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BENJAMIN C. ESTY
MICHAEL KANE

Restructuring Bulong's Project Debt

> *Project finance lenders are the quintessential optimists of the banking world. Where traditional commercial bankers can see only negatives and risks, project financiers look to see what's do-able and how to manage or isolate risks.*[1]
>
> —Ivor Ries, as quoted in the *Australian Financial Review*

Preston Resources submitted its scheme of arrangement to the Supreme Court of Western Australia on April 21, 2002. The scheme contained a restructuring plan for the secured debt of the company's principal subsidiary, Bulong Operations Pty. Ltd. (BOP). BOP's indebtedness consisted primarily of US$185 million in senior secured notes, plus working capital loans and hedging contracts owed to Barclays Bank. For the restructuring plan to become effective, at least three entities had to approve it. Once Preston had received the court's approval, it could present the plan to the noteholders for approval. If a majority of the noteholders by number and 75% by value approved it, then Preston could present the plan to its shareholders. In exchange for being released from BOP's debt obligations, Preston would have to transfer 95% of BOP's equity to the noteholders. Whether the court, the noteholders, and the shareholders would approve this plan remained to be seen. If they did approve it, BOP and Preston would continue as operating companies; if they did not approve it, the alternative was almost certainly some kind of liquidation.

The Bulong Nickel Project

Nickel and Cobalt Industries

Nickel was used primarily in the production of stainless steel and other alloys. Industry experts estimated that the total global demand for primary nickel was slightly greater than one million tons and would grow at an annual rate of 3.6% through 2010.[2] Nickel reserves of 150 million tons were located in many different countries, though the largest suppliers were Russia, Canada, and Australia.[3] Six producers accounted for 66% of world production, while 30 smaller producers accounted for the rest.[4]

Cobalt, an extremely hard metal, was used in the production of super alloys and various specialty chemicals. Reflecting these limited applications, world cobalt demand was about 31,000 tons

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Research Associate Michael Kane and Professor Benjamin C. Esty prepared this case. This case was developed from published sources. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

annually.[5] Most cobalt was found in nickel and copper ores and was produced as a byproduct of these metals. In fact, nickel producers typically netted cobalt revenues in calculating their nickel production cost.

Nickel and cobalt prices showed considerable volatility (see **Exhibits 1** and **2**). Despite increasing demand for nickel, nickel prices had trended downward in the 1990s to just over US$2.00 per pound in late 1998. Experts ascribed this decline to advances in processing technology and entry by new, low-cost producers. Almost all physical sales of nickel took place under negotiated bilateral contracts between producers, traders, and consumers using London Metal Exchange (LME) prices adjusted for quality, quantity, and delivery terms. Firms also traded nickel contracts on the LME for hedging purposes.

The Bulong Nickel Project

The Bulong nickel project grew out of a discovery in the 1970s of large deposits of high-grade nickel ore near Kalgoorlie in Western Australia (see **Exhibit 3**).[6] Resolute Limited, an Australian gold mining firm, acquired the mining rights to the property in 1987 and conducted various exploratory tests subsequently. In 1995 Resolute hired Bateman Kinhill Kilborn (Bateman), a multinational engineering and construction firm, to assess a proposed nickel mining project. The feasibility study encompassed all aspects of the project, with specialist consulting firms contributing sections on ore reserves, mining procedures, and processing design. It confirmed a shallow ore deposit containing approximately 440,000 tons of nickel and 36,000 tons of cobalt.[*] The initial plan called for processing 600,000 tons of ore annually to produce 8,000 tons of nickel and 670 tons of cobalt, though Resolute envisioned the potential to process over 2.5 million tons of ore annually.[7]

After reviewing the study, Resolute's board approved the construction of several open-pit mines and a central processing plant.[8] According to Bateman's design, the processing plant would use a high-pressure acid leaching (PAL) technology tailored to extract the nickel and cobalt from the laterite ore. Most of the world's nickel was produced from sulfide ores using a smelting technology that was not appropriate for laterite ores. Bateman and others believed that PAL technology held great promise for tapping the world's extensive laterite reserves. In fact, two other companies—Murrin Murrin (projected nickel production of 45,000 tons annually) and Cawse (9,000 tons annually)—were building laterite nickel projects in Western Australia using PAL technology.[9] As shown in **Exhibit 4,** the Bulong process would treat batches of ore in a three-step process:

- **Ore Preparation**: Grinding, screening, and thickening transformed the ore into a slurry.
- **Leaching**: Pumping systems moved the slurry through heating vessels into an autoclave. The slurry was mixed with sulphuric acid and pressurized for 75 minutes at 250°C. This process removed the nickel and cobalt from the ore, leaving them in separate solutions.
- **Refining**: The cobalt and nickel solutions separately underwent further refining prior to a final phase in which electricity was used to extract the metals from the solutions.

Behre Dolbear & Company, a mining consulting firm, reviewed the project as independent engineers for the banks that were financing construction. Although it identified a variety of processing risks, it was generally positive about the project and endorsed the reserve estimates, mining plan, and plant design. The firm's final report concluded:

[*] Consistent with industry conventions, all weights are in metric tons (tonnes): one metric ton = 2,204.6 pounds.

> The plant involves a mixture of new and established technologies that have been tested successfully at pilot scale. While the project is complex and involves an element of moderate technical risk, the flowsheet and proposed plant and equipment are considered appropriate to the project and offer the production of saleable metal without smelting. The projected performances and mineral recoveries are considered reasonable and have been derived through extensive testwork and investigation.[10]

In 1997 Resolute awarded Bateman an engineering, procurement, and construction management (EPCM) contract to develop the Bulong project.[11] By September 1998, the mines were operating and Bateman had substantially completed the processing plant at a total cost of A$265 million.[12] Resolute had financed approximately half the construction cost through a project loan from Citibank and a leveraged lease on plant equipment, and had signed long-term contracts with local suppliers for all the key process inputs, such as sulphuric acid, electricity, and water. Resolute had arranged construction-risk and third-party liability insurance policies that expired upon completion and planned to replace them with a comprehensive insurance package following completion.

Resolute appointed Barclays Physical Trading Limited (BPTL), a wholly-owned subsidiary of Barclays Bank, as the exclusive marketing agent for all of the project's output. BPTL arranged a three-year offtake contract for 100% of the output with the German metals trading firm of Frank & Schulte, a unit of AA-rated VEBA A.G. Bulong expected to transport the metal to the coast over existing roads and then ship it primarily to Europe and Japan. To supplement this plan for physical distribution, BOP entered into forward nickel contracts covering 100% of projected production for 1999 and 2000, as well as multiyear forward foreign exchange contracts (the "hedging facilities"). The nickel contracts locked in a sales price of US$3.30 per pound while the foreign exchange contracts required Bulong to sell U.S. dollars and buy Australian dollars at an average price of US$0.73 = A$1.00.[13] Foreign exchange risk was inherent in the project given that nickel and cobalt sales would be in U.S. dollars while operating expenses were in Australian dollars.

