Brookside Energy Ltd

A real estate approach to grow in the Anadarko Basin

Share Price: A$0.01

Brookside Energy Ltd (ASX:BRK) is a Perth-based energy company with exposure to the most productive oil and natural gas plays (STACK and SCOOP) in Oklahoma's Anadarko Basin. BRK adopts a real estate development approach to lease undeveloped acreage, consolidate leases and prove up oil and gas reserves. Thereafter, it sells the revalued/appreciated acreage or maintains a producing interest. This approach has allowed BRK to grow in the Anadarko Basin using an asset-light model.

ASX: BRK
Sector: Oil and Gas Exploration
4 February 2020

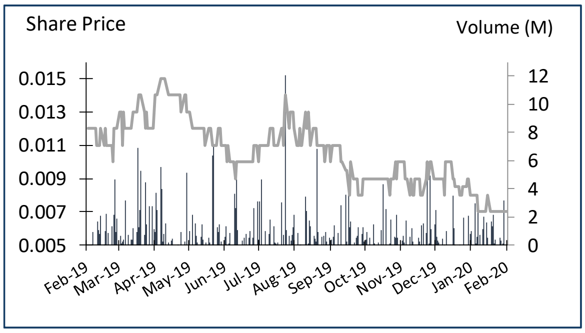
Market Cap. (A$ m)	7.0
# shares outstanding (m)	999.2
# share fully diluted (m)	1,294.4
Market Cap Full. Dil. (A$m)	9.1
Free Float	100%
12-months high/low (A$)	0.017 / 0.008
Avg. 12M daily volume ('1000)	1,194
Website	brookside-energy.com.au

Source: Company, Pitt Street Research

Investment case

The STACK and SCOOP plays in the Anadarko Basin have remained lucrative to E&P players over the past few years, owing to their low acreage cost (due to being relatively undeveloped) compared with more mature plays in the Permian Basin. Post the announcement of its maiden reserve estimates in the STACK play, BRK is now poised to scale up its asset base significantly with its operated interests in its SWISH Area of Interest (SWISH AOI). Prices for undeveloped acreage in the SWISH AOI have already moved higher as a result of A&D activity in the secondary market and they are expected to continue this upward trend with the development of BRK's first operated unit (Jewell), coupled with robust initial production results from the wells in which it holds a non-operated working interest.

Share price (A$) and avg. daily volume (k, r.h.s.)



Source: Thomson Reuters, Pitt Street Research

Valuation range of A$0.03–0.04 per share

We value BRK at A$0.03 per share base case and A$0.04 optimistic case using a DCF approach, broadly based on BRK's guidance on the potential buy and sell of land acreage and acreage pricing as well as BRK's maiden estimate of oil and gas reserves. We believe BRK has a significant scope for re-rating driven by increase in land acreage, higher acreage prices and better flow rates from existing wells.

Valuation metrics	
DCF fair valuation range (A$)	0.03–0.04
WACC	10.0%
Assumed terminal growth rate	0.5%

Source: Pitt Street Research

Year to Dec (A$)	2017A	2018A	2019F	2020F	2021F
Sales (m)	0.0	0.1	2.9	3.7	4.2
EBITDA (m) Adj	-1.0	-1.4	1.3	1.7	1.9
Net Profit (m) Adj	-1.1	-1.9	0.6	0.9	1.1
Adj. EBITDA Margin (%)	nm	nm	45.5%	45.6%	45.6%
RoE (%)	NM	NM	4.9%	5.4%	4.4%
Net Debt/Equity (%)	63.4%	40.2%	7.5%	-3.1%	-35.1%
EPS before extr. &	-0.14c	-0.20c	0.06c	0.09c	0.11c
EV/Sales	398.3x	135.4x	2.7x	1.7x	nm
EV/EBITDA	NM	NM	6.0x	3.8x	NM
P/E	NM	NM	11.1x	7.5x	6.3x

