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RESPONSE REPORT ON THE SANTA ANA PROJECT AND CORANI PROJECT, PUNO, PERU

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1 INTRODUCTION

1. Roscoe Postle Associates Inc. (RPA) was retained by King & Spalding LLP (K&S) on behalf of Bear Creek Mining Corporation (BCM or the Claimant), to prepare an independent opinion and report on the Santa Ana Project (Santa Ana) and Corani Project (Corani) in connection with a dispute (hereinafter the Arbitration) between BCM and the Peruvian Government (Peru or the Government).
2. On June 25, 2011, the Government issued Supreme Decree DS-032-2011, which rescinded BCM's rights to operate on the Santa Ana concessions. This resulted in a complete stoppage of activities. On August 12, 2014, BCM announced that it had commenced arbitration proceedings against the Government, pursuant to Article 824 of the Free Trade Agreement between Canada and Peru. RPA provided the RPA Technical Review Report (RPA Report) on May 29, 2015 in support of the Arbitration.
3. The RPA Report was relied upon in the following submissions to the Arbitration panel by BCM:
   3.1. Claimant's Memorial on the Merits, prepared by K&S, dated May 29, 2015.
   3.2. Bear Creek Mining Corporation ("Claimant") v. Republic of Peru ("Respondent"), prepared by FTI Consulting Canada ULC (FTI), and dated May 29, 2015 (the FTI Report).
4. As part of the arbitration process, Peru reviewed the RPA Report and submitted a response to the Arbitration panel. The response comprised three separate reports:
   4.1. A memorial of objections to jurisdiction, admissibility of claims and statement of defence was prepared by representatives of Navarro, Ferrero & Pazos Abogados and representatives of Sidley Austin LLP (the Sidley Submission). The Sidley Submission is titled "Respondent's Counter Memorial on the Merits and Memorial on Jurisdiction" and is dated October 6, 2015.
   4.2. An expert report prepared for Sidley Austin LLP on behalf of The Republic of Peru by Dr. Neal Rigby of SRK Inc. (the SRK Report). The SRK Report is titled "Expert Technical Report of SRK Consulting" and is dated October 6, 2015.
   4.3. An expert report prepared for Sidley Austin LLP on behalf of The Republic of Peru by Dr. Graham A. Davis, a Professor of Mineral Economics at the Colorado School of Mines, and Dr. Florin A. Dorobantu of The Brattle Group (the Brattle Report). The Brattle Report is titled "Bear Creek Mining Corporation v. Republic of Peru, Quantum of Damages Analysis" and is dated October 6, 2015.

5. **This report is a response to submissions by Peru to the Arbitration panel commenting on the RPA Report. Having reviewed the Peru responses, RPA's opinions as expressed in the RPA Report remain unchanged.**
6. RPA understands that FTI is preparing a separate response to the submissions by Peru.

1.1 THE RPA REPORT

7. The RPA Report provides an expert opinion on the reasonableness of the work carried out on both the Santa Ana and Corani projects.
8. Based on a review of the available documentation, RPA considered the Santa Ana Updated Feasibility Study (FSU) to be a reasonable representation of the project as planned, with some modifications (RPA Revised Base Case) as described in the RPA Report. The RPA Revised Base Case is based on Mineral Reserves only. As is noted in the FSU and RPA Report, there are Mineral Resources that are not captured in the RPA Revised Base Case production plan. Over the life of the mine, it is common practice and experience that a portion of these Mineral Resources will be converted to Mineral Reserves and mined and processed. RPA prepared an Extended Mine Life Case based on this principle. RPA is of the opinion that an appropriate economic analysis of the project can be made using the FSU and available data.
9. Based on the technical review of the available documentation, RPA finds both the 2011 Corani Feasibility Study (2011 Corani FS) and the 2015 Corani Optimized Feasibility Study (2015 Corani OFS) to be a reasonable representation of the Corani Project as planned. RPA is of the opinion that an appropriate economic analysis of the project can be made using the cash flow model along with available data provided. RPA is of the opinion that both the 2011 Corani FS and the 2015 Corani OFS work was carried out in a thorough and diligent manner.

1.2 THE SRK REPORT

10. The SRK Report was prepared by Dr. Neal Rigby. SRK's mandate was to "review, analyze, and render considered opinions on the RPA Report and the FTI Report". SRK examined the various feasibility studies undertaken on the Santa Ana and Corani projects.

1.3 THE BRATTLE REPORT

11. The Brattle Report was prepared by Dr. Graham A. Davis, a Professor of Mineral Economics at the Colorado School of Mines, and Dr. Florin A. Dorobantu of The Brattle Group.

12. The Brattle Report reviews and comments on the FTI Report, which quantifies damages to BCM. Since the FTI Report relies on analysis presented in the RPA Report, the Brattle Report also reviews and comments on portions of the RPA Report on which the FTI Report relies.

1.4 QUALIFICATIONS OF RPA

13. RPA is a group of technical professionals who have provided advice to the mining industry for 30 years. During this time, RPA has grown into a highly respected organization regarded as *the specialty firm of choice for resource and reserve work*. RPA provides services to the mining industry at all stages of project development from exploration and resource evaluation through scoping, prefeasibility and feasibility studies, financing, permitting, construction, operation, closure and rehabilitation. Our portfolio of customers includes clients in banking (both debt and equity), institutional investors, government, major mining companies, exploration and development firms, law firms, individual investors, and private equity ventures.

14. RPA offices are located in Canada, the United States, and the United Kingdom. Our professionals work globally, visiting mines and projects on six continents. Our home office is located in Toronto, Ontario, and the company is 100% owned by its employees.

15. Our mission is to apply our broad and deep experience to provide objective, independent advice. Our vision is to enable mining industry operators and investors to make the right decisions for business success. Clients return to RPA repeatedly because of the accurate, credible technical reports and advice we deliver, reports that are accepted and relied on time and time again, among financial institutions and major regulatory bodies worldwide.

1.5 RPA TEAM

1.5.1. GRAHAM G. CLOW, P.ENG.

16. Graham G. Clow, P.Eng., is a Principal Mining Engineer and Chairman of the Board of RPA. He is a senior mining executive with more than 40 years of experience in all aspects of mine exploration, feasibility, finance, development, construction, operations, and closure. His experience ranges from the High Arctic to the tropics, in base and

precious metals and industrial minerals. He has been responsible for mergers and acquisitions of public companies. Mr. Clow's experience includes financing, development, and management of open pit and underground mines, start-ups, feasibility studies, valuations, due diligence, and troubleshooting, and management consulting for mines. His CV is attached in Appendix 1.

17. Mr. Clow is a Qualified Person because he:
    - Is registered as a Professional Engineer in Ontario (#8750507) and British Columbia (#105689) and is designated as a Consulting Engineer in Ontario.
    - Has more than 40 years' experience relevant to mine exploration, development, operations, and evaluation.

1.5.2. RICHARD J. LAMBERT, P.E., P.ENG.

18. Richard J. Lambert, MBA, P.E., P.Eng., is a Principal Mining Engineer and Executive Vice President and Chief Operating Officer of RPA. He has more than 35 years of international experience in mine operations and management, mine engineering, project evaluation, and financial analysis. He has been project manager and lead technical advisor for many mine financings, mergers, acquisitions, and privatizations. Mr. Lambert has extensive experience in mine cost estimating and is skilled in management from project start-up to production, maintenance, and mine planning. His CV is attached in Appendix 1.
19. Mr. Lambert is a Qualified Person because he:
    - Is a Registered Professional Engineer in Wyoming (#4857), Idaho (#6069), and Montana, United States (#11475) and registered as a Professional Engineer in Ontario (#100139998).
    - Has more than 35 years' experience relevant to mine development, operations, and evaluation.

1.5.3. IAN C. WEIR, P.ENG.

20. Ian C. Weir, P.Eng., is a Senior Mining Engineer with RPA. Mr. Weir's experience includes roles in supervision at a Chilean open pit mining operation during start-up, mine planning, economic studies, due diligence, and consulting for mines. His CV is attached in Appendix 1.
21. Mr. Weir is a Qualified Person because he:
    - Is registered as a Professional Engineer in Ontario (#100143218) and Newfoundland and Labrador (#08230).

- Has more than six years' experience relevant to mine development, operations, and evaluation.

1.5.4. KATHLEEN ANN ALTMAN, PH.D., P.E.

22. Kathleen Altman, Ph.D., P.E., is a Principal Metallurgist and Director of Metallurgy and Mineral Processing with RPA. She has 35 years of diverse experience as a process/metallurgical engineer in the mining industry. Dr. Altman has worked for operating companies, engineering design companies, consulting companies, and in research positions completing projects and engineering designs for gold, silver, copper, cobalt, iron, magnesium, phosphate, rock salt, and water treatment projects. Her CV is attached in Appendix 1.
23. Dr. Altman is a Qualified Person because she:
    - Is a Registered Professional Engineer, Colorado (#37556).
    - Has more than 35 years' experience relative to process/metallurgical engineering in the mining industry.

1.5.5. KATHARINE MASUN, P.GEO.

24. Katharine Masun, MSA, M.Sc., P.Geo., is a Senior Geologist with RPA. She has extensive experience in mineral exploration in Canada and abroad, as well as mineral resource estimation and modelling. Her CV is attached in Appendix 1.
25. Ms. Masun is a Qualified Person because she:
    - Is a member of the Association of Professional Geoscientists of Ontario (#1583).
    - Has more than 18 years' experience in mineral exploration and resource estimation.

1.6 LIST OF ABBREVIATIONS

26. Units of measurement used in this report conform to the metric system. All currency in this report is US dollars (US$) unless otherwise noted.

%	per cent
$/ha	dollar per hectare
C$	Canadian dollars
g	gram
g/t	gram per tonne
ha	hectare
lb	pound
MASL	metres above sea level
Mt	million tonnes
oz	Troy ounce (31.1035g)
t	metric tonne
US$	United States dollar

2 DISCLAIMER

27. This report has been prepared by RPA at the request of K&S and FTI, on behalf of BCM, solely for use in the Arbitration. Conditions and limitations of use apply to this report. This report shall not be used nor relied upon by any other party, nor for any other purpose, without the written consent of RPA. RPA accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.
28. The information, conclusions, opinions, and estimates contained herein are based on:
    - information available to RPA at the time of preparation of this report,
    - assumptions, conditions, and qualifications as set forth in this report, and
    - data, reports, and opinions supplied to BCM and other third party sources.
29. While it is believed that the information contained herein is reliable under the conditions and subject to the limitations set forth herein, this report is based in part on information not within the control of RPA and RPA does not guarantee the validity or accuracy of conclusions or recommendations based upon that information.
30. The report is intended to be read as a whole, including the Introduction and Executive Summary and Appendices, and sections should not be read or relied upon out of context. The information contained in this report may not be modified or reproduced in any form, electronic or otherwise, except for the use in the Arbitration unless the RPA's express permission has been obtained.

3 EXECUTIVE SUMMARY

3.1 CUT-OFF GRADES

31. SRK[1] is fundamentally incorrect when it states that Mineral Resources and Mineral Reserves are overstated because of the use of mill cut-off grade rather than breakeven cut-off grade in the estimation process.

32. Cut-off grade is a measure used to determine the profitability of mineralization in a deposit. It is the lowest metal grade that can be mined without incurring a loss. It is calculated as the amount of revenue bearing mineralization in a tonne of material that will generate enough revenue to cover the costs of mining and processing.

33. Taylor (1972)[2] defined cut-off grade as any grade that, for any specific reason, is used to determine, firstly, whether to mine a tonne of material or leave it in the ground and, secondly, having mined it, determine whether it should go to the waste dump or to processing.

34. Jean-Michel Rendu further describes cut-off grades as follows:

    34.1. Minimum or breakeven cut-off grades are those that apply to situations where only direct operating costs are taken into account."[3] In other words, the breakeven cut-off grade is that amount of revenue bearing material that will cover the cost of mining, processing, site administrative costs, and off-site transport and smelting and refining costs.

    34.2. Internal or mill cut-off grade applies when a tonne of material needs to be moved from an open pit in order to access material above the breakeven cut-off grade. In this instance, since mining costs are already covered, the material only needs enough revenue generation to cover the cost of processing, site administrative costs, and off-site transport and smelting and refining costs (i.e., excluding mining costs).

35. Accepted practice in the industry, as used by RPA, is to first estimate the volume of material that can be mined and processed at a breakeven cut-off grade (based on all costs, including mining costs). The next step is to report Mineral Resources and Mineral

[1] Rigby, N., 2015, REX-005 Expert Technical Report of SRK Consulting, October 6, 2015 (Exhibit RPA-01).
[2] Taylor, H.K., 1972, General Background Theory of Cut-off Grades. Institution of Mining and Metallurgy Transaction A:160 (Exhibit RPA-02).
[3] Rendu J.-M., 2013, An Introduction to Cut-off Grade Estimation, Society for Mining Metallurgy and Exploration, 2013, page 17 (Exhibit RPA-03).

Reserves from within that volume at the internal/milling cut-off grade (based on all costs, excluding mining costs).

3.2 SANTA ANA

36. SRK is incorrect in its statements regarding the application of cut-off grade. RPA has followed industry standards for correct application of cut-off grades for reporting of Mineral Resources, Mineral Reserves, and for use in mine planning. It is clear, that with regard to the use of cut-off grades in determining Mineral Resources and Mineral Reserves, SRK's comments are founded in practices that are not used or accepted in the industry.
37. In the Brattle Report[4], it is stated that "*RPA's Extended Life Case adds 35 million tonnes of additional low grade resource (as opposed to reserves) in the production. The additional material comes from lowering the resource pit cutoff grade from 17.5 g/t to 14 g/t, indicative of a higher price scenario for the life of the mine compared with the base case.*" Brattle is incorrect in stating that a *"higher price scenario"* is the reason behind the difference. Lower cut-off grade was based on a set of assumptions for operating costs, metal prices, and metallurgical recoveries which are specific to the Extended Life Case.
38. SRK is incorrect in its claim that the mine operating costs in the FSU[5] should be higher due to the remote location and altitude. The unit mine operating costs for the FSU are based on actual contractor quotes that incorporate allowances for, among other things, the remote location and altitude.
39. SRK is incorrect in its suggestion that the metallurgical recovery of silver should be held at 70%. Detailed review of the testwork has confirmed that SRK's contention that the silver recovery should be reduced is incorrect. The estimated silver recovery recommended in the FSU (i.e., 75%) should be maintained.
40. SRK is incorrect in concluding that the ratio of Mineral Resources converted to Mineral Reserves for the Extended Life Case is too high. They contend that the conversion rate in the current estimate is indicative of a conversion ratio in a future scenario. The conversion of Mineral Resources to Mineral Reserves in the current estimate is based

[4] Davis, G.A., and Dorobantu, F.A., 2015, Expert Valuation Report of Prof. Graham Davis and The Brattle Group, prepared for Sidley Austin LLP on behalf of The Republic of Peru, October 6, 2015. (Exhibit RPA-04).
[5] Ausenco Vector, 2011, Revised Feasibility Study Santa Ana Project – Puno, Peru NI 43-101 Technical Report Update to the 21-Oct-2010 Report, prepared for Bear Creek Mining Corporation by Ausenco Vector, Independent Mining Consultants, Inc., and Resource Development Inc., April 1, 2011 (Exhibit RPA-05).

mainly on cut-off grade and SRK fails to account for a lower cut-off grade in the future based on improved operating costs and better metal prices.

41. SRK is incorrect in assuming that the permitting process for Santa Ana would have taken much longer than planned. Hudbay Minerals Inc. (Hudbay) was able to permit the substantially larger, more complex Constancia Project in six quarters, which is only one quarter longer than the time allotted in the Santa Ana schedule. It should also be noted that the engineering company responsible for construction at Constancia was Ausenco, the same company that completed the Santa Ana FSU. Rio Alto Mining Limited (Rio Alto) submitted an Environmental Impact Assessment (EIA) for its La Arena Project in September 2009 and received approval ten months later in July 2010. In May 2011, Rio Alto announced the first gold pour at La Arena, only ten months after receiving EIA approval from the Peruvian Government.

42. SRK comments that the construction and production ramp-up schedule are *"far too simplistic and high level to have any credibility or to support detailed scrutiny."* The schedule shown in the FSU and the RPA Report is a very simplified milestones summary of detailed schedules normally produced in the course of a feasibility study.

43. From a metallurgical perspective, the production ramp-up schedule for Santa Ana can be considered conservative. It assumes that 65.8% of the silver will be extracted in the first year after the ore is placed on the leach pad and the remaining 9.9% of the silver will be recovered the following year.[6] This is a conservative estimate based on the 180 day leach cycle. During permanent heap leaching of material, it is often demonstrated that higher-than-expected recoveries actually occur as opposed to those predicted by column leach testing.

44. SRK incorrectly compares the detailed schedule for Corani, which is a milling operation, with the production schedule for Santa Ana, which is a simple heap leaching operation. The two proposed operations are entirely different. For heap leaching, the critical path is mining, leach pad construction, and placing the ore on the leach pad. As soon as the ore is placed on the leach pad, piping can be placed on the ore and the operation can commence. Milling operations are much more complicated processing circuits that contain a number of larger, more expensive, and more intricate unit operations such as crushing, grinding, flotation, leaching, thickening, filtration, and tailings storage requirements. In milling circuits, there are many more complicated issues to consider

[6] 0911 - Santa Ana Financial Model 12OCT10 Rev 2 - finer crush - Herbs Rec.xlsx (Exhibit RPA-06).

such as commissioning of the individual processing circuits, ramp-up of the grinding circuit, and the material tied up in the circuit inventories.

45. Brattle is incorrect in stating that the inclusion of Inferred Mineral Resources in project valuation is "controversial". CIMVal clearly states that "*All Mineral Reserves and Mineral Resources on a Mineral Property should be considered in its Valuation"* – this includes Inferred Mineral Resources. Contrary to Brattle's assertions, all additional Mineral Resources were subject to a Whittle pit optimization analysis. Furthermore, all additional Mineral Resources mined in the Extended Life Case are economic and therefore add to the asset value.

3.3 CORANI

46. SRK is incorrect in stating that RPA could not have confirmed the tonnages and grade of the 2015 Corani OFS[7] Mineral Resource estimate. In fact, RPA completed a thorough review of the 2015 Corani OFS Mineral Resource estimate and was able to confirm the tonnage and grade.

47. SRK is incorrect in its claim that the mine operating costs should be higher and has no basis for support. The 2011 Corani FS[8] did in fact incorporate allowances for the remote location and altitude.

48. SRK is incorrect in stating that the metallurgical recoveries projected in the 2011 Corani FS may have been overstated. To reach this conclusion, SRK selected a data set that gave the results it desired – that being lower estimates for both the lead and the silver recoveries. In fact, there does not appear to be any mathematical correlation between either lead head grade and lead recovery or silver head grade and silver recovery and RPA has confirmed that the methodology selected by M3 Engineering & Technology Corporation (M3) to support the FS is correct.

49. SRK is incorrect in stating that silver recoveries estimated in the 2015 Corani OFS should be maintained at 55% rather than 70%. RPA is of the opinion that the work that has been completed to support the 2015 Corani OFS, which estimates metal recovery on a block by block basis, using the most modern methods available, is much more accurate than the empirical guesses that SRK proposes. This opinion is validated by the Global

[7] M3 Engineering & Technology Corp., 2015, Optimized and Final Feasibility Study Corani Project, Puno, Peru, prepared for Bear Creek Mining Corporation, May 30, 2015 (Exhibit RPA-07).
[8] M3 Engineering & Technology Corporation, 2011, Corani Project Form 43-101F1 Technical Report Feasibility Study Puno, Peru Rev. 0, prepared for Bear Creek Mining Corporation, December 22, 2011 (Exhibit RPA-08).

Resource Engineering, Ltd. (GRE) report[9] that shows the improved accuracy of the results from the 2015 Corani OFS. Furthermore, it is common that, as operations are built and further optimized during start-up, recoveries can be improved under actual operating conditions.

50. SRK is incorrect in its statement that "*by factoring in likely delays in permitting, difficult logistics associated with procurement and construction in a high Andes environment, collectively these could lengthen the time from project inception (a Go decision) to first concentrate production by at least one year from that presented in the FS.*" SRK's opinion is purely speculative and has no basis for suggesting longer metallurgical processing times, or being able to predict delays relating to permitting. The Corani Project schedule allows a period of 17 months for Environmental and Social Impact Assessment (ESIA) preparation/review and permitting, which is significantly higher than SRK's suggestion of 12 months.

[9] Global Resource Engineering, Ltd., 2015, Geometallurgy, Block Model and Resource Estimate, Corani Mine Project Feasibility Study, prepared for Bear Creek Mining Corporation, September 18, 2015 (Exhibit RPA-09).

4 BACKGROUND DISCUSSION ON CUT-OFF GRADES

51. Throughout the SRK and Brattle reports, there is significant discussion on cut-off grades and it is important that these basic concepts are well understood.

52. Cut-off grade is a measure used to determine the profitability of mineralization in a deposit. It is the lowest metal grade that can be mined without incurring a loss. It is calculated as the amount of revenue bearing mineralization in a tonne of material that will generate enough revenue to cover the costs of mining and processing. The components of the calculation include operating costs, metal recovery, and metal price.

