

25 October 2010

## Blackthorn Resources

Year End	Revenue (A\$m)	PBT* (A\$m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
06/09	0.0	(0.0)	(0.05)	0.0	N/A	N/A
06/10	0.0	(2.0)	(1.89)	0.0	N/A	N/A
06/11e	0.0	(4.0)	(3.72)	0.0	N/A	N/A
06/12e	0.0	(10.3)	(9.72)	0.0	N/A	N/A

Note: \*PBT and EPS are normalised, excluding goodwill amortisation and exceptional items.

### Investment summary: Glencore to enter JV

Following a comprehensive due diligence exercise and detailed negotiations, Blackthorn Resources has signed a binding agreement with Glencore to form a JV for the Perkoa zinc project. Glencore will provide US\$50m for 50.1% of the project and a further US\$30m in project finance. Also in Burkina Faso, Blackthorn Resources has completed the first phase of exploration drilling for gold and expects to announce a JORC code compliant mineral resource by the end of the year. In Zambia the fourth phase of drilling has confirmed additional copper mineralisation at the company's Mumbwa JV copper and gold project.

### Drilling at Mumbwa

The next stage of exploration at Mumbwa is nearing completion. Phase 4 drilling is designed to test the 20km-long Mushingashi geophysical anomaly and is fully funded by BHP Billiton. Once this is successfully completed, BHP Billiton will have the option to increase its share of the project from 40% to 60% subject to a back-in payment to Blackthorn Resources estimated to be US\$11.5m (A\$11.7m).

### Gold intersections in Burkina Faso

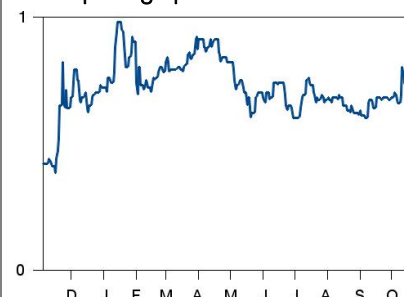
Blackthorn Resources has completed the first phase of exploration drilling for gold in the area surrounding Perkoa and plans to prepare a JORC code compliant mineral resource by the end of the year. The company has drilled over 10,000m and reported significant results including an intersection of 4.13g/t Au over 15m. Gold exploration broadens the portfolio and has the potential to increase the company's value.

### Valuation: Post deal value of US\$152m (A\$154m)

Our combined valuation of Blackthorn Resources is US\$152m (A\$154m) or A\$1.44 per share with c 107m shares in issue. This is based on a long-term zinc price of US\$3,000/t and an exchange rate of US\$0.985/A\$. The Glencore agreement supports our assumption that Perkoa will be commissioned and producing concentrate by Q212. A change to the structure of the Mumbwa JV would affect the valuation, but only after the successful completion of Phase 4. A gold resource in Burkina Faso would increase the valuation.

Price **A\$0.76**  
Market Cap **A\$81m**

#### Share price graph



#### Share details

Code BTR  
Listing ASX  
Sector Materials  
Shares in issue 106.9m

#### Price

52 week High Low  
A\$0.99 A\$0.38

#### Balance Sheet as at 30 June 2010

Debt/Equity (%) N/A  
NAV per share (A\$) 0.54  
Net cash (A\$m) 12.2

#### Business

Blackthorn Resources is an Australian exploration company with projects in Burkina Faso and Zambia. By focusing on priority projects, the company aims to become a self-funding exploration and mining company.

#### Valuation

	2009	2010e	2011e
P/E relative	N/A	N/A	N/A
P/CF	N/A	N/A	N/A
EV/Sales	N/A	N/A	N/A
ROE	N/A	N/A	N/A

#### Revenues on geography

UK	Europe	US	Other
0%	0%	0%	100%

#### Analysts

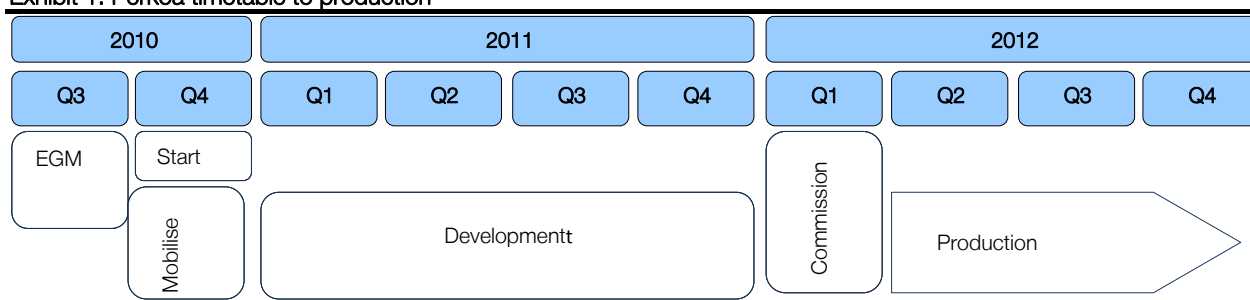
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## A partner for Perkoa

Blackthorn Resources and Glencore International AG (Glencore) have concluded negotiations on the commercial terms of a JV which aims to bring the Perkoa zinc project into production. Glencore has carried out a comprehensive due diligence of the project over the past six months, including a review of the logistical demands of transporting zinc concentrate from the mine site in Burkina Faso to the West African coast for export. Asserting that the best way to finance the Perkoa project is to enter into a JV at the project level, the Blackthorn Resources board has approved the JV terms (subject to certain conditions being met) and has obtained shareholder approval by means of an EGM held on 14 October 2010.

