

## BUY

Current Price **\$0.43**  
Target Price **\$2.10**

Ticker: **BKY**  
Sector: **Energy**

Shares on Issue (m): **181.8**  
Market Cap (\$m): **78.2**  
Net Cash (\$m): **6.2**  
Enterprise Value (\$m): **72.0**  
F.F. Enterprise Value (\$m): **222.0**

52 wk High/Low: **\$0.62** **\$0.19**  
12m Av Daily Vol (m): **0.20**

**Mineral Inventory (100% basis)**

	Tonnes	Grade	Contained
	Mt	U <sub>3</sub> O <sub>8</sub> ppm	Mlb U <sub>3</sub> O <sub>8</sub>
Mineral Resource	83	495	91

**Directors**

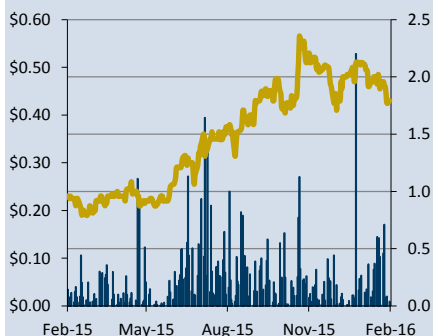
Ian Middlemas	Non-Executive Chairman
Paul Atherley	Managing Director
James Ross	Non-Executive Director
Robert Behets	Non-Executive Director

**Substantial Shareholders**

Anglo Pacific Group Plc	16.6%
Hadron Capital LLP	7.8%
Resource Capital Fund V L.P.	7.2%
Commonwealth Bank of Australia	5.7%
Global X Management Company	5.2%

\* All figures in AUD unless stated otherwise

Share Price Graph



Monday, 15 February 2016

## Berkeley Energia

### Re-initiation – In the Zona

Analysts | Matthew Keane | Patrick Chang

#### Quick Read

Argonaut reinitiates coverage of Berkeley Energia (ASX:BKY, LON:BKY) with a BUY recommendation and \$2.10 target price. Our recent Salamanca (Spain) site visit confirms it is one of the few uranium development projects globally with near term production potential and the capability to generate strong margins at current U<sub>3</sub>O<sub>8</sub> prices. Salamanca benefits from excellent infrastructure and exceptional leach kinetics which drives low operating and capital costs. The Company aims to commence construction in H2 CY16 with first production expected late-2017 (Argonaut assumption early-2018). BKY is well positioned to take advantage of growing uranium demand with a significant production profile and high margins which enhances investment appeal.

#### Event & Impact | Positive

**Positive PFS:** BKY released a revised PFS for the Salamanca project incorporating the recently defined, higher grade Zona 7 deposit. Initial capex to first production is estimated at US\$81m with US\$150m peak funding requirement. Life of mine (LOM) C1 cash costs will be <US\$20/lb. This places Salamanca deep in lowest cost quartile of uranium projects globally and generates high margins against the current long-term price (US\$44/lb). Total LOM capex is ~US\$224m incorporating staged development of three mines commencing at Retortillo, then Zona 7 and finally Alameda. Development of latter mines should be largely funded from project cash flows. Salamanca benefits from low costs grid power, cheap acid from nearby producers and excellent heap leach kinetics which drives low operating costs. A final feasibility study is due in May CY16.

**Zona & transformational:** The recently discovered Zona 7 deposit, located within 10km of the proposed processing facility, has transformed the projects economics with higher grade and low strip ratios. This deposit adds seven years mine life with a Resource of 31.4Mlb U<sub>3</sub>O<sub>8</sub> at 645ppm and an average strip ratio of ~1:1 (vs a total minable Resource of 66Mlb at 503ppm with a 1:1.8 strip ratio).

**Site visit:** Argonaut's recent site visit incorporated an inspection of mining locations, plant and leach pad sites and drill core. A key takeaway was the strength of management in-country who have a proven track record of permitting and developing projects within Spain and internationally. We are confident remaining permits will be attained and that infrastructure development will commence within 2016.

**Exploration upside:** BKY is currently drilling proximal to Zona 7, aiming to extend this orebody with recent holes intercepting mineralisation at depth below Zona 7 (including 14m @ 4,481ppm U<sub>3</sub>O<sub>8</sub>). Regionally, a new geological interpretation of mineralisation controls has demarcated a number of drill targets within the Salamanca project. Ongoing news flow is expected throughout H1 CY16 from the current ~11,000m drilling program.

#### Recommendation

Argonaut reinitiates coverage with a BUY recommendation and \$2.10 target price.

## Berkley Energia

Recommendation	<b>BUY</b>
Current Price	<b>0.43</b>
Target Price	<b>2.10</b>

Profit & Loss (US\$m) 30 June	2015A	2016E	2017E	2018E
Sales revenue	0.0	0.0	0.0	101.3
Other income	0.6	0.3	1.0	0.1
Operating costs	0.0	0.0	0.0	57.8
Exploration and evaluation	6.7	6.2	1.5	1.5
Corporate & marketing	0.9	2.6	3.0	2.5
Other	0.9	-0.7	0.0	0.0
<b>EBITDA</b>	<b>-7.9</b>	<b>-7.8</b>	<b>-3.5</b>	<b>39.6</b>
D&A	0.0	0.0	0.0	5.6
<b>EBIT</b>	<b>-7.9</b>	<b>-7.8</b>	<b>-3.5</b>	<b>34.0</b>
Impairments	0.0	0.0	0.0	0.0
Tax expense	0.0	0.0	0.0	3.2
Changes in Foreign Exchange	0.0	0.0	0.0	0.0
<b>NPAT</b>	<b>-7.9</b>	<b>-7.8</b>	<b>-3.5</b>	<b>30.9</b>
<b>Normalised NPAT</b>	<b>-7.9</b>	<b>-7.8</b>	<b>-3.5</b>	<b>30.9</b>

