-Environmental-Claimant's Memorial-SPA, ¶¶ 35, 43, 44 (table).

¹³⁴ C-0078-SPA.13; Tr. (Spanish), Day 3, 681:6-11 ([REDACTED] presentation: "en [...] [el] POET Corredor Cancún-Tulum 2001, se determinaba como uso incompatible el forestal para el predio La Adelita.") [English, 592:10-12]; Expert Report-[REDACTED]-Environmental-Claimant's Memorial-SPA, ¶ 44 (table).

¹³⁵ Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶ 24.

¹³⁶ Tr. (English), Day 2, 303:4-7 ([REDACTED] cross-examination: "We carried out quarrying operations in La Rosita and El Corchalito without [a CUSTF] for decades in the full knowledge of both SEMARNAT and PROFEPA without any objection having ever been raised.").

¹³⁷ Tr. (Spanish), Day 1, 210:7-10 ("[Professor Tawil]: Pero no se ha objetado por falta de autorización la explotación de El Corchalito. // [Counsel for Respondent]: No.") [English, 174:22-175:3].

¹³⁸ Tr. (English), Day 2, 302:22-304:5 ([REDACTED] cross-examination, explaining that the CUSTF was not required for CALICA's operations); Tr. (Spanish), Day 3, 676:21-678:3 ([REDACTED] presentation) [English, 588:11-589:16].

52. As [REDACTED] and environmental law expert [REDACTED] further explained at the Hearing, the Corchalito/Adelita Federal and State Environmental Impact Authorizations regulated quarrying activities in El Corchalito and La Adelita; the CUSTF did not.¹³⁹ Among those permitted activities, the Corchalito/Adelita Federal Environmental Authorization — issued by SEMARNAT — envisioned that CALICA would “prepare the site” to be quarried in El Corchalito and La Adelita, including by “clearance and cleaning up of the terrain” (“*desmonte y limpieza del terreno*”) and the “stripping” of vegetation (“*despalme*”).¹⁴⁰

53. The CUSTF, by contrast, regulates the removal of vegetation from areas that are considered to be forested zones.¹⁴¹ Also issued by SEMARNAT, the CUSTF is linked to the local zoning regime, with which it must comply.¹⁴² Under the POET zoning regime applicable to La Adelita and El Corchalito, those lots were incompatible for “*forestal*” use or as a forestry zone,¹⁴³ which is an indication, among others, that CALICA was not required to apply for a CUSTF to remove vegetation in those lots. As [REDACTED] explained at the Hearing:

“[H]asta que se da la modificación del POEL 2009, el predio La Adelita no hubiera requerido un Cambio de Uso de Suelo en Terrenos Forestales [...].

Calica decidió explotar El Corchalito sin la autorización CUSTF, al amparo de la misma Autorización de Impacto Ambiental que prevé tanto El Corchalito como La Adelita, y pudo hacerlo porque la UGA que regía a El Corchalito y a La Adelita era la misma. Y esa UGA determina que el forestal es un uso incompatible.”¹⁴⁴

54. [REDACTED], similarly testified as follows:

“[President Van den Berg]: Before 2009, could CALICA simply remove the vegetation and commence quarrying operations?

¹³⁹ Tr. (Spanish), Day 3, 677:5-9 ([REDACTED] presentation: “La Autorización de Impacto Ambiental regula el desarrollo de la obra o actividad. Así, se puede explotar sin necesidad de CUSTF como, para no ir muy lejos en esta explicación, sucedió en El Corchalito.”) [English, 588:17-21].

¹⁴⁰ Claimant’s Opening Presentation, Slide 18 (CD-0001); C-0017-SPA.33.

¹⁴¹ Tr. (Spanish), Day 3, 677:10-13 ([REDACTED] presentation: “El Cambio de Uso de Suelo en Terrenos Forestales no regula la explotación. El Cambio de Uso de Suelo en Terrenos Forestales regula la remoción de la capa forestal de un predio.”) [English, 588:22-589:4].

¹⁴² Expert Report-[REDACTED]-Environmental-Claimant’s Memorial-SPA, ¶¶ 106, 111; [REDACTED]-0011.47-48, Article 93; Tr. (Spanish), Day 3, 681:12-22 ([REDACTED] presentation) [English, 592:15-20].

¹⁴³ C-0078-SPA.13; Tr. (Spanish), Day 3, 681:6-11 ([REDACTED] presentation: “en [...] [el POET Corredor Cancún-Tulum 2001, se determinaba como uso incompatible el forestal para el predio La Adelita.”) [English, 592:10-12]; Expert Report-[REDACTED]-Environmental-Claimant’s Memorial-SPA, ¶ 44.

¹⁴⁴ Tr. (Spanish), Day 3, 681:19-22, 705:12-19 ([REDACTED] presentation) [English, 592:18-20, 611:9-16]. See also *id.* at 705:22-706:2 ([REDACTED] cross-examination, confirming that a CUSTF was not required to quarry El Corchalito before 2009) [English, 611:17-20].

[REDACTED]: It had happened in the way you are describing in both La Rosita and El Corchalito. [...]

[President Van den Berg]: So, in your Legal Opinion, [a] CUSTF was not required for La Adelita in 2009?

[REDACTED]: Not before the amendment to the POEL, 2009.”¹⁴⁵

55. Since the CUSTF was not required or necessary, CALICA did not apply for it in connection with its planned quarrying activities in El Corchalito or La Adelita.¹⁴⁶

56. Consistent with the non-forestry land-use regime applicable to El Corchalito and La Adelita, in 2007, the Municipality of Solidaridad further confirmed that quarrying was permissible in those lots. The Municipality issued a Land Use License that identified quarrying for sand, gravel, and rock derivatives as the “Authorized Land Use” for El Corchalito and La Adelita.¹⁴⁷

f) The POEL and Its Aftermath

57. On its face, the POEL — issued in May 2009 — zoned most of the area where La Adelita is located as UGA 5, which essentially bars quarrying and is intended for conservation.¹⁴⁸ While there is no evidence showing that CALICA or Legacy Vulcan knew that La Adelita would be rezoned in this way prior to the public consultation phase of the process that established the POEL,¹⁴⁹ this change should not have affected CALICA’s pre-existing rights to quarry that lot because the POEL expressly provided that it did not apply retroactively and did not affect vested rights.¹⁵⁰ This meant that the POEL did not affect the multiple permits, authorizations, and

¹⁴⁵ Tr. (English), Day 2, 320:19-321:17 ([REDACTED] responding to questions from the Tribunal).

¹⁴⁶ See Tr. (English), Day 2, 303:4-304:5 ([REDACTED] cross-examination); Tr. (Spanish), Day 3, 706:13-19 ([REDACTED] cross-examination: “Entiendo que, pues, no había un impedimento legal para solicitar esa, como -- ni para solicitar cualquier otra que no necesitara. Es decir, si no la requería, pues, es correcto no necesita -- no había un impedimento para solicitarla, pero no había una necesidad legal de requerirla.”) [English, 612:6-9].

¹⁴⁷ Claimant’s Opening Presentation, Slide 19 (CD-0001); C-0079-SPA.5.

¹⁴⁸ See C-0080-SPA.10, 76; Memorial, Map 3; Expert Report-[REDACTED]-Environmental-Claimant’s Memorial-SPA, Figure 2 (demonstrating that the POEL split La Adelita into two areas, with the majority being UGA 5).

¹⁴⁹ See Appendix A, Answer to the Tribunal’s Question No. 5.

¹⁵⁰ C-0080-SPA.69, 9 (“[It] shall not apply retroactively to concrete cases, which have official documents in force before its entry into force [...] nor in respect of their future renewal [...] [and] [...] it recognizes and respects [...] acquired rights [...]”) (free translation). See also C-0080-SPA.20, 6 (Transitory Article 5 of the POEL provides that: “[t]he applications initiated prior to the entry into force of the [POEL] will be resolved in accordance with the relevant legislation in force at the time of their filing, so [the POEL] will not apply retroactively in those specific cases where official and valid documents had been issued before its entry into force, either generally or in the renewal thereof.”) (free translation).

licenses CALICA had secured — including the Municipality’s 2007 land-use license endorsing the UGA 30 designation¹⁵¹ — which allowed quarrying activities in El Corchalito and La Adelita.

58. This fact was confirmed in litigation CALICA initiated in June 2009, immediately after the POEL was issued.¹⁵² In this suit, CALICA challenged the validity of the POEL with the intention of *confirming* that its vested rights were unaffected.¹⁵³ As ██████ explained at the Hearing: “[w]hat CALICA did was to question the constitutionality of the POEL 2009 [in Court] [...] and that was upheld or confirmed by the High Court of Quintana Roo, saying that the POEL 2009 could not be retroactively applied to CALICA’s operations and specifically so in La Adelita.”¹⁵⁴

59. Specifically, in March 2010, the High Court of Quintana Roo dismissed CALICA’s suit, holding that the POEL expressly did not apply retroactively to affect the rights derived from the licenses, permits, and authorizations CALICA had secured.¹⁵⁵ In doing so, the Court concluded that “the interests of the plaintiff are not affected, *since the [POEL] is not applicable to it.*”¹⁵⁶ As Claimant’s environmental law expert, ██████, explained at the Hearing, “lo que decide el Tribunal es que Calica tiene derechos adquiridos para que su predio se considere conforme a las valoraciones que daba el POET 2001 y no conforme a las de[l POEL] 2009, respecto a los permisos que tiene vigentes.”¹⁵⁷

60. The State of Quintana Roo echoed this conclusion when it renewed the Corchalito/Adelita State Environmental Authorization in May 2011. It stated in no uncertain terms that “El Corchalito, La Adelita, and La Rosita are regulated by [UGA 19 and 30] of the

¹⁵¹ C-0079-SPA.5 (identifying the “*Clave de uso de suelo*” or land use key code as Ff330 (*i.e.*, UGA 30, which, as explained in Part III.B.a above, allows quarrying under certain conditions)); *see also* Counter-Memorial, ¶ 197 (confirming that the POEL did not affect CALICA’s rights under the 2007 Land Use License).

¹⁵² *See also* C-0086-SPA.4 (consistent with the numerous representations that Mexico’s instrumentalities made before the High Court of Quintana Roo, on 1 September 2009, the Municipality of Solidaridad informed CALICA that “[CALICA] will continue to fully use, enjoy, and exercise each and every one of the rights that [its authorizations] establish, as the [POEL] does not apply to them retroactively”) (free translation).

¹⁵³ Memorial, ¶ 81; C-0082-SPA.10-11 (arguing that all rights conferred on CALICA prior to the entry into force of the POEL are not affected by this instrument).

¹⁵⁴ *See* Tr. (English), Day 2, 321:22-322:6 (█████ responding to questions from the Tribunal).

¹⁵⁵ C-0087-SPA.14-15.

¹⁵⁶ Claimant’s Opening Presentation, Slide 21 (CD-0001) (emphasis added); C-0087-SPA.19-20 (emphasis added) (free translation).

¹⁵⁷ Tr. (Spanish), Day 3, 747:22-748:14 (█████ redirect) [English, 644:13-645:3]. At the Hearing, ██████ also highlighted this decision as an important contemporaneous confirmation from Mexico’s instrumentalities regarding CALICA’s right to quarry La Adelita, even under the POEL. Tr. (Spanish), Day 3, 764:5-765:1 (█████ presentation) [English, 658:5-18].

[POET] [...] published on 16 November 2001, so it is determined that the exploitation of stone materials in those lots is feasible in accordance with the policy for Exploitation and predominant use for mining of (UGA 19), as well as conditioned Mining of (UGA 30) [...].”¹⁵⁸ The State authorization then included a table specifying that UGA 19 (applicable to La Rosita) and UGA 30 (applicable to El Corchalito and La Adelita) allowed mining in those lots and identified “*forestal*” as an *incompatible* use for them.¹⁵⁹ Without any evidence, Mexico makes the unsupported allegation that this representation was a transcription error.¹⁶⁰ The context and broader record show otherwise. Indeed, a Mexican court ruling from 2021 that Respondent sought to add to the record of this arbitration *supports* the fact that CALICA had vested rights to quarry La Adelita based on the land-use and quarrying authorizations that have been in effect for more than a decade, including before the POEL.¹⁶¹

61. Further confirming that the CUSTF was not required to clear the vegetation of El Corchalito and La Adelita under the grandfathered rights and zoning regime of the POET, in November 2012, PROFEPA — SEMARNAT’s environmental enforcement arm — conducted an inspection of CALICA’s facilities, verified that CALICA had cleared and been quarrying in El Corchalito for over ten years, inspected CALICA’s permits and authorizations,¹⁶² and found no “facts or omissions that are presumptively constitutive of violation of environmental law [...].”¹⁶³

¹⁵⁸ C-0075-SPA.26-27 (free translation, the original reads: “El Corchalito, La Adelita y La Rosita, se encuentran regulados por las Unidades de Gestión Ambiental diecinueve y treinta (UGA 19 y 30) del Programa de Ordenamiento Ecológico Territorial de la Región Denominada Corredor Cancún-Tulum ver figura 2, publicado mediante decreto en el Periódico Oficial del gobierno del Estado el dieciséis de Noviembre del año dos mil uno, por lo que se determina que el aprovechamiento de los materiales pétreos en dichos predios es factible de acuerdo a la política de Aprovechamiento y uso predominante para la minería de la (UGA 19), así como el uso condicionado para la Minería de la (UGA-30) [...].”).

¹⁵⁹ C-0075-SPA.27.

¹⁶⁰ Rejoinder, ¶ 154 (“Esta situación se explica como resultado de replicar prácticamente lo señalado en la renovación anterior en 2006.”).

¹⁶¹ See C-0124-ESP, ¶ 115 (confirming that, because CALICA had “un derecho adquirido [propiedad y autorizaciones de uso de suelo y de extracción de material rocoso, no es dable aplicar de manera retroactiva la ley forestal vigente [de 2018]”).

¹⁶² C-0043-SPA.2 (stating that the object of the inspection was to “verificar física y documentalmente que [...] la empresa [...] haya[] dado cumplimiento con sus obligaciones ambientales en materia de impacto ambiental, en lo referente a sus autorizaciones, permisos o licencias, otorgadas por la [SEMARNAT]”).

¹⁶³ C-0043-SPA.57 (RESUELVE PRIMERO) (free translation, the original reads: “Del análisis de los hechos circunstanciados en el acta de inspección [...], iniciada en la fecha cinco de noviembre de dos mil doce y concluida el día seis del mismo mes y año, levantada a la empresa [CALICA], se desprende no haberse detectado hechos u omisiones presuntamente constitutivos de infracción a la normatividad ambiental, que deriven de la visita de inspección realizada a la citada empresa.”); see also *id.* at 5-6 (stating that quarrying was occurring in La Rosita and El Corchalito, though not in La Adelita).

62. These facts defeat Mexico's artificial argument that CALICA was "negligent" in not securing a CUSTF and that the multiple representations of Mexican instrumentalities were ineffective because they were accompanied by the caveat that they were subject to other applicable permits and laws.¹⁶⁴ The record shows that CALICA *did* seek and secure all required permits and authorizations before the POEL was issued, and *all* of them confirmed that CALICA could quarry La Adelita (as well as El Corchalito and La Rosita).¹⁶⁵ The POEL itself, and representations from the instrumentalities mainly responsible for the POEL's issuance (the State and Municipality), reaffirmed this fact by leaving those permits and authorizations unaffected and noting that the POET's zoning regime still governed La Adelita after 2009.¹⁶⁶

63. Yet, after the POEL, SEMARNAT took the position that the CUSTF was required to clear vegetation in La Adelita and could not be granted without an amendment to that instrument showing that quarrying is expressly allowed in La Adelita.¹⁶⁷ As ██████ testified at the Hearing, "SEMARNAT referred to ██████ that a special permit for removing vegetation [(the CUSTF)] was needed before the actual exercising of quarrying rights, and that, as long as the POEL 2009 kept its language, it would be difficult for SEMARNAT to issue that permit."¹⁶⁸ SEMARNAT was impeded from doing so because the applicable forestry law required it to comply with the provisions of the POEL.¹⁶⁹ As the Tribunal is by now familiar, this led to the 2014 Agreements, in which Mexico agreed "to carry out all the necessary actions" to amend the POEL to address this bureaucratic hiccup.¹⁷⁰

¹⁶⁴ See Tr. (Spanish), Day 1, 185:1-187:15 (Respondent's Opening statement) [English, 153:7-155:14]; Rejoinder, ¶¶ 158-166.

¹⁶⁵ See Reply, ¶¶ 20, 144 (listing relevant permits and authorizations); Claimant's Opening Presentation, Slide 23 (CD-0001) (same).

¹⁶⁶ See n.152, 158 above.

¹⁶⁷ Tr. (English), Day 2, 320:15-18 (██████ responding to questions from the Tribunal: "From my understanding from Counsel, [the CUSTF] became necessary in the eyes of SEMARNAT for La Adelita operations after the 2009 POEL came into force."); Witness Statement-██████-Claimant's Memorial-ENG, ¶¶ 24-25.

¹⁶⁸ Tr. (English), Day 2, 320:1-6 (██████ responding to questions from the Tribunal); Witness Statement-██████-Claimant's Memorial-ENG, ¶ 24 ("[SEMARNAT] would not issue th[e CUSTF] unless the POEL 2009 expressly stated that extraction activities in that lot are permitted.").

¹⁶⁹ Expert Report-██████-Environmental-Claimant's Memorial-SPA, ¶¶ 113-114. See also First SOLCARGO Report, n.41 (RE-001) (quoting article 117 of the 2003 forestry law, which requires SEMARNAT to abide by the zoning determinations made at the municipal level ("deberán atender lo que, en su caso, dispongan los programas de ordenamiento ecológico correspondiente [...]")). Exhibit ██████-0011 inadvertently includes a copy of the 2018 version of the General Law of Sustainable Forestry Development, rather than the 2003 version, but there is no dispute about the relevant text of article 117 of the 2003 version. See *id.*

¹⁷⁰ C-0022-SPA.4, 11.

g) The 2014 Agreements

64. In the 2014 Agreements, Mexico again recognized that CALICA was entitled to quarry La Adelita when, among other obligations, Mexico undertook to amend the POEL to “*acknowledge [reconocer] the use of quarrying and exploitation of stone material within the properties owned and/or held by CALICA [...], known as [...] ‘LA ADELITA’.*”¹⁷¹

65. To achieve that objective, in the MOU, Mexico agreed to:

“[c]arry out the necessary actions before the municipal or state authorities, according to the legislation in force, to promote the execution of CALICA’s social and business purpose [...] consisting of the following: [...] a) Local Environmental Order Program (‘POEL’) of Solidaridad. – The Municipality of Solidaridad and the Ministry of Ecology will review the POEL of the Municipality of Solidaridad to accomplish the incorporation of the ‘Use of Quarrying and exploitation of stone material’ before the technical and executive bodies with respect to the properties owned and/or possessed by CALICA and/or affiliates, known as ‘LA ROSITA’, ‘EL CORCHALITO’ and ‘LA ADELITA’.”¹⁷²

66. The Addendum to the MOU (or “Amended MOU”) executed in May 2015 was even clearer.¹⁷³ It included imperative language that the:

“Municipality of Solidaridad and the Government of the State of Quintana Roo [...] *shall* incorporate the [Committee to Amend the POEL] [...] made up of an executive body and a technical body *with the purpose of proposing, managing and updating the [POEL]* of the Municipality of Solidaridad within this process *in order to acknowledge [reconocer] the use of quarrying and exploitation of stone material within the properties owned and/or held by CALICA [...], known as [...] ‘LA ADELITA’.*”¹⁷⁴

67. The Addendum to the MOU also included a detailed calendar specifying when each phase of the amendment process was to be carried out.¹⁷⁵ Importantly, as confirmed at the Hearing, the Mexican authorities that executed the 2014 Agreements were in control of the POEL

¹⁷¹ C-0022-SPA.14 (emphasis added). See also C-0021-SPA.3 (“The Parties express their intention to reach a settlement with respect to the conflicts originated by the use and exploitation of the port infrastructure [...], as well as the resolution of other pending issues in relation to CALICA’s operations in its current location in Quintana Roo, Mexico.”) (free translation).

¹⁷² C-0021-SPA.4-5.

¹⁷³ See Tr. (Spanish), Day 3, 766:7-11 (██████ presentation: “el gobierno del Estado y el municipio asumen obligaciones muy concretas de hacer para iniciar el proceso de modificación y llevarlo a su conclusión de acuerdo con la normatividad existente.”) [English, 659:17-21].

¹⁷⁴ C-0022-SPA.3-4 (emphasis added); see also *id.* at 10 (“El Municipio de Solidaridad y el Gobierno del Estado de Quintana Roo [...] instalarán el Comité de Ordenamiento Ecológico Local para la actualización del POEL [...] conformado por un órgano ejecutivo y un órgano técnico, con el objeto que dentro de este proceso se proponga, gestione y actualice el [POEL] del Municipio de Solidaridad para que en esta actualización se reconozca el uso de minería y explotación del material pétreo en los inmuebles propiedad y/o en posesión de CALICA y/o afiliadas, conocidos como [...] ‘LA ADELITA’.”).

¹⁷⁵ C-0022-SPA.4-5.

amendment process and thus capable of moving it along toward recognizing expressly what the POEL already recognized implicitly: that La Adelita's land use was apt for quarrying.

68. At the Hearing, witness and expert testimony confirmed the clarity of this commitment and the reasonableness of Legacy Vulcan's reliance upon it. Claimant's constitutional law expert, [REDACTED], underscored the 2014 Agreements' text:

"lo que yo destacaría son los verbos. Hay compromiso. Se comprometen a llevar a cabo acciones necesarias para gestionar ante los órganos. [...] Y segundo, las partes [...] asumen obligaciones muy concretas de hacer para iniciar el proceso de modificación y llevarlo a su conclusión de acuerdo con la normatividad existente [...] Si ustedes leen el addendum al [...] Memorando de Entendimiento, lo que verán es un programa donde las autoridades se comprometen a realizar ciertas cuestiones en un calendario muy concreto."¹⁷⁶

69. Respondent's own constitutional law expert, Dr. Javier Mijangos, acknowledged during cross-examination that the language used in the 2014 Agreements constituted an obligation "to do" (*obligación de hacer*) on the part of the signatory Mexican instrumentalities, and that those instrumentalities had committed to amend the POEL:

"[Counsel for Claimant]: [L]a obligación aquí asumida [en el Adendum al MOU] es la de gestionar todas las acciones necesarias [para enmendar el POEL]. ¿Sí o no?

[Mijangos]: Entiendo yo que *la obligación aquí asumida*, en ese y en los ocho puntos -- en los siete puntos siguientes [en el Adendum al MOU], *es cumplir con el calendario propuesto en esos puntos*.

[...]

[Counsel for Claimant]: O sea que eso es una obligación de [...] ponerse a trabajar para cumplir con ese calendario que las partes habían establecido. ¿Correcto?

[Mijangos]: Correcto."¹⁷⁷

70. At the Hearing, witnesses and experts on both sides also highlighted that the parties to the 2014 Agreements took steps to comply with them, showing that these agreements

¹⁷⁶ Tr. (Spanish), Day 3, 765:22-767:15 ([REDACTED] presentation) [English, 659:12-660:18].

¹⁷⁷ Tr. (Spanish), Day 4, 971:16-972:17 (Mijangos cross-examination) [English, 826:5-827:3]. *See also* Tr. (Spanish), Day 4, 966:11-18 ("[Counsel for Claimant]: [L]a obligación de hacer aquí [en el Adendum al MOU] que las partes se comprometen es a gestionar ante el Comité todas las acciones necesarias. ¿Correcto? // [Mijangos]: De acuerdo. // [Counsel for Claimant]: Y eso es una obligación de hacer. ¿Correcto? // [Mijangos]: Sí, por supuesto.") [English, 821:17-822:1].

were more than merely a vague expression of intent or declarations “of high ethical value,” as Respondent now claims.¹⁷⁸ As [REDACTED] explained:

“CALICA did renounce its rights over the public terminal; withdrew the legal challenges to the proceeding to revoke CALICA’s Concession, which was a precondition to the actual signing or execution of the 2014 Agreements; we have paid taxes over the Concession for the public terminal based upon the INDAABIN appraisal, even if the Courts have declared the same to be invalid. And so, these--all these points referred here were complied by us during the years after the signing of the 2014 Agreements.”¹⁷⁹

71. [REDACTED] similarly underscored that the Addendum to the MOU “nos muestra no sólo que las partes han empezado a cumplir sus compromisos, sino también nos muestra el interés de las partes por mantener su cumplimiento.”¹⁸⁰ Dr. Mijangos acknowledged that the conduct of the parties was relevant to determining the binding nature of the 2014 Agreements and conceded — after becoming aware of the facts — that the parties to those agreements had actually taken steps to comply.¹⁸¹ When confronted with evidence regarding the parties’ course of conduct after the 2014 Agreements, Dr. Mijangos clarified that Mexico had never shown him any of those documents, which, he acknowledged, “[s]in lugar a dudas, quizás el haber tenido todo el expediente, no, no sólo esto, hubiera sido lo mejor.”¹⁸² Mexico’s failure to provide him with this basic information undermines the conclusions included in his report.

72. Regarding the legal capacity of the State of Quintana Roo and the Municipality of Solidaridad to execute the 2014 Agreements, [REDACTED] was clear:

“¿Puede o no el Estado Mexicano llegar a convenios como los [...] acuerdos 2014, con particulares? La respuesta es sí. [...] Pero en forma mucho más concreta, en el caso del Memorando de Entendimiento, [...] tanto el gobierno municipal como el gobierno del Estado de Quintana Roo tienen perfectas atribuciones para establecer, por la vía convencional, un convenio como [...] el que se desprende del Memorando de Entendimiento.”¹⁸³

¹⁷⁸ Rejoinder, ¶ 168.

¹⁷⁹ Tr. (English), Day 2, 293:4-14 ([REDACTED] cross-examination).

¹⁸⁰ Tr. (Spanish), Day 3, 767:4-8 ([REDACTED] presentation) [English, 660:10-13].

¹⁸¹ Tr. (Spanish), Day 4, 924:17-18, 976:5-12 (Mijangos direct and cross-examination) [English, 787:15, 829:22-830:5].

¹⁸² Tr. (Spanish), Day 4, 976:1-12 (Mijangos cross-examination) [English, 829:18-830:5] (emphasis added).

¹⁸³ Tr. (Spanish), Day 3, 760:3-761:14 ([REDACTED] presentation) [English, 654:18-655:22] (emphasis added). See also [REDACTED]-0015.12 (Clause Nine of the Coordination Agreement underpinning the POEL and the committee to amend it explicitly provides that authorities may enter into “*convenios de concertación*” with private parties in connection to the POEL); C-0080-SPA.19 (Article 9 of the POEL echoing this); Tr. (Spanish), Day 3, 761:14-763:1 ([REDACTED] presentation) [English, 656:1-657:4].

73. It is undisputed that the Committee to Amend the POEL was composed of an executive and a technical body.¹⁸⁴ As the Hearing confirmed, the executive body had decision-making power in this Committee, and the Mexican state authorities that entered into the MOU controlled that executive body. ██████████ explained at the Hearing that:

“el órgano ejecutivo del Comité POEL [...] es responsable de la toma de decisiones y de realizar acciones necesarias para la instrumentación de actividades, procedimientos, etcétera. Pero todavía más importante, *el gobierno del Estado tiene la función de ser el coordinador general del Comité y dentro de sus atribuciones en el reglamento interno del POEL está claramente que tiene la posibilidad de dar seguimiento a la consecución de los acuerdos alcanzados y los compromisos establecidos*. Es decir, la idea de mover a ese Comité la tiene claramente establecida el gobierno del Estado. Más aún, *el gobierno municipal en su carácter de secretaría ejecutiva del comité, tiene la obligación de dar seguimiento a lo que se ha acordado*.”¹⁸⁵

74. Mexico’s environmental law experts from the SOLCARGO firm confirmed these facts during cross-examination:

“[Counsel for Claimant]: El Comité se integra por un órgano ejecutivo y uno técnico, ¿verdad que sí?

[SOLCARGO]: Sí.

[Counsel for Claimant]: Y el Estado de Quintana Roo es miembro del órgano ejecutivo. ¿Correcto?

[SOLCARGO]: Correcto.

[Counsel for Claimant]: Y la municipalidad también es miembro del órgano ejecutivo. ¿Correcto?

[SOLCARGO]: Correcto.

[Counsel for Claimant]: Y el último miembro es el gobierno federal a través de la SEMARNAT. ¿Correcto? [...]

[SOLCARGO]: Correcto.

[Counsel for Claimant]: Entonces, el Estado de Quintana Roo, si entiendo bien, y la municipalidad son mayoría en [...] el órgano ejecutivo del Comité. ¿Correcto?

[SOLCARGO]: Pues sí, es correcto.”¹⁸⁶

¹⁸⁴ See ██████████-0016.5, Article 6 (“El órgano ejecutivo es el responsable de la toma de decisiones y de la realización de las acciones necesarias para la instrumentación de las actividades.”).

¹⁸⁵ Tr. (Spanish), Day 3, 768:10-769:4 (██████████ presentation) [English, 661:10-662:2] (emphasis added). See also C-0090-SPA.8-10; Expert Report-██████████-Constitutional Law-Claimant’s Reply-SPA, ¶ 64.

¹⁸⁶ Tr. (Spanish), Day 3, 864:15-865:14 (SOLCARGO cross-examination) [English, 739:14-740:6].

75. SOLCARGO also acknowledged the decision-making powers of the Committee's executive body:

"[Counsel for Claimant]: Es que el órgano ejecutivo, entonces, es el que promueve; por ejemplo, el que convoca las sesiones, etcétera, para que el técnico, el órgano técnico y la participación se dé en el procedimiento de reforma del POEL, por ejemplo.

[SOLCARGO]: Sería una caracterización aceptable."¹⁸⁷

"[Counsel for Claimant]: [...] Estamos de acuerdo entonces que, pues, la coordinación general del Comité a cargo del Estado de Quintana Roo tiene como funciones coordinar reuniones y crear calendario, ¿no? O sea, lo que estábamos hablando hace un momento de llevar a mover, promover el procedimiento de enmienda del POEL. ¿Correcto?

[SOLCARGO]: Es verdad, sí."¹⁸⁸

76. As discussed below, at the behest of its executive body, this Committee to Amend the POEL convened six meetings and even designated an expert who produced a report concluding that El Corchalito and La Adelita were the most suitable areas for quarrying in the whole municipality.¹⁸⁹ Yet, as SOLCARGO admitted during cross-examination, notwithstanding the authorities' uncontested ability — and commitment — to move the POEL amendment process forward, the Committee never met again.¹⁹⁰

77. In short, via multiple permits and authorizations, Mexico repeatedly represented that CALICA would be able to quarry La Adelita. These representations continued over decades and culminated with the 2014 Agreements. In those Agreements, the Mexican instrumentalities authorized to carry out the process for amending the POEL — the same instrumentalities that had repeatedly represented that CALICA could quarry La Adelita — expressly agreed that they would carry out that process so that quarrying was expressly recognized for La Adelita by December 2015. These representations constitute specific assurances because they were "specific commitments directly made to the investor," and were therefore sufficient to cause Legacy Vulcan to reasonably expect CALICA would be able to move forward with quarrying operations in La Adelita in early 2016.¹⁹¹

¹⁸⁷ Tr. (Spanish), Day 3, 871:17-872:1 (SOLCARGO cross-examination) [English, 745:16-21].

¹⁸⁸ Tr. (Spanish), Day 3, 874:4-12 (SOLCARGO cross-examination) [English, 747:21-748:5].

¹⁸⁹ C-0097-SPA.143-145.

¹⁹⁰ Tr. (Spanish), Day 3, 877:22-879:6 (SOLCARGO cross-examination) [English, 750:20-752:3].

¹⁹¹ *El Paso v. The Argentina* (Award), ¶ 376 (CL-0153-ENG). See also *Parkerings-Compagniet AS v. Republic of Lithuania*, ICSID Case No. ARB/05/8, Award, ¶ 331 (11 September 2007) (Lévy (P), Lew, Lalonde) (CL-0107-ENG) (hereinafter, "*Parkerings-Compagniet v. Lithuania* (Award)") ("The expectation is legitimate if the investor received an explicit promise or guaranty from the host-State[.]"); Reply, ¶¶ 147-148.

2. Mexico Repudiated the 2014 Agreements by Abandoning the POEL Amendment Process

78. Despite the repeated and specific assurances made to Legacy Vulcan and CALICA regarding La Adelita, Mexico eventually repudiated the 2014 Agreements. Indeed, Mexico does not dispute that the state and municipal authorities that signed the 2014 Agreements abandoned the process to amend the POEL. Instead, Mexico claims that, because it was purportedly against Mexican law to agree to a predetermined schedule to amend the POEL considering that this process involved a public consultation stage,¹⁹² Mexico was somehow justified in repudiating the 2014 Agreements.¹⁹³ This argument fails.

79. As discussed above, the 2014 Agreements reflect the obligation of relevant Mexican government instrumentalities to take — not *some* actions — but all “the necessary actions” to amend the POEL.¹⁹⁴ This amendment process has four phases under Mexican law: characterization, diagnosis, forecast, and proposal.¹⁹⁵ By January 2016, the Committee to Amend the POEL led by the State of Quintana Roo and the Municipality of Solidaridad had completed the characterization and diagnosis phases of the process to amend the POEL envisioned in the 2014 Agreements.¹⁹⁶

80. The fact that this process included public consultation is immaterial for at least two reasons. *First*, the Mexican authorities in charge of moving the process forward simply abandoned it; they never even discussed scheduling the forecast and proposal phases, let alone a public consultation beyond that already occurring within the Committee’s technical body.¹⁹⁷ Mexico therefore clearly failed to take all the “necessary actions” to amend the POEL. *Second*, and more importantly, at no point did those Mexican authorities, nor the Committee to Amend the POEL, find any technical or other basis to suggest that the process would *not* result in a rezoning of La Adelita that would expressly allow quarrying there. To the contrary, the amendment process up to early 2016 was heading toward such a rezoning, as envisioned in the

¹⁹² Rejoinder, ¶ 255.