Preston Resources Limited

Founded in 1986 and based in Perth, Preston explored for gold in Western Australia. In 1997 management bought the rights to undeveloped nickel reserves in the state of Queensland (see **Exhibit 1**). Preston hired Bateman to conduct a feasibility study for the construction of a large-scale mining and processing project at the Marlborough site. Bateman's work confirmed the presence of enough high-quality laterite ore to produce 25,000 tons of nickel and 2,000 tons of cobalt annually for 20 years. In May 1998 Barclays Capital, an investment banking affiliate of Barclays Bank, offered to provide A$700 million (US$441 million) in development financing. For a company with virtually no revenue and consolidated assets of A$29 million (see **Exhibits 5** and **6**), the Marlborough project represented a major undertaking.[14]

Preston Acquires the Bulong Nickel Project

While undertaking the first steps for the Marlborough project, Preston got the opportunity to buy the Bulong mine. After some negotiation, Preston agreed to buy Bulong from Resolute in July 1998. Resolute's chief executive, Michael Carrick, said the sale left Resolute with a very strong balance sheet and the freedom to focus on its gold businesses in Australia and Africa.[15] Resolute, in addition to making the usual seller warranties for up to A$300 million in damages, agreed to provide interest-free, subordinated loans to Preston to cover construction cost overruns and working capital needs through February 28, 1999.[16] Preston's management described the transaction this way: "Bulong is a

rare opportunity to acquire a high-quality project almost at the point where it commences production. It will provide substantial cash flows in the near term, and the experience of its skilled work force will greatly assist in the development of our US$450 million Marlborough project."[17] Despite management's optimism, Preston's stock price fell by 12% on the day of the announcement.

Preston acquired 100% of BOP and its wholly owned subsidiary Bulong Nickel Pty. Ltd. (BNP) in November 1998 (see **Exhibit 7**). Assuming the Bulong and Marlborough mines produced at expected levels following the acquisition, Preston would become the world's sixth-largest nickel producer and fourth-largest cobalt producer by 2003.[18] Based on the nature of the mines and the PAL technology, Preston would also be one of the world's low-cost producers (see **Exhibit 8**). In fact, Preston claimed that Bulong would have an average cash production cost of US$1.04 per pound over the first five years versus US$2.10 per pound for other major producers in the western world.[19]

Preston funded the $319 million acquisition price by borrowing A$260.5 million from Barclays in the form of a bridge loan, issuing A$39.9 million of new equity to Resolute, assuming A$11.1 million in liabilities, and paying A$7.5 million of cash on a deferred basis.[20] As part of the transaction, Barclays became the counterparty for Bulong's foreign exchange contracts. At the time, the contracts had a negative net value on a mark-to-market basis of A$33 million, a liability that Preston assumed from Resolute.[21] In addition to assuming the foreign exchange liabilities, Preston guaranteed the Barclays bridge loan and contributed A$30 million of new equity—A$10 million from institutional investors and A$20 million from Resolute—priced at A$1.50 per share. Through this transaction, Resolute became Preston's largest shareholder with a 19.9% ownership interest.

The deal attracted much attention from the local press. One commentator wrote: "Barclays . . . has taken the view that it wants exposure to the nickel business and has chosen Preston to be its vehicle."[22] Another commented:

> Former Perth stockbroker Colin Ikin achieved a minor miracle this week. Using a company with little track record and just $9 million in the bank, he edged closer to lining up more than $1 billion in project finance for nickel mines in Western Australia and Queensland. Within three years [his company] . . . will be one of the country's largest nickel and cobalt producers . . .[23]

According to Preston's financial projections (see **Exhibit 9**), Bulong would have an unleveraged, after-tax internal rate of return of 18% (nominal).[24] The projections assumed average annual nickel and cobalt prices of US$3.25 and US$15.00 per pound, respectively; production of LME-grade nickel at design levels beginning in mid-2000; and an average exchange rate of approximately US$0.68/A$1.00. **Exhibit 10** provides management's production and pricing assumptions. It also shows pricing assumptions from CRU International, a minerals consulting firm hired to provide independent pricing forecasts.

The Senior Secured Note Financing

Because Preston financed the acquisition with a bridge loan that matured on March 31, 1999, it needed to arrange permanent financing for the project. The two most realistic options were a term loan from banks or a project bond placed with institutional investors. Whereas banks had traditionally dominated project financings in Australia, the Murrin Murrin and Cawse projects had recently tapped the U.S. institutional debt market, raising US$420 million and US$225 million, respectively, in 10-year project bonds.[25] Market conditions, however, were less favorable in the fall of 1998 due to the Asian and Russian crises and the recent collapse of Long Term Capital, a U.S. hedge fund.

Before being able to issue a bond, however, Bulong would have to get a rating from Moody's or Standard & Poor's. Given the nature of mining projects in general and Bulong in particular, a project bond would probably not garner an investment-grade rating. In addition, it would require additional fees, some delay, and, possibly, structural changes to the deal at the behest of the rating agencies. In terms of pricing, institutional lenders would expect upfront fees of around 3% and fixed interest rates of approximately 12%. A bank loan, by way of contrast, would have a shorter maturity, lower up-front fees, and a floating interest rate based on a spread over LIBOR—the rate would probably be slightly lower than the fixed rates available in the high-yield bond market. The banks would, however, require Bulong to enter some kind of fixed-for-floating swap contract to eliminate interest rate risk. The combination of the loan rate plus the swap fees would likely be close to the bond rate.

The major drawbacks of a bank financing were likely to be a tighter covenant package with financial performance default triggers, mechanisms for lender control of the project's cash flow, more frequent performance reporting, and required repayment of principal in installments commencing soon after closing. The institutional lenders, on the other hand, typically required less onerous covenant and reporting packages, did not impose tight cash-control measures, and at times *preferred* principal payments to be back-ended. In some cases, they even accepted a "bullet" form of repayment with the full loan amount due in one final payment. The ability to defer principal payments appealed to sponsors because it meant that early cash flows could be applied to project costs, debt service, and equity distributions.

One of the major differences between the two types of financings was that institutional lenders rarely provided additional borrowings. Having closed and funded, they expected to hold their notes with little further interaction with the borrower other than to receive scheduled interest and principal payments. The financing documentation for a bond issue, called an indenture, usually permitted the borrower to incur limited amounts of additional indebtedness, such as subordinated debt and working capital loans. Such loans typically came from other sources because institutional lenders rarely made short-term loans. Bank deals, on the other hand, frequently provided for the same group of banks to make further loans for specific purposes such as to fund working capital requirements.

Another disadvantage of the institutional market was that after a deal had closed and funding had begun it was usually more difficult for the borrower to communicate with the lenders and, therefore, harder to get timely action on requests for waivers and amendments. Because most institutional deals did not require changes, institutional lenders were unaccustomed to requests for amendments. Another reason it was difficult to get approvals for waivers was that institutional deals lacked a lead financial institution through which the borrower could access the lender group. The investment bank that structured and distributed the deal usually did not participate as a lender. Instead, a trustee administered the indenture agreement and processed debt repayments. The trustee, typically a commercial bank, had no stake in the deal and no relationship with the borrower. In contrast, the lead bank in a syndicated term loan was typically a lender and had a relationship with the borrower. For this reason, it took an active role in getting other banks to approve waivers and amendments.