Cash Flow (US\$m)	2015A	2016E	2017E	2018E
<b>Operating Cashflow</b>	<b>-6.8</b>	<b>-2.9</b>	<b>-2.0</b>	<b>44.3</b>
- Capex	0.0	0.0	88.7	126.1
- Exploration & evaluation	6.7	6.9	2.0	2.0
- Asset purchases (+ asset sales)	0.1	0.0	0.0	0.0
<b>Free Cashflow</b>	<b>-13.6</b>	<b>-9.8</b>	<b>-92.7</b>	<b>-83.8</b>
- Dividends	0.0	0.0	0.0	0.0
+ Equity raised	0.0	0.0	107.0	0.7
+ Debt drawdown (- repaid)	0.0	0.0	40.0	70.0
<b>Net Change in Cash</b>	<b>-6.9</b>	<b>-9.8</b>	<b>54.3</b>	<b>-13.1</b>
Effects of exchange rate	0.0	0.0	0.0	0.0
Cash at end	13.4	3.6	57.9	44.7

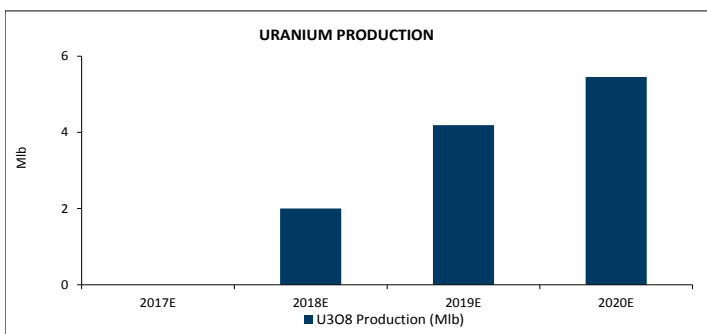
Balance Sheet (US\$m)	2015A	2016E	2017E	2018E
Total assets	29.9	39.9	146.9	170.3
Total debt	0.0	0.0	0.0	0.0
Total liabilities	1.3	1.3	1.3	1.3
Shareholders funds	28.5	38.6	145.5	169.0

Production Summary (Mlb)	2015A	2016E	2017E	2018E
Salamanca	0.0	0.0	0.0	2.0

Unit Cash Cost (US\$/lb)	0.00	0.00	0.00	53.05
U3O8 Price (US\$/lb)	37.21	40.00	55.00	65.00

Exchange Rate Assumptions (AUD/AUD)	0.84	0.71	0.70	0.70
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Attributable Reserves & Resources	Mt	U3O8 Grade	U3O8 Mlb
<b>Resources</b>			
Retortillo	16	422	14.5
Zona 7	22	645	31.4
Alameda	21	462	21.1
Gambuta	13	394	11.1
Other	12	477	12.5
<b>Total Resources</b>	<b>83.0</b>	<b>495</b>	<b>90.5</b>

Equities Research  
Analyst: Matthew Keane

Sector	<b>Metals &amp; Mining</b>
Issued Capital (m)	<b>181.8</b>
Market Cap (m)	<b>\$78.2</b>
Date	<b>15-February-2016</b>

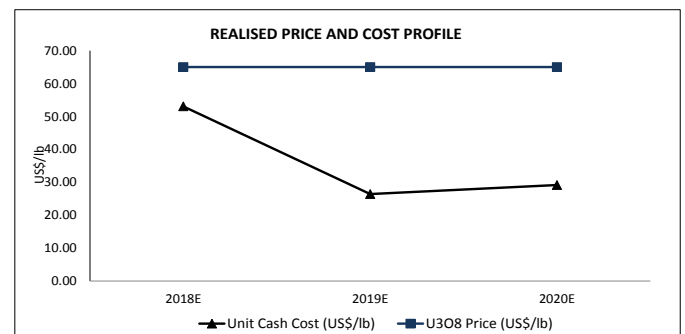
Financial Summary	2015A	2016E	2017E	2018E
<b>Reported earnings</b>				
Net profit (US\$m)	(7.9)	(7.8)	(3.5)	30.9
EPS (A\$cps)	(4.4)	(4.3)	(1.9)	17.0
PER (x)	(9.9)	(10.0)	(22.2)	2.5
<b>Normalised earnings</b>				
Net profit (US\$m)	(7.9)	(7.8)	(3.5)	30.9
EPS (A\$cps)	(4.4)	(4.3)	(1.9)	17.0
EPS growth (%)	NA	(1.3)	(54.9)	(977.1)
PER (x)	(9.9)	(10.0)	(22.2)	2.5
<b>Cashflow</b>				
Operating cashflow (\$m)	(6.8)	(2.9)	(2.0)	44.3
GCFPS (A\$cps)	(3.8)	(1.6)	(1.1)	24.4
PCF (x)	(11.5)	(26.9)	(38.7)	1.8
<b>Dividend</b>				
Dividend (A\$cps)	0.0	0.0	0.0	0.0
Yield (%)	0.0	0.0	0.0	0.0

Financial Ratios	2015A	2016E	2017E	2018E
<b>Balance Sheet Ratios</b>				
Total Debt / Equity (%)	0	0	0	0
Interest cover (x)	0	0	0	0
Acid test ratio (x)	3.0	-16.4	-37.5	23.4
<b>Profitability Ratios</b>				
Net profit margin (%)	-	-	-	30.5
Return on assets (%)	-47.8	-21.5	-4.0	27.1
Return on equity (%)	-27.7	-20.2	-2.4	18.3

Valuation Summary	A\$m	A\$/sh
Salamanca	742	2.12
Exploration potential	20	0.06
Corporate Valuation	-35	-0.10
Unpaid Capital	1.0	0.00
Cash est.	6	0.02
Debt	0	0.00
<b>Total @ 12% discount rate</b>	<b>735</b>	<b>2.10</b>

Directors	
Ian Middlemas	Non-Executive Chairman
Paul Atherley	Managing Director
James Ross	Non-Executive Director
Robert Behets	Non-Executive Director

Substantial Shareholders	%
Anglo Pacific Group Plc	16.6%
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## Project description - Uranium in Spain