¹⁹³ Tr. (Spanish), Day 3, 836:11-841:20 (SOLCARGO presentation) [English, 718:2-722:19].

¹⁹⁴ C-0021-SPA.4, 13; C-0022-SPA.4, 10-11. See ¶¶ 63-69 above. See also Tr. (Spanish), Day 3, 766:1-11, 813:12-14 (██████████ presentation and responding to questions from the Tribunal) [English, 659:12-21, 697:11-13].

¹⁹⁵ Memorial ¶ 101.

¹⁹⁶ Memorial, ¶ 114; C-0095-SPA.7 (“Acuerdo 03/28/01/2016: Se aprueban por mayoría las etapas de caracterización y diagnóstico.”).

¹⁹⁷ Tr. (Spanish), Day 3, 814:15-817:14 (██████████ responding to questions from the Tribunal) [English, 698:11-700:22].

2014 Agreements and consistent with the multiple prior representations that La Adelita was apt for quarrying.

81. It is undisputed that, by mid-2015, the Committee to Amend the POEL had formally decided to update the POEL based in part on CALICA's presentation to the Committee, without the objection of the civil society and other groups conforming the Committee's technical body.¹⁹⁸ In fact, the largest and most litigious environmental NGO in Mexico — the Mexican Center for Environmental Law (*Centro Mexicano de Derecho Ambiental* ("CEMDA")) — stated on the record that "if there is already an authorization and [CALICA] has a vested right [we] do not see major problems with [CALICA's] conducting exploitation activities [in that lot]."¹⁹⁹ Later, the Committee's own expert concluded that La Adelita and El Corchalito were the most suitable lots for quarrying in the entire Municipality of Solidaridad.²⁰⁰ The Committee to Amend the POEL formally approved the expert's Diagnostic Report in January 2016.²⁰¹

82. The undisputed technical conclusion of the Committee's expert is in line with [REDACTED] testimony that La Adelita was apt for quarrying from a legal standpoint.²⁰² Hence, from both a technical and legal standpoint, CALICA had no reason to expect that the POEL would *not* be amended, in line with the solemn commitment of Mexico's instrumentalities.

83. The State of Quintana Roo and the Municipality of Solidaridad unjustifiably and arbitrarily abandoned the POEL amendment process without explanation and without any technical or factual basis for doing so, however.²⁰³ Respondent's experts acknowledged at the Hearing that the State of Quintana Roo and the Municipality of Solidaridad had the authority to continue the amendment process but failed to complete the two final phases of that process.²⁰⁴

84. In this way, Mexico failed to do what it indisputably agreed to do in the 2014 Agreements: *take all necessary actions to amend the POEL* by 5 December 2015 so that

¹⁹⁸ See C-0093-SPA.5 ("Acuerdo 1/29/2015/: Se llevará a cabo la actualización del Programas [sic] de Ordenamiento Ecológico Local del Municipio de Solidaridad, publicado en 2009."); C-0092-SPA.5-6; C-0093-SPA.4-5.

¹⁹⁹ C-0092-SPA.6 (free translation).

²⁰⁰ C-0097-SPA.142-145.

²⁰¹ C-0095-SPA.7.

²⁰² Tr. (Spanish), Day 3, 675:9-12 ([REDACTED] presentation: "el predio La Adelita debe considerarse como un predio susceptible o con vocación de explotación.") [English, 587:5-6]; *id.* at 680:17-682:16, 735:8-22 (explaining that until 2009, La Adelita was classified as apt for mining and that the POEL's reclassification to preclude that was surprising) [English, 591:21-593:11, 634:1-12].

²⁰³ Memorial, Part II.B.3.

²⁰⁴ See Tr. (Spanish), Day 3, 871:2-6, 874:4-12 (SOLCARGO cross-examination, acknowledging that the executive body has decision-making power) [English, 747:21-748:5, 750:20-752:3].

CALICA could start quarrying La Adelita. This repudiation was in direct contradiction of Mexico's specific assurances and commitments, as described in Part III.B.1 above. Such a repudiation is sufficient to find a breach of NAFTA Article 1105, where an investor has acted in reliance on the specific representations provided by the host State.²⁰⁵ This is precisely the case here.

3. CALICA Detrimentially Relied on Mexico's Commitments Enshrined in the 2014 Agreements

85. NAFTA tribunals considering the good faith principle of international customary law have found that a breach of NAFTA Article 1105 occurs "where a Contracting Party's conduct creates reasonable and justifiable expectations on the part of an investor (or investment) to act in reliance on said conduct such that a failure by the NAFTA Party to honour those expectations could cause the investor (or investment) to suffer damages."²⁰⁶ As was highlighted at the Hearing, the record establishes that precisely such a situation occurred here: Legacy Vulcan and CALICA acted in reliance on the 2014 Agreements to make further investments in the Project.²⁰⁷

86. As [REDACTED] confirmed at the Hearing, for example, in reliance on the 2014 Agreements, Legacy Vulcan "invested in a ship loader, draglines, above-water drills, mobile equipment, a supplemental plant to be able to cope with additional volumes of aggregates, among others."²⁰⁸ Vulcan Materials Company's ("VMC") [REDACTED], also confirmed at the Hearing that, in July 2014, VMC's Board of Directors authorized Legacy Vulcan to invest over [REDACTED] in two Panamax vessels specifically designed for CALICA's operations after receiving a report from management "that CALICA recently signed a Memorandum of Understanding with the local, state, and federal governments, *which settles these matters*."²⁰⁹ While a summary of this report indicated what "would" be done pursuant to

²⁰⁵ *Glamis Gold, Ltd. v. United States of America*, UNCITRAL, Award, ¶ 620 (8 June 2009) (Young (P), Caron, Hubbard) (CL-0016-ENG) (hereinafter "*Glamis Gold v. United States* (Award)"). See also *Bilcon v. Canada* (Award), ¶ 572 (CL-0009-ENG); *Grand River v. United States* (Award), ¶ 141 (CL-0018-ENG); *Thunderbird v. Mexico* (Award), ¶ 147 (CL-0004-ENG).

²⁰⁶ *Thunderbird v. Mexico* (Award), ¶ 147 (CL-0004-ENG). See also *Glamis Gold v. United States* (Award), ¶ 620; *Bilcon v. Canada* (Award), ¶ 572 (CL-0009-ENG); *Grand River v. United States* (Award), ¶ 141 (CL-0018-ENG).

²⁰⁷ *E.g.*, Tr. (English), Day 2, 411:16-18 ([REDACTED] responding to tribunal questions) (confirming the authorization of [REDACTED] to buy vessels at the VMC Board of Directors' meeting of July 2014); Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶¶ 53-54, 57; C-0088-ENG.2-3, 10-12. See also Witness Statement-[REDACTED]-Claimant's Memorial-ENG, Table 2 (enumerating CALICA's numerous capital projects authorized between June 2014 and December 2017).

²⁰⁸ Tr. (English), Day 2, 309:16-19 ([REDACTED] redirect). See also *id.* at 310:7-311:60 ([REDACTED] redirect); Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶ 32.

²⁰⁹ Tr. (English), Day 2, 443:7-10 ([REDACTED] redirect) (emphasis added); C-0088-ENG.26.

that MOU,²¹⁰ [REDACTED] understood that there “was an agreement that was executed” between CALICA and Mexico precisely to do those things.²¹¹ [REDACTED] recollection is consistent with the minutes of that Board meeting, which [REDACTED] attended; they reflect that an “[A]greement [had been] [R]eached” with Mexico regarding “[z]oning of all Calica properties for the extraction of limestone,” among other issues.²¹² Of course, this is what the MOU itself reflects.²¹³ Legacy Vulcan’s reliance on the 2014 Agreements to make additional investments in the Project stands un rebutted after the Hearing.

4. Mexico’s Repudiation of the 2014 Agreements Frustrated Legacy Vulcan and CALICA’s Legitimate Expectations and Caused Damages to Legacy Vulcan

87. It is also well established after the Hearing that Mexico ultimately acted contrary to its representations when it repudiated the 2014 Agreements. Because it cannot show otherwise, Mexico has tried to tackle this fact — including at the Hearing — by arguing that the 2014 Agreements were not binding and were not enforceable under Mexican law.²¹⁴ While Mexico is wrong on this point,²¹⁵ a showing that the 2014 Agreements were binding or enforceable under Mexican law is not necessary for Legacy Vulcan to prevail in its claim that Mexico breached NAFTA Article 1105.

88. A breach of NAFTA Article 1105 does not require a binding instrument under domestic law. All that international law requires is conduct contrary to “targeted representations” or a “specific assurance or commitment to the investor so as to induce its expectations.”²¹⁶

²¹⁰ C-0088-ENG.26.

²¹¹ Tr. (English), Day 2, 443:13-15 ([REDACTED] redirect).

²¹² C-0088-ENG.2-3, 10-12; Tr. (English), Day 1, 96:3-97:12 (Claimant’s Opening Statement).

²¹³ C-0021-SPA.11, 13.

²¹⁴ Tr. (Spanish), Day 1, 182:6-11, 184:1-5 (Respondent’s Opening Statement) [English, 150:21-151:4, 152:13-16].

²¹⁵ Memorial, ¶ 88; Reply, ¶ 37-41; Tr. (English), Day 2, 289:13-15 ([REDACTED] cross-examination: “My understanding was always that the 2014 Agreements were binding [...]”); *id.* at 291:1-5 ([REDACTED] cross-examination: “It would have [...] surprise[d] me if, in every and each interaction relative to the 2014 Agreements, officials were to state, once and again, that they were binding. That was of an obvious nature to all of those involved.”); Tr. (Spanish), Day 3, 765:15-17 ([REDACTED] presentation: “del Memorando de Entendimiento se desprenden obligaciones, obligaciones que son perfectamente factibles para el caso del gobierno del Estado y para el caso del municipio.”) [English, 659:9-11].

²¹⁶ *Glamis Gold v. United States* (Award), ¶ 620 (CL-0016-ENG). See also *Bilcon v. Canada* (Award), ¶ 572 (CL-0009-ENG) (“breaches of the international minimum standard might arise in some special circumstances — such as changes in a legal or policy framework that [...] are contrary to earlier specific assurances by state authorities”); *Grand River v. United States* (Award), ¶ 141 (CL-0018-ENG) (“reasonable or legitimate expectations of the kind protected by NAFTA are those that arise through targeted representations or assurances made explicitly or implicitly by a state party”); *Thunderbird v. Mexico* (Award), ¶ 147 (CL-0004-ENG) (explaining that legitimate investor expectations can arise from “a

“[W]here a Contracting Party’s conduct creates reasonable and justifiable expectations on the part of an investor (or investment) to act in reliance on said conduct’ [...] a State may be tied to the objective expectations that it creates in order to induce investment.”²¹⁷ That threshold has clearly been met here because a written agreement with specific commitments like those contained in the 2014 Agreements is the epitome of a representation.

89. As Respondent’s constitutional law expert, Dr. Mijangos, acknowledged at the Hearing, the 2014 Agreements — at a minimum — are highly serious and important “acts of the administration” with a “high ethical value,” and Mexico had every intention of complying with them when they were executed:²¹⁸

[Counsel for Claimant]: [P]odemos inferir que los acuerdos son un acto de administración y que manifiestan declaraciones de intenciones mutuas con un alto valor ético para las partes. ¿Correcto?

[Mijangos]: Entre otros elementos, pero esto que señala es totalmente correcto.

[Counsel for Claimant]: [...] Y si entiendo bien lo que usted quiere decir aquí, en esta parte de su reporte, es que la referencia al valor ético de estos instrumentos es que, si bien los mismos no son jurídicamente vinculantes o exigibles, *las partes de buena fe sí tienen la intención de cumplir con lo acordado en ellos*. ¿Correcto?

[Mijangos]: Yo entiendo que sí, doctor. [...] Yo no creo que a —[...] no se le puede no dar un valor, ¿no? Obviamente que lo tenía y era una guía para ambas partes, sin lugar a dudas.

[Counsel for Claimant] Sí, pero usted sí le asigna una declaración de intención de un alto valor ético. Me imagino que eso significa que cuando la parte dice que va a hacer algo, tiene la intención de hacerlo. ¿Correcto?

[Mijangos] Correcto.”²¹⁹

90. The testimony provided at the Hearing, including by Mexico’s own expert, thus confirmed the legitimacy of Claimant’s expectations of being able to commence quarrying operations in La Adelita in early 2016, and the reasonableness of Claimant’s reliance on the representations given by Mexico in this regard. The 2014 Agreements — binding or not — were an unequivocal representation that Mexico would take “*all necessary actions*” to amend the POEL

Contracting Party’s conduct [that] creates reasonable and justifiable expectations on the part of an investor (or investment) to act in reliance on said conduct”).

²¹⁷ *Glamis Gold v. United States* (Award), ¶ 621 (CL-0016-ENG).

²¹⁸ Tr. (Spanish), Day 4, 942:6-944:6 (Mijangos cross-examination, acknowledging that the 2014 Agreements are acts of the administration with a “high ethical value,” meaning that both parties intended to comply with the commitments therein) [English, 801:3-803:6]. See also *id.* at 965:3-966:18, 971:16-972:17 (Mijangos conceding that the 2014 Agreements contained specific obligations, including an “obligación de [...] ponerse a trabajar para cumplir con ese calendario que las partes habían establecido.”) [English, 820:19-822:1, 826:5-827:3].

²¹⁹ Tr. (Spanish), Day 4, 942:15-944:6 (Mijangos cross-examination) [English, 801:20-803:6] (emphasis added).

by December 2015. Despite these clear representations and specific assurances, Mexico abandoned the amendment process, thereby frustrating Claimant's legitimate expectations. As discussed below and highlighted at the Hearing, this conduct was also arbitrary.

5. Mexico's Treatment of Legacy Vulcan's Investment in La Adelita Was Arbitrary

91. Mexico failed to provide any contemporaneous justification for its abandonment of the process to amend the POEL, but the reason later became clear. As highlighted at the Hearing, Mexico repudiated its commitment to get the POEL amended based on the political and ideological caprice of Mexican officials, bias against CALICA, and preferences for local interests over those of CALICA.²²⁰ As tribunals have repeatedly recognized, this type of conduct is arbitrary because it is not based on facts or law, but rather on domestic politics and discretion.²²¹ Mexico's abandonment of the process to amend the POEL meets this threshold because it was based on "prejudice, preference or bias" and cannot be justified through reason or fact.²²²

92. The arbitrariness of Mexico's conduct was underscored by unrebutted witness testimony. In his first witness statement, ██████████ explained that the Municipality of Solidaridad and the State of Quintana Roo "repudiated their obligation to amend the POEL 2009 for political reasons."²²³ ██████ recounted how Governor Joaquín told ██████ that "it would be unpalatable to the public to allow CALICA to quarry such large area [(i.e., La Adelita)] notwithstanding the environmental authorizations that Mexico's Federal Government and the State of Quintana Roo may have granted CALICA to do so," because local tourism interests had been lobbying his administration to develop the lots that CALICA had quarried.²²⁴

93. Responding to the Tribunal's questions at the Hearing, ██████████ confirmed the specific political motivations behind Mexico's actions. He testified that the local tourism sector — a "cartel" controlling 96% of economic activity in the State of Quintana Roo — wanted to

²²⁰ Memorial, ¶¶ 202-206; Reply, ¶¶ 42-57; Tr. (English), Day 1, 46:67-48:21 (Claimant's Opening Statement).

²²¹ Claimant's Opening Presentation, Slides 77-82 (CD-0001); Memorial, ¶¶ 202-203; Reply, ¶¶ 155-159.

²²² *Joseph C. Lemire v. Ukraine*, ICSID Case No. ARB/06/18, Decision on Jurisdiction and Liability, ¶ 263 (14 January 2010) (Fernández-Armesto (P), Paulsson, Voss) (CL-0072-ENG) (hereinafter "*Lemire v. Ukraine* (Award)") ("Summing up, the underlying notion of arbitrariness is that prejudice, preference or bias is substituted for the rule of law."). See also Reply, ¶¶ 154-159.

²²³ Witness Statement-██████████-Claimant's Memorial-ENG, ¶ 40.

²²⁴ *Id.* ¶¶ 48-49; see also Memorial, ¶ 125; Reply, ¶ 48.

develop CALICA's properties and thus has been exerting political pressure to undermine CALICA's operations and investment.²²⁵ As [REDACTED] explained, he was told:

"by different officials from different levels of Government that they were under pressure from the tourism industry to make available our operations for their--their tourism development. This had been stated to me by, for example, the Undersecretary of Mining, by Governor Joaquín, by the Junior Minister of Ports and Merchant Marine, even by the Mexican Navy."²²⁶

94. Official favor to local economic interests, combined with pressure from powerful local politicians, are the real reasons behind Mexico's repudiation of the 2014 Agreements. As [REDACTED] testified at the Hearing, the "Beristain clan" — relatives and allies of Laura Beristain, former state legislator and Solidaridad mayor — exerted pressure on CALICA to obtain donations or support by expressing public opposition to CALICA's operations and making false and anti-American accusations against CALICA.²²⁷ A Beristain ally even hoisted a chainsaw at CALICA's gates while making expletive-laden references to CALICA's alleged and non-existent supply of aggregates to build former President Trump's "wall of hate" (a reference to Mr. Trump's border wall).²²⁸ On this record, it is clear that Mexico's repudiation of the 2014 Agreements was not based on facts or law, but rather on domestic politics and discretion, and to favor local interests.

95. In light of these facts, it is unsurprising that Mexico dismisses unfavorable evidence as "non-existent."²²⁹ This was plain from the live testimony of José Ángel Durán, the legal secretary to the Municipality of Solidaridad, when questioned about the purported disappearance of the agreement — expressly mentioned in official correspondence — between the Municipality and Quintana Roo to implement the 2014 Agreements.²³⁰ The bizarre parade of "errors" described by Mr. Durán in retrieving the documents requested by Legacy Vulcan came into focus when he confirmed that he worked directly for Mayor Beristain, was appointed by her,

²²⁵ Tr. (English), Day 2, 339:2-342:2 ([REDACTED] responding to questions from the Tribunal).

²²⁶ Tr. (English), Day 2, 341:16-342:2 ([REDACTED] responding to questions from the Tribunal).

²²⁷ Tr. (English), Day 2, 317:5-11 ([REDACTED] redirect, explaining that the Beristain clan "had campaigned in public against CALICA's operations, and they were louder and louder on that respect. [...] [I]nformation I got from several sources in the State repeatedly told me that those were the political ways in order to obtain financing for their campaigning"). See also *id.* at 338:7-9 (referring to "a political group in the State that exerts pressure to obtain undue benefits"); Tr. (English), Day 1, 106:4-9 (Claimant's Opening Statement: "In her floor speech, Ms. Beristain made the false accusation that 'CALICA is one of the main suppliers of materials for the works promoted by Donald Trump' and that 'the ground of Quintana Roo was being allowed to become part of President Trump's wall of hate.'").

²²⁸ Memorial, ¶ 136, Picture 16; C-0108-SPA.

²²⁹ Rejoinder, ¶ 186 (citing Witness Statement of Alfredo Miguel Paz Cetina ¶ 8: "*no existe ningún 'Acuerdo' en el sentido señalado por Legacy*" (RW-010) (emphasis in the original)).

²³⁰ Tr. (Spanish), Day 2, 534:15-544:15 (Durán cross-examination) [English, 466:9-474:19].

and had worked for her sister, Senator Luz María Beristain, who had proposed the same anti-CALICA Point of Agreement in the Mexican Senate that Mayor Beristain introduced in the legislature of the State of Quintana Roo in April 2017.²³¹

96. In sum, the factual record here and highlighted at the Hearing establishes that Mexico arbitrarily repudiated the 2014 Agreements, effectively precluding quarrying operations in La Adelita, in violation of NAFTA Article 1105, based on the political and ideological caprice of public officials, their bias against CALICA, and their desire to favor local economic interests at CALICA's expense.

C. PROFEPA'S PROCEEDING AND RESULTING SHUTDOWN OF OPERATIONS IN EL CORCHALITO WERE ARBITRARY AND DENIED CALICA BASIC DUE PROCESS IN VIOLATION OF NAFTA ARTICLES 1105 AND 1103

97. As described above, the obligation to accord fair and equitable treatment requires Mexico to afford investors of other NAFTA Parties due process and not to act arbitrarily.²³² Under this standard, investors such as Legacy Vulcan have the right to be heard, which includes the ability to defend themselves against government allegations of wrongdoing and to present a position for consideration — including relevant evidence — by governmental bodies in their decision-making relating to measures affecting their investments.²³³

98. The testimony provided at the Hearing only confirmed what Claimant had shown in the written stage of this arbitration: PROFEPA's administrative proceeding and resulting shutdown of El Corchalito was plagued with irregularities that deprived CALICA of the most basic due process and was arbitrary, in violation of NAFTA Article 1105. The testimony of Mexico's fact and expert witnesses at the Hearing showed that PROFEPA's measures against CALICA were capricious and predetermined — aimed at adversely impacting CALICA's quarrying operations in the context of increasing anti-CALICA sentiment regardless of the facts and the law.

²³¹ Tr. (Spanish), Day 2, 524:1-4, 550:13-552:1 (Durán cross-examination) [English, 457:15-17, 479:20-481:3].

²³² See Memorial, ¶¶ 207-215; Reply, ¶¶ 160-178.

²³³ See, e.g., *Técnicas Medioambientales Tecmed, S.A. v. United Mexican States*, ICSID Case No. ARB(AF)/00/2, Award, ¶ 162 (29 May 2003) (Grigera Naón (P), Fernández-Rosas, Bernal Vereza) (CL-0052-ENG) (hereinafter, "*Tecmed v. Mexico* (Award)") (finding that Mexico failed to provide due process to an investor as a result of the authorities' refusal to allow the investor to present its position on the renewal of a permit).

1. PROFEPA Arbitrarily Rejected Key Expert Evidence Offered by CALICA

99. Mexico prevented CALICA from presenting expert evidence to show that PROFEPA's area measurements were flawed on the pretext that it was unrelated to the substance of PROFEPA's inspection, even though PROFEPA had previously accepted that same type of evidence and it was clearly meant to address PROFEPA's measurements. Mexico's rejection of CALICA's expert evidence was arbitrary and contrary to the requirements of NAFTA Article 1105, and its attempt to justify this at the Hearing betrayed a lack of seriousness and good faith that "unreasonably departs from the principles of justice recognized by the principal legal systems of the world."²³⁴

100. The underlying facts are well established after the Hearing. In May 2017, a month after the Quintana Roo legislature passed Ms. Beristain's anti-CALICA Point of Agreement,²³⁵ PROFEPA conducted a surprise inspection of El Corchalito, ostensibly to verify CALICA's compliance with the Corchalito/Adelita Federal Environmental Authorization.²³⁶ PROFEPA officials tried to measure the area quarried under the water table in El Corchalito and claimed that CALICA had exceeded the total 140-hectare area authorized for underwater quarrying by 0.25 hectares.²³⁷ CALICA proffered independent expert evidence showing that PROFEPA's measurements and spatial representations thereof were wrong.²³⁸ Based on this evidence — which, as Respondent's experts acknowledged at the Hearing,²³⁹ PROFEPA had to admit by law unless it had "no relation to the substance of the matter,"²⁴⁰ and which was confirmed in relevant part by another PROFEPA official who was formally designated as a sort of counter-expert²⁴¹ —

²³⁴ *Mondev Int'l Ltd. v. United States of America*, ICSID Case No. ARB(AF)/99/2, Award, n.57, (11 October 2002) (Stephen (P), Crawford, Schwebel) (CL-0011-ENG).

²³⁵ C-0102-SPA.19-46; Claimant's Opening Presentation, Slides 79-80 (CD-0001).

²³⁶ C-0114-SPA.

²³⁷ C-0115-SPA.47. *See also* Memorial, ¶ 139; Counter-Memorial, ¶ 44.

²³⁸ C-0116-SPA.32.

²³⁹ Tr. (Spanish), Day 3, 885:3-887:3 (SOLCARGO cross-examination) [English, 757:3-758:18].

²⁴⁰ C-0110-SPA.14, Article 50. *See also*, Expert Report-[REDACTED]-Environmental Law-Claimant's Memorial-SPA, ¶¶ 213-214 (noting that the guiding principle for administrative authorities is the admission of evidence, and only in exceptional circumstances shall evidence be refused); Expert Report-[REDACTED]-Constitutional Law-Claimant's Reply-SPA, ¶ 108 (Article 68 of the Federal Law of Administrative Procedure grants "the visited" the right to "make observations" and "offer evidence" in relation to the facts gathered during an inspection); *id.* ¶¶ 173-178 (PROFEPA may not refuse to consider evidence that is clearly related to the proceeding).

²⁴¹ C-0119-SPA.6. As Claimant's experts have explained, the designation of this PROFEPA expert was highly irregular and at odds with CALICA's due process rights. *See, e.g.*, Expert Report-[REDACTED]-Constitutional Law-Claimant's Reply-SPA, ¶¶ 119-126; Tr. (Spanish), Day 3, 772:15-773:16 ([REDACTED]).

PROFEPA ordered a “supplemental” inspection to fix these errors and again measure the underwater extraction area.²⁴²

101. In PROFEPA’s November 2017 “supplemental” inspection, its inspectors determined that the extraction area in El Corchalito totaled 142.15 hectares, an alleged excess of 2.15 hectares, just over 1% of the 140-hectare total implied in the Corchalito/Adelita Federal Environmental Authorization.²⁴³ As it had done the first time, CALICA offered expert evidence to challenge the accuracy of PROFEPA’s second measurements.²⁴⁴ In this instance, however, PROFEPA refused to admit CALICA’s evidence.²⁴⁵ This factual backdrop is uncontested.²⁴⁶

102. PROFEPA claimed to have rejected CALICA’s proffered evidence because it was not “directly related” to PROFEPA’s inspection.²⁴⁷ At the Hearing, Ms. Rodríguez asserted that: “se consideró que la prueba no era idónea [...] dado que la diligencia a la Procuraduría había sido un levantamiento georreferenciado y no un levantamiento topográfico.”²⁴⁸

103. As the Hearing illustrated, PROFEPA’s rejection of evidence was unreasonable and pretextual for two main reasons. *First*, PROFEPA could not lawfully refuse to admit CALICA’s expert evidence on the ground that it was not “*directly* related” to the subject matter at issue. As Mexico’s legal experts grudgingly acknowledged at the Hearing, Mexican law required PROFEPA to admit evidence *related* to the merits of the matter — directly or otherwise.²⁴⁹ *Second*, and more importantly, there is no meaningful distinction between a topographic and georeferenced survey

presentation) [English, 665:2-20]; Expert Report-[REDACTED]-Environmental-Claimant’s Memorial-SPA, ¶¶ 144-145.

²⁴² C-0121-SPA.3. As Claimant’s experts have explained, this “supplemental” inspection was also highly irregular and at odds with CALICA’s due process rights. *See, e.g.*, Expert Report-[REDACTED]-Environmental-Claimant’s Memorial-SPA, ¶ 149.

²⁴³ C-0118-SPA.10, 16; C-0117-SPA.297-300.

²⁴⁴ C-0146-SPA.32-42 (outlining inadequacies in the inspectors’ measurement of the relevant area and offering expert evidence by Tomás de la Cruz).

²⁴⁵ C-0117-SPA.191.

²⁴⁶ *E.g.*, Tr. (Spanish), Day 3, 892:17-19 (SOLCARGO cross-examination, describing the second inspection as one where “PROFEPA, digamos, subsanó esas -- las inconsistencias de esas mediciones”) [English, 763:6-9].

²⁴⁷ C-0117-SPA.191 (“considera procedente desechar la prueba pericial ofrecida por el promovente, al no estar directamente relacionada con las actuaciones realizadas”).

²⁴⁸ Tr. (Spanish), Day 3, 626:2-5 (Rodríguez cross-examination) [English, 545:16-19].

²⁴⁹ Tr. (Spanish), Day 3, 885:3-887:3 (SOLCARGO cross-examination) [English, 757:3-758:18]. *See also* C-0110-SPA.14 (Article 50 of Mexico’s Administrative Procedure Law: “El órgano o autoridad de la Administración Pública Federal [...] [s]ólo podrá rechazar las pruebas propuestas por los interesados cuando no fuesen ofrecidas conforme a derecho, *no tengan relación con el fondo del asunto*, sean improcedentes e innecesarias o contrarias a la moral y al derecho.” (emphasis added)).

in this context.²⁵⁰ As Claimant's expert on civil engineering, [REDACTED], has confirmed and Mexico has not refuted, a georeferenced survey is merely one where a GPS device is used:

"[Counsel for Claimant]: ¿Existe alguna diferencia material o importante entre estos dos tipos de levantamiento [topográficos y georreferenciados]?"

[REDACTED]: [...] [S]i el levantamiento topográfico tiene coordenadas de un sistema establecido de coordenadas, es la misma cosa. [...]

[Counsel for Claimant]: [...] [E]n sus 35 años de experiencia, cuando se habla en la industria de levantamiento topográfico, ¿eso implica o no un -- una georreferenciación?

[REDACTED]: Sí, ya es práctica común."²⁵¹

104. This is why CALICA offered expert evidence in civil engineering referring to the topographic surveys conducted by PROFEPA. CALICA did so providing specific reference to the pages of the PROFEPA inspection reports reflecting its inspectors' area measurements.²⁵² PROFEPA had admitted similar evidence after its May 2017 inspection, despite having conducted only a georeferenced survey.²⁵³ Notably, PROFEPA commissioned an expert in "*Topography*" to take georeferenced measurements of the quarried area under the water table in El Corchalito as part of the criminal investigation against CALICA.²⁵⁴ It was clear that CALICA's proffered evidence was related to PROFEPA's inspection and measurements, and PROFEPA was simply splitting hairs to prevent CALICA from revealing the flaws in its inspectors' November 2017 measurements.

105. CALICA's proffered evidence would have shown that PROFEPA's measurements were, as [REDACTED] confirmed, inaccurate and "sloppy."²⁵⁵ PROFEPA's inspectors did not accurately reflect the vertices of the lake that had formed in El Corchalito as a result of underwater quarrying.²⁵⁶ Instead, they carried a GPS device in a backpack around the roads surrounding that

²⁵⁰ Expert Opinion-[REDACTED]-Civil Engineering-Claimant's Reply-SPA, ¶¶ 57, 61.

²⁵¹ Tr. (Spanish), Day 4, 1032:21-1034:1 ([REDACTED] redirect) [English, 879:22-880:20]. See also Expert Report-[REDACTED]-Civil Engineering-Claimant's Reply, ¶¶ 57, 61.

²⁵² C-0116-SPA.32.

²⁵³ C-0117-SPA.35.

²⁵⁴ C-0167-SPA.2 (emphasis added). See also *id.* at 3 ("fui designado por la [PROFEPA] como Perito Oficial en Materia de Topografía[.]"); *id.* at 4 ("la [...] PROFEPA [...] requirió a la SEMAR un Perito en materia de Arquitectura, Ingeniería y/o Topografía[.]") (emphasis added).

²⁵⁵ Expert Report-[REDACTED]-Civil Engineering-Claimant's Reply, ¶¶ 63-66 (conclusions of analysis carried out in § III.A); Tr. (English), Day 4, 886:14-20 ([REDACTED] responding to questions from the Tribunal).

²⁵⁶ Tr. (Spanish), Day 4, 1013:6-22, 1018:14-1019:16 ([REDACTED] presentation) [English, 862:3-15, 866:16-867:15].

lake.²⁵⁷ The dimension of the lake and distances involved exponentially multiplied these errors and rendered the results defective and unreliable.²⁵⁸ As ██████ explained at the Hearing: “ese polígono irregular del espejo tiene 11.700 metros de longitud. Y si uno camina 10 centímetros fuera, pues, equivale a 1.000 metros cuadrados de área. Y si camina un metro, equivale a una hectárea.”²⁵⁹

106. PROFEPA deliberately turned a blind eye to these errors by refusing to consider the independent expert evidence CALICA proffered after the November 2017 inspection.

107. Relying on PROFEPA’s flawed area measurements, in January 2018, only days after Mexican officials threatened to shut down CALICA’s operations,²⁶⁰ PROFEPA issued the *Acuerdo de Emplazamiento* (the “Shutdown Order”) halting quarrying operations in El Corchalito.²⁶¹ Soon thereafter, CALICA again offered expert evidence to show that PROFEPA’s area measurements were flawed. This time, CALICA made extra clear that this evidence would address the area “measurements” underpinning PROFEPA’s Shutdown Order.²⁶² Despite there being no ambiguity that this evidence was related to the relevant subject matter and merits (PROFEPA’s area measurements), PROFEPA let eight months lapse (with CALICA’s operations in El Corchalito shut down) before it — again — refused to admit CALICA’s expert evidence under the pretext that it was not “directly related” to the subject matter.²⁶³

108. Ms. Rodríguez’s testimony at the Hearing confirmed the arbitrariness of PROFEPA’s reiterated refusal to admit CALICA’s proffered expert evidence. She acknowledged that PROFEPA’s inspectors carried out “measurements” during PROFEPA’s second inspection,²⁶⁴

²⁵⁷ Tr. (Spanish), Day 4, 1014:13-1015:17 (█████ presentation, concluding that “está tomando el camino y no está tomando el lago”) [English, 863:6-864:8].