53. Taylor (1972)[10] defined cut-off grade as any grade that, for any specific reason, is used to determine, firstly, whether to mine a tonne of material or leave it in the ground and, secondly, having mined it, determine whether it should go to the waste dump or to processing.

54. Kenneth F. Lane states: “The aim is the development of a definition of ore that is optimum according to accepted current economic ideas, uncompromised by other considerations”.[11] Cut-off grade optimization is used to derive an operating strategy that maximizes the value of a mine. Where the mine’s capacity allows, sacrificing low-grade material enables the mill to process ore that delivers a higher cash flow. Hence, the cut-off grade policy has a significant influence on the overall economics of the mining operation.

55. Jean-Michel Rendu describes cut-off grades as well. He states, “Minimum or breakeven cut-off grades are those that apply to situations where only direct operating costs are taken into account.”[12] In other words, the breakeven cut-off grade is that amount of revenue bearing material that will cover the cost of mining, processing, site administrative costs, and off-site transport and smelting and refining costs. Rendu also uses the term “external or mine” cut-off grade to describe the breakeven cut-off grade.

56. Rendu further describes “internal or mill” cut-off grade. The use of this applies when a tonne of material needs to be moved from an open pit in order to access material above the breakeven cut-off grade. In this instance, since mining costs are already covered,

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[10] Taylor, 1972 (Exhibit RPA-02).
[11] Lane, K.F., 1988, The Economic Definition of Ore, Cut-off Grades in Theory and Practice, Mining Journal Books, page 5 (Exhibit RPA-10).
[12] Rendu, 2013, page 17 (Exhibit RPA-03).

the material only needs enough revenue generation to cover the cost of processing, site administrative costs, and off-site transport and smelting and refining costs (i.e., excluding mining costs).

57. The internal or mill cut-off grade is always lower than the breakeven cut-off grade.

58. Open pit mine design is carried out using industry standard software based on an algorithm developed by Lerchs and Grossmann[13] in 1965. The software based on this algorithm assigns a value to each unit of material based on the cut-off grade in order to determine what is economic to mine. Accepted practice in the industry, as used by RPA, is to first estimate the volume of material that can be mined and processed at a breakeven cut-off grade (based on all costs, including mining costs). The next step is to report Mineral Resources and Mineral Reserves from within that volume at the internal/milling cut-off grade (based on all costs, excluding mining costs).

59. SRK is fundamentally incorrect when it states that breakeven cut-off grades should be used to report Mineral Resources and Mineral Reserves.

[13] Lerchs, H., and Grossmann, I.F., 1965. Optimum design of open-pit mines. CIM Bull.. Vol. 58, No. 633, pp. 47-54, Jan. 1965 (Exhibit RPA-11).

5 RPA RESPONSE TO SRK REPORT

60. The SRK Report provides educational information on the mining life cycle – exploration, evaluation and design, construction, commissioning and ramp-up, production, mine closure and reclamation – and critiques the Santa Ana FSU and 2015 Corani OFS and technical aspects of the RPA Report.

5.1 QUALIFICATIONS OF AUTHOR OF SRK REPORT

61. Dr. Neal Rigby has 40 years' experience in the international mining industry. He was the SRK Global Group Chairman for 15 years (1995–2010).

62. Dr. Rigby's arguments are misinformed. This is made clear in discussions with respect to metal price assumptions and cut-off grade application which will be addressed further in this report. It is clear that Rigby has ample experience but unfortunately he confuses some key concepts, especially with regard to mineral resource estimation, resulting in erroneous declarations.

5.2 SANTA ANA

63. SRK carried out a technical review of the Santa Ana Project and posed a variety of flawed assumptions and incorrect assertions with respect to the FSU and RPA Report. The following summarizes RPA's response to the areas of discussion presented in the SRK Report.

5.2.1. EFFECTIVE VALUATION DATE

64. SRK agrees with RPA that the appropriate valuation date to determine Fair Market Value (FMV) for the Santa Ana Project is June 23, 2011, one day prior to when its illegal expropriation by the government of Peru was made known. The RPA Report is based on the June 2011 expropriation as described in the report on page 7-7: *"For the RPA Revised Base Case, RPA has adjusted the cut-off grade calculation to reflect the change in metal price forecast consensus, as of the June 2011 date of expropriation..."*

5.2.2. CUT-OFF GRADES, MINERAL RESOURCES, AND MINERAL RESERVES

65. Mineral Resources and Mineral Reserves for Santa Ana were estimated by IMC, a well-respected firm with extensive experience in resource and reserve estimation, resource evaluation, geological interpretation and modelling. RPA completed a check estimate to validate the tonnage and grade estimated by IMC.

66. Throughout its report, SRK confuses Mineral Reserve, Mineral Resource, and mine planning cut-off grades. The following is a summary of cut-off grades used in the FSU and RPA Report:

- 34 g/t Ag to 27 g/t Ag - Elevated cut-off grades for FSU Mine Plan
- 24 g/t Ag – Milling/Internal cut-off grade for FSU Mineral Reserves (using Floating Cone Inputs)
- 17.5 g/t Ag – Milling/Internal cut-off grade for RPA Adjusted Base Case Mineral Reserves
- 15 g/t Ag – Milling/Internal cut-off grade for FSU Mineral Resources
- 14 g/t Ag – Milling/Internal cut-off grade for RPA Extended Life Case (using Whittle Inputs)

67. The parameters used to arrive at the various cut-off grades is presented in Table 5-1.

TABLE 5-1 SUMMARY OF CUT-OFF GRADE INPUTS FOR RESOURCE AND RESERVES
Bear Creek Mining Corporation – Santa Ana Project

Parameter	Unit	Resource FSU Floating Cone	Reserve FSU Floating Cone	Reserve RPA Adjusted Base Case	Reserve RPA Extended Life
Pit Slopes	degrees	40	40	40	40
Mining Waste Cost	US$/tonne	1.67	1.73	1.73	2.10
Mining Ore Cost	US$/tonne	1.67	1.73	1.73	2.81
Process Cost	US$/tonne	4.00	5.36	5.36	3.49
G&A Cost	US$/tonne	1.30	1.33	1.33	1.45
Process and G&A Cost	US$/tonne	5.30	6.69	6.69	4.94
Mining Extraction	%	100	100	100	95
Mining Dilution	%	0	0	0	5
Process Recovery	%	70	70	75	75
Refining Recovery	%	99.7	99.7	99.7	99.7
Ag Price	$/oz Ag	16.00	13.00	16.50	16.50
TC/RC	$/oz Ag	0.40	0.40	0.40	0.63
Royalties	$/oz Ag	0.00	0.00	0.00	0.23
Total Charges	$/oz Ag	0.40	0.40	0.40	0.86
Ag COG	g/t	**15.0**	**24.0**	**17.5**	**14.0**

Note: COGs are rounded to nearest 0.5 g/t

68. The FSU reported Mineral Resources at 15 g/t Ag. Mineral Reserves were reported at 27 g/t Ag in years 1 through 5, and 24 g/t for years 6 to 11. For mine planning purposes and production scheduling, the cut-off grade for years 1 through 5 ranged between 27

g/t Ag and 34 g/t Ag as shown in Table 5-2. The cut-off grade is slightly higher in the first five years to account for the additional cost to rehandle the stockpiled material. These approaches are customary mining practices in order to enhance or optimize cash flow during critical pay back of capital invested years at the beginning of a project.

69. RPA reported Mineral Reserves at a cut-off grade of 17.5 g/t Ag for the Base Case and 14.0 g/t Ag for the Extended Life Case. RPA's cut-off grades vary from the FSU due to the use of different parameters as shown in Table 5-1.

TABLE 5-2 PROCESS SCHEDULE WITH STOCKPILE RECLAIM – FSU BASE CASE
Bear Creek Mining Corporation – Santa Ana Project

Time Period	Silver Cut-off (g/t)	Ore (kt)	Silver (g/t)
Preproduction Q1			
Preproduction Q2	34.0		
Preproduction Q3	34.0		
Preproduction Q4	34.0		
Y1,Q1	34.0	900	51.3
Y1,Q2	34.0	900	55.6
Y1,Q3	34.0	900	61.1
Y1,Q4	34.0	900	65.4
Y2	30.0	3,600	60.5
Y3	32.0	3,600	59.1
Y4	33.0	3,600	57.6
Y5	28.0	3,600	59.0
Y6	24.0	3,600	55.6
Y7	24.0	3,600	53.1
Y8	24.0	3,600	49.7
Y9	24.0	3,600	47.0
Y10	24.0	3,600	37.0
Y11		1,077	29.9
Total		**37,077**	**53.0**

70. In paragraph 70, SRK states: "*RPA's justification for lowering the cutoff grade from 27 g/t and 24 g/t to 17.5 g/t is flawed. There are inconsistencies and confusion regarding the application of cutoff grades both in the FSU and in the RPA report. The FSU applied a variable cutoff grade philosophy, which effectively high grades the orebody in years 1 to 5 by applying a higher than break-even cutoff grade and then reduces it in years 6 to 11. The FSU reports a true breakeven cutoff grade of 30 g/t, which was artificially increased to 34 g/t for years 1 to 5. This is a strategy often applied in the industry to*

maximize cashflow in the early years of a project and payback capital as soon as possible. RPA states in footnote 3 to Table 7-1 that a cutoff grade of 27 g/t silver is applied in years 1 through 5, which is reduced to 24 g/t for years 6 to 11."

71. SRK's comments above contain a number of incorrect statements and assumptions.

    71.1. *"RPA's justification for lowering the cutoff grade from 27 g/t and 24 g/t to 17.5 g/t is flawed."* As shown in Table 5-1, RPA's cut-off grade calculation is based on reasonable metal price assumptions for the time and updated metallurgical results.

    71.2. *"There are inconsistencies and confusion regarding the application of cutoff grades both in the FSU and in the RPA report."* The cut-off grades have been applied consistently in the FSU and the RPA report. SRK's confusion stems from a failure to understand the principles behind the use of cut-off grades as described in Section 3.

    71.3. *"The FSU applied a variable cutoff grade philosophy, which effectively high grades the orebody in years 1 to 5 by applying a higher than break-even cutoff grade and then reduces it in years 6 to 11. The FSU reports a true breakeven cutoff grade of 30 g/t, which was artificially increased to 34 g/t for years 1 to 5. This is a strategy often applied in the industry to maximize cashflow in the early years of a project and payback capital as soon as possible."* As stated previously, it is very common practice to optimize cashflow in the early years of a mine life in order to enhance payback. SRK is confusing the use of a cut-off grade in reporting of Mineral Reserves and use of a cut-off grade in a mine plan. The "variable cut-off grade philosophy" in the FSU relates to the mine plan and not the reserve reporting. As SRK states, the cut-off grade was artificially increased in the early years of the mine plan to improve the cashflow.

72. In paragraphs 65 to 69, SRK attempts to discredit the methodologies used to determine the Mineral Resource estimate in the FSU and the subsequent review by RPA. SRK, on more than one occasion, confuses the application of a variable cut-off grade used in the mine plan with that of Mineral Reserve reporting. They state *"one example of a mistake would be that Table 6-1 below from the FSU has incorrect information in the title block, since the cut-off grade for Mineral Reserves is variable between 34 g/t and 24 g/t (not 27 g/t and 24 g/t)."* Again, SRK is confusing the use of cut-off grades for Mineral Reserve reporting with the cut-off grades used in the mine plan.

73. SRK further confuses the facts in paragraph 67 by comparing the 15 g/t Ag Mineral Resource cut-off grade with the variable cut-off grade used in the mine plan: *"this, in my*

view, is far too low [15 g/t] since the true breakeven cutoff grade for resource to reserve conversion reported in the FSU is variable between 27 g/t and 34 g/t. In my opinion, this results in a gross overstatement of Mineral Resources."

74. SRK's comments above contain incorrect statements and assumptions.

    74.1. As described in Section 3, proper methodology is to use the internal or milling cut-off grade (15 g/t Ag) rather than the breakeven grade.

    74.2. SRK is comparing a resource cut-off grade (15 g/t Ag) with a variable cut-off grade (27 g/t Ag to 34 g/t Ag) used in the mine plan. As explained above, the variable cut-off grade used in mine planning is completely independent of resource and reserve reporting.

75. Paragraph 66 states *"For the FSU, it would have been more conventional to show the Santa Ana Mineral Resources (Inclusive of Reserves)..."* This statement is contradictory to what has been established by the CIM Best Practice Guidelines[14]. This document specifically states: *"The Estimation Best Practice Committee recommends that Mineral Resources should be reported separately and exclusive of Mineral Reserves."*

76. CIM Best Practice Guidelines are a component of CIM Definition Standards – For Mineral Resources and Mineral Reserves.[15] The CIM Definition Standards are incorporated, by reference, into National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101),[16] which governs disclosure of technical information by reporting issuers on Canadian stock exchanges.

77. SRK later mentions in paragraph 75 that: *"Unfortunately, 17.5 g/t is the internal cutoff grade at the revised metal price and metallurgical recovery and not the breakeven cutoff grade which should have been used in the "revised" conversion of resources to reserves".*

78. Once again, SRK fails to understand the proper methodology for use of cut-off grades. As discussed in Section 3, the milling/internal cut-off is the correct cut-off grade to use for reporting resources and reserves.

79. In summary, with regard to the use of cut-off grades in determining Mineral Resources and Mineral Reserves, SRK's comments are founded in practices that are not used or accepted in the industry.

[14] CIM, 2003, Estimation of Mineral Resource and Mineral Reserves – Best Practice Guidelines, Adopted by CIM Council on November 23, 2003 (Exhibit RPA-12).
[15] CIM, 2014, CIM Definition Standards – For Mineral Resources and Mineral Reserves, May 10, 2014 (Exhibit RPA-13).
[16] National Instrument 43-101 Standards of Disclosure for Mineral Projects, Form 43-101F1 Technical Report, 2011 (Exhibit RPA-14).

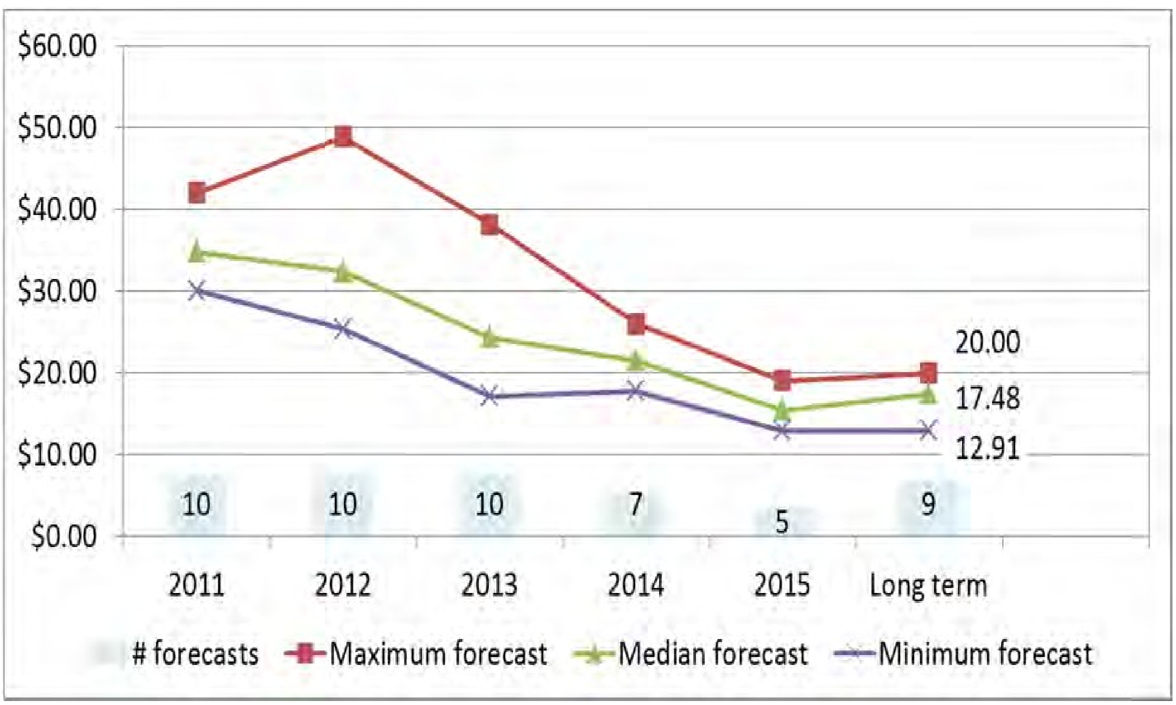
5.2.3. SILVER PRICE

80. SRK states in paragraph 76 that it finds no justification for using a higher silver price than that used in the FSU. Although the FSU was issued in April 2011, the initial resource work was carried out in early to mid-2010. The prices used would have been based on long term forecasts around that time, which were approximately US$13.75 per ounce of silver[17].

81. RPA used a US$16.50 per ounce silver price that was based on a median long-term consensus forecast by TD Bank at the time of the valuation date (June 2011)[18].

82. Figure 6-4 in the SRK report (Figure 5-1) indicates a median long-term consensus average silver price of US$17.48. This would give support to RPA's use of US$16.50 per ounce of silver, and if anything, the silver price used by RPA would be considered conservative. The figure of US$17.48 per ounce of silver is approximately 35% higher than the US$13.00 per ounce of silver used for cut-off grades in the 2011 FSU, therefore, it is unclear of SRK's logic in suggesting that this higher consensus price would *"give further support"* of a silver price of US$13.00 per ounce. The silver price of US$16.50 is closer to US$17.48 than US$13.00.

FIGURE 5-1 SILVER PRICE FORECASTS PRODUCED DURING JUNE 2011



[17] TD Securities Commodity Price Research Estimates Apr 27 2010 (Exhibit RPA-15).
[18] TD Securities Commodity Price Research Estimates June 25 2011 (Exhibit RPA-15).

5.2.4. MINING COSTS

83. Paragraphs 79 to 82 in the SRK Report attempt to refute the FSU adjusted mine operating costs that were developed by RPA and suggest that they be arbitrarily adjusted upwards.

84. In paragraph 79, SRK claims that RPA forgot to mention that the mine will be operated by a contract miner. This statement is not true. RPA clearly states: *"The mine equipment used to develop contractor costs are presented in Table 7-3 and Table 7-4. The actual equipment used in the operation will depend on the contractor's fleet."*[19] The FSU also noticeably mentions, on several occasions, that the mine will be operated by contractors. As a result, there should be no doubt on SRK's part that the mine plan, mine operating costs, and mine capital costs would also be based on contractor costs. This is further clarified, as SRK indicates, with the exclusion of owner mining equipment costs in the capital expenditure schedule in the Mining row. All mining equipment will be supplied by the contractor. The mine equipment capital costs have been accounted for in the development of the contractor's unit rate costs.

85. RPA reviewed the contractor quote provided by San Martín General Contracting (San Martín), one of the largest mining contractors in Peru.[20] The estimate provided unit rates for mining waste and ore of $1.30/t and $1.99/t respectively which were used to establish the overall rate of $1.68/t. RPA identified other owner's costs such as supervision, dewatering, geotechnical monitoring, and ore control which were not accounted for in the contractor estimate. RPA recommended adjusting the $1.68 per tonne mine operating cost upwards by 25% to $2.10 per tonne moved to account for these additional owner's costs.

86. SRK did not provide any justification for its recommendation of an operating cost of "*closer to $2.50*", only suggesting that higher altitudes would lead to higher costs as a result of lower labour and equipment productivity.

87. San Martín has been operating in Peru for 23 years and has worked on a variety of projects under different geographic conditions, including the Gold Fields Limited (Gold Fields) La Cima Project since 2006. This project is located in Cajamarca at an altitude of 3,890 MASL with altitudes and production rates similar to that proposed for Santa

[19] Clow, G.G., Weir, I.C., Altman, K.A., Masun K.A., 2015, Technical Review of the Santa Ana Project and Corani Project, Puno, Peru, May 29 2015, page 7-6 (Exhibit RPA-17).
[20] *See* San Martín General Contracting website: http://www.sanmartinperu.pe/

Ana.[21] San Martín also operates in the Santa Barbara de Carhuacayan district in the Province of Yauli, at an altitude of 4,700 MASL.[22]

88. Given the longevity of the operation, and San Martín's experience working throughout Peru, it would be fair to assume that San Martín is aware of the production costs associated with working at altitude and has quoted the unit mining rates for Santa Ana accordingly.

89. In summary, SRK's claim that the mine operating costs should be higher has no basis for support. The FSU is based on contractor quotes that incorporate allowances for the remote location and altitude.

5.2.5. CONVERSION FROM MINERAL RESOURCE TO MINERAL RESERVE

90. In paragraph 81, SRK discusses the quantities of Mineral Resources versus the quantities of Mineral Reserves and concludes that the ratio of the two would somehow demand a discussion as to the difference in the relative quantities of each.

91. SRK concludes that the Mineral Resources are overstated based on the conversion rate to Mineral Reserves (35% for Indicated and 40% for Measured). There simply is no rule stating that any given quantity of Mineral Resources should be converted to Mineral Reserves, nor is there any industry standard rule of thumb covering conversion.