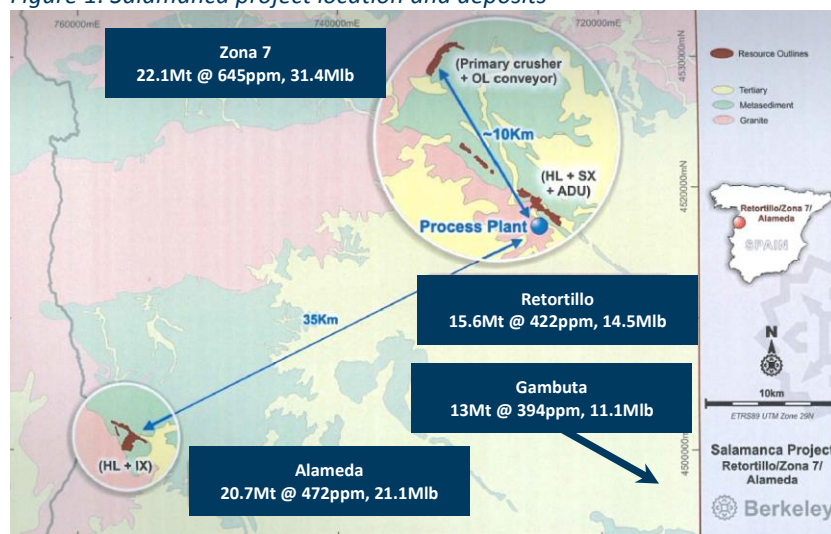
### Location

**Salamanca uranium is located in the Western Spain...**

The Salamanca uranium project is located in the central-western Salamanca province of Spain, approximately two hours from Madrid. The project comprises four key deposits including Retortillo, Zona 7, Alameda, and Gambuta. The higher grade Zona 7 deposit is located within 10km of the approved location of the proposed processing plant at Retortillo. The project has a combined Resource of 83Mt @ 495ppm for 90.5Mlb U<sub>3</sub>O<sub>8</sub> (detailed in Appendix 2).

**...comprising four deposits...**

*Figure 1: Salamanca project location and deposits*



**...including Retortillo, Alameda, Gambuta...**

**...and the higher grade Zona 7**

Source: BKY, edited by Argonaut

### Geology and mineralisation

**Uranium mineralisation is condensed in joints and fractures**

The Salamanca project comprises Silurian/Ordovician metasediments adjacent to granites. Mineralisation is typically hosted in fine to medium grained metasediments and is concentrated in veins, stockwork, joints and disseminated through matrix material. There is a strong association with brittle deformation. Mineralised zones are generally sub-horizontal and tabular. It is likely that uranium was originally concentrated in lower grade black shales (~60ppm) then later enriched in fracture planes by hydrothermal events. Up to three stages of regional deformation have been identified.

### Project History

**The project was historically mined between 1974 and 2002**

Uranium in the Salamanca region was first discovered in the 1950's and mining was undertaken between 1974 and 2001 by Empresa Nacional del Uranio S.A (ENUSA) at the Quercus plant (up to ~1.8Mlbpa). All mining areas have since been rehabilitated. BKY entered into a Cooperation agreement (JV) with ENUSA in 2009 for development of the Salamanca project. However, ENUSA demonstrated little interest in redeveloping the region as a mining province, particularly within established rehabilitation areas. In 2012 the JV was unwound and BKY attained 100% interest in exploration projects and unmined Resources, whilst waiving its rights to State Reserves where ENUSA had undertaken rehabilitation. An initial PFS was released in September 2013 incorporating just the Retortillo and Alameda deposits with 11 years mine life producing ~30Mlb U<sub>3</sub>O<sub>8</sub>. This was subsequently updated in 2015 following the discovery of the Zona 7 deposit.

**BKY attained 100% of the project in 2012**

## The right team

**BKY has a strong team both at a Board level...**

BKY has an experienced Board, chaired by veteran mining investor Ian Middlemas. The BKY team has a history of identifying pre-development projects, de-risking and divesting providing investors with strong capital gains. Recent examples include Papillion Resources (acquired by B2Gold Corp. in 2014 for more than \$600m at a 37% premium to closing price) and Mantra Resources (acquired by Atomredmetzsoloto in 2011 for \$1.1b at a 33% premium to closing price). Managing Director Paul Atherley, a mining engineer and investment banker background, joined the Company in 2015. Mr Atherley has a history of identifying undervalued projects and building greater market appreciation.

**...and in country...**

100% of Salamanca site management are Spanish. Argonauts January 2016 site visit highlighted BKY's strong, on-the-ground Spanish team. The two executives driving the permitting and development process are Javier Colilla (Senior Vice President Corporate) and Francisco Bellón (General Manager Operations). As a team, they have been involved with the permitting, financing and development of numerous projects both locally and internationally. Spanish projects in which the pair were involved include; El Valle-Boinás and Carlés (both Orvana Minerals) and Aguablanca (Lundin Mining). The experience and local relationships, of the Salamanca team ensured that key mining permits for the project were attained within ~2 years. We are impressed by the level of contingency applied to decision making, ensuring development plans are achievable.

**...with a team that has successfully permitted numerous projects**

**BKY release a revised PFS in 2015...**

## Positive Prefeasibility Study

The updated PFS for Salamanca returned an impressive NPV<sub>8</sub> of US\$765m and an 89% IRR (Company estimates). Steady state production of 4.3Mlbpa and an 18 year mine life is significant in respect to global uranium projects and should attract strategic interest given the lack of near term high quality development assets in the sector. The key economic drivers for Salamanca are low strip ratios, established infrastructure and excellent heap leach kinetics.