Source: Company, Pitt Street Research

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Analyst: Stuart Roberts

Tel: +61 (0)447 247 909

Stuart.roberts@pittstreetresearch.com

Brookside Energy Ltd

Profit & Loss (A$ '000)	FY 17	FY 18	FY 19E	FY 20E	FY 21E	FY 22E	FY 23E
Sales Revenue	**30.8**	**99.2**	**2,907.2**	**3,730.5**	**4,202.2**	**4,707.7**	**5,257.7**
Oil production volume (MBBLS)			18.0	23.0	25.9	28.8	32.2
Oil production growth				*28%*	*13%*	*11%*	*12%*
Gas production volume (MMCF)			350.0	448.0	504.0	560.0	625.3
Gas production growth				*28%*	*13%*	*11%*	*12%*
Gain on acreage sales			5,468.4	4,512.9	8,400.0	3,780.0	3,759.0
Operating expenses	-1,020.4	-1,541.1	-1,583.8	-2,029.6	-2,284.6	-2,547.9	-2,845.4
Adjusted EBITDA	**-989.6**	**-1,441.9**	**1,323.3**	**1,700.9**	**1,917.6**	**2,159.7**	**2,412.3**
Depn & Amort	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adjusted EBIT	**-989.6**	**-1,441.9**	**1,323.3**	**1,700.9**	**1,917.6**	**2,159.7**	**2,412.3**
Net Interest	-106.0	-586.7	-522.4	-522.4	-522.4	-522.4	-522.4
Profit before tax (before exceptionals)	**-1,095.6**	**-2,028.6**	**801.0**	**1,178.5**	**1,395.2**	**1,637.4**	**1,889.9**
Tax expense	0.0	0.0	-1,316.6	-1,195.2	-2,057.0	-1,137.7	-1,186.3
NPAT	**-1,095.6**	**-1,217.8**	**4,952.8**	**4,496.2**	**7,738.2**	**4,279.7**	**4,462.7**

Cash Flow (A$ '000)	FY 17	FY 18	FY 19E	FY 20E	FY 21E	FY 22E	FY 23E
Profit after tax	-1,095.6	-1,217.8	4,952.8	4,496.2	7,738.2	4,279.7	4,462.7
Depreciation							
Change in trade and other receivables	-5.2	39.4	-689.0	-202.0	-115.7	-124.0	-135.0
Change in prepayments							
Change in trade payables	49.7	-39.2	2,031.4	595.6	341.3	365.7	397.9
Other operating activities	341.5	466.5	-5,468.4	-4,512.9	-8,400.0	-3,780.0	-3,759.0
Operating cashflow	**-709.6**	**-751.0**	**826.8**	**376.9**	**-436.3**	**741.4**	**966.6**
Proceeds from acreage sales	0.0	2,077.1	6,835.5	5,641.1	10,500.0	4,725.0	4,698.8
Capex for acquiring acreage	-3,744.3	-3,988.9	-5,468.4	-4,512.9	-1,811.8	-3,780.0	-3,759.0
Investing cashflow	**-4,073.7**	**-1,911.8**	**1,367.1**	**1,128.2**	**8,688.2**	**945.0**	**939.8**
Free cashflow	-4,783.3	-2,662.8	2,193.9	1,505.2	8,252.0	1,686.4	1,906.3
Dividends (ords & pref)							
Equity raised (repurchased)	1,858.9	2,914.1	0.0	0.0	0.0	0.0	0.0
Debt drawdown (repaid)	2,716.9	743.5	0.0	0.0	0.0	0.0	0.0
Other financing activities	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net change in cash	-207.5	994.9	2,193.9	1,505.2	8,252.0	1,686.4	1,906.3
Cash at End Period	52.1	1,193.3	3,387.2	4,892.3	13,144.3	14,830.7	16,737.0
Net Cash (Debt)	2,970.9	3,159.6	965.7	-539.4	-8,791.4	-10,477.7	-12,384.1