92. SRK discusses the application of mining extraction and dilution factors in paragraph 82. It agrees with RPA's recommendation to apply dilution and extraction factors, but states that there is no basis in fact for the selection of 95% and 5% for mining recovery and dilution, respectively. SRK states that 90% and 10% would be equally applicable, without providing any basis for these figures. While it is clear that SRK makes no attempt to determine these factors, RPA actually did carry out an informed analysis. RPA reviewed the block model in plan section views in order to determine reasonable mining recovery and dilution factors shown in Figure 7-1 of the RPA Report. Sufficient detailed review was given to these factors by RPA in order to determine reasonable assumptions.

93. Furthermore in relation to dilution, SRK claims that the size of the loading equipment will be too large to allow effective selective mining. SRK comments that the equipment selected in the FSU will have a bucket width of 4.5 m, which in fact is the correct size for digging requirements of the deposit and dilution has been estimated accordingly.

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[21] *See* San Martín General Contracting website: http://www.sanmartinperu.pe/unidades-de-negocio/mineria/desarrollo-de-mina-cerro-corona--operacion-tajo-abierto.html

[22] *See* San Martín General Contracting website: http://www.sanmartinperu.pe/unidades-de-negocio/mineria/operacion-minera-a-tajo-abierto-alpamarca.html

94. In summary, SRK's comments regarding conversion factors and dilution allowance are incorrect as they do not reflect the underlying physical data and design.

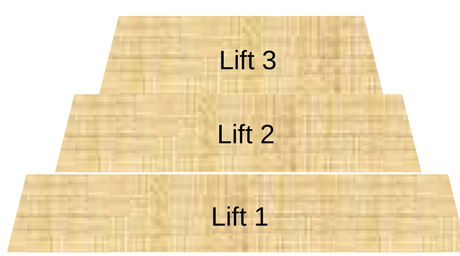
5.2.6. METALLURGICAL RECOVERY

95. Metallurgical recovery is a measure of the amount of metal contained in the ore that generates revenue. In every process, there is a loss of metal from the original contained amount. In general, changes in metallurgical recovery can impact the economics of a project as much as changes in metal prices or changes in estimated grades of the ore bodies. For this reason, the data used to estimate what the recovery will be and the methodology used to make those estimates must be evaluated and scrutinized closely. The mining industry has developed industry standards that have proven to be accurate in the metallurgical recovery of commercial operations using laboratory test data and understandings of the implication of scale-up to full scale operations.

96. In paragraph 83, SRK states that RPA's argument for increasing the metallurgical recovery from 70% to 75% is flawed. It agrees that "*the column leach testwork did indeed suggest that if a third stage of crushing was included and the ore was crushed down to 9.5 mm then silver recovery would be increased to 75%*", but reasons that there is an *"industry rule of thumb that column test results need to be factored downwards when scaling up to a full sized heap operation..."*

97. RPA agrees that conditions experienced in column leach tests do not account for conditions that will be encountered in full-scale operations, however, there is no *"industry rule of thumb that column test results need to be factored downwards…."* In fact, it is just as likely that actual recovery will be higher and not lower, especially on permanent leach pads that stack ore in multiple lifts. This is due to the fact that new ore is stacked on top of ore that has already been leached providing additional leach time for the older ore that is underneath the new ore, as shown in Figure 5-2.

FIGURE 5-2 SCHEMATIC OF A PERMANENT LEACH PAD



98. Holding recovery to 70% is not realistic based on the data that are available. RPA notes that the silver recovery is highly dependent on the particle size that is processed as shown in Figure 5-3. For both bottle roll tests and column leach tests, the recovery for particle sizes at 9.5 mm is approximately 7% higher than it is for tests conducted using particle sizes of 19 mm, which supports increasing recovery when the ore is crushed to a smaller particle size.

99. The column leach test that was conducted on a sample that was crushed to a nominal particle size of 9.5 mm showed a leach curve that realistically reaches 75% recovery over a 180 day leach period, as shown in Figure 5-4. The period between 101 days and 180 days is extrapolated but appears reasonable based on RPA's experience with similar projects.

FIGURE 5-3 RELATIONSHIP BETWEEN PARTICLE SIZE AND AG EXTRACTION

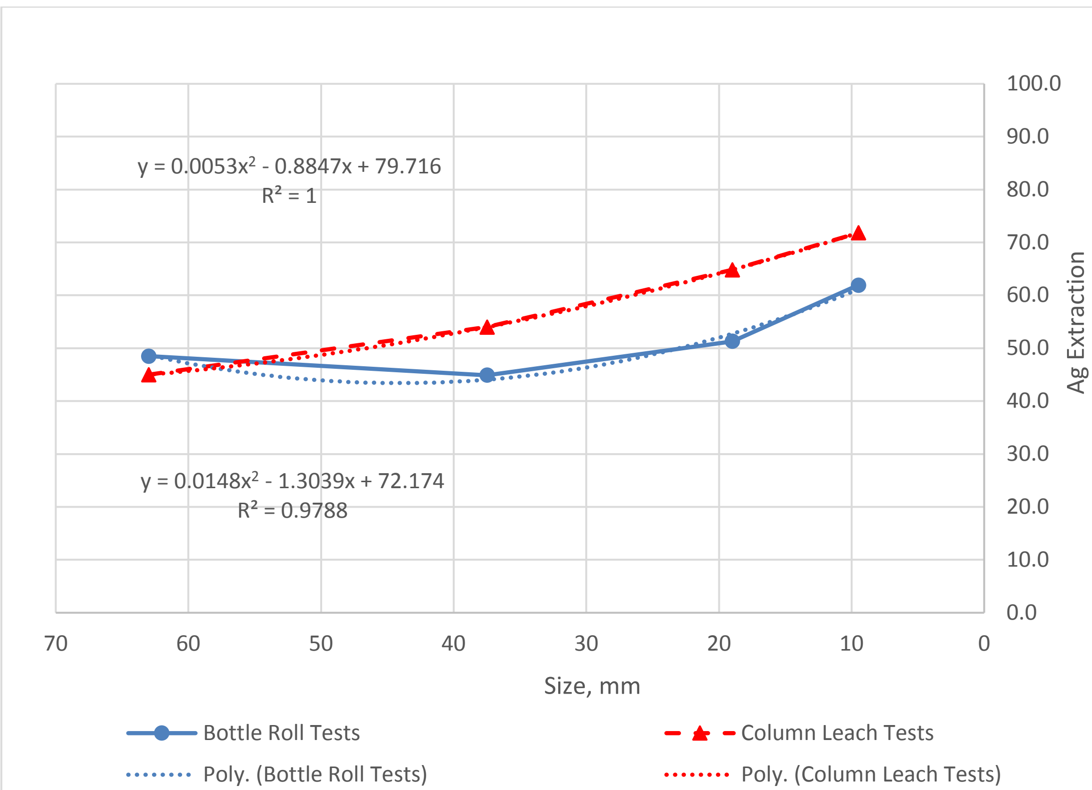
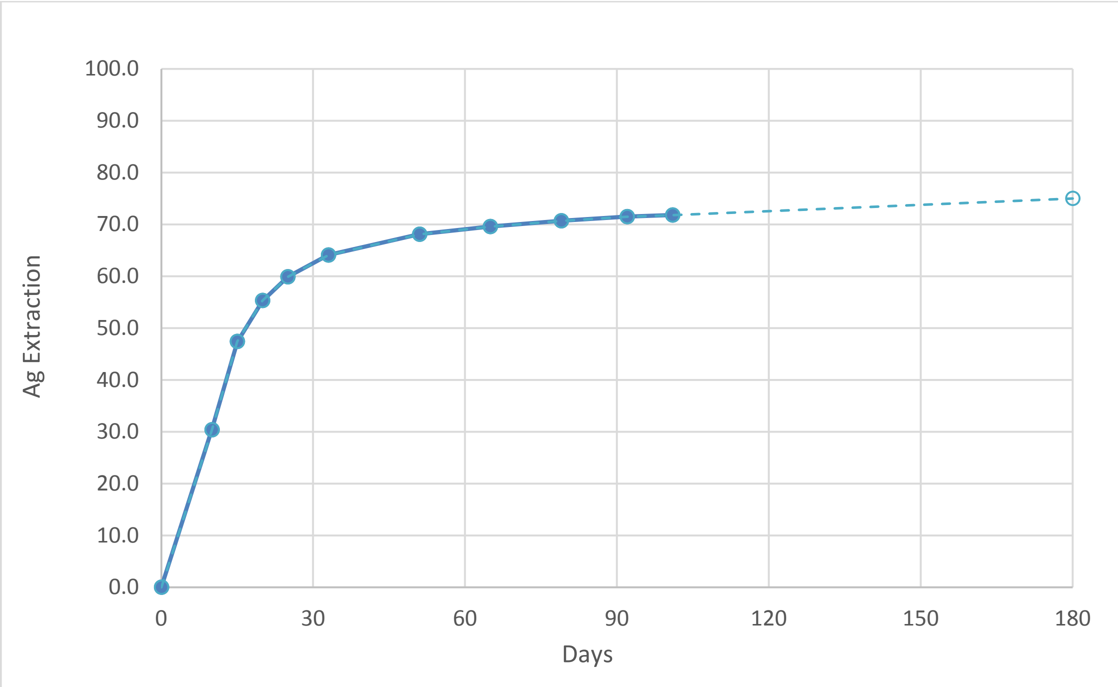


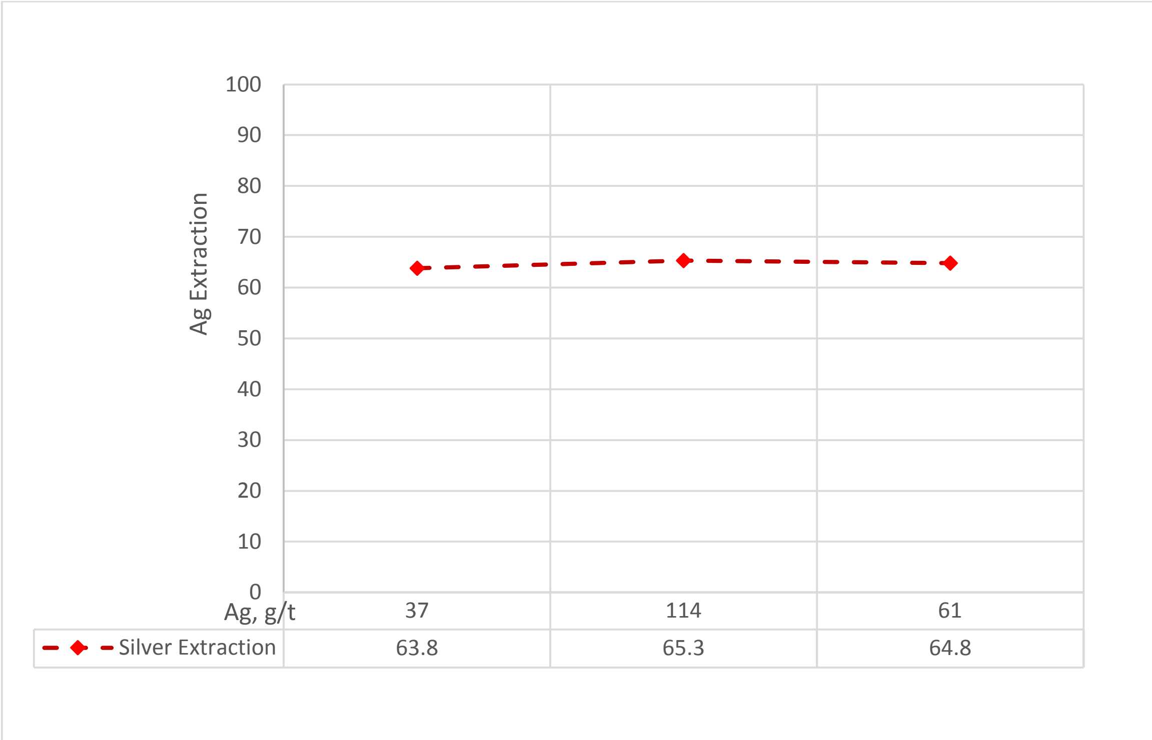
FIGURE 5-4 LEACH CURVE USED AS A BASIS FOR THE FEASIBILITY STUDY



100. Similarly, leach cycles in heap leach pads are based on column test leach curves. The cycle times are commonly adjusted to account for the starting time. That is, there is generally a delay of one or two weeks after ore is stacked on the leach pad until it is placed under leach and saturated with leaching solution, however, to arbitrarily assume that the leach cycle will be lengthened without a detailed analysis of what the time period will be is not realistic and unwarranted.

101. There does not appear to be a correlation between the silver head grade and the silver extraction. Two column tests were conducted on a high grade sample and a heap grade sample that were crushed to a nominal particle size of 19 mm. Subsequently, a third column test was conducted using the same particle size. The silver extraction was within 1.5% for all samples even though the silver grade ranged from 37 g/t to 114 g/t as shown in Figure 5-5.

FIGURE 5-5 CORRELATION BETWEEN AG GRADE AND AG EXTRACTION



102. The nearly horizontal line on the graph shows that the silver extraction for the sample that had a grade of 38 g/t Ag was approximately 64% and the samples that had grades of 61 g/t Ag and 114 g/t Ag had silver extractions of approximately 65%. This clearly shows that SRK's claim is incorrect that silver recovery is dependent upon the grade of the material being leached. Based on this data, the estimated recovery is obviously independent of the grade of the material being leached.

103. In summary, based on this evaluation, RPA has confirmed that SRK's assumptions for reducing the silver recovery for the Santa Ana Project are flawed and recommends that the estimated silver recovery recommended in the FSU (i.e., 75%) should be maintained.

5.2.7. USE OF ADDITIONAL RESOURCES (EXTENDED CASE)

104. The RPA Revised Base Case is based on Mineral Reserves only. As is noted in the FSU and RPA Report, there are Mineral Resources that are not captured in the RPA Revised Base Case production plan. Over the life of the mine, it is common practice and experience that a portion of these Mineral Resources will be converted to Mineral Reserves and mined and processed. RPA prepared an Extended Mine Life Case based on this principle.

105. In paragraph 84, SRK tries to explain why the RPA assumptions regarding conversion (75%) are incorrect. SRK refers to the current Mineral Reserve estimate that uses approximately 40% of the Mineral Resource and concludes that this will continue over the mine life.
106. The conversion is based mainly on cut-off grade and SRK fails to account for a lower cut-off grade in the future based on improved operating costs and better metal prices.
107. In paragraph 85, SRK is incorrect in stating that the conversion rate is 87%. RPA estimated additional Mineral Resources at a 14 g/t Ag cut-off grade, added existing Inferred Resources, and applied a conversion factor of 75%.
108. In paragraph 86, SRK makes the same mistake as previously regarding cut-off grade in confusing the application of breakeven cut-off in place of milling/internal cut-off.
109. In paragraph 87, SRK calculates the theoretical silver price required to achieve a breakeven cut-off grade of 14 g/t Ag. This is an entirely irrelevant calculation because a breakeven cut-off grade is not and should not be used.
110. In paragraph 88, SRK claims that RPA oversimplified the inclusion of the additional resources. The material that was converted to create the Extended Life Case was included at the end of the Base Case schedule so as to not alter the original Base Case scenario and to show the value of the additional material with respect to said scenario. It also follows CIMVal's recommendation to include Inferred Resources after Mineral Reserves[23].
111. Using a constant grade and stripping ratio for the Extended Life Case material is conservative in that it decreases the overall value. Had RPA carried out a full mine design and detailed schedule for the Extended Life Case material, the plan would have been optimized bringing higher grades forward, leading to an increase in the overall Net Present Value (NPV).
112. In summary, SRK is incorrect in concluding that the ratio of Mineral Resources converted to Mineral Reserves is indicative of a conversion ratio in a future scenario. The conversion of Mineral Resources to Mineral Reserves is based mainly on cut-off grade and SRK fails to account for a lower cut-off grade in the future based on improved operating costs and better metal prices.

[23] CIMVal, 2003, Standards and Guidelines for Valuation of Mineral Properties, Special Committee of the Canadian Institute of Mining, Metallurgy and Petroleum on Valuation of Mineral Properties, February 2003 (Final Edition) www.cim.org., page 25, G4.8 (Exhibit RPA-18),

5.2.8. PERMITTING SCHEDULE

113. SRK states in paragraph 90 that "*there have been a history of permitting delays for mining projects in Peru. Typically, permitting timelines have increased from 6 months to 12 months or even longer. Had the Santa Ana Project continued, it too likely would have experienced similar permitting delays. Peru has also experienced considerable public opposition to mining projects sometimes for genuine concerns and sometimes as a result of the actions of political activists or non-governmental organizations (NGO).*"

114. The Project Execution schedule included in the Santa Ana FSU (Table 5-3) includes nine months for the Peruvian government to review the ESIA and an additional six months to procure construction and operating permits, which actually exceeds the 6 months to 12 months that SRK mentions. While it is true that Peru has experienced opposition to a number of mining projects, it is also true that a number of mining projects have been allowed to proceed without delays, such as Rio Alto's La Arena Project and Hudbay's Constancia Project (the latter located 330 km NW from Santa Ana).

115. In Peru, permitting is highly dependent upon location, the local "social license to operate", and the specific time frame. Ernst & Young (EY) address the topic of social license to operate in Peru's Mining and Metals Investment Guide 2015/ 2016.[24] They say, "By managing an effective communication process highlighting the positive impact of mining through productive, profitable and sustainable development initiatives can show the government, communities and other stakeholders how their presence in the country can create positive economic and social contributions." For SRK to make the claim that the project would be delayed without referencing the specific circumstances is speculative and without warrant. RPA notes that the companies that completed the designs for the heap leach pad and the processing facilities, Ausenco and Heap Leaching Consulting S.A.C. (HL Consulting), are Peruvian companies with specific knowledge of the conditions in Peru at the time the Santa Ana FSU was completed, and are experts who helped estimate the time frame required to execute the project.

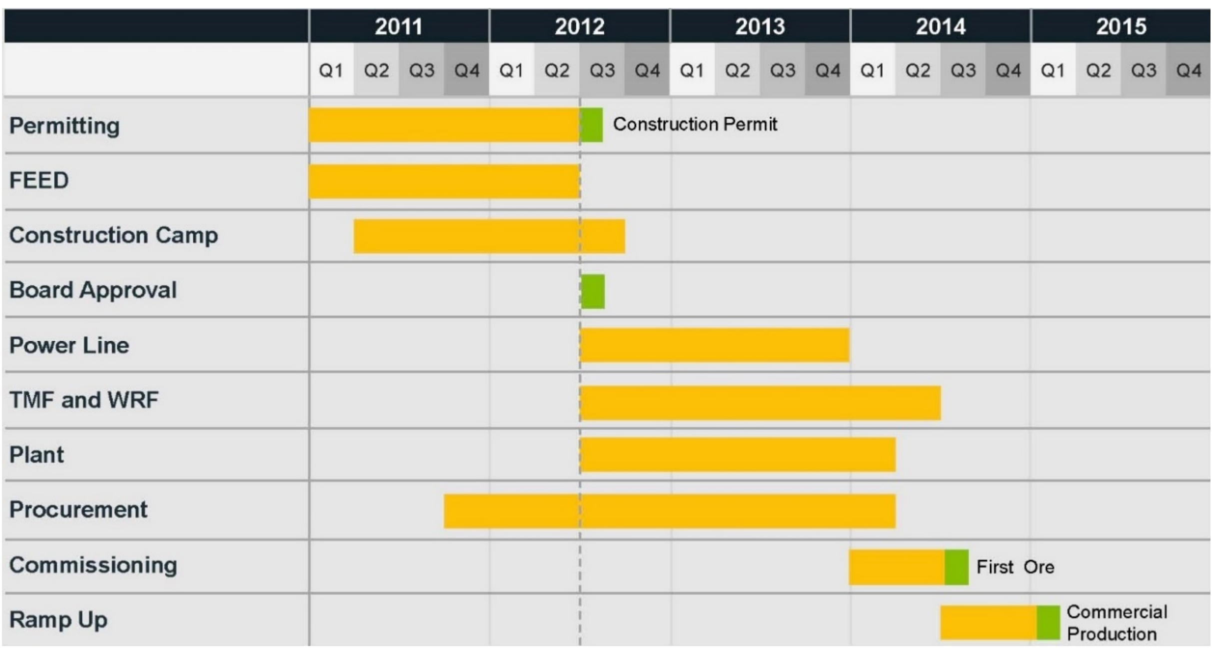
[24] EY, Ministry of Foreign Affairs Peru, 2015, Peru's mining & metals investment guide 2015/2016 (Exhibit RPA-19).