**...highlighting low capex and 1<sup>st</sup> quartile cash costs**

*Table 1: Key Prefeasibility Study metrics vs Argonaut assumptions*

Metric	Unit	Revised PFS	Argonaut Est.
Development Commencing	Yrs	Q3 2016	Q4 2016
First production	Yrs	Late-2017	Q1 2018
Mine Life	Yrs	18	18
Average U3O8 Price	US\$/lb	65	65
LOM C1 Cash Cost	US\$/lb	17.50	20.00
Pre-Production Capex	US\$m	81.4	82.0
Total Development Capex	US\$m	200.3	201
LOM Strip Ratio	#	1:1.8	1:1.8
LOM Recovery	%	85%	84%
LOM Production	Mlb	52	52
Peak EBITDA	US\$m	262	245
Post Tax NPV <sub>8</sub>	US\$m	764.5	701
IRR	%	89	75

Source: BKY, Argonaut

## Mining

**Salamanca will employ conventional open pit mining**

Salamanca will comprise conventional open pit mining with likely mining equipment including a 120t backhoe excavator and Cat 777 (or equivalent) ~100t dump trucks. Optimised pit shells are based upon low angle slopes (35-55°), 85% metal recovery and a US\$65/lb uranium price. Economic cut-off grades applied were 105 ppm U<sub>3</sub>O<sub>8</sub> for

Strip ratios are low, averaging 1:1.8

Retortillo, 102 ppm  $U_3O_8$  for Zona 7 and 91 ppm  $U_3O_8$  for Alameda. The topography of the Retortillo and Zona 7 mining areas is gently sloping with low intensity agriculture and limited vegetation. Strip ratios are very low averaging 1:1.8 LOM (Retortillo 1:2.7; Zona 7 1:0.98 and Alameda 1:1.8).

The current land use is low intensity cattle grazing...

Figure 2: Zona 7 pit location showing low level agricultural intensity



Source: Argonaut

...with gently undulating topography

Ore will be treated via heap leach...

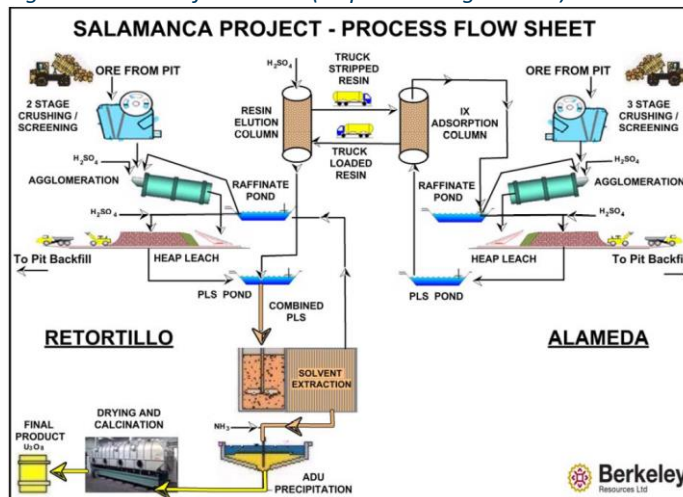
**Processing**

The processing plant will be located adjacent to the Retortillo deposit and will incorporate coarse crushing (12mm-40mm) screening, agglomeration, stacking (6m lifts) and heap leaching (diluted sulphuric acid). Acid will be first applied during crushing and agglomeration to accelerate leaching, then irrigated on the heap stack. The leach cycle is expected to be 140 days for each cell. Solvent extraction will be used to dissolve metal into pregnant liquor before precipitation, calcination and drying. Salamanca will produce a  $U_3O_8$  product.

...with ore transported to a central processing facility at Retortillo

Ore from the Zona 7 deposit will be transported to Retortillo via a 10km conventional conveyor belt. Alameda will have its own heap cells and an ion exchange (IX) circuit. Loaded resin will then be trucked 35km to the Retortillo facility.

Figure 3: Process flow sheet (as per the original PFS)



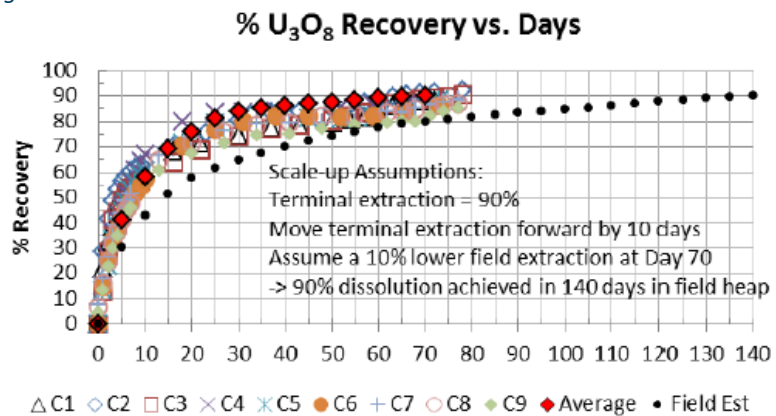
Source: BKY

**Mineralisation along rock fractures results in excellent leach kinetics...**

As uranium mineralisation is concentrated within stockworks veins, joints and fractures filling, it is readily exposed when rock preferentially breaks along these weakness planes. The combination of low acid consuming minerals and exposed mineralisation results in excellent leach kinetics and reduces acid consumption (12-18kg/t). Column test work for Retortillo yielded ~70% recovery after just 10 days. Initial results from Zona 7 metallurgical test work have demonstrated even better leachability. Further test work on Zona 7 ores is underway for inclusion in the upcoming the DFS.

...with up to 70% recovery after just 10 days

Figure 4: Retortillo 6m column test work



Source: BKY

**Mineralisation is uraninite and coffinite**

Figure 5: Retortillo ore showing uraninite (pitchblende) exposed in rock fracture



Source: Argonaut

**Low contaminant product**

The project is expected to produce a high purity U<sub>3</sub>O<sub>8</sub> product

Salamanca will produce a high purity U<sub>3</sub>O<sub>8</sub> product. The key contaminant is iron which should be controlled by managing the PH, both pre-leach and in the stack. The project has little to no vanadium and while there is minor sulphur, it is expected to be below penalty limits.

**Ripios will be backfilled into mining voids**

**Waste management**

Ripios (residue leached ore) will be backfilled into lined, mined out pit voids. This removes the requirement for tails dams, eliminating significant capex items and reducing permitting complexity. Ripios from Zona 7 will be transported on the return side of the overland convey back to their source. Process and mine water will be neutralised by water treatment plants located at the mines prior to discharge.

