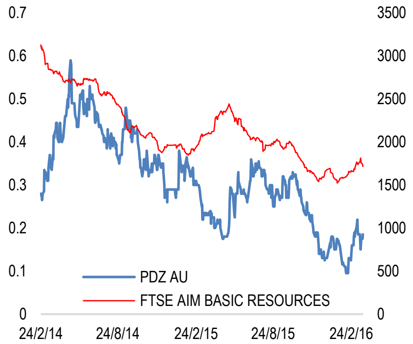
Prairie Mining

Mining Research

22 March 2016

Speculative Buy

Ticker	PDZ AU
Share Price (A$)	0.185
Target Price (A$)	1.02
Upside	453%
12mth high/low (A$)	0.37/0.09
Shares out (m)	151.61
Fully diluted (m)	239.15
Market Cap (A$m)	28.0
Enterprise Value (A$m)	15.5



Mining Analysts

Richard Morgan
+44 (0) 20 7866 0201
richard.morgan@mirabaud.co.uk

Nikolas Toleris
+44 (0) 20 7866 0068
nikolas.toleris@mirabaud.co.uk

Resources Sales

Jonathan Colvile
+44 (0) 20 7878 3386
jonathan.colvile@mirabaud.co.uk

Nick Orgill
+44 (0) 20 7878 4172
nick.orgill@mirabaud.co.uk

Pav Sanghera
+44 (0) 20 7878 3380
pav.sanghera@mirabaud.co.uk

Harry Baker
+44 (0) 20 7878 3401
harry.baker@mirabaud.co.uk

Guy Wheatley
+44 (0) 20 7878 3365
guy.wheatley@mirabaud.co.uk

Sales Trading

Lucas McHugh
+44 (0) 20 7866 0085
lucas.mchugh@mirabaud.co.uk

PFS shows Lublin project at bottom of cost curve

We have revised our valuation of Prairie Mining, following the release of the prefeasibility study (PFS) for the company's Lublin semi-soft coking coal project in southeastern Poland. The PFS, completed by independent consultants Golder Associates and Royal HaskoningDHV, is a major step, not only in firming up the project's planning and thus reducing the technical risks, but also in the significant reduction in opex over and above that delivered by the weakening Polish zloty. We have incorporated the revised cost and capex assumptions into our model, along with the now more detailed projections regarding the expected suite of products, plus our own assumptions on future coal pricing and exchange rates. The revised model forms our DCF-based valuation of A$1.02/sh. We reiterate our BUY recommendation, with a Speculative qualifier as our valuation remains based on an unfunded DCF.

Simulation of the Lublin project surface layout

Source: Prairie Mining

The Lublin PFS broadly follows the plan outlined in the scoping study released in April 2014, albeit now with much greater detail and higher confidence levels. The key change compared with the scoping study is a ~34% reduction in the expected cash operating cost at steady-state production levels (due in 2024), to around US$25/t of product – basis free-on-rail (FoR) at the mine gate (where the project will have direct access to Poland's national rail network, linking to potential customers across Central Europe and to markets elsewhere via the Baltic ports). This level of opex puts the project at the bottom of the relevant cost curves (see p2).

In addition, the PFS includes an in-depth analysis by independent commodity-market specialists CRU of the specific markets into which the Lublin project's coal might be sold, in which logistics will play a key role in determining the prices received. In particular, this shows the logistical advantage offered by the project's proximity to key markets in Central Europe.

Meanwhile, last week the Polish Regional Administrative Court finally rejected the challenge, brought on administrative grounds, made by Lubelski Wegiel Bogdanka SA (LWB PW, Mkt Cap US$367m, Not Rated), against the September 2014 rejection by the Ministry of Environment of Bogdanka's application for a mining concession over a key part of Prairie's Lublin concession areas. Bogdanka is producing thermal coal from the ground contiguous with Prairie's western boundary. Prairie is thus confirmed as having the exclusive right to apply for a mining concession over the ground (for three years from mid-2015), and plans to make the application in H1 CY2017.