TABLE 5-3 PROJECT EXECUTION PLAN – FSU BASE CASE
Bear Creek Mining Corporation – Santa Ana Project

Item/Period	Q4 2010	Q1 2011	Q2 2011	Q3 2011	Q4 2011	Q1 2012	Q2 2012	Q3 2012	Q4 2012
ESIA Review									
Detailed Engineering									
Permitting									
Off-site Infrastructure Construction									
Site Development									
Production									

116. The Constancia Project, which is owned and operated by the Hudbay, is an excellent example of a project that met a similar schedule to the one presented for Santa Ana despite the fact that it was a US$1.3 billion project. Figure 5-6 provides a schedule of the project milestones for Constancia.[25]

FIGURE 5-6 CONSTANCIA PROJECT MILESTONES



[25] Hudbay Minerals Inc., 2012, Constancia, The Right Jurisdiction, The Right Project, The Right Strategy, a presentation of August 8, 2012 (Exhibit RPA-20). *See also* http://s1.q4cdn.com/305438552/files/doc_presentations/Hudbay_Constancia_FINAL_Aug%208_v001_c5hw2e.pdf

117. Hudbay was able to permit the substantially larger, more complex Constancia Project in six quarters which is only one quarter longer than the time allotted in the Santa Ana schedule. It should also be noted that the engineering company responsible for construction at Constancia was Ausenco, the same company that completed the Santa Ana FSU. Based on available information, RPA believes that SRK's opinion is purely speculative and has no basis for suggesting longer metallurgical processing times, or being able to predict delays relating to permitting.

118. Rio Alto submitted an EIA for its La Arena Project in September 2009 and received approval ten months later in July 2010. In May 2011, Rio Alto announced the first gold pour at La Arena, only ten months after receiving EIA approval from the Peruvian Government.[26]

5.2.9. CONSTRUCTION AND RAMP-UP SCHEDULES

119. These schedules are important when completing economic analyses for projects. Schedules provide information about how the capital expenditures will be allocated over time and when revenue will be generated which impacts the amount of working capital required to bring a project into commercial production.

120. SRK concludes that the "*schedule included in the April 2011 Updated Feasibility Study (and repeated in the RPA report) is far too simplistic and high level to have any credibility or to support detailed scrutiny."* The schedule shown in the Santa Ana FSU and the RPA Report is a very simplified milestones summary of detailed schedules normally produced in the course of a feasibility study. They also make a comparison to the ramp-up schedule presented in the 2015 Corani OFS (paragraph 91).

121. From a metallurgical perspective, the production ramp-up schedule for Santa Ana can be considered conservative. It assumes that 65.8% of the silver will be extracted in the first year after the ore is placed on the leach pad and the remaining 9.9% of the silver will be recovered the following year.[27] This is a conservative estimate based on the 180 day leach cycle. In order to complete a more detailed ramp up schedule for a heap leaching operation, it is necessary to complete a detailed short term mine plan on a weekly or monthly basis and a detailed leach pad stacking plan. This level of detail is not commonly completed for a Feasibility Study but is completed as the mine goes into operations. It is during permanent heap leaching of material where it is often demonstrated that higher-

[26] SNL Mining News - La Arena Work History.pdf (Exhibit RPA-21).
[27] 0911 - Santa Ana Financial Model 12OCT10 Rev 2 - finer crush - Herbs Rec.xlsx (Exhibit RPA-06).

than-expected recoveries actually occur as opposed to those predicted by column leach testing.

122. It is totally incorrect to compare the detailed Gantt chart for Corani, which is a milling operation, with the production schedule for Santa Ana, which is a simple heap leaching operation. First of all, by definition, “The objective of a Technical Report is to provide a summary of material scientific and technical information concerning mineral exploration, development, and production activities on a mineral property”.[28] The schedule presented in the FSU Technical Report is, therefore, a summary of the major milestones for a project. More detailed scheduling may have been completed but not included in the FSU Technical Report. For heap leaching, the critical path is mining, leach pad construction, and placing the ore on the leach pad. As soon as the ore is placed on the leach pad, piping can be placed on the ore and the operation can commence. Milling operations are much more complicated processing circuits that contain a number of larger, more expensive, and more intricate unit operations such as crushing, grinding, flotation, leaching, thickening, filtration, and tailings storage requirements. In milling circuits, there are many more complicated issues to consider such as commissioning of the individual processing circuits, ramp up of the grinding circuit, and the material tied up in the circuit inventories.

5.2.10. DISCOUNT RATE

123. RPA did not carry out a valuation of the Santa Ana Project.

5.3 SUMMARY OF SANTA ANA COMMENTS

124. SRK is incorrect in its statements regarding the application of cut-off grade. RPA has followed industry standards for correct application of cut-off grades for reporting of Mineral Resources, Mineral Reserves, and for use in mine planning. It is clear that, with regard to the use of cut-off grades in determining Mineral Resources and Mineral Reserves, SRK’s comments are founded in practices that are not used or accepted in the industry.

125. SRK is incorrect in stating that it finds no justification for using a higher silver price than that used in the FSU. Although the FSU was issued in April 2011, the initial resource work was carried out in early to mid-2010 and the $13.00/oz Ag price (used in the cut-off to determine Mineral Reserves) is in line with the long term forecasts around that time which were approximately US$13.75 per ounce Ag. For the RPA revised Base Case,

[28] NI 43-101 (Exhibit RPA-14).

RPA used a US$16.50 per ounce silver price that was based on a median long-term consensus forecast by TD Bank at the time of the valuation date (June 2011).

126. SRK is incorrect in its claim that the mine operating costs should be higher. The unit mine operating costs for the FSU are based on actual contractor quotes that incorporate allowances for the remote location and altitude.

127. SRK is incorrect with respect to the conversion of the Mineral Resource to Mineral Reserve and SRK's comments regarding conversion factors and dilution allowance are incorrect as they do not reflect the underlying physical data and design.

128. SRK is incorrect in its suggestion that the metallurgical recovery of silver should be held at 70%. Detailed review of the testwork has confirmed that SRK's contention that the silver recovery should be reduced is incorrect. The estimated silver recovery recommended in the FSU (i.e., 75%) should be maintained.

129. SRK is incorrect in concluding that the ratio of Mineral Resources converted to Mineral Reserves is indicative of a conversion ratio in a future scenario. The current conversion of Mineral Resources to Mineral Reserves is based mainly on cut-off grade and SRK fails to account for a lower cut-off grade in the future based on improved operating costs and better metal prices.

130. SRK is incorrect in assuming that the permitting process for Santa Ana would have taken much longer than planned. Hudbay was able to permit the substantially larger, more complex Constancia Project in six quarters which is only one quarter longer than the time allotted in the Santa Ana schedule. It should also be noted that the engineering company responsible for construction at Constancia was Ausenco, the same company that completed the Santa Ana FSU. Rio Alto submitted an EIA for its La Arena Project in September 2009 and received approval ten months later in July 2010. In May 2011, Rio Alto announced the first gold pour at La Arena, only ten months after receiving EIA approval from the Peruvian Government

5.4 CORANI

131. SRK carried out a technical review of the Corani Project and posed a variety of flawed assumptions and incorrect assertions with respect to the 2015 Corani OFS, the previous 2011 Corani FS, and the RPA Report. The following summarizes RPA's response to the areas of discussion presented in the SRK Report.

5.4.1. EFFECTIVE VALUATION DATE

132. In the RPA Report, RPA reviewed the data for the 2015 Corani OFS as this was the only data available for review at the time. Subsequently, RPA has received supporting data for the 2011 Corani FS and has included comments on the 2011 Corani FS and responses to SRK comments where applicable in this report.

5.4.2. MINERAL RESOURCE AND MINERAL RESERVES IN 2011

133. Subsequent to RPA's report, the block model and related files for the 2011 Corani FS Mineral Resource estimate was made available. RPA was provided with the following files by BCM:

- ASCII block model file[29] with a Net Smelter Return (NSR) and Net of Process (NP) attribute for the Mineral Reserves.
- Block model text file[30] with an NSR and NP attribute for the Mineral Resources.
- Mineral domain wireframe models (8 DXF files).[31]
- DXF surface constraining the top of the pre-mineral tuff.[32]
- DXF surface constraining the top of the sediments.[33]
- Topographic surface used to constrain the resource estimates.[34]
- Mineral Resource shell as a DXF[35].
- Mineral Reserve cone as a DXF.[36]
- Corani NSR calculation worksheet.[37]
- Summary tables of Mineral Resource and Reserve estimates.[38]

134. RPA did not receive the 2011 Corani FS drill hole database or lithology wireframes. RPA used lithology coding within the block model and the drill hole data from the 2015 Corani OFS, and for the 2011 Corani FS block model review. Table 5-4 compares the 2015 and 2011 block model drill hole data. It is RPA's opinion that the 2015 data does not materially differ from the 2011 Corani FS block model.

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[29] 2011 Corani FS block model - mod16911.zip (Exhibit RPA-22).
[30] 2011 Corani FS block model text file – resovariables.zip (Exhibit RPA-23)
[31] 2011 Corani FS mineral domain wireframe models – mincod2009.zip (Exhibit RPA-24).
[32] 2011 Corani FS surface constraining the top of the pre-mineral tuff - topofpremin.dxf (Exhibit RPA-25).
[33] 2011 Corani FS surface constraining the top of the sediments - topofseds.dxf (Exhibit RPA-26).
[34] 2011 Corani FS topographic surface used to constrain resource estimates – Corani pit area topo – trimmed by MES and cloud fixed.dxf (Exhibit RPA-27).
[35] 2011 Corani FS Mineral Resource shell - ResoCone_7Dec11.dxf (Exhibit RPA-28).
[36] 2011 Corani FS Mineral Reserve shell - mi18cone.dxf (Exhibit RPA-29).
[37] 2011 Corani FS NSR calculation worksheet - nsr_calc.xls (Exhibit RPA-30).
[38] Summary tables of Mineral Resources and Reserve estimates - Resv_reso_byMinCode_24May12 – with Met types.xlsx (Exhibit RPA-31)

TABLE 5-4 SUMMARY OF 2011 AND 2015 BLOCK MODEL DRILL HOLE DATA
Bear Creek Mining Corporation – Corani Project

Drill Hole Data	Year 2011	Year 2015
No. of drill holes	458	470
No. Sample Intervals	33,405	34,443
Total metres drilled	83,123	85,212
No. Silver Assays	32,404	33,442
No. Lead Assays	32,404	33,442
No. Copper Assays	32,404	33,442

135. The 2011 Corani FS block model included an NSR attribute for the Mineral Resource, and a separate NSR attribute for the Mineral Resource. This was used by RPA as part of its review and confirmation of the 2011 Mineral Resources and Reserves.
136. To verify the NSR calculation for the Corani Mineral Resources and Mineral Reserves, RPA developed NSR factors using the cost and process inputs used by IMC for the Mineral Reserves (2011 Corani FS, Table 15-1), with the following key exceptions:
    136.1. Economic credit was given to material classified as Inferred.
    136.2. Metal prices for the Mineral Resource were \$30.00/oz Ag, \$1.00/lb Pb, and \$1.00/lb Zn.
137. The NSR factors and cut-off grades were applied to the block model and the results of the final tabulations were reasonable.
138. Table 5-5 summarizes the 2011 Corani FS Mineral Resource estimate, as confirmed by RPA, at a cut-off grade of \$9.20/t NSR, using NSR factors developed by IMC.

TABLE 5-5 2011 IMC CORANI FS MINERAL RESOURCES (DECEMBER 2011, EXCLUSIVE OF RESERVES)
Bear Creek Mining Corporation - Corani Project

Category	Tonnes	Silver	Lead	Zinc	Contained Silver	Contained Lead	Contained Zinc
	kt	g/t	%	%	Moz	Mlb	Mlb
Measured	10,878	17.5	0.38	0.33	6.1	91.1	79.1
Indicated	123,583	20.8	0.38	0.29	82.6	1,035.3	790.1
Measured + Indicated	134,461	20.5	0.38	0.29	88.7	1,126.4	869.2
Inferred	49,793	30	0.464	0.278	48	509.4	305.2

Notes:
1. CIM definitions were followed for Mineral Resources.

2. The Mineral Resource is the tonnage contained within a pit shell produced using $30.00/oz silver, $1.00/lb lead, and $1.00/lb zinc prices and reported at an NSR cut-off grade of $9.20/tonne.

139. In paragraph 107, SRK states that the Mineral Resources were overstated based on the use of $30.00/oz Ag price. As is shown in Section 4.4.4, the silver price averaged US$35.12/oz. in 2011, and therefore $30.00/oz Ag should not be considered unreasonable for reporting Mineral Resources. Additionally, and more importantly, the price used to estimate Mineral Resources is not relevant as the valuation of the Corani Project is based solely on Mineral Reserves estimated at a silver price of $18.00/oz.

140. RPA reviewed the 2011 Corani FS Mineral Reserve, and confirmed the grade and tonnages used with the designed final pit geometry[39] at an NSR cut-off grade of $10.54/t, using the reserve NSR block model attribute developed by IMC.

141. Table 5-6 summarizes the 2011 Corani FS Mineral Reserve.

TABLE 5-6 IMC 2011 CORANI FS MINERAL RESERVES (DECEMBER 2011)
Bear Creek Mining Corporation - Corani Project

Category	Tonnes	Silver	Lead	Zinc	Contained Silver	Contained Lead	Contained Zinc
	kt	g/t	%	%	Moz	Mlb	Mlb
Proven	30,083	66.6	1.04	0.60	64.4	690.4	399.9
Probable	126,047	50.7	0.87	0.47	205.6	2,422.6	1,297.7
Proven + Probable	**156,130**	**53.8**	**0.90**	**049**	**270.0**	**3,113.0**	**1,697.6**

Notes:
1. CIM definitions were followed for Mineral Reserves.
2. No extraction or dilution factors were applied.
3. The Mineral Reserve is the tonnage contained within a pit shell produced using $18.00/oz silver, $0.85/lb lead, and $0.85/lb zinc prices and reported at an NSR cut-off grade of $10.54/tonne.

142. In summary, SRK is incorrect in stating that Mineral Resources were overstated as the result of using a silver price of $30.00/oz Ag. The silver price averaged US$35.12/oz. in 2011, and therefore $30.00/oz Ag should not be considered unreasonable for reporting Mineral Resources at the time. Furthermore, the valuation of the project is based solely on Mineral Reserves estimated at a silver price of $18.00/oz., any discussion on additional Mineral Resources is irrelevant.

[39] 2011 Corani FS Mineral Reserve shell - mi18cone.dxf (Exhibit RPA-29).

5.4.3. MINERAL RESOURCE AND MINERAL RESERVES IN 2015

143. In paragraph 112 and again in paragraph 119, SRK maintains that *RPA could not have confirmed the grade and tonnages of the Corani Mineral Resource estimate as reported by GRE using the model provided at the time, especially for the Mineral Reserve. With respect to the Mineral Resource estimate, RPA was not provided with GRE's assay, composite, and block model statistics, nor details on the search parameters used for metal grade interpolation*.

144. SRK's statement is incorrect. RPA completed a thorough review with the following checks to confirm the grade and tonnages of the Corani FS 2015 Mineral Resource estimate.

 144.1. Checked for duplicate drill hole traces, twinned holes, etc.

 144.2. Reviewed collar locations for zero/extreme values.

 144.3. Reviewed assays in database for missing intervals, long intervals, extreme high values, blank/zero values, reasonable minimum/maximum values.

 144.4. Validated drill hole database for out of range values, missing interval, overlapping intervals, etc.

 144.5. Reviewed reasonableness of compositing intervals.

 144.6. Confirmed that assigned composite rock type coding is consistent with intersected wireframe coding (mineral domains), and/or block model coding (zones, mineral domains). This included zones and mineral domains. The block model did not contain an attribute for a lithology code.

 144.7. Reviewed that block model size and orientation are appropriate to drilling density, mineralization, and mining method.

 144.8. Visually reviewed block resource classification coding for isolated blocks.

 144.9. Compared block statistics (zero grade cut-off) with assay/composite basic statistics within the Mineral Resource shell.

 144.10. Visually compared block grades to drill hole composite values on vertical and plan sections.

 144.11. Visually reviewed for grade banding, smearing of high grades, plumes of high grades, etc., on vertical sections.

 144.12. Validated Mineral Resource tabulations.

145. Based upon this review, it is RPA's opinion that the 2015 Corani OFS resource database was adequate to support a Mineral Resource estimate, block grade estimates were reasonable, and although classification continuity could be refined, RPA found no material issues. RPA accepted the 2015 Corani OFS Mineral Resource estimate.

146. In paragraph 113, SRK states that the 2015 Corani OFS Mineral Reserve estimate could not be confirmed using the model provided at the time. Subsequent to the RPA Report, RPA has confirmed the 2015 Corani OFS Mineral Reserve estimate.

147. In paragraph 118, SRK stated that the footnote below the Table 17-1 (Corani Mineral Resources [May 2015, Exclusive of Reserves]) does not make sense. RPA stated that *"The Mineral Resource is the tonnage contained within the $30.00/oz silver, $1.425/lb lead, and $1.50/lb zinc prices Whittle pit using a $20.00/oz silver,$0.95/lb lead, and $1.00/lb zinc prices at a cut-off of $11.00/tonne NSR.*" To clarify the above statement, GRE started with a Whittle shell generated using the following prices: $30.00/oz Ag, $1.425/lb Pb, and $1.50/lb Zn. The Mineral Resources were reported from within the Whittle pit using the following prices: $20.00/oz Ag, $0.95/lb Pb, and $1.00/lb Zn prices.

148. In summary, SRK is incorrect in stating that RPA could not have confirmed the tonnages and grade of the Corani Mineral Resource estimate. In fact, RPA completed a thorough review of the Corani FS 2015 Mineral Resource estimate and was able to confirm the tonnage and grade.

5.4.4. SILVER PRICE

149. RPA has discussed metal prices previously in this report. In paragraph 121, SRK makes an attempt to suggest that the current weak silver price is indicative of a weak long term price. As is common knowledge in the mining business, metal prices are cyclical and current metal prices are not necessarily a reflection of long-term metal prices. For this reason, when the silver price averaged US$35.12/oz. in 2011[40], a more conservative long term price was used. While RPA agrees that the current metal prices are at a low point in the cycle, general industry practice is to use consensus forecasts for the long term.

5.4.5. MINING COSTS

150. In paragraph 122, SRK, in a similar manner to Santa Ana, arbitrarily modifies the mining cost used in the FSU upwards with no quantifiable justification. They suggest that US$1.75 per tonne of ore and waste would be more appropriate. SRK repeats the argument for a higher altitude work environment and states that *"I can find no mention in the 2011 FS about how these real challenges were factored into labor and equipment productivities. Therefore, I can only conclude that they weren't."*

151. The following statements are direct quotations from the 2011 Corani FS:

[40] *See* Kitco website: http://www.kitco.com/charts/historicalsilver.html

151.1. *"Installation hours are based on United States standard rates for the lower 48 states and have been adjusted with productivity factors for working in the Peruvian Andes at high altitude. The productivity factors were developed using historical data from similar projects in the region, as well as comparing man-hours provided by local contractors with the U.S. standards."*[41]

151.2. *"Overall, the labor man-hours reflect a 2.5 times decrease in productivity from U.S. standards to account for the altitude, longer workday/workweek, general workforce skill level, the extent of manual production and the remoteness of the site."*[42]

151.3. *"Mine mobile equipment was selected to meet the production requirements as outlined in Table 16-1. All mine equipment within this study are standard off-the-shelf units. When actual orders are placed, particular attention will need to be given to high altitude options on all mobile equipment."*[43]

152. In summary, SRK's claim that the mine operating costs should be higher has no basis for support. The 2011 Corani FS did in fact incorporate allowances for the remote location and altitude.

5.4.6. INCLUSION OF OXIDIZED MATERIAL IN LIFE OF MINE PLAN

153. SRK states in paragraph 124: *"The life of mine at Corani is of the order of 20 years. Oxidation of low grade ore is potentially a real issue. Research has shown that long term oxidation of sulfide ores reduces metallurgical recovery should these subsequently be processed. Therefore, in my opinion, not to include this material in the LoM was the correct decision."*

154. There is no certainty that the mineralization will oxidize to a point that it would not be able to be processed. Since the stockpile material can very easily be separated from waste without any discernable additional cost (the stockpile would be adjacent to the waste dump), there is no reason in RPA's opinion that one wouldn't at least attempt to separate the waste dump and stockpiles. Furthermore, in the 2015 Corani OFS, transitionally oxidized ores were completely removed from the mine plan with no negative effects to economics. In fact, the NPV was improved.

[41] Corani FS, 2011 (Exhibit RPA-08).
[42] Ibid
[43] Ibid

5.4.7. METALLURGICAL RECOVERY

155. As discussed for Santa Ana, metallurgical recovery is an important and critical component of an economic analysis for a mineral property. In preparation of the report, RPA reviewed the 2011 Corani FS and the 2015 Corani OFS which were both completed by M3.