With this JV in place and under the right circumstances Blackthorn Resources is a company capable of producing zinc concentrate by mid-2012. Its investment to date in on-site construction works at Perkoa will minimise the lead time to production once a decision is taken to recommence development. Following approval from shareholders, that decision is expected to be made in October. We predict that if the decision is taken in October it will take until the end of the year to mobilise a site team, which will need a further 15 months to develop and commission the project, so zinc production could commence as early as Q212.

**Exhibit 1: Perkoa timetable to production**



Source: Blackthorn Resources

### The terms of the Perkoa JV

Although a legally binding agreement has been signed, the conclusion of the JV between Blackthorn Resources and Glencore is subject to a limited number of conditions precedent, one of those being the transfer of the project owner company's interest into a new project owner company. Blackthorn Resources' ownership of the Perkoa project resides in a wholly owned subsidiary, Nantou Mining B.V. (Nantou Mining), which, under the terms of this agreement, will transfer its 90% interest in the project to a NewCo, which in turn will hold 90% of the project, the remaining 10% being held by the government of Burkina Faso as a government free carry. Blackthorn Resources will hold a 44.3% interest in NewCo, which translates to 39.9% of the Perkoa project. Glencore will hold 50.1% of the project and will fully fund the development completion of Perkoa, a 6.3 million tonne (Mt) reserve at a zinc grade of 13.9%. Zinc concentrate grading 53% and not already contracted will be purchased by Glencore through an off-take agreement which comes into effect when the JV is formed. It is anticipated that under the JV Glencore will develop and manage the mine, including operations, production and logistics.

## Phase 4 drilling at Mumbwa

A 14,500m drilling campaign has commenced at the Mumbwa copper and gold project in Zambia. The project is a JV between Blackthorn Resources and BHP Billiton and this is the fourth phase of an ongoing exploration programme set up to discover an iron oxide copper-gold (IOCG) system analogous to Olympic Dam, Ernest Henry and Prominent Hill in Australia. During Phase 3, Blackthorn Resources defined a JORC code compliant inferred resource estimate of 87Mt at a copper grade of 0.94% at Kitumba, several kilometres to the south-south-east of where drilling is now underway. The current phase of drilling comprises 15 drill targets along the 20km-long Mushingashi-Mutoya-Kitumba anomalies, a regional scale gravity anomaly that is the primary zone of interest at Mumbwa. Exploration activities are fully funded and managed by BHP Billiton. Although BHP Billiton is managing Phase 4 of the project, Blackthorn Resources personnel are kept fully apprised of activities and are in direct contact with the project team through monthly conference calls.

With the recent establishment of a camp with more than 100 personnel on site, Mumbwa is a scene of intense activity. The BHP Billiton team has already completed the first 12 holes, having drilled 11,889m, and is currently drilling a further three holes with three rigs in operation. A ground-based geophysical survey is also underway, which is allowing the team to ground proof anomalies and is assisting to guide the drilling. Additional targets are being reviewed through interpretation of this data, which could result in a further expansion of the scope of Phase 4. Logging and sampling is underway and from the first hole results have indicated the presence of an iron oxide copper-gold (IOCG) system. Brecciated rock types and mineral alteration assemblages are consistent with IOCG styles of mineralisation and the first hole intersected numerous zones of copper mineralisation from 400m (down-hole depth) with gold also reported at depths of 626m and 820m down-hole. Grades in the first hole are generally low but the presence of copper and gold supports the IOCG model, and proves the prospectivity of the Mushingashi-Mutoya-Kitumba anomalies.

### Exhibit 2: Results from the seventh hole, Mumbwa Phase 4

Note: Diamond drilling only; depths are down-hole; hole drilled at an inclination of 60° from the horizontal; grades calculated at a cut-off of 0.25% for Cu and 0.25g/t for Au.