²⁵⁸ Tr. (Spanish), Day 4, 1015:18-1016:12 (█████ presentation) [English, 864:9-21].

²⁵⁹ Tr. (Spanish), Day 4, 1016:4-10 (█████ presentation) [English, 864:16-21].

²⁶⁰ Witness Statement-█████-Claimant’s Memorial-ENG, ¶¶ 57-58; Memorial, ¶¶ 134-136.

²⁶¹ C-0117-SPA.300.

²⁶² C-0124-SPA.22 (offering a “La PERICIAL EN MATERIA DE INGENIERÍA CIVIL, con referencia únicamente al levantamiento topográfico plasmado y/o *mediciones y las representaciones espaciales* que obran en las hojas [...] 20 a 47 del Acta de Inspección [...]”) (emphasis added); see also Memorial, ¶ 153; Reply ¶ 72.

²⁶³ Reply, ¶ 72; C-0125-SPA.19 (“esta Dirección General considera procedente desechar la prueba pericial en materia de Ingeniería Civil ofrecida por el promovente, al no estar directamente relacionada con las actuaciones realizadas por esta autoridad, al no haberse realizado en ningún momento un ‘levantamiento topográfico’ en el predio materia de la visita de inspección en cita.”).

²⁶⁴ Tr. (Spanish), Day 3, 623:22-624:13 (“[Counsel for Claimant]: [E]n esa diligencia de noviembre, esos funcionarios de la PROFEPA realizaron mediciones de la superficie explotada. ¿Correcto? // [Rodríguez]: Sí, realizaron la determinación de los puntos y este -- lo que resultó la medición de la superficie. // [Counsel for Claimant]: Y con base en esa medición, pues se impusieron medidas y se emitió un acuerdo de

and that CALICA's third offer of expert evidence related to those measurements specifically.²⁶⁵ Yet she offered the flimsiest of justifications for PROFEPA's refusal to admit it:

"La oferta de Calica es únicamente, únicamente, al levantamiento topográfico plasmado y/o mediciones de representaciones especiales. Cuando dice 'únicamente al levantamiento topográfico', pues ya está catalogando que ofrece únicamente al levantamiento topográfico."²⁶⁶

109. While Ms. Rodríguez also tried to defend PROFEPA's refusal to admit CALICA's evidence with the *post-hoc* rationale — not reflected in contemporaneous documents — that this evidence was redundant because it addressed questions answered before the November 2017 inspection, she had no choice but to acknowledge that those questions referred to *new* measurements and spatial representations derived from PROFEPA's "supplemental" inspection:

"[Counsel for Claimant]: La prueba que se admitió después de la inspección de mayo del 2017 se pronunciaba sobre el acta de inspección de mayo del 2017. ¿Correcto? ¿En eso estamos de acuerdo?"

[Rodríguez]: Se refería a la diligencia de mayo de 2017, al levantamiento georreferenciado de mayo de 2017.

[Counsel for Claimant]: Y esta [la tercera pericial ofrecida por CALICA luego del Acuerdo de Emplazamiento] se refería a otra acta, un acta distinta, con representaciones espaciales distintas derivadas de la inspección, o de la visita, de noviembre de 2017. ¿Correcto?

[Rodríguez]: Esta se refiere a la diligencia de noviembre de 2017."²⁶⁷

110. And, in any event, Mexico's environmental law experts, SOLCARGO, confirmed that CALICA's proffered evidence was directly related to PROFEPA's inspection and measurements:

[Counsel for Claimant]: [E]l cuestionario [ofrecido por CALICA después del Acuerdo de Emplazamiento] se relaciona a una visita de inspección específica y también hace referencia a unas hojas específicas del acta de inspección. ¿Correcto?

[SOLCARGO]: Correcto.

[Counsel for Claimant]: O sea que el cuestionario es un cuestionario que se reflejaba sobre temas en un acta de inspección y hacía referencia a una pericial en

emplazamiento, ¿correcto? ¿Estamos de acuerdo con eso? // [Rodríguez]: Posteriormente se emitió el acuerdo de emplazamiento, tomando en cuenta por supuesto la diligencia de noviembre de 2017.") [English, 541:11-541:19]; see also Second Witness Statement of Silvia Rodríguez Rosas, ¶ 81 (RW-007) ("La PROFEPA [...] llevo a cabo una medición.").

²⁶⁵ Tr. (Spanish), Day 3, 627:10-14 ("[Counsel for Claimant]: En este ofrecimiento de prueba, subprocuradora, el -- Calica hizo referencia no solamente a un levantamiento topográfico sino que también a mediciones. ¿Ve eso? // [Rodríguez]: Sí, se ve en la pantalla.") [English, 546:18-21].

²⁶⁶ Tr. (Spanish), Day 3, 629:11-17 (Rodríguez cross-examination) [English, 548:7-11].

²⁶⁷ Tr. (Spanish), Day 3, 633:17-634:7 (Rodríguez cross-examination) [English, 552:1-10].

materia de ingeniería civil sobre un levantamiento topográfico plasmado y/o mediciones en esa acta de inspección. ¿Correcto?

[SOLCARGO]: Correcto.”²⁶⁸

111. These acknowledgments alone show that there was no valid reason for PROFEPA’s refusal to accept CALICA’s evidence and that PROFEPA’s purported rationale was pretextual.

112. PROFEPA’s willful disregard of evidence showing that CALICA had *not* exceeded the 140-hectare limit became a pattern during the administrative proceeding. PROFEPA gave no weight to — or dismissed — that evidence while granting outsized importance to its inspectors’ “sloppy” measurements.²⁶⁹

113. PROFEPA has continued this pattern to this day by doggedly refusing to accept mounting evidence within the criminal investigation against CALICA — commenced at PROFEPA’s request — that its 2017 area measurements were off.²⁷⁰ In December 2020, official experts designated by Mexico’s Attorney General’s Office visited El Corchalito and concluded that CALICA quarried *less than* [REDACTED] hectares ([REDACTED]) under the water table and that there was no environmental damage.²⁷¹ This expert determination was consistent with on-site measurements taken in January 2020 by an expert civil engineer commissioned by CALICA, who concluded that the area of underwater quarrying in El Corchalito totaled [REDACTED] hectares.²⁷²

114. Dissatisfied with these results, PROFEPA pressed the Attorney General’s Office to commission the Mexican Navy to take new area measurements in El Corchalito, which were taken during a forcible entry on the eve of the Hearing.²⁷³ According to the Navy’s measurements, taken from points agreed to by PROFEPA onsite, CALICA quarried *less than* [REDACTED] hectares ([REDACTED] has.) under the water table.²⁷⁴ No wonder why Respondent mightily resisted admitting this fact into the record of this arbitration.

115. And no wonder why Respondent’s counsel felt compelled to seek the “support” of the Navy’s expert to “clarify” his report after it was incorporated into the record of this

²⁶⁸ Tr. (Spanish), Day 3, 890:5-17 (SOLCARGO cross-examination) [English, 761:8-18].

²⁶⁹ Tr. (English), Day 1, 54:19-55:14 (Claimant’s Opening Statement); Reply, ¶¶ 79-80; Tr. (English), Day 4, 886:14-20 ([REDACTED] responding to questions from the Tribunal).

²⁷⁰ Tr. (English), Day 1, 56:3-16 (Claimant’s Opening Statement); *see also* Memorial, ¶ 158; Reply, ¶ 88; Witness Statement-[REDACTED]-Claimant’s Reply-SPA, ¶¶ 4, 6.

²⁷¹ Witness Statement-[REDACTED]-Claimant’s Reply-SPA, ¶¶ 6-7; C-0167-SPA.2-3 (Antecedente (d)).

²⁷² *See* C-0167-SPA.4, 47 (Antecedente (c)); Expert Report-[REDACTED]-Civil Engineering-Claimant’s Reply, ¶ 20 (discussing this expert report); C-0148-SPA.3 (de la Cruz’s report).

²⁷³ Tr. (English), Day 1, 23:16-24:5, 56:9-16 (Claimant’s Opening Statements); C-0167-SPA.4, 47.

²⁷⁴ C-0167-SPA.42, 85 (Seventh Conclusion); *id.* at 7, 50 (III.b and III.d).

arbitration.²⁷⁵ In its communication to the Tribunal of 8 November 2021, Mexico submitted a letter from PROFEPA's expert.²⁷⁶ While the letter confirms that the Navy's on-site area measurements of July 2021 were more precise than those conducted before, the letter goes out of its way to downplay those measurements by highlighting that they were not "totally exact" and suggesting that the area is variable based on rains and other factors.²⁷⁷ But this point *supports* an opinion of Claimant's environmental law expert: that PROFEPA's shutdown was irregular because it was based solely on the total area of a body of water influenced by external factors, rather than other parameters specified in the Corchalito/Adelita Federal Environmental Authorization.²⁷⁸

116. While downplaying the naval expert's *own* precise measurements, the expert's "support" letter to Respondent's counsel highlights an "adjustment" he made to CALICA's on-site area measurements to increase the [REDACTED] hectares derived from those measurements to [REDACTED] hectares (a purported excess extraction of [REDACTED]%).²⁷⁹ According to the expert's letter, this post-hoc "adjustment" was made by applying the georeferenced coordinates of El Corchalito included in CALICA's 2000 Environmental Impact Statement.²⁸⁰ But the Navy expert's *own report* shows that the boundaries of El Corchalito are physically marked on site,²⁸¹ and those are the proper limits from which to determine the area of that lot. All of this underscores PROFEPA's penchant for turning a blind eye to the facts in its anti-CALICA crusade.

117. In sum, Mexico's rejection of CALICA's expert evidence was unjustified and arbitrary in violation of NAFTA Article 1105. "[P]rocedural propriety and due process are well-established principles under the standard of fair and equitable treatment,"²⁸² and the FET

²⁷⁵ R-0126-SPA.2-3 (reflecting that Respondent's lawyers requested the expert's "support" ("*apoyo*") to "clarify" ("*aclarar*") his report). Respondent claims that "Claimant did not give access" to a document dated 14 October 2021 within the record of the criminal investigation, Respondent's Letter to the Tribunal, p. 4 (8 November 2021), but that is inaccurate. As Claimant explained to Respondent, Claimant lacked a copy of that document at the time.

²⁷⁶ R-0126-SPA. Unlike the letter in which the Navy's expert submitted his September 2021 report to the Attorney General's Office, this new letter – created for this arbitration – did not bear the Navy's letterhead. *Id.* at 2; see C-167-SPA.3.

²⁷⁷ R-0126-SPA.6.

²⁷⁸ Expert Report-[REDACTED]-Environmental Law-Claimant's Memorial-SPA, ¶ 186; Expert Report-[REDACTED]-Environmental Law-Claimant's Reply-Second Report-SPA, ¶ 46.

²⁷⁹ Annex 2 to Respondent's Letter to the Tribunal, p. 6 (8 November 2021).

²⁸⁰ *Id.*

²⁸¹ See C-167-SPA.15-16 (showing pictures of the *mojoneras* marking the vertices of El Corchalito).

²⁸² *Frontier Petroleum Services Ltd. v. Czech Republic*, UNCITRAL, Award, ¶ 328 (12 November 2010) (Williams (P), Álvarez, Schreuer) (CL-0056-ENG).

standard is violated “when procedural propriety and due process are denied.”²⁸³ State conduct is contrary to due process, and thus arbitrary, where an investor is denied the opportunity to be heard in administrative proceedings, or where a State fails to provide adequate reasons for its decisions.²⁸⁴ Through PROFEPA’s pretextual refusal to admit CALICA’s proffered expert evidence at the time it shut down El Corchalito and willful disregard of the facts thereafter, Mexico denied CALICA due process and acted arbitrarily, thus violating NAFTA Article 1105.

2. PROFEPA Arbitrarily Sanctioned CALICA Based on Shifting Rationales

118. As was highlighted at the Hearing, PROFEPA arbitrarily sanctioned CALICA in its October 2020 Resolution for purported violations that had not been identified as such in the Shutdown Order, thus denying CALICA an effective opportunity to defend itself against those new alleged violations in the administrative proceeding. Because the FET standard requires an administrative authority to “give each party a fair opportunity to present its case and to marshal appropriate evidence, and then must assess the submissions and the evidence in a reasoned, even-handed, and unbiased decision,”²⁸⁵ Mexico’s sanctioning of CALICA for purported violations sprung up at the end, in its final decision, constituted a violation of Mexico’s NAFTA obligations.

119. As Claimant’s legal experts confirmed, the Shutdown Order is akin to a charging document, in which PROFEPA was supposed to identify the specific violations at issue in the administrative proceeding.²⁸⁶ In its Shutdown Order, PROFEPA identified a number of specific presumed violations of the Corchalito/Adelita Federal Environmental Authorization, chief among them the alleged breach of the total area of underwater quarrying.²⁸⁷ More than two years later, in its October 2020 Resolution resolving the administrative proceeding, PROFEPA sanctioned CALICA — not just for purportedly exceeding that total area — but also for failing to quarry El Corchalito *and* La Adelita simultaneously, and for allegedly quarrying El Corchalito at a faster

²⁸³ *Jan de Nul N.V. and Dredging International N.V. v. Arab Republic of Egypt*, ICSID Case No. ARB/04/13, Award, ¶ 187 (6 November 2008) (Kaufmann-Kohler (P), Mayer, Stern) (CL-0140-ENG).

²⁸⁴ *Tecmed v. Mexico* (Award), ¶ 162 (CL-0052-ENG) (finding Mexico failed to provide due process to an investor as a result of the authorities’ refusal to allow the investor to present its position on the renewal of a permit); *TECO Guatemala Holdings, LLC v. Republic of Guatemala*, ICSID Case No. ARB/10/23, Award, ¶ 587 (19 December 2013) (Mourre (P), von Wobeser, Park) (CL-0058-ENG) (“A lack of reasons may be relevant to assess whether a given decision was arbitrary and whether there was lack of due process in administrative proceedings.”). *See also* Reply, ¶¶ 160-178.

²⁸⁵ *Glencore Int’l A.G. and C.I. Prodeco S.A. v. Republic of Colombia*, ICSID Case No. ARB/16/6, Award, ¶ 1318 (27 August 2019) (Fernández-Armesto (P), Garibaldi, Thomas) (CL-0057-ENG) (hereinafter, “*Glencore v. Colombia* (Award)”). *See also id.* ¶¶ 1446, 1449, 1450.

²⁸⁶ *E.g.*, Tr. (Spanish), Day 3, 668:5-10 (██████████ presentation) [English, 580:14-18].

²⁸⁷ C-0117-SPA.291-294.

yearly pace than authorized.²⁸⁸ Yet the Shutdown Order did not identify these additional purported violations.²⁸⁹

120. Mexico's attempt to justify these facts at the Hearing further illustrates the arbitrariness of PROFEPA's measures. Ms. Rodríguez asserted at the Hearing that the Shutdown Order referred broadly to presumed violations of the First Term of the Corchalito/Adelita Federal Environmental Authorization.²⁹⁰ But that is not what the Shutdown Order says. That document did not state that CALICA had generally violated the First Term of the Corchalito/Adelita Federal Environmental Authorization, without specifying particular obligations that were presumptively breached within that lengthy Term.²⁹¹ Rather, the *Acuerdo Cuarto* of the Shutdown Order expressly identified specific provisions of the Authorization's First Term that CALICA was presumed to have violated in light of PROFEPA's flawed inspections.²⁹² Ms. Rodríguez's position — as expressed at the Hearing — would render the *Acuerdo Cuarto* superfluous and open the door for PROFEPA to sanction CALICA for *any* perceived violation of the First Term of the Corchalito/Adelita Federal Environmental Authorization regardless of the specific charges listed in the Shutdown Order, leaving CALICA defenseless and forcing it to guess what exactly it had purportedly violated.

121. Ms. Rodríguez's position is incompatible with fundamental principles of due process. As [REDACTED] explained at the Hearing, “la acusación o los cargos tienen que ser claros. Si los cargos no son claros y yo tengo que interpretar 40 documentos para determinar los cargos, la autoridad me está dejando en indefensión.”²⁹³ As [REDACTED] testified, “[REDACTED], this [REDACTED], this

²⁸⁸ R-0005-SPA.54, 115, 163.

²⁸⁹ C-0117-SPA.291-294.

²⁹⁰ Tr. (Spanish), Day 2, 579:16-582:7 (“[Counsel for Claimant]: ¿dónde dice en el [...] acuerdo de emplazamiento que [...] había una obligación de operar y mantener el proyecto en dos predios? No lo dice, ¿verdad que no? // [Rodríguez]: Sí lo dice [...] Es un probable incumplimiento del término primero [de la Autorización de Impacto Ambiental] [...]. Si se leyera el término primero, se verían las obligaciones de la empresa[...] [...] Por eso se dice ahí: ‘probable incumplimiento del término primero.’”) [English, 507:14-509:20].

²⁹¹ Term One (Término Primero) of the Corchalito/Adelita Federal Environmental Authorization is a five-page description of CALICA's quarrying activities that encompasses a broad variety of activities. C-0017-SPA.31-35.

²⁹² C-0117-SPA.291-294 (listing the specific presumed violations charged). *See also* Tr. (English), Day 1, 108:21-109:19 (Claimant's Opening Statement).

²⁹³ Tr. (Spanish), Day 3, 776:1-10 ([REDACTED] presentation) [English, 667:17-22].

violation of the right to a defense and due process is one of the most serious and egregious examples of arbitrary conduct by this authority that I have witnessed.”²⁹⁴

122. PROFEPA’s position on this issue (as articulated by Ms. Rodríguez at the Hearing) is so untenable that Mexico’s own experts were reluctant to endorse it. During cross-examination, Mexico’s environmental expert, Carlos Rábago, *conceded* that PROFEPA pursued CALICA for having allegedly exceeded the *total* quarrying area under the water table, *not* for having allegedly exceeded the yearly extraction rate indicated in the Corchalito/Adelita Federal Environmental Authorization:

“resulta favorable para la empresa Calica el que *solamente se haya resuelto sobre la autorización total*, es decir, sobre las 140 hectáreas porque desde mi punto de vista el daño comenzaría desde que el *ritmo* de explotación ha sido más acelerado.”²⁹⁵

123. After [REDACTED] dedicated several pages of [REDACTED] second report to this issue,²⁹⁶ SOLCARGO wholly *ignored* it in their second report.²⁹⁷ At the Hearing, SOLCARGO admitted that they had not defended PROFEPA on this issue, implausibly alleging that they deemed it irrelevant to do so.²⁹⁸ Yet, having effectively conceded the issue in the written stage of the proceeding, SOLCARGO flip flopped and suddenly asserted at the Hearing — without explanation and after having heard the cross-examination of Ms. Rodríguez — that the new alleged violations identified in the Resolution somehow “underlie[]” the specific presumed violations listed in the Shutdown Order.²⁹⁹ The actual text of the *Acuerdo Cuarto* of the Shutdown Order belies this assertion, as explained above. SOLCARGO’s last-ditch and half-hearted effort to defend PROFEPA’s conduct says more about SOLCARGO’s credibility and their willingness to say

²⁹⁴ Expert Report-[REDACTED]-Environmental Law-Claimant’s Reply-Second Report-SPA, ¶ 103. See also Tr. (Spanish), Day 3, 669:11-20 ([REDACTED] presentation: “me gustaría hablar de lo que estimo *la más grave* de las irregularidades cometidas en el procedimiento. La resolución dictada por PROFEPA se motiva con base en dos circunstancias que no fueron señaladas por la autoridad como posibles incumplimientos.”) [English, 581:18-582:1].

²⁹⁵ Tr. (Spanish), Day 4, 1122:18-1123:3 (Rábago responding to questions from the Tribunal) [English, 958:6-11].

²⁹⁶ Expert Report-[REDACTED]-Environmental Law-Claimant’s Reply-Second Report-SPA, ¶¶ 97-105.

²⁹⁷ See generally SOLCARGO Second Expert Report (RE-003).

²⁹⁸ Tr. (Spanish), Day 3, 896:19-22 (SOLCARGO cross-examination: “No eran los puntos que consideramos más relevantes y, digamos, directamente relacionados con los temas más disputables de esta controversia.”) [English, 766:5-7].

²⁹⁹ Tr. (Spanish), Day 3, 848:19-20 (SOLCARGO presentation) [English, 728:2-3]; SOLCARGO Presentation, Slide 11 (RD-0002).

anything to support their repeat client (Mexico) than it does about the legality of what PROFEPA did.³⁰⁰

124. What is more, Ms. Rodríguez admitted at the Hearing that PROFEPA *knew for years* that CALICA quarried only El Corchalito and had never before considered it a problem. When confronted with nearly 20 years of regular reports that CALICA had submitted every four months updating PROFEPA on its quarrying activities,³⁰¹ she conceded that CALICA had informed PROFEPA that it was quarrying only one lot:

“[Counsel for Claimant]: Y allí [en los informes cuatrimestrales, CALICA] informó a la PROFEPA que estaba explotando solamente uno de los predios. ¿Correcto?

[Rodríguez]: En los términos de sus informes se pre -- se recibieron tales informes.

[Counsel for Claimant]: Y le informó a la PROFEPA que estaba explotando solamente un predio. Esa es mi pregunta. ¿Correcto?

[Rodríguez]: Se le informó a la PROFEPA la explotación y la explotación fue en ese predio, como se ha constatado en el procedimiento.

[Counsel for Claimant]: Y PROFEPA durante todos esos años, casi 20 años de conocer el tema, nunca le indicó a la empresa que estaba en incumplimiento de sus violaciones -- de su Autorización de Impacto Ambiental por ese dato, por explotar solamente un predio. ¿Correcto?

[Rodríguez]: Bueno, yo lo que tengo conocimiento es del procedimiento que se llevó a cabo.”³⁰²

125. Notably, Ms. Rodríguez acknowledged that, in 2012, PROFEPA inspected CALICA’s operations, specifically noting that only El Corchalito was being quarried, and concluded that CALICA had not violated the Corchalito/Adelita Federal Environmental Authorization.³⁰³ Ms. Rodríguez attempted to explain this away by saying that “la diferencia más importante de una visita realizada en 2012 con respecto a una visita realizada en 2017, que fue el caso, fue que *los momentos son diferentes*, los momentos de revisión.”³⁰⁴ This explanation is a logical nonstarter, as there is no reason why quarrying one lot was acceptable in 2012 but a

³⁰⁰ See Tr. (Spanish), Day 3, 862:4-6 (SOLCARGO cross-examination: “Estamos también siendo llamados como expertos en otro arbitraje, el de Odyssey contra México.”) [English, 737:8-10].

³⁰¹ C-0113-SPA.18 (sample report, informing PROFEPA that “el predio conocido como ‘La Adelita’, a la fecha de elaboración del presente informe, aún no se encuentra sometido al proceso de aprovechamiento de roca caliza por encima ni por debajo del manto freático.”)

³⁰² Tr. (Spanish), Day 3, 614:9-615:5 (Rodríguez cross-examination) [English, 537:2-17].

³⁰³ Tr. (Spanish), Day 3, 617:21-618:3 (“[Counsel for Claimant]: Entonces, PROFEPA realizó una visita de inspección a Calica en el año 2012 y observó que se estaba explotando solamente en El Corchalito y no en La Adelita. ¿Correcto? // [Rodríguez]: Así es.”) [English, 540:1-4].

³⁰⁴ Tr. (Spanish), Day 3, 648:4-9 (Rodríguez redirect) (emphasis added) [English, 563:7-11].

violation in 2017. PROFEPA's flip-flopping does make some sense, however, if one takes into account the post-2016 anti-CALICA atmosphere discussed in Part III.B.5 above.

126. PROFEPA had also awarded six Clean Industry Certificates to CALICA between 2003 and 2016, further evidencing CALICA's compliance with the Corchalito/Adelita Federal Environmental Authorization.³⁰⁵ None of Mexico's fact or expert witnesses offered a good explanation for PROFEPA's sudden about face after 2016. The reason is simple: there is none.

127. The conduct of other Mexican instrumentalities further confirms the arbitrary nature of PROFEPA's conduct here. When the State of Quintana Roo renewed the Corchalito/Adelita State Environmental Authorization in 2011, it expressly stated that CALICA was only quarrying El Corchalito — not La Adelita.³⁰⁶ Still, the State considered that CALICA had complied with the Corchalito/Adelita State Environmental Authorization — which, like its federal counterpart, addressed quarrying in *both* La Adelita *and* El Corchalito — and renewed that Authorization.³⁰⁷ The reason should be obvious: that Authorization — like its federal cousin — grants the *right* to quarry both lots; it does not impose the *obligation* to quarry both lots simultaneously. PROFEPA created this argument out of whole cloth, after seeing Legacy Vulcan's Memorial in this arbitration, and with the evident purpose of giving some semblance of legitimacy to its unlawful proceeding.

128. The Hearing thus made plain what the record amply demonstrates: Mexico failed to accord CALICA due process by sanctioning it for purported violations of the Corchalito/Adelita Federal Environmental Authorization that were not originally identified as such, effectively denying CALICA an opportunity to defend itself.³⁰⁸ This denial of due process and the unchecked discretion implied by PROFEPA's measures is precisely the type of conduct prohibited under the FET standard,³⁰⁹ and constitutes a breach of Mexico's obligation under NAFTA Article 1105.

³⁰⁵ C-0037-SPA through C-0042-SPA. Under Mexican law, PROFEPA awards these kinds of certificates to those members of society that excel at complying with their environmental responsibilities and fulfilling their environmental commitments. *Id.*

³⁰⁶ C-0075-SPA.28-29 (see pp. 8-9 for clearer legibility).

³⁰⁷ C-0075-SPA.32 (see pp. 11-12 for clearer legibility).

³⁰⁸ Memorial ¶¶ 138-159, 207-223; Reply ¶¶ 58-105.

³⁰⁹ *Glencore v. Colombia* (Award), ¶¶ 1446, 1449, 1450 (CL-0057-ENG) (finding that a measure is arbitrary where it is based on "discretion," "whim," "personal preference" or is "random" instead of legal standards and reason). See also Memorial ¶¶ 207-223; Reply, ¶¶ 160-178.

3. **PROFEPA Has Preserved the Shutdown of El Corchalito by Placing CALICA in a Catch-22 Situation and Imposing Impossible-to-Comply Conditions**

129. As was explained at the Hearing, Mexico has deliberately preserved the shutdown of El Corchalito by tying CALICA in inescapable bureaucratic knots, denying CALICA and Legacy Vulcan a realistic option to lift that shutdown. In this way, and combined with the irregularities described above and in Claimant's pleadings, PROFEPA's actions "exhibit [...] manifest arbitrariness, blatant unfairness, [and] a complete lack of due process,"³¹⁰ in violation of NAFTA Article 1105.

130. In the Shutdown Order, PROFEPA required CALICA to amend the Corchalito/Adelita Federal Environmental Authorization in order to lift the shutdown imposed in January 2018.³¹¹ Respondent concedes that SEMARNAT — of which PROFEPA is part — could not grant this amendment while PROFEPA's administrative proceeding remained open.³¹² PROFEPA unjustifiably kept that proceeding open for more than two years.³¹³ This meant that there was no way for CALICA to "comply" with this condition, thus ensuring that the shutdown would remain in place while PROFEPA took its time to issue the Resolution.³¹⁴ Respondent's proposed "solution" to this state of affairs was no solution at all: it required CALICA to effectively accepted guilt and liability to end PROFEPA's administrative proceeding,³¹⁵ even though CALICA maintains that it has done nothing wrong.

131. PROFEPA then preserved the shutdown of El Corchalito in its October 2020 Resolution because CALICA failed to secure the amendment of the Corchalito/Adelita Federal Environmental Authorization that was impossible to obtain while the administrative proceeding

³¹⁰ *Glamis Gold v. United States* (Award) ¶ 779 (CL-0016-ENG).

³¹¹ C-0117-SPA.301; Expert Report-[REDACTED]-Environmental-Claimant's Memorial-SPA, ¶ 226. See also Memorial ¶¶ 156-157, Reply ¶¶ 170-171.

³¹² See Counter-Memorial, ¶ 332 ("CALICA pudo dar por terminado el procedimiento ante PROFEPA de forma anticipada y evitar generar la situación en la que ella misma se colocó, *i.e.*, no poder renovar la AIA Federal ante la SEMARNAT debido al procedimiento abierto con PROFEPA," citing to First SOLCARGO Report, ¶ 63 (RE-001)).

³¹³ Expert Report-[REDACTED]-Constitutional Law-Claimant's Reply-SPA, ¶¶ 181-187; Tr. (Spanish), Day 3, 776:11-13 ([REDACTED] presentation: "creo que hay una demora injustificada en la emisión de la resolución administrativa.").

³¹⁴ Expert Report-[REDACTED]-Environmental Law-Claimant's Memorial-SPA, ¶¶ 71-78.

³¹⁵ Counter-Memorial, ¶ 331 (arguing that CALICA could have accepted liability and paid — unwarranted — damages without somehow accepting culpability, with a hypothetical hope of obtaining the reimbursement of those damages in the future).

remained open.³¹⁶ The Resolution again required CALICA to seek an amendment of the Corchalito/Adelita Federal Environmental Authorization, which was about to expire at the time PROFEPA issued the Resolution, but — again — biased bureaucratic impediments have prevented CALICA from complying with this condition for lifting the shutdown.³¹⁷

132. Claimant's environmental law expert, [REDACTED], explained how PROFEPA ensured in this way that the shutdown would remain in place in a never-ending vicious circle:

“El paso número uno es cuando PROFEPA [...] impone una medida de seguridad en su Resolución a Calica y le indica que para efectos de cumplir esa medida, Calica requiere presentarse a SEMARNAT a solicitar la autorización o la modificación de su autorización que contemple las 2.15 hectáreas supuestamente excedidas. [...]

El paso número dos: Calica acude a SEMARNAT y [...] le informa que se está presentando [...] para cumplir con el requerimiento que le ha impuesto PROFEPA.

Paso número tres: SEMARNAT le contesta a Calica que no puede pronunciarse al respecto de esa solicitud [...] hasta que PROFEPA determine que Calica ha cumplido con los términos y condicionantes. Pero PROFEPA ya ha determinado que Calica no cumple con los términos y condicionantes a través de su resolución y, para dárselos por cumplidos, le pide a Calica la autorización de las 2.15 hectáreas supuestamente excedidas.

Así, PROFEPA dice necesitar la Autorización de Impacto Ambiental de las 2.15 hectáreas para dar por cumplidos los términos y condicionantes y SEMARNAT, por su parte, dice necesitar que la PROFEPA dé por cumplidos los términos y condicionantes para emitir la autorización de las 2.15 hectáreas.”³¹⁸

133. PROFEPA thus created a situation designed to make it impossible for CALICA to lift the shutdown and restart operations in El Corchalito. Combined with the multiple other irregularities in PROFEPA's proceeding against CALICA, this situation further confirms the arbitrariness, and lack of transparency and candor of PROFEPA's proceeding.³¹⁹

134. Mexico's allegation that CALICA could have escaped this situation³²⁰ is belied by the conduct of its instrumentalities. By November 2020, CALICA had sought the amendment and

³¹⁶ R-0005-SPA.171-172, 235; Expert Report-[REDACTED]-Environmental Law-Claimant's Reply-Second Report-SPA, ¶¶ 67-78.

³¹⁷ R-0005-SPA.231-232, 235. *See also* C-0017-SPA.35 (setting expiration in 20 years).

³¹⁸ Tr. (Spanish), Day 3, 672:15-674:10 ([REDACTED] presentation) [English, 584:12-586:7].

³¹⁹ Reply, ¶¶ 160-178.

³²⁰ Counter-Memorial, ¶ 331-332; Rejoinder, ¶ 96.

renewal of the Corchalito/Adelita Federal Environmental Authorization from SEMARNAT,³²¹ but SEMARNAT responded that it could not process this application without PROFEPA's "validation" of CALICA's latest compliance report.³²² CALICA pointed out to SEMARNAT that PROFEPA had never issued such a "validation" for any of the compliance reports CALICA submitted in nearly 20 years.³²³ After Legacy Vulcan noted this fact in its Reply, PROFEPA suddenly issued a supposed "validation" in May 2021 stating that CALICA did *not* comply with the Corchalito/Adelita Federal Environmental Authorization based on the findings of PROFEPA's irregular proceeding.³²⁴ As a consequence, CALICA's application to amend and renew that authorization remains stuck in this dizzying bureaucratic tangle with no realistic prospects of getting resolved.³²⁵ These facts further show that Mexico failed to afford CALICA and Legacy Vulcan the most basic due process and acted arbitrarily in connection with the imposition and maintenance of the shutdown of El Corchalito, in violation of NAFTA Article 1105.

4. Mexico's Allegation of "Environmental Damage" Is Unsupported and Nonsensical

135. It is undisputed that PROFEPA failed to conduct any environmental study during its 2017 inspections to determine whether CALICA's quarrying operations had in fact caused environmental damage. After Legacy Vulcan submitted an environmental expert report showing that CALICA had caused no such damage, Mexico argued in its Rejoinder — through a tortured interpretation of the Federal Law on Environmental Liability (*Ley Federal de Responsabilidad Ambiental*) — that CALICA *automatically* caused environmental damage by allegedly violating the Corchalito/Adelita Federal Environmental Authorization.³²⁶ This argument fails and only confirms that Mexico is grasping at straws to try to justify its arbitrary measures regarding El Corchalito.

136. Relying on the Federal Law on Environmental Liability, Mexico posits that there is *ipso facto* environmental damage whenever any aspect of an environmental authorization is

³²¹ Witness Statement-[REDACTED]-Claimant's Reply-Second Statement-ENG, ¶ 13.