After considering the options, Preston and Barclays decided to issue a project bond in the U.S. Regulation 144A market. On December 15, 1998, Barclays closed a US$185 million private placement of 12.5% fixed rate senior secured notes for BOP. The notes were secured by substantially all of Bulong's assets and were nonrecourse to Preston. They had a 10-year final maturity with semiannual interest payments of US$11.6 million (A$18.3 million) commencing on June 15, 1999. There was a mandatory sinking fund of US$50 million by December 2006, increasing to US$75 million by December 2007, and no covenants relating to the project's operating performance.[26]

The Bulong note indenture was structured somewhat tighter than most institutional deals, with some terms more typical of bank financing. The deal included a "cash waterfall" structure of collateral accounts at Barclays that controlled project cash flow, a "cash trap" that held 75% of operating cash flow for sinking fund obligations and repayment at final maturity, and a debt service reserve account (DSRA). After each interest payment, Bulong had 30 days to replenish the DSRA with the next semi-annual interest payment. Also, there were covenants restricting other indebtedness (to approximately US$13 million), liens, shareholder distributions, and affiliate transactions. Waivers and amendments of indenture provisions required the approval of a majority of the noteholders, by value, except for interest rate changes, which required unanimous approval.

The notes received subinvestment-grade ratings from both Moody's Investors Service (B2) and Standard & Poor's (B+). Moody's commented:

> The rating acknowledges Bulong's projected low cost position, short-term hedging program, strong offtake agreement, and very strong project structure as supporting factors for the rating. However, the rating also considers weak current and future potential nickel pricing, downward trends in cobalt pricing, technological and commissioning risks, the absence of other ongoing operations to help support the project during ramp-up, as well as the lack of any meaningful ownership or support from highly creditworthy third parties.[27]

Proceeds to Bulong, after an underwriting fee of US$5.5 million and offering expenses of US$2.4 million, were US$177 million. The proceeds were used to repay Barclay's bridge financing (US$165 million including accrued interest) and to prefund the debt service reserve account (US$11.6 million to cover the June 1999 interest payment). The note issue left BOP with a pro forma debt-to-total capitalization ratio of 72% and cash reserves of A$66 million.[28]

Bulong Performance from 1998 to 2000

Start-Up Operations

Project start-up consisted of two sequential phases. *Commissioning* involved testing the plant's major systems, while *ramp-up* involved processing progressively larger volumes of ore until the plant reached the designated output and quality levels. Bateman's responsibilities under the EPCM contract ended with "practical completion," defined as the completion of commissioning. While not responsible for ramp-up, Bateman had agreed to make key personnel available as needed. The EPCM contract provided that Bateman would be responsible for construction cost overruns up to A$5 million and for liquidated damages up to A$2 million if the plant did not meet certain operating benchmarks during ramp-up.[29] Bulong management assumed commissioning would be completed in December 1998 and ramp-up would be completed 18 months later in June 2000.[30] Behre Dolbear, which conducted an independent technical review in connection with the note offering, estimated it would take at least two years to reach full capacity.[31]

Contrary to expectations, Bulong did not complete commissioning by December 1998.[32] When the company fed ore into the autoclave, key parts failed almost immediately, causing a two-month delay. Operations resumed in March 1999 but stopped in August because certain critical valves were limiting throughput. After installing larger valves, the plant soon achieved its designed capacity. In October, Preston CEO Ikin commented:

> Any company dealing with the latest processes anticipates technical issues in the commissioning and ramp up stages of a new plant and I am pleased to report that at Bulong

we continue to make significant progress. Commercial metal production commenced at Bulong in April 1999 and target quality was achieved by May. At the date of this report some 1,000 tonnes of nickel and 16 tons of cobalt has been shipped and sold.[33]

Yet, two months later, gypsum precipitation began to clog the pipes, pumps, and valves.[34] Although Bulong managed to solve this problem by May 2000, a number of valves and seals failed shortly thereafter, causing six weeks of lost production.[35] Operations resumed in July, only to encounter further problems involving fluid contamination. After resolving this problem, Bulong achieved record output in August, September, and October 2000. Management commented, "Since June plant performance has improved dramatically, and the operation is now covering cash operating costs but is not generating sufficient funds to clear all past financial obligations."[36] Except for scheduled maintenance interruptions and problems caused by a power outage in the region, Bulong operated continuously during 2001. However, processing rates reached design levels for only short periods, resulting in substantial shortfalls in production volumes (see **Exhibit 11**).

Ikin summarized the history of Bulong by saying it ". . . has not worked as we expected at all, it has not worked as the experts expected and the end result is not pretty, I'm afraid."[37] Bulong was not alone in its difficulties. According to a local paper, Western Australia's three laterite nickel projects (Bulong, Murrin Murrin, and Cawse), which cost $1.6 billion to develop, were operating at 50% capacity and had cash costs well above the expected US$1.00 per pound.[38] By 2001, all three projects were in default.

Start-Up Financing

Although the projections showed positive operating cash flow beginning in 1999 (see **Exhibit 9**), the operating problems created a downward cash flow spiral: delayed cash flows limited Bulong's ability to pay for needed repairs, which, in turn, further delayed revenue generation. In an attempt to raise cash, Preston initially tapped Resolute's obligation to make interest-free subordinated loans. Borrowings from Resolute reached A$44 million by June 1999 and A$47 million by June 2000.[39] Preston then turned to Barclays for an A$5 million working capital loan in October 1999—this loan would later grow to A$30 million by year-end 2000. At the time, Preston considered two other options to raise additional funds. First, it considered issuing A$75 million of new equity, an option that was limited by the fact that Preston had been delisted from the Australian Stock Exchange (ASX) in October 1999, with a final trading price of A$0.27 per share (see **Exhibit 12**). Preston also considered a joint venture with the Australian firm Anaconda Nickel Ltd. In the end, management did not complete either option.[40]

Although Bulong made both required interest payments in 1999, it failed to replenish the DSRA within 30 days after the December payment. Under the note indenture, failure to replenish the account constituted an event of default, which could have triggered an acceleration of the notes. Instead, Preston, Barclays, and the noteholders executed a 90-day "standstill agreement" in January 2000 by which they agreed not to take any enforcement actions and to work toward a restructuring of the notes. They subsequently renewed the agreement when it expired in April.[41]

Bulong failed to make the June 2000 interest payment as well, creating a second event of default. When Preston closed its books for the 2000 fiscal year (see **Exhibits 5** and **6**), it reported an abnormal pretax charge of A$387 million, including an A$218 million write-down of the Bulong project to a carrying value of A$115 million; the value was determined by discounting 10 years of projected cash flows. Preston also disclosed that it was suing Bateman for A$5.75 million under the EPCM contract and for "substantial" damages resulting from the original feasibility study. Finally, Preston reported its unrealized exposure under the hedging facilities had become an A$124 million liability.[42] Whereas

Preston wrote off part of its investment in the Bulong project, Resolute wrote off its investment entirely (A$48 million of Preston stock and A$49 million of subordinated loans).