Drillhole number	Width (m)	Copper grade (%)	Gold grade (g/t)	Depth (m)
MUM-0007BD	4	1.13		534 to 538
MUM-0007BD	2	0.50		540 to 542
MUM-0007BD	2	0.35		552 to 554
MUM-0007BD	6	1.16		598 to 604
including	2	2.03		600 to 602
MUM-0007BD	2	0.30		652 to 654
MUM-0007BD	2	1.05		664 to 666
MUM-0007BD	2		0.35	690 to 692
MUM-0007BD	2	0.51		700 to 702
MUM-0007BD	10	1.80		758 to 768
including	4	3.53		760 to 764
MUM-0007BD	10	0.93		772 to 782
including	4	1.38		772 to 776
MUM-0007BD	4	0.95		790 to 794

Source: Blackthorn Resources

In mid-October the company announced that the seventh hole of Phase 4 had intersected significant copper mineralisation from a drilled depth of 360m. Exhibit 2 presents the results from that hole between a down-hole depth of 534m and 794m. Holes drilled in this phase of exploration are widely spaced, in some cases more than 2,000m apart, because they are only planned to confirm the cause of the anomaly and to compare that with Kitumba. The holes are not designed to define a resource but results can be incorporated into a resource calculation at a future date should additional drilling be successful in proving the presence and continuity of mineralisation. Recent results provide a strong basis for continued drilling of the Mushingashi-Mutoya-Kitumba anomalies.

A concept study is planned to evaluate the project's development potential. This will incorporate code complaint resource evaluation work to complement the inferred resource already defined at Kitumba. BHP Billiton is seeking proposals from a number of consultancy groups to conduct the concept study.

## **Recent events at Mumbwa**

In early September 2010 Blackthorn Resources had to request a trading halt from the ASX because the Zambian government cancelled its exploration licence at Mumbwa, which is jointly held with its JV partner BHP Billiton. The suspension went into effect on 3 September 2010. The decision was appealed and subsequently reversed by the Ministry of Mines. On 6 September 2010 the company announced that it had received written notice from the Ministry confirming the validity of the Mumbwa JV licence and the ASX reinstated the official quotation of the company's securities on the same day.

Exploration activities continued during this period and the speed with which the situation was resolved is a credit to the JV partnership and the partner companies. It also appears that the Ministry responded appropriately following the appeal. Nevertheless we consider mining legislation in Zambia to be, at times, inconsistent and this constitutes a degree of risk to the success of the Mumbwa project.

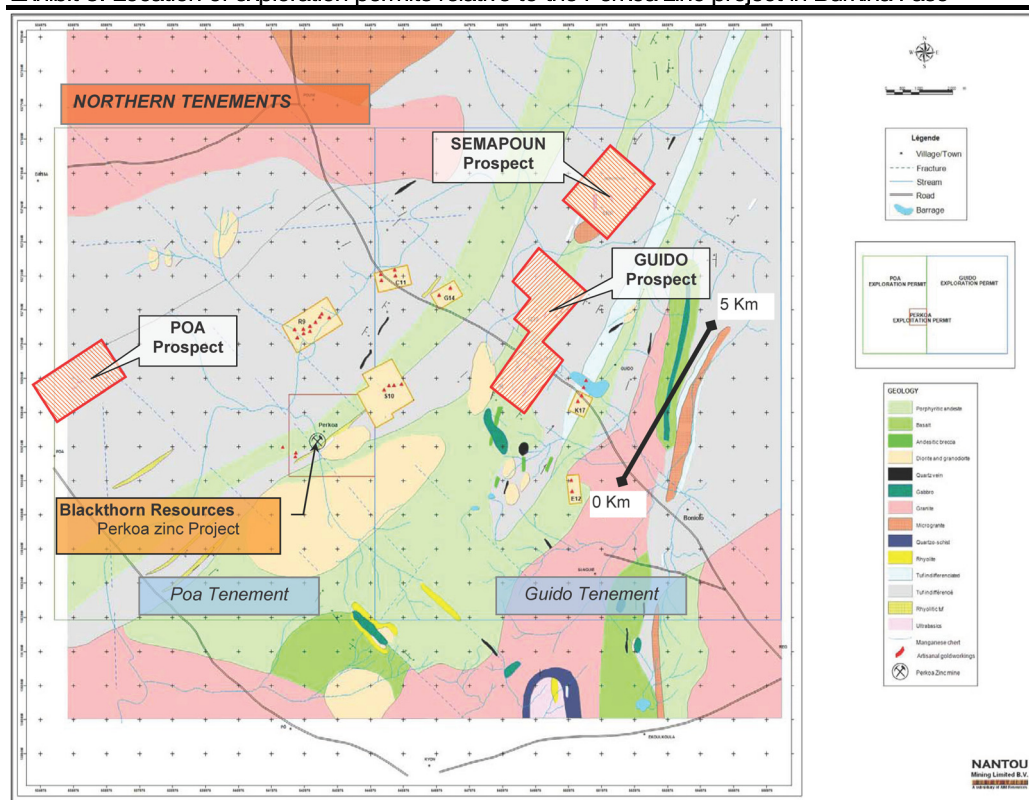
It remains the view of Blackthorn Resources that this project represents the best potential for future growth and it would appear that BHP Billiton shares a similar optimism judging by its actions, not only in response to recent events, but also through its investment in Mumbwa. In mid-August the JV had completed 25% of Phase 4 so the campaign is well underway and, once completed, BHP Billiton will, subject to certain conditions being included, have the option to increase its share of the project from 40% to 60%. While the preferred outcome is for BHP Billiton to continue to fund the project, the alternative outcome would result in full ownership of the project by Blackthorn Resources albeit with a production royalty retained by BHP Billiton.