³²² C-0154-SPA.9.

³²³ Tr. (English), Day 1, 64:10-22 (Claimant's Opening Statement).

³²⁴ Tr. (English), Day 1, 65:1-5 (Claimant's Opening Statement); R-0085-SPA.22, 25, 62.

³²⁵ [REDACTED]-0013.2 (providing the website where the current state of the administrative proceeding can be tracked, which currently reads "Suspendido por procedimiento ante PROFEPA."). *See also* Tr. (English), Day 1, 65:6-9 (Claimant's Opening Statement); Appendix A, Answer to Tribunal Question No. 12.

³²⁶ Rejoinder, ¶¶ 84, 87. *See also* Tr. (Spanish), Day 1, 250:10-251:8 (Respondent's Opening Statement) [English, 207:14-208:9]; Respondent's Opening Presentation, Slide 42 (RD-0001); Tr. (Spanish), Day 3, 690:1-21 (Counsel for Respondent during [REDACTED] cross-examination) [English, 599:14-600:8].

infringed.³²⁷ That is not what that law says, however. That law defines environmental damage as “the *adverse and measurable* loss, change, deterioration, diminution, impairment, or modification of habitats, ecosystems, natural elements and resources, of their chemical, physical or biological conditions, of the interaction relationships among them, as well as of the environmental services they provide.”³²⁸ The law contains a carve-out that excludes from the concept of environmental damage activities carried out with government authorization.³²⁹ This carve-out does not apply when “the terms or conditions of those authorizations issued by the authority are violated.”³³⁰ The natural reading of this text is that an activity carried out in violation of an existing environmental authorization does not benefit from the law’s safe-harbor and *may* — not must — be deemed to cause environmental damage as defined in the statute (*i.e.*, “adverse and measurable loss,” etc., of “habitats, ecosystems, natural elements and resources,” etc.).³³¹

137. Mexico posits that, instead of providing a shield or safe-harbor against a finding of environmental damage for authorized activities, the carve-out in the Federal Law on Environmental Liability operates as a sword effectively imposing strict liability — an automatic finding of “environmental damage,” without regard to that term’s definition — for any violation of a government authorization.³³² [REDACTED] explained at the Hearing why this unnatural reading of the statute is wrong:

“[Counsel for Respondent]: ¿está de acuerdo entonces en que la ley considera que existe un daño al ambiente cuando se incumplen los términos o condicionantes de la autorización expedida por la autoridad?”

³²⁷ Tr. (Spanish), Day 1, 250:22-251:8 (Respondent’s Opening Statement: “la autoridad debe considerar el daño ambiental sin necesidad de un estudio o evaluación para la determinación del estatus ambiental en que se encuentra el proyecto. Es decir, *el mero incumplimiento de Calica a sus obligaciones conforme a la autorización federal eran suficientes* conforme al marco legal aplicable para determinar la existencia de un daño y ordenar la clausura.” (emphasis added)) [English, 208:2-9]. See also Rejoinder, ¶ 84.

³²⁸ R-0080-SPA.3 Article 2.III (free translation).

³²⁹ R-0080-SPA.4 (Article 6: “No se considerará que existe daño al ambiente cuando los menoscabos, pérdidas, afectaciones, modificaciones o deterioros no sean adversos en virtud de: I. Haber sido expresamente manifestados por el responsable y explícitamente identificados, delimitados en su alcance, evaluados, mitigados y compensados mediante condicionantes, y autorizados por la Secretaría, previamente a la realización de la conducta que los origina, mediante la evaluación del impacto ambiental o su informe preventivo, la autorización de cambio de uso de suelo forestal o algún otro tipo de autorización análoga expedida por la Secretaría.”)

³³⁰ R-0080-SPA.5 (free translation).

³³¹ Tr. (Spanish), Day 3, 691:8-692:9 ([REDACTED] cross-examination) [English, 600:14-601:11].

³³² Tr. (Spanish), Day 3, 688:22-690:21 (Counsel for Respondent during [REDACTED] cross-examination) [English, 598:18-600:8]; Rejoinder, ¶ 84. See also, Tr. (Spanish), Day 1, 250:22-251:8 (Respondent’s Opening Statement) [English, 208:2-9].

[REDACTED]: No, no estoy de acuerdo, y me parece que su interpretación es totalmente errónea. [...] [P]ara acreditar el daño, la autoridad tiene que acreditar que haya sido una pérdida, cambio, deterioro, menoscabo afectación o modificación *adversa y mensurable*.

Mi consideración es que la autoridad en el expediente no logra acreditar que sea una pérdida, cambio, deterioro, menoscabo o afectación adverso y mensurable. Para ampliar un poco más: lo que usted lee después en el artículo 6° *no es la definición de daño, es la excepción a la definición de daño*. [...].”³³³

“[Counsel for Respondent]: [L]e vuelvo a referir la pregunta: ¿en caso de que se incumpla un término o condicionante de una autorización ambiental, se entiende por ese mismo hecho que existe un daño ambiental?

[REDACTED]: No, y permítame ponerle un ejemplo. Dentro de los términos y condicionantes de la autorización existen, por ejemplo, el colocar letreros, el sacar fotografías. Esas dos son elementos que se contienen en los términos y condicionantes. No podría una autoridad decir que porque no se colocaron los letreros se causa un daño ambiental. Lo que tiene que hacer es acreditar primeramente el daño ambiental.”³³⁴

138. Answering Professor Tawil’s questions, Respondent’s civil engineering and environmental expert, Mr. Rábago, further exposed how Mexico’s interpretation of the law is unreasonable and effectively imposes strict liability:

“[Professor Tawil]: Para entender, esto sería una suerte de presunción legal. La norma presume daño. ¿Correcto? ¿No? [...] Usted lo que está diciendo es que el daño [al ambiente] es consecuencia [de] que la norma dice que en ese caso hay daño.

[Rábago]: La norma dice que cualquier modificación medible al ambiente hecha sin autorización es un daño.

[Professor Tawil]: ¿Y se puede probar lo contrario? ¿Se puede probar que no hay daño o no admite prueba en contrario? No se puede probar lo contrario.

[Rábago]: Se puede -- es difícil probar lo contrario, es correcto.”³³⁵

139. For their part, Respondent’s environmental law experts, SOLCARGO, simply repeated the tagline that limestone was extracted purportedly in excess of the authorized limits

³³³ Tr. (Spanish), Day 3, 690:18-692:9 ([REDACTED] cross-examination) [English, 600:5-601:7] (emphasis added).

³³⁴ Tr. (Spanish), Day 3, 694:10-695:1 ([REDACTED] cross-examination) [English, 603:3-14].

³³⁵ Tr. (Spanish), Day 4, 1120:10-1121:5 (Rábago responding to questions from the Tribunal) [English, 955:22-956:16].

and that this was sufficient to constitute environmental damage without more.³³⁶ They had no answer to [REDACTED] explanation of why this view of the Federal Law on Environmental Liability is at odds with its text and the common sense point that not all violations of an environmental authorization (e.g., failing to put up a sign) constitute an “adverse and measurable” impact on the environment meeting the definition of “environmental damage.”³³⁷ Such damage must actually be established by the environmental authority and does not automatically exist as a result of a purported violation of an environmental authorization.

140. Mexico’s shutdown of El Corchalito was thus based on a novel and broad conception of environmental damage that is untethered to fact or law. Contrary to Mexico’s view, a perceived breach of an environmental impact authorization does *not* trigger “environmental damage” as a matter of law. The record of this arbitration shows that CALICA incurred no such environmental damage.³³⁸ Even so, PROFEPA effectively precluded CALICA from demonstrating that it had *not* breached the Corchalito/Adelita Federal Environmental Authorization, and thus, it had not caused “environmental damage” under PROFEPA’s tortured reading of the statute. PROFEPA’s untenable presumption of environmental harm based on an inexistent breach of that Authorization resulted in disproportionately punitive measures barring operations in El Corchalito and preventing CALICA from renewing its Corchalito/Adelita Federal Environmental Authorization. The lack of proportionality inherent in PROFEPA’s conduct, coupled with PROFEPA’s deliberate disregard of evidence that no such breach occurred, further confirms that Mexico failed to afford fair and equitable treatment to CALICA.³³⁹

³³⁶ Tr. (Spanish), Day 3, 848:1-13 (SOLCARGO presentation) [English, 727:8-20].

³³⁷ See ¶ 137 above.

³³⁸ See Witness Statement-[REDACTED]-Claimant’s Reply-SPA, ¶ 7 (confirming that an expert report in the criminal file shows “la inexistencia de daños [...] ambientales”); Tr. (Spanish), Day 4, 1065:14-1068:6 ([REDACTED] presentation); *id.*, p. 1080:17-22 ([REDACTED] cross-examination: “lo que nosotros determinamos fueron las condiciones del cuerpo de agua, [...] si habían sido alteradas que señalaran un daño, lo cual no sucedió”).

³³⁹ See, e.g., *MTD Equity Sdn. Bhd. & MTD Chile S.A. v. Republic of Chile*, ICSID Case No. ARB/01/7, Award ¶ 109 (25 May 2004) (Rigo Sureda (P), Oreamundo Blanco, Lalonde) (CL-0062-ENG) (citing Judge Schwebel for the proposition that “‘fair and equitable treatment’ is ‘a broad and widely-accepted standard encompassing [...] proportionality.’”); *Abengoa v. Mexico* (Award), ¶¶ 644-645, 650-652 (CL-0047-SPA) (noting that Mexico failed to act in good faith when it closed the investor’s facility for political reasons rather than legitimate environmental and public health considerations); *Tecmed v. Mexico* (Award), ¶¶ 154, 164 (CL-0052-ENG) (noting that the closure of a facility for political reasons, without regard to whether it was being properly operated, was contrary to good faith).

D. MEXICO ARBITRARILY CONTINUED TO COLLECT UNLAWFUL PORT FEES AND FAILED TO REIMBURSE CALICA FOR UNLAWFULLY COLLECTED FEES IN VIOLATION OF ARTICLE 1105

141. As Legacy Vulcan explained in its pleadings and at the Hearing, API Quintana Roo unlawfully charged port fees (*tarifas de puerto*) to vessels docking at CALICA's private port terminal for more than a decade.³⁴⁰ CALICA challenged that measure in Mexican courts and ultimately prevailed. Mexico's Supreme Court affirmed lower court rulings holding that API Quintana Roo's charging of these port fees was contrary to the CALICA Port Concession and thus unlawful under Mexican law.³⁴¹ Yet API Quintana Roo continued charging those fees for months after that ruling and has refused to reimburse its ill-gotten gains — going so far as threatening CALICA with a shutdown of CALICA's operations for seeking reimbursement.³⁴²

142. These facts are largely undisputed. Mexico acknowledges that API Quintana Roo charged port fees (*tarifas de puerto*) for the use of CALICA's private port terminal between 2007 and 2017.³⁴³ Mexico also does not dispute that Mexico's judiciary conclusively determined that these charges were unlawful and that API Quintana Roo had no right to collect them.³⁴⁴ Mexico likewise does not dispute that it has never reimbursed CALICA the port fees that API Quintana Roo unlawfully collected and that only CALICA was entitled to charge under the CALICA Port Concession.³⁴⁵ Mexico has also failed to dispute API Quintana Roo's threat.³⁴⁶

143. Instead, Mexico has asserted that it is not obligated to repay those sums until a national court affirmatively orders it to do so.³⁴⁷ This argument ignores the fact that the Mexican

³⁴⁰ Memorial, ¶¶ 65-67, 132; Reply, ¶¶ 107-108; Tr. (English), Day 1, 65:13-67:2 (Claimant's Opening Statement).

³⁴¹ Memorial, ¶ 132; Reply, ¶ 108. On 7 March 2012, the Superior Chamber of the Federal Court of Fiscal and Administrative Justice annulled the SCT official letters (*oficios*) because they were issued "in breach of the [port] concessions granted in favor of Calizas Industriales del Carmen, S.A. de C.V." C-0059-SPA.6. This ruling was confirmed by the Plenary Session of the Superior Chamber of the Federal Tax and Administrative Court, which, on 3 September 2014, ruled that API Quintana Roo "cannot collect [] port fees at [CALICA's private port terminal]." *Id.* at 11.

³⁴² Memorial, ¶¶ 132, 135; Reply, ¶¶ 8, 115-116.

³⁴³ CALICA paid approximately [REDACTED] in port fees for the use of the private terminal between 2007 and 2017. DC-0083, Tab: "Resumen."

³⁴⁴ C-0059-SPA.6-7 (describing how the 2012 decision found the official letters allowing API Quintana Roo to charge the Punta Venado port fees to be illegal and void).

³⁴⁵ Tr. (Spanish), Day 1, 266:11-267:10 (Respondent's Opening Statement) [English, 220:15-221:13].

³⁴⁶ See Memorial, ¶ 135.

³⁴⁷ Counter-Memorial, ¶¶ 244-245; Tr. (Spanish), Day 1, 297:6-10 (Respondent's Opening Statement: "[L]a demandante no ha demostrado que exista una decisión de un Tribunal administrativo y judicial por el cual se ordene al Estado Mexicano reembolsar a Calica el pago de tarifas aparentemente realizado.") [English, 246:9-13].

judiciary has definitively established that API Quintana Roo was never entitled to collect port fees from vessels docking at CALICA's private port terminal and that it had done so unlawfully. While acknowledging that its collection of port fees has been found to be illegal by Mexican courts, Mexico is essentially arguing that its instrumentalities should be allowed to profit — to the detriment of Legacy Vulcan — from actions its own judicial system ruled unlawful. What is more, API Quintana Roo threatened to shut down CALICA's operations if CALICA persisted on seeking that reimbursement in Mexican court; a threat that materialized when CALICA filed an action to demand payment and Mexico reciprocated shutting down operations in El Corchalito.³⁴⁸

144. Mexico's claim in its Rejoinder and at the Hearing that the "special configuration of the ports located at Punta Venado" entitles API Quintana Roo to charge port fees to vessels docking at CALICA's private port terminal³⁴⁹ is unsupported and at odds with record evidence. Tellingly, neither Mexico's Ministry of Communications and Transportation (*Secretaría de Comunicaciones y Transportes* or the "SCT"), nor API Quintana Roo, ever made such a claim during the decade-long proceeding before Mexican courts.³⁵⁰ That is because Mexico's last-ditch, unsupported assertion is contrary to the CALICA Port Concession.³⁵¹ Under that Concession, CALICA has been responsible for, among other things, "install[ing], at its own expense, maintain[ing], and operat[ing] aids to navigation and maritime signals [(e.g., buoys; beacons)] [...] for the safety of port operations and navigation" at Punta Venado since 1987.³⁵² CALICA has carried out this obligation since. API Quintana Roo lacks any right to charge for the use of this infrastructure outside of CALICA's private terminal, and Mexico has failed to show otherwise.³⁵³

145. In its written submissions and at the Hearing, Mexico also asserted that Claimant has not proven that it or CALICA paid [REDACTED] to API Quintana Roo in port fees.³⁵⁴ Mexico's claim is off-the-mark and inaccurate. As Claimant explained in its Reply, the issue here is not whether CALICA or Vulica paid the port fees under the CALICA Port Concession.³⁵⁵ The

³⁴⁸ Memorial, ¶ 135; C-0107-SPA.10.

³⁴⁹ See Tr. (Spanish), Day 1, 272:7-273:10 (Respondent's Opening Statement, referencing its Opening Presentation, Slide 58 (RD-0001)) [English, 225:15-226:16]; Rejoinder, ¶¶ 283-288.

³⁵⁰ C-0053-SPA; C-0106-SPA; C-0059-SPA.

³⁵¹ Rejoinder, ¶¶ 287-288 (failing to offer any evidence that charging CALICA for the use of the sea infrastructure outside the port terminal was consistent with the terms of the CALICA Port Concession).

³⁵² C-0016-SPA.6. See also C-0016-SPA.7 (explaining that CALICA undertakes to install maritime signage); C-0012-SPA.16; C-0013-SPA.18; C-0015-SPA.17-18.

³⁵³ See Tr. (English), Day 1, 67:12-68:2 (Claimant's Opening Statement).

³⁵⁴ Counter-Memorial, ¶¶ 246-247; Rejoinder, ¶ 424; Tr. (English), Day 5, 511152:1-7 (Hart and Vélez presentation).

³⁵⁵ Reply, ¶ 107.

issue is whether API Quintana Roo was entitled to charge port fees to vessels docking at CALICA's private port terminal.³⁵⁶ Mexico's judiciary provided a clear and final answer to this issue: *API Quintana Roo was not entitled to do so*, and it was unlawful for API Quintana Roo to usurp CALICA's right to charge for those fees.³⁵⁷

146. In any case, as the recipient of these funds, Mexico knows that API Quintana Roo received port-fee payments from CALICA, Vulica, and Canada Steamship Lines ("CSL"), and the amounts thereof. Instead of disproving this fact with affirmative evidence, Mexico has instead relied on Legacy Vulcan's purported failure to demonstrate the source and total amount of port fees paid. But the source and amounts paid have been adequately established through unrebutted testimonial and documentary evidence. An example of CALICA's port-fee payments to API Quintana Roo is found in exhibit [REDACTED]-0015,³⁵⁸ which [REDACTED] confirmed is representative of the port fees that were paid to API Quintana Roo for vessels docking at CALICA's private port terminal between 2007 and 2017. Exhibit [REDACTED]-0015 also illustrates the flow of port-fee funds related to a voyage of a Vulica vessel that docked at CALICA's private port terminal in 2017.³⁵⁹ [REDACTED] also explained that, based on [REDACTED] review of hundreds of bank statements, invoices, and other records Legacy Vulcan kept in the normal course of business, [REDACTED] prepared the Excel spreadsheet summarizing all of the port-fee payments that Mr. Chodorow included in the first Brattle Report.³⁶⁰ This document is exhibit DC-0083.³⁶¹

147. Finally, as [REDACTED] also testified, in December 2017, CALICA hired an independent certified public accountant in Mexico to audit the payments that API Quintana Roo collected from vessels docking at CALICA's private port terminal.³⁶² The audit, included as exhibit

³⁵⁶ *Id.*

³⁵⁷ *Id.* ¶¶ 107, 109.

³⁵⁸ *See* [REDACTED]-0015.

³⁵⁹ Witness Statement-[REDACTED]-Claimant's Reply-Second Statement-ENG, ¶ 35; Tr. (English), Day 2, 406:8-13 ([REDACTED] responding to questions from the Tribunal: "The Port Fees. We did submit [...] an example of how the payment flow worked[.]").

³⁶⁰ Witness Statement-[REDACTED]-Claimant's Reply-Second Statement-ENG, ¶ 35; Tr. (English), Day 2, 406:8-13 ("The Port Fees. We did submit an exhibit of the detail of those payments[.]").

³⁶¹ *See* DC-0083; *see also* Expert Report-Darrell Chodorow-Damages-Claimant's Memorial-ENG, ¶ 196 (citing DC-0083).

³⁶² Witness Statement-[REDACTED]-Claimant's Reply-Second Statement-ENG, ¶ 36; Tr. (English), Day 2, 406:8-13 ([REDACTED] responding to questions from the Tribunal: "The Port Fees [...] we had those payments audited by an independent auditor, and I believe that exhibit was submitted as well.").

█-0016-SPA, confirmed that API Quintana Roo charged and collected from CALICA and Vulica approximately █ in port fees between 2007 and 2017.³⁶³

148. Mexico's disregard for the final judgment of its own judiciary, declaring that these charges were illegal, amounts to a violation of the FET standard under Article 1105.³⁶⁴ This is precisely the subversion of "the rule of law" that several tribunals have found to constitute arbitrary conduct in violation of an obligation to accord FET to foreign investors.³⁶⁵

IV. THE HEARING CONFIRMED THAT MEXICO OWES COMPENSATION AS CALCULATED BY CLAIMANT

149. As confirmed at the Hearing, the Parties agree that damages should be measured as the difference between the but-for value of the relevant business (*i.e.*, assuming that the wrongful measures did not occur) and its actual value (*i.e.*, reflecting the impact of those measures).³⁶⁶ There is also no dispute between the Parties that the most appropriate methodology to calculate damages is a discounted cash flow ("DCF") analysis,³⁶⁷ and that the reasonableness of a DCF valuation can be tested by using market values of similar companies or "comparables."³⁶⁸

150. The differences between the Parties' damages assessments lie, first, on whether the relevant business for purposes of calculating damages is CALICA or the CALICA Network; second, on the implementation of the DCF analysis; and third, on the businesses that are appropriate

³⁶³ See █-0016.5. As █ has explained, this figure does not include port fees that API Quintana Roo unlawfully charged CSL, which CALICA ultimately reimbursed to CSL. See Witness Statement-█-Claimant's Reply-Second Statement-ENG, ¶ 36.

³⁶⁴ Memorial, ¶ 224 (citing UNCTAD, Fair and Equitable Treatment (CL-0043-ENG.100)).

³⁶⁵ See *Lemire v. Ukraine* (Award), ¶ 263 (CL-0072-ENG) ("Summing up, the underlying notion of arbitrariness is that prejudice, preference or bias is substituted for the rule of law."); *Glencore v. Colombia* (Award), ¶ 1450 (CL-0057-ENG); *OI European Group B.V. v. Bolivarian Republic of Venezuela*, ICSID Case No. ARB/11/25, Award, ¶ 491 (10 March 2015) (Fernández-Armesto, Orrego Vicuña, Mourre) (CL-0049-ENG) ("A State [violates the FET standard] when it takes an action or a chain of actions that are demonstrably unlawful or fail to recognize the basic requirements of the rule of law.") (citation omitted).

³⁶⁶ Tr. (English), Day 1, 131:21-132:2 (Claimant's Opening Statement); Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 72 ("The difference between the But-For Value and the Actual Value of the Calica Network represents the damages to Legacy Vulcan from that alleged breach."); First Credibility Report, ¶ 123 (RE-002) (adopting but-for approach).

³⁶⁷ Tr. (English), Day 1, 131:18-20 (Claimant's Opening Statement); Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 74 ("The DCF approach is the most appropriate method to quantify the impact of lost profits on the value of the Calica Network."); First Credibility Report, ¶¶ 122-23 (RE-002) (advancing competing DCF model); Appendix B, Answer to the Tribunal's Question 15, No. 2.

³⁶⁸ Tr. (English), Day 5, 997:13-16; Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 169 ("Market transactions provide evidence about the FMV of an asset. The market approach infers the value of an asset based on evidence about the FMV of comparable assets observed in market transactions"); Second Credibility Report, ¶ 15 (RE-004) (arguing that but-for FMV of CALICA Mexico identified by Credibility was "within the range of implied market valuations [...] based on the comparable companies"); Appendix B, Answer to the Tribunal's Question 15, No. 3.

comparables to assess whether the results of the DCF analysis are reasonable. As Legacy Vulcan demonstrated in its pleadings and at the Hearing, (i) Legacy Vulcan is entitled to compensation for losses suffered across the CALICA Network as a result of Mexico's breaches; (ii) even if the relevant measure of damages is the diminution in the Fair Market Value ("FMV") of only CALICA, damages are the same; and (iii) Hart and Vélez's analyses are unreliable and severely understate damages for both CALICA and the CALICA Network.

A. LEGACY VULCAN IS ENTITLED TO COMPENSATION FOR THE DIMINUTION IN THE FAIR MARKET VALUE OF THE CALICA NETWORK ARISING OUT OF MEXICO'S TREATY BREACHES

1. Legacy Vulcan Has Established That It Has Suffered a Loss as a Result of Mexico's Breaches

151. Legacy Vulcan established in its pleadings and at the Hearing that it has satisfied both the required elements of loss and causation under NAFTA Article 1116,³⁶⁹ which allows Legacy Vulcan to bring a claim on its own behalf where there has been a breach of NAFTA and "the investor has incurred loss or damage by reason of, or arising out of, that breach."³⁷⁰

152. *First*, Legacy Vulcan has established that Mexico's wrongful measures (namely, (i) its failure to take all necessary actions to amend the POEL to allow CALICA to exercise its vested rights to quarry La Adelita ("Breach 1"); and (ii) its shutdown of El Corchalito ("Breach 2")³⁷¹) have deprived Legacy Vulcan of its rightful access to its Mexican reserves. Indeed, Mexico does not dispute that Legacy Vulcan's inability to access La Adelita and El Corchalito has eliminated access to [REDACTED]³⁷²

153. *Second*, as the testimony of Legacy Vulcan's damages expert and witnesses at the Hearing confirmed, Legacy Vulcan's inability to extract CALICA aggregates due to Mexico's breaches directly and foreseeably causes losses across the full Network.³⁷³ As Mr. Chodorow

³⁶⁹ Tr. (English), Day 1, 121:13-18; Reply, ¶ 243 ("Limits on damages under NAFTA are based only on proximate causation (*i.e.*, a sufficient causal link between the breach and the loss which is not too remote), not artificial territorial limits.").

³⁷⁰ NAFTA, Article 1116 (C-0009-ENG.17); Memorial, ¶¶ 20, 172; Request for Arbitration, ¶ 12 ("Legacy Vulcan is submitting investment claims to arbitration on its own behalf and on behalf of its enterprise CALICA pursuant to NAFTA Articles 1116(1) and 1117(1), respectively."); Reply, ¶ 121.

³⁷¹ See Claimant's Comments on NAFTA Article 1128 Submissions, ¶ 39.

³⁷² Tr. (English), Day 1, 115:7-9 (Claimant's Opening Statement); Expert Report-Darrell Chodorow-Claimant's Reply-Second Report-ENG, ¶ 5 & n.3.

³⁷³ Tr. (English), Day 1, 115:4-6 (Claimant's Opening Statement); Reply, ¶ 223 (noting that the "fully integrated shipping and distribution segments of the CALICA Network [...] were built and exist for no other purpose than to ship and process materials quarried in CALICA."); Witness Statement-[REDACTED]-Claimant's Reply-ENG, ¶ 22 ("[REDACTED]"); Witness Statement-[REDACTED]

explained in his reports and at the Hearing: “as an integrated network, the downstream and the upstream [of the CALICA Network] are both very interdependent, and without one, without the reserves, the value of downstream goes away.”³⁷⁴

154. In his witness statement, [REDACTED] explained that “there is no CALICA Network without CALICA.”³⁷⁵ [REDACTED] confirmed at the Hearing that “access to CALICA was, and continues to be, a central element of the CALICA Network.”³⁷⁶ [REDACTED] similarly explained that, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]”³⁷⁷

155. As a result of CALICA’s inability to access its reserves, Legacy Vulcan has suffered losses in the amount of [REDACTED] before pre-award interest and the necessary adjustment to avoid double taxation.³⁷⁸ For Breach 1, Mr. Chodorow first determined the but-for FMV of the CALICA Network, assuming that Mexico complied with the 2014 Agreements and CALICA was able to start quarrying in La Adelita in 2016.³⁷⁹ In the But-For Scenario, production from

[REDACTED]-Claimant’s Reply-Second Statement-ENG, at 7.B (“CALICA is the key element of the CALICA Network”).

³⁷⁴ Tr. (English), Day 5, 991:12-15 (Chodorow presentation).

³⁷⁵ Witness Statement-[REDACTED]-Claimant’s Reply-ENG, ¶ 26.

³⁷⁶ Tr. (English), Day 2, 427:11-12 ([REDACTED] cross-examination).

³⁷⁷ Tr. (English), Day 2, 405:1-22 ([REDACTED] response to questions from the Tribunal). These points were also emphasized in [REDACTED] and [REDACTED] witness statements. Witness Statement-[REDACTED]-Claimant’s Memorial-ENG, ¶¶ 69-70 (“

[REDACTED]

[REDACTED]; Witness Statement-[REDACTED]-Claimant’s Reply-ENG, ¶ 23 (“

³⁷⁸ Expert Report-Darrell Chodorow-Claimant’s Memorial-ENG, Tables 1 and 16; Claimant’s Opening Presentation, Slide 115 (CD-0001); Appendix B, Answer to the Tribunal’s Question 15, No. 69.

³⁷⁹ Expert Report-Darrell Chodorow-Claimant’s Memorial-ENG, Table 8; Claimant’s Opening Presentation, Slide 115 (CD-0001).

La Adelita, El Corchalito, and La Rosita [REDACTED]

[REDACTED]³⁸⁰ Mr. Chodorow confirmed that the EBITDA multiple implied by this valuation was consistent with observed valuations for transactions in the aggregates industry as well as VMC's own enterprise value, confirming the reliability of his DCF. Mr. Chodorow then calculated the Actual FMV of the CALICA Network, assuming only production from La Rosita and El Corchalito until those lots are depleted.³⁸¹ In the Actual Scenario for Breach 1, [REDACTED]

[REDACTED]³⁸² The difference in value between the But-For and the Actual Scenarios represents the reduction of the FMV of the CALICA Network as a result of Breach 1.³⁸³

156. Mr. Chodorow applied the same methodology to calculate damages due to the shutdown of El Corchalito as of 24 January 2018, the valuation date for Breach 2.³⁸⁴ In the But-For Scenario, he assumed production from La Rosita and El Corchalito, and for the Actual Scenario, production only from La Rosita until its reserves are depleted.³⁸⁵

157. Since Legacy Vulcan [REDACTED]
[REDACTED]
[REDACTED] for both Breach 1 and Breach 2.³⁸⁶ Mr. Chodorow also accounted for the mitigation that Legacy Vulcan would receive by [REDACTED]

[REDACTED]³⁸⁷

2. Mexico's Argument that [REDACTED] Is Fiction

158. Mexico does not dispute that, because CALICA cannot access La Adelita and El Corchalito, [REDACTED]³⁸⁸ Instead, Mexico's experts

³⁸⁰ Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, Table 10; Claimant's Opening Presentation, Slide 115 (CD-0001).

³⁸¹ *Id.*

³⁸² Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, Table 8; Claimant's Opening Presentation, Slide 115 (CD-0001).

³⁸³ Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, Table 10; Claimant's Opening Presentation, Slide 115 (CD-0001).

³⁸⁴ Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, Table 14; Claimant's Opening Presentation, Slide 115 (CD-0001).

³⁸⁵ Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 194.

³⁸⁶ *Id.*, Tables 8 and 14; Claimant's Opening Presentation, Slide 115 (CD-0001).

³⁸⁷ Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶¶ 164-166; Tr. (English), Day 5, 993:4-10; 1056:8-20 (Mr. Chodorow's Presentation).

³⁸⁸ Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 5.

speculated at the Hearing that Legacy Vulcan

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159. But, as Hart and Vélez confirmed during cross-examination, they never tested this hypothesis.³⁹¹ Their failure defies common sense and fundamentals of the aggregate industry where transportation costs can quickly surpass the product's cost and where access to different modes of transportation can have an enormous impact on profitability.³⁹² Indeed, Hart and Vélez conceded at the Hearing that "distance is not really a proxy for transportation costs in the aggregate industry" and "there are different transportation costs, depending on the type of transportation that is used," with "transportation by vessels [being] significantly cheaper than by truck or by rail."³⁹³

160. A simple review of the map of VMC's aggregates facilities (submitted as Figure 1 of Mr. Chodorow's first report) disproves Hart and Vélez's [REDACTED]. That map highlights that [REDACTED]

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[REDACTED]. As [REDACTED] explained at the Hearing:

³⁸⁹ Tr. (English), Day 5, 1146:4-6 (Hart and Vélez presentation (emphasis added)).

³⁹⁰ Tr. (English), Day 5, 1155:20-1156:1 (Hart and Vélez presentation).

³⁹¹ Tr. (English), Day 5, 1157:3-1158:22 (Hart and Vélez cross-examination)

³⁹² See Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 5; Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶ 45, Figure 3; Appendix B, Answer to the Tribunal's Question 15, Nos. 75-76.

³⁹³ Tr. (English), Day 5, 1156:13-22 (Hart and Vélez cross-examination). *See also* Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶ 45 & Figure 3 (showing efficiencies of seaborne transit of aggregates versus the higher per-ton costs of moving aggregates by truck, train, or barge); Tr. (English), Day 1, 114:4-11 (Claimant's Opening Presentation, explaining that "Legacy Vulcan's fleet of vessels can move 1 ton of aggregates approximately 40 times farther than by truck for the same cost," which is "less than a penny per ton, and this is the key reason why the CALICA Network's strategically located reserves within close proximity to a deep water port command high profits in the U.S. Gulf Coast."); Appendix B, Answer to the Tribunal's Question 15, No. 81.

³⁹⁴ Tr. (English), Day 5, 1101:7-12 (Chodorow cross-examination); Appendix B, Answer to the Tribunal's Question 15, No. 79.

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161. On cross-examination, Hart and Vélez plainly acknowledged that they failed to conduct any analysis to support their assumption that Legacy Vulcan [REDACTED] [REDACTED] “[w]e did not do an in depth analysis of the specific locations and the transportation costs that would be incurred from the different facilities.”³⁹⁶ Hart and Vélez further acknowledged that “we did not conduct a specific analysis on the distance of the different quarries.”³⁹⁷ These admissions confirm that [REDACTED]

162. Moreover, as the Hearing testimony also confirmed, there are multiple pieces of evidence that contradict Mexico’s untested [REDACTED]

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163. As [REDACTED] testified at the Hearing:

³⁹⁵ Tr. (English), Day 2, 389:2-13 ([REDACTED] cross-examination).

³⁹⁶ Tr. (English), Day 5, 1157:6-9 (Hart and Vélez cross-examination).

³⁹⁷ Tr. (English), Day 5, 1158:5-7 (Hart and Vélez cross-examination).

³⁹⁸ See [REDACTED]-0003 ([REDACTED]); Witness Statement-[REDACTED]-Claimant’s Memorial-ENG, ¶¶ 71-72 ([REDACTED])

[REDACTED]; Witness Statement-[REDACTED]-Claimant’s Reply-Second Statement-ENG, ¶¶ 17-18 (explaining that [REDACTED]).