Balance Sheet (A$ '000)	FY 17	FY 18	FY 19E	FY 20E	FY 21E	FY 22E	FY 23E
Cash	51.9	1,193.3	3,387.2	4,892.3	13,144.3	14,830.7	16,737.0
Total Assets	8,077.2	12,582.1	19,566.3	24,658.2	32,737.7	37,383.1	42,243.6
Total Debt	3,022.7	4,352.9	4,352.9	4,352.9	4,352.9	4,352.9	4,352.9
Total Liabilities	3,394.7	4,716.6	6,748.0	7,343.6	7,684.8	8,050.5	8,448.4
Shareholders' Funds	4,682.5	7,865.5	12,818.4	17,314.6	25,052.8	29,332.6	33,795.2

Ratios	FY 17	FY 18	FY 19E	FY 20E	FY 21E	FY 22E	FY 23E
Net Debt/Equity (%)	63.4%	40.2%	7.5%	-3.1%	-35.1%	-35.7%	-36.6%
Interest Cover (x)	NM	NM	2.5	3.3	3.7	4.1	4.6
Return on Equity (%)	NM	NM	4.9%	5.4%	4.4%	4.4%	4.4%

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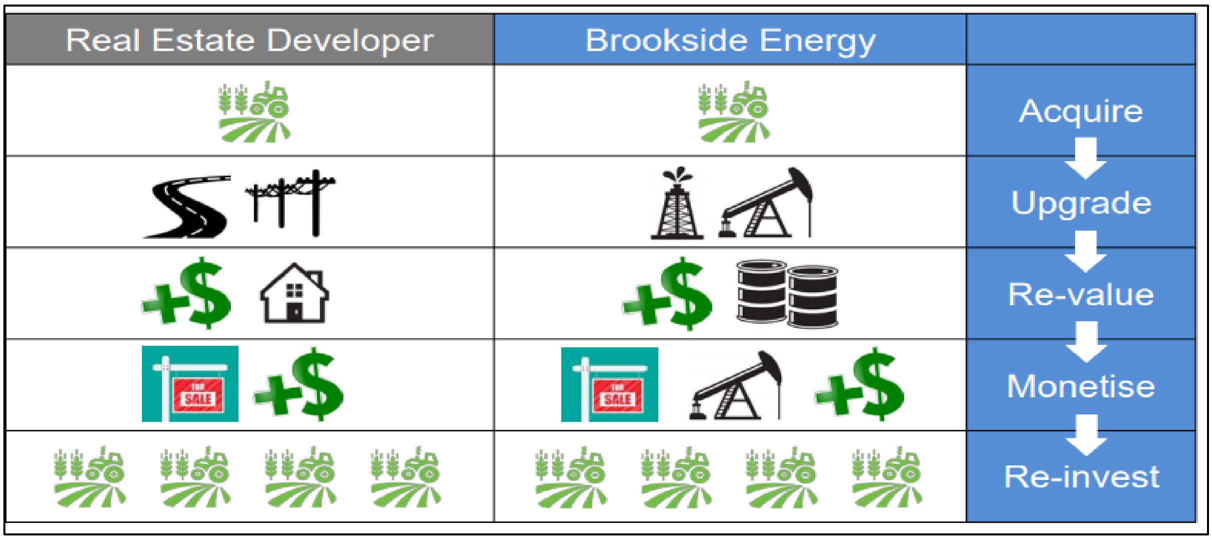
Introducing Brookside Energy

BRK adopts a real estate development approach while acquiring prospective acreage in the Anadarko Basin

Brookside Energy Ltd (ASX:BRK), erstwhile Red Fork Energy, is a Perth-based company focussing on developing oil and gas plays in the Anadarko Basin, Oklahoma, US. BRK adopts a real estate development approach (Figure 1) by acquiring prospective acreage in the Anadarko Basin, adding value to it by consolidating leases, and proving up oil and gas reserves. Thereafter, BRK has the option of selling the revalued acreage or maintaining a producing interest. This leasing and development model has been successfully executed by BRK for oil and gas acreage and provides enormous flexibility for working capital generation and unlocking value of the land acreage.