## Burkina Faso gold

Blackthorn Resources has completed the first phase of exploration drilling for gold in areas surrounding Perkoa and is compiling a JORC code compliant resource study due for completion by the end of the year. The Perkoa orebody is located in the Boromo Greenstone Belt of central Burkina Faso and is the only significant zinc and silver deposit discovered to date in a region well known for prolific gold deposits hosted in the rock sequences of the Birimian Supergroup. It has always been the company's intention to test the gold potential of this area given the prospective nature of the geology underlying much of Burkina Faso, which is reflected in the intense exploration activity and number of gold discoveries being made in the country in recent years.

The company holds exploration permits surrounding the Perkoa exploitation permit known as Guido and Poa (Exhibit 3). It holds additional permits immediately to the north-east of Guido and south-west of Poa, as well as a significant land package more than 120km to the south-south-west of Perkoa. The properties are 100% held by Blackthorn Resources and it fully funds exploration activities. In the event of defining an economically viable gold deposit in this area, the company already has the benefit of operating in the country along with JV infrastructure nearby which is likely to become a fully serviced facility by the end of 2011. This is a significant advantage when comparing Blackthorn Resources with other gold explorers in Burkina Faso that do not have access to existing infrastructure.

**Exhibit 3: Location of exploration permits relative to the Perkoa zinc project in Burkina Faso**



Source: Blackthorn Resources

## Exploration drilling

The drilling programme was planned based on airborne geophysical surveys originally designed to identify Perkoa-type bodies but which were reinterpreted to identify targets for gold mineralisation. Ground-based geophysics has also been used to guide drilling. The MSA Group (MSA), an independent exploration contracting and consulting company, has been advising Blackthorn Resources and has experienced personnel to help guide exploration activities. Drilling has been taking place on three distinct prospects of which the Guido prospect has received the majority of the drilling metres (49 holes) with only eight holes drilled at Poa and 24 holes drilled at Semapoun. At Guido, drilling has been carried out in three distinct zones to target parallel north-east – south-west oriented structures described as ‘corridors’ each up to 1,000m apart. The TZ21 Corridor and the Q22 Corridor are distributed across strike from one another whereas the IK Corridor appears to be the strike extension of the Q22 Corridor, which has been off-set by a probable fault with an apparent strike slip displacement of at least 400m.

Drilling was initially carried out using reverse circulation (RC) methods, but the exploration team quickly moved to diamond core drilling (DD) after encountering excessive ground water on the Guido prospect, resulting in poor recoveries and questionable sample results. This was confirmed when some of the RC holes were twinned by core drilling, which returned higher gold values suggesting that samples from RC drilling were underestimating the gold grade. To date Blackthorn Resources has completed over 10,000m of drilling, of which more than 8,000m is from 57 DD holes and another 2,682m is from 24 RC holes.

## Drilling results

Analysis of samples from the initial drilling campaign has been completed by the ALS Laboratory in Ouagadougou, an accredited laboratory with a good reputation for gold assay. MSA has reviewed quality assurance and quality control (QA/QC) procedures for collecting data and it is expected that existing data will be suitable for inclusion in the JORC code mineral resource study currently being undertaken.

Gold has been intersected in a high percentage of the holes drilled and significant results include an intersection of 4.13g/t Au over a 15m interval from less than 39m below surface as well as numerous intersections with grades above 3g/t Au. Exhibit 4 summarises the most significant intersections from diamond drilling on the Guido and Poa prospects and shows the high number of mineralised intersections returning >1g/t Au in both areas. Blackthorn Resources has applied a relatively conservative cut-off grade of 0.15g/t Au for DD samples and only reports the weighted average grade for intersections >0.45g/t Au.

Investigation of the spatial distribution of mineralisation at Guido reveals that the best results are concentrated in certain areas of the IK Corridor and the Q22 Corridor, which are separated by as much as 1,500m across an inferred fault. This pattern is typical of early stage gold exploration in Burkina Faso and the company will need to invest in further infill and extension drilling in order to establish continuity of mineralisation along appreciable strike distances. Notwithstanding this, we expect that the mineral resource study will likely define a JORC code compliant resource, albeit a first-pass estimate only.

**Exhibit 4: Selected gold intersections at the Guido and Poa prospects**

Note: Results from diamond drilling only and using a weighted average cut-off grade of 0.45g/t Au, all holes drilled at an inclined angle starting at 60° from the horizontal.

