IN THE MATTER OF AN ARBITRATION UNDER CHAPTER ELEVEN OF THE NORTH AMERICAN FREE TRADE AGREEMENT AND THE UNCITRAL RULES OF 1976

BETWEEN:

WILLIAM RALPH CLAYTON, WILLIAM RICHARD CLAYTON, DOUGLAS CLAYTON, DANIEL CLAYTON AND BILCON OF DELAWARE, INC.

Claimants/Investors

AND:

GOVERNMENT OF CANADA

Respondent

WITNESS STATEMENT OF

GEORGE BICKFORD

December 8, 2016

1. My engineering firm, LB&W Engineering Inc. ("LB&W"), was engaged to design and engineer the aggregate crushing and sizing facility for the planned Whites Point Quarry and marine terminal project. Starting in 2003, I and others at LB&W worked with Bilcon's representative, John Wall, to design a quarry [redacted]

I. BACKGROUND

A. PROFESSIONAL PROFILE

2. I worked in engineering full-time from 1963 until my retirement in 2015.

3. I started my career in 1963 in the engineering department of the Bethlehem Steel Co., Fabricated Steel Division. When the Fabricated Steel Division closed in 1971, I focused on quarry design and bulk material handling, initially with R&G Engineering LLC ("R&G") and later with Reimer & Fisher Engineering Inc. ("Reimer & Fisher").

4. R&G and Reimer & Fischer specialized in bulk material handling. While I was with both firms, I acquired experience and expertise in mineral processing methods, aggregate plant design and, ultimately, field construction supervision and construction related engineering.

5. From 1984 to 1992, I served as the General Manager of Reimer & Fisher and oversaw the firm's growth from 30 to 124 employees. In 1992, Reimer & Fischer ceased operations as a result of an economic recession.

B. LB&W ENGINEERING INC.

6. In 1992, I founded LB&W along with Michael Washer and Ted Litke. Mr. Washer and Mr. Litke were colleagues of mine at Reimer & Fisher. Mr. Washer is a licensed professional engineer and Mr. Litke, who is a graduate engineer, was Reimer & Fisher's Chief Mechanical Engineer.

7. From its inception, LB&W has specialized in minerals processing engineering, including aggregate plant design and material handling. Material handling involves the design and construction of systems for the processing and movement of various types of bulk materials over short distances, usually through the use of conveyor systems.

8. LB&W has throughout been involved with designing and engineering all aspects of material handling, including systems for processing and handling aggregate. LB&W has designed rock-crushing facilities and component systems, and has also procured and supplied equipment and provided construction management services.

9. LB&W is an independent engineering firm. It does not have an affiliation with an equipment manufacturer or construction company, and is therefore able to design facilities and procure equipment without being tied to an industry participant.

10. Prior to LB&W's work for Bilcon, LB&W had designed over 20 aggregate crushing plants ranging in production capacity from 500 tons per hour ("TPH") through 2600 TPH.

11. I was the President of LB&W until I retired.

C. OVERVIEW OF AN AGGREGATE CRUSHING PLANT

12. An aggregate crushing plant breaks large rocks into different sizes of smaller rocks and uses screens to separate the different sizes of smaller rocks for sale and distribution.

13. To accomplish this, large rock is dumped into a hopper and fed by a "feeder" into a primary rock breaker or crusher. A feeder is a machine that controls the rate of flow of rock. A "primary" crusher is the first rock crusher in an aggregate plant and typically uses a heavy duty mechanism to break larger rock into smaller pieces.

14. Once broken, the pieces pass through one or more screens. A screen has openings of a specific size, so only rock pieces that are smaller than the size of the screen opening pass through. Thus, layers or "decks" of screens with successively smaller openings are used to separate pieces of different sizes.

15. The screened pieces are then typically conveyed to a surge pile to await further reduction by a second (or "secondary") and, in some cases, a third (or "tertiary") crusher. The rock pieces that pass through secondary and tertiary crushers are sorted by additional sets of screens and are ultimately deposited in a stockpile to await transport. Surge piles and stockpiles sit on top of tunnel feeder systems that, again, control the rate of flow of rock.