156. SRK states in paragraph 125 that it reviewed only the 2011 Corani FS.

5.4.8. RECOVERABILITY: MIXED SULPHIDE ORE

157. In paragraph 128, SRK states: "*SRK is concerned that the recoveries projected in the 2011 Feasibility Study may have been overstated, based on the following observations:*

- *The average grade of the test composites used for the locked-cycle testing, which formed the basis for the metal recovery predictions, were substantially higher grade than the ore reserve grade. The average of the mixed sulfide composites was 1.95% Pb, 1.53% Zn and 63 g/t Ag and the average grade of the transitional ore composites was 2.1% Pb and 92 g/t Ag. Whereas, the average grade of the Corani ore reserve is 0.94% Pb, 0.59% Zn and 51.6 g/t Ag; and*
- *The 1-5 Year Mixed sulfide composite, which presumably was put together to represent the mixed sulfide ore mined during the first 5 years of operations was closer to the projected reserve ore grade at 0.89% Pb, 1.32% Zn and 50 g/t Ag, but the locked-cycle test results on this composite resulted in 53.6% lead recovery and 40.2% silver recovery into the lead concentrate and 64.4% zinc recovery and 19.5% silver recovery into the zinc concentrate."*

158. The 2011 Corani FS observed that *"Pb/Ag head grade relationships tend not to exist"* so limiting the data set based on head grade is unwarranted.[44]

159. In order to determine which perspective is correct, RPA evaluated the locked cycle test data to assess whether there is a correlation between the lead head grade and the lead recovery or the silver head grade and the silver recovery. The data used for the evaluation is provided in Table 5-7.

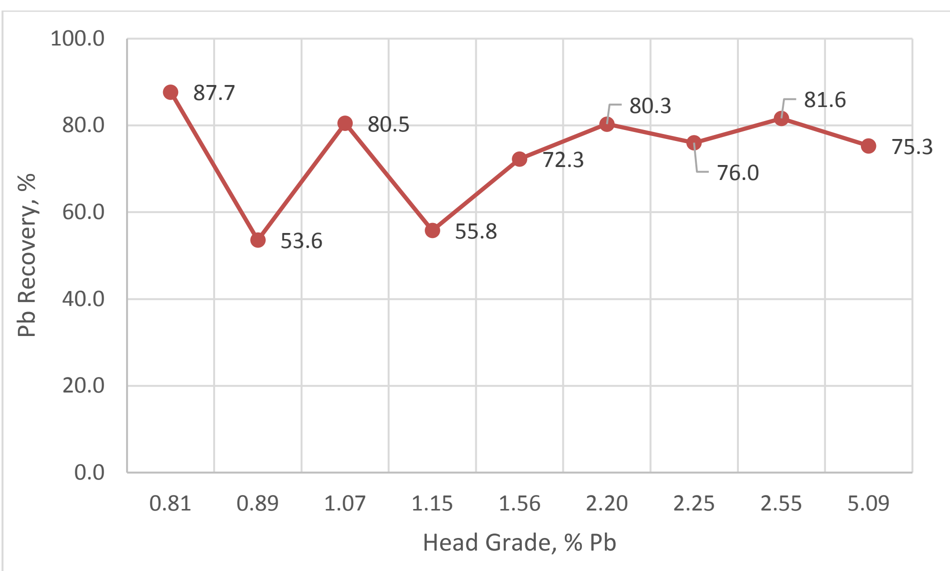
[44] Corani FS, 2011 (Exhibit RPA-08).

TABLE 5-7 LOCKED CYCLE TEST DATA FOR CORANI MIXED SULPHIDE ORE
Bear Creek Mining Corporation - Corani Project

Composite	Head Grade		Pb Concentrate Recovery %	
	Pb,%	Ag, g/t	Pb	Ag
R	2.55	25.3	81.6	56.3
K	1.07	26.5	80.5	54.3
U	0.81	36.0	87.7	73.3
1-5 Year Master	0.89	50.0	53.6	40.2
D	1.56	58.0	72.3	51.9
G	1.15	61.5	55.8	55.8
M	2.20	69.0	80.3	79.7
3 Zone Mixed	2.25	87.0	76.0	62.0
3 Zone Minas 3	5.09	154	75.3	69.0
Average	1.95	63.0	73.7	60.3
Weighted Average			75.2	62.5

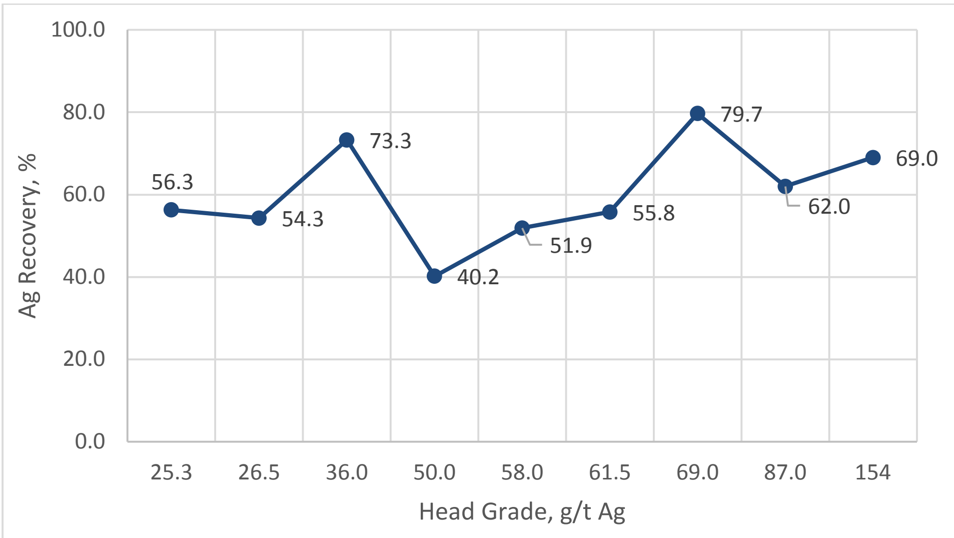
160. Figure 5-7 plots the lead head grade versus the lead recovery for all of the locked cycle tests. The graph shows that the lowest grade sample had the highest recovery, which clearly demonstrates that the SRK assumption that the higher grade samples result in higher recovery is incorrect.

FIGURE 5-7 CORANI LEAD HEAD GRADE VERSUS LEAD RECOVERY TO THE LEAD CONCENTRATE



161. A similar plot was completed for the silver grades and recoveries as shown in Figure 5-8.

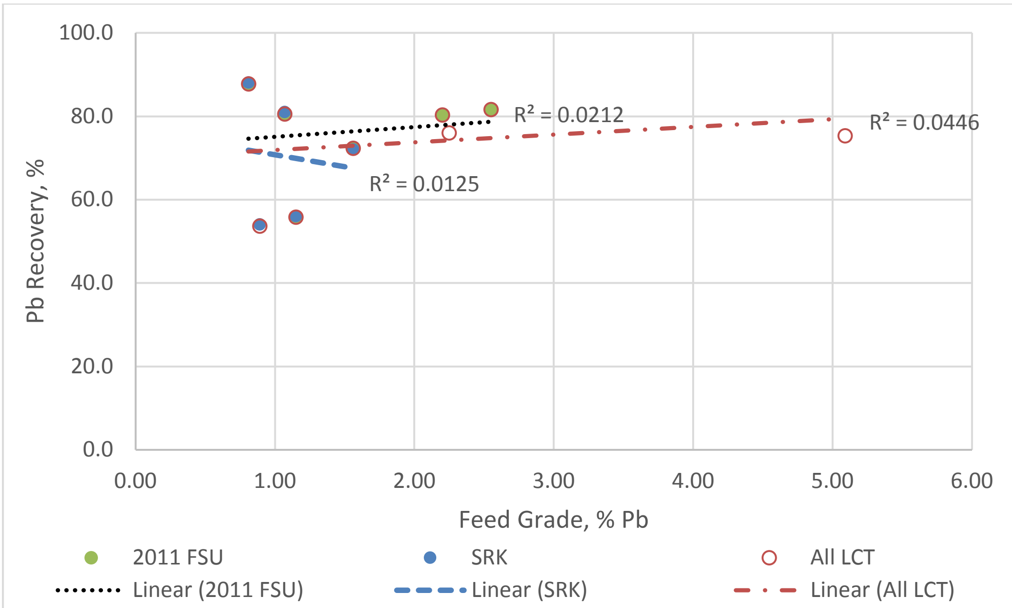
FIGURE 5-8 CORANI SILVER HEAD GRADE VERSUS SILVER RECOVERY INTO THE LEAD CONCENTRATE



162. In this case, the answer is not so obvious. The data is inconsistent and erratic but there is definitely not a clear trend that demonstrates that the samples with the highest silver grades result in the highest silver recoveries or vice versa. The highest grade sample does not result in the highest recovery and the lowest grade sample does not result in the lowest recovery which should be true if the SRK assumption was correct.

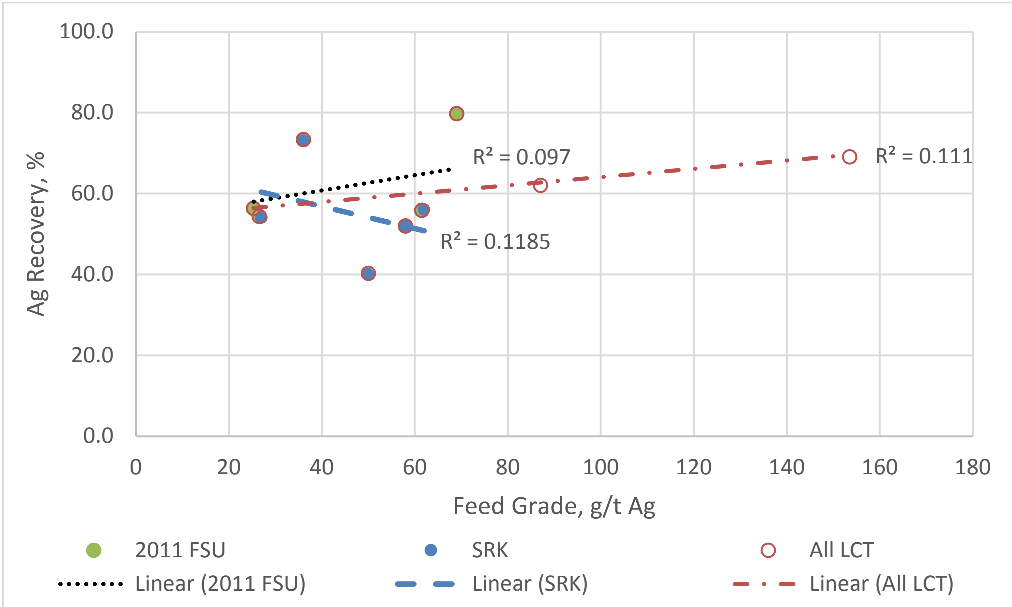
163. RPA then undertook further evaluation of the data. Figure 5-9 presents a graph of three separate data sets.

FIGURE 5-9 CORANI LEAD FEED GRADE VERSUS LEAD RECOVERY TO LEAD CONCENTRATE



164. One set of data includes all of the locked cycle test (LCT) data. The linear trend line for the recovery increases slightly as the feed grade increases although it does not indicate that there is a clear relationship between the lead head grade and the recovery. For the FS, M3 used the data from the composites that were not blended and a weighted average to estimate the lead and silver recoveries. The second data set shows this data. Again, the linear trend line shows a slight upward slope as the lead grade increases. The third set of data plotted was the data set used by SRK to justify reducing the lead recovery. The linear trend for this data actually shows that the recovery decreases as the grade increases which does not support the SRK justification for limiting the data set to the samples that have similar grades to the resource grades because they claim the opposite trend.
165. Similar graphs were made for the silver data, as shown in Figure 5-10.

FIGURE 5-10 CORANI SILVER FEED GRADE VERSUS SILVER RECOVERY TO LEAD CONCENTRATE



166. The results for the silver data are similar to the results for the lead data. The trend lines for all of the locked cycle test data and the data used by M3 show slight upward trends and the data used by SRK shows that the silver recovery trends downward as the silver grade increases which is not consistent with SRK's assumptions.

167. SRK states in paragraph 129: "*In order to re-evaluate projected lead and silver recoveries from mixed sulfide ore into the lead concentrate, SRK selected the results of locked-cycle tests from composites that are closer to the anticipated ore grade. This includes the results of tests on U, D, G, K and 1-5 Year mixed sulfide composites as shown in Table 8-6* (RPA Table 5-8 below)*. This resulted in an average of about 70% lead recovery and 55% silver recovery into the lead concentrate containing about 54% Pb and 1,755 g/t Ag from the mixed sulfide ore.*"

TABLE 5-8 PROJECTED LEAD AND SILVER RECOVERIES INTO MIXED SULPHIDE ORE – SRK
Bear Creek Mining Corporation – Corani Project

Composite	Head Grade			Pb Conc Grade		Zn Conc Grade		Pb Conc Recovery %		Zn Conc Recovery %	
	Pb,%	Zn, %	Ag,%	Pb,%	Ag, g/t	Zn, %	Ag, g/t	Pb	Ag	Zn	Ag
U	0.81	1.44	36	55	2,391	55	283	88	73	78	13
D	1.56	1.86	58	65	1,679	49	661	72	52	82	35
G	1.15	1.10	62	50	1,645	52	374	56	56	69	15
K	1.07	1.59	27	50	904	58	374	81	54	65	13
1-5 Year Master	0.89	1.32	50	51	2,155	52	385	54	40	64	20
Average	1.10	1.46	46	54	1,755	53	415	70	55	72	19

Source: SRK Consulting (U.S.), Inc.

168. In addition to the fact that there is no justification for limiting the data set based on head grade, there are two other reasons why the recommendations made by SRK are not valid:

168.1. Any average should be calculated as a weighted average based on ore type and/or grade and should not be a simple arithmetic average. Using the 2015 block model data base, RPA estimated that over 16% of the drill hole intervals for samples that are located within the open pit shell have a lead grade greater than 1.5%. The SRK analysis, which only considers samples with grades less than 1.5% lead, does not take this into account.

168.2. There are several errors in the table presented by SRK which indicates that their analysis was not completed accurately.

- The Ag grade in the lead concentrate should be g/t not %.
- The average Ag grade in the zinc concentrate for Composite D should be 651 g/t not 661 g/t.
- The Ag grade in the zinc concentrate for Composite K should be 192 g/t not 374 g/t.
- The Ag grade in the zinc concentrate for the 1 to 5 Year Master Composite should be 595 g/t not 385 g/t.
- Correcting the Ag grade in the zinc concentrates for Composite D, Composite K, and the 1 to 5 Year Master Composite changes the arithmetic average to 419 g/t Ag

169. The 2011 Corani FS used a weighted average recovery of the data from the samples representing the individual ore types for the Mixed Sulphide ore instead of using the data

from the blended ore composite samples. RPA concurs with this approach. Therefore, the recoveries summarized in Table 5-9 are appropriate.

TABLE 5-9 2011 CORANI FS ESTIMATED RECOVERIES FOR MIXED SULPHIDE ORE
Bear Creek Mining Corporation – Corani Project

	Pb Recovery, %	Zn Recovery, %	Ag (Pb Conc), %	Ag (Zn Conc), %
Unit Weighted Average	75.2	72.0	62.5	15.4

170. In summary, RPA has demonstrated that, conveniently, SRK selected a data set that gives them the results they desire – that being lower estimates for both the lead and the silver recoveries. Since there does not appear to be any mathematical correlation between either lead head grade and lead recovery or silver head grade and silver recovery, RPA has confirmed that the methodology selected by M3 to support the FS is correct.

5.4.9. RECOVERABILITY: MIXED TRANSITIONAL ORE

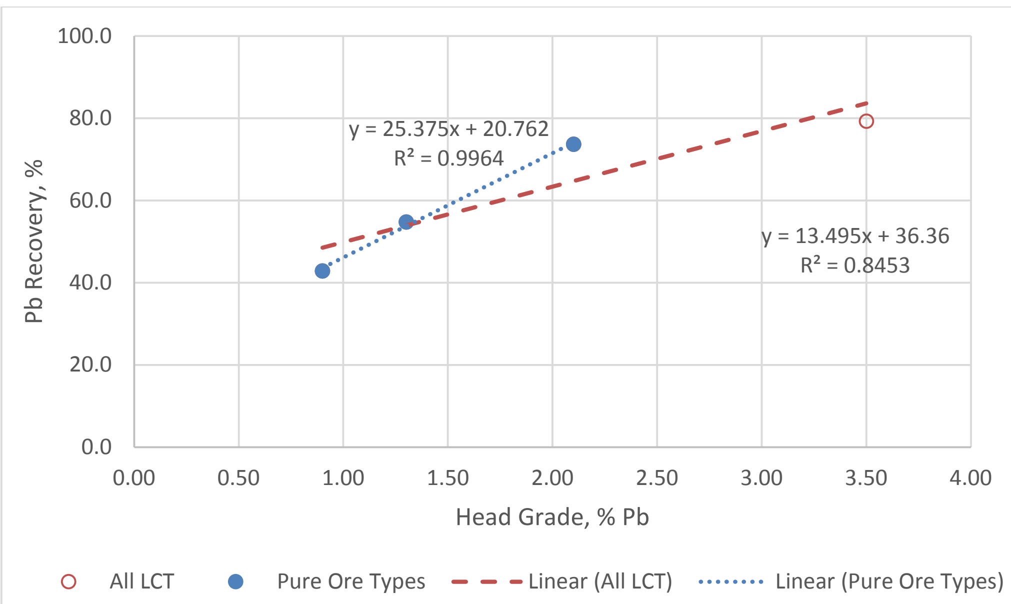
171. In paragraphs 132 and 133, SRK states: *"SRK developed the following equations for projecting lead and silver recoveries from the transition ore:*
    - *Lead Recovery = 38% + 10.9 * Lead Grade %; and*
    - *Silver Recovery = 38.5% + 0.2 * Silver Grade g/t.*
172. *At the average grade of 0.91% Pb and 51.6 g/t Ag, this results in the projection of an average lead recovery of about 48% and an average silver recovery of about 49% from transition ore. SRK believes that this is reasonable pending further work on test composites closer to the grade range anticipated."*
173. RPA evaluated the data from the locked cycle tests for the transition ore samples. The equations proposed by SRK are the same equations that are proposed in the 2011 Corani FS. The data for the locked cycle tests is provided in Table 5-10.

TABLE 5-10 2011 CORANI FS LOCKED CYCLE TEST DATA FOR TRANSITION ORE
Bear Creek Mining Corporation – Corani Project

	Head Grade			Pb Concentrate Recovery	
Composite	**Pb,%**	**Zn, %**	**Ag, g/t**	**Pb,%**	**Ag, %**
H	0.90	0.09	51.0	42.9	54
Q	1.30	0.04	42.0	54.8	45
T	2.10	0.35	155.0	73.7	73
3 Zone Minas 1 Comp	3.50	0.08	99.0	79.3	59
3 Zone Trans Master		0.08	112.0	52.3	55.6
Average	1.95	0.13	91.8	60.6	57.2
Unit Weighted				65.3	61.0

174. The data for lead head grade and lead recovery is plotted in Figure 5-11.

FIGURE 5-11 CORANI LEAD HEAD GRADE VS. LEAD RECOVERY FOR TRANSITION ORE LOCKED CYCLE TEST DATA

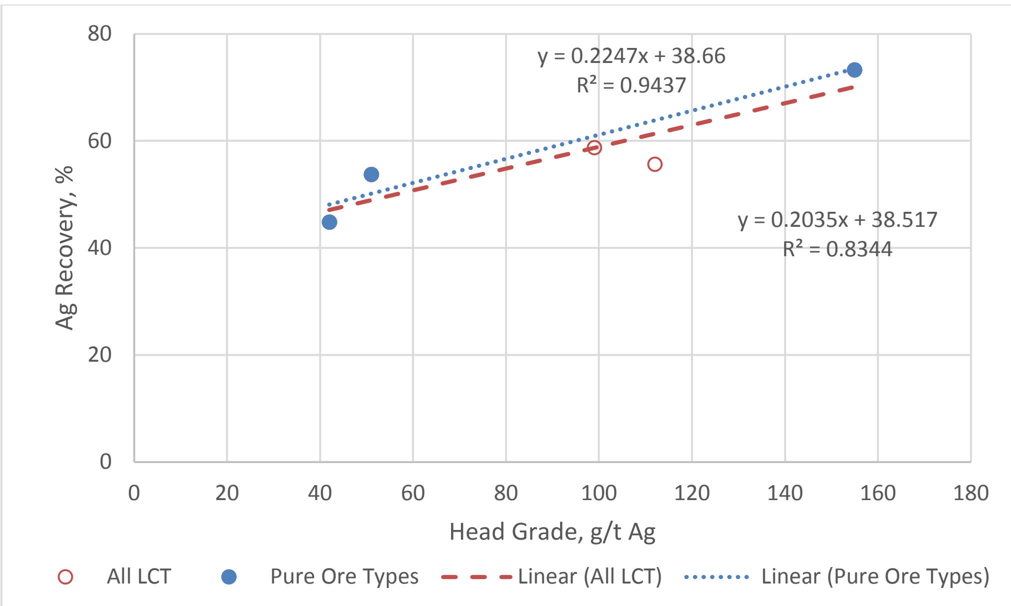


175. Two data sets were evaluated: all of the locked cycle test data and the data for the composite samples that were selected as pure ore types (i.e., composites H, Q, and T). Both data sets show a clear correlation between the lead head grade and the lead recovery. Statistically, the coefficient of determination, also called R-squared, is an indication of the strength of the correlation. A perfect correlation is an R-squared on 1.0. Based on the R-squared for each of the plots, the data for the pure ore types shows the

best mathematical correlation so RPA recommends that the recovery should be calculated using the corresponding equation since it appears to be the most accurate. Using this equation, and the average lead head grade over the life of the mine, the average lead recovery is estimated to be 49.2%, which is not significantly different from the estimated lead recovery provided by SRK. RPA recommends that an estimated lead recovery of 49% be used in place of the average lead recovery used in the 2011 Corani FS (i.e., 51.65%).