Prospect	Zone	Drillhole number	Interval (m)	Gold grade (g/t)	Depth (m)
GUIDO	TZ21 Corridor	TZ21DH001	3	1.15	20 to 23
GUIDO	Q22 Corridor	Q22DH001	2	1.06	93 to 95
GUIDO	Q22 Corridor	Q22DH002	4	1.09	38 to 42
GUIDO	Q22 Corridor	Q22DH003	12	1.26	73 to 85
GUIDO	Q22 Corridor	GDDH021	2	3.24	14 to 16
GUIDO	Q22 Corridor	GDDH028	3	1.70	65 to 68
GUIDO	Q22 Corridor	GDDH030	2	1.28	138 to 140
GUIDO	Q22 Corridor	GDDH031,	2	1.11	131 to 133
		and	2	1.11	134 to 136
GUIDO	Q22 Corridor	GDDH032	11.7	1.87	44 to 55.7
GUIDO	Q22 Corridor	GDDH033,	3	2.72	57 to 60
		and	1	2.60	61 to 62
GUIDO	Q22 Corridor	GDDH035	5	2.03	131 to 136
GUIDO	IK Corridor	IKDH002,	5	3.98	73 to 78
		and	1	1.58	98 to 99
GUIDO	IK Corridor	IKDH003	1	3.14	100 to 101
GUIDO	IK Corridor	IKDH005	6	2.28	64 to 70
GUIDO	IK Corridor	GDDH009	2	1.10	3 to 5
GUIDO	IK Corridor	GDDH011,	6	1.50	40 to 46
		including	1	7.13	41 to 42
GUIDO	IK Corridor	GDDH012,	1	1.14	15 to 16
		and	15	4.13	39 to 54
		including	3	18.12	50 to 53
		and	2	1.00	90 to 92
GUIDO	IK Corridor	GDDH013	1	2.89	47 to 48
GUIDO	IK Corridor	GDDH036	2	1.08	92 to 94
		and	4.3	4.44	116.2 to 120.5
GUIDO	IK Corridor	GDDH037	5	1.16	102 to 107
GUIDO	IK Corridor	GDDH043	2	1.41	2 to 4
POA		POADH002	4	4.48	76 to 80
POA		POADH005	2	4.28	108 to 110
POA		POADH006,	2	3.04	85 to 87
		and	2	1.06	103 to 105
		and	4	3.19	130 to 134
POA		POADH008,	1	1.72	19 to 20
		and	1.5	1.27	103 to 104.5

Source: Blackthorn Resources

**Regional context and comparison**

While initial results are encouraging, the exploration programme is at too early a stage to predict the presence of an orebody or indeed its size and grade. However, the company is targeting an orebody similar in size to Cluff Gold's Kalsaka Mine, which exploits a measured and indicated resource of 12.1Mt at 1.6/t Au for 640koz of gold, and a further 3.3Mt of inferred resource at 1.5g/t Au for 160koz of gold. This target is based on geological similarity rather than proximity because Kalsaka is situated more than 250km from Perkoa in north-east Burkina Faso.

Located a similar distance from Perkoa in the opposite direction is Ampella Mining's Batie West Project where that company recently defined an inferred resource of 18.5Mt at 2g/t Au for 1.2Moz of gold on its Konkera prospect. At Konkera intersection depths are similar to those at Guido and Poa but intervals are regularly over 20m and in some cases up to 54m. Some of Ampella's best intersections are:

- 7.6g/t Au over a 29m interval from surface, including 10.6 g/t Au over 20m;
- 6.3g/t Au over a 21m interval from 12m below surface, including 9.4 g/t Au over 9m; and
- 2.1g/t Au over a 54m interval from 83m below surface, including 5.7 g/t Au over 13m.

The majority of this drilling is RC with some holes extended using DD methods or 'diamond tails'. To date Ampella has spent US\$13m on exploration at Batie West and its drilling over a 5km horizontal distance has confirmed the continuity and grade of gold mineralisation with the Konkera resource developed over a strike length of 3km. Ampella is planning to drill a further 80,000m by DD and RC methods and another 35,000m by auger.

The Cluff and Ampella projects are significantly more advanced than Blackthorn Resources' exploration activities in Burkina Faso. However, the results achieved by Ampella demonstrate the prospectivity of these geological settings and support its intended investment in further drilling. Blackthorn Resources is planning a second phase of drilling at Guido and Poa in 2011. The company was recently granted a three-year renewal of its exploration licences in Burkina Faso and under current legislation the licences will be eligible for a further three-year extension to July 2016.

## The zinc price

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The valuation of the Perkoa project is highly sensitive to the zinc price. As part of our previous valuation of Perkoa we determined a strong correlation between the zinc price and the oil price since 1945. This remains the case and we maintain that an actual long-term, 'fair' value for zinc could be as high as US\$3,000/t assuming a flat oil price of US\$75/bbl. We have also reviewed consensus commodity price forecasts and note that many analysts share a generally positive outlook on zinc especially over the next three years – the highest estimate being above US\$3,500/t for 2013. On this basis, we believe that Perkoa can be valued at a zinc price of US\$3,000/t in contrast to our previous valuation at US\$2,486/t when we noted that an actual long-term, 'fair' value for zinc could be higher.