BRK's US partner and manager of operations, Black Mesa, an experienced mid-continent operator, identifies the relevant opportunities and executes development in the Anadarko Basin under a commercial agreement with BRK. BRK is gradually also striving to become an operator of some of the acquired oil and gas wells.

Figure 1: A real estate development approach to oil and gas acreage in Oklahoma



Source: Company

What are STACK, SCOOP and SWISH plays?

'Sooner Trend, Anadarko Basin, Canadian and Kingfisher Counties' (STACK), 'South Central Oklahoma Oil Province' (SCOOP), and 'Sycamore and Woodford in the South Half' (SWISH) are the most productive oil and natural gas plays in Oklahoma's Anadarko Basin. Importantly, BRK has an exposure to all the three oil and gas plays.

- STACK is part of the Anadarko Basin area of Oklahoma and is a geographic referenced area, instead of a geological formation like most oil plays in the US (such as the Eagle Ford, Bakken and Granite Wash). The STACK play is rich in oil and gas formations that are stacked atop one another.
- SCOOP play (also located in the Anadarko Basin, to the south of the STACK Play) is part of a prolific trend of production that stretches 150 miles across five counties. The primary target reservoirs in this trend are the Sycamore lime and Woodford shale. The Woodford shale is the organic rich source rock for the entire Anadarko basin and in many places the Sycamore lime was deposited directly on top of Woodford.

- SWISH refers to oil and gas plays within the core of the southern half of the SCOOP play in south-western Oklahoma. BRK is poised to scale up its activities and asset base significantly with its operated interests in the SWISH AOI.

These oil and gas plays have emerged as rivals to some of the most lucrative exploration areas in the US, including the Permian Basin in Texas and the Marcellus Appalachian Basin in the Northeast. These plays (STACK, SCOOP and SWISH) are potentially valuable for BRK's shareholders as these are relatively undeveloped as compared with other oil and gas plays in North America, and therefore acreage is available at a lower price. With drilling activity gaining momentum in the Anadarko Basin, BRK is set to unlock value from land acreage in these three plays.

Business still highly undervalued

BRK's STACK play holding was valued at US$12.5m as per the company's maiden oil reserve statement released in December 2018. However, BRK is currently quoting a market valuation of US$10m, 20% below the value of its STACK play reserves. We believe the main reasons for BRK's undervaluation are lack of awareness about the company and the cautious outlook of oil prices, which has dampened market sentiment. We see the stock being re-rated driven by increase in land acreage, higher acreage prices in the Anadarko Basin and better-than-expected flow rates from existing wells.

Ten reasons to look at BRK

1) BRK has exposure to the most productive oil and natural gas plays (STACK, and SCOOP) in Oklahoma's Anadarko Basin. It announced maiden reserves of 3.45 million barrels of oil equivalent (MMboe) in December 2018, attributable to ~20% of BRK's total holdings in the Anadarko Basin, with a net present value (NPV) of US$12.5m. We believe this discovery will provide a fillip to BRK's future operations and plans in this basin.
2) BRK's asset-light strategy which involves adopting a real estate development approach for leasing and development of oil and gas acreage provides enormous flexibility for working capital generation. It also minimises the burden of making heavy capital investments.
3) The Anadarko Basin offers significant untapped opportunities in terms of shale reserves, and undeveloped and undervalued oil and gas properties. This allows BRK the right platform to successfully execute its 'buy- low, sell-high' strategy.
4) BRK is aggressively scaling up its activities and asset base, with its operated interests in the SWISH AOI and plans to target 4,000–6,000 acres by mid-2020 from its current position of ~2,500 acres. In our view, the company's development plans in the SWISH AOI will provide it the next set of growth opportunities.
5) The forced pooling regime in Oklahoma benefits operators, working interest partners and mineral interest owners. The forced pooling regulations provide the pathway for BRK to capture additional acreage within each development unit on favourable terms.
6) The company has been successful in unlocking the value of its land acreage. In May 2018, it divested 11 acres in its first full-field