³⁹⁹ See Expert Report-Darrell Chodorow-Claimant’s Memorial-ENG, ¶¶ 160-163; *see also* Expert Report-Darrell Chodorow-Claimant’s Reply-Second Report-ENG, ¶ 38.

⁴⁰⁰ Tr. (English), Day 2, 389:21-390:11 ([REDACTED] cross-examination).

164. While Hart and Vélez complain that the underlying detail supporting the findings of the [REDACTED] “was never produced,”⁴⁰¹ they acknowledged at the Hearing that they never requested production of the data underlying the [REDACTED] even though they “were aware that there was a document production phase in this Arbitration.”⁴⁰² In fact, they did not even list the [REDACTED] (Exhibit [REDACTED]-0003) within the “complete list of documents [they] relied upon” to prepare their first report,⁴⁰³ and claimed to not “remember if [they] specifically mentioned it” in that report.⁴⁰⁴

165. *Second*, the findings of the [REDACTED] are consistent with documentary evidence developed in the normal course of business before the breaches. In particular, [REDACTED]

[illegible]

⁴⁰¹ Tr. (English), Day 5, 1145:19-20 (Hart and Vélez presentation).

⁴⁰² Tr. (English), Day 5, 1160:13-14, 1165:7-8 (Hart and Vélez cross-examination).

⁴⁰³ First Credibility Report, ¶ 42 (RE-002) and Appendix C.

⁴⁰⁴ Tr. (English), Day 5, 1162:19-20 (Hart and Vélez cross-examination).

⁴⁰⁵ See C-0089-ENG.6.

406 *Id.*

407 *Id.*

408 *Id.*

⁴⁰⁹ Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 161.

⁴¹⁰ Tr. (English), Day 5, 986:18-987:7 (Chodorow presentation); Chodorow Presentation, Slide 14 (CD-0006).

confirmed at the Hearing, they “did not rely on this document that was prepared by Vulcan in the regular course of business before the breach.”⁴¹¹

166. Simply put, [REDACTED]

3. Mexico’s Attempt to Limit Damages to CALICA Within Mexico Fails

167. Mexico attacks a strawman when it argues that Legacy Vulcan cannot bring claims on behalf of Vulica or the U.S. Yards.⁴¹³ While Legacy Vulcan agrees that Vulica and the U.S. Yards do not qualify as investments under NAFTA,⁴¹⁴ Mexico conflates this undisputed jurisdictional territoriality requirement with Legacy Vulcan’s entitlement to full reparation for *all* losses flowing from the breaches.⁴¹⁵

168. As Legacy Vulcan explained in Part II.B above, in its pleadings, and at the Hearing, Mexico misstated the law when it argued that there are territorial limitations on recoverable damages under NAFTA. As the tribunal in *S.D. Myers* observed, “[t]here is no provision that requires that all of the investors’ losses must be sustained within the Host State in order to be recoverable.”⁴¹⁶ The proper question before the Tribunal is whether Mexico’s unlawful measures against CALICA and related investments in Mexico proximately caused Legacy Vulcan’s losses, regardless of whether such losses were incurred within or outside Mexico. In any event, whether NAFTA imposes a territorial limit on the scope of recoverable damages is largely inconsequential in this case because the damages are the same even if the relevant measure of damages is the diminution in the FMV of only CALICA, as explained immediately below.

⁴¹¹ Tr. (English), Day 5, 1170:11-18 (Hart and Vélez cross-examination).

⁴¹² Tr. (English), Day 2, 390:8-11 ([REDACTED] cross-examination); *see also* Witness Statement-Claimant’s Reply-Second Statement-ENG, ¶ 18 (noting that, [REDACTED]

0010.2 (VMC, BWN Netback Profit by Source (December 2020) (showing loss on shipments from AML).

⁴¹³ Tr. (English), Day 1, 223:14-224:4 (Respondent’s Opening Statement); *see also* Reply, ¶ 203.

⁴¹⁴ Tr. (English), Day 1, 121:5-11 (Claimant’s Opening Statement); Reply, ¶¶ 203-212.

⁴¹⁵ Tr. (English), Day 1, 121:5-11 (Claimant’s Opening Statement).

⁴¹⁶ *S.D. Myers v. Canada* (Damages), ¶ 118 (CL-0132-ENG).

B. EVEN IF THE RELEVANT MEASURE OF DAMAGES WERE THE DIMINUTION IN THE FAIR MARKET VALUE OF CALICA, THE DAMAGES ARE THE SAME

169. As Legacy Vulcan has explained, Mexico's attempt to limit damages to those suffered by CALICA within Mexico is inconsistent with NAFTA Article 1116, as well as with the full reparation principle under customary international law that both Parties agree applies here.⁴¹⁷ But, if the Tribunal were to decide that the relevant business for purposes of damages is only the CALICA aggregates operation and port facility in Mexico, the result would be the same.⁴¹⁸

170. The Parties agree that damages should be measured as the impact of the alleged breaches on the FMV of the relevant business,⁴¹⁹ but disagree on which is the relevant business to measure. Hart and Vélez were instructed by counsel that the "FMV analysis should be based on the impact on the valuation of a hypothetical sale of the investment in Mexico, the CALICA business unit."⁴²⁰ But, as Mr. Chodorow explained in his second report, even applying this test, "[t]he FMV of Calica Mexico is based not only on the present value of future cash flows that would be generated by Calica Mexico, but also any incremental cash flows that access to Calica Mexico would allow its owner to generate," which "includes the profits of Vulica and the US yards."⁴²¹

171. As Mr. Chodorow explained at the Hearing, "the true source of value to the CALICA Network is attributable to its reserves."⁴²² The production, shipping, and yard costs are simply costs that Legacy Vulcan has to incur in order to monetize those reserves: "There is a supply chain that's available to bring those [reserves] to market, you take the reserves, you produce them, you

⁴¹⁷ Tr. (English), Day 1, 120:9-126:2 (Claimant's Opening Statement); Memorial, ¶¶ 251-252; Counter-Memorial, ¶ 446; *Case Concerning the Factory at Chorzów*, PCIJ Judgment No. 13, Decision on the Merits, p. 46 (13 September 1928) (CL-0080-ENG).

⁴¹⁸ Tr. (English), Day 1, 135:2-136:2 (Claimant's Response to Tribunal's Question); Expert Report-Darrell Chodorow-Claimant's Reply-Second Report-ENG, ¶¶ 61-62 ("Legacy Vulcan would only be a willing seller of Calica Mexico if the price compensates the losses that the sale would cause across the entire Calica Network [...]. Similarly, a logical buyer [...] would be willing to pay a price for Calica Mexico that includes not only the cash flows that it expected from the facility in Mexico, but also on the downstream shipping and distribution cash flows arising from their ability to deploy their logistics and distribution expertise to leverage the unique value of Calica Mexico. Thus, a willing buyer would consider the ability to generate profits from a similar network, not just the profits generated by the asset in Mexico.").

⁴¹⁹ Tr. (English), Day 1, 131:15-17 (Claimant's Opening Statement); Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 72 ("The difference between the But-For Value and the Actual Value of the Calica Network represents the damages to Legacy Vulcan from that alleged breach."); First Credibility Report, ¶ 123 (RE-002) (adopting But-For Fair Market Value approach).

⁴²⁰ First Credibility Report, ¶ 21 (RE-002).

⁴²¹ Expert Report-Darrell Chodorow-Claimant's Reply-Second Report-ENG, ¶ 61.

⁴²² Tr. (English), Day 5, 989:20-22 (Chodorow presentation).

transport them, and then you sell them when they arrive at market.”⁴²³ As Mr. Chodorow further explained, this is no different from oil reserves that are in the ground:

“To figure out the value of those reserves in the ground, you start with the realized price or the expected realized price, and then you deduct off the costs in order to get those reserves to market—that’s the transportation costs and the production costs—and the rest of the value, that’s the netback value associated with the reserves themselves, which really create the value in this process.”⁴²⁴

172. The “netback value” of the CALICA reserves has long been a normal measure used by Legacy Vulcan to assess the profits generated by the CALICA reserves. As [REDACTED] explained, “Legacy Vulcan’s Netback Reports are documents generated in the normal course of business that track the profitability of the CALICA Network from the production site to the sales in the U.S. and the local Mexican market.”⁴²⁵ Mr. Chodorow also explained that the value of CALICA’s reserves is measured by the netback calculation: “[t]o figure out the value of those reserves in the ground, you start with the realized price or the expected realized price, and then you deduct off the costs in order to get those reserves to market—that’s the transportation costs and the production costs--and the rest of the value, that’s the netback value associated with the reserves themselves, which really create the value in this process.”⁴²⁶ The netback captures the “true sources of value” for the CALICA Network; as Mr. Chodorow explained “the true source of value to the CALICA Network is attributable to its reserves.”⁴²⁷

173. [REDACTED] also confirmed at the Hearing: “[T]he CALICA quarry itself has a tremendous intrinsic value relative to its location and its physical properties of the material that is in the ground having a large amount of reserves and the access to the blue water shipping and the network itself.”⁴²⁸

174. The uniquely valuable nature of CALICA was also recognized by VMC in its annual reports to shareholders and by analysts. For example, Vulcan reported to shareholders that “[o]ur leading position is based upon [...] excellent multi-modal logistics capabilities, plus the inherent

⁴²³ Tr. (English), Day 5, 989:7-10. (Chodorow presentation).

⁴²⁴ Tr. (English), Day 5, 989:7-18 (Chodorow presentation); Chodorow Presentation, Slides 16-18 (CD-0006).

⁴²⁵ Witness Statement-[REDACTED]-Claimant’s Reply-Second Statement-ENG, ¶ 7; Appendix B, Answer to the Tribunal’s Question 15, No. 18.

⁴²⁶ Tr. (English), Day 5, 989:10-18 (Chodorow presentation).

⁴²⁷ Tr. (English), Day 5, 989:20-22 (Chodorow presentation).

⁴²⁸ Tr. (English), Day 2, 433:11-16 ([REDACTED] cross-examination).

advantages of our Playa del Carmen, Mexico quarry and supporting port facilities.”⁴²⁹ This assessment was not limited to Vulcan personnel and Vulcan’s corporate communications to the investment community; it was echoed by independent industry analysts and market players. As noted by one industry analyst, “after touring its Panamax ships and gaining insights on its Calica quarry, we have a greater appreciation on its scale (5x size of largest quarry in the US) and cost advantage (~70%) in the Gulf.”⁴³⁰ Another analyst noted that “[w]e’ve long regarded the Sac Tun, Mexico quarry as one of the best in North America and certainly for Vulcan Materials.”⁴³¹

175. As Mr. Chodorow also explained at the Hearing, “the Fair Market Value of the CALICA Network is, by definition, equal to the sum of CALICA itself plus the value of its downstream shipping and yard businesses.”⁴³² This is so for two reasons. *First*, if Legacy Vulcan were a willing seller, “the price that [Legacy Vulcan] would demand [for CALICA] would be equal to that Fair Market Value for the network minus what [Legacy Vulcan] could get from selling off the ships and yard businesses after CALICA was gone because they have no use for these absent access to CALICA.”⁴³³ Because of the strategic location of its reserves, CALICA’s highest and best use is as part of a network that enables shipping and distributing those reserves in the highly profitable U.S. Gulf Coast market, where there are little to no indigenous stone deposits and where imported CALICA aggregates correspondingly command a price premium.⁴³⁴ As Mr. Chodorow explained in his second report, no rational seller would sell CALICA for a price that does not account for the profits that can be derived from using CALICA at its highest and best use.⁴³⁵

176. *Second*, the willing buyer would similarly “think about the value of CALICA as its netback value for serving the Gulf Coast which is its highest and best use.”⁴³⁶ Therefore, “a potential buyer would be willing to pay a price for [CALICA] that includes not only the cash flows that it expected from the facility in Mexico, but also on the downstream shipping and distribution cash flows arising from [the potential buyer’s] ability to deploy their logistics and distribution

⁴²⁹ DC-0073.21 (VMC 2015 Annual Report).

⁴³⁰ Jefferies, Vulcan Materials, Investor Day Takeaways: Noticeable Upside Potential to Earnings Power (18 Sept. 2019) (CRED-119.1).

⁴³¹ Barclays, Vulcan Materials, Could VMC “Live Up To Its Potential”? We Think So; Raising PT to \$160, (12 Sept. 2019) (CRED-112.7).

⁴³² Tr. (English), Day 5, 990:13-16 (Chodorow presentation).

⁴³³ Tr. (English), Day 5, 990:17-22 (Chodorow presentation).

⁴³⁴ Tr. (English), Day 1, 135: 7-15 (Claimant’s Opening Statement).

⁴³⁵ Expert Report-Darrell Chodorow-Claimant’s Reply-Second Report-ENG, ¶ 15 n. 15 (“Sales in the US Gulf Coast reflect the highest and best use of Calica Mexico’s aggregates.”).

⁴³⁶ Tr. (English), Day 5, 991:1-10 (Chodorow presentation).

expertise to leverage the unique value of [CALICA].”⁴³⁷ As Mr. Chodorow also explained at the Hearing: “[T]he netback value for [the willing buyer] is going to be equal to the Fair Market Value of the CALICA Network [...] minus the cost to acquire or build the downstream segments of the network that are necessary to extract the value from those reserves.”⁴³⁸ Mr. Chodorow further explained in his second report that “no hypothetical buyer would purchase Calica Mexico in order to serve the local market.”⁴³⁹

177. Given the integrated nature of the CALICA Network, “if there was a transaction for the sale of CALICA, it would be a transaction for the entire network.”⁴⁴⁰ As Mr. Chodorow explained at the Hearing:

“[A]s an integrated network, the downstream and the upstream are both very interdependent, and without one, without the reserves, the value of downstream goes away, and so, you end up with actually the best alternative, if you were going to do a transaction of the CALICA Network, the best alternative for building that downstream capacity is actually to buy it from Vulcan who no longer needs it after they’ve sold CALICA.”⁴⁴¹

178. Tellingly, this is essentially what took place in 2001, when Vulcan bought out Grupo ICA’s interests in the joint venture.⁴⁴²

179. Therefore, because all the value associated with the Network derives from CALICA, not from the downstream operations, the calculation of damages, whether for the CALICA Network or the CALICA operation in Mexico, is the same. Legacy Vulcan’s witnesses have consistently testified that [REDACTED]

⁴⁴³ As [REDACTED]

⁴³⁷ Expert Report-Darrell Chodorow-Claimant’s Reply-Second Report-ENG, ¶ 62.

⁴³⁸ Tr. (English), Day 5, 991:5-10 (Chodorow presentation); *see also* Expert Report-Darrell Chodorow-Claimant’s Reply-Second Report-ENG, ¶ 62 (“Therefore a potential buyer would be willing to pay a price for Calica Mexico that includes not only the cash flows that it expected from the facility in Mexico, but also on the downstream shipping and distribution cash flows arising from their ability to deploy their logistics and distribution expertise to leverage the unique value of Calica Mexico. Thus, a willing buyer would consider the ability to generate profits from a similar network, not just the profits generated by the asset in Mexico.”); Appendix B, Answer to the Tribunal’s Question 15, No. 6.

⁴³⁹ Expert Report-Darrell Chodorow-Claimant’s Reply-Second Report-ENG, ¶ 15 n. 15.

⁴⁴⁰ Tr. (English), Day 5, 992:4-9 (Chodorow presentation: “And realistically, what this means, is if there was a transaction for the sale of CALICA, it would be a transaction for the entire network because it doesn’t make sense to sell it off in pieces because everybody is better off, both buyer and seller, selling it as a bundle.”).

⁴⁴¹ Tr. (English), Day 5, 991:11-20 (Chodorow presentation).

⁴⁴² Tr. (English), Day 2, 422:19-423:5 ([REDACTED] cross-examination).

⁴⁴³ Witness Statement-[REDACTED]-Claimant’s Reply-ENG, ¶¶ 22-23 (“[REDACTED]

testified with respect to the Vulica vessels,

180. Consistent with these economic realities faced by Legacy Vulcan in the face of

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C. HART AND VÉLEZ’S ANALYSIS IS UNRELIABLE AND SEVERELY UNDERSTATES THE COMPENSATION MEXICO OWES TO LEGACY VULCAN

181. As Legacy Vulcan has explained and cross-examination at the Hearing confirmed, Hart and Vélez built their estimates on assumptions that are speculative and wrong, severely understating the compensation owed to Legacy Vulcan. Five assumptions and errors illustrate this point.

444 Witness Statement-[REDACTED]-Claimant's Reply-Second Statement-ENG, ¶16.

445 Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶ 69.

⁴⁴⁶ See Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶¶ 164-166 & Table 7 (showing estimated sales proceeds associated with the [REDACTED] as mitigation opportunities).

⁴⁴⁷ See Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 165.

⁴⁴⁸ *Id.*, ¶ 164.

⁴⁴⁹ *Id.*, ¶ 166.

⁴⁵⁰ Chodorow Presentation, Slide 19 (CD-0006) (noting “Downstream Assets Already Excluded from Damages”); Tr. (English), Day 5, 1014:6-15 (Chodorow cross-examination). *See also* Tr. (English), Day 5, 1010:21-1011:14 (Chodorow cross-examination).

182. *First,*

183. *Second,*

Hart and Vélez presented no evidence to the contrary.

⁴⁵¹ Second Credibility Report, Exhibit 1.3, p. 3 (RE-004).

⁴⁵² Tr. (English), Day 5, 987:21-988:8 (Chodorow presentation). This refers to Ernst & Young LLP, “2015 Calizas Industriales del Carmen S.A. de C.V. Transfer Pricing Documentation,” dated 6 September 2016, p. 18 (6 September 2016) (DC-0023.20); Appendix B, Answer to the Tribunal’s Question 15, No. 5.

⁴⁵³ Tr. (English), Day 5, 988:8-13 (Chodorow presentation).

⁴⁵⁴ Expert Report-Darrell Chodorow-Claimant's Reply-Second Report-ENG, ¶¶ 61-62.

⁴⁵⁵ See First Credibility Report, ¶ 188 (RE-002).

⁴⁵⁶ See Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 55 & Fig. 6; Tr. (English), Day 5, 981:8-18 (Chodorow presentation).

⁴⁵⁷ Tr. (English), Day 2, 394:11-18 (█ cross-examination).

184. In addition, [REDACTED]

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185. There is also [REDACTED]

Mr. Chodorow's demonstratives — based on pre-breach documents prepared in the normal course of business — showed that [REDACTED]

As Mr. Chodorow explained at the Hearing, [REDACTED]

186. *Third*, [REDACTED]

As Mr. Chodorow showed at the Hearing, [REDACTED]

And as Mr. Chodorow discussed in his First Report, there are significant market fundamentals that support the continuation of that trend into the future.⁴⁶⁶ Pre-breach documents also confirm that

⁴⁵⁸ See Witness Statement-[REDACTED]-Claimant's Reply-ENG, ¶¶ 29-30; Witness Statement-[REDACTED]-Claimant's Reply-Second Statement-ENG, ¶ 14; Appendix B, Answer to the Tribunal's Question 15, No. 74.

⁴⁵⁹ See Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 57.

⁴⁶⁰ Chodorow Presentation, Slide 9 (CD-0006); see also Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 57 & Table 4 (same).

⁴⁶¹ See Expert Report-Darrell Chodorow-Claimant's Reply-Second Report-ENG, ¶ 107; Witness Statement-[REDACTED]-Claimant's Reply-ENG, ¶ 20; [REDACTED]-0003.3 (Mitigation Analysis Presentation).

⁴⁶² Chodorow Presentation, Slide 10 (CD-0006); see also C-0089-ENG.9.

⁴⁶³ Tr. (English), Day 5, 983:6-9 (Chodorow presentation).

⁴⁶⁴ See Chodorow Presentation, Slide 12 (CD-0006) (referring to Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶¶ 98-100 and Expert Report-Darrell Chodorow-Claimant's Reply-Second Report-ENG, ¶ 124 & Fig. 10); Appendix B, Answer to the Tribunal's Question 15, Nos. 52-53.

⁴⁶⁵ Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶ 48; Witness Statement-[REDACTED]-Claimant's Reply-ENG, ¶ 28.

⁴⁶⁶ See Expert Report-Darrell Chodorow-Claimant's Reply-Second Report-ENG, ¶ 124; Appendix B, Answer to the Tribunal's Question 15, Nos. 52-53.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

187. *Fourth*, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

188. Hart and Vélez are wrong.⁴⁷⁴ As [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

⁴⁶⁷ See C-0088-ENG.1-2.

⁴⁶⁸ See C-0089-ENG.6; Tr. (English), Day 5, 1061:6-12 (Chodorow cross-examination: “The reason that I don’t feel compelled to do that is because this is a forecast that was used by Vulcan and deemed to be sufficiently reliable in order for them to invest substantial amounts of money in order to expand the production capacity of the CALICA Network in order to meet increased demand going forward.”); Appendix B, Answer to the Tribunal’s Question 15, No. 4.

⁴⁶⁹ Second Credibility Report, Ex. 1.1, pp. 1-4 (row labelled “Total Sales (Tons)”, which is just an average sales from 2013 to 2015 as calculated in Exhibit 1.3, p. 1.)

⁴⁷⁰ Second Credibility Report, Ex. 1.3, p. 1 (which shows sales of [REDACTED] in 2015).

⁴⁷¹ Tr. (English), Day 5, 1148:4-16 (Hart and Vélez presentation).

⁴⁷² Tr. (English), Day 5, 1148:2:14 (Hart and Vélez presentation).

⁴⁷³ Tr. (English), Day 5, 1148:15-17 (Hart and Vélez presentation).

⁴⁷⁴ Witness Statement-[REDACTED]-Claimant’s Reply-Second Statement-ENG, ¶¶ 6-7; Appendix B, Answer to the Tribunal’s Question 15, No. 57.

⁴⁷⁵ *Id.*, ¶ 10.

██████ also explained that this is typical industry practice because delivery charges to customer sites can vary widely, and using freight-adjusted revenues provides a consistent basis for comparing profitability across transactions.⁴⁷⁶ Mr. Chodorow also demonstrated that freight-adjusted revenues are consistent with industry practice used by other leaders in the industry (e.g., Martin Marietta) and how the U.S. Department of the Interior (through its U.S. Geological Survey arm) tracks and reports data on aggregate prices.⁴⁷⁷

189. Hart and Vélez's argument that freight-adjusted revenues are not a GAAP-compliant practice is irrelevant: [REDACTED]

In fact, VMC's annual report states explicitly that the company relies on freight-adjusted revenues to evaluate its own operating results and reporting them to investors:

“Aggregates segment gross profit margin as a percentage of freight-adjusted revenues is not a GAAP measure. We present this metric as it is consistent with the basis by which we review our operating results. We believe that this presentation is meaningful to our investors as it excludes freight, delivery and transportation revenues, which are pass-through activities.”⁴⁷⁸

190. At the Hearing, Hart and Vélez acknowledged that VMC does track freight-adjusted prices “separately from the revenues that they track for GAAP purposes,”⁴⁷⁹ that “we are aware that the freight-adjusted prices are used for [VMC’s] internal purposes,”⁴⁸⁰ and that VMC “make[s] the data available” to investors in its annual reports.⁴⁸¹ The prices in dispute here are taken from the Netback Reports for the CALICA Network, which is used internally to assess the profitability of the CALICA Network in the normal course of business.⁴⁸² Therefore, as confirmed by [REDACTED], as Vulcan told its investors, and consistent with industry practice, the prices are freight-adjusted revenue. Hart and Vélez admitted at the Hearing that they did not know if the prices were freight adjusted: “we have not seen any reconciliation to the underlying invoices to customers that show whether the Sales Price is freight-adjusted or not.”⁴⁸³ Despite being uncertain and in disregard of substantial evidence from [REDACTED], Mr. Chodorow, Vulcan’s

476 *Id.*

⁴⁷⁷ Tr. (English), Day 5, 995:10-18 (Chodorow presentation).

⁴⁷⁸ DC-0073.50 (Vulcan Materials Company, Form 10-K for the Fiscal Year Ended 31 December 2015); Appendix B, Answer to the Tribunal's Question 15, No. 57.

⁴⁷⁹ Tr. (English), Day 5, 1181: 6-13 (Hart and Vélez cross-examination).

⁴⁸⁰ Tr. (English), Day 5, 1179:15-17 (Hart and Vélez cross-examination).

⁴⁸¹ Tr. (English), Day 5, 1181: 6-13 (Hart and Vélez cross-examination).

482 Witness Statement-[REDACTED]-Claimant's Reply-Second Statement-ENG, ¶ 7.

⁴⁸³ Tr. (English), Day 5, 1183:18-21 (Hart and Vélez cross-examination).

annual reports, and other sources, Hart and Vélez erroneously assume that prices are not freight adjusted, and therefore add in unwarranted costs that artificially reduce the value of the CALICA Network in Hart and Vélez's DCF by [REDACTED]

191. *Finally*, while the Parties' damages experts agree that comparables can be used to test whether a DCF valuation is consistent with market evidence from similar companies,⁴⁸⁴ Hart and Vélez's testimony at the Hearing made clear that their comparables do not withstand scrutiny.

192. As Mr. Chodorow explained at the Hearing, he tested his but-for valuation against the market values of aggregates producers.⁴⁸⁵ Hart and Vélez agree that such a test is appropriate.⁴⁸⁶ Mr. Chodorow found that transactions for businesses that focus on aggregates had high EBITDA multiples, often in the range of 15-16x, with the lowest multiple being an outlier of 9.4x.⁴⁸⁷ The enterprise value estimated by Mr. Chodorow's DCF valuation but-for the alleged breaches implies a [REDACTED] multiple of the pre-breach EBITDA, and thus [REDACTED] on the value of aggregates businesses.⁴⁸⁸

193. In contrast, when [REDACTED]

[REDACTED]⁴⁸⁹ [REDACTED]

⁴⁸⁴ Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 75; First Credibility Report, ¶ 152 (RE-002); Tr. (English), Day 5, 1150:9-11 (Hart and Vélez presentation).

⁴⁸⁵ Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 172; Tr. (English), Day 5, 997:13-17 (Chodorow presentation).

⁴⁸⁶ Tr. (English), Day 5, 1133:15-21 (Hart and Vélez presentation).

⁴⁸⁷ Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶¶ 177-180 & Table 11.

⁴⁸⁸ Tr. (English), Day 5, 997:20-998:4 (Chodorow presentation); Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 180 & Table 11.

⁴⁸⁹ Tr. (English), Day 5, 998:5-11 (Chodorow presentation); Chodorow Presentation, Slide 22 (CD-0006); Second Credibility Report, ¶ 239 & Table 7.1.

⁴⁹⁰ Tr. (English), Day 5, 998:12-999:5 (Chodorow presentation); Appendix B, Answer to the Tribunal's Question 15, No. 38.

194. [REDACTED]

195. In their Second Report, Hart and Vélez introduced for the first time a comparables analysis for their CALICA Network DCF. In doing so, [REDACTED]

⁴⁹⁵ As Mr. Chodorow explained at the Hearing, [REDACTED]

⁴⁹¹ DC-0023.35 (Ernst & Young LLP, “2015 Calizas Industriales del Carmen S.A. de C.V. Transfer Pricing Documentation,” dated 6 September 2016).

⁴⁹² Tr. (English), Day 5, 999:6-16 (Chodorow presentation).

⁴⁹³ Tr. (English), Day 5, 999:16-19 (Chodorow presentation).

⁴⁹⁴ Witness Statement-[REDACTED] Claimant’s Reply-ENG, ¶ 34; Appendix B, Answer to the Tribunal’s Question 15, No. 38.

⁴⁹⁵ Tr. (English), Day 5, 999:22-1000:5 (Chodorow presentation); Second Credibility Report, ¶ 247 (RE-004); Appendix B, Answer to the Tribunal’s Question 15, No. 65.

⁴⁹⁶ Tr. (English), Day 5, 1000:7-10 (Chodorow presentation); Appendix B, Answer to the Tribunal’s Question 15, No. 65.

⁴⁹⁷ Tr. (English), Day 5, 1201:17-1202:2 (Hart and Vélez cross-examination).

196. The resulting multiple implied by Hart and Vélez's DCF valuation of the CALICA Network but for the breaches is [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

V. CONCLUSION

197. For the foregoing reasons and those set forth by Legacy Vulcan in its pleadings and at the Hearing, Legacy Vulcan respectfully requests that the Tribunal render an award in its favor, consistent with the request for relief as set out Claimant's Memorial and Reply.⁵⁰¹

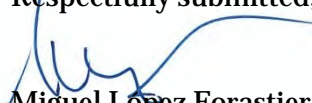
⁴⁹⁸ Tr. (English), Day 5, 998:5-6 (Chodorow presentation); Chodorow Presentation, Slides 23, 29 (CD-0006); Appendix B, Answer to the Tribunal's Question 15, No. 66.

⁴⁹⁹ Tr. (English), Day 5, 998:20-999:9 (Chodorow presentation).

⁵⁰⁰ Tr. (English), Day 5, 1000:10-12 (Chodorow presentation).

⁵⁰¹ Memorial, ¶ 347; Reply, ¶ 288.

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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

APPENDIX A TO CLAIMANT'S POST-HEARING BRIEF

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**APPENDIX A: CLAIMANT’S RESPONSES TO THE TRIBUNAL’S QUESTIONS TO THE PARTIES
NOS. 1-14 AND 16-17**

1. With respect to Respondent’s objection, in respect of both jurisdiction and damages, that Claimant may only claim losses in its capacity as investor in Mexico and may not claim losses such as those related to ships owned by Vulica Shipping Company Limited or the US Sales Yards (see Counter-Memorial ¶¶ 282-283; 457-458), what is the relevance, if any, of Recital IV of the Agreement between the Federal Government, the Government of the State of Quintana Roo and CALICA dated 6 August 1986 (Exh. C-010) stating that “[t]he Project also includes the construction, at the same site, of the port infrastructure works and facilities necessary for the handling and exportation of the products, through the use of vessels suitable for the transportation of large volumes”?1
2. With respect to Claimant’s claim for port fees, are those port fees to be considered (i) port fees (*tarifas de puerto*) as a service fee; (ii) port duties (*derechos de puerto*); or (iii) other (see Reply ¶ 125; Rejoinder ¶ 310)?..... 3
3. With respect to the Tribunal’s jurisdiction over Claimant’s claim for port fees, what is the relevance, if any, of Respondent’s assertion that Claimant has sought recourse (*recursos de revisión fiscal*) against the Mexican authorities in relation to those fees (see Rejoinder ¶ 311)? 5
4. With respect to the legal standard under NAFTA Article 1105 and Claimant’s argument that the MFN clause in NAFTA Article 1103 enables the importation of autonomous fair and equitable treatment standards under Mexico’s BITs with Korea, Germany, Greece and the Netherlands (see Memorial ¶ 197; Reply ¶ 197), what is the relevance, if any, of the NAFTA Free Trade Commission’s Note of Interpretation of 31 July 2001 (see Rejoinder ¶ 319)?..... 7
5. Please refer to any evidence on the record regarding whether Claimant was aware of the content of the Program for Local Environmental Regulation (Programa de Ordenamiento Ecológico Territorial) of 2009 (“POEL”) before it came into effect. In particular, was Claimant aware that most of La Adelita would be classified under Unidad de Gestión (UGA) 5, including its applicable restrictions (see Counter-Memorial ¶¶ 187- 188)? 8
6. Please provide each Party’s position as to whether, prior to the POEL coming into effect, Claimant (i) would have been required by applicable laws and regulations to apply for, and (ii) could have been granted, a CUSTF (Authorization for Soil-Use Change in Forested Terrains / Autorización de Cambio de Uso del Suelo en Terrenos Forestales) for the removal of vegetation at La Adelita, or other similar federal authorization, prior to undertaking quarrying activities in that lot (see Reply ¶ 22; Rejoinder ¶¶ 158-159). 10
7. Further to Question 6 above, please advise whether any CUSTF or similar federal authorization was (i) required by applicable laws and regulations before quarrying at La Rosita and/or El Corchalito; (ii) was obtained by

- CALICA before quarrying at La Rosita and/or El Corchalito; and (iii) necessary for removal of vegetation in lots classified under UGA 5 (or in similarly classified lots), prior to the POEL of 2009 coming into effect.12
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business would encounter and that to be applied to a compensation
awarded to Claimant by this Tribunal, if so decided. 39

1. With respect to Respondent's objection, in respect of both jurisdiction and damages, that Claimant may only claim losses in its capacity as investor in Mexico and may not claim losses such as those related to ships owned by Vulica Shipping Company Limited or the US Sales Yards (see Counter-Memorial ¶¶ 282-283; 457-458), what is the relevance, if any, of Recital IV of the Agreement between the Federal Government, the Government of the State of Quintana Roo and CALICA dated 6 August 1986 (Exh. C-010) stating that "[t]he Project also includes the construction, at the same site, of the port infrastructure works and facilities necessary for the handling and exportation of the products, through the use of vessels suitable for the transportation of large volumes"?