**Salamanca benefits from excellent infrastructure...**

**Infrastructure**

Salamanca benefits from impressive existing infrastructure funded by large EU programs, which is the driver of low upfront capital costs. There are sealed public roads connecting all three deposits and grids power running through Retortillo and Zona 7. A 4.1km road deviation is required for the Retortillo processing plant as well as the upgrade of the existing power line, from 13Kv to 45kV, with works commencing during the first half of 2016. It is estimated that power will be sourced at ~US10¢/Kwhr. Water will be accessible from nearby water courses and near-pit dewatering bores. The water balance from mines is expected to be positive in later years of mine life.

**...including grid power, sealed roads and nearby acid supply**

One of the key advantages for the project is the probable availability of cheap sulphuric acid. This is the key consumable of the project and local sources negate the need for an on-site acid plant. BKY could source acid from either the Glencore San Juan zinc smelter to the north or Freeport's copper operation in Huelva to the south.

There are a number of communities surrounding the project providing a local labour source. This removes the requirement of a mining camp. Local unemployment is high (over 30%) and BKY has received overwhelming demand for advertised vacancies.

**C1 costs are estimated at US\$17.50/lb LOM...**

**Low opex and capex**

**Lowest quartile cash costs**

Operating costs benefit from low strip ratios, low cost grid power, cheap acid from nearby producers and excellent heap leach kinetics. BKY estimates LOM C1 costs at US\$17.50/lb (C2 US\$19.80/lb). This places the project in the lowest cost quartile of uranium producers globally and competitive with in-situ recovery projects (ISR) which benefit from a lack of both mining and comminution circuits. Argonaut is more conservative with our model applying LOM C1 costs of US\$20.30/lb (C2 24.70/lb).

**...with US\$81.4m capex to first production**

**Low capex to first production**

Capex to first production is estimated at US\$81.4m to bring the Retortillo mine and processing plant into production. LOM development capex incorporating 15% contingency is US\$200.3m. Capex for Zona 7 of US\$53.9m will be incurred in the first year of production and US\$65.0m for Alameda is incurred in the second year of production (summarised in Table 2). Other capital items include US\$16.2m to develop a second pit at Retortillo in year 14 and US\$7.2m for temporary dumps and reclaiming systems at Zona 7.

Capex per mine is summarised adjacent...

Table 2: Capital breakdown for the Salamanca project

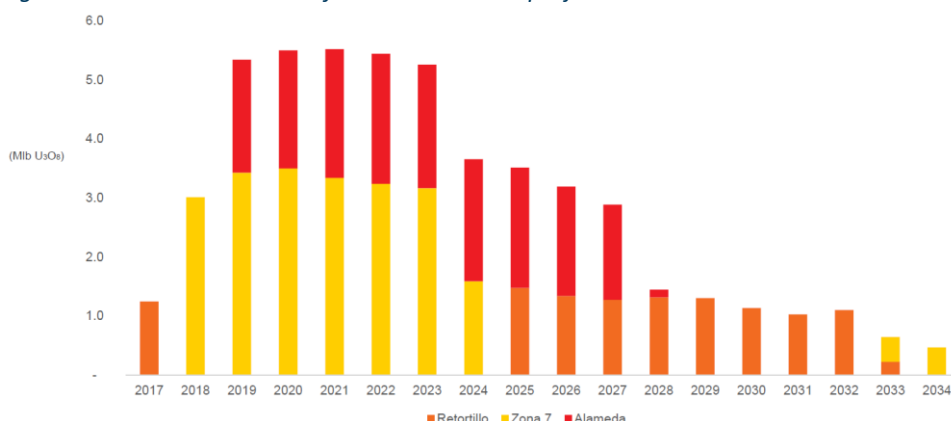
Mine	Description	Cost (US\$m)
Retortillo	Mining (pre-strip)	7.6
	Processing	36.4
	Plant Related Infrastructure	7.1
	Waste Dumps, Water Management, etc.	5.9
	Other Capex	6.4
	G&A	1.9
	Indirect Costs	16.3
	<b>Sub Total</b>	<b>81.4</b>
Zona 7	Mining (pre-strip)	3.8
	Processing	26
	Plant Related Infrastructure	4.5
	Waste Dumps, Water Management, etc.	4.2
	Other Capex	2.7
	G&A	0.2
	Indirect Costs	12.4
	<b>Sub Total</b>	<b>53.9</b>
Alameda	Mining (pre-strip)	4.4
	Processing	27.7
	Plant Related Infrastructure	6
	Waste Dumps, Water Management, etc.	7.5
	Other Capex	5.3
	G&A	0.2
	Indirect Costs	14
	<b>Sub Total</b>	<b>65</b>
<b>Total</b>		<b>200.3</b>

Source: BKY

We believe further high grade ore from Zona 7 has potential to defer staged capex

Argonaut believes the recent updated Resource estimation for Retortillo (from 13.5Mlb @ 367ppm to 14.5Mlb @ 422ppm) will result in extended mining from this deposit in the early years of the project. This may also offset Alameda resulting in deferred capex. Further, exploration success from Zona 7 (adding higher grade inventory) would result in the deferred development of higher cost deposits. Figure 6 below outlines the PFS production schedule

Figure 6: Production schedule for the Salamanca project



Source: BKY

Production will commence at Retortillo...

...then move to Zona 7 once this mine is permitted

## Financing

BKY has commence discussions with strategic investors

The Company has commenced discussions with strategic investors, end users and financiers regarding funding options for Salamanca. Given the high margins of the project, we believe it will be amenable to bank financing. However, the probable requirement to lockup significant production into offtake contracts in a low price environment may discourage the Company from taking on significant bank debt.