## Valuation

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Assuming Perkoa is commissioned in Q212 and that production proceeds according to the planned schedule, we estimate the project value at a zinc price of US\$3,000/t to be US\$218m (A\$221m). This value will increase to US\$268m (A\$272m) on conclusion of the deal with Glencore and the injection of equity capital into the project. As set out in the terms of the agreement with Glencore, Blackthorn Resources will sell 50.1% of the project, which will reduce its holding to 39.9% after the 10% government free carry. We estimate that the post deal value of Blackthorn Resources' share of the project will be worth US\$107m (39.9% of US\$268m) or A\$109m (39.9% of A\$272m). We previously valued Perkoa at US\$117m (A\$119m) pre-funding and US\$184m (A\$187m) post-funding. At that time the pre-funding value attributable to Blackthorn Resources

was US\$105m (A\$107m), which is similar to our latest value attributable to the company. Despite this similarity some of the base assumptions for the revised valuation have changed fundamentally. At the time of the initial valuation, the overall project risk was significantly higher because the valuation assumed that, with a 90% interest in the project, the company would develop and fund the project without a partner. The assumed zinc price was US\$2,486/t in contrast to an assumed zinc price of US\$3,000/t used in the latest valuation. With the Glencore deal in place, the economics of the project are more robust and even at a zinc price of US\$2,380/t (the LME cash buyer price on 18 October 2010), the project value is US\$149m (A\$151m) translating to a share price of 100Ac. At a zinc price of US\$3,000/t, the value per share is 144Ac.

Unlike Perkoa, Blackthorn Resources' other assets are early-stage projects and are consequently more difficult to value. At the Mumbwa JV copper and gold project, the inferred mineral resource for Kitumba is valued on the basis of copper 'in the ground'. We have calculated a weighted sector average of US\$59.27 (A\$60) per inferred tonne based on an analysis of 12 copper exploring and producing companies. Applying this value to the Kitumba resource, which contains 817,800t of copper, yields a value of US\$49m (A\$50m). This translates to a value of US\$29m (A\$30m) based on Blackthorn Resources' current holding of a 60% interest in the JV. Once Phase 4 is successfully completed, BHP Billiton will have the option to increase its share of the project from 40% to 60% subject to a back-in payment to Blackthorn Resources estimated to be US\$11.5m (A\$11.7m). This is not reflected in our financials pending further information on the outcome of Phase 4. At our valuation of US\$49m, Blackthorn Resources' 60% share is worth US\$29m, the back-in payment would increase the project value to US\$60.5m and Blackthorn Resources' 40% share would be worth US\$24m. However, the true project value at that stage is likely to be significantly higher if the current phase of exploration succeeds in defining additional resources, in which case the value of the company's share in the project will increase commensurately.

We have valued the gold exploration properties in Burkina Faso based on the amount spent to date, US\$1.5m (A\$1.5m), a percentage of the amount to be spent in the current financial year, US\$2.85m (A\$2.89m), with an uplift of 100% by applying a multiplying factor of two based on the Kilburn method of valuation of non-producing mineral properties. In this case, our value of US\$4m is calculated as follows: value = 2\*(amount spent in US\$+18% of amount to be spent in US\$).

#### **Exhibit 5: Post deal valuation summary for Blackthorn Resources**

Note: Project values in US\$, financials in A\$.

	Edison Valuation (US\$m)	Ownership (%)	Attributable Value (US\$m)
Perkoa	268	39.9	107
Mumbwa	49	60	29
Exploration licences (Burkina Faso)	4	100	4
Cash	12	100	12
<b>Total (US\$m)</b>	<b>333</b>		<b>152</b>
Shares in issue (millions)			107
<b>Value per share (US\$)</b>			<b>1.42</b>
<b>Value per share (A\$)</b>			<b>1.44</b>

Source: Edison Investment Research

## Assumptions

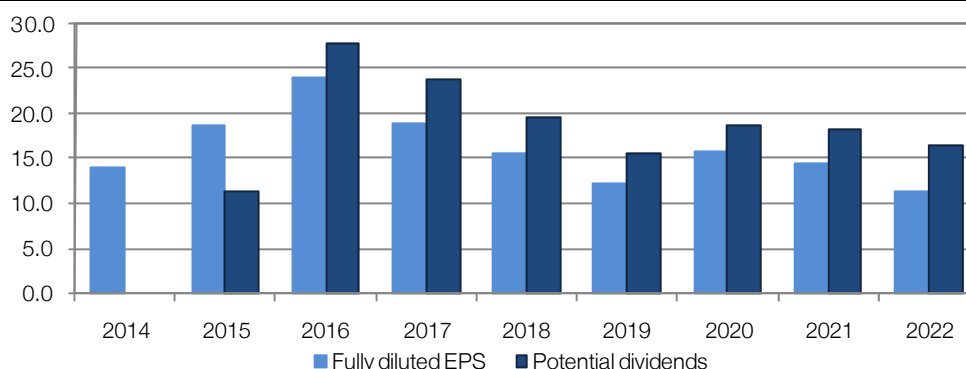
In valuing the Perkoa project, our key assumptions were as follows:

- Glencore purchases a 50.1% stake in the project for US\$50m and commits a further US\$30m in project finance.
- A Perkoa production start date of Q212 with first revenues reflected in FY13.
- A zinc price of US\$3,000/t.