By early 2002 Bulong's working capital borrowings from Barclays had increased to A$43.5 million and its unrealized losses on the hedging facilities had increased to A$240 million, largely due to the foreign currency contracts, as the Australian dollar had depreciated from US$0.63 in November 1998 to US$0.51 in December 2001.[43] In addition to the Bulong loans, Barclays had also been making working capital loans for the development of the Marlborough project. Preston pledged all the Marlborough assets to Barclays as collateral for these loans.[44] As a result, Barclays joined the noteholders as secured creditors. In total, Bulong and Preston owed the secured creditors more than A$700 million.[45]

The First and Second Restructuring Plans

In April 2000 Preston announced an agreement in principle with the bondholders on a plan to restructure the senior secured notes.[46] The main points were eliminating the DSRA requirement, capitalizing the June and December 2000 interest payments in the form of new bonds, and transferring a 50% equity interest in Preston Nickel Holdings Pty. Ltd. to the noteholders and Barclays. Preston expected the restructuring would be completed by the middle of the year, following approvals by the Australian courts, the noteholders, and Preston's shareholders.[47]

During 2000 Preston continued to discuss the restructuring with Barclays and the noteholders but could not reach an agreement until December, when it announced a *second* restructuring plan. Like the first plan, the second plan dropped the DSRA, maintained a 12.5% annual interest rate, and capitalized the June and December 2000 interest payments. However, it replaced all scheduled future interest and principal payments with a mechanism that effectively converted the notes into equity. A new sweep account would be set up to accumulate cash flow after operating expenses. At the end of each quarter, any balance in the account in excess of A$15 million would be distributed as debt service to the noteholders and Barclays. The notes and working capital loans would mature only as payments under this mechanism were sufficient to repay the outstanding principal amounts plus accrued interest. Similarly, the obligations under the hedging facilities would be payable from operating cash flow, as available, ratably with payments on the notes and working capital loans. Barclays would agree to release Preston from its guarantees of the hedging facilities and the working capital loans. In consideration of these changes, Preston would transfer 95% of its equity interest in the Bulong companies to the noteholders and Barclays. Preston would retain the other 5% of Bulong, own 100% of the Marlborough project, and be essentially debt free. Referring to the second plan, CEO Ikin concluded, "If we go ahead [with the second restructuring plan], we will live to face another day. We will have 5% of the company and no debt."[48]

The second plan also included a side agreement between Preston and Resolute under which Resolute agreed to forgive subordinated loans and accrued interest totaling A$49 million and to surrender its ownership interests. In return, Preston agreed to release Resolute from all obligations under the original sale agreement.[49]

Management originally predicted that the second plan would go into effect during the first half of 2001.[50] Yet the summer came and went with no agreement. In December 2001, almost two years after Bulong's initial default, Preston announced that the noteholders had approved the second plan together with a new standstill agreement. Preston estimated the restructuring would take effect by the end of March 2002. Preston's CEO Adrian Griffin said:

> These arrangements will provide a positive environment for the continuation of operations at Bulong and will . . . permit the project debt to be restructured, relieving the operation from the financial burden of making further interest and principal repayments . . . there will be no adverse impact on unsecured creditors, who will be advantaged by the improved financial position . . .[51]

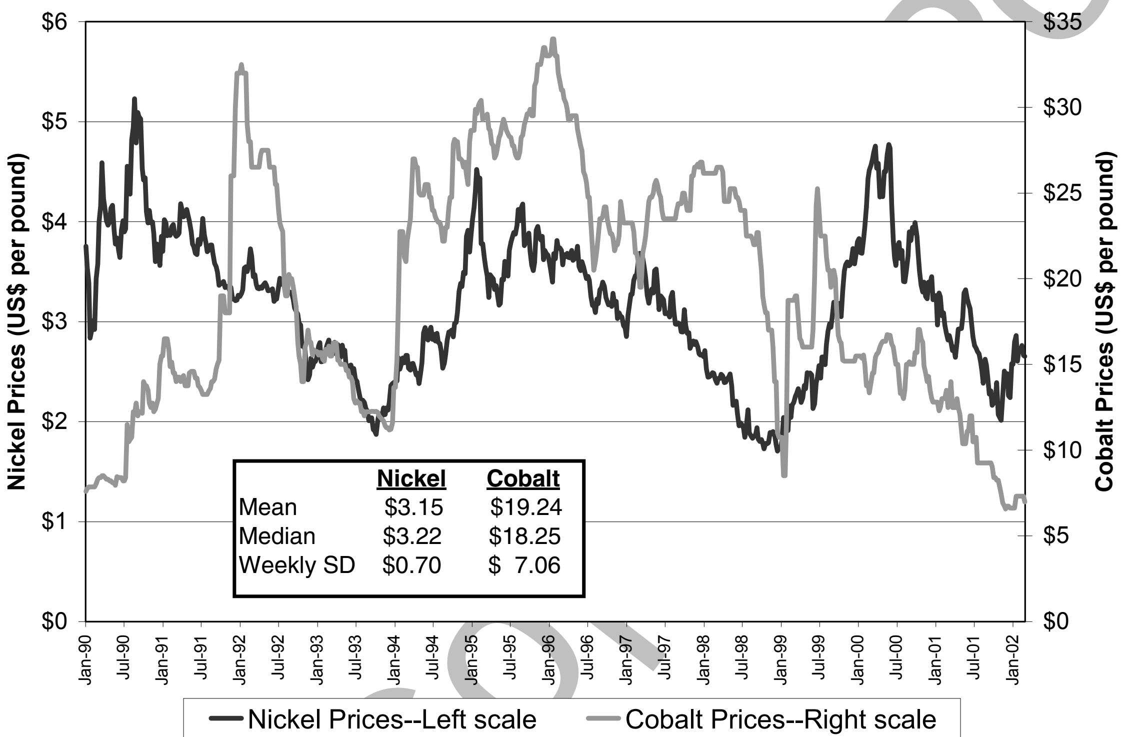
Conclusion

On April 21, 2002, Preston announced that it had submitted two schemes of arrangement (one for BOP and one for its subsidiary BNP) to the Supreme Court of Western Australia. To be approved, Australian law required the court to determine that the restructuring plan tangibly benefited the debtor and that the debtor would be legally solvent under the plan. In addition to court approval, Australian law required that 75% of the noteholders by value and a majority by number also approve the schemes. Separately, pursuant to rules of the Australian Stock Exchange, Preston's shareholders had to approve the transfer of 95% of the Bulong companies to the noteholders and other secured creditors. Court hearings on the schemes began on April 26 and concluded on May 17 with a determination that the schemes qualified for submission to the secured creditors. Management planned to present the schemes to the secured creditors at a special meeting on June 20. Assuming the secured creditors and the Supreme Court approved the schemes, management would then present the restructuring plan to shareholders at the company's annual general meeting on July 15.

If the secured creditors did not approve the schemes of arrangement, some form of liquidation was likely to occur. As secured creditors, Barclays or any of the noteholders could place both Preston and Bulong in receivership. The receiver would have the power to seize and sell collateral for the secured creditors' benefit. As a point of reference, the Cawse nickel project and its parent corporation, Centaur Mining, had gone into receivership in 2001. The combined entity had total debts of A$654 million, including a US$225 million bond issued to finance the Cawse project. Through an auction, the receiver sold the Cawse project for an estimated US$22.1 million (A$35 million).[52] Another possibility, leading to a similar outcome, would be that one or more unsecured creditors would file for the appointment of a liquidator. Although there would be no assets available to a liquidator for the unsecured creditors, initiating the process would, as a practical matter, terminate project operations and force Barclays and the noteholders to pursue a receivership to protect their interests. Yet a third possibility was that Preston could cause Bulong to file for protection from creditors and seek reorganization under the Australian equivalent of Chapter 11 of the U.S. Bankruptcy Act. However, Australian law gave secured creditors a 10-day period in which they could block a debtor's reorganization proceeding and pursue their rights in receivership.