Recital IV is a key provision of the Agreement between the Federal Government, the Government of the State of Quintana Roo and CALICA dated 6 August 1986 (the "Investment Agreement"), the instrument by which Mexico first authorized Legacy Vulcan's investment to quarry limestone in Mexico for the production of aggregates for export, including from an environmental standpoint.¹ Recital IV provides in relevant part:

"The COMPANY has prepared and presented before SEDUE² and the STATE GOVERNMENT, a Project for the exploitation of the materials bank, to obtain aggregates for the manufacture of construction materials and for the direct use of limestone for the same purposes. Such products are intended mainly for their exportation by sea. The Project also includes the construction, at the same site, of the port infrastructure works and facilities necessary for the handling and exportation of the products, through the use of vessels suitable for the transportation of large volumes."³

This Recital is relevant to this dispute for at least two reasons. *First*, Recital IV memorializes the Parties' understanding that Legacy Vulcan's was an export-oriented project since its inception.⁴ By explicitly noting that the project would require "port infrastructure works and facilities necessary for the handling and exportation of the products, through the use of vessels suitable for the transportation of large volumes,"⁵ Recital IV makes clear that Legacy Vulcan's investment was premised on its ability to export the aggregates quarried in Mexico, and that the Punta Venado port would serve as the link between CALICA's production from its quarries in Mexico and markets abroad.⁶

¹ C-0010-SPA.

² SEDUE was Mexico's Ministry of Urban Development and the Ecology (*Secretaría de Desarrollo Urbano y Ecología*), an agency that ceased to exist in 1992 and was replaced by SEMARNAT.

³ C-0010-SPA.4, 12 (free translation).

⁴ Tr. (English), Day 1, 25:14-26:1 (Claimant's Opening Statement).

⁵ C-0010-SPA.4, 12 (free translation).

⁶ Tr. (English), Day 1, 25:1-26:1, 27:16-20 (Claimant's Opening Statement).

Second, Recital IV demonstrates that Mexico knew from the outset that the purpose of the Project was to serve foreign markets by sea — not to serve the local market or for any other commercial purpose aside from seaborne exports. Mexico’s artificial focus on damages caused only in Mexico is therefore misplaced.⁷ Importantly, Recital IV shows that the “loss or damage” Mexico inflicted on Legacy Vulcan “by reason of, or arising out of” Mexico’s breaches was foreseeable to Mexico, thus meeting the proximate causation requirement in NAFTA Article 1116.⁸ Recital IV makes clear that the aggregates to be quarried at CALICA’s lots in Mexico “are intended mainly for their exportation by sea” and that the port facilities and supporting infrastructure for shipping aggregates are an integral part of “the project.”⁹ Mexico therefore knew or should have known the direct consequences that its breach of NAFTA would cause on Legacy Vulcan.

For the same reason, Recital IV proves that Mexico’s position at the Hearing that “a reasonable buyer could purchase CALICA without any need for a shipping company in it” is untenable.¹⁰ The Project was devised from the beginning, and developed and operated since, to include a shipping segment for the transport of aggregates produced from CALICA’s quarries and a distribution network on the U.S. Gulf Coast, a fact established by the Investment Agreement plus additional record evidence.¹¹

⁷ See, e.g., Tr. (Spanish), Day 1, 301:18-302:18 (Respondent’s Opening Statement) [English, 250:4-251:1]; First Credibility Report, ¶ 14 (RE-002) (“We were instructed by Mexico’s legal counsel that Mr. Chodorow should not have valued any of the alleged damages from outside the investment in the Mexican quarrying operation on the Yucatan Peninsula.”).

⁸ Reply, ¶ 219; Tr. (English), Day 1, 121:12-18 (Claimant’s Opening Statement: “NAFTA Article 1116 makes clear that to be entitled to compensation, Legacy Vulcan must meet two elements: First, Legacy Vulcan will show that it has suffered loss or damage; and, second, Legacy Vulcan must prove causation in other words, that it has suffered an injury by reason of or arising out of the breach.”); Expert Report-Darrell Chodorow-Claimant’s Reply-Second Report-ENG, ¶ 14 (“Because the Calica Network is an integrated business comprised of dedicated assets to extract, transport and distribute the Calica Mexico reserves, the inability to extract Calica aggregates due to the alleged breaches directly and foreseeably causes non-mitigable losses across the full Calica Network.”).

⁹ C-0010-SPA.4, 12 (free translation).

¹⁰ Tr. Day 1 (Spanish), Day 1, 309:4-6 (Respondent’s Opening Statement, responding to questions from the Tribunal) [English, 255:22-256:2].

¹¹ C-0010-SPA.47 (1986 Investment Agreement providing as “Objetivos Del Proyecto: Explotación, procesamiento y embarque de agregados para la construcción para su posterior comercialización en el mercado de los Estados Unidos de Norteamérica.”); C-0027-ENG.107 (Vulcan Materials Company’s 1989 10-K Form, stating that the Project involved “the mining and shipping of crushed stone from a quarry on the Yucatan Peninsula of Mexico to various U.S. Gulf Coast markets,” including dedicated U.S. yards); C-0046-ENG.56 (reporting in its 2001 10-K that “Early in 2001, the Company acquired all of its former joint venture partner’s [...] interests in [...] the former Vulcan/ICA joint venture. These companies produce aggregates on the Yucatan Peninsula and transport and sell them in various markets primarily along the U.S. Gulf Coast. The businesses of these companies include: [1] a limestone quarry, aggregates processing plant, deepwater harbor and other properties, [2] aggregates transportation involving two ships used to

2. With respect to Claimant's claim for port fees, are those port fees to be considered (i) port fees (*tarifas de puerto*) as a service fee; (ii) port duties (*derechos de puerto*); or (iii) other (see Reply ¶ 125; Rejoinder ¶ 310)?

The [REDACTED] that were paid to API Quintana Roo between 2007 and 2017 are port fees (*tarifas de puerto*).

As Claimant explained in its Reply, Mexican law unambiguously distinguishes between port fees (*tarifas de puerto*) and port duties (*derechos de puerto*).¹² According to the Mexican Ports Law (*Ley de Puertos*), port fees (*tarifas de puerto*) are the amounts that port concessionaires may charge third parties for using their own infrastructure or for services provided in relation thereto.¹³ Under the CALICA Port Concession, which allows CALICA to operate the Punta Venado private port terminal since 1987, CALICA — as the concessionaire — has the right to charge port fees to vessels that dock at its private port terminal.¹⁴ Port duties (*derechos de puerto*), by contrast, are levies paid to the Mexican government for the use of national ports or public port terminals, regardless of whether they are administered by an Integral Port Administration (*Administración Portuaria Integral* (“API”)) or a private party through a concession.¹⁵ Mexico's own witness on this issue, Mr. José Atempa, confirmed this distinction.¹⁶

It is undisputed that the relevant payments arose from vessels docking at CALICA's private port terminal.¹⁷ Accordingly, the [REDACTED] that API Quintana Roo charged are port fees (*tarifas de puerto*), not port duties (*derechos de puerto*) or some other charge.

In its Rejoinder and at the Hearing, Mexico claimed that the “special configuration of the ports located at Punta Venado” entitled API Quintana Roo to charge port fees to vessels docking

transport aggregates from Mexico [...] and [3] aggregates production and various distribution facilities primarily on the Gulf Coast.”).

¹² Reply, ¶ 112 (citing C-0155-SPA, Article 40, Section X; Witness Statement of José A. Atempa, ¶ 17 (RW-006)).

¹³ *Id.* (citing C-0155-SPA, Article 40, Section X; Witness Statement of José A. Atempa, ¶¶ 5-6 (RW-006)).

¹⁴ Memorial, ¶ 64 (citing C-0013-SPA.18); Reply, ¶ 109.

¹⁵ Reply, ¶ 112 (citing Witness Statement of José A. Atempa, ¶ 17 (RW-006)).

¹⁶ Witness Statement of José A. Atempa, ¶¶ 9, 13, 17 (RW-006) (distinguishing between port duties (*derechos de puerto*) and port fees (*tarifas de puerto*), and confirming that “*tarifas portuarias no son contribuciones, toda vez que son cobros por el uso de infraestructura o la prestación de servicios portuarios*” (emphasis added)).

¹⁷ Rejoinder, ¶ 423 (acknowledging that the fees charged by API Quintana Roo derive from vessels arriving at the private terminal in Punta Venado (*i.e.*, CALICA's private port terminal)).

at CALICA's private port terminal.¹⁸ Mexico *never* made such a claim during the decade-long proceedings before Mexican courts. That is because Mexico's last-ditch, unsupported assertion is contrary to the CALICA Port Concession. Under the CALICA Port Concession, CALICA has been responsible for, *inter alia*, "install[ing], at its own expense, maintain[ing], and operat[ing] aids to navigation and maritime signals [(e.g., buoys, beacons)] [...] for the safety of port operations and navigation" at Punta Venado since 1987.¹⁹ CALICA has since carried out this obligation. API Quintana Roo lacked any right to charge for the use of this infrastructure outside of CALICA's private terminal, and Mexico has failed to demonstrate the opposite.²⁰

¹⁸ See Tr. (Spanish), Day 1, 272:13-273:3 (Respondent's Opening Statement, referencing Respondent's Opening Presentation, Slide 58 (RD-0001)) [English, 226:4-10]; Rejoinder, ¶¶ 283-288, 423.

¹⁹ C-0016-SPA.6. See also C-0016-SPA.7, 27 (whereby CALICA undertakes to install maritime signage); C-0012-SPA.16, 5; C-0013-SPA.18; C-0015-SPA.16-18.

²⁰ Tr. (English), Day 1, 82:16-83:10 (Claimant's Opening Statement).

3. With respect to the Tribunal's jurisdiction over Claimant's claim for port fees, what is the relevance, if any, of Respondent's assertion that Claimant has sought recourse (*recursos de revisión fiscal*) against the Mexican authorities in relation to those fees (see Rejoinder ¶ 311)?

Respondent's assertion about *recursos de revisión fiscal* in paragraph 311 of its Rejoinder is irrelevant to the Tribunal's jurisdiction over Claimant's claim for port fees. Under Mexican law, a "*recurso de revisión fiscal*" is a term of art that describes the legal action that *Mexican authorities* have available to seek the appellate review of an unfavorable decision granting an *amparo*.²¹ To the extent Respondent was suggesting in Paragraph 311 of its Rejoinder that Claimant or CALICA filed *recursos de revisión fiscal*, that suggestion would be wrong (Respondent used the passive voice and did not clarify which party filed such *recursos* when it alleged that "*en tres ocasiones se han interpuesto recursos de revisión fiscal*").²² Contrary to Mexico's suggestion, the *recurso de revisión fiscal* is not an appeal reserved only for fiscal or tax matters;²³ that *recurso* is available only to Mexican authorities against *any decision granting an amparo*.²⁴

To be clear, the merits of the port fees litigation that Respondent mentioned in paragraph 311 of its Rejoinder have been decided in CALICA's favor, and that decision is final, constituting *res judicata*. As Claimant explained in its Memorial and Reply, on 25 January 2017, Mexico's Supreme Court upheld a lower court's 2014 ruling that concluded that it was unlawful for API Quintana Roo to collect [REDACTED] in port fees from vessels docking at CALICA's private port terminal.²⁵ This ruling, issued by Mexico's highest court, is final. All subsequent proceedings and appeals referred to by Respondent in its submissions — including the *recursos de revisión fiscal* — relate only to "*compliance with*" certain rulings resulting from the merits of the port fees litigation.²⁶ Any potential decision issued by a domestic court in relation to an appeal that

²¹ See R-0110-SPA.49-50, Article 63. Conversely, under Mexican law, the term of art for the legal recourse that a complaining party (e.g., CALICA) may file to seek the review of an unfavorable *amparo* judgment is "*recurso de revisión*."

²² Rejoinder, ¶ 311.

²³ Rejoinder, ¶¶ 311-312; [REDACTED]-0037.29-30, Articles 80-81.

²⁴ [REDACTED]-0037.29-30, Articles 80-81; R-0110-SPA.49-50, Article 63.

²⁵ See Memorial, ¶ 132; Reply, ¶ 108; C-0106-SPA.271-272; C-0059-SPA.28-29, 42-43.

²⁶ See e.g., R-0116-SPA.16-17 (stating that CALICA's submission "está encaminado a demostrar la ilegalidad de las resoluciones emitidas *en cumplimiento* a la sentencia de 03 de septiembre de 2014") (emphasis added); *id.* at 106 (holding that "resulta FUNDADA la queja [de CALICA] que nos ocupa, dado que se incurrió en defecto *en el cumplimiento* de la sentencia de 03 de septiembre de 2014") (emphasis added); R-0117-SPA.10 ("en el caso concreto, la quejosa [CALICA] reclama la resolución de diecinueve de septiembre de 2018 [la citada anteriormente en esta nota al pie], emitida en el recurso de queja por defecto

CALICA or API Quintana Roo may submit in subsequent proceedings related to the compliance with certain rulings will not impact the Mexican judiciary's final determination that API Quintana Roo illegally collected port fees from vessels docking at Punta Venado from 2007 to 2017.

en el cumplimiento de la sentencia [de 2014].”) (emphasis added); R-0056-SPA.3 (in response to a submission filed by CALICA requesting that the Court confirm that the decision of 3 September 2014 is firm, the Federal Tribunal on Fiscal and Administrative Matters stated “la sentencia definitiva de 03 de septiembre de 2014 [...] quedó firme” and ordered the docket to be archived).

4. With respect to the legal standard under NAFTA Article 1105 and Claimant's argument that the MFN clause in NAFTA Article 1103 enables the importation of autonomous fair and equitable treatment standards under Mexico's BITs with Korea, Germany, Greece and the Netherlands (*see* Memorial ¶ 197; Reply ¶ 197), what is the relevance, if any, of the NAFTA Free Trade Commission's Note of Interpretation of 31 July 2001 (*see* Rejoinder ¶ 319)?

The NAFTA Free Trade Commission's ("FTC") Note of Interpretation of 31 July 2001 ("Note") has no effect on Claimant's argument that the MFN clause in NAFTA Article 1103 enables the importation of autonomous fair and equitable treatment standards accorded in Mexico's post-NAFTA BITs because that Note did not interpret or impact NAFTA Article 1103 or NAFTA Annex IV, the text of which controls and supports Claimant's argument.

According to the Note, NAFTA Article 1105 "prescribes the customary international law minimum standard of treatment of aliens as the minimum standard of treatment to be afforded to investments of investors of another Party."²⁷ The Note also states that "[a] determination that there has been a breach of another provision of the NAFTA, or of a separate international agreement, does not establish that there has been a breach of Article 1105(1)."²⁸

The Note interpreted Article 1105, not Article 1103. It therefore has no bearing on Legacy Vulcan's claim under Article 1103. As one NAFTA tribunal explained after the Note was issued: "[E]very NAFTA investor is entitled, by virtue of Article 1103, to the treatment accorded to nationals of other states under BITs containing the fairness elements unlimited by customary international law. The [FTC Note of] Interpretation did not purport to change that fact, nor could it."²⁹

²⁷ C-0132-ENG.3, Section B(1).

²⁸ *Id.*, Section B(3).

²⁹ *Pope & Talbot Inc. v. Government of Canada*, UNCITRAL, Damages Award, n.54 (31 May 2002) (Dervaird (P), Greenberg, Belman) (CL-0031-ENG). *See also United Parcel Service of America Inc. v. Government of Canada*, ICSID Case No. UNCT/02/1, Award on Jurisdiction, ¶ 97 (22 November 2002) (Keith (P), Yves Fortier, Cass) (CL-0035-ENG) (emphasizing the "likely availability to the investor of the protection of the most favoured nation obligation in article 1103, by reference to other bilateral investment treaties"); Patrick Dumbery, *The Importation of "Better" Fair and Equitable Treatment Standard Protection Through MFN Clauses: An Analysis of NAFTA Article 1103*, 14(1) TDM 1 (2017) (CL-0038-ENG.2, 4, 14) (noting that "there is a large consensus in support of the proposition that a broad MFN clause contained in the basic treaty can be used by an investor to claim the benefit of better FET protection as found in other BITs" and that "importation of better FET clauses should be allowed," particularly with respect to treaties entered into by Mexico).

5. Please refer to any evidence on the record regarding whether Claimant was aware of the content of the Program for Local Environmental Regulation (Programa de Ordenamiento Ecológico Territorial) of 2009 (“POEL”) before it came into effect. In particular, was Claimant aware that most of La Adelita would be classified under Unidad de Gestión (UGA) 5, including its applicable restrictions (see Counter-Memorial ¶¶ 187- 188)?

The process to develop and issue the POEL began in 2006.³⁰ While one of Respondent’s witnesses alleged that CALICA participated in an unspecified way in this process early on,³¹ his testimony does not indicate when exactly rezoning of the area encompassing most of La Adelita to the Environmental Management Unit (*Unidad de Gestión Ambiental* or “UGA”) 5 was proposed as part of that process.³² Unlike the process to amend the POEL initiated in 2014, CALICA was *not* part of the technical body of the committee set up for the development of the POEL.³³ Record evidence shows that a public consultation phase regarding the POEL took place from 19 to 29 January 2009 and that a draft of the POEL was made available to the general public as part of that phase.³⁴ The record reflects that CALICA identified that this draft POEL suffered from “inconsistencies and irregularities,” and that CALICA submitted written comments about this to the committee developing the POEL on 22 and 29 January, and on 6 March 2009.³⁵ No response was provided to CALICA’s written comments on the draft POEL.³⁶ There is no evidence in the record showing that, prior to this January 2009 consultation period, Claimant or CALICA was aware that the POEL would reclassify most of La Adelita as UGA 5.

³⁰ C-0080-SPA.23 (Considerando 5).

³¹ Witness Statement of Salomón Díaz Mondragón, ¶ 30 (RW-004) (“En el periodo en que participé (2005-2007), recuerdo la participación de [CALICA] en el proceso, sin embargo, no recuerdo haber escuchado alguna inconformidad sobre dicho proceso.”).

³² Paragraphs 187-188 of Respondent’s Counter-Memorial, cited in the Tribunal’s Question No. 5, simply describe the process by which the POEL was issued and contain no allegations about Claimant’s or CALICA’s knowledge of the contents of the POEL before it was issued in 2009.

³³ See C-0080-SPA.29-30 (listing the members of the technical body).

³⁴ C-0082-SPA.8 (CALICA’s lawsuit challenging the POEL mentioned: “Una vez elaborado el proyecto de Programa de Ordenamiento Ecológico Local del Municipio de Solidaridad se inició el procedimiento de Consulta Pública, mediante el cual se puso a disposición del público en general dicho proyecto de Programa a efecto de que los interesados pudiesen aportar elementos y/o comentarios a dicho proyecto. Cabe mencionar que dicho procedimiento de Consulta Pública inició el 19 de enero de 2009 y finalizó el 29 del mismo mes y año.”); C-0080-SPA.23 (Considerandos 6-7 of Solidaridad’s *Acuerdo* regarding the POEL, referring to this *Consulta Pública*).

³⁵ C-0082-SPA.8-9 (Antecedentes 14-15). See also C-0080-SPA.33 (including CALICA in a long list of persons and entities whose input was considered in the preparation of the POEL, in an apparent reference to CALICA’s written submissions of January and March 2009).

³⁶ C-0082-SPA.8-9 (Antecedentes 15-16).

As Claimant's environmental law expert, [REDACTED], explained at the Hearing, the POEL's reclassification of La Adelita as UGA 5 was "surprising" and "technically unjustifiable":

"Yo menciono en mi [primer] informe que me sorprende la conclusión a la que ha llegado el POEL en virtud de que lo que hace el Estado es reconocer la vocación de suelo de un predio en particular, no crear o generar una nueva. De acuerdo a la historia de ese predio, de acuerdo a los permisos que [...] se tenían, ese predio siempre ha tenido la vocación para la explotación minera[.] Por lo tanto, me parece técnicamente injustificada la modificación que se hace del POEL para hacer esta transición de un[a] [UGA] a otr[a]." ³⁷

As was further highlighted at the Hearing, however, the Municipality of Solidaridad and the State of Quintana Roo explicitly provided in the POEL that it would not retroactively apply to affect vested rights, including CALICA's rights to quarry La Adelita, as recognized in multiple prior permits and authorizations.³⁸ CALICA confirmed this fact through state-court litigation initiated immediately after the POEL was issued in May 2009.³⁹ The High Court of Justice of the State of Quintana Roo dismissed CALICA's legal action because "the interests of the plaintiff [(i.e., CALICA)] are not affected, since the [POEL] is not applicable to it."⁴⁰

³⁷ Tr. (Spanish), Day 3, 735:8-22 ([REDACTED] responding to questions from the Tribunal) [English, 634:1-12]; *see also* Expert Report-[REDACTED]-Environmental-Claimant's Memorial-SPA, ¶ 46 ("the [POEL's] determination of a land use [for La Adelita] incompatible with quarrying activities *has no technical-legal basis.*") (emphasis added).

³⁸ C-0080-SPA.20-21, 69; Memorial, ¶ 80. *See also* Tr. (Spanish), Day 3, 723:17-724:3 ([REDACTED] redirect, explaining that CALICA has vested rights stemming from its various environmental permits and authorizations) [English, 624:14-20].

³⁹ Memorial, ¶¶ 81-83; Tr. (English), Day 1, 32:1-16 (Claimant's Opening Statement).

⁴⁰ C-0087-SPA.19-20 (free translation); *see also* Claimant's Opening Presentation, Slide 21 (CD-0001).

6. Please provide each Party's position as to whether, prior to the POEL coming into effect, Claimant (i) would have been required by applicable laws and regulations to apply for, and (ii) could have been granted, a CUSTF (Authorization for Soil-Use Change in Forested Terrains / Autorización de Cambio de Uso del Suelo en Terrenos Forestales) for the removal of vegetation at La Adelita, or other similar federal authorization, prior to undertaking quarrying activities in that lot (see Reply ¶ 22; Rejoinder ¶¶ 158-159).

Before the POEL came into effect, CALICA was not required to apply for an Authorization for Soil-Use Change in Forested Terrains (*Cambio de Uso del Suelo en Terrenos Forestales* or "CUSTF") to quarry La Adelita. Because no CUSTF was required, one presumably could not have been granted.

Under the POET — the zoning regime that preceded the POEL — "forestry" ("*forestal*") was listed as an "incompatible use" for La Adelita (as well as for El Corchalito), while mining (or quarrying) was expressly deemed a permissible use for those lots under their assigned UGA 30.⁴¹ This fact was ratified in 2007 by the Municipality of Solidaridad through the Land Use License issued to CALICA, which identified quarrying for sand, gravel, and rock derivatives as the "Authorized Land Use" for El Corchalito and La Adelita and by the 2011 renewal of the Corchalito/Adelita State Environmental Authorization.⁴²

Consistent with the classification of La Adelita and El Corchalito's zoning as non-forestry in these instruments, as well as the Corchalito/Adelita Federal and State Environmental Authorizations,⁴³ CALICA began removing vegetation and quarrying El Corchalito in 2001, and planned to commence similar activities in La Adelita at a later stage for operational reasons.⁴⁴ As explained below,⁴⁵ CALICA removed the vegetation and began quarrying in El Corchalito without a CUSTF, and Mexico has never requested a CUSTF or indicated that one was required for El Corchalito, despite being fully aware of CALICA's activities there.⁴⁶

⁴¹ Expert Report-[REDACTED]-Environmental-Claimant's Memorial-SPA, ¶ 44 (chart describing relevant portions of the POET regime in C-0078-SPA); C-0078-SPA.42. See also Tr. (Spanish), Day 3, 679:10-681:11 ([REDACTED] presentation) [English, 590:19-592:13].

⁴² C-0079-SPA.5; Claimant's Opening Presentation, Slide 19 (CD-0001); C-0075-SPA.26-27.

⁴³ See C-0017-SPA.33 (federal authorization, authorizing activities involving the removal of vegetation for quarrying); C-0018-SPA.9 (Condicionante 7 of state authorization, recognizing that vegetation would be removed quarrying over the water table).

⁴⁴ Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶ 24.

⁴⁵ Answers to the Tribunal's Questions Nos. 7 and 8.

⁴⁶ *Id.*; Tr. (English), Day 2, 303:12-15 ([REDACTED] cross-examination: "we carried out [quarrying] activities in El Corchalito and La Rosita for many years, 2000 onwards, without anyone requesting us for this specific authorization [the CUSTF].").

As these facts show, a CUSTF was similarly not required for La Adelita, which had the same non-forestry zoning classification as El Corchalito prior to the POEL. As explained at the Hearing by Claimant's environmental law expert, Mr. [REDACTED], a CUSTF does not regulate activities in general and is not, in and of itself, necessary to conduct quarrying activities; a CUSTF is necessary only for the removal of vegetation in areas or terrains that are classified as "forested" or "forestry" ("*forestal*") — which La Adelita (just like El Corchalito) was not prior to the POEL 2009:

"La Autorización de Impacto Ambiental regula el desarrollo de la obra o actividad. [...] El [CUSTF] no regula la explotación [...] [sino que] regula la remoción de la vegetación en cuanto al hecho de que ese predio se considera como un predio forestal. Y como ese predio se considera como un predio forestal, luego entonces se vuelve necesario que ese predio se someta a la regulación de la legislación forestal y, por lo tanto, obtenga su cambio de uso de suelo en terrenos forestales."⁴⁷

When the POEL reclassified the applicable UGAs for the area encompassing La Adelita in 2009, it listed forestry as a permissible use and mining as incompatible.⁴⁸ As Mr. [REDACTED] explained at the Hearing, before the enactment of the POEL, no CUSTF would have been required to remove vegetation from La Adelita (or El Corchalito):

"la vocación del suelo, reconocida por los instrumentos normativos hasta antes del POEL 2009, era para el predio La Adelita incompatible con el uso de suelo forestal. Por lo tanto, hasta [...] que se da la modificación del POEL 2009, el predio La Adelita no hubiera requerido un Cambio de Uso de Suelo en Terrenos Forestales."⁴⁹

⁴⁷ Tr. (Spanish), Day 3, 677:5-678:3 ([REDACTED] responding to questions from the Tribunal) [English, 588:17-589:16].

⁴⁸ Expert Report-[REDACTED]-Environmental-Claimant's Memorial-SPA, ¶ 44 (systematizing relevant portions of the POEL in C-0080-SPA); C-0080-SPA.76. See also Tr. (Spanish), Day 3, 680:7-681:18 ([REDACTED] presentation) [English, 591:11-592:18].

⁴⁹ Tr. (Spanish), Day 3, 681:14-22 ([REDACTED] presentation) [English, 592:15-20].

7. Further to Question 6 above, please advise whether any CUSTF or similar federal authorization was (i) required by applicable laws and regulations before quarrying at La Rosita and/or El Corchalito; (ii) was obtained by CALICA before quarrying at La Rosita and/or El Corchalito; and (iii) necessary for removal of vegetation in lots classified under UGA 5 (or in similarly classified lots), prior to the POEL of 2009 coming into effect.

Prior to the POEL coming into effect, CALICA was not required to obtain a CUSTF to quarry La Rosita or El Corchalito. CALICA therefore did not obtain a CUSTF before quarrying at those lots.⁵⁰ Under the POEL, areas classified as UGA 5 have a land use vocation (*vocación de uso de suelo*) as a natural area (*área natural*), with forestry (*forestal*) listed as a conditional use (not an incompatible use⁵¹), all of which indicates that a CUSTF would be necessary to remove vegetation in lots zoned under that and similar UGAs.⁵² Before the POEL, by contrast, the POET identified areas now classified as UGA 5 as *incompatible* with forestry (*forestal*) uses,⁵³ thus indicating that a CUSTF would not have been necessary for those areas under the POET.

- La Rosita

By the early 1990s, CALICA had secured all applicable environmental permits and started quarrying La Rosita, which it continues to do to this day.⁵⁴ For more than three decades, CALICA has cleared vegetation and conducted quarrying activities there without a CUSTF.⁵⁵ Despite carrying out inspections of CALICA, Mexico has never indicated that CALICA required a CUSTF to remove vegetation in La Rosita.⁵⁶ Since CALICA began quarrying in La Rosita, that lot has not been classified as a forested terrain.⁵⁷ As noted in connection with the answer to the Tribunal's

⁵⁰ Tr. (English), Day 2, 303:3-15 (██████████ cross-examination).

⁵¹ See Tr. (Spanish), Day 3, 679:21-680:2 (██████████ presentation, explaining that "conditional use" refers to uses which are permitted under certain conditions) [English, 591:5-8].

⁵² See Tr. (Spanish), Day 3, 681:2-22 (██████████ presentation, explaining the interplay between zoning classification regarding forestry land use and the requirement to obtain a CUSTF) [English, 592:5-20].

⁵³ C-0078-SPA.37 (identifying "*forestal*" as an incompatible use for UGA 5).

⁵⁴ Memorial, ¶¶ 30, 38; Witness Statement-██████████-Claimant's Memorial-ENG, ¶¶ 17-18.

⁵⁵ Tr. (English), Day 2, 303:4-7 (██████████ cross-examination: "We carried out quarrying operations in La Rosita and El Corchalito without [a CUSTF] for decades in the full knowledge of both SEMARNAT and PROFEPA without any objection having ever been raised.").

⁵⁶ See C-0043-SPA.2 (stating the results of an inspection PROFEPA carried out at CALICA's lots in 2012 and evaluating CALICA's compliance with environmental permits, authorizations, and licenses); *id.* at 4-6 (focusing on La Rosita); *id.* at 57 (concluding that no irregularities were detected).

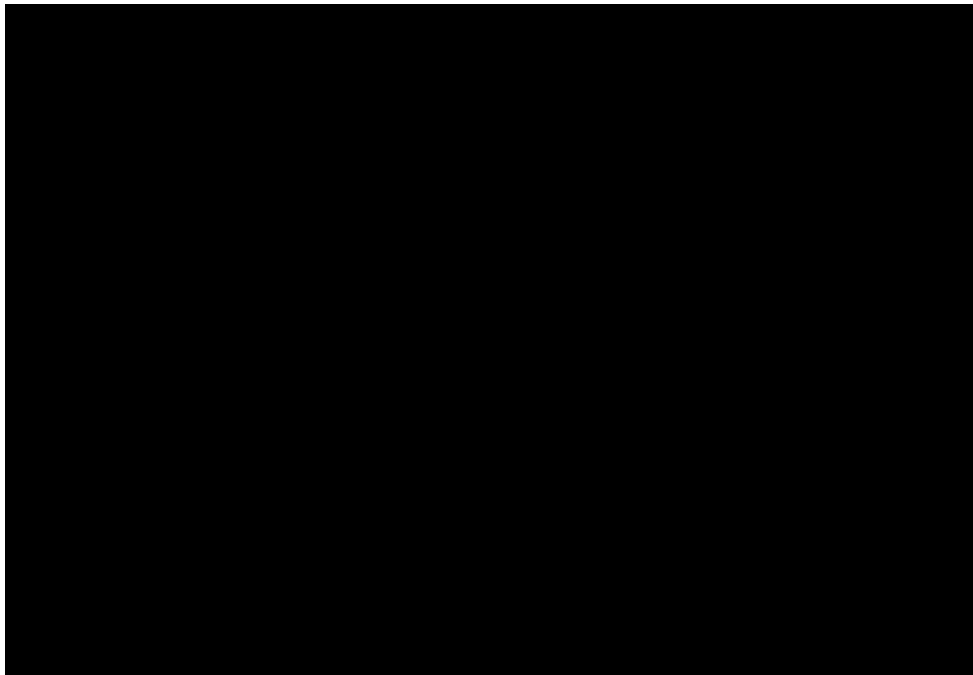
⁵⁷ Until 2009, La Rosita was zoned as UGA 19 under the POET, which permits quarrying and identifies "forestry" [*forestal*] as an incompatible use. See R-0023-SPA.3; Map 1 below; C-0078-SPA.19 (regulating land uses under UGA 19). The POEL does not regulate La Rosita because that lot is part of the Municipality

Question No. 6 above and as Mr. [REDACTED] explained at the Hearing, no forestry land-use change (*i.e.*, CUSTF) is required under these circumstances,⁵⁸ a fact confirmed by Mexico's decades-long refusal to require a CUSTF for La Rosita.⁵⁹

- El Corchalito

Despite being fully aware of CALICA's quarrying activities in El Corchalito, which began in 2001, Mexico similarly never required CALICA to apply for a CUSTF to remove vegetation in that lot.⁶⁰ El Corchalito was subject to the same zoning regime as La Adelita under the POET (UGA 30), as shown in Map 1 reproduced below.

Map 1 - [REDACTED]⁶¹



of Cozumel. See Memorial n.173. The record does not indicate that La Rosita's zoning has been changed to classify that lot as forested (*forestal*).

⁵⁸ Tr. (Spanish), Day 3, 677:7-678:3, 681:2-22 ([REDACTED] presentation) [English, 588:20-589:16, 592:5-13].

⁵⁹ Tr. (English), Day 2, 303:12-15 ([REDACTED] cross-examination: "we carried out [quarrying] activities in El Corchalito and La Rosita for many years, 2000 onwards, without anyone requesting us for this specific authorization [the CUSTF].").

⁶⁰ *Id.*

⁶¹ R-0023-SPA.3; Memorial, ¶ 78 (Map 2); Expert Report-[REDACTED]-Environmental-Claimant's Memorial-SPA, ¶ 35 (Figure 1). See also C-0078-SPA.42 (setting out the characteristics of UGA 30).

Instead of requiring the CUSTF for El Corchalito, SEMARNAT and its enforcement arm, PROFEPA, implicitly recognized that CALICA could remove vegetation there for quarrying without that permit. The Corchalito/Adelita Federal Environmental Authorization issued by SEMARNAT in November 2000 authorized the removal of vegetation in El Corchalito and La Adelita.⁶² CALICA started removing vegetation in El Corchalito the following year.⁶³ CALICA thereafter informed PROFEPA, SEMARNAT, and the State of Quintana Roo about this and its other quarrying activities through regular compliance reports submitted every four months throughout the years, and none of those instrumentalities ever raised any issues or suggested that CALICA was in violation of applicable laws.⁶⁴ To the contrary, in November 2012, PROFEPA inspected El Corchalito and La Adelita, and concluded that CALICA was in compliance with all applicable environmental laws and permits.⁶⁵ Respondent's counsel confirmed at the Hearing that Mexico never objected to CALICA's quarrying in El Corchalito without the CUSTF:

“Co-árbitro Tawil: Pero no se ha objetado por falta de autorización la explotación de El Corchalito.