176. The data for the silver head grade and the silver recovery is graphed in Figure 5-12.

FIGURE 5-12 CORANI SILVER HEAD GRADE VS. SILVER RECOVERY FOR TRANSITION ORE LOCKED CYCLE TEST DATA



177. In this case, the mathematical correlation for the pure ore types, as used to support the FS, is higher which, again, indicates a better data set. If the silver recovery is estimated using this equation and the life of mine (LOM) average silver grade (i.e., 66.16 g/t Ag), the silver recovery is 53.5% which corresponds well to the recovery used in the 2011 Corani FS (i.e., 53.2%). Therefore, RPA agrees with the estimated silver recovery in the 2011 Corani FS and recommends no change be made.

5.4.10. POST 2011: METALLURGICAL STUDIES

178. SRK states in paragraph 134: "*It was SRK's understanding that following M3's 2011 Feasibility Study that new test composites would be prepared for confirmatory metallurgical testing under optimized conditions and that these composites would be*

formulated from new drill holes and be composited to represent both the mineralogy and ore grades that will be mined during the first five years of production. This does not appear to have happened based on a review of the M3's 2015 Feasibility Study for the Corani project. Instead, GRE was retained to conduct an evaluation of the geometallurgy, which resulted in a complex statistical analysis indicating that several measurable geological parameters could be used to make metallurgical predictions."

179. Significant metallurgical work was completed following the 2011 Corani FS which is why the 2015 Corani OFS was completed. The need for a geometallurgical model in order to understand the relationship between lead, silver, and zinc recovery and the mineralogy was highlighted in the 2011 Corani FS[45] and discussed more fully by Blue Coast Metallurgy.[46] The "complex statistical analysis" completed by GRE was, in fact, an application of the existing data into a mining sequence model which optimized the recovery data based on the extensive metallurgical testing work as described below.

> *"Metallurgical understanding of the Corani deposit increased exponentially by linking the flotation results from the G&T variability study with the QEMSCAN mineralogy. This exercise conducted on samples well distributed spatially across the deposit provided a good picture of the various types of material encountered and a qualitative assessment of the associated metallurgical responses.*
>
> *"A variability model built on mineralogical data is currently considered more robust than models built on head grade vs. recovery relationships. From the current data base the relationship of Pb and silver recovery to head grade is very weak, reflecting the dominant role of mineralogy in ultimate performance. Zinc exhibits a head grade vs. recovery relationship, probably due to the fact sphalerite is the only zinc mineral of note and tends to have a coarser grain size than the galena.*
>
> *"Further metallurgical work should focus on the building of a geometallurgical model built by linking the currently understood mineralogical ore classifications with those used in the geological modelling. Should the link between the two prove robust, metallurgical forecasting could be accurately taken all the way to the block model."*

180. Other work that was reported includes:

- Alex G. Doll, 2015[47]

[45] Corani FS, 2011, p. 103 (Exhibit RPA-08).
[46] Blue Coast Metallurgy, Ltd., 2011, Bear Creek Mining Corporation, Summary of Metallurgical Testing of Corani 2007-2011, December 15, 2011, pp. 57–59 (Exhibit RPA-32).
[47] Alex G. Doll Consulting Ltd., 2014, Comminution Modelling Report – Corani Project, Peru, prepared for Bear Creek Mining Corporation, August 29, 2014 (Exhibit RPA-33).

- ALS Metallurgy Kamloops, 2014[48]
- Outotec, 2014[49]
- GRE, 2015[50]

181. SRK states in paragraph 135: "*While this geometallurgical evaluation offers some valuable insights into the parameters effecting metals recovery, SRK would make the following points regarding outcomes from this statistical evaluation:*
   - *Lead recovery to the lead concentrate from mixed ore averages about 70% during the first five years, which is similar to the average lead recovery from selected test results (Table 7-3).*
   - *Silver recovery into the lead concentrate during the first five years is predicted at about 70%, which is substantially higher than the 55% average silver recovery from selected locked cycle tests. The higher silver recovery to the lead concentrate is based on the premise that the distribution of silver to the zinc concentrate can be reduced, this, however, is not supported by the results of the locked-cycle testwork presented in the 2011 Feasibility Study.*"
182. The new work that has been completed for the 2015 Corani OFS is significantly more comprehensive than the locked cycle test work that was completed for the 2011 Corani FS. The 2011 Corani FS testwork is no longer relevant since the exploration drill core has been re-logged and reinterpreted and the ore types have been replaced based on additional information and updated models that have been developed. The 2011 recovery evaluation has been superseded by a more in depth analysis and is, therefore, outdated and obsolete. This is a common evolution in the understanding of mineral deposits as additional information is gathered.
183. SRK states in paragraph 136: "*It is SRK's opinion that recovery projections should be validated with confirmatory testing on metallurgical composites formulated from new drill holes that are composited to represent both the mineralogy and ore grades that will be mined during the first 5 years of production. Absent this, then SRK recommends that silver recoveries be maintained at 55%, considerably lower than the 70% projected.*"
184. In summary, RPA is of the opinion that the work that has been completed to support the 2015 Corani OFS, which estimates metal recovery on a block by block basis using the most modern methods available, are much more accurate than the empirical guesses

[48] ALS Metallurgy Kamloops, 2014, Levin Tests on Corani Rougher Concentrates, KM4455, prepared for Bear Creek Mining Corporation, October 10, 2014 (Exhibit RPA-34).
[49] Outotec Canada, 2014, Filtration Test Report, 109981T1, December 8, 2014 (Exhibit RPA-35).
[50] GRE, 2015 (Exhibit RPA-09).

that SRK proposes. Therefore, no changes to the 2015 Corani OFS economic analysis are warranted. Furthermore, it is common that, as operations are built and further optimized during start-up, recoveries can be improved under actual operating conditions.

5.4.11. REPORTING OF ADDITIONAL RESOURCES

185. Paragraph 137 references “additional resources” being reported. Since the Mineral Resources for both the 2015 Corani OFS and 2011 Corani FS were reported at the correct cut-off grades, no “additional resources” were reported by BCM.

5.4.12. PERMITTING SCHEDULE

186. As mentioned earlier in Santa Ana, SRK discusses potential issues with timelines stating *“As noted above, over the past five years or so there has been a history of permitting delays for mining projects in Peru. Typically permitting timelines have increased from 6 months to 12 months or even longer. Peru has also experienced considerable public opposition to mining projects sometimes for genuine concerns and sometimes as a result of the actions of political activists or NGOs. Therefore, the “Social License to Operate,” i.e., support from the local communities, is becoming an increasingly important consideration for the mining sector.”*

187. The Corani Project schedule allows a period of 17 months for ESIA preparation/review and permitting which is significantly higher than SRK’s suggestion of 12 months. While it is true that Peru has experienced opposition to a number of mining projects, it is also true that a number of mining projects have been allowed to proceed without delays. Importantly, as explained in the Santa Ana section of this report, Hudbay’s Constancia project, a concentrator complex located 130 km SW from Corani was permitted and built within the projected timeline of 43 months. It is highly dependent upon the area of Peru, the local “social license to operate”, and the specific time frame. To make the claim that the project would be delayed without referencing the specific circumstances is speculative and without warrant.

5.4.13. CONSTRUCTION AND RAMP-UP SCHEDULES

188. In paragraph 140, SRK states: *“SRK considers that by factoring in likely delays in permitting, difficult logistics associated with procurement and construction in a high Andes environment, collectively these could lengthen the time from project inception (a Go decision) to first concentrate production by at least one year from that presented in the FS.”*

189. This is a very speculative statement that is not based on detailed analysis of any factual information.

5.4.14. DISCOUNT RATE

190. RPA did not carry out a valuation on the Corani Project.

5.5 SUMMARY OF CORANI COMMENTS

191. SRK is incorrect in stating that the Mineral Resources were overstated as the result of using a silver price of $30.00/oz Ag. The silver price averaged US$35.12/oz in 2011, and therefore $30.00/oz Ag should not be considered unreasonable for reporting Mineral Resources at the time. Furthermore, the valuation of the Corani Project is based solely on Mineral Reserves estimated at a silver price of $18.00/oz, any discussion on additional Mineral Resources is irrelevant.
192. SRK is incorrect in stating that RPA could not have confirmed the tonnages and grade of the 2015 Corani OFS Mineral Resource estimate. In fact, RPA completed a thorough review of the 2015 Corani OFS Mineral Resource estimate and was able to confirm the tonnage and grade.
193. SRK is incorrect in its claim that the mine operating costs should be higher and has no basis for support. The 2011 Corani FS did in fact incorporate allowances for the remote location and altitude.
194. SRK is incorrect in stating "*the recoveries projected in the 2011 Feasibility Study may have been overstated*". RPA has demonstrated that, conveniently, SRK selected a data set that gives them the results they desire – that being lower estimates for both the lead and the silver recoveries. Since there does not appear to be any mathematical correlation between either lead head grade and lead recovery or silver head grade and silver recovery, RPA has confirmed that the methodology selected by M3 to support the FS is correct.
195. SRK is incorrect in stating that silver recoveries estimated in the 2015 Corani OFS should be maintained at 55%, which are considerably lower than the 70%. RPA is of the opinion that the work that has been completed to support the 2015 Corani OFS, which estimates metal recovery on a block by block basis using the most modern methods available, is much more accurate than the empirical guesses that SRK proposes. Therefore, no changes to the 2015 Corani OFS economic analysis are warranted. This opinion is validated by the information presented in Figure 3-7 from the GRE report that shows the improved accuracy of the results from the 2015 Corani OFS. Furthermore, it is common

that, as operations are built and further optimized during start-up, recoveries can be improved under actual operating conditions.

196. SRK is incorrect in its statement that "*by factoring in likely delays in permitting, difficult logistics associated with procurement and construction in a high Andes environment, collectively these could lengthen the time from project inception (a Go decision) to first concentrate production by at least one year from that presented in the FS.*" RPA believes that SRK's opinion is purely speculative and has no basis for suggesting longer metallurgical processing times, or being able to predict delays relating to permitting. The Corani Project schedule allows a period of 17 months for ESIA preparation/review and permitting which is significantly higher than SRK's suggestion of 12 months.

6 RPA RESPONSE TO BRATTLE REPORT

6.1 QUALIFICATIONS OF AUTHORS

197. Dr. Graham A. Davis is a Professor in the Division of Economics and Business at the Colorado School of Mines and the William J. Coulter Professor of Mineral Economics. Dr. Davis has degrees in Metallurgical Engineering, Business Administration, and Mineral Economics.

198. The other author of the Brattle Report, Dr. Florin Dorobantu, is educated in Economics and Business Administration and is a Senior at The Brattle Group.

6.2 GENERAL STATEMENTS

199. Brattle's mandate was to review and comment on the FTI Report[51]. As part of their review they relied on the SRK Report for support on the technical aspects that make up the basis for the Santa Ana and Corani projects. The Brattle Report makes several references to SRK's assertions, with respect to the RPA Report, which RPA has addressed in the previous sections of this report.

200. The authors state that they identified *"several other errors"*[52] from the RPA Report, which RPA will address below.

6.2.1. SANTA ANA CUT-OFF GRADES

201. In paragraph 120, Brattle states "*RPA's Extended Life Case adds 35 million tonnes of additional low grade resource (as opposed to reserves) in the production. The additional material comes from lowering the resource pit cutoff grade from 17.5 g/t to 14 g/t, indicative of a higher price scenario for the life of the mine compared with the base case. The lower cutoff grade increases the number of economic blocks of resource.*"

202. Brattle is incorrect in stating that a *"higher price scenario"* is the reason behind the difference in the 17.5 g/t Ag and 14 g/t Ag cut-off grades (refer to cut-off grade discussion in Section 3). There are several differences in the assumptions used to derive each cut-off, however, the metal price used in both is the same (see Table 6-1).

[51] FTI Consulting Canada ULC, 2015, Bear Creek Mining Corporation ("Claimant") v. Republic of Peru ("Respondent"), May 29, 2015 (Exhibit RPA-36)
[52] The Brattle Report, paragraph 99 (Exhibit RPA-04).

203. Brattle also replicates SRK's confusion on Mineral Reserve, Mineral Resource, and mine planning cut-offs. The following is a summary of cut-off grades used in the FSU and RPA Report:

- 34 g/t to 27 g/t - Elevated cut-off for FSU Mine Plan
- 24 g/t – Milling/Internal cut-off for FSU Mineral Reserves (using Floating Cone Inputs)
- 17.5 g/t – Milling/Internal cut-off for RPA Adjusted Base Case Mineral Reserves
- 15 g/t – Milling/Internal cut-off for FSU Mineral Resources
- 14 g/t – Milling/Internal cut-off for RPA Extended Life Case (using Whittle Inputs)

204. The parameters used to arrive at the various cut-offs is presented in Table 6-1.

TABLE 6-1 SUMMARY OF CUT-OFF GRADE INPUTS FOR RESOURCE AND RESERVES
Bear Creek Mining Corporation – Santa Ana Project

Parameter	Unit	Resource FSU Floating Cone	Reserve FSU Floating Cone	Reserve RPA Adjusted Base Case	Reserve RPA Extended Life
Pit Slopes	degrees	40	40	40	40
Mining Waste Cost	US$/tonne	1.67	1.73	1.73	2.10
Mining Ore Cost	US$/tonne	1.67	1.73	1.73	2.81
Process Cost	US$/tonne	4.00	5.36	5.36	3.49
G&A Cost	US$/tonne	1.30	1.33	1.33	1.45
Process and G&A Cost	US$/tonne	5.30	6.69	6.69	4.94
Mining Extraction	%	100	100	100	95
Mining Dilution	%	0	0	0	5
Process Recovery	%	70	70	75	75
Refining Recovery	%	99.7	99.7	99.7	99.7
Ag Price	$/oz Ag	16.00	13.00	16.50	16.50
TC/RC	$/oz Ag	0.40	0.40	0.40	0.63
Royalties	$/oz Ag	0.00	0.00	0.00	0.23
Total Charges	$/oz Ag	0.40	0.40	0.40	0.86
Ag COG	g/t	**15.0**	**24.0**	**17.5**	**14.0**

Note: COGs are rounded to nearest 0.5 g/t

205. RPA revised the cut-off grade of 24 g/t Ag used in the FSU to 17.5 g/t Ag based on the change in metal price and metallurgical recovery.

206. The 14 g/t Ag cut-off grade was calculated internally by Whittle as the milling/internal cut-off (see discussion in Section 3).

207. In summary, Brattle is incorrect in stating that a *"higher price scenario"* is the reason behind the difference in the 17.5 g/t Ag and 14 g/t Ag cut-off grades. The 14 g/t Ag cut-off grade was based on a set of assumptions for operating costs, metal prices, and metallurgical recoveries which are specific to the Extended Life Case.

6.2.2. TIMELINE TO PRODUCTION

208. In paragraph 104, Brattle states *"the timeline assumes no delays due to community opposition."*

209. In Peru, permitting is highly dependent upon location, the local "social licence to operate", and the specific time frame. EY addresses the topic of social licence to operate in Peru's Mining and Metals Investment Guide 2015/ 2016.[53] EY states, "By managing an effective communication process highlighting the positive impact of mining through productive, profitable and sustainable development initiatives can show the government, communities and other stakeholders how their presence in the country can create positive economic and social contributions." For Brattle to make the claim that the project would be delayed without referencing the specific circumstances is speculative and without warrant. RPA notes that the companies that completed the designs for the heap leach pad and the processing facilities, Ausenco and HL Consulting, are Peruvian companies with specific knowledge of the conditions in Peru at the time the Santa Ana FSU was completed, and are experts who helped estimate the time frame required to execute the project.

210. In Table 5 of the Brattle report, there are a list of various projects with delays. Brattle incorporates a four year delay based on the "typical" delay found in this selected group of projects in Table 5. Brattle fails to mention that there were various projects at the time that were not delayed. As discussed earlier, Hudbay was able to permit the substantially larger, more complex Constancia Project in six quarters, which is only one quarter longer than the time allotted in the Santa Ana schedule. It should also be noted that the engineering company responsible for construction at Constancia was Ausenco, the same company that completed the Santa Ana FSU.

211. Rio Alto submitted an EIA for its La Arena Project in September 2009 and received approval ten months later in July 2010. In May 2011, Rio Alto announced the first gold pour at La Arena, only ten months after receiving EIA approval from the Peruvian Government.[54]

[53] EY, 2015 (Exhibit RPA-19).
[54] SNL Mining News - La Arena Work History.pdf (Exhibit RPA-21).

6.2.3. SANTA ANA EXTENDED LIFE CASE

212. In paragraph 121 Brattle states: "*Unlike in the base case, RPA does not run a Whittle Pit Optimization on the resource material in this extended case and thus does not estimate year by year tonnages or grades. In the absence of a Whittle Pit Optimization one also cannot estimate which blocks of resource are economic to recover once stripping and waste movement are taken into account. RPA simply assume that 75% of the additional material would be economic to mine, and that 0.81 tonnes of waste must be mined for each tonne of ore. Neither of these numbers is supported by an engineering analysis. SRK find that this approach of adding low grade resources to the end of the mine life is "far too simplistic" and, by assuming a 75% conversion of resources to mined material, it represents "a deliberate strategy to inflate value."*"

213. There are a number of incorrect statements, assumptions, and conclusions by Brattle in paragraph 121.

    213.1. *"Unlike in the base case, RPA does not run a Whittle Pit Optimization on the resource material in this extended case…"* This statement is incorrect. For the RPA Revised Base Case, RPA did not in fact run a Whittle pit optimization. RPA reported the Mineral Resources from within the FSU design pit and not from within a Whittle pit. If RPA had run a Whittle pit at the adjusted parameters and carried out a full design, the revised Mineral Resources would have been even higher, given that the use of a lower cut-off grade would result in a larger Whittle Pit. Therefore, if Brattle's position were to be accepted, the resulting valuation for Santa Ana would logically be even higher.

    - For the Santa Ana Extended Life Case, RPA did run a Whittle Pit. The details are clearly laid out in section 14 of the RPA Report.

    213.2. *"…and thus does not estimate year by year tonnages or grades.*"

    - RPA scheduled the additional Mineral Resources using the same yearly production rate as the FSU and assumed a constant grade and stripping ratio. The reason RPA did this is because it is not realistic to schedule the additional Mineral Resources in isolation from the FSU Reserve Pit. Figure 6-1 shows a cross section of the FSU Reserve Pit versus the Extended Life Whittle Shell created by RPA. Figure 6-2 is a plan view of a typical mine bench of the additional Mineral Resources in the Extended Life Case. The mining bench created by the incremental Mineral Resources (the material located between the Reserve pit and Extended Life Whittle Shell) is thin, discontinuous, and irregularly shaped. The incremental Mineral Resources simply cannot be scheduled into a reasonable mine plan with sufficient operating room.

213.3. SRK attempted to schedule the incremental Mineral Resources using Whittle with year by year tonnage and grades, however, any attempt to try to schedule *"year-by-year tonnages and grades"* from this incremental material would mislead the reader into believing that the schedule was somehow achievable in a real life mining scenario.

- It is precisely for this reason that RPA reported tonnes, grade, and stripping ratios as an average and did not attempt to complete a full design and mine schedule.

FIGURE 6-1 FSU RESERVE PIT VERSUS EXTENDED LIFE PIT (SECTION VIEW)

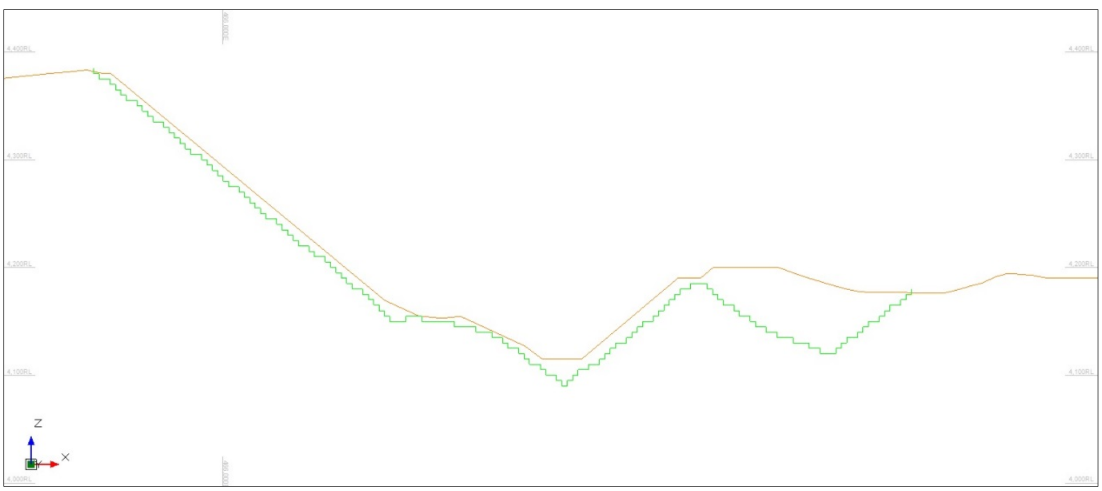


FIGURE 6-2 FSU RESERVE PIT VERSUS EXTENDED LIFE PIT (PLAN VIEW)

213.4. *"SRK find that this approach of adding low grade resources to the end of the mine life is "far too simplistic" and, by assuming a 75% conversion of resources to mined material, it represents "a deliberate strategy to inflate value."* The conversion of Mineral Resources to mined material in the Extended Life Case is discussed in Section 4.2.5.