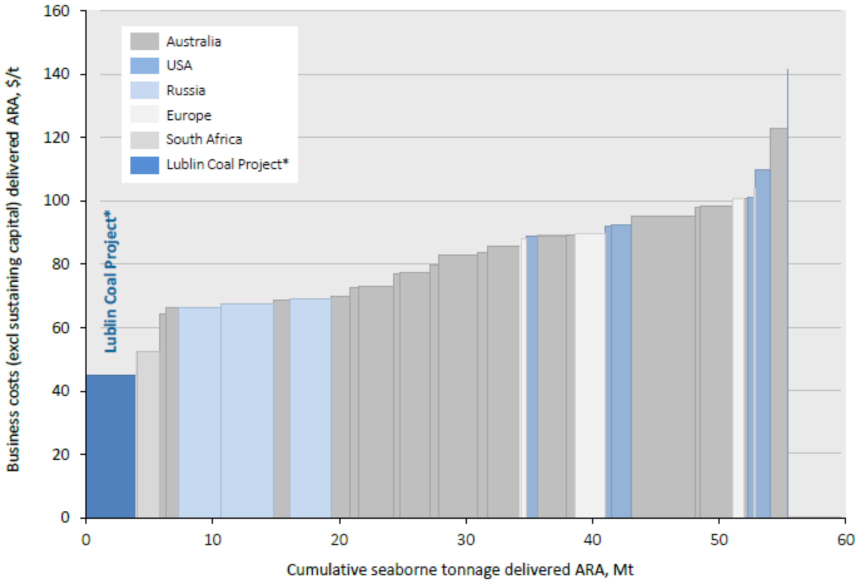
Opex reduced to bottom decile

The Lublin project PFS estimates a steady-state cash operating cost at US$24.96/t of product (including overheads and royalties) – basis free-on-rail (FoR) at the mine gate.

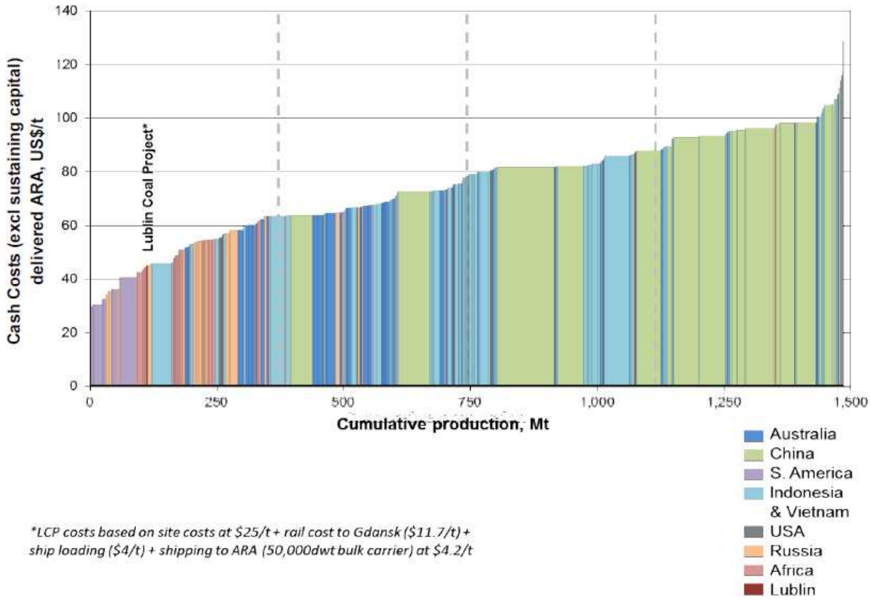
CRU has benchmarked the project against its competitors, putting the project at the very bottom of the cost curve for semi-soft coking coal and in the bottom decile for export-quality thermal coal

The PFS includes a marketing study by CRU which evaluates the Lublin project's future products against the European coal market. By calculating the cost of delivering the project's export-quality products – a low-ash, high-value thermal coal and a semi-soft coking coal – into the trading hub of ARA (Antwerp-Rotterdam-Amsterdam), CRU has benchmarked the project against its competitors. The resulting cash cost of US$44.86/t of product (US$24.96/t plus transport costs to ARA) puts the project at the very bottom of the cost curve for semi-soft coking coal (measured on a delivered ARA basis for a like-for-like comparison) and in the bottom decile for export-quality thermal coal (also basis ARA).

Semi-soft coking coal costs (adjusted for quality) delivered ARA (2015 basis)



Thermal coal costs (adjusted for quality) delivered ARA (2015 basis)



Source: CRU/Prairie Mining

The PFS cash cost level means that the Lublin project should generate a margin in any conceivable coal-price scenario

Equally important, the PFS cash cost level means that the Lublin project should generate a margin in any conceivable coal-price scenario. Adding in sustaining capex (US$3.43/t of product at steady-state production) for an all-in sustaining cash cost of US$48.29/t, export-quality thermal coal delivered ARA (the lowest price for any sales option for any of Lublin's five expected products) would be around break-even at the current spot price for thermal coal (basis ARA) of ~US$46/t (after factoring-in a small net positive price adjustment for the Lublin coal's specifications).

Thus, the worst-case scenario for selling any of the project's products is currently break-even. In practice, we believe all thermal-coal sales would be targeted primarily at customers closer to the project, for higher effective pricing.

Clearly, any medium/long-term recovery in coal prices, as forecast by CRU and most other independent market consultants, would result in higher margins. Given that the project will enter production only in 2023, there is ample time for the production cuts at high-cost operations and lack of construction of new capacity to replace natural depletion to push the markets for the various coal types into more positive supply-demand balances. Indeed, in our view, if current prices are still prevailing in 2023 there will be very little of the international coal industry left.

Lublin project plan

The PFS envisages annual production of 6.34Mt of saleable product, from the processing of 8.0Mtpa of run-of-mine (RoM) coal over an initial 24-year life (this compares with 6.0Mtpa of saleable product over an initial 22-year life envisaged in the 2014 scoping study).