[Counsel for Respondent]: No.”⁶⁶

In addition, between 2003 and 2016, PROFEPA also awarded CALICA six Clean Industry Certificates, which confirmed CALICA's compliance with environmental obligations — including any obligation to obtain federal authorizations, like the CUSTF — above and beyond those required.⁶⁷

As these facts show, CALICA was not required to obtain a CUSTF to quarry La Rosita or El Corchalito. Further confirming this fact, as discussed in connection with La Rosita and the

⁶² Tr. (English), Day 1, 30:2-13 (Claimant's Opening Statement); Claimant's Opening Presentation, Slide 17 (CD-0001); C-0017-SPA.33 (contemplating that the Project would involve clearing the land).

⁶³ Witness Statement- [REDACTED]-Claimant's Memorial-ENG, ¶ 24.

⁶⁴ See, e.g., C-0113-SPA.19 (listing “*desmonte*” as an activity being carried out by CALICA); *id.* at 39 (reporting how CALICA ensures that no animals are harmed during the clearing, stripping, and extraction activities carried out).

⁶⁵ C-0043-SPA.2 (stating that the inspection evaluated CALICA's compliance with environmental permits, authorizations, and licenses); *id.* at 57 (concluding that no irregularities were detected); *id.* at 34, 37-39, 46, 53-54 (noting that CALICA was conducting “*desmonte*” activities in the inspected lots).

⁶⁶ Tr. (Spanish), Day 1, 210:7-10 (Respondent's Opening Statement) [English, 174:22-175:3].

⁶⁷ See C-0037-SPA to C-0042-SPA; Tr. (English), Day 1, 59:18-21 (Claimant's Opening Statement).

answer to the Tribunal's Question No. 6, above, El Corchalito was zoned to be incompatible with "forestry" ("*forestal*") uses when quarrying activities commenced in that lot.⁶⁸

⁶⁸ R-0023-SPA.3; Memorial, ¶ 78 (Map 2); Expert Report-[REDACTED]-Environmental-Claimant's Memorial-SPA, ¶ 35 (Figure 1). *See also* C-0078-SPA.42 (setting out the characteristics of UGA 30); Tr. (Spanish), Day 3, 682:7-16, 680:17-681:11 ([REDACTED] presentation) [English, 593:2-11, 591:21-592:12].

8. Further to Questions 6 and 7 above, please indicate based on the evidence in the record when was the CUSTF or similar federal authorization first requested to Claimant in La Adelita, La Rosita and El Corchalito.

- La Rosita: Respondent never requested a CUSTF or similar federal authorization for this lot to Claimant or CALICA.⁶⁹
- El Corchalito: Respondent never requested a CUSTF or similar federal authorization for this lot to Claimant or CALICA.⁷⁰
- La Adelita: On 14 April 2013, SEMARNAT informed CALICA that, in addition to the multiple permits that it had already secured, SEMARNAT would also require CALICA to obtain the CUSTF and that an amendment to the POEL, expressly recognizing that La Adelita was apt for quarrying, would be necessary for SEMARNAT to issue the CUSTF.⁷¹

⁶⁹ Tr. (English), Day 2, 303:4-15 (██████████ cross-examination: “We carried out quarrying operations in La Rosita and El Corchalito without this requirement [the CUSTF] for decades in the full knowledge of both SEMARNAT and PROFEPA without any objection having ever been raised [...] [or] without anyone requesting us for this specific authorization [the CUSTF].”).

⁷⁰ *Id.*

⁷¹ Memorial, ¶ 85; Witness Statement-██████████-Claimant’s Memorial-ENG, ¶¶ 23-25.

9. According to the Parties, was it possible or necessary for Claimant to challenge (i) the POEL upon it coming into effect; and/or (ii) SEMARNAT's indication, made according to Claimant in 2013, that a CUSTF would not be granted unless the POEL expressly allowed extraction activities in La Adelita (*see* Reply ¶ 22; Rejoinder ¶ 160). If Claimant wished to challenge either of those measures, what legal options under Mexican law were available to do so?

- (i) Whether it was possible or necessary for Claimant to challenge the POEL upon it coming into effect.

Regarding the POEL (part (i) of the Tribunal's question), it was possible for CALICA to challenge this instrument upon it coming into effect, as CALICA actually did, but — as the ruling in that court challenge showed — it was not necessary for Claimant to do so because the POEL did not affect CALICA's vested rights with respect to quarrying in La Adelita in light of the POEL's non-retroactivity provision. The POEL changed the assigned zoning category, or UGA, for most of La Adelita from UGA 30, which allows quarrying,⁷² to UGA 5, which prohibits quarrying and is intended for conservation.⁷³ Yet Transitory Article 5 of the POEL provides that the new zoning classification did “not apply retroactively to those specific cases in which official and in-force documents have been issued before the entry into force of this instrument, nor to their future renewal.”⁷⁴

As Legacy Vulcan explained at the Hearing, Transitory Article 5 of the POEL meant that the POEL's zoning change did not affect CALICA's vested rights to quarry La Adelita.⁷⁵ As the POEL itself states, “[s]e reconocen y respetan [...] los derechos adquiridos [...].”⁷⁶ These vested rights to quarry La Adelita arose from numerous federal, state, and municipal authorizations, permits, and licenses that CALICA had secured prior to the entry into force of the POEL in 2009.⁷⁷ Among these authorizations, permits, and licenses was the Municipality of Solidaridad's Land Use

⁷² C-0078-SPA.13.

⁷³ C-0080-SPA.76.

⁷⁴ C-0080-SPA.6, 20-21 (free translation). *See also id.* at 69 (“Control de Constitucionalidad[:] Es muy importante precisar que este POEL, no se aplicará retroactivamente a los casos en concreto, que cuenten con documentos oficiales y vigentes hasta antes de su entrada en vigor, ni en lo general, ni en lo que toca a la futura renovación de los mismos, por parte de las autoridades competentes. Se reconocen y respetan pues, los derechos adquiridos concernientes, en los términos aquí precisados.”).

⁷⁵ Tr. (English), Day 1, 32:1-10 (Claimant's Opening Statement). *See also* Expert Report- [REDACTED] - Environmental-Claimant's Memorial-SPA, ¶ 47; Memorial, ¶ 80; Reply, ¶¶ 20, 144.

⁷⁶ C-0080-SPA.69.

⁷⁷ *See, e.g.*, Claimant's Opening Presentation, Slide 25 (CD-0001); Tr. (English), Day 1, 29:15-33:10, 90:19-91:17 (Claimant's Opening Statement). *See also* R-0124-SPA, ¶¶ 91, 106-115 (a Mexican court decision submitted by Respondent after the Hearing, recognizing that CALICA had vested rights to quarry that could not lawfully be retroactively affected by subsequent normative changes).

License, for example, which identified La Adelita's land-use code as UGA 30 and made clear that the authorized land use for that lot (along with El Corchalito) was "industrial exploitation of sand, gravel and rock by-products and non-mineral soils and quarries [...]."⁷⁸ In light of these authorizations, permits, and licenses, and the POEL's non-retroactivity provision, CALICA should have been able to commence quarrying operations in La Adelita after the POEL and a challenge of it was not necessary.

While a challenge to the POEL was unnecessary, it was possible for CALICA to challenge the POEL upon it coming into effect in May 2009, and CALICA did so immediately. Specifically, CALICA filed an annulment action on 15 June 2009 before the Constitutional and Administrative Chamber of the High Court of Justice of the State of Quintana Roo (*Sala Constitucional y Administrativa del Tribunal Superior de Justicia del Estado de Quintana Roo*).⁷⁹ In challenging the POEL to the extent it affected CALICA's rights to quarry La Adelita or El Corchalito, CALICA sought legal certainty regarding the effect of the POEL on its operations.⁸⁰ In the course of these legal proceedings, both the State of Quintana Roo and the Municipality of Solidaridad confirmed to the Court that the POEL in fact did not affect CALICA's vested rights to quarry La Adelita,⁸¹ a fact Mexico readily concedes in this arbitration.⁸² The High Court of Justice of the State of Quintana Roo ruled that "the interests of the plaintiff [CALICA] are not affected, since the [POEL] does not apply to it" and dismissed the suit accordingly in 2010.⁸³ The following year, the State of Quintana Roo (which, along with the Municipality of Solidaridad, had promulgated the POEL) renewed the Corchalito/Adelita State Environmental Authorization and explicitly recognized that La Adelita and El Corchalito continued to enjoy the zoning regime of the POEL:

los predios denominados El Corchalito, [y] La Adelita [...] se encuentran regulados por las Unidades de Gestión Ambiental

⁷⁸ C-0079-SPA.5 (free translation). It is undisputed that the *Clave de Uso de Suelo* identified in this license (Ff30) corresponds to UGA 30. See Counter-Memorial, ¶ 185.

⁷⁹ C-0082-SPA.3.

⁸⁰ Tr. (English), Day 1, 32:7-9 (Claimant's Opening Statement); C-0082-SPA.10-11 (CALICA's lawsuit, arguing that rights conferred on CALICA prior to the entry into force of the POEL should not be affected by this instrument); *id.* at 25 (arguing that the POEL contains ambiguities that render CALICA to a state of "incertidumbre jurídica").

⁸¹ Memorial, ¶¶ 81-82; Claimant's Opening Presentation, Slide 20 (CD-0001); C-0083-SPA.6; C-0084-SPA.4; C-0086-SPA.9.

⁸² Counter-Memorial, ¶ 198 ("[t]anto las autoridades municipales como las estatales reconocieron lo que claramente el propio [POEL] 2009 señalaba [...] la inaplicabilidad respecto de los derechos previamente adquiridos por CALICA.") (citations omitted).

⁸³ C-0087-SPA.3-4, 19-20 (free translation); Claimant's Opening Presentation, Slide 21 (CD-0001).

diecinueve y treinta (UGA 19 y 30) del [POET] [...] por lo que se determina que el aprovechamiento de los materiales pétreos en dichos predios es factible de acuerdo a la política de Aprovechamiento y uso predominante para la minería de la (UGA 19), así como al uso condicionado para la Minería de la (UGA 30).”).⁸⁴

* * * *

- (ii) Whether it was possible or necessary for Claimant to challenge SEMARNAT’s indication, made according to Claimant in 2013, that a CUSTF would not be granted unless the POEL expressly allowed extraction activities in La Adelita

It was neither possible nor necessary for Claimant to challenge SEMARNAT’s indication to CALICA in 2013 that SEMARNAT would not issue the CUSTF unless the POEL expressly allowed extraction activities in La Adelita. It was not possible because only formal administrative acts are capable of being challenged through a legal proceeding in Mexico, and SEMARNAT’s statement was not a formal administrative act, such as a denial of an application.⁸⁵

As was explained at the Hearing, a domestic court challenge would have been available to CALICA had it applied for a CUSTF after SEMARNAT’s 2013 indication and that application had been denied.⁸⁶ In that case, CALICA could have pursued an *amparo* and/or annulment action challenging SEMARNAT’s denial of CALICA’s application or its rationale.⁸⁷ Instead of filing a futile application for a CUSTF (which admittedly would have been denied)⁸⁸ and pursuing potentially lengthy litigation after its denial (as experience with the decade-long port-fees

⁸⁴ C-0075-SPA.26-27 (emphasis added); Tr. (English), Day 1, 32:19-33:10, 91:18-21 (Claimant’s Opening Statement).

⁸⁵ See Tr. (Spanish), Day 3, 710:4-19, 713:18-714:10 (██████████ cross-examination, indicating that what could theoretically be challengeable would be a formal “resolution” or “determinación” issued by SEMARNAT) [English, 614:15-615:4, 617:9-20]. See also Witness Statement-██████████-Claimant’s Memorial-ENG, ¶ 25 (recounting that SEMARNAT’s Director General for Forests and Soil Management verbally told CALICA’s counsel in April 2013 that “SEMARNAT would not issue the CUSTF unless the POEL 2009 expressly authorizes extraction activities.”).

⁸⁶ See Tr. (Spanish), Day 3, 710:4-19, 713:18-714:10 (██████████ cross-examination) [English, 614:15-615:4, 617:9-20].

⁸⁷ Tr. (Spanish), Day 3, 713:12-714:10, 744:1-17 (██████████ cross-examination) [English, 617:4-20, 641:12-16].

⁸⁸ Witness Statement-██████████-Claimant’s Memorial-ENG, ¶ 25; Expert Report-██████████-Environmental-Claimant’s Memorial-SPA, ¶¶ 113-116 (explaining that SEMARNAT was legally obligated to deny a CUSTF application in light of the POEL); Tr. (Spanish), Day 3, 713:18-714:10, 728:9-22, 744:12-17 (██████████ cross-examination and responding to the Tribunal’s questions, explaining that it is clear that such a request would have been denied) [English, 617:9-20, 628:14-629:10, 641:3-16]; Rejoinder, ¶¶ 160-162; First SOLCARGO Report, ¶ 116 (RE-001).

litigation has shown), CALICA secured Mexico's written commitment in the 2014 Agreements to take all necessary actions to amend the POEL in accordance with what SEMARNAT said was necessary to grant the CUSTF for La Adelita.⁸⁹

⁸⁹ Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶¶ 25-27, 29, 35; Tr. (English), Day 2, 319:7-320:1 ([REDACTED] responding to questions from the Tribunal and confirming that the "issue" CALICA sought to resolve through the 2014 Agreements referred to in Paragraph 23 of his witness statement was the "permitting for the removal of vegetation from La Adelita" in light of the POEL and SEMARNAT's indication). *See also* C-0022-SPA.10-12; C-0021-SPA.13.

10. Further to Question 9 above, please advise whether any option to challenge the said measures remains available under Mexican law.

At present, Mexican law provides no options for CALICA to further challenge the POEL or to contest SEMARNAT's indication that a CUSTF would not be granted unless the POEL expressly allowed extraction activities in La Adelita.

As explained at the Hearing by Claimant's environmental law expert, [REDACTED]:

“[E]n el momento en que nos encontramos, esa impugnación [del POEL] ya no puede proceder porque [...] ya está la vigencia del POEL como tal.

Lo que se podría dar es la solicitud específica a SEMARNAT. Y entonces ese acto administrativo, en donde SEMARNAT lo niegue, es el que procedería para una impugnación.”⁹⁰

As explained in Claimant's answer to the Tribunal's Question 9 above, only if CALICA had filed a request for a CUSTF with SEMARNAT and SEMARNAT had formally rejected such a request because the POEL zones La Adelita as precluding quarrying there would CALICA have been able to pursue an *amparo* or an annulment action against such a denial before a Mexican court. Instead of formally applying for a CUSTF (which would have been futile in light of SEMARNAT's position regarding the POEL), CALICA opted for pursuing an amendment to the POEL.⁹¹ At the time CALICA approached SEMARNAT to discuss CALICA's plans to commence quarrying in La Adelita, Mexico and CALICA were negotiating a resolution of various issues related to CALICA's port concession.⁹² When SEMARNAT made clear its position, the amendment of the POEL was added to the list of issues to be negotiated with Mexico and that eventually led to the execution of the 2014 Agreements.⁹³ In the 2014 Agreements, the State of Quintana Roo and Municipality of Solidaridad agreed, among other obligations, to take all necessary actions to amend the POEL by 5 December 2015, so that the POEL would expressly recognize that quarrying was possible in El Corchalito.⁹⁴

⁹⁰ Tr. (Spanish), Day 3, 741:2-9 ([REDACTED] responding to questions from the Tribunal) [English, 638:14-21].

⁹¹ Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶¶ 25-26.

⁹² *Id.*, ¶ 23.

⁹³ *Id.*, ¶¶ 23, 26.

⁹⁴ C-0022-SPA.10-12. *See also*, C-0021-SPA.13.

11. Please advise, on the basis of the evidence in the record, the respective periods of validity of the (i) Corchalito/Adelita Federal Environmental Impact Authorization; and (ii) Corchalito/Adelita State Environmental Impact Authorization; and any conditions for renewal of such Authorizations.

○ Corchalito/Adelita Federal Environmental Authorization

- Period of Validity: SEMARNAT issued the Corchalito/Adelita Federal Environmental Authorization on 30 November 2000, with an initial 20-year term, which could be renewed for an additional 22 years — until 2042.⁹⁵ The initial 20-year term expired on 1 December 2020.

- Conditions for Renewal: Pursuant to the Authorization's Second Term, CALICA could renew the Corchalito/Adelita Federal Environmental Authorization by filing a written request, along with PROFEPA's validation of CALICA's latest compliance report, 30 days before the Authorization expired.⁹⁶

CALICA timely filed a request to renew the Corchalito/Adelita Federal Environmental Authorization on 27 August 2020, which, as explained in Claimant's Reply and at the Hearing, remains pending following SEMARNAT's suspension of its consideration due to PROFEPA's administrative proceeding.⁹⁷ SEMARNAT has indicated that it will not renew the Corchalito/Adelita Federal Environmental Authorization without PROFEPA's validation of CALICA's compliance with that Authorization.⁹⁸ In May 2021, PROFEPA issued a "validation" of CALICA's latest compliance report stating that CALICA had not

⁹⁵ See C-0017-SPA.35 ("La presente autorización tendrá una vigencia de veinte años [...]."); Memorial, ¶ 76; Reply, ¶ 20, n.14.

⁹⁶ C-0017-SPA.35 ("[La Autorización] será prorrogable [...] siempre y cuando [CALICA] lo solicite por escrito a esta Dirección, con treinta días naturales de antelación a la fecha de su vencimiento. Dicha solicitud deberá presentarse con la validación de la [PROFEPA], al último informe del cumplimiento de condicionantes.").

⁹⁷ Reply, Part II.C.5; Tr. (English), Day 1, 64:10-65:11 (Claimant's Opening Statements); [REDACTED]-0013 (stating that CALICA's request was "suspended due to PROFEPA proceeding"). See also Witness Statement-[REDACTED]-Claimant's Reply-ENG, ¶ 10; C-0149-SPA.3; C-0153-SPA.4 (evinced SEMARNAT's receipt of the request for renewal).

⁹⁸ See C-0154-SPA.9 ("Para que [SEMARNAT] se encuentre en posibilidad de dar respuesta a la solicitud de ampliación de plazo (prorroga [sic]), [...] es necesario que se cuente con la validación de la PROFEPA al último informe de cumplimiento de Términos y Condicionantes.").

complied with all of the terms of the Corchalito/Adelita Federal Environmental Authorization based on the findings of PROFEPA's administrative proceeding.⁹⁹

- Corchalito/Adelita State Environmental Authorization
 - Period of Validity: The State of Quintana Roo issued the Corchalito/Adelita State Environmental Authorization on 11 December 1996, with an initial 5-year term, starting from the date quarrying began in August 2001.¹⁰⁰ This Authorization was renewed and/or amended in 2006,¹⁰¹ 2011,¹⁰² and 2016.¹⁰³ The current Corchalito/Adelita State Environmental Authorization is valid for 20 years — until 8 March 2036 — and can be further renewed.¹⁰⁴
 - Conditions for Renewal: CALICA may renew the Corchalito/Adelita State Environmental Authorization by filing a written request showing that CALICA complied with its terms.¹⁰⁵

⁹⁹ Tr. (English), Day 1, 65:1-5 (Claimant's Opening Statement); Rejoinder, ¶ 89; R-0085-SPA.62 (Término Segundo).

¹⁰⁰ Memorial, ¶ 75; C-0018-SPA.11 (Condicionante 18); C-0074-SPA.14 (Considerando III).

¹⁰¹ C-0074-SPA.16, 20.

¹⁰² C-0075-SPA.39.

¹⁰³ C-0076-SPA.12, 39; Memorial, ¶ 75. As explained by Claimant in its Reply and at the Hearing, Respondent took initial steps to comply with its obligations under the 2014 Agreements. Renewing the Corchalito/Adelita State Environmental Authorization for another 20 years — this time doubling the area that CALICA could quarry El Corchalito and La Adelita above the water table from 25 to 50 hectares per year — was one of these steps. Reply, ¶ 34; Rejoinder, ¶ 230; Tr. (Spanish), Day 4, 976:13-978:15 (Mijangos cross-examination) [English, 830:6-832:4].

¹⁰⁴ C-0076-SPA.14 (Condicionante 9).

¹⁰⁵ See C-0074-SPA.17 (Condicionante Cuarto of 2006 renewal: "[...] esta Secretaría podrá renovar la vigencia de la autorización en materia de Impacto Ambiental, hasta por un término igual al establecido originalmente, siempre y cuando la empresa [CALICA] acredite haber cumplido con lo establecido en el presente resolutivo de autorización, asimismo, deberá solicitar dicha renovación en el término de 30 días naturales previo al vencimiento de la presente autorización."). The latest renewal of this Authorization from 2011 (later amended in 2016) confirms that renewal is contingent on showing compliance with its terms by referring to a state regulation that so provides. C-0075-SPA.39-40 (Condicionante Vigésima Octava of 2011 renewal: "La presente autorización podrá ser renovada de conformidad con el artículo 49 del Reglamento en Materia de Impacto Ambiental de la Ley del Equilibrio y la Protección al Ambiente del Estado de Quintana Roo.").

12. Please advise, on the basis of the evidence in the record, Claimant's position with regard to Respondent's argument that the shutdown of CALICA's operations was not total, but subject to accreditation of the excess extraction area and the completion of certain technical conditions (see Rejoinder ¶ 75).

PROFEPA's shutdown of CALICA's operations in El Corchalito preclude CALICA from continuing to quarry that lot, subject to impossible-to-meet conditions. In this sense, the shutdown has been total, not partial, contrary to what Respondent misleadingly suggests in Paragraph 75 of its Rejoinder.

In PROFEPA's January 2018 *Acuerdo de Emplazamiento* (or "Shutdown Order"), PROFEPA ordered CALICA to "abstain from conducting extraction activities [...] under the [w]ater [t]able,"¹⁰⁶ thus precluding further operations in El Corchalito because over-water extraction there had largely been exhausted at the time.¹⁰⁷ This was the case even though the Shutdown Order referred to the shutdown as "partial" and "temporary;"¹⁰⁸ the effect was a prohibition from quarrying El Corchalito further while the administrative proceeding remained open.

Although the shutdown imposed in the Shutdown Order could theoretically have been lifted if CALICA complied with the "corrective measures" ("*medidas correctivas*") specified in that Order, one of those "corrective measures" required CALICA to obtain an amendment to the Corchalito/Adelita Federal Environmental Authorization allowing CALICA to quarry under the water table in the allegedly-exceeded 2.15 hectares.¹⁰⁹ This condition was impossible to meet

¹⁰⁶ C-0117-SPA.304 (free translation, the original reads: "Se ordena a la empresa [CALICA] [...] abstenerse de realizar actividades relacionadas con la Extracción de Roca Caliza por debajo del Manto Freático, en virtud del INCUMPLIMIENTO al Término Primero con relación al Cuarto del Oficio Resolutivo Número D.O.O.DGOEIA.-0007237 [la Autorización de Impacto Ambiental Federal] [...]. Plazo de cumplimiento: Inmediato."). See also *id.* at 300 (shutting down underwater extraction activities as a "protective measure" ("*medida de seguridad*").).

¹⁰⁷ Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶¶ 59-60 ("[B]ecause Mexico indefinitely shut down operations in El Corchalito in January 2018, we have been unable to quarry that site since then. [...] Without access to La Adelita and its significant above water reserves, CALICA has been required to shift almost entirely to below-water extraction since 2017."); DC-0092: Calica Quarry Plan Scenarios Spreadsheet, 2019, Tab: "Scenario 2b" (showing no extraction above the water table at El Corchalito as of 2018).

¹⁰⁸ C-0117-SPA.300.

¹⁰⁹ C-0117-SPA.301 (ordering CALICA to present an amended Corchalito/Adelita Federal Environmental Authorization issued by SEMARNAT to lift the shutdown); *id.* at 304 (ordering the same as a "corrective measure"). See also Expert Report-[REDACTED]-Environmental Law-Claimant's Memorial-SPA, ¶ 226 (explaining that the shutdown "was imposed indicating as the single action that would allow lifting thereof, the submission of the amendment to the [amended Corchalito/Adelita Federal Environmental Authorization], related to the alleged excess in the extraction."). This is undisputed. See First SOLCARGO Report, ¶ 202 (RE-001) ("la medida correctiva correspondiente para levantar la clausura y subsanar la

because SEMARNAT could not approve an application to amend this Authorization as long as PROFEPA's administrative proceeding remained open.¹¹⁰ In its administrative resolution of 30 October 2020 ("Resolution"), PROFEPA preserved the shutdown of El Corchalito because CALICA had failed to meet all "corrective measures," including the impossible-to-meet amendment to the Authorization.¹¹¹

Like the *Acuerdo de Emplazamiento*, the Resolution states that the shutdown is "partial" and "temporary,"¹¹² but it is in reality total and indefinite. It is total (despite suggesting that it applies only to the 2.15 hectares that were allegedly exceeded)¹¹³ because, under PROFEPA's interpretation of the Corchalito/Adelita Federal Environmental Authorization, CALICA had already reached the total area of underwater extraction for that Authorization's 20-year term¹¹⁴ (which, not coincidentally, expired soon after PROFEPA issued the Resolution).¹¹⁵ CALICA also could not continue to quarry El Corchalito without quarrying La Adelita at the same time, given PROFEPA's position — expressed for the first time in the Resolution¹¹⁶ — that CALICA was obligated to quarry both lots at the same time, which was impossible because Mexico effectively foreclosed quarrying in La Adelita by repudiating the 2014 Agreements.

The shutdown preserved in the Resolution is also indefinite because the Resolution required CALICA to seek an amendment of the Corchalito/Adelita Federal Environmental Authorization as one of several "corrective measures,"¹¹⁷ which are the "technical conditions" that

irregularidad es la presentación de la modificación de la AIA Federal, por virtud de la cual, la SEMARNAT autorice la extracción en exceso de la superficie").

¹¹⁰ Expert Report-[REDACTED]-Environmental-Claimant's Memorial- SPA, ¶¶ 251-253; Expert Report-[REDACTED]-Environmental-Claimant's Reply-Second Report-SPA, ¶¶ 67-68.

¹¹¹ R-0005-SPA.235 ("se sanciona a [CALICA] con la CLAUSURA TEMPORAL PARCIAL del PROYECTO [...] al no haber acreditado el cumplimiento de la totalidad de las medidas correctivas ordenadas en el Acuerdo de Emplazamiento.").

¹¹² *Id.*

¹¹³ *Id.*

¹¹⁴ *Id.*, at 162-163, 232, 235.

¹¹⁵ The Resolution was issued on 30 October 2020 and notified to CALICA on 6 November 2020, less than a month before the 20-year term of the Corchalito/Adelita Federal Environmental Authorization was to expire on 1 December 2020. See R-0005-SPA.2, 238; Answer to the Tribunal's Question No. 11.

¹¹⁶ See R-0005-SPA.221, 224.

¹¹⁷ *Id.*, at 231 ("[S]e requiere a CALICA [...] dar cumplimiento a las siguientes medidas correctivas: [...] Presentar [...] en un plazo no mayor a diez días hábiles [...] la autorización de impacto ambiental para llevar a cabo la extracción de roca caliza por debajo del manto freático en la superficie de 2.15 hectáreas dentro

Respondent referred to in Paragraph 75 of the Rejoinder.¹¹⁸ On 19 November 2020, CALICA sought the required amendment from SEMARNAT,¹¹⁹ but — on 4 December 2020 — SEMARNAT stated that it could not approve CALICA’s request without PROFEPA’s “validation” of its latest compliance report.¹²⁰ This placed CALICA’s request in limbo because PROFEPA had never issued a “validation” of the (almost 60)¹²¹ compliance reports CALICA had submitted in the span of almost 20 years. As explained at the Hearing, PROFEPA had just acknowledged receipt and said nothing more.¹²²

After Claimant pointed this out in its Reply, PROFEPA suddenly issued a “validation” of CALICA’s latest compliance report that did *not* validate compliance; noting instead that CALICA had *not* complied with all of the terms of the Corchalito/Adelita Federal Environmental Authorization based on the findings of PROFEPA’s flawed administrative proceeding.¹²³ Respondent tried to justify this sudden move by arguing that PROFEPA was waiting for CALICA to issue its latest compliance report, which it did not purportedly do until February 2021,¹²⁴ but CALICA had submitted many compliance reports before.¹²⁵ Because PROFEPA’s “validation” says that CALICA violated the Corchalito/Adelita Federal Environmental Authorization, CALICA’s application for a renewal and amendment of that Authorization has no realistic prospects of being

del predio ‘El Corchalito’ no contempladas en [la Autorización de Impacto Ambiental Federal] así como para realizar este aprovechamiento sólo en el predio ‘El Corchalito’.”).

¹¹⁸ Rejoinder, n.87 (“Las condiciones técnicas corresponden a medidas correctivas [de la Resolución].”).

¹¹⁹ Witness Statement-[REDACTED]-Claimant’s Reply-Second Statement-ENG, ¶¶ 10, 13. At the time, CALICA was already in the process of renewing the Corchalito/Adelita Federal Environmental Authorization, whose 20-year term was scheduled to expire soon. C-0149-SPA.3. CALICA thus submitted a request to SEMARNAT to amend this Authorization as specified in the Resolution and joined this request to its existing renewal application. C-0153-SPA.9-29. *See also*, Reply, ¶¶ 99-105.

¹²⁰ C-0154-SPA.9; Witness Statement-[REDACTED]-Claimant’s Reply-Second Statement-ENG, ¶ 15.

¹²¹ *See* R-0085-SPA.6-7 (listing 58 regular compliance reports submitted by CALICA).

¹²² Tr. (English), Day 1, 64:19-22 (Claimant’s Opening Statement); Witness Statement-[REDACTED]-Claimant’s Reply-Second Statement-ENG, ¶ 10.

¹²³ R-0085-SPA.25 (“esta autoridad conoció con base en la visita de Inspección [...] que CALICA [...] realizó la extracción de roca caliza en una superficie mayor a la autorizada [...] a un ritmo diferente al autorizado [...] razón por la que **NO VALIDA** el Informe.”) (emphasis in the original); *id.* at 22 (stating that CALICA breached Term One of the Corchalito/Adelita Federal Environmental Authorization by quarrying only El Corchalito, not in both El Corchalito and La Adelita; and for exceeding the authorized quarrying area); *id.* at 62 (listing CALICA’s alleged breaches).

¹²⁴ Rejoinder, ¶ 94.

¹²⁵ *See* R-0085-SPA.6-7 (listing 58 regular compliance reports submitted by CALICA).

granted.¹²⁶ SEMARNAT's consideration of CALICA's application remains "suspended" to this day for no valid reason.¹²⁷

Mexico has thus preserved its shutdown of El Corchalito as partial and temporary only in name, because it is total and inescapable in reality.¹²⁸

¹²⁶ Expert Report-[REDACTED]-Environmental-Claimant's Reply-Second Report-SPA, ¶¶ 67-70; Tr. (English), Day 1, 65:3-11 (Claimant's Opening Statement).

¹²⁷ See [REDACTED]-0013.2 (providing a snapshot of the website identifying the status of CALICA's application before SEMARNAT and stating that it is "Suspendido por procedimiento ante PROFEPA"); SEMARNAT, Consulta Trámite, <https://apps1.semarnat.gob.mx:8443/consultatramite/inicio.php> (identifying current status of application upon typing in 09/DG-0398/08/20).

¹²⁸ See Post-Hearing Brief-Claimant-ENG, Part III.C.3.

13. What is the relevance, if any, of the fact that certain legal proceedings remain ongoing in Mexico in relation to measures adopted by PROFEPA and by SEMARNAT (*see* RD- 003; Rejoinder ¶ 43)?

The fact that certain legal proceedings remain ongoing in Mexico in relation to measures adopted by PROFEPA and SEMARNAT has no bearing on this arbitration.

As a result of PROFEPA's administrative proceeding concerning El Corchalito, CALICA commenced five legal actions challenging measures adopted by PROFEPA and SEMARNAT, of which only two proceedings remain pending.¹²⁹ These two proceedings are (i) the annulment action against PROFEPA's Resolution; and (ii) the *amparo* action against SEMARNAT's decision to suspend its consideration of CALICA's application to renew the Corchalito/Adelita Federal Environmental Authorization.¹³⁰ CALICA is not seeking damages through these proceedings,¹³¹ nor is it claiming that the measures in question violated NAFTA or international law.

With regard to CALICA's annulment action against PROFEPA's Resolution, the court with jurisdiction over this action may (i) dismiss the action or (ii) declare the Resolution either entirely null or partially null.¹³² If CALICA were to prevail, PROFEPA may challenge that decision through various legal recourses, which may take many years to resolve, as the port-fees litigation illustrates. Even if CALICA were ultimately successful, no damages would be awarded as part of the annulment action because none are being sought and none are available under this type of action.

In any event, by the time the annulment action is finally resolved, [REDACTED]

[REDACTED] As Mr. Chodorow explained, the loss of the ability to quarry La Adelita, where the [REDACTED]

¹²⁹ Tabla I: Impugnaciones de CALICA en contra de las Medidas de PROFEPA y SEMARNAT (RD-0003). The information in this table is no longer current. On 29 July 2021, the dismissal (*sobreseimiento*) of CALICA's *amparo* action against PROFEPA's "supplemental" inspection was confirmed. None of these actions listed in the table relates to Mexico's measures or omissions that prevent CALICA from quarrying its reserves at La Adelita.