## Earnings and dividends

By considering cash-flows through Blackthorn Resources to shareholders on the basis of the mining production schedule and assuming that a 50.1% stake in the project is taken up by Glencore, we calculate earnings per share (EPS) and dividends per share (DPS) as shown in Exhibit 6. At the current share price and taking the reduced ownership into account, this will allow the company to pay a dividend as a result of operations at Perkoa by FY15 with the dividend potentially rising to a high of 27.88Ac per share in FY16.

**Exhibit 6: Forecast earnings and potential dividends, FY14-22 (Australian cents)**



Source: Edison Investment Research

Discounting dividends back to the start of FY11 gives a value of 69.46Ac per share which will rise to 101.70Ac per share in FY15, the first year dividends could theoretically be paid (at Zn=US\$3,000/t). In reality Blackthorn Resources is likely to adopt a progressive or flat dividend policy in which case the same result can be achieved by making a flat distribution to shareholders of 18.92Ac per share for the eight years from 2015 to 2022. If through exploration Blackthorn Resources is able to extend the reserves at Perkoa and extend the mine life beyond 20 years, applying a 5% dividend yield suggests that the share price could rise as high as 378.34Ac.

## Sensitivities

The table below demonstrates the effect of the zinc price on the post deal value of Perkoa.

**Exhibit 7: Perkoa valuation at varying zinc prices**

Note: NPV calculation includes funding of US\$50m for total capex of US\$77.8m (A\$81.7m).

Flat zinc price (US\$/t)	1,617	2,000	2,486	3,000	3,500
Project value (US\$m)	0	76	169	268	364
Project value (A\$m)	0	77	172	272	370

Source: Edison Investment Research

## Working costs, dilution and funding risk

A number of early-stage risks apply to the Perkoa project. Significantly, however, the Glencore deal mitigates most of the funding risk in particular and also the sales risk. Remaining risks may be broadly classified as 'operational'. According to SRK Consulting (SRK), total working costs for Perkoa are expected to be US\$91/t processed (US\$842/t of zinc metal sold), calculated Free On Board (FOB). We previously stated that, in the pre-funding scenario, a 40% increase in unit costs would reduce the project value to US\$8m (A\$8.1m). In the post funding scenario, and at a zinc price of US\$3,000/t, we now determine that the project would have a positive value even if the working costs were to double.

## Zinc grades, production lead time, partners and potential

Positive sensitivities include: the high zinc grade of the Perkoa orebody, the short lead time to production at Perkoa, the partnerships with Glencore and BHP Billiton at Perkoa and Mumbwa respectively, the progress at Mumbwa and the potential for increasing the size of the resource there. The potential for a significant gold discovery has increased markedly as a result of exploration activities in Burkina Faso. Assuming the company announces a JORC code compliant mineral resource as planned, we expect this to add to the attributable value of the company.

## Financials

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### Perkoa project funding

As a result of the Glencore agreement, the company is now in a position to follow its preferred option to finance the completion of the Perkoa development and to restart the project by entering into a joint venture at the project level. In our pre-funding analysis, we stated that the effect of selling a stake in the project to fund Blackthorn Resources' share of capex would be equivalent to selling a stake in return for funding 100% of the capex requirement of US\$72m (A\$73m). Based on our January 2010 valuation for the project of US\$117m (at that time A\$128m), we calculated that the company would need to sell a stake of more than 50% to achieve this outcome. As set out in the terms of the agreement with Glencore, Blackthorn Resources is indeed proposing to sell 50.1% of the project, which will reduce its holding to 39.9% after the 10% government free carry. We estimate that, after diluting its stake as a result of the Glencore transaction, Blackthorn Resources' share of the project will be worth A\$109m (39.9% of A\$272m) or US\$107m (39.9% of US\$268m). Our financials assume that the proceeds from the sale of a stake in Perkoa are received pro-rata in FY12 and FY13 in line with the timing of planned capital expenditure. NB, for the sake of consistency, transparency and ease of comparison with our previous reports, we have presented our financials throughout this document on the basis that Blackthorn Resources fully consolidates the Perkoa project and then subtracts a 60.1% 'minority' (in fact a 'majority', being 50.1% for Glencore and 10% for the Government of Burkina Faso). In reality, we expect Blackthorn Resources to equity account Perkoa to reflect its significant, but minority, interest in the project. In the meantime, the company's cash position was A\$12.2m on 30 June 2010. In terms of future funding, we calculate that the partners in the Perkoa project (ie Glencore and Blackthorn Resources) will need to raise an additional c US\$37m in working capital over and above that already committed during the project life.