**High margins and low capex...**

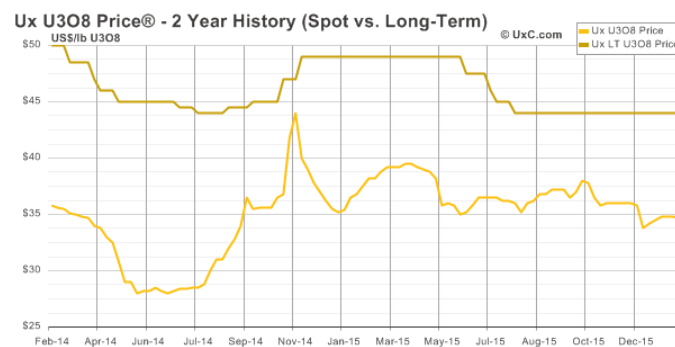
Given the substantial production profile and first quartile cash costs the project should also attract attention from traders and end users. Peak production of ~5.5Mlbpa represents ~3% of estimated 2018 global production or ~12 years annual requirement for a modern Gen III reactor. C2 costs below US\$25/lb (Argonaut est.) provide a high margin against current spot (US\$35/lb) and long-term prices (US\$44/lb), of 29% and 43% respectively. Noting that historically, ~85% of U<sub>3</sub>O<sub>8</sub> is transacted in long-term contracts.

**...should enable debt funding...**

The Company estimates a peak funding requirement of US\$150m incorporating development capex to first production and working capital. In the December Q report, BKY stated that several parties have commenced due diligence following engagement with management.

**...and make the project attract to strategic investors**

*Figure 7: UxC quoted U<sub>3</sub>O<sub>8</sub> spot and term prices over a two year period*



Source: UxC

**Salamanca has 29% and 43% margin to spot and term prices respectively**

**Attractive proposition for offtake and sales agreements**

**Sizable production and low sovereign risk jurisdiction...**

In the nuclear sector, the key criteria for end users are security of supply, scale of production and geopolitical risk. BKY's long life and significant production profile in a low sovereign risk location makes it an attractive supply partner.

**...increase off-take appeal**

Geographically, Berkeley is well positioned to deliver uranium into Europe, the second largest existing market with ~114 operable reactors consuming ~47Mlb U<sub>3</sub>O<sub>8</sub> in 2015. The project is also proximal to French conversion facilities (the next stage in the uranium fuel cycle after mining) and within three hours of a port licenced for Class 7 radioactive cargos to export product globally (Port of Santander).

**Permitting**

**Retortillo has attained key Mining and Environmental permits**

**Retortillo**

BKY has attained the key development permits for Retortillo, including Environmental and Mining licences (Exploitation Concession) and the required binding report from the Nuclear Safety Council (NSC) for Initial Authorisation of a nuclear facility. The latter is perhaps the most important. In addition, the EU has issued a favourable *View Report* acknowledging the Company has met its obligations to the Euratom Agency. The Company attained the Mining Licence in approximately two years from formal commencement.

The two remaining permits/approvals required for Retortillo include an Authorisation for Construction from the NSC and an Urbanism Licence (the authorisation for the exceptional use of rural land for industrial purposes). These permits are partly an extension of attained permits. They are non-discretionary, meaning that they do not require further public consultation and should be attainable before the commencement of construction in H2 2016.

**Zona 7 permitting should be less onerous...**

**...as it does not require a nuclear facility licence**

### Zona 7

BKY is due to commence permitting of Zona 7 in the current quarter. Importantly, as ore will be conveyed to the Retortillo facility, this mine will not require an Initial Authorisation permit from the NSC for a treatment plant, but only for the encapsulation of the ripios in the open pit. In addition, Zona 7 does not contain protected sites (Retortillo contains a protected river which required additional consideration during the permitting process). All other permits/approvals will be similar to Retortillo, therefore both BKY and governing bodies should be familiar with the process. Site management are confident that all permits can be obtained with 18 months.

**Alameda permitting requires submission to the central government**

### Alameda

Alameda is located on a State Reserve, and as such, permits and approvals must be submitted to Central Government Authorities (Retortillo and Zona 7 are submitted to regional authorities). However, BKY is confident that documentation and submissions will be similar to those required for Retortillo. As this site will contain leaching and ion exchange, an Initial Authorisation from the NSC will be required.

## Exploration and project upside

**Salamanca has significant exploration upside...**

### A new exploration model

Argonaut believes there is substantial exploration potential within the Salamanca project. Historically, exploration focussed on strong airborne radiometric anomalies, however radiometric signatures diminish rapidly with just a few metres of overburden. This was highlighted with the discovery of near-surface Zona 7 extensions discovered in late 2014 which had low radiometric expression. BKY has refined its interpretation of the controls on uranium mineralisation, placing a higher emphasis on the influence of regional structures.

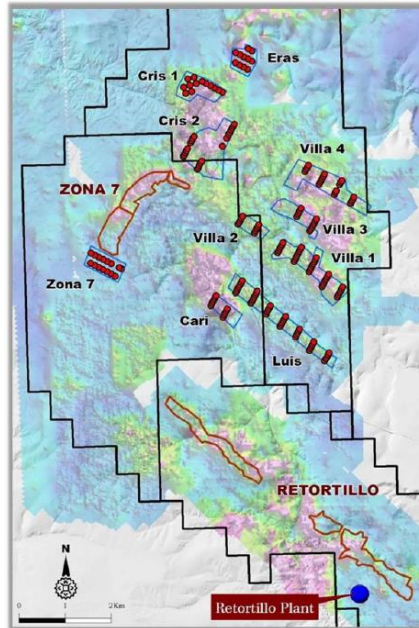
**...with a new exploration model defining multiple new targets**

By overlying trace radiometric signatures with interpreted structures, the Company has identified new exploration targets. Targets in the current ~11,000m drill program have been prioritised based on proximity to the defined processing plant (~10km radius), proximity to existing Resources, historical drill intercepts, radiometric anomalism and structural controls/linages. The planned drill program and targets are depicted in Figure 8 below.