The full suite of products and by-products is now rather more sophisticated, aimed at maximising revenues while retaining flexibility to adapt to future market conditions

The 2014 scoping study envisaged a simple, 50:50 split between semi-soft coking coal and export-quality thermal coal, resulting in 3Mtpa of each product. The picture for the full suite of products and by-products is now rather more sophisticated, aimed at maximising revenues while retaining flexibility to adapt to future market conditions.

The PFS envisages 42% of saleable production as semi-soft coking coal (2.66Mtpa), with a further 1.1Mtpa (17%) going into high-value local markets, in which coal sizing is paramount (0.34Mtpa into the household market and 0.76Mtpa going to industrial consumers). The balance of sales (~41%) is planned to serve the power-generation market, with 1.44Mtpa a low-ash, export-quality product and 1.14Mtpa a high-ash, fines coal suitable for consumption in the Polish domestic power sector.

Unit cash operating costs (in steady-state production) are now estimated at US$24.16/t of saleable product (FoR), which includes mining, transport of RoM coal from the shaft to the processing plant, processing, G&A and environmental provision (compared with US$36.80/t in the scoping study on a like-for-like basis). The PFS has an accuracy level for capex and opex of +/-20%.

The weaker zloty gives just over half of the opex savings compared with the April 2014 scoping study

Various factors have contributed to the reduction in cash opex: the PFS assumes an exchange rate of PLN4.00/USD, vs. PLN3.20 used in the scoping study (current spot rate PLN3.80), which gives just over half of the saving; the balance of cost reduction comes from further assessment of the project's technical planning – for example, the use of modern practices such as roof-bolting (instead of costly steel arches).

Full cash opex of US$24.96/t includes a state royalty (currently PLN3.2/t of product). Sustaining capex (at steady state) is estimated at US$3.43/t of product, for an all-in sustaining cash cost of US$28.39/t (excluding interest on any future project debt).

Capex to steady-state production is estimated at US$631.7m, including US$74.1m in project-management costs and contingencies (which are in the range 5-20% depending on item covered). This compares with US$684.5m in the scoping study (including contingencies also at 5-20%).

The start of construction is now set for 2018, with first meaningful production in 2023 and full production from 2024

The start of construction is now set for 2018, with first meaningful production in 2023 and full production from 2024. Meanwhile, Prairie had cash and liquid investments at 31 December 2015 totalling A$17.8m, sufficient in our view to see the company through a full feasibility study and to a development decision.

Revised cash-flow model & key assumptions

We have revised our cash-flow model to incorporate the production profile, and the opex and capex cost structure from the PFS – details in the table on p7. Our model gives a life-of-mine average cash cost of US$26.79/t of saleable product (US$26.03/t average at steady state production). These figures include all mining and processing costs, plus the cost of transporting coal by rail from the shaft head to the processing plant (which we expect to be located next to national rail infrastructure) and local overheads. Our figures use a long-term exchange rate of PLN3.79/USD (which is based on currency futures via Bloomberg).

We derive a life-of-mine average all-in sustaining cash cost of US$34.12/t (US$33.11/t average at steady-state production)

To this figure we add our own 10% contingency (the PFS opex includes only a 5% contingency on equipment leasing costs). The resulting average life-of-mine total cash cost is US29.46/t (US$30.31/t including state royalties). Our assumption for sustaining capex is the same as that used in the PFS which, at our long-term exchange rate assumption comes to US$3.81/t (US$3.62/t average at steady-state production), for a life-of-mine average all-in sustaining cash cost of US$34.12t (US$33.11/t average at steady-state).

Our capex structure follows that of the PFS. As the latter already includes contingencies of 5-20%, which we consider adequate given the level of detail in the PFS, we see no need to add contingencies of our own. The resulting capex to steady-state production is US$632m.

We calculate capex to first production (at the end of 2022) at ~US$555m. However, as the cash flows from operations in 2022 and 2023 will not outweigh the balance of development capex, we calculate the peak funding requirement at around US$600m sometime in 2023.

Our coal-price assumptions broadly follow the structure of those derived by CRU for the PFS, working on a net-back basis from international benchmark prices. The latter are adjusted for both product quality and transport costs to estimate FoR mine-gate prices. However, as a starting point we use our own assumptions for long-term international benchmark prices, which are currently US$90/t for semi-soft coking coal (basis FoB Australia) and US$75/t for export-quality thermal coal CiF ARA (both expressed in current money).

For the semi-soft coking coal we take the international benchmark price FoB Australia and adjust for the difference in quality for the Lublin project's future product (overall a negative adjustment, mainly for the inferior strength in the blast furnace of the coke it would produce, partially offset by a very low ash content). We then take ARA as the pricing point by adding the freight cost from Australia to derive a value CiF ARA. This price is then adjusted for the cost of transporting the coal by rail to the Baltic coast, loading and then shipping to ARA (estimated by CRU at US$19.9/t).

This is a very conservative approach, as there are significant markets for semi-soft coking coal in Central Europe which we believe the company would seek to enter, capturing all or part of the transport differential compared with existing sources of supply (see p8).