214. In summary, Brattle makes a number of incorrect statements, assumptions, and conclusions with respect to the Extended Life Case. They confuse the work that was actually carried out by RPA by stating that "*Unlike in the base case, RPA does not run a Whittle Pit Optimization on the resource material in this extended case".* In fact, RPA did not run a Whittle pit optimization in the Base Case and relied instead on reviewing and accepting the FSU design pit. RPA did run a Whittle pit optimization in the Extended Life Case.

215. Furthermore, Brattle's comments regarding scheduling of the Extended Life Mineral Resources are impractical and misleading. The mining bench created by the incremental Mineral Resources is thin, discontinuous, and irregularly shaped and cannot be scheduled into a reasonable mine plan.

6.2.4. SANTA ANA - INCLUSION OF INFERRED MINERAL RESOURCES

216. In paragraph 123, Brattle attempts to suggest that the Mineral Resources erroneously include Inferred Resources. The following statements are direct excerpts from CIMVal that were omitted by Brattle in their argument in reference to the treatment of Inferred Resources.:

216.1. *"All Mineral Reserves and Mineral Resources on a Mineral Property should be considered in its Valuation."*[55]

216.2. *"Inferred Mineral Resources should be used in the Income Approach with great care, and should not be used if the Inferred Mineral Resources account for all or are a dominant part of total Mineral Resources. Any use of Inferred Mineral Resources in the Income Approach must be justified in the Valuation Report and treated appropriately for the substantially higher risk or uncertainty of Inferred Mineral Resources compared to Measured and Indicated Mineral Resources. Inferred Mineral Resources should only be used in the Income Approach if Mineral Reserves are present and if, in general, mined ahead of the Inferred Mineral Resources in the Income Approach model, and/or if Measured and/or Indicated Mineral Resources are used as specified in G4.3 to G4.7 and if, in general, mined ahead of Inferred Mineral Resources in the Income Approach model."*[56]

217. RPA followed the above guidelines with respect to the inclusion of additional Mineral Resources, including Inferred Resources, in the Extended Life Case.

217.1. The total amount of Inferred Resources included in the Extended Life Case represents 13%[57] of the total tonnes and would not be considered a dominant part of total Mineral Resources.

217.2. All Mineral Resources are included in the Extended Life Case cashflow after all Mineral Reserves have been mined.

218. In paragraph 124, Brattle states that the inclusion of Inferred Resources in an income approach valuation is "controversial". In fact, the inclusion of Inferred Resources in an income approach valuation is absolutely not controversial. Transactions for mining properties take place at all stages of development and the value can be based on mineral reserves and/or mineral resources, including inferred resources. RPA clearly explains

[55] CIMVal, 2003, page 24, G4.1 (Exhibit RPA-18).
[56] Ibid., page 25, G4.8 (Exhibit RPA-18).
[57] Total Mineral Resources in Extended LOM Pit = 93.3 Mt of which 12.1 Mt are Inferred.

CIMVal's definition of the inclusion of Inferred Resources in an income approach in the response to paragraph 123.

219. In paragraph 125, Brattle states: *"In summary, RPA's Extended Life Case simply tacks on low grade resource material to the base case, without proper engineering and economic assessment, and is thus rendered unreliable and cannot be used as a basis for valuation. As a result, SRK concluded that the Extended Life Case was internally inconsistent and "defie[d] all reason".*

220. Again, RPA included the Mineral Resources at the end of the Mineral Reserve life, as is suggested by CIMVal in the response to paragraph 123. RPA applied the appropriate engineering inputs into Whittle to determine the economic viability of the additional Mineral Resources. RPA further subjected the Mineral Resources to a cashflow analysis to demonstrate its economic viability.

221. In summary, Brattle is incorrect in stating that the inclusion of Inferred Mineral Resources in project valuation is "controversial". CIMVal clearly states that "*All Mineral Reserves and Mineral Resources on a Mineral Property should be considered in its Valuation"* – this includes Inferred Mineral Resources. Contrary to Brattle's assertions, all additional Mineral Resources were subject to a Whittle pit analysis.

6.2.5. SANTA ANA - MINE SCHEDULE – EXTENDED LIFE CASE

222. Brattle reiterates, in paragraph 126, SRK's attempt at producing a detailed mine schedule using Whittle. The Brattle Report states: "*In SRK's analysis, the stripping ratio near the end of the mine life, as the pit deepens and widens into the surrounding barren mountains, becomes greater than 3, in contrast to RPA's assumption that it remains constant at 0.81. A higher stripping ratio increases costs and decreases asset value."*

223. This statement is an attempt by Brattle to mislead the reader. RPA's Whittle analysis of the Extended Life Mineral Resources results in an overall stripping ratio of 0.81:1, which means that regardless of what the stripping ratio is in the final years, all the additional Mineral Resources mined in the Extended Life Case are economic and therefore add to the asset value.

6.3 SUMMARY OF BRATTLE COMMENTS

224. Brattle is incorrect in stating that a *"higher price scenario"* is the reason behind the difference in the 17.5 g/t Ag and 14 g/t Ag cut-off grades. The 14 g/t Ag cut-off was based on a set of assumptions for operating costs, metal prices, and metallurgical recoveries that are specific to the Extended Life Case.

225. Brattle is incorrect in its assumption that the Santa Ana would be delayed by four years. This assumption is purely speculative and has no basis. Both Hudbay's Constancia Mine and Rio Alto's La Arena Mine were permitted and constructed without any material delays.

226. Brattle makes a number of incorrect statements, assumptions, and conclusions with respect to the Extended Life Case. Brattle confuses the work that was actually carried out by RPA by stating that "*Unlike in the base case, RPA does not run a Whittle Pit Optimization on the resource material in this extended case".* In fact, RPA did not run a Whittle pit optimization in the Base Case and relied instead on reviewing and accepting the FSU design pit. RPA did run a Whittle pit optimization in the Extended Life Case. Furthermore, Brattle's comments regarding scheduling of the Extended Life Mineral Resources are impractical and misleading. The mining bench created by the incremental Mineral Resources is thin, discontinuous, and irregularly shaped and cannot be scheduled into a reasonable mine plan.

227. Brattle is incorrect in stating that the inclusion of Inferred Mineral Resources in project valuation is "controversial". CIMVal clearly states that "*All Mineral Reserves and Mineral Resources on a Mineral Property should be considered in its Valuation"* – this includes Inferred Mineral Resources. Contrary to Brattle's assertions, all additional Mineral Resources were subject to a Whittle pit optimization analysis. Furthermore, all additional Mineral Resources mined in the Extended Life Case are economic and therefore add to the asset value.

January 6, 2016

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7 LIST OF EXHIBITS

RPA-01 Rigby, N., 2015, REX-005 Expert Technical Report of SRK Consulting, October 6, 2015.

RPA-02 Taylor, H.K., 1972, General Background theory of cut-off grades. Institution of Mining and Metallurgy Transaction A:160.

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RPA-19 Ernst & Young, Ministry of Foreign Affairs Peru, 2015, Peru's mining & metals investment guide 2015/2016.

RPA-20 Hudbay Minerals Inc., 2012, Constancia, The Right Jurisdiction, The Right Project, The Right Strategy, a presentation of August 8, 2012. *See also* http://s1.q4cdn.com/305438552/files/doc_presentations/Hudbay_Constancia_FINAL_Aug%208_v001_c5hw2e.pdf

RPA-21 SNL Mining News - La Arena Work History.pdf

RPA-22 2011 Corani FS block model - mod16911.zip

RPA-23 2011 Corani FS block model text file – resovariables.zip

RPA-24 2011 Corani FS mineral domain wireframe models – mincod2009.zip

RPA-25 2011 Corani FS surface constraining the top of the pre-mineral tuff - topofpremin.dxf

RPA-26 2011 Corani FS surface constraining the top of the sediments - topofseds.dxf

RPA-27 2011 Corani FS topographic surface used to constrain resource estimates – Corani pit area topo – trimmed by MES and cloud fixed.dxf

RPA-28 2011 Corani FS Mineral Resource shell - ResoCone_7Dec11.dxf

RPA-29 2011 Corani FS Mineral Reserve shell - mi18cone.dxf

RPA-30 2011 Corani FS NSR calculation worksheet - nsr_calc.xls

RPA-31 Summary tables of Mineral Resources and Reserve estimates - Resv_reso_byMinCode_24May12 – with Met types.xlsx

RPA-32 Blue Coast Metallurgy, Ltd., 2011, Bear Creek Mining Corporation, Summary of Metallurgical Testing of Corani 2007-2011, December 15, 2011.

RPA-33 Alex G. Doll Consulting Ltd., 2014, Comminution Modeling Report – Corani Project, Peru, August 2014.

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8 APPENDIX 1

CURRICULUM VITAE

Curriculum Vitae

Graham G. Clow

B.Sc., P.Eng.

Rock solid resources.
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Details

Position
Chairman of the Board
Principal Mining Engineer

Discipline
Mining Engineering

Languages
English

Qualifications
- B.Sc. Geology, Queens University, 1972
- B.Sc. Mining Engineering, Queens University, 1974
- Professional Engineers of Ontario
- Designated Consulting Engineer, Ontario
- Canadian Institute of Mining, Metallurgy, and Petroleum.

Key Skills
- M&A
- Due Diligence
- Mine Operation
- Mineral Reserves
- Feasibility Studies
- Finance
- Expert Witness
- Strategic Planning
- Troubleshooting

Synopsis

Graham Clow is a senior mining executive with 40 years' experience in all aspects of acquisitions, exploration, feasibility, finance, development, construction, operations, and closure. In addition to providing strategy and direction for RPA, he leads RPA's due diligence and M&A practice, bringing together experienced teams to assess and advise on projects worldwide.

His experience ranges from the high arctic to the tropics, in base and precious metals and industrial minerals. He has been responsible for mergers and acquisitions for public companies.

Prior to joining RPA, Mr. Clow spent more than 20 years in senior executive and operating positions with publicly listed mining companies. This experience included financing, development, and management of open pit and underground mines, start-ups, feasibility studies, due diligence, and M&A.

He is Past Chairman of the Metal Mining Division of the Canadian Institute of Mining, Metallurgy, and Petroleum (CIM), and was a Member of the Committee on Ore Reserve Definitions. Mr. Clow is a Fellow of CIM and has been awarded the Metal Mining Award for contributions to the industry.

For several years, Mr. Clow was an Adjunct Professor at the Lassonde Institute for Mineral Engineering at the University of Toronto, lecturing on mineral reserve estimation.

Selected Professional History

- M.D. responsibility for a group of 100 technical specialists providing high level consulting services worldwide.
- C.E.O. responsibility for listed mining and exploration companies in North and South America.
- Experience in:
  - Open pit and underground mines.
  - Base metals, precious metals, diamonds, and industrial minerals.
  - Operating mines in North America, Central America, South America, and North Africa.
  - High Arctic underground and open pit mines.
- Due diligence and project evaluation, financial modeling, merger and acquisition planning and implementation.
- Preparation and implementation of feasibility studies.
- Stock Exchange Listings/IPOs and financings – Canada, UK, and Hong Kong
- Construction management and operations startup.
- Negotiation with the highest levels of governments for project development approvals and concessions.
- Negotiation of cooperation and Impact and Benefit Agreements with First Nations and other indigenous peoples.
- Consulting, troubleshooting and problem solving.
- Concentrate marketing and shipping.
- Recruitment and staffing at all levels, including board of directors.
- Remote location management.
- Expert Witness for both arbitration and legal proceedings.
- Project Valuation.

Selected Consulting Assignments

Agnico-Eagle Mines Limited
High level independent project reviews for board of directors.

Altynalmas Gold Ltd
A Pre-Feasibility Study and an NI 43-101 report on the Kyzyl Gold Project, Kazakhstan.

Arcelor Mittal
Resource and Reserve audits and mine design/planning for mines and projects on three continents.

Banks and Other Lenders
Lead of Independent Engineer teams for debt and equity transactions on numerous projects, including:

- TVX/Echo Bay/Kinross merger involving 13 mines on three continents
- Agnico Eagle Laronde Mine expansion, Canada
- Stornoway Diamond Renard Project, Canada
- Lundin Mining Eagle Project, USA
- West African Gold Projects
- Swedish Iron Ore Project
- South American copper projects

Barrick Gold Corporation

- Lead Competent Person for a Mineral Expert Report on African Barrick Gold plc assets in Tanzania, to support an IPO and listing on the London Stock Exchange.
- Managing partner for annual mineral reserve audits on all Barrick mines and projects (more than 30).

Canadian Base Metals Producer
Lead on a due diligence review of European and South African acquisitions.

Chinese National Institute
Lead on a due diligence review for a major base metal acquisition.

Confidential Client
Due diligence review of base metal assets of operating and developing mines in Spain and Portugal.

De Beers Canada
Review of mine development projects.

Expert Witness

- Expert Witness for a legal dispute concerning a joint venture agreement for a North American open pit mining operation.
- Expert Witness for a legal dispute concerning a joint venture agreement for Mexican project.
- Expert Witness for a legal dispute regarding the expropriation of a mining property by the government of Venezuela.
- Expert Witness for a legal dispute concerning a royalty agreement between two North American mining companies.
- Expert Witness for a legal dispute between two North American mining companies over a joint venture agreement on a mining property in Argentina.
- Valuation support and Expert Witness for a legal dispute regarding expropriation of a mining property by the government of Bolivia.
- Valuation support for a creditor in the bankruptcy of a South American base metals smelter.

Selected Consulting Assignments (cont'd)

First Nations
Review and advise First Nations and mining companies on Impact and Benefit Agreements.

FNX Mining Company Inc./Quadra Mining Ltd.
Lead for a due diligence review of assets for the merger of the companies.

Gold Fields Limited
Lead of team advising on performance and expansion of South Deep Mine in South Africa

Hong Kong Stock Exchange
Senior Partner/Competent Person for gold company IPO.

HudBay Minerals Inc.
Due diligence review of Canadian base metal assets.

IAMGOLD Corp.
Preliminary Economic Assessment and a NI 43-101 Technical Report on expansion options for a niobium project in Quebec.

Ivanhoe Mines Ltd.
Independent Technical Review of a gold project in Kazakhstan.

Lonmin Plc
Lead of a due diligence team for a possible acquisition.

Ma'aden – Saudi Arabian Mining Company
Advisor on commercial agreement with listed company on an industrial minerals development.

Mongolia Uranium Project
Lead on an Independent Technical Review.

North American Palladium Ltd.
Lead on a feasibility study for the transition to underground mining at the Lac des Iles nickel-copper-PGM mine, Canada.

Stornoway Diamond Corporation
Due diligence review of a diamond project in Canada.

Tiffany & Co.
Due diligence review of a Canadian diamond project.

TMAC Resources Inc
Lead of team carrying out due diligence, scoping studies and pre-feasibility study on the Hope Bay Project in northern Canada.

Venture Capital and Private Equity Groups
Lead of due diligence teams for investments and acquisitions on base and precious metals projects world-wide.

Various Clients
Due diligence reviews and valuation of potash projects in Canada.

Curriculum Vitae

Richard J. Lambert

B.S., M.B.A., P.E., P. Eng.

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Details

Position
Executive Vice-President and Chief Operating Officer, Principal Mining Engineer

Discipline
Mining Engineering

Languages
English

Qualifications
- M.B.A. Boise State University , 1995
- B.S. Mining Engineering, Mackay School of Mines, University of Nevada, 1980
- Registered Professional Engineer – Idaho, Wyoming and Montana
- Professional Engineers Ontario
- Registered Member of Society of Mining, Metallurgy and Exploration (SME)
- Surface Mining Association for Research & Technology (SMART)
- Canadian Institute of Mining, Metallurgy & Petroleum (CIM)
- Denver Gold Group

Key Skills
- Due Diligence
- Technical Audits and Mine Review
- Feasibility and Pre-Feasibility Studies and Evaluation
- Cost-Estimation
- Mine Planning and Design
- Short and Long Range
- Production Planning

Synopsis

Richard Lambert has 34 years of domestic and international experience in mine operations and management, mine engineering, project evaluation and financial analysis.

He has been project manager and lead technical advisor for many mine financings, mergers, acquisitions, and privatizations.

Mr. Lambert's experience includes serving as General Manager for URS/Washington Group at the Kapuskasing Phosphate Operations in Ontario, Canada, and in the home office as General Manager of Engineering and Estimating.

Mr. Lambert has extensive experience in mine cost estimating and is skilled in management from project start-up to production, maintenance, and mine planning.

Mr. Lambert has been involved in coal, industrial mineral, base metal, and precious metal mining projects around the world.

He is Past Vice President of Finance, and a member of the Board of Directors for the Society for Mining, Metallurgy, and Exploration, Inc. (SME). He currently serves as member of the Finance Strategic Committee and Resources/ Reserves Committee.

Selected Professional History

Esperanza Copper-Gold Project, Chile
Independent Engineer to Lenders Group in connection with a $1.05 billion limited recourse financing. Due diligence, construction monitoring and operational monitoring.

Caserones Copper Project, Chile
Due diligence, construction monitoring, and operational monitoring as Independent Engineer to Lenders Group.

Constancia Copper-Molybdenum-Silver-Gold Project, Peru
Due diligence, construction monitoring, and operational monitoring as Independent Engineer to Lenders Group.

Antucoya Copper Project, Chile
Due diligence review and construction monitoring as Independent Engineer to Lenders Group.

Barrick Gold Corporation – Gold and Copper Projects worldwide
Project Director for NI 43-101 resource and reserve reporting in 2011 on 29 mines and projects worldwide. Completed mining, mineral reserve, and costs aspects of the NI 43-101 Technical Reports for the Zaldívar copper mine in Chile and Lawlers and Granny Smith gold mines in Australia.

CODELCO – Copper Mines in Chile
Project Manager for valuation and high-level due diligence reports on a number of copper projects in Chile.

Barrick Gold Corporation – Reserve Audits
Project Manager for 2008 reserve audit of 7 mines in North America, South America, Australia, and Africa.

New Gold Inc. – El Morro Gold-Copper Project, Chile
Review of a Feasibility Study prepared by Hatch for Goldcorp Inc., a joint venture partner. NI 43-101 compliant report.

Selected Professional History continued

Companhia Vale do Rio Doce, Brazil
Project Manager for 2005 resource audit of 38 mines in Brazil. Team Leader for audit of reserves and valuation of iron ore, copper, and manganese mines.

Yamana Gold, Brazilian Operations
Project Manager for due diligence review of both open-pit and underground mining for $200 million financing.

New Gold Inc. - Cerro San Pedro Au-Ag Mine, Mexico
NI 43-101 Technical Report and an operational update of a previous report, for New Gold Inc.

Vale - Salobo Copper, Brazil
Performed due diligence in 2007, and reserve reconciliation in 2008.

Las Brisas Copper/Gold, Venezuela
Feasibility study. Developed mine capital and operating costs, economic model, and cash flow analysis. Prepared a NI 43-101 Technical Report. Expert Witness in International Arbitration.

Nkamouna Nickel/Cobalt Project, Cameroon
Feasibility study. Developed mine plans, mine schedule, capital and operating costs and prepared a NI 43-101 Technical Report.

Carbones de la Guasare, Venezuela
Developed detailed capital and operating costs and annual mine budgets for a large coal mine from 1999 to 2004.

Stillwater - TD Securities, Montana
Reviewed mine performance and acted as Independent Engineer for an underground platinum/palladium/nickel mine.

Phelps Dodge - Lumwana Copper Project, Zambia and Ambatovy Nickel Project, Madagascar
Feasibility studies. Developed mine plans, schedules and capital and operating costs.

Mechel Steel, Siberia, Russia
Audit of mineral reserves and valuation of nickel and limestone properties for US SEC 20F filing.

BNP Paribas - Wolverine Coal Project, British Columbia
Project Management and initial due diligence for mining and financial parameters for metallurgical coal. Provided project completion testing and monitoring.

Sumitomo – Mt. Polley Copper/Gold Project in British Columbia and Apex Silvers' San Cristobal Zinc/Silver/Lead Mine, Bolivia
Project Manager for Completion testing and monitoring for $100 million financing in B.C., and Project Manager for evaluation and due diligence for acquisition of 35 per cent interest in Bolivian mine.

Tri Origin Mineral Ltd. - Woodlawn Tailings Retreatment Project, Australia
A NI 43-101 Technical Report prepared for Tri Origin Minerals Ltd. in support of a Feasibility Study and first time disclosure of Mineral Reserves.

Mongolia Minerals - Khotgor Coal Project, Mongolia
A NI 43-101 Preliminary Assessment prepared for Mongolia Minerals in support of the first time disclosure of Mineral Resources.