## Exhibit 8: Financials

Year end 30 June	A\$ '000s	2008	2009	2010	2011e	2012e
		IFRS	IFRS	IFRS	IFRS	IFRS
<b>PROFIT &amp; LOSS</b>						
<b>Revenue</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Cost of Sales		0	0	0	0	0
Gross Profit		0	0	0	0	0
<b>EBITDA</b>		<b>(7,315)</b>	<b>(2,623)</b>	<b>(2,477)</b>	<b>(4,296)</b>	<b>(4,296)</b>
<b>Operating Profit (before GW and except.)</b>		<b>(7,386)</b>	<b>(2,666)</b>	<b>(2,517)</b>	<b>(4,336)</b>	<b>(10,395)</b>
Intangible Amortisation		0	0	0	0	0
Exceptionals		0	(72,084)	15,120	0	0
Other		0	0	0	0	0
<b>Operating Profit</b>		<b>(7,386)</b>	<b>(74,750)</b>	<b>12,603</b>	<b>(4,336)</b>	<b>(10,395)</b>
Net Interest		4,931	2,616	495	365	104
<b>Profit Before Tax (norm)</b>		<b>(2,455)</b>	<b>(50)</b>	<b>(2,022)</b>	<b>(3,971)</b>	<b>(10,291)</b>
<b>Profit Before Tax (FRS 3)</b>		<b>(2,455)</b>	<b>(72,134)</b>	<b>13,098</b>	<b>(3,971)</b>	<b>(10,291)</b>
Tax		0	0	0	0	(103)
<b>Profit After Tax (norm)</b>		<b>(2,455)</b>	<b>(50)</b>	<b>(2,022)</b>	<b>(3,971)</b>	<b>(10,394)</b>
<b>Profit After Tax (FRS 3)</b>		<b>(2,455)</b>	<b>(72,134)</b>	<b>13,098</b>	<b>(3,971)</b>	<b>(10,394)</b>
Average Number of Shares Outstanding (m)		103.8	106.9	106.9	106.9	106.9
EPS - normalised (c)		(2.37)	(0.05)	(1.89)	(3.72)	(9.72)
EPS - FRS 3 (c)		(2.37)	(67.49)	12.25	(3.72)	(9.7)
Dividend per share (c)		0.0	0.0	0.0	0.0	0.0
Gross Margin (%)		N/A	N/A	N/A	N/A	N/A
EBITDA Margin (%)		N/A	N/A	N/A	N/A	N/A
Operating Margin (before GW and except.) (%)		N/A	N/A	N/A	N/A	N/A
<b>BALANCE SHEET</b>						
<b>Fixed Assets</b>		<b>83,645</b>	<b>36,173</b>	<b>49,952</b>	<b>53,270</b>	<b>111,739</b>
Intangible Assets		82,640	21,241	34,545	38,524	42,503
Tangible Assets		995	14,930	15,406	14,745	69,235
Investments		10	2	1	1	1
<b>Current Assets</b>		<b>58,163</b>	<b>19,187</b>	<b>13,441</b>	<b>3,469</b>	<b>17</b>
Stocks		33	45	89	0	0
Debtors		375	655	1,165	0	0
Cash		57,718	18,371	12,170	3,452	0
Other		37	116	17	17	17
<b>Current Liabilities</b>		<b>(18,765)</b>	<b>(2,625)</b>	<b>(2,776)</b>	<b>(93)</b>	<b>(23,811)</b>
Creditors		(18,765)	(2,625)	(2,776)	(93)	(93)
Short term borrowings		0	0	0	0	(23,718)
<b>Long Term Liabilities</b>		<b>(1,000)</b>	<b>(2,800)</b>	<b>(2,800)</b>	<b>(2,800)</b>	<b>(2,800)</b>
Long term borrowings		0	0	0	0	0
Other long term liabilities		(1,000)	(2,800)	(2,800)	(2,800)	(2,800)
<b>Net Assets</b>		<b>122,043</b>	<b>49,935</b>	<b>57,817</b>	<b>53,846</b>	<b>85,145</b>
<b>CASH FLOW</b>						
<b>Operating Cash Flow</b>		<b>(5,632)</b>	<b>(5,394)</b>	<b>(1,884)</b>	<b>(5,104)</b>	<b>(4,296)</b>
Net Interest		4,931	2,616	495	365	104
Tax		0	0	0	0	(103)
Capex		(38,630)	(39,210)	(4,869)	(3,979)	(22,875)
Acquisitions/disposals		0	0	0	0	0
Financing		85,041	1,552	0	0	0
Dividends		0	0	0	0	0
Other		0	1,089	57	0	0
Net Cash Flow		45,710	(39,347)	(6,201)	(8,718)	(27,170)
<b>Opening net debt/(cash)</b>		<b>(12,008)</b>	<b>(57,718)</b>	<b>(18,371)</b>	<b>(12,170)</b>	<b>(3,452)</b>
HP finance leases initiated		0	0	0	0	0
Other		0	0	0	0	0
<b>Closing net debt/(cash)</b>		<b>(57,718)</b>	<b>(18,371)</b>	<b>(12,170)</b>	<b>(3,452)</b>	<b>23,718</b>

Source: Edison Investment Research

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