We also assume that all of the export-quality thermal coal is sold into the ARA pricing hub, whereby the FoR price at the mine gate is reduced from the ARA delivered price by the cost of transporting the coal to ARA. Again, we first adjust for quality, which is a modest positive adjustment as the Lublin project's export-quality thermal coal would have a slightly higher calorific value and lower ash content than the specifications of the API2 contract (the main benchmark price for thermal coal CiF ARA). This is the worst-case pricing scenario for this coal, and in practice we believe the company would seek to sell as much coal as possible to customers much closer to the project in order to capture all or part of the transport costs.

Conversely, the third main product, the high-ash thermal coal, we assume is sold into regional markets (mainly Poland and Ukraine). After a significant downwards price adjustment from API2 for quality, we derive a positive transport differential by adding back the average transport costs from ARA to the targeted markets and deducting the transport costs from the mine gate to the customers. We conservatively assume this differential is shared 50:50 between the project and the customers, to derive an FoR mine-gate price.

Our assumptions on pricing structure and our view on long-term benchmark prices give an average basket price for the Lublin project's coal products of US$70.8/t (FoR), which gives an average life-of-mine EBITDA margin of 57%

These assumptions on pricing structure and our view on long-term benchmark prices give an average life-of-mine basket price for the Lublin project's coal products of US$70.8/t (FoR), which gives an average life-of-mine EBITDA margin (against the total cash cost of US$30.31/t) of 57%, and 52% on an all-in sustaining cash cost basis (53% at steady state).

Our average basket price compares with CRU's forecasts and assumptions which give an average life-of-mine basket price of US$79.60/t (also basis FoR).

Valuation

Our valuation remains based on a DCF analysis of the Lublin project, at an 8% real discount rate, which we continue to risk-weight to just 25% of its full value to reflect the fact that the significant capex requirement remains unfunded. On a per-share basis, we use 205.78m shares, which includes 151.61m currently in issue, plus the 44.78m new shares that will be issued to private-equity group CD Capital on conversion of its loan notes (CD invested A$15m in Prairie in July last year in the form of loan notes which convert at A$0.335/sh), plus 9.4m shares under performance rights (which we assume will vest as they are based on project development milestones).

Sum-of-the-parts valuation (uses 205.78m shares*)

	US$m	A$/sh
$NPV_{8\%}$ Lublin project – risk weighted to 25% of full value	179.7	1.15
$NPV_{8\%}$ corporate overheads	-35.7	-0.23
Liquid inv. (3.75m shares B2Gold @ market price 21/03/2016)	6.1	0.04
Net cash @ 31/12/2015	9.5	0.06
NPV cash from in-the-money options	-	-
Company valuation	**159.6**	**1.02**

Source: Mirabaud Securities; *includes in-the-money options US$1 = PLN3.79, US$1 = A$1.32

Our previous valuation was based on the assumptions underlying the 2014 scoping study. The key positive changes are the weaker Polish zloty (we assume a long-term rate of PLN3.79/USD vs. PLN3.00 in our previous valuation), the reductions in opex and the benefits to coal pricing (relative to benchmarks) derived from the new product mix and from the logistical advantages offered by the potential markets for a proportion of sales. The key negative changes are our lower assumptions for long-term benchmark coal pricing and the longer timeline into production (at the time of the 2014 scoping study first production was envisaged in 2018) which increases the discount applied to future cash flows.

The key valuation sensitivities are our assumptions for long-term international benchmark coal prices, the exchange rate between the Polish zloty and the US dollar, and discount rate

Sensitivity of PDZ valuation to benchmark coal prices (A$/sh)

Long-term API2 coal price (US$/t) / Long-term SSCC coal price (US$/t))	45.0	60.0	75.0 (base)	90.0	105.0
50	-0.58	-0.20	0.17	0.55	0.92
70	-0.15	0.22	0.60	0.97	1.35
90 (base case)	0.27	0.65	1.02	1.40	1.77
110	0.70	1.07	1.45	1.82	2.20
130	1.12	1.50	1.87	2.25	2.62

Source: Mirabaud Securities — US$1 = PLN3.79, US$1 = A$1.32

Sensitivity of PDZ valuation to semi-soft coking coal price and Polish zloty (A$/sh)

Long-term exchange rate PLN/USD / Long-term SSCC coal price (US$/t))	3.50	3.79 (base)	4.00	4.25	4.50
50	0.02	0.17	0.27	0.37	0.46
70	0.45	0.60	0.69	0.79	0.88
90 (base case)	0.88	1.02	1.12	1.22	1.30
110	1.30	1.45	1.54	1.64	1.73
130	1.72	1.87	1.96	2.06	2.15

Source: Mirabaud Securities — API2 benchmark = US$75/t, US$1 = A$1.32

Sensitivity of PDZ valuation to semi-soft coking coal price and discount rate (A$/sh)

Real discount rate / Long-term SSCC coal price (US$/t))	15%	10%	8% (base)	5%	0%
50	-0.16	0.02	0.17	0.57	2.25
70	0.02	0.35	0.60	1.23	3.79
90 (base case)	0.19	0.67	1.02	1.89	5.32
110	0.37	0.99	1.45	2.56	6.85
130	0.54	1.31	1.87	3.22	8.38

Source: Mirabaud Securities — API2 benchmark = US$75/t, US$1 = A$1.32

We have also modelled the Lublin project's internal rate of return from the start of project development (2018), which gives the following sensitivities.