¹³⁰ *Id.* As mentioned in the Answer to the Tribunal's Question No. 12, SEMARNAT has suspended its processing of CALICA's application to renew or amend the Corchalito/Adelita Federal Environmental Authorization pending PROFEPA's "validation" of CALICA's latest compliance report. C-0154-SPA.9. PROFEPA did not validate compliance based on the findings of the Resolution, which, in turn, requires CALICA to amend the Corchalito/Adelita Federal Environmental Authorization. R-0085-SPA.30.

¹³¹ Tabla I: Impugnaciones de CALICA en contra de las Medidas de PROFEPA y SEMARNAT (RD-0003).

¹³² See Tr. (Spanish), Day 3, 698:9-700:6 ([REDACTED] cross-examination) [English, 606:3-607:14]; Tr. (Spanish), Day 2, 569:4-14 (Rodríguez redirect, explaining that the annulment lawsuit could result in a total or partial annulment of the Resolution) [English, 497:19-498:1].

_____ ¹³³ with the _____
 _____ ¹³⁴ Accordingly, a final ruling annulling the Resolution
 years from now would be _____

135 and it would not

In respect of the pending *amparo* action, the court with jurisdiction over this action may (i) dismiss the action or (ii) declare SEMARNAT's decision to suspend its consideration of CALICA's application to renew/modify the Corchalito/Adelita Federal Environmental Authorization illegal. If CALICA were to prevail, SEMARNAT may challenge that decision, and the litigation may also take years to resolve. A ruling favorable to CALICA would simply require SEMARNAT to decide upon CALICA's application, which — as discussed above — has no realistic prospect of being granted in light of PROFEPA's irregular administrative proceedings.¹³⁶

Additionally, pending legal proceedings in Mexico have no bearing on this arbitration for two reasons. *First*, NAFTA Article 1121 expressly permits investors to maintain proceedings for injunctive, declaratory, or other extraordinary relief while also pursuing treaty claims under NAFTA Chapter Eleven.¹³⁷ Because all of the legal actions currently pending in Mexican courts seek only declaratory relief and none involve requests for compensatory damages,¹³⁸ they are therefore explicitly permitted under NAFTA Article 1121.

NAFTA tribunals have specifically determined that the existence of pending domestic litigation seeking declaratory relief with respect to a respondent's administrative actions does not prevent a tribunal from determining liability for claims that those actions constitute a NAFTA breach.¹³⁹ In addition, Legacy Vulcan has waived the right to initiate compensatory actions in

¹³³ Expert Report-Darrell Chodorow-Damages-Claimant's Memorial-ENG, ¶¶ 18-19.

¹³⁴ *Id.*, ¶ 79; Expert Report-Darrell Chodorow-Claimant's Reply-Second Report-ENG, ¶ 137.

¹³⁵ Brattle projects that, [REDACTED]
[REDACTED] See Expert Report-Darrell Chodorow-Damages-Claimant's Memorial-ENG, ¶ 187;
Expert Report-Darrell Chodorow-Claimant's Reply-Second Report-ENG, ¶ 137.

¹³⁶ See Answer to the Tribunal's Question No. 12 (explaining that PROFEPA's "validation" provides that CALICA violated the Corchalito/Adelita Federal Environmental Authorization, thereby preventing CALICA's possibility to renew this Authorization).

¹³⁷ NAFTA, Article 1121 (C-0009-ENG).

¹³⁸ See Post-Hearing Brief-Claimant-ENG, Part II.C.1.

¹³⁹ *Detroit Int'l Bridge Co. v. Government of Canada*, UNCITRAL, PCA Case No. 2012-25, Award on Jurisdiction, ¶ 176 (12 April 2015) (Derains (P), Lowe, Chertoff) (CL-0168-ENG) (“Article 1121(1)(b) and (2)(b) contain a limited exception for injunctive and declaratory proceedings brought against Canada in Canada, as long as those proceedings are ‘not involving the payment of damages.’”). *See also Marvin Roy*

local courts as also required by NAFTA Article 1121.¹⁴⁰ The two pending domestic proceedings described above therefore do not prevent the Tribunal from determining Mexico's liability under NAFTA with respect to the El Corchalito dispute.

Second, the existence of pending domestic proceedings does not implicate this Tribunal's ability to award compensation to Legacy Vulcan in this case. As the tribunal in *Chevron v. Ecuador* explained, "the Claimants' recovery should not be reduced based on the uncertain possibility of a favorable outcome in the national court proceedings."¹⁴¹ As that tribunal further pointed out, "international law and decisions as well as domestic court procedures offer numerous mechanisms for preventing the possibility of double recovery."¹⁴²

NAFTA tribunals have taken a similar approach. For example, the Tribunal in *Lion Mexico* held that, where Mexican courts had at the time "failed to render any decision awarding compensation in favour of [the claimant], Respondent's request that the compensation granted in this arbitration be reduced is moot."¹⁴³ The tribunal further determined that, if a future judgment were to be rendered by Mexican courts that would be favorable to the claimant, "it is for the Mexican Court to adopt the appropriate measures to avoid double recovery."¹⁴⁴

Feldman Karpa v. United Mexican States, ICSID Case No. ARB(AF)/99/1, Award, ¶ 78 (16 December 2002) (Kerameus (P), Bravo, Gantz) (RL-008-SPA) ("[W]e are not barred from making that determination by the fact that not all of the issues have yet been resolved by Mexican courts. Otherwise, any arbitral tribunal could be prevented from making a decision simply by delaying local court proceedings. Nor is an action determined to be legal under Mexican law by Mexican courts necessarily legal under NAFTA or international law. At the same time, an action deemed to be illegal or unconstitutional under Mexican law may not rise to the level of a violation of international law.") (English version of the Award); *Cargill, Inc. v. United Mexican States*, ICSID Case No. ARB(AF)/05/2, Award, ¶¶ 303 (18 September 2009) (Pryles (P), Caron, McRae) (CL-0017-ENG) ("Finally, the Tribunal does not, and need not, rest its holding on the import permit requirement being domestically unlawful given its conclusion that the requirement is manifestly unjust and akin to an act in bad faith. The Tribunal agrees with Respondent that even the unlawfulness of a municipal law does not necessarily mean that the act is unlawful under international law. The converse must be true, however, in that the lawfulness of a domestic law does not presuppose its lawfulness under international law. Indeed, this is the very rationale for the customary international law minimum standard of treatment of aliens: regardless of the views of each State, there is a minimum, a floor below which a State will be held internationally responsible for its conduct.").

¹⁴⁰ C-0008-ENG (Claimant's Consent/Waiver Letter).

¹⁴¹ *Chevron Corporation (U.S.A.) and Texaco Petroleum Corporation (U.S.A.) v. Republic of Ecuador I*, PCA Case No. 2007-02/AA277, Partial Award on the Merits, ¶ 557 (30 March 2010) (Böckstiegel (P), van den Berg, Brower) (RL-093-ENG).

¹⁴² *Id.* (RL-093-ENG).

¹⁴³ *Lion Mexico Consolidated L.P. v. United Mexican States*, ICSID Case No. ARB(AF)/15/2, Award, ¶ 797-798 (20 September 2021) (Fernández-Armesto (P), Cairns, Boisson de Chazournes) (CL-0169-ENG).

¹⁴⁴ *Id.*

Here, CALICA's pending domestic court actions should not affect this Tribunal's determination of liability or compensation. Neither Legacy Vulcan's relief nor recovery in this arbitration should be affected by the uncertain possibility of a favorable outcome in national court proceedings, which could take many years to be finally resolved.¹⁴⁵ Furthermore, consistent with representations made by Legacy Vulcan at the Hearing and in its post-hearing brief, Legacy Vulcan is not seeking double recovery through this arbitration.¹⁴⁶ To the extent that Legacy Vulcan is awarded compensation in this arbitration, Legacy Vulcan will not seek duplicative compensatory damages in Mexican courts, and it expressly undertakes that it will take all necessary actions to prevent double recovery for the same harm.

¹⁴⁵ For example, the annulment proceeding that CALICA commenced against the Resolution in January 2021, from start to finish, may take a decade before courts resolve all issues. See Post-Hearing Brief-Claimant-ENG, Part II.C.1.

¹⁴⁶ Tr. (English) Day 1, 74:9-75:13, 75:22-76:13 (Claimant's Opening Statement).

14. What is the relevance, if any, of a factual determination that the pledge to complete the 2009 POEL's amendment process by 5 December 2015 is binding/non-binding and enforceable/unenforceable under Mexican law?

A factual determination that the pledge to complete the 2009 POEL's amendment process by 5 December 2015 is binding/non-binding and enforceable/unenforceable under Mexican law is not determinative to Legacy Vulcan's claim that Mexico breached NAFTA Article 1105.¹⁴⁷ That factual determination is relevant only in respect of Legacy Vulcan's claim regarding Mexico's guarantee, in the Mexico-Switzerland BIT, to "observe any other obligation it has assumed with regard to investments in its territory by investors of [Switzerland]"¹⁴⁸ — a guarantee Mexico also owes to U.S. investors by virtue of the MFN provision of NAFTA Article 1103 and NAFTA Annex IV.¹⁴⁹

Legacy Vulcan's NAFTA Article 1105 Claim: Legacy Vulcan has shown that Mexico breached NAFTA Article 1105 by (i) frustrating Legacy Vulcan and CALICA's legitimate expectations that CALICA would be able to commence quarrying operations in La Adelita by early 2016;¹⁵⁰ and (ii) acting arbitrarily in abandoning the POEL amendment process it agreed to move forward.¹⁵¹ Despite Mexico's heavy emphasis on the purported non-binding nature of the 2014 Agreements, including the obligation to amend the POEL by 5 December 2015 to expressly recognize CALICA's right to quarry La Adelita,¹⁵² this issue is largely irrelevant.

It is well established under international law that it is not necessary for a State to have assumed and breached a legally binding commitment for that State to frustrate the legitimate expectations of an investor or investment. As NAFTA tribunals have explained, "'where a Contracting Party's conduct creates reasonable and justifiable expectations on the part of an investor (or investment) to act in reliance on said conduct' [...] a State may be tied to the objective expectations that it creates in order to induce investment" under NAFTA Article 1105.¹⁵³ These expectations need not arise from a binding instrument but instead can result from State conduct

¹⁴⁷ See Post-Hearing Brief-Claimant-ENG, ¶¶ 87-88, 90; Reply, ¶¶ 41, 147-148.

¹⁴⁸ C-0138-ENG.10, Article 10(2).

¹⁴⁹ Memorial, ¶ 241; Reply, ¶ 187.

¹⁵⁰ Post-Hearing Brief-Claimant-ENG, Part III.B.4.

¹⁵¹ Post-Hearing Brief-Claimant-ENG, Part III.B.2-3, 5.

¹⁵² Tr. (Spanish), Day 1, 182:6-11, 184:1-5 (Respondent's Opening Statement) [English, 150:21-151:4, 152:13-16].

¹⁵³ *Glamis Gold, Ltd. v. United States of America*, UNCITRAL, Award, ¶ 621 (8 June 2009) (Young (P), Caron, Hubbard) (CL-0016-ENG) (hereinafter, "*Glamis Gold v. United States*, (Award)").

or communications on which the investor reasonably relies.¹⁵⁴ Indeed, all that is needed for this Tribunal to find that Mexico has frustrated Legacy Vulcan and CALICA's legitimate expectations in breach of NAFTA Article 1105 is a determination that Mexico has acted contrary to "clear, repeated encouragements"¹⁵⁵ made by Mexico, including its instrumentalities, to CALICA or Legacy Vulcan so as to induce their expectations or investments, and that Legacy Vulcan and CALICA reasonably relied on those representations to their detriment.¹⁵⁶

A written agreement with specific commitments like those contained in the 2014 Agreements is the epitome of a State representation — regardless of their formal legally binding nature under domestic law. As Respondent's constitutional law expert, Dr. Javier Mijangos, explained at the Hearing, the 2014 Agreements were highly serious and important "acts of the administration" with at least a "high ethical value," and Mexico had every intention of complying with them when they were executed.¹⁵⁷ He further conceded that, through the 2014 Agreements, the signatory Mexican instrumentalities committed to an obligation "to do" (*obligación de hacer*), specifically to comply with a timeline designed to amend the POEL by December 2015:

"[Counsel for Claimant]: [L]a obligación aquí asumida [en el Adendum al MOU] es la de gestionar todas las acciones necesarias [para enmendar el POEL]. ¿Sí o no?"

¹⁵⁴ *International Thunderbird Gaming Corporation v. United Mexican States*, UNCITRAL, Award, ¶ 147 (26 January 2006) (van den Berg (P), Wälde, Ariosa) (CL-0004-ENG) (hereinafter, "*Thunderbird v. Mexico* (Award)") ("the concept of 'legitimate expectations' relates, within the context of the NAFTA framework, to a situation where a Contracting Party's conduct creates reasonable and justifiable expectations on the part of an investor (or investment) to act in reliance on said conduct").

¹⁵⁵ *Bilcon of Delaware et al v. Government of Canada*, PCA Case No. 2009-04, Award on Jurisdiction and Liability ¶ 572 (17 March 2015) (Simma (P), McRae, Schwartz) (CL-0009-ENG).

¹⁵⁶ *Thunderbird v. Mexico* (Award), ¶ 147 (CL-0004-ENG); *Mobil Investments Canada Inc. and Murphy Oil Corporation v. Canada*, ICSID Case No. ARB(AF)/07/4, Decision on Liability and Principles of Quantum, ¶ 152 (22 May 2012) (van Houtte (P), Sands, Janow) (CL-0008-ENG); *Glamis Gold v. United States* (Award), ¶ 620 (CL-0016-ENG); *Grand River Enterprises Six Nations, Ltd., et al. v. United States of America*, UNCITRAL, Award, ¶ 141 (12 January 2011) (Nariman (P), Crook, Anaya) (CL-0018-ENG).

¹⁵⁷ Tr. (Spanish) Day 4, 942:15-944:8 (Mijangos cross-examination agreeing with Counsel for Claimant that "los acuerdos [del 2014] son un acto de administración y que manifiestan declaraciones de intenciones mutuas con un alto valor ético para las partes," and that "las partes de buena fe sí tienen la intención de cumplir con lo acordado en ellos.") [English, 801:20-802:5]; *id.* at 943:14-944:6 (Mijangos cross-examination: "veo que son documentos bien elaborados, ¿no? Y que seguramente las partes en su momento lo tenían como una guía para llegar [...] a un buen puerto. [...] [N]o se le puede no dar un valor, ¿no? Obviamente que lo tenía y era una guía para ambas partes, sin lugar a dudas. // [Counsel for Claimant]: Sí, pero usted sí le asigna una declaración de intención de un alto valor ético. Me imagino que eso significa que cuando la parte dice que va a hacer algo, tiene la intención de hacerlo. ¿Correcto? // [Mijangos]: Correcto.") [English, 802:17-803:6].

[Mijangos]: Entiendo yo que *la obligación aquí asumida*, en ese y en los ocho puntos -- en los siete puntos siguientes [en el Adendum al MOU], *es cumplir con el calendario propuesto en esos puntos*.

[...]

[Counsel for Claimant]: O sea que eso es una obligación de [...] ponerse a trabajar para cumplir con ese calendario que las partes habían establecido. ¿Correcto?

[Mijangos]: Correcto.”¹⁵⁸

Thus, the 2014 Agreements — binding or not — were at the very least an unequivocal representation that Mexico would take all necessary actions to amend the POEL by December 2015.¹⁵⁹ Despite these clear representations and specific assurances, Mexico abandoned the amendment process, thereby frustrating Claimant’s legitimate expectations in violation of Mexico’s obligations under NAFTA Article 1105.¹⁶⁰

The binding nature of the 2014 Agreements is similarly irrelevant for Legacy Vulcan’s showing that Mexican instrumentalities acted arbitrarily by suddenly abandoning the POEL amendment process for no legitimate reason. Tribunals have recognized that arbitrary conduct prohibited under NAFTA Article 1105 includes acts or behavior that are not based on facts or law, but rather on domestic politics and discretion.¹⁶¹ Because Mexico’s abandonment of the process to amend the POEL was based on prejudice, preference to local interests and bias, including overtly anti-American rhetoric, and cannot be justified through reason or fact, it was arbitrary in breach of NAFTA Article 1105.¹⁶² The bindingness of Mexico’s commitments under the 2014 Agreements simply does not factor into this analysis.

Legacy Vulcan’s Article 1103 Claim: Though it is not necessary for the Tribunal to determine that the 2014 Agreements were binding or enforceable under Mexican law to find that

¹⁵⁸ Tr. (Spanish) Day 4, 971:16-972:17 (Mijangos cross-examination) [English, 826:5-827:3].

¹⁵⁹ Post-Hearing Brief-Claimant-ENG, ¶¶ 64-69; Memorial, ¶¶ 93-104; Reply, ¶¶ 27-34, 131.

¹⁶⁰ Post-Hearing Brief-Claimant-ENG, Parts III.B.2, 5; Memorial, ¶¶ 227-237; Reply, ¶¶ 131-143.

¹⁶¹ Post-Hearing Brief-Claimant-ENG, ¶ 91; Claimant’s Opening Presentation, Slides 77-82 (CD-0001); Memorial, ¶¶ 202-203; Reply, ¶¶ 155-159.

¹⁶² *Joseph C. Lemire v. Ukraine*, ICSID Case No. ARB/06/18, Decision on Jurisdiction and Liability, ¶ 263 (14 January 2010) (Fernández-Armesto (P), Paulsson, Voss) (CL-0072-ENG) (“Summing up, the underlying notion of arbitrariness is that prejudice, preference or bias is substituted for the rule of law.”). See also Reply, ¶¶ 154-159.

Mexico has breached its NAFTA obligations, the record amply shows that those Agreements were in fact binding.

As explained by Professor [REDACTED] at the Hearing, the parties that signed the 2014 Agreements had the legal capacity to enter into and be bound by those agreements.¹⁶³ Under Mexican law, the will of the parties and the actual obligations they agreed to undertake define whether an agreement is binding.¹⁶⁴ Here, CALICA and the various Mexican instrumentalities involved were all invested in resolving issues of mutual importance, including pending litigation, and took substantive steps to comply with the terms of the 2014 Agreements.¹⁶⁵ For these reasons, Mexico's mantra that those Agreements are not legally binding rings hollow.¹⁶⁶ As noted above, Mexico's own constitutional law expert, Dr. Mijangos, conceded at the Hearing that the Mexican instrumentalities assumed the obligation of complying with the POEL-amendment schedule reflected in the 2014 Agreements.¹⁶⁷

Because the commitments undertaken in the 2014 Agreements were binding upon Mexico's instrumentalities, Mexico has also breached its obligations under NAFTA Article 1103.¹⁶⁸ As explained in Legacy Vulcan's pleadings, under NAFTA Article 1103, Legacy Vulcan is entitled to receive at least the same treatment that Mexico affords to Swiss investors under Article 10(2) of the Mexico-Switzerland BIT, in which Mexico guarantees to "observe any other obligation it has assumed with regard to investments in its territory by investors of [Switzerland]."¹⁶⁹ Because Mexico ultimately repudiated its obligations under the 2014 Agreements and, specifically, its

¹⁶³ Tr. (Spanish) Day 3, 760:3-761:14 ([REDACTED] presentation: "tanto el gobierno municipal como el gobierno del Estado de Quintana Roo tienen perfectas atribuciones para establecer, por la vía convencional, un convenio como el que tenemos o como el que se desprende del Memorando de Entendimiento.") [English, 654:18-655:22]. See also Memorial, ¶¶ 88, 243; Reply, ¶ 38.

¹⁶⁴ Tr. (Spanish) Day 3, 808:20-809:9 ([REDACTED] redirect) [English, 693:13-22].

¹⁶⁵ Post-Hearing Brief-Claimant-ENG, ¶¶ 70-71; Tr. (Spanish) Day 3, 767:4-8 ([REDACTED] presentation) [English, 660:10-13]; Tr. (Spanish) Day 4, 924:17-18, 976:5-12 (Mijangos presentation and cross-examination) [English, 787:15, 829:22-830:5].

¹⁶⁶ Tr. (Spanish) Day 1, 292:13-21 (Respondent's Opening Statement) [English, 242:16-22].

¹⁶⁷ Tr. (Spanish) Day 4, 971:16-972:17 (Mijangos cross-examination, "[Counsel for Claimant]: [...] es una obligación de [...] ponerse a trabajar para cumplir con ese calendario que las partes habían establecido. ¿Correcto? // [Mijangos]: Correcto.") [English, 826:5-827:3].

¹⁶⁸ Post-Hearing Brief-Claimant-ENG, ¶ 41; Memorial, ¶¶ 243-245; Reply ¶¶ 198-200.

¹⁶⁹ C-0138-ENG.10; Post-Hearing Brief-Claimant-ENG, ¶ 41; Memorial, ¶¶ 243-245; Reply ¶¶ 198-200.

commitment to take “all necessary actions” to amend the POEL,¹⁷⁰ its conduct also constitutes a violation of this more favorable treatment to which Legacy Vulcan is entitled.¹⁷¹

¹⁷⁰ C-0022-SPA.3-4, 10-12. *See also* C-0021-SPA.4-5, 13.

¹⁷¹ Post-Hearing Brief-Claimant-ENG, ¶ 41; Memorial, ¶¶ 243-245; Reply ¶¶ 198-200.

15. Please prepare, in joint consultation between the parties, a table summarizing the matters on which the Parties' quantum experts (i) agree; and (ii) disagree.

Please see Appendix B.

16. With respect to Claimant's claim for port fees, what is the evidence on record that such port fees were paid, and by whom (see Reply ¶ 237; Exh. DC-083; Exh. [REDACTED] 016; [REDACTED] Second Statement ¶ 35)?

Claimant has put forth both documentary and testimonial evidence explaining that API Quintana Roo unlawfully collected from CALICA, Vulica, and Canada Steamship Lines ("CSL") [REDACTED] in port fees between 2007 and 2017.¹⁷²

Given the voluminous record of payments spanning over ten years, Legacy Vulcan did not submit into the record every single invoice. Instead, in its Reply, Claimant submitted a sample port fee payment to API Quintana Roo as exhibit [REDACTED]-0015-SPA, along with the declaration of [REDACTED] explaining that this exhibit is representative of the port fees that API Quintana Roo unlawfully charged for vessels docking at CALICA's private port terminal during the relevant period and illustrates the flow of funds for port fees related to a voyage of a Vulica vessel that docked there in 2017.¹⁷³

With regard to the totality of the payments that CALICA, Vulica, and CSL made to API Quintana Roo between 2007 and 2017, Ms. [REDACTED] also explained that she reviewed hundreds of invoices from API Quintana Roo, bank statements, and other records that Legacy Vulcan keeps in the normal course of business and prepared an Excel spreadsheet summarizing those payments, which was incorporated into the record as exhibit DC-0083.¹⁷⁴

Moreover, as Ms. [REDACTED] further explained in her second witness statement and at the Hearing, CALICA hired an independent certified public accountant in Mexico in December 2017, who confirmed that CALICA and Vulica paid API Quintana Roo [REDACTED] in port fees between 2007 and 2017.¹⁷⁵ The audit was incorporated into the record as exhibit [REDACTED]-0016-SPA.¹⁷⁶

¹⁷² Respondent has not disputed this amount.

¹⁷³ Witness Statement-[REDACTED]-Claimant's Reply-Second Statement-ENG, ¶ 35.

¹⁷⁴ Witness Statement-[REDACTED]-Claimant's Reply-Second Statement-ENG, ¶ 35; Tr. (English), Day 2, 406:8-9 ([REDACTED] responding to questions from the Tribunal: "The Port Fees. We did submit an exhibit of the detail of those payments[.]"). See DC-0083; see also Expert Report-Darrell Chodorow-Damages-Claimant's Memorial-ENG, ¶ 196 (citing DC-0083).

¹⁷⁵ Witness Statement-[REDACTED]-Claimant's Reply-Second Statement-ENG, ¶ 36; Tr. (English), Day 2, 406:8-13 ([REDACTED] responding to questions from the Tribunal: "The Port Fees [...] we had those payments audited by an independent auditor, and I believe that exhibit was submitted as well.").

¹⁷⁶ The audit reflected that approximately [REDACTED] in payments that CSL had made directly to API Quintana Roo, which Vulica ultimately reimbursed to CSL, lacked enough supporting documentation at the time the audit was performed. See Witness Statement-[REDACTED]-Claimant's Reply-Second Statement-ENG, ¶ 36. CALICA's accounting records show that a total of [REDACTED] in port fees were paid to API Quintana Roo. See *id.*, ¶ 35.

17. Concerning Claimant's claim to an award adjusted to avoid double taxation under the principle of full reparation, please provide (based on the evidence on the record) a legal and economic comparison between the situation that Claimant's income resulting from the project in the regular course of business would encounter and that to be applied to a compensation awarded to Claimant by this Tribunal, if so decided.

In the regular course of business, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]¹⁷⁸

Any compensation award issued by this Tribunal will represent taxable U.S. income received by Legacy Vulcan.¹⁷⁹ Because the compensation Respondent owes has already been reduced to account for U.S. income taxes that would have been paid on the portion of CALICA Network income apportioned to the U.S. Yards, any taxation of the award would effectively operate as double taxation of this U.S. Yard income.¹⁸⁰ Such double-taxation would be inconsistent with the principle of full reparation.¹⁸¹ To achieve full reparation, it is necessary to ensure that Legacy Vulcan's economic position be restored to its pre-breach position. This requires avoiding the effective double taxation of U.S. Yards income from compensation awarded

¹⁷⁷ Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶ 27, n.3. For example, [REDACTED]

As Ms. [REDACTED] explains in her first Witness Statement, [REDACTED]

[REDACTED] Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶ 27 & n. 3. Vulcan Materials Company is a New Jersey Corporation that in turn owns 100% of Legacy Vulcan, LLC. See Legacy Vulcan Organizational Chart (Submitted At the Tribunal's Request, July 29, 2021).

¹⁷⁸ Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 143 & Table 6; *id.*, ¶ 191 & Table 13; Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶ 27 & n.3. Mr. Hart and Ms. Vélez adopted these same tax rates in their CALICA Network calculation. See First Credibility Report, ¶¶ 218, 232 & Exhibit 4.3 (RE-002).

¹⁷⁹ Witness Statement-[REDACTED]-Claimant's Memorial-ENG, ¶ 27.

¹⁸⁰ Expert Report-Darrell Chodorow-Claimant's Reply-Second Report-ENG, ¶ 65.

¹⁸¹ Reply, ¶ 283; Expert Report-Darrell Chodorow-Claimant's Reply-Second Report-ENG, ¶¶ 67, 70

to Legacy Vulcan, which would not exist but for the breach that resulted in an award of compensation. Legacy Vulcan therefore instructed Mr. Chodorow to determine the adjustment necessary to reverse this effective double taxation of U.S. Yards income in the calculation of damages.¹⁸²

An example may help illustrate this point. Suppose that the pre-tax lost income of the U.S. Yards segment of the CALICA Network is \$100 and the U.S. tax rate was 25%. In this scenario, Legacy Vulcan would have earned after-tax profits of \$75 ($\$100 \times [1 - 25\%]$) both in the regular course of business and under the DCF model. Accordingly, Mr. Chodorow's methodology would have estimated after-tax damages of \$75. Given that an award would be taxed at the same 25%, an award of \$75 would be worth only \$56.25 to Legacy Vulcan after being subject to \$18.75 in additional taxes ($\$75 \times [1 - 25\%]$) on the award. Therefore, an adjustment of \$25 should be added to the award to bring it back to \$100, leaving Legacy Vulcan with the same \$75 proceeds after taxes are paid on the award.¹⁸³ Table [1] below illustrates this point.

Table [1] - Tax-Gross Up Required to Make LV Whole

		Rate	Amount in US\$
Pre-tax Profits	[A]		100.00
Corporate Income Tax	[B]	25%	25.00
Award: After-tax Profit per DCF Model	[C]=[A]-[B]		75.00
<i>Award without Adjustment</i>			
Tax on Award	[D]	25%	18.75
After-tax Award Proceeds	[E]=[C]-[D]		56.25
<i>Award <u>with</u> Adjustment</i>			
Adjustment to Avoid Double Taxation	[F]		25.00
Adjusted Award	[G]=[C]+[F]		100.00
Tax on Award	[H]	25%	25.00
After-tax Award Proceeds	[I]=[G]-[H]		75.00

In the above example, under the regular course of business and under the DCF model, there would be a U.S. tax liability of \$25, reducing the pre-tax income from \$100 to after-tax

¹⁸² Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 203.

¹⁸³ Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 204. The economics underlying this illustration and table are the same as those presented by Mr. Chodorow, but using an illustrative corporate tax rate of 25% rather than the actual rate of 25.6%.

income of \$75. However, the additional \$18.75 in taxes would not exist absent Respondent's breaches. Therefore, as an economic and legal matter, to achieve full reparation, an upward adjustment to damages to remove the effect of double taxation of U.S. Yard income is required. Consistent with these principles, Mr. Chodorow calculates the necessary adjustment to be [REDACTED] to eliminate the double taxation of lost income attributed to the U.S. Yards for U.S. tax purposes at the current U.S. income tax rate of 25.6%.¹⁸⁴ Any award of damages based on the CALICA Network DCF calculated by Mr. Hart and Ms. Vélez would require a similar adjustment.

Mexico argues that the future tax treatment of any award in the United States is uncertain.¹⁸⁵ Based on currently-prevailing tax rates and practices, however, this concern does not reflect reality.¹⁸⁶

The fact that Legacy Vulcan is a pass-through entity for U.S. tax purposes does not alter the analysis. From an economic perspective, the value of an asset to its owner is based on the present value of the after-tax cash flows that the asset would generate for its owner.¹⁸⁷ Therefore, potential buyers and sellers would consider the present value of after-tax cash flows on a hypothetical negotiation of a sale of the CALICA Network.¹⁸⁸ This is true in the But-For and Actual Scenarios; that is, after-tax profits would be the appropriate method of valuation in the usual course of business even were it not for Mexico's wrongful measures.¹⁸⁹ With respect to the NAFTA breaches at issue here, because damages are the difference between But-For and Actual Values —

¹⁸⁴ Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, Table 17.

¹⁸⁵ First Credibility Report, ¶ 251 (RE-002).

¹⁸⁶ Reply, ¶ 285. To the extent that the award is taxed at a different corporate tax rate than assumed in Mr. Chodorow's model, the calculation could be adjusted accordingly.

¹⁸⁷ Expert Report-Darrell Chodorow-Claimant's Reply-Second Report-ENG, ¶ 70 ("Both of our reports perform our DCF analyses using after-tax cash flows, and therefore both of our analyses reflect lost profits after paying tax."); Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 202 ("I calculate damages as the reduction in the FMV of Legacy Vulcan's operation due to the alleged breaches [...] the damages represent the value of *after-tax* profits.").

¹⁸⁸ Expert Report-Darrell Chodorow-Claimant's Memorial-ENG, ¶ 202 ("Potential buyers and sellers would impute this US tax burden in determining the FMV of Legacy Vulcan. Accordingly, I calculate the diminution in Legacy Vulcan's FMV due to lost profits arising from the alleged breaches treating the Calica Network's income from US yards as taxable at VMC's corporate tax rate.").

¹⁸⁹ DC-0010, Workpaper J4 at [33] to [39]; First Credibility Report, Exhibit. 4.1, p. 2 (RE-002); Tr. (English), Day 5, 1105:18-1106:3 (Chodorow cross-examination: "I will note that just as a pure economic matter, the [...] point that the income is not tax free, even though it's a pass through entity. It's simply an economic fact. Somebody is going to pay taxes on that income, and so, if somebody was considering buying Legacy Vulcan or buying the CALICA Network, they would have to account for those taxes in the valuation.").

both based on after-tax cash flows — Mr. Chodorow’s estimate of damages necessarily reflects a reduction in the after-tax value.¹⁹⁰ The same is true for the analysis by Mr. Hart and Ms. Vélez.¹⁹¹

Finally, an adjustment to reverse the effective double taxation of the U.S. Yards income is required even if the relevant entity for purposes of calculating damages was determined to be CALICA. As explained in Legacy Vulcan’s post-hearing brief and in Mr. Chodorow’s testimony at the Hearing, the profits of the CALICA Network accrue to CALICA as a netback value of the reserves.¹⁹² Thus, in any hypothetical transaction for the sale of CALICA, the willing buyer and willing seller would value the reserves in Mexico based on the income that could be generated by owning the CALICA reserves after paying all necessary taxes, including U.S. income tax on income allocated to the U.S. Yards, which is enabled by ownership of the reserves. Therefore, even to the extent that damages are focused on the netback value of reserves — that is, to the value of CALICA — this same adjustment to remove double taxation in the U.S. is required.

¹⁹⁰ Expert Report-Darrell Chodorow-Claimant’s Reply-Second Report-ENG, ¶¶ 57, 70.

¹⁹¹ First Credibility Report, ¶ 128 (RE-002).

¹⁹² Tr. (English), Day 5, 1012: 2-16 (Chodorow cross-examination: “[Counsel for Respondent]: So, could you have separately calculated the loss of Fair Market Value of CALICA, Vulica, and the U.S. Yards, the three components of the CALICA Network? // [Chodorow]: Well, it’s possible to do something like that. It’s an artificial exercise similar to the transfer pricing approach, where you would try and break apart the integrated network, but it doesn’t change the fact that the fundamental value comes from the resource itself, and that’s where the profits [...] accrue. And when I say ‘the profits,’ what I should probably highlight is we’re talking about the economic value of the network.”); Expert Report-Darrell Chodorow-Claimant’s Reply-Second Report-ENG, ¶ 56.

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

APPENDIX B TO CLAIMANT'S POST-HEARING BRIEF

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17 November 2021

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