None of these options seemed as attractive as restructuring the project's debt obligations, but Preston had a long way to go before the restructuring plan could take effect. That said, Griffin and Preston's other senior managers had to be sure they had structured the best deal possible and that the noteholders and shareholders would approve it.

Exhibit 1 Historical Metal Prices (US$ per pound)



Source: Adapted from Datastream.

Exhibit 2 London Metals Exchange (LME) Nickel Prices

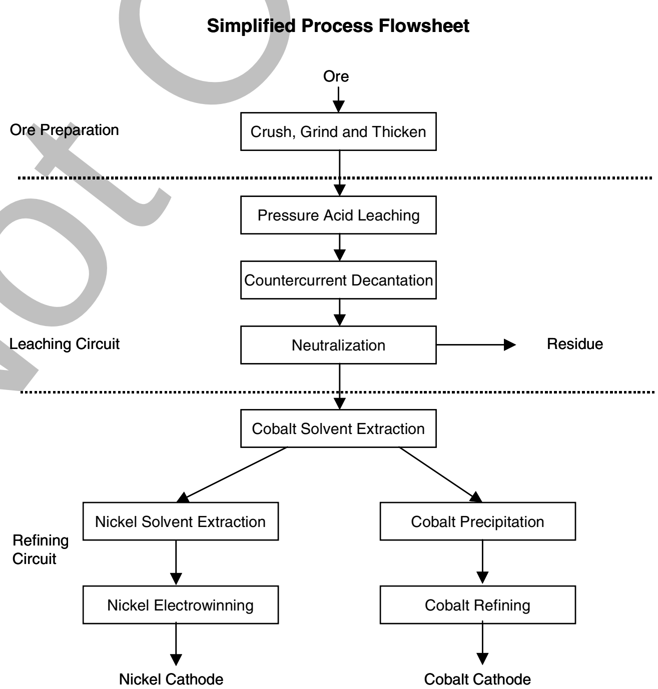
	Spot and Forward Prices for Nickel (US$ per pound)			
Date	**Cash Settlement**	**3-Month**	**15-Month**	**27-Month**
1/5/98	$2.71	$2.75	$2.86	$2.90
6/30/98	1.94	1.98	2.06	2.11
12/31/98	1.86	1.89	2.00	2.09
6/30/99	2.45	2.49	2.55	2.59
12/30/99	3.83	3.86	3.53	3.21
6/30/00	3.74	3.63	3.12	2.79
12/29/00	3.26	3.10	2.97	2.92
6/29/01	2.75	2.73	2.66	2.61
12/28/01	2.58	2.48	2.51	2.54
4/30/02	3.20	3.21	3.17	3.15

Source: Adapted from London Metals Exchange Web site <http://www.lme.co.uk/>.

Exhibit 3 Map of Australia

Source: Adapted by casewriter.

Exhibit 4 Ore Processing



Source: Adapted from Bulong Prospectus.

Exhibit 5 Preston Resources Limited—Profit and Loss Statement (Consolidated)[a]

	June 30 Year End (A$ 000)			
	1998	**1999**	**2000**	**2001**
Operating revenue	$231	$4,023	$62,259	$90,215
Payments to employees and suppliers	1,284	18,814	72,701	118,489
Depreciation and amortization	63	3,065	23,071	9,754
Interest expense	177	20,893	40,579	54,745
Other income (expense), net	(174)	(20,273)	(23,485)	37,859
Operating loss before abnormal items	(1,467)	(18,476)	(97,577)	(54,914)
Abnormal items before income tax[b]	(333)	(5,037)	(386,773)	(192,479)
Operating loss before income tax	(1,800)	(23,512)	(484,350)	(247,393)
Income tax attributable to operating loss (tax rate = 36%)	--	217	(12,869)	--
Operating loss after income tax	**$(1,800)**	**$(23,295)**	**$(497,219)**	**$(247,393)**
Accumulated losses:				
At the beginning of the financial year	(10,194)	(11,994)	(35,289)	(532,508)
At the end of the financial year	(11,994)	(35,289)	(532,508)	(779,901)
Stock price information:				
Closing price on June 30	$2.71	$0.82	n/a	n/a
Number of shares outstanding (millions)	43.2	64.7[c]	67.3[d]	67.3[d]

Source: Preston Resources Limited Annual Report 1999, 2000, and 2001 (unaudited).

[a] Consolidating the principal subsidiaries of Preston Resources Limited, of which only Bulong Operations Pty. Ltd. and Bulong Nickel Pty. Ltd. had material assets and operations during the years shown.

[b] In FY00 and FY01, the write-offs were primarily due to Bulong (A$218 million), Marlborough (A$6 million), exploration costs (A$36 million), and deferred Bulong financing costs (A$15 million); also unrealized foreign exchange losses on the hedging facilities (A$303 million).

[c] Does not include 27.8 million shares issued to Resolute Limited at A$1.50 as part of the Bulong acquisition. In addition, there were 5.35 million shares under option agreements with exercise prices ranging from A$2.50 to A$2.74 at June 30, 1999.

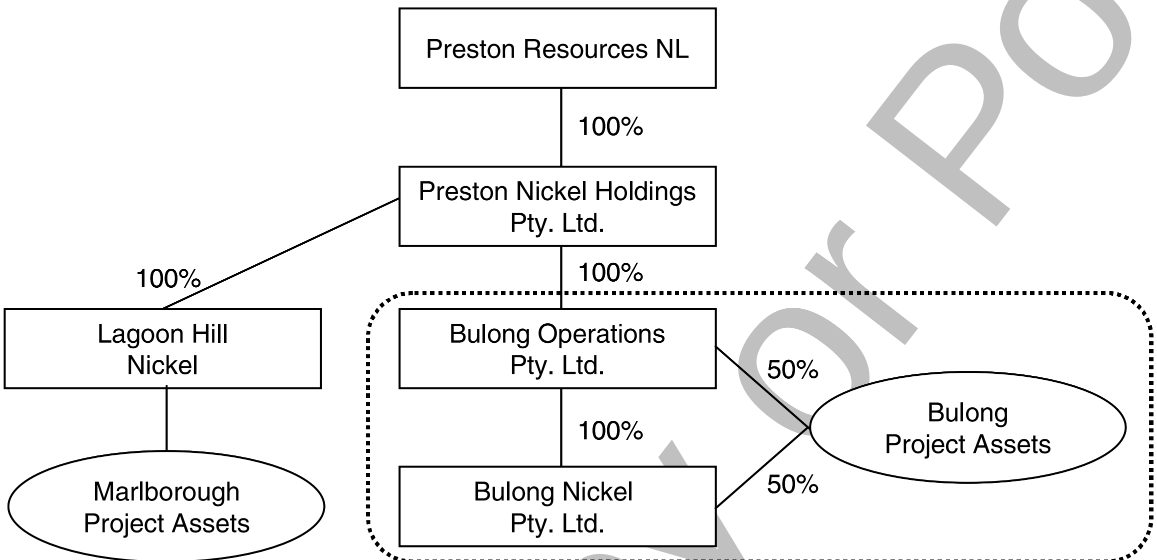
[d] There were 8.37 million shares under option agreements with exercise prices ranging from A$1.50 to A$2.74 at June 30, 2000 and June 30, 2001. Preston was delisted in October 1999, with a last trading price of A$0.27.