Sensitivity of Lublin project IRR to benchmark coal prices (A$/sh)

Long-term API2 coal price (US$/t) / Long-term SSCC coal price (US$/t))	45.0	60.0	75.0 (base)	90.0	105.0
50	-0.1%	6.9%	11.9%	16.0%	19.6%
70	7.7%	12.5%	16.5%	20.0%	23.2%
90 (base case)	13.0%	17.0%	20.5%	23.6%	26.5%
110	17.5%	20.9%	24.0%	26.9%	29.6%
130	21.3%	24.4%	27.2%	29.9%	32.4%

Source: Mirabaud Securities — US$1 = PLN3.79, US$1 = A$1.32

Sensitivity of Lublin project IRR to semi-soft coking coal price and Polish zloty (A$/sh)

Long-term exchange rate PLN/USD / Long-term SSCC coal price (US$/t))	3.50	3.79 (base)	4.00	4.25	4.50
50	10.0%	11.9%	13.0%	14.1%	15.1%
70	14.9%	16.5%	17.4%	18.4%	19.3%
90 (base case)	19.1%	20.5%	21.3%	22.2%	23.0%
110	22.7%	24.0%	24.8%	25.6%	26.3%
130	26.1%	27.2%	28.0%	28.7%	29.4%

Source: Mirabaud Securities — API2 benchmark = US$75/t, US$1 = A$1.32

Lublin coal project (in real terms, current money)

Year to 31 December		LoM*	2018F	2019F	2020F	2021F	2022F	2023F	2024F	2025F	2026F
Mining											
RoM tonnage (Mt)		176.7	-	-	-	-	0.40	4.60	8.05	8.05	8.05
Coal washed (Mt)		176.7	-	-	-	-	0.38	4.44	7.92	8.05	8.05
Processing yield		78.7%	-	-	-	-	78.7%	78.7%	78.7%	78.7%	78.7%
Coal product (Mt)		139.1	-	-	-	-	0.30	3.49	6.23	6.34	6.34
Coal sold (Mt)		139.1	-	-	-	-	0.30	3.43	6.18	6.33	6.34
including:	export-quality thermal coal	31.6	-	-	-	-	0.07	0.78	1.40	1.44	1.44
	High-ash thermal coal	25.0	-	-	-	-	0.05	0.62	1.11	1.14	1.14
	Semi-soft coking coal	58.4	-	-	-	-	0.12	1.44	2.59	2.66	2.66
	Industrial coal	16.7	-	-	-	-	0.04	0.41	0.74	0.76	0.76
	Household coal	7.5	-	-	-	-	0.02	0.18	0.33	0.34	0.34
Costs											
All-in cash production costs (PLN/t RoM)		87.9	-	-	-	-	161.4	163.5	83.0	81.6	81.6
All-in cash production costs (PLN/t sold)		111.7	-	-	-	-	209.1	211.5	106.3	103.8	103.7
All-in cash production costs (US$/t sold)		29.5	-	-	-	-	55.2	55.8	28.1	27.4	27.4
All-in cash costs incl. royalties (US$/t sold)		30.3	-	-	-	-	56.0	56.7	28.9	28.2	28.2
All-in sustaining cash costs (US$/t sold)		34.1	-	-	-	-	59.9	60.5	32.6	31.8	31.8
Revenue											
Mine-gate weighted avg. sales price (US$/t)		70.8	-	63.4	67.7	70.8	70.8	70.8	70.8	70.8	70.8
including:	export-quality thermal coal	56.3	-	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3
	High-ash thermal coal	67.8	-	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8
	Semi-soft coking coal	69.4	-	54.4	61.9	69.4	69.4	69.4	69.4	69.4	69.4
	Industrial coal	89.7	-	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7
	Household coal	110.8	-	105.5	110.8	110.8	110.8	110.8	110.8	110.8	110.8
P&L (US$m)											
Gross revenue		9,846	-	-	-	-	21.0	243.0	437.4	448.4	448.6
State royalty		117	-	-	-	-	0.3	2.9	5.2	5.3	5.3
Net revenue		9,729	-	-	-	-	20.8	240.1	432.2	443.1	443.2
Operating costs		4,097	-	-	-	-	16.4	191.5	173.3	173.4	173.4
Cash operating profit/(loss)		5,631	-	-	-	-	4.4	48.6	258.9	269.7	269.8
EBITDA margin		*57.2%*	-	-	-	-	*20.9%*	*20.0%*	*59.2%*	*60.1%*	*60.1%*
D&A		1,151	-	-	-	-	16.6	24.7	28.8	29.9	31.0
Operating profit/(loss)		4,481	-	-	-	-	-12.2	23.8	230.1	239.8	238.8
Interest & finance charges†		-	-	-	-	-	-	-	-	-	-
Pre-tax profit/(loss)		4,481	-	-	-	-	-12.2	23.8	230.1	239.8	238.8
Tax		851	-	-	-	-	-	2.2	43.7	45.6	45.4
Post-tax profit/(loss)		3,629	-	-	-	-	-12.2	21.6	186.4	194.2	193.4
Cash flow (US$m)											
Operating cash flow		4,780	-	-	-	-	4.4	46.3	215.2	224.1	224.4
Capex to steady-state production		632	4.0	158.5	90.3	116.9	185.0	77.0	-	-	-
Sustaining capex		530	-	-	-	-	1.1	13.1	22.9	22.9	22.9
Net cash flow		3,618	-4.0	-158.5	-90.3	-116.9	-181.8	-43.8	192.3	201.2	201.5