16. The process of crushing and re-crushing rock generates dust and small particulate referred to as "fines". Fine-free aggregate and fines themselves both have applications. As such, some aggregate processing facilities have dust collectors and/or a "wash plant", which uses water, cyclones and gravity to separate and clean the aggregate and collect the fines.

17. Once the finished aggregate is stockpiled, a "reclaim" system is used to collect the aggregate for loading aboard a truck, train or ship. The reclaim system is typically comprised of feeders, tunnels, and conveyor belt scale systems located under the stockpiles to allow the aggregate to drop in a controlled manner onto a conveyor.

18. Throughout processing, the various sizes of aggregate are usually transferred through the facility by an inter connected system of components including feeders, conveyors and stackers.

II. LB&W'S DESIGN AND ENGINEERING PROCESS

19. LB&W performs its design and engineering work for aggregate processing plants in stages. The stages typically include conceptual and detail design work, construction scheduling, equipment procurement, the creation of engineering drawings, construction management and oversight of plant start-up. LB&W typically works with the client throughout the entire design and construction process.

A. CONCEPTUAL DESIGN

20. The conceptual design stage involves understanding a client's proposed project, including their objectives and the project's proposed location. LB&W works closely with the client to define, in concept, a potential plant and an order-of-magnitude budget.

21. Once a workable concept has been defined, LB&W prepares diagrams referred to as "preliminary flow sheets" to depict the proposed plant in schematic form. The preliminary flow sheets are generated using computer-aided design software, such as AutoCAD, and depict the configuration of the proposed facility and key pieces of equipment.

22. LB&W delivers the preliminary flow sheets to the client for feedback and incorporates the feedback into subsequent revisions. LB&W assigns a letter to each revision and each revision that is sent to a client is dated and marked "released for customer comment" or other distribution.

23. Once the customer has approved the concept of the plant, LB&W begins more detailed design work, including the preparation of "small scale general arrangement" drawings. Small scale general arrangement drawings define the proposed plant configuration and profile, establish parameters for final detail design work, and can be used to obtain permits and financing.

24. LB&W also commonly prepares a site plan and construction schedule. The site plan depicts the site arrangement, including any necessary alterations to the property, and the construction schedule projects the timeframe for erection. Both are given to the client for review and confirmation.

25. The process of preparing and revising flow sheets, small scale general arrangement drawings, and the site plan continues until the design and proposed construction schedule meet the client's requirements. Throughout, LB&W adjusts and revises the drawings in response to the client's feedback, including changes in specifications and budget.

B. DETAIL DESIGN

26. Once the project design is confirmed, LB&W moves to the "detail design" stage. The detail design stage includes finalizing the construction schedule and ensuring the flow sheets accurately describe the specific equipment used in the plant.

27. At the detail design stage, LB&W also replaces the "small scale general arrangement" drawings with larger scale and more detailed "general arrangement" drawings that, among other things, provide sufficient information

for the procurement of materials and equipment, the creation of drawings necessary for fabrication, and the issuance of building permits.

C. PROCUREMENT AND SHOP DETAIL DRAWINGS

28. After completion of the conceptual and detail design stages, LB&W requests quotations for the equipment and materials necessary to construct the crushing plant. The equipment and materials required typically include crushers, feeders, screens, belt conveyors, stackers, dust collectors, and fabricated steel. LB&W reviews quotations with the client and may assist in selecting a vendor and issuing purchase orders.

29. The final drawings are referred to as the "Design Detail Drawings". These drawings are used primarily to generate shop detail drawings for structural steel, appurtenances and foundation reinforcement. Drawings necessary for equipment fabrication are obtained from the original equipment manufacturer.

D. DELIVERY OF EQUIPMENT AND MATERIALS TO JOB SITE AND CONSTRUCTION

30. Depending on the client's requirements and involvement, LB&W may oversee equipment and materials delivery to the job site and be involved with construction engineering.

III. DESIGN OF WHITES POINT CRUSHING PLANT

31. As I outline below, between 2003 and 2006 I and others at LB&W worked on the design for the Whites Point quarry. LB&W worked closely with Bilcon's representative, John Wall, who was the general manager of the Whites Point Quarry.