Exhibit 6 Preston Resources Limited—Balance Sheet (consolidated)

	June 30 Year End (A$ 000)			
	1998	1999	2000	2001
Current Assets				
Cash	$2,233	$21,442	$824	$301
Receivables	36	5,237	1,113	17,104
Inventories	--	10,741	8,942	8,669
Other	--	6,608	2,886	2,457
Total Current Assets	2,268	44,028	13,765	28,531
Non-Current Assets				
Receivables	--	--	--	--
Investments	110	269	1	1
Prop., plant, and equipment	257	367,839	115,100	109,481
Exploration expenditure	26,634	33,729	--	--
Other	60	46,865	2,414	1,023
Total Non-Current Assets	27,061	448,702	117,515	110,504
Total Assets	29,329	492,730	131,280	139,035
Current Liabilities				
Accounts payable	2,397	16,738	57,031	59,059
Borrowings	10,000	53,643	375,296	508,493
Provisions	14	2,881	603	932
Other (hedging liabilities)	--	--	123,992	243,616
Total Current Liabilities	12,411	73,262	556,922	812,100
Non-Current Liabilities				
Accounts payable	--	3,143	2,098	1,157
Borrowings	--	279,964	--	--
Provisions	--	69,514	2,631	3,542
Total Non-Current Liabilities	--	352,621	4,729	4,699
Total Liabilities	12,411	425,882	561,651	816,799
Net Assets	16,918	66,848	(430,371)	(677,764)
Equity				
Share capital	26,825	100,575	102,137	102,137
Reserves	2,087	1,562	--	--
Accumulated losses	(11,994)	(35,289)	(532,508)	(779,901)
Total Equity	16,918	66,848	(430,371)	(677,764)

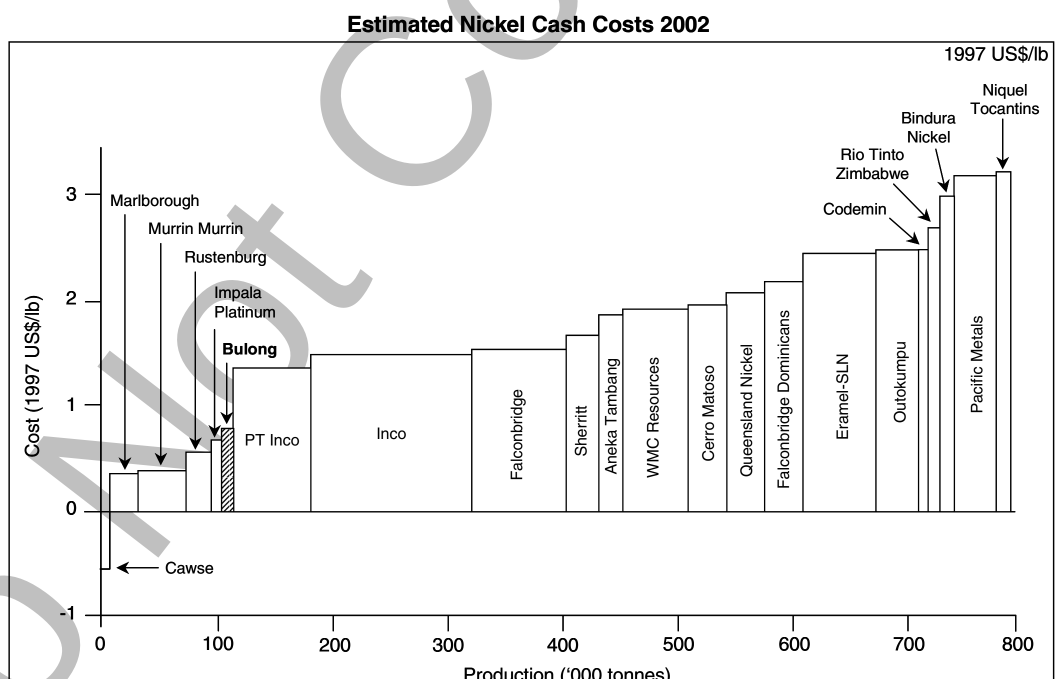
Source: Adapted from Preston Resources Limited Annual Reports from 1999, 2000, and 2001 (unaudited).

Exhibit 7 Corporate Structure



Source: Adapted from Bulong Prospectus, p. 16.

Exhibit 8 Bulong Cost Position



Source: Adapted from Bulong Prospectus, Annex B, p. B-10.

Note: Assumes the byproduct cobalt is sold at $15.00 per pound.

Exhibit 9 Bulong Operations Pty. Ltd.—Summary Financial Projection (A$ in thousands, except otherwise indicated, in constant/real 1998 dollars)

	Projected Fiscal Years Ending June 30										
	1999 (partial year)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Financial Projections											
Revenues											
Nickel	$15,777	$99,241	$89,392	$82,401	$82,867	$77,635	$89,099	$83,706	$86,384	$80,560	$92,767
Cobalt	10,658	64,445	54,492	47,604	33,382	25,053	31,841	33,174	30,211	26,446	35,902
Selling & marketing exp.	(813)	(4,664)	(4,831)	--	--	--	--	--	--	--	--
Net oper. revenue	25,622	159,022	139,053	130,005	116,249	102,689	120,940	116,880	116,596	107,007	128,669
EBITDA	14,834	91,982	69,662	60,058	49,024	38,741	56,176	51,913	52,133	42,912	58,148
Interest expense	18,353	36,706	36,706	36,706	36,706	36,706	19,412	14,486	10,036	4,896	284
Interest income	601	875	866	3,420	4,645	5,521	5,936	339	245	149	52
Tax expense (credit)	3,166	(18,910)	(5,854)	(3,251)	348	6,920	(8,176)	(6,640)	(8,464)	(6,881)	(13,862)
Net Income	(8,015)	18,775	9,334	4,708	(1,691)	(13,374)	13,483	10,733	13,975	11,126	23,572
Cash Flow Items											
Capital expenditures	3,000	3,025	3,025	3,025	3,025	3,025	3,025	3,025	3,025	3,025	3,025
Depreciation	6,737	13,987	14,155	14,333	14,522	14,724	14,940	15,173	15,425	15,700	16,002
Amortization	1,525	4,479	4,479	4,479	4,479	4,479	4,479	4,479	4,479	4,479	4,479
Incr/(Decr) in Net WC	25,167	5,457	157	1,848	(770)	558	1,085	625	771	546	(998)
Balance Sheet Data											
Adjusted cash	16,001	30,297	37,957	43,431	47,108	1,513	1,513	1,513	1,513	1,513	55,273
Total debt	293,651	293,651	293,651	293,651	293,651	155,298	155,887	80,288	39,171	2,270	--
DSR account	18,363	18,353	18,353	18,353	18,353	9,706	7,243	5,018	2,448	142	--
Cash sweep account	--	38,350	61,330	77,753	88,784	--	--	--	--	--	--
Net debt	275,298	236,948	213,968	197,545	186,514	145,592	108,644	75,270	36,723	2,128	--
Shareholders' equity	113,788	132,562	141,897	146,604	144,914	131,540	145,003	155,736	169,711	180,837	204,409
Key Credit Statistics											
EBITDA / Net interest exp.	NM	2.6x	1.9x	1.8x	1.5x	1.2x	4.2x	3.7x	5.3x	9.0x	NM
Net debt / EBITDA	NM	2.6x	3.1x	3.3x	3.8x	3.8x	1.9x	1.4x	0.7x	0.0x	NM

Source: Adapted from Bulong Prospectus.