Source: Mirabaud Securities estimates US$1 = PLN3.79

*24-year life-of-mine (LoM) totals

†No assumptions included for debt financing, though in practice a combination of project debt and equipment financing is likely to form a significant component of funding

Analyst: Richard Morgan +44 20 7866 0201 richard.morgan@mirabaud.co.uk **Website:** www.mirabaud.com

Coal market

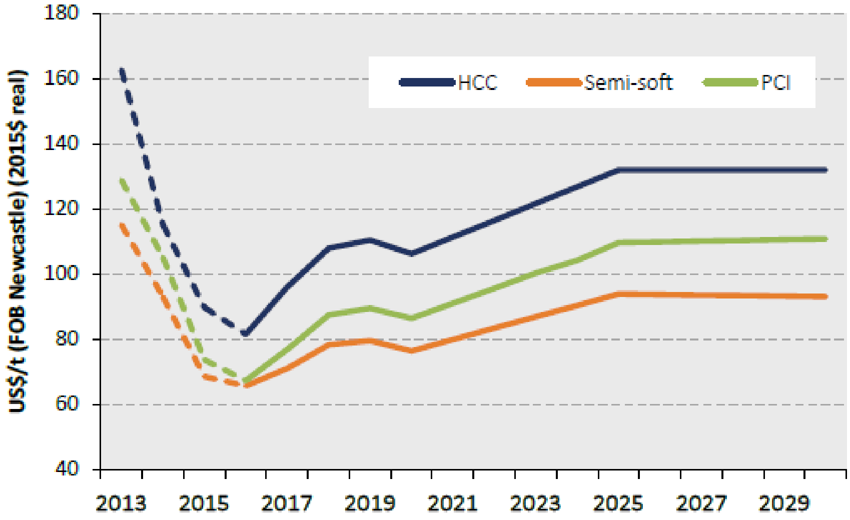
The current low level of prices in coking-coal markets have been caused by weak levels of demand coupled with increased production from the major producers supplying the seaborne market in an effort to reduce their unit costs.

CRU estimates that 60% of Chinese mines and 50% of mines supplying the international seaborne market are currently loss-making on a cash basis

Independent commodity-market specialist consultancy CRU estimates that 60% of Chinese mines and 50% of mines supplying the international seaborne market are currently loss-making on a cash basis. This will result in a rebalancing of supply and demand in the medium to longer-term, resulting in a strengthening of international coking-coal prices through to 2024, as CRU argues current prices are unsustainable.

Post 2024, CRU assumes coking-coal prices will remain relatively flat, with the benchmark price for hard coking coal in a narrow range just over US$130/t (basis FoB Australia, expressed in 2015 money) and semi-soft coking coal in the mid-to-low US$90s.

Coking-coal international benchmark price long-term forecasts



Source: CRU/Prairie Mining

CRU has benchmarked the Lublin project's planned semi-soft coking coal product against existing products, and concludes that it compares well on most parameters, including free-swell index and volatile matter, and is particularly good in terms of ash content (at 4% around half that of certain existing products). The key inferior parameter is coke strength after reaction.

A key advantage for the project is its proximity to markets for coal in Europe. Prairie estimates total demand for coking coal in Europe at ~80Mtpa (including 15Mtpa of semi-soft coking coal), of which more than ~75% is currently imported