32. With Mr. Wall's input, LB&W prepared [redacted]

[redacted]

A. COLLABORATION WITH JOHN WALL

33. In approximately mid-2003, Mr. Wall contacted me about the possibility of LB&W designing a quarry in Nova Scotia, Canada. I had not previously worked with Mr. Wall, but knew him to be an experienced quarry operator from my involvement in the mining and aggregates industries.

34. Mr. Wall and I initially met at LB&W's offices in Allentown, Pennsylvania. Mr. Wall informed me that he represented Bilcon of Delaware and its Canadian company, which were controlled by the Clayton family in New Jersey. He told me that Bilcon and the Claytons were planning to build a quarry in Nova Scotia to export various sizes of aggregate for their U.S. operations.

35. Mr. Wall had managed Mount Hope Rock Products in New Jersey and one of his former colleagues had spoken highly of LB&W. Mr. Wall also told me that he wanted to work with an engineering firm that was not constrained to supply equipment from a particular manufacturer.

36. [redacted]

37. [redacted]

38. Shortly after our initial meetings, I visited Nova Scotia to survey the Whites Point Quarry site and to discuss the plant layout with Mr. Wall. My visit helped me better understand Mr. Wall's plan [redacted]

39. Mr. Wall was knowledgeable and experienced, and had a very good grasp of the plant that Bilcon required. The project he described interested me and was well within LB&W's competence. Accordingly, in late 2003, LB&W accepted the engagement to work with Mr. Wall for the design engineering of the Whites Point Quarry.

B. INITIAL DESIGN CONSIDERATIONS

40. [redacted]

41.

42. [redacted]

43. I understood that Mr. Wall would be the on-site project manager and that Mr. Buxton, together with Mr. Wall, would be responsible for hiring trades and contractors.

44. [redacted]

45. [redacted]

46. [redacted]

[redacted]

C. LB&W'S WORK ON THE WHITES POINT CRUSHING PLANT

47. In late 2004, following my initial discussions with Mr. Wall and visits to Nova Scotia, LB&W [redacted] LB&W's design and engineering team consisted principally of Mike Washer, Ted Litke, and me. One of LB&W's senior design draftsmen, Jim Frank, was assigned to assist in preparing drawings.

48. [redacted] LB&W planned to [redacted]

49. [redacted]

50. [redacted]

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[1] Letter of Transmittal dated December 3, 2004 from LB&W to John Wall with Attached Crushing Plant Flow Sheet (***Investors' Schedule of Documents, Tab C0999***).

51. [redacted]

52. [redacted]

53. [redacted]

54. [redacted]

[redacted]

55. The initial design addressed the key requirements that Mr. Wall had requested: [redacted]

56. [redacted]

D. LB&W'S FINAL DESIGN AND CONSTRUCTION SCHEDULE

57. [redacted]

58. [redacted]

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[2] LB&W Engineering Inc., Bilcon of Nova Scotia Corp. Whites Point Quarry Proposed Crushing Plant Flow Sheet, 204189-000, Revision D **(Bickford Exhibit 1; *Investors' Schedule of Documents, Tab C1001, p. 1*)**.

59. [redacted]

60. [redacted]

61. [redacted]

62. [redacted]

E. SUBSEQUENT CHANGES TO THE WHITES POINT PLANT

63. [redacted]

64. [redacted]

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[3] LB&W Engineering Inc., Project 204189 "Bilcon of Nova Scotia Corp. White Point Quarry" Revision 1, Printed 2/14/06 (***Investors' Schedule of Documents, Tab C1001, pp. 8-12***).

65. [redacted]

66. [redacted]

IV. COST ESTIMATE

67. In 2004, when the plant was in the initial concept design stage, LB&W prepared a preliminary budget estimate for use by Mr. Buxton in Bilcon's Environmental Impact Statement.

68. In 2016, in preparation for this arbitration and under the instruction of Nash Johnston LLP, Michael Washer prepared detailed costings [redacted] The costings are attached to the Witness Statement of Michael G. Washer, Engineer of Record for LB&W Engineering Inc.

Dated: December 8, 2016

GEORGE BICKFORD

EXHIBIT 1

WITNESS STATEMENT OF GEORGE BICKFORD

[redacted]