Exhibit 10 Summary of Significant Assumptions for the Financial Projections

	Projected Fiscal Years Ending June 30										
	1999[a] (partial year)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Production Assumptions											
Ore mined (000 tons)	1,066	1,203	760	1,134	492	695	760	671	649	858	266
Mined grade											
Nickel (%)	1.25	1.38	1.36	1.31	1.23	1.18	1.21	1.30	1.28	1.30	1.13
Cobalt (%)	0.09	0.13	0.11	0.12	0.12	0.09	0.10	0.13	0.08	0.09	0.09
Ore processed (000 tons)	144	537	600	600	600	600	600	600	600	600	600
Processed grade											
Nickel (%)	1.64	1.74	1.62	1.43	1.39	1.31	1.50	1.41	1.45	1.34	1.55
Cobalt (%)	0.16	0.15	0.14	0.15	0.11	0.09	0.12	0.12	0.11	0.10	0.13
Recovery Rates											
Nickel (%)	85.3	92.1	93.1	92.3	93.7	93.7	93.7	93.7	93.7	93.7	92.9
Cobalt (%)	85.3	90.7	91.4	90.5	92.0	91.8	91.8	91.8	91.8	91.8	91.8
Production—output sold[b]											
Nickel (tons)	1,367	8,604	9,033	7,925	7,820	7,337	8,405	7,899	8,152	7,522	8,662
Cobalt (tons)	141	737	758	794	630	513	651	678	618	535	726
Nickel cash production cost w/cobalt credit (US$/lb)	$2.58	0.18	0.28	0.55	0.95	1.32	0.91	0.93	0.99	1.24	0.87
Financial Assumptions (in constant 1998 dollars)											
Pricing—Bulong Management Assumptions											
Nickel (US$/lb)[c]	$3.30	3.30	3.10	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
Cobalt (US$/lb)[d]	$21.60	25.00	22.50	18.75	16.25	15.00	15.00	15.00	15.00	15.00	15.00
Pricing—CRU Assumptions											
Nickel (US$/lb)	$2.03	2.07	2.25	2.30	2.54	2.91	3.03	3.03	3.03	3.03	3.03
Cobalt (US$/lb)	$22.56	19.95	16.31	13.39	11.90	11.31	10.74	10.20	9.69	9.21	8.74
Exchange Rate: US$/A$	0.63	0.63	0.69	0.69	0.68	0.68	0.68	0.68	0.68	0.67	0.67

Source: Adapted from Bulong Prospectus.

[a] Represents the six-month period beginning with the commencement of commercial production in January 1999.

[b] Production has been adjusted in 1999 to take account of work-in-progress.

[c] Reflects existing nickel hedges for 100% of production in fiscal years 1999 and 2000.

[d] Reflects the weighted average price for cobalt based on the hedged cobalt price for 80 tons of cobalt at US$19 and a forecast spot cobalt price of US$25 in fiscal year 1999.

Exhibit 11 Actual vs. Target Performance for the Bulong Project (all amount in A$000 unless noted) [a]

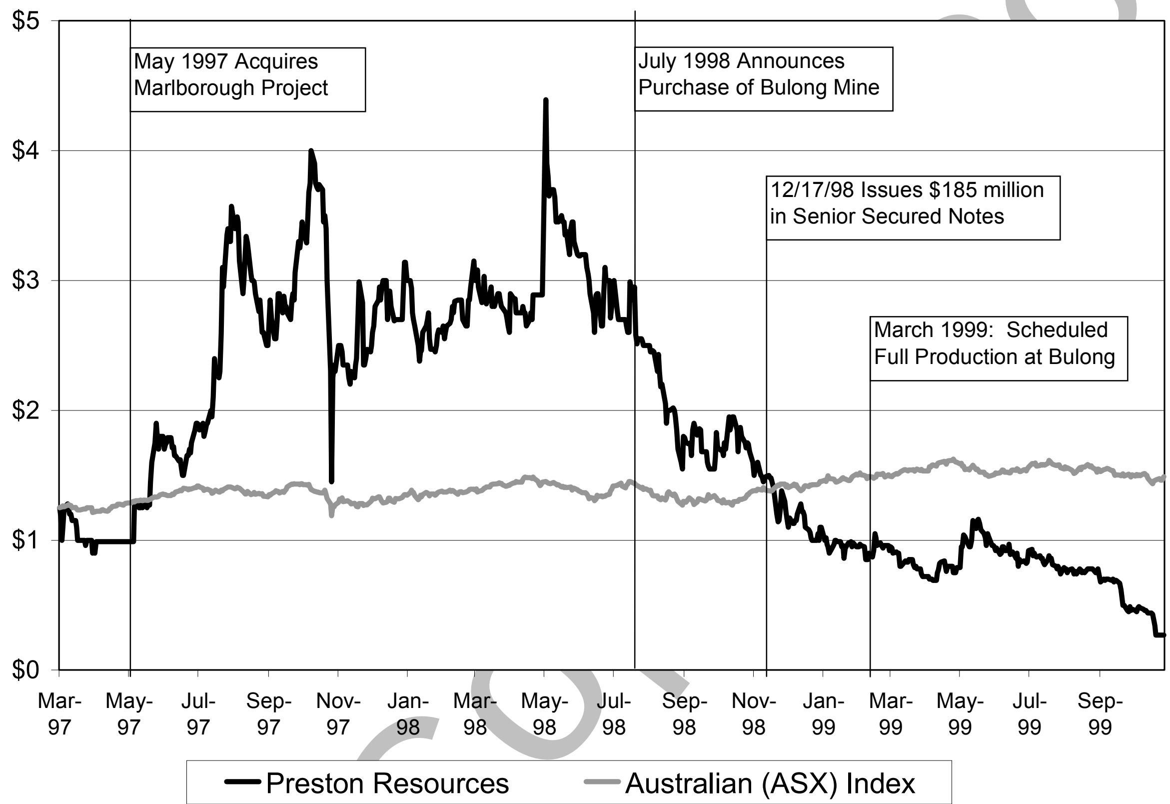
	11 months to May 2000			12 months to June 2001			9 months to March 2002		
	Actual	Target	Variance	Actual	Target	Variance	Actual	Target	Variance
Production									
Inputs									
Leach Feed	276,607	334,145	(57,538)	437,493	459,350	(21,857)	335,785	399,204	(63,419)
NI Grade (%)	1.91%	1.80%	0.11%	1.82%	1.83%	-0.01%	1.78%	1.74%	0.04%
CO Grade (%)	0.14%	0.15%	-0.01%	0.14%	0.14%	0.00%	0.13%	0.12%	0.01%
Output (b)									
Ni (tons)	4,006.4	4,908.0	(901.6)	6,352.5	7,579.0	(1,226.5)	4,894.6	6,012.4	(1,117.8)
Co (tons)	213.6	335.0	(121.4)	407.6	554.0	(146.4)	293.5	403.7	(110.2)
Metallurgical Performance									
Plant Recovery Rate									
Nickel	70.5%	92.0%	-21.5%	77.5%	92.9%	-15.4%	82.6%	86.6%	-4.0%
Cobalt	56.5%	91.6%	-35.1%	70.2%	91.6%	-21.4%	67.7%	82.0%	-14.3%
Plant Utilization	32.0%	93.8%	-61.8%	87.8%	88.2%	-0.4%	na	na	na
Cash Operating Costs									
Commercial	$5,892.3	$5,478.3	($414.0)	$6,995.8	$6,870.0	($125.8)	$6,016.1	$5,226.7	($789.4)
Operations									
Mining	$5,888.4	$7,208.6	$1,320.2	$6,455.6	$8,244.4	$1,788.8	$6,749.8	$5,759.9	($989.9)
Leaching	$24,335.4	$23,825.7	($509.7)	$27,920.9	$32,613.5	$4,692.6	$20,167.0	$21,209.9	$1,042.9
Refining	$19,178.2	$17,927.6	($1,250.6)	$33,712.3	$27,030.5	($6,681.8)	$22,685.9	$24,037.5	$1,351.6
Health & Safety	$0.0	$0.0	$0.0	$983.5	$971.2	($12.3)	$769.1	$800.7	$31.6
Maintenance	$2,025.7	$1,966.3	($59.4)	$12,914.2	$12,385.4	($528.8)	$10,246.0	$8,653.3	($1,592.7)
Production Services	$20,223.4	$12,407.9	($7,815.5)	$3,211.6	$4,985.6	$1,774.0	$1,588.9	$2,119.3	$530.4
Total	$77,543.4	$68,814.4	($8,729.0)	$92,193.9	$93,100.6	$906.7	$68,222.8	$67,807.3	($415.5)
$ Cost per ton of metal	$18,353	$13,196	($5,157.0)	$13,647	$11,270	($2,376.2)	$14,144	$10,946	($3,198.0)
Revenue (b)									
Nickel sales							$50,712.3		
Cobalt sales							$5,505.6		
Total							$56,217.9		
Labor									
Number of FTE							219.1	225.0	5.9
$ Cost per ton of metal							$3,765	$2,853	($912)