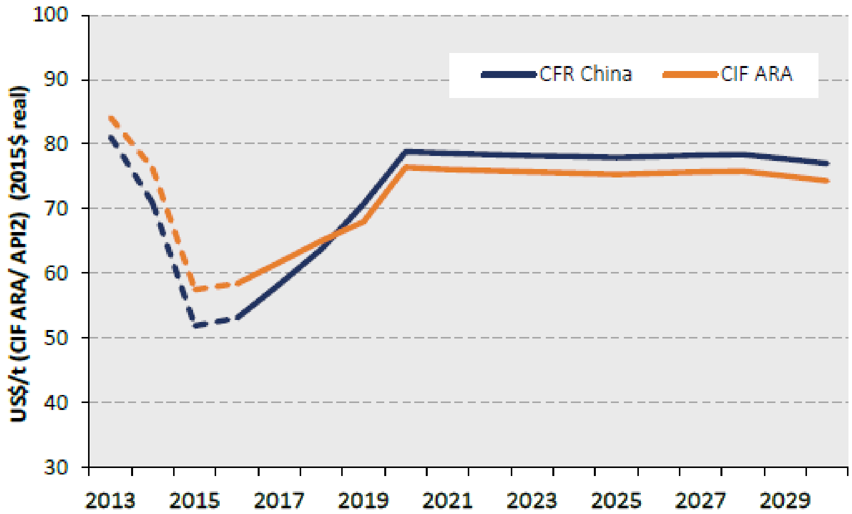
As noted earlier, a key advantage for the project is its proximity to markets for coal in Europe. Prairie estimates total demand for coking coal in Europe at ~80Mtpa (including 15Mtpa of semi-soft coking coal), of which more than ~75% is currently imported. In addition, neighbouring Ukraine imports ~12Mtpa of coking coal (including 5.5Mtpa of semi-soft coking coal), mainly from Russia.

Of the 30% of European coking coal supplied by domestic production, Poland is easily the largest producer, at 13Mtpa, demonstrating the competitive transport position of the country in supplying coking coal (and its derivative product coke, which is the main form in which Polish coking-coal is exported) into the rest of Europe.

CRU's analysis shows 37% of supply to the seaborne market is cash loss-making

CRU's analysis of international thermal-coal markets shows a similar picture to that of coking coal, with current low prices putting 37% of supply to the international seaborne market now cash loss-making. The consultancy sees a rather quicker recovery in thermal-coal markets compared with coking coal, with the price recovering to ~US$76/t by 2020 (basis API2 specification CiF ARA, expressed in 2015 money) and remaining in the mid-US$70s in the long-term.

Thermal-coal international benchmark price long-term forecasts



Source: CRU/Prairie Mining

CRU has also benchmarked the Lublin project's planned export-quality thermal coal product against existing products which is best done against the international traded benchmark of API2 (6,000kcal/kg thermal coal delivered ARA). In this respect, the Lublin product has a slightly higher calorific value (at 6,100kcal/kg) and a marginally lower ash content (14% vs. 16%).

As noted earlier, the CRU study in the PFS assumes all of the project's export-quality thermal coal would be sold at ARA prices plus the cost of transportation to ARA. This is a conservative assumption, as there are clearly markets for coal of this quality closer to the project site, notably in Germany, the Czech Republic, Austria and Slovakia.

Europe imports around two-thirds of its hard-coal requirements

As a whole, Europe imports around two-thirds of its hard-coal requirements (hard coal is all coal except lignite), which is absolute terms is more than 200Mtpa. Looking at markets closest to the project, Prairie estimates that the combined imports of Germany and the Czech Republic by 2020 (when the project will be in construction) will be 75Mtpa.

The high-ash fines product which completes the major part of the project's expected sales volumes would be sold to power generators relatively close to the project, thus capturing freight differentials as far as possible and offsetting the discount this coal would normally suffer compared with international benchmark prices. This product is close in specification to the coal currently sold by Bogdanka (which mines the neighbouring concession).

CRU has also identified niche markets for the higher-sized fractions of the Lublin coal within Poland, where the sizing of the coal would be important. These include industrial customers and households. The household market in Poland totals 10-12Mtpa, and Bogdanka is currently selling coal into this market for PLN380-433 (US$100-114)/t. The industrial market is around 6Mtpa, and pays a premium for low-ash, high calorific value coals.

RECOMMENDATIONS HISTORY

Prairie Mining Ltd

Market index: FTSE AIM Basic Resources

Date	Market Index	Stock Price (A$)	Valuation (A$)	Opinion
28 Feb 2014	3,092	0.28	1.47	SPECULATIVE BUY
28 Apr 2014	2,828	0.50	2.23	SPECULATIVE BUY
22 Mar 2016	1,716	0.19	1.02	SPECULATIVE BUY

RATINGS, CERTIFICATION AND DISCLOSURE

RATINGS SYSTEM

BUY: The stock is expected to generate absolute positive price performance of over 10% during the next 12 months.

HOLD: The stock is expected to generate absolute price performance of between negative 10% and positive 10% during the next 12 months.

SELL: The stock is expected to generate absolute negative price performance of over 10% during the next 12 months.

RISK QUALIFIER: Speculative: The stock bears significantly higher risk that typically cannot be valued by normal fundamental criteria and investment in the stock may result in material loss.

The ratings are applicable to all research produced after 1 January 2016.

INVESTMENT ANALYST CERTIFICATION

All research is issued under the regulatory oversight of Mirabaud Securities LLP

Each Investment Analyst of Mirabaud Securities LLP whose name appears as the Author of this Investment Research hereby certifies that the recommendations and opinions expressed in the Investment Research accurately reflect the Investment Analyst's personal, independent and objective views about any and all of the Designated Investments or Relevant Issuers discussed herein that are within such Investment Analyst's coverage universe.