**BKY has commenced an 11,000m drilling program...**

**...aiming to extend Zona 7 and define new satellite Resources**

Figure 8: Exploration targets overlain with radiometric anomalism



Source: BKY

**Zona 7 continuation at depth**

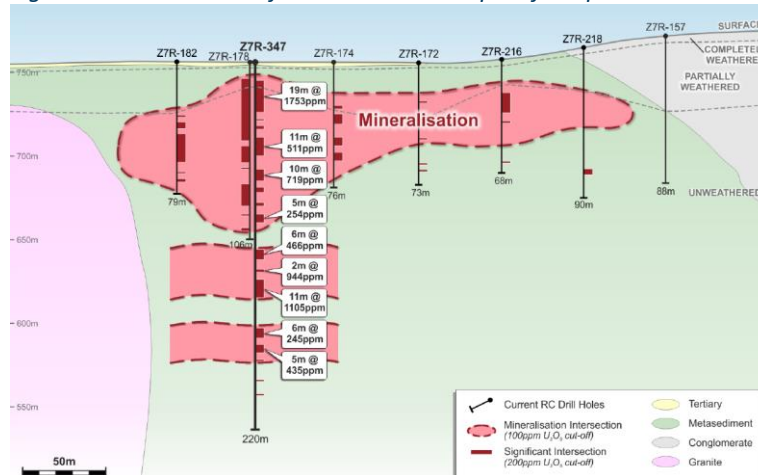
**Recent drilling discovered mineralisation below Zona 7...**

Recent drilling has highlighted the potential for depth extension at Zona 7. Significant intercepts were encountered in numerous holes below the defined Resources. Better intercepts include:

- Hole Z7R-347: 11m @ 1,105ppm U<sub>3</sub>O<sub>8</sub> from 130m
- Hole Z7R-348: 14m @ 4,481 ppm U<sub>3</sub>O<sub>8</sub> from 193m

**...highlight potential to extent Resources of this deposit**

Figure 9: Cross section of recent drill intercepts of deeper Zona 7 mineralisation



Source: BKY

**Extending Zona 7**

The current drill program will also test continuation of Zona 7 along strike northeast and southwest. We believe there is high potential to the southwest where shallow cover appears to be erasing the radiometric signature. Any extension to the Zona 7 Resource,

both at depth or along strike, will significantly improve project economics by maintaining a higher grade mining inventory and offsetting development of the Alameda deposit.

**Drilling has commenced to the north and south of Zona 7...**

*Figure 10: First drill hole of the 11,000m program being drilled north of Zona 7*



Source: Argonaut

**...looking to extend the strike length of the current Resource**

**Further Resource conversion has potential to increase mine life or production levels**

### Further Resource conversion

The 2015 PFS was based only on Measured and Indicated resources from Retortillo, Zona 7 and Alameda totalling 66Mlbs at 503ppm and did not include any Inferred resources which have the potential to be converted into mineable reserves with further drilling. The most recent Mineral Resource Estimate published by the Company includes Inferred resources of 28Mlbs at 422ppm and we therefore see significant potential to extend mine life or increase annual production from the current PFS metrics.

**Argonaut derives a \$2.10 target price...**

### Valuation

Argonaut reinitiates coverage with a BUY recommendation and a \$2.10 target price. We derive a NPV<sub>12</sub> \$746m valuation for the Salamanca project and apply a conservative \$20m for near mine and regional exploration potential. We have assumed 50:50 debt to equity on the assumed US\$150m peak funding requirement (max shares on issue est. 350m).

*Table 3: Valuation summary*

Valuation Summary		
<b>Single Asset Valuation</b>	AUD M	AUD / Share
Salamanca	742.5	2.12
<b>Corporate Valuation</b>	AUD M	AUD / share
Exploration Upside	20.0	0.06
Corporate Valuation	(34.7)	(0.10)
Unpaid Capital	1.0	0.00
Cash est.	6.2	0.02
Debt	-	-
NAV	735.0	2.10
Target Price		2.10

Source: Argonaut

**...applying a BUY recommendation**

## Comparatives

A comparison against uranium developer peers (below) highlights BKY's value on both fully funded EV Resource and EV Production basis. Salamanca is clustered amongst projects with the lowest capital intensity, however it is differentiated by its sizable resource. The project also stands out with one of the highest steady state production profiles, which when coupled with low cash costs and low capex, demonstrates BKY's investment appeal in the sector.



## Opportunities

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### Key opportunities include...

Argonaut identifies the following opportunities.

#### ...higher uranium prices...

#### Uranium price recovery

Although Salamanca can sustain high margins in the current suppressed uranium price environment, it remains leveraged to an increase in the uranium price. Argonaut has noted previously that prices above US\$65-70/lb will be required to incentivise new uranium projects. This price accounts for breakeven costs, an adequate IRR to compensate development risk (~15% IRR) and a margin to attract project financing. Increasing our long-term forecast price (US\$65/lb) by 10% increased our Berkeley valuation by 20%.

#### ...with a 10% increase adding 20% to our valuation

We highlight, that while global uranium inventories remain high, incorporating ~200Mlb in China (CRU est.) and ~120Mlb (Argonaut est.), contracted requirements beyond 2018 remain low. Utilities commonly contract deliveries 2-5 years ahead of final consumption, which should lead to increased contracting through 2016. Taking this view, we escalate our uranium price to US\$55/lb in FY17.

#### Exploration success has potential to defer development capex

#### Exploration upside

The potential to find high grade extensions to Zona 7 or analogous near surface deposits with a ~10km radius of the processing plant could further enhance the already robust economics of the Salamanca project. Offsetting development capex for the lower grade Alameda deposit or additional Retortillo pits and increasing the mining inventory would greatly improve project economics. We believe there is high potential for additional discoveries from the current drill program.

#### Salamanca has high corporate appeal which may attract strategic investors

#### Strategic partnership or acquisition

Salamanca stands alone as one of the few development projects globally, with significant production, lowest quartile costs and near term production potential that is not in the hands of a major producer or state owned entity. This makes the project attract to both strategic investors and end users which should generate strong corporate interest.

## Risks

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### Key risks include...

Argonaut highlights the following risks.