Source: Company documents, casewriter analysis.

[a] Financial statements are for the project only. They do not include certain head office revenue, executive compensation, and certain administrative expenses.

[b] Metal output may exceed or be less than metal sales depending on net inventory change. In the FY02 period above, sales exceeded output.

Exhibit 12 Preston Resources Stock Price History (in A$)



Source: Adapted from Datastream.

Endnotes

[1] Ivor Ries, "Banks Miss Out on Nickel Coup," *Australian Financial Review*, July 24, 1998, p. 76.

[2] Annex B, p. B-3.

[3] U.S. Geological Survey, *Mineral Commodities Survey, 2002*, at <http://minerals.usgs.gov/minerals/>.

[4] U.S. Geological Survey, *Minerals Yearbook-2000*, Nickel–World Review, at <http://minerals.usgs.gov/minerals/>.

[5] Annex B, p. B-15.

[6] Barclays Capital, *Bulong Operations Pty. Ltd. 12 ½% Senior Secured Notes due 2008, dated December 17, 1998*. The offering documents are referred to as the Prospectus, Annex A, and Annex B.

[7] Prospectus, pp. 42, 52; Annex A, p. A-12.

[8] Annex A, p. A-12.

[9] M. Weir, "Laterites Fall Well Short of Launch Targets," *The West Australian*, May 1, 2001, p. 33.

[10] Annex A, p. A-5. Technically, this assessment came from their final report as independent engineers for the bond issue, not for the construction financing.

[11] Prospectus, p. 51.

[12] Annex A, p. A-14.

[13] Preston Annual Report 1999, p. 43.

[14] Preston Annual Report 1998, pp. 2, 8, 10, and 20; Preston press release, July 1998.

[15] "Resolute Says Settles on Bulong Sale," *AAP News*, November 5, 1998; Source: *World Reporter*.

[16] Prospectus, p. 32.

[17] Preston Market Release, July 22, 1998, from Web site, New Mine, March 28, 1999.

[18] Preston Annual Report 1999, p. 6.

[19] Prospectus, p. 42.

[20] Preston Annual Report 1998, p. 18; includes casewriter estimates to simplify the transaction consideration.

[21] Prospectus, p. 11.

[22] B. Hextall, "Preston Enters Premier Nickel League," *Australian Financial Review*, July 23, 1998, p. 21.

[23] I. Ries, " Banks Miss Out on Nickel Coup," *Australian Financial Review*, July 24, 1998.

[24] Preston Market Release, February 1, 2001, p. 1 <http://www.prestonres.com.au>.

[25] R. Hogan, "US Financing Deal Alarms Banks," *Australian Financial Review*, August 26, 1997, p. 36; "Australia/Centaur/Note Issue–Funding for Cawse Project," *Dow Jones International News*, November 24, 1997.

[26] Adapted from the Bulong Prospectus, December 17, 1998, cover sheet plus pp. 1-5.

[27] "Moody's Assigns B2 to Sen. Sec. Project Notes of Bulong Operations PTY LTD, Pre-Sale Report," Moody's Investors Service, December 1998, p. 1.

[28] Adapted from the Bulong Prospectus, December 17, 1998, cover sheet plus pp. 6, 14, and 15.

[29] Prospectus, p. 51.

[30] Prospectus, p. 50.

[31] Annex A, p. A-10.

[32] Prospectus, p. 50.

[33] Preston Annual Report 1999, p. 4.

[34] Preston Market Release—Bulong Finance Update, November 30, 2000, <http://www.prestonres.com.au/news>.

[35] Ibid.

[36] Ibid.

[37] S. Kemp, "$500m Loss Puts Heat On Preston," *The West Australian*, February 3, 2001, p. 63.

[38] M. Weir, "Laterites Fall Well Short of Launch Targets," *The West Australian*, May 1, 2000, p. 33.

[39] Preston Annual Report 1999, p. 37.

[40] "Nickel Miner Preston Struggles to Escape Financial Difficulties," *The Asian Wall Street Journal*, November 26, 1999, p. 19.

[41] Preston Annual Report 2000, p. 4; Prospectus, p. 23.

[42] Preston Annual Report 2000, pp. 21, 31, and 34.

[43] Preston Annual Report 2001, p. 39.

[44] Preston Annual Report 2001, p. 48.

[45] "Australia: Preston Urges Revamp to Avoid Liquidation," *Reuters English News Service*, June 21, 2002.

[46] Preston Market Release, Bulong Debt Restructuring, April 13, 2000, <http://www.prestonres.com.au/news>.

[47] Preston Market Release, April 13, 2000 <www.prestonres.com.au/news>.

[48] J. Counsel, "Preston Digs Itself Out of Debt Hole," *Sydney Morning Herald Home Page*, June 18, 2001.

[49] Preston Annual Report for the Year Ended 30 June 2001, p. 48.

[50] Preston Annual Report 2000, dated December 22, 2000, pp. 5-6, p. 39; Preston Market Release—Bulong Financial Update, November 30, 2000.

[51] Preston Market Release, December 21, 2001 <http://www.prestonres.com.au/news>.

[52] B. Fitzgerald, "Centaur Burns in Fire Sale," *The Age,* December 29, 2001, p. 18.