INVESTMENT RESEARCH DISCLOSURES

The following disclosures relate to this document: 3 & 8

1. This is a commissioned or a non-independent research note/comment.
2. In the past 12 months Mirabaud Securities or its affiliates have had corporate Finance mandates or managed or co-managed a public offering of the relevant Issuer's securities or received compensation for Corporate Finance services from the Relevant Issuer, excluding acting as a corporate broker, on a retained basis, for the Relevant Issuer.
3. Mirabaud Securities expect to receive or intend to seek compensation for Corporate Finance services from this company in the next 6 months, excluding acting as a corporate broker, on a retained basis, for the Relevant Issuer.
4. The Investment Analyst or a member of the Investment Analyst's household has a long position in the shares or derivatives of the Relevant Issuer.
5. The Investment Analyst or a member of the Investment Analyst's household has a short position in the shares or derivatives of the Relevant Issuer.
6. As of the month end immediately preceding the date of publication of this report, or the prior month end if publication is within 10 days following a month end, Mirabaud Securities and/or its affiliates beneficially owned 5% or more of any class of common equity securities of the Relevant Issuer.
7. A senior executive or director of Mirabaud Securities, or a member of his / her household, is an officer, director, advisor, or board member of the Relevant Issuer and/or one of its subsidiaries.
8. Mirabaud Securities acts as corporate broker, on a retained basis, for the Relevant Issuer.
9. This research note has been seen by the relevant issuer to review factual content only prior to publication.
10. Factual changes have been made by the relevant issuer prior to the distribution of this note/comment.

The Investment Analysts who are responsible for the preparation of this Investment Research are employed by Mirabaud Securities LLP a securities broker-dealer. The Investment Analysts who are responsible for the preparation of this Investment Research have received (or will receive) compensation linked to the general profits of Mirabaud Securities LLP.
Copies of the Mirabaud Securities Policy on the Management of Material Interests and Conflicts of Interest in Investment Research can be obtained from the Mirabaud Securities Compliance Department by emailing compliance@mirabaud.co.uk

IMPORTANT INFORMATION

ISSUED BY MIRABAUD SECURITIES LLP, A LIMITED LIABILITY PARTNERSHIP AUTHORISED AND REGULATED BY THE FINANCIAL CONDUCT AUTHORITY. A MEMBER OF THE LONDON STOCK EXCHANGE

 This document has been prepared and issued by Mirabaud Securities LLP or its associated companies and has been approved for publication in the United Kingdom by Mirabaud Securities LLP, a limited liability partnership authorised and regulated by the Financial Conduct Authority. This document is distributed in Hong Kong by Mirabaud Securities (Asia) Limited, which is authorised as a licensed dealer in securities and regulated by the Hong Kong Securities and Futures Commission. Neither the information nor the opinions expressed in this document constitute or intend to be an offer, or a solicitation of an offer, to buy or sell relevant securities (i.e. securities mentioned herein and options, warrants, or rights to or interests in any such securities). The information and opinions contained in this document have been compiled from and based upon generally available information which Mirabaud Securities LLP believes to be reliable but the accuracy or completeness of which cannot be guaranteed. All comments and estimates given are statements of Mirabaud Securities LLP's or an associated company's opinion only and no express or implied representation or warranty is given or to be implied therefrom. All opinions expressed herein are subject to change without notice. This document does not take into account the specific investment objectives, financial status, attitude to risk or any other specific matters relevant to any person who receives this document and should therefore not be used in substitution for the exercise of judgment by such person. Neither Mirabaud Securities LLP nor any associated company accepts any liability whatsoever for any direct or consequential loss arising from the use of its advice or research publications save where such loss arises as a direct result of Mirabaud Securities LLP's or an associated company's negligence. Research publications are issued by Mirabaud Securities LLP or an associated company for private circulation to eligible counterparties, professional clients and professional advisers, ("its clients"), and specifically not to private or retail clients. They may not be reproduced, distributed or published by you for any purpose except with Mirabaud Securities LLP's express written permission. Mirabaud Securities LLP, an associated company, or their employees and officers may have a holding (long or short) in an investment which it knows will be the subject of a published research recommendation to clients. It may also have a consulting relationship with a company being reported on. Mirabaud Securities LLP or an associated company may also act as agent of its clients and may have or have undertaken transactions in investments covered by this document prior to your receipt of it. Additional information on the contents of this report is available on request.

IN THE UNITED STATES

Mirabaud Securities LLP is not a registered broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This research report is provided for distribution to major U.S. institutional investors ONLY in reliance on the exemption from registration provided by Rule 15a-6 of the US Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC").

MAJOR U.S. INSTITUTIONAL INVESTORS

The Information being furnished is for distribution to "Major U.S. Institutional Investors" within the meaning of Rule 15a-6 of the U.S. Securities and Exchange Commission under the U.S. Securities Exchange Act of 1934.