#### Permitting, with approvals outstanding for the Zona 7 and Alameda deposits

#### Permitting

Mine and processing permits are still required for the Zona 7 and Alameda deposits. While the process has been largely defined through the permitting of Retortillo, each mine will have its own challenges. Argonaut's noted the near proximity of Zona 7 to the village of Viyavieja (~300m). In BKY's favour, prevailing winds blow from the town to the mine, which mitigates the risk of dust and noise. Anecdotally, the Company has high support from residents given the local high unemployment. We highlight that other mines, with closer proximity to residences have been permitted within Spain, and therefore, do not see this as a major obstruction to development.

**Financing remains a risk despite strong PFS economics...**

### Financing

Salamanca is an unfunded project. While the economics of the PFS are robust, further technical testing and a final feasibility are required. Argonaut recognises the challenges that market conditions impose on the financing of mining projects.

**...and the uranium market remains in surplus in the near term**

### Market risk

The uranium market is currently in surplus, owing to large inventories resulting from offline Japanese reactors. While most market commentators anticipate a uranium supply deficit between 2018-2020, several unknown factors could prolong the current surplus. Key risks include; unknown inventory levels, the slow restart of Japanese reactors and the ability for enrichment facilities to decrease the required uranium input to produce the same level of enriched uranium (SWU).

**Salamanca will also be one of the first modern heap leach operations**

### Heap leach

There numerous uranium development projects which have column tested uranium ore, however there few modern uranium heap leach projects in operation. While BKY will be a relatively early developer of this processing method, we highlight that uranium is a highly soluble metal, which favours heap leaching. Salamanca is also a low rainfall region which mitigates one of the key risks to a successful heap leach operation.

## Appendix 1. Board and Senior Management

The following bios have been modified from the Company's web site:

### Ian Middlemas (Non Executive Chairman)

Mr Middlemas is a Chartered Accountant with extensive commercial experience over some twenty five years in the metals and mining space. He was previously Chairman of Mantra Resources Limited, an African-focussed uranium exploration and development company and is a director of a number of other publicly listed companies. Ian is also a Member of the Financial Services Institute of Australasia.

### Paul Atherley (Managing Director)

Mr Atherley is a Mining Engineer from Imperial College. He has held numerous senior executive and board positions during his career, including Executive Director of the Investment Bank arm of HSBC Australia and completed numerous global acquisitions and financings of resource projects. As the Managing Director of Leyshon Resources Limited, Mr Atherley was responsible for the successful sale of the Zheng Guang Gold-Zinc Project in China.

### James Ross (Non Executive Director)

Dr Ross is a geologist whose technical qualifications include a Geology (Hons) at UWA and a PhD in Economic Geology from UC Berkeley. He worked for Western Mining Corporation (WMC) for 25 years and was then Managing Director of World Geoscience and Odin Mining Investment Company and has held numerous directorships for listed resources companies. He has considerable international experience in exploration and mining, particularly in developing countries.

### Robert Behets (Non Executive Director)

Mr Behets is a geologist with over 24 years' experience in the mineral exploration and mining industry in Australia and internationally. Most recently he was instrumental in the development and divestment of Mantra Resources Limited. Prior to Mantra, he held various senior management positions during a long career with WMC Resources Limited.

### Javier Colilla (Senior Vice President Corporate)

Mr Colilla is an Economist and Lawyer and holds an MBA. He has prior experience in auditing and insurance and over 25 years' experience in the mining sector. He held various executive roles with TSX-listed Rio Narcea Gold Mines including VP Business Development, CFO and Senior VP Corporate and involved in commercial, legal, JVs, permitting, stakeholders and financings for mining operations in Spain and Mauritania including El Valle-Boinás (Au-Cu), Carlés (Au-Cu), Aguablanca (Ni-Cu) and Tasiast (Au).

### Francisco Bellón (General Manager Operations)

Mr Bellón is a Mining Engineer with over 20 years' experience in project management and operations including senior management roles with TSX listed Rio Narcea Gold Mines prior to its takeover by Lundin Mining. His experience includes development, construction, commissioning and operation of new mines in Spain and West Africa including El Valle-Boinás (Au-Cu), Carlés (Au-Cu), Tasiast (Au) and was Operations Manager and General Manager of the Aguablanca Ni-Cu in Spain. He later joined Duro Felguera, a large Spanish engineering house, overseeing the peer review, construction and commissioning a numerous large scale mining operations globally.

### Hugo Schumann (Commercial Manager)

Mr Schumann commenced his career as a management consultant before moving into the natural resources sector, initially as part of an investing team in London focused on early stage mining projects and then working in corporate development functions for a number of listed mining and energy companies. He has a decade of experience in the financing and development of mining and energy projects globally across a range of commodities. He holds an MBA from INSEAD, is a CFA Charterholder and holds a Bachelor of Business Science (Finance CA) from the University of Cape Town.

## Appendix 2. Salamanca Resource

Deposit Name	Resource Category	Tonnes (Mt)	U3O8 Grade (ppm)	Contained U3O8 (Mlb)
Retortillo	Measured	4.1	498	4.5
	Indicated	11.3	395	9.8
	Inferred	0.2	368	0.2
	<b>Total</b>	<b>15.6</b>	<b>422</b>	<b>14.5</b>
Zona 7	Indicated	17.1	735	27.8
	Inferred	4.9	333	3.6
	<b>Total</b>	<b>22.1</b>	<b>645</b>	<b>31.4</b>
Alameda	Indicated	20	455	20.1
	Inferred	0.7	657	1
	<b>Total</b>	<b>20.7</b>	<b>462</b>	<b>21.1</b>
Gambuta	Inferred	12.7	394	11.1
Retortillo Satellites	Inferred	2.8	492	3
Alameda Satellites	Inferred	9.1	472	9.5
Salamanca Project	Measured	4.1	498	4.5
	Indicated	48.4	540	57.5
	Inferred	30.5	422	28.4
<b>Grand Total</b>	<b>Total</b>	<b>83</b>	<b>495</b>	<b>90.5</b>



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**Important disclosures**

BKY: Argonaut currently owns and/or controls 500K BKY options exercisable at \$0.45 on or before 30 June 2016.

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