Selected Professional History continued

Brett Resources - Hammond Reef Gold Project, Ontario
A NI 43-101 Preliminary Assessment prepared for Brett Resources.

Alpart and Jamalco Bauxite (Aluminum) Mines, Jamaica
Developed mine production plans, operating cost estimate, and final bid price for contract mining. Included the cost to deliver bauxite to rail loadout or conveyor loadout for transportation to process plant.

Curriculum Vitae

Ian Weir

B.A.Sc., P.Eng.

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Details

Position
Senior Mining Engineer

Discipline
Mining Engineering

Languages
English, Spanish

Qualifications
- B.A.Sc., Mining Engineering, Queen's University, Kingston, 2004
- Pontificia Universidad Católica de Chile, Exchange Program
- Association of Professional Engineers of Ontario

Key Skills
- Mine Planning
- Mine Development
- Project Evaluation and Financial Modelling
- Capital Budget Planning and Operations Cost Forecasts
- Open Pit Mine Engineering
- Mine Dispatch Systems
- Business Development

Synopsis

Ian Weir is a Senior Mining Engineer with hands-on experience in open pit mining operations. Mr. Weir's experience includes open pit copper and gold mining operations in Northern Chile and Nevada, USA.

Prior to joining RPA, Mr. Weir was a Mining Engineer at Minera Escondida where he was responsible for developing the life of mine plan, optimizing extraction sequences, budgets, and equipment selection and forecasting. While at Minera Escondida, Mr. Weir developed a program to optimize the blending of multiple oxide stockpiles with new material for processing. Mr. Weir worked as a Mining Engineer at BHP Billiton's Minera Spence operation, a start-up copper mine, where he supervised the mine operations team consisting of 45 employees. His responsibilities included mine development, mine production, safety, mine dispatch, and coordinating with the short term planning and maintenance departments. Mr. Weir uses GEMS, Deswik and Whittle software.

Mr. Weir also has a strong entrepreneurial background, including founding, funding, and managing a business supplying materials to the construction industry. Mr. Weir is registered as a Professional Engineer in the province of Ontario.

Selected Professional History

Pela Ema Rare Earth Elements Project, Brazil
Mineral Resource and Mineral Reserve estimates, mining method and capital and operating costs for a Pre-feasibility Study for an open pit heap leach operation for Serra Verde Pesquisa e Mineração and an update of the Mineral Resource, Mineral Reserves and mining sections of the Pre-feasibility Study.

Björkdal Gold Mine, Sweden
Pit design for Mineral Resource and Mineral Reserve estimates and a NI 43-101 Technical Report for Mandalay Resources Corporation.

Kalgoorlie Consolidated Gold Mines, Western Australia
Mineral Resource and Mineral Reserve audits and NI 43-101 Technical Report for Barrick Gold Corporation.

Cowal Gold Mine, New South Wales, Australia
Mineral Resource and Mineral Reserve audits and NI 43-101 Technical Report for Barrick Gold Corporation.

Gold Mine, Sweden
Presented a workshop at the mine to assist the client in identifying operational improvements aimed at increasing cash flow from the operation, and to define work programs to increase geological knowledge and guide future exploration.

Zinc and Gold Project, USA
High level due diligence review.

Uranium Project, Saskatchewan, Canada
Open pit and underground mine design trade-off study.

Gold-Zinc-Copper-Silver-Lead Property Michigan
High level due diligence review.

East Kemptville Tin-Zinc-Copper Project, Nova Scotia, Canada
Preliminary Whittle open pit shell for the review of a Mineral Resource estimate.

Dvoinoye Gold Mine, Far East Russia
Mineral Resource and Mineral Reserve audit for Kinross Gold Corporation.

Curriculum Vitae
Ian Weir

Selected Professional History (continued)

Rare Earth Elements Project, Malawi
High level economic analysis.

Junior Lake Nickel-Copper-Cobalt-PGEs-Gold Project, Ontario, Canada
Preliminary open pit analysis for Landore Resources Canada Inc.

Cerro Bayo Silver-Gold Project, Chile
Updated Mineral Resource and Mineral Reserve estimates and a NI 43-101 Technical Report for Mandalay Resources Corporation.

Doornhoek and Rhenosterfontein Fluorspar Projects, South Africa
Preliminary Economic Assessment for Eurasian Natural Resources Corporation Management Inc. (South Africa).

Minera Escondida (Copper), Chile
Mr. Weir was responsible for developing the Life of Mine Plan and optimizing extraction sequences by balancing various inputs (forecasted metal price, equipment and labour costs etc.). Mr. Weir also worked with multi-level processing (copper sulphide, copper oxide), developed a program to optimize the processing of existing oxide stockpiles with new material, and carried out mine equipment selection and forecasting.

Minera Spence (Copper), Chile
Mr. Weir was responsible for the mine development at a very early stage in this copper mine located in the Atacama desert. He quickly adapted to the local culture and language and led a crew of 45 local operators in the development and production from the pre-stripping phase up until a fully operational mine. Mr. Weir gained valuable hands-on mining experience in all areas of mining operations during this time.

Minera Zaldivar (Copper), Chile – Placer Dome
Mr. Weir worked in the short range planning department. During this time he developed his thesis in measuring and improving operational efficiency.

Barrick Gold Corporation, Toronto, Canada
As an intern, worked in the Exploration Division as a research analyst on junior mining companies.

Goldstrike Mine (Gold), Nevada, USA
Mr. Weir surveyed drill hole locations, ramp locations, and identified mineral/waste for shovels. He conducted a study to consolidate mining software which involved a general comparison to measurements obtained between MineSite and Surpac for calculating volumes for waste and mineral dumps, and trained surveying crew on the adaption of new mine software.

Curriculum Vitae

Kathleen Altman

B.S., M.S., Ph.D., P.E., Q.P.

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Details

Position
Director of Metallurgy and Mineral Processing, Principal Metallurgist

Discipline
Metallurgical Engineering

Languages
English

Qualifications

- B.S., Metallurgical Engineering, Colorado School of Mines, 1980
- M.S., Metallurgical Engineering, University of Nevada, Reno Mackay School of Mines, 1994
- Ph.D., Metallurgical Engineering, University of Nevada, Reno Mackay School of Mines, 1999
- Registered Professional Engineer, Colorado
- Mining and Metallurgical Society of America, Qualified Professional Member
- Certified Mine Safety and Health Administration Instructor
- Society for Mining, Metallurgy and Exploration (SME)

Key Skills

- Feasibility, Prefeasibility, and Scoping Studies
- Process, Infrastructure, and Waste Water Treatment Design
- NI 43-101 Technical Reports

Synopsis

Kathleen Altman has 35 years of diverse experience as a process/metallurgical engineer in the mining industry. Dr. Altman has worked for operating companies, engineering design companies, consulting companies, and in research positions completing projects and engineering designs for gold, silver, copper, cobalt, iron, magnesium, phosphate, rock salt, and water treatment projects. From 2005 to 2009, Dr. Altman held the position of Newmont Professor of Extractive, Mineral Process Engineering, in the Mackay School of Earth Sciences and Engineering, University of Nevada, Reno.

Dr. Altman's international experience includes assignments in Argentina, Australia, Brazil, Burkina Faso, Canada, Chile, Colombia, Dominican Republic, Ecuador, Germany, Guyana, Kazakhstan, Kyrgyzstan, Macedonia, Peru, Russia, South Africa, Turkey, and Venezuela. She has travelled to all seven continents including Antarctica.

Kathleen Altman's particular area of interest and expertise is in collecting representative samples of ore deposits in order to evaluate the metallurgical characteristics of potential mining projects. Accurate metallurgical information is then used in financial models to make informed decisions about the development of the projects and to mitigate the risk of failure.

Selected Professional History

Loma Larga Project, Ecuador
Co-authored a Prefeasibility Study and NI 43-101 technical report for a 1,000 tpd underground mine with a sulphide flotation concentrator. Responsibilities included oversight of metallurgical test work and coordination with outside consultants to complete the process and infrastructure design and cost estimates.

Aurora Gold Mine, Guyana
Acted as Independent Engineer for a group of lenders including due diligence review of the project design, construction monitoring, and production monitoring.

Karma Gold Project, Burkina Faso
Due diligence review of an open pit mine project as Independent Engineer to project lenders.

Barrick Gold Corporation, Gold and Copper Projects, Worldwide
Responsible for the review of metallurgical performance and preparation of NI 43-101 Technical Reports for 17 gold and copper projects, including the Bald Mountain, Goldstrike and Cortez heap leach mines, in support of 2011 disclosure for Barrick Gold Corporation. Site visits were made to Lumwana (Zambia), Porgera (Papua New Guinea), Cowal, KCGM, Kanowna, and Plutonic (Australia), Veladero (Argentina), Lagunas Norte (Peru), Cortez (USA).

Nickel Project, Quebec, Canada
High level due diligence review of underground development and mill expansion for financing purposes.

Mesquite Gold Mine, California
Mineral Resource and Mineral Reserve audit for an open pit heap leach gold mine for New Gold Inc.

Minera Yanacocha Gold Mill, Peru
Metallurgical Engineer responsible for extensive data analysis and report preparation for the Minera Yanacocha Gold Mill owned by Newmont Gold as a contractor for Pincock, Allen and Holt (heap leach and flotation).

Selected Professional History continued

Metallica Resources, Cerro San Pedro Mine, Mexico
Process Engineer responsible for updating a feasibility study for the gold/silver heap leach project in Mexico.

US Gold, Tonkin Springs Mine, Nevada, USA
Process Engineer responsible for completing the process design criteria, operating costs, and other design documents required for a feasibility study of reopening the heap leach gold mine.

Esperanza Copper Project, Chile
Acted as Independent Engineer and peer reviewer of the project including preparation of operational monitoring reports addressed to a group of lenders.

El Volcan Iron Mine, Mexico
Co-authored an audit report for ArcelorMittal Mines SA.

Livengood Gold Project, Alaska USA
Metallurgical Engineer responsible for preparation and oversight of a major metallurgical testing program including sample selection for Tower Hill Mines, Inc.

Eco Ridge Rare Earths and Uranium Mine Project, Ontario, Canada
Reviewed metallurgical testwork and proposed processing flowsheet for recovery of rare earth elements and uranium by solvent extraction and precipitation in support of two Preliminary Economic Assessments and NI 43-101 technical reports.

Alacer Gold Corp., Çöpler Sulphide Expansion Project, Turkey
Lead Process Engineer responsible for the completion of a prefeasibility study to evaluate the viability of developing a pressure oxidation circuit to treat refractory gold ore and Qualified Person responsible for preparation of a 43-101 technical report.

Rio Novo Gold Inc., Almas and Guaranta Projects, Brazil
Qualified Person responsible for metallurgical data evaluation and process design to support Canadian National Instrument 43-101 reports.

Ventana Gold Corp., La Bodega Project, Colombia
Qualified Person responsible for the preparation of a scoping study and a preliminary assessment of a 7,500 tonne per day gold mine that is compliant with Canadian National Instrument 43-101 standards.

Minera Andes Inc., Los Azules Copper Project, Argentina
Qualified Person responsible for the preparation of a Canadian National Instrument preliminary assessment of a 100,000 tonne per day copper concentrator.

Formation Capital Corporation, Idaho Cobalt Project, Idaho, USA
Metallurgical Engineer retained to assemble reports for the feasibility study of a cobalt processing facility.

CVRD Iron Ore, Copper and Manganese Mines, Brazil
Process Engineer who participated in resource audits of Northern Iron, Sossego Copper, Azul and Morro da Mina manganese, and Urucum manganese and iron ore mine in Brazil in order to meet Securities and Exchange Commission due diligence requirements.

Gilbert Development Corporation, CML Iron Project, Utah, USA
Process Manager responsible for oversight of the detailed process engineering to produce iron ore concentrate from magnetite ore. The process design includes SAG milling, ball milling, magnetic concentration and reverse flotation for removal of impurities.

Selected Professional History continued

Minera Andes, San José Project, Argentina
Engineering Manager responsible for oversight of the bankable feasibility study of an underground gold/silver mine in Argentina with engineering completed in Lima, Perú as a contractor to MTB Project Management Professionals, Inc.

Magnesium Metal Plant, Dead Sea, Jordan
Process Engineer responsible for completing the process design needed to complete a prefeasibility study which considered production of magnesium metals from brines associated with the Dead Sea in Jordan as a contractor to Washington Group International.

C.V.G. Minerven, Venezuela
Lead Metallurgist responsible for a site visit and assembling the information required to complete a feasibility study to assess the viability of upgrading and expanding a cyanide leach, zinc precipitation gold recovery circuit at an existing operation.

TVX Hellas S.A., Olympias Project Greece
Area Project Manager responsible for all phases of basic engineering relating to the process and infrastructure design of a $250 million mining project in 2000. Process unit operations include lead, zinc and pyrite flotation and a dual technology (biological oxidation / pressure oxidation) gold recovery plant that utilized traditional carbon-in-leach (CIL), pressure elution and refining processes to produce gold doré. Additional facilities included paste backfill and neutralization of acidic tailings.

Kumtor Operating Company, Kumtor Gold Project, Republic of Kyrghyzstan
Start-up Metallurgist for a 13,200 tonne per day sulphide flotation, carbon-in-leach (CIL) gold recovery EPCM project in the Tien Shah Mountains of central Asia; evaluated metallurgical sampling and accounting systems, trained company personnel, performed mechanical trouble-shooting and lead a task force responsible for determining the causes for low gold recovery and implementing corrective measures; specific consideration was necessary due to processing refractory and preg-robbing ores at an elevation of 4,000 meters.

Agrium, Kapuskasing Phosphate Rock Project, Ontario, Canada
Process Engineer responsible for preparation of technical equipment specifications and evaluation of vendor tender packages.

Wold Trona Company, Inc., Phase I Integrated Pilot Plant, Colorado, USA
Project Engineer during the design of a $6 million pilot plant facility.

Stillwater Mining Company, East Boulder Project, Montana, USA
Process Engineer responsible for the design of a nitrate removal industrial waste water treatment plant for a 2,000 ton per day platinum and palladium mine.

American Rock Salt, Hampton Corners Mine, New York, USA
Process Engineer responsible for the design of an underground process gallery (crushing and screening) at a rock salt mine.

Cotter Corporation, Canon City, Colorado, USA
Metallurgist assigned to develop a Metsim® model of an alkaline leach uranium extraction process and to provide technical assistance in transitioning from an acid leach uranium extraction process to an alkaline leach uranium extraction process.FMC

Wyoming Corporation, RAHCO Soda Ash Recovery, Wyoming, USA
Site Manager responsible for a contract soda ash harvesting project jointly developed by RAHCO International of Spokane, Washington and FMC Wyoming.

Curriculum Vitae

Katya Masun

HB.Sc., M.Sc., MSA, P.Geo.

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Details

Position
Senior Geologist

Discipline
Geology

Languages
English

Qualifications
- HB.Sc. Geology, Lakehead University, Thunder Bay, Ontario, 1997
- M.Sc. Geology, Lakehead University, 1999
- MSA (Master of Spatial Analysis), Ryerson University, 2010
- Association of Professional Geoscientists of Ontario
- Workplace Hazardous Materials Information System Accreditation (195, 2002)
- Transportation of Dangerous Goods Accreditation (2002)
- WCB Mine Health and Safety Act Supervisor Certificate Level II, 2002
- Prospectors and Developers Association of Canada
- Geological Association of Canada, Fellow
- Mineralogical Association of Canada

Key Skills
- Spatial Analysis
- GIS
- NI 43-101 Technical Reports

Synopsis

Katya Masun has more than 18 years of work experience in mineral exploration, evaluation, and project management. Prior to joining RPA, Ms. Masun was a Senior Consultant Resource Geologist for a Canadian junior mining company and a Consulting Geologist with a major engineering firm where she reviewed, interpreted, and compiled technical reports on the company's alluvial and primary source-rock diamond properties, co-authored NI 43-101 compliant technical reports, and guided the company in exploration decisions and programs.

Ms. Masun was also a Project Geologist for a major Canadian exploration company where she participated in exploration programs in a wide variety of environmental and cultural settings while focusing on eliminating health and safety risks and adverse impacts on the communities and environments in which the company worked. She was also a Quality Manager in their mineral processing laboratory, where she developed, implemented, achieved, and maintained accreditation to the ISO/IEC 17025 standard for testing laboratories.

Ms. Masun now specializes in Mineral Resource modelling. She is a user of MapInfo/Discover, ArcGIS, Gemcom, and SPSS statistical software.

Ms. Masun's international experience includes Liberia, China, Ecuador, and Argentina (Au, Ag), Brazil, India and South Africa (diamonds), Australia (Fe), USA (Cu, Ni, PGE), and Mexico (Ag-Pb-Zn).

Selected Professional History

Loma Larga Gold-Silver-Copper Project, Ecuador
Pre-Feasibility Study and NI 43-101 Technical Report for INV Metals Inc.

Quimsacocha Gold-Silver-Copper Project, Ecuador
Mineral Resource estimate and a NI 43-101 Technical Report for INV Metals Inc. in support of the first time disclosure of the estimate.

Kalgoorlie Consolidated Gold Mines, Australia
Mineral Resource audit for Barrick Gold Corporation.

Cerro Casale Gold Project, Chile
Mineral Resource audit for Barrick Gold Corporation.

Gold Mine, USA
Due diligence review of an open pit heap leach gold mine to support a possible acquisition.

Fuller Gold Deposit, Ontario, Canada
Mineral Resource estimate and NI 43-101 Technical Report for Lexam VG Gold Inc.

Gold Project in Northern Ontario, Canada
Review of the Mineral Resource estimate, quality of drill hole assay data, methodology used for block model interpretation, and treatment of high gold assays for a confidential client.

Andacollo Gold-Silver Mine, Argentina
Review of in-house resource estimates, exploration protocol, quality assurance/quality control (QA/QC) and database, and advice on requirements for NI 43-101 compliance for Minera Andacollo Gold S.A.

Curriculum Vitae
Katya Masun

Key Skills (continued)

- 3D Modelling
- Database Management
- Data Compilation

Selected Professional History (continued)

Kokoya Gold Project, Liberia
Review of Mineral Resource estimate and QA/QC for an updated Mineral Resource estimate and NI 43-101 Technical Report for Amlib Holdings PLC.

Beiya Gold Project, China
Preliminary resource estimate and NI 43-101 Technical Report for Asia Now Resources Corp.

Detour Lake Gold Mine, Detour Lake, Ontario, Canada
Mine Geologist, involved in open pit development and mining, grade control, mapping, supervision of a diamond drill grade control program, geological interpretation, ore zone correlation, short and long term planning, and ore reserve estimations.

Renard Diamond Project, Quebec, Canada
Resource review as part of a high level due diligence of the project for Stornoway Diamond Corporation.

Platosa Silver-Lead-Zinc Project, Mexico
Updated Mineral Resource estimate for Excellon Resources Inc.

ACA Howe International Ltd.
Preparation of technical reports to NI 43-101 standards for exploration and project evaluation.

Albany Graphite Deposit, Ontario, Canada
Mineral Resource estimate and NI 43-101 Technical Report for Zenyatta Ventures Ltd.

Vaaldiam Resources Ltd. - Diamond Projects, Brazil and Canada
NI 43-101 Technical Reports for Vaaldiam's primary source rock and alluvial diamond projects in Brazil and Canada. Interpreted kimberlite geology, mineralogy, and diamond results. Compiled and interpreted datasets of exploration results and developed exploration strategies and budgets for the projects. In conjunction with an independent QP, assisted in resource estimations of alluvial deposits. Carried out economic sensitivity studies of diamond recovery methods (alluvial).

Rio Tinto Exploration/Kennecott Canada Exploration Inc. - Diamond Projects, India, Brazil, Mauritania, Canada
Participated in exploration projects in India, Brazil, Mauritania, and North America. Primary role involved conducting petrologic investigations of kimberlite (and related rocks) drill cores, hand specimens, and thin sections. Developed, documented, and maintained procedures for data capture, management and QA/QC protocols. Also interpreted and integrated complex data sets (whole rock geochemistry, mineralogy, micro diamonds) to build up geological models used to guide and direct the evaluation of kimberlite/lamproite deposits. Conducted drill core logging, binocular, thin section microscopy and BSE/microprobe analysis. Interpreted and integrated complex data sets (whole rock geochemistry, mineralogy, micro diamonds) to build up geological models.

Rio Tinto Exploration/Hamersley Iron - Iron Project, Western Australia
Iron Ore exploration and resource evaluation, Pilbara, Western Australia.

Diavik Diamond Mines Inc. - Diamond Project, Northwest Territories, Canada
Diamond exploration, Lac de Gras, Northwest Territories, Canada.

Selected Professional History (continued)

Kennecott Canada Exploration Inc. - Diamond, Nickel-PGE, and Copper Exploration Projects
Project Geologist involved in diamond exploration, Canada and South America, nickel-PGE exploration, Michigan, USA, and copper porphyry delineation, Arizona, USA.

Continuing Professional Development

Course Title	Training Organization	Date
Discover 3D, Advanced Training		March 2010
Managing and Evaluating Resources	Snowden Group	October 2008
Foundations of Surpac	Gemcom Software	July 2008
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