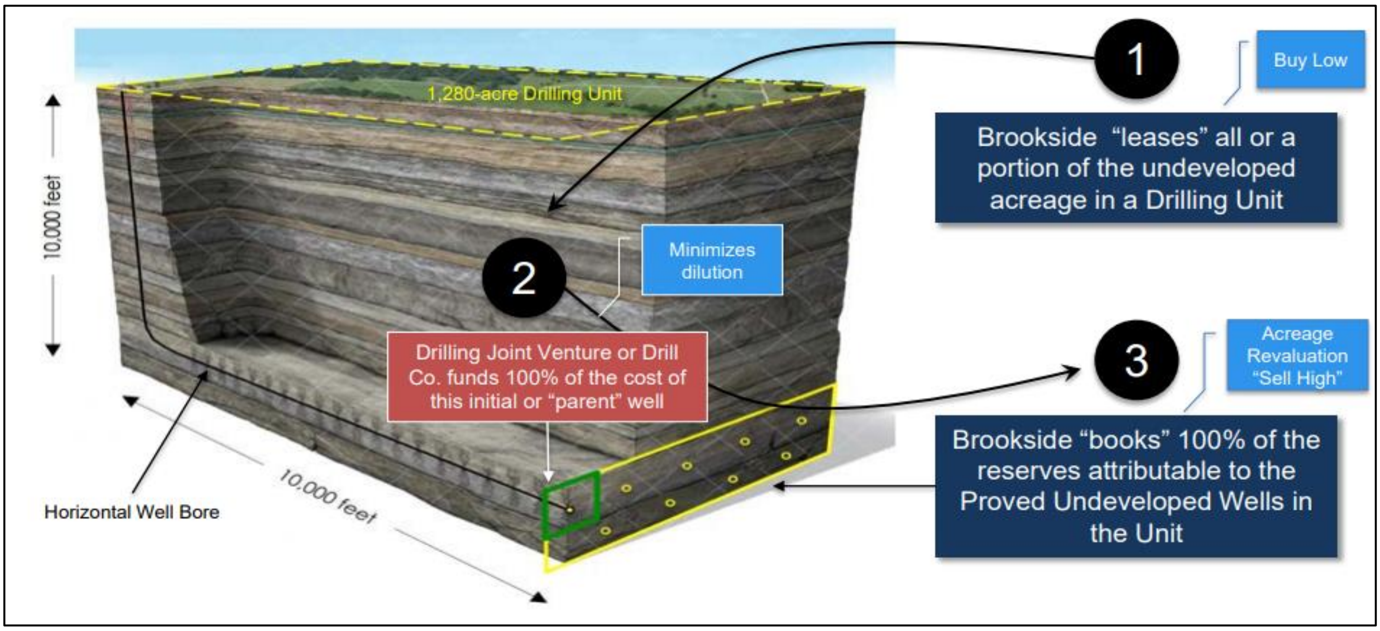
development unit in the STACK play at a tenfold increase over the initial average per acre cost. In July 2018, it made the second strategic sale of its developed land, wherein it sold the acreage for US$1,475,000 which was purchased at a cost of US$878,000.

7) BRK has started to assume operatorship of wells with its first-operated Jewell unit in the SWISH AOI. We expect this to be a catalyst for a material increase in the per-acre value of the company's acreage. Further, the robust initial production results from all the three wells in the Sycamore formation, where BRK holds non-operated working interests, will support higher per-acre values in the SWISH AOI.
8) Strong support from its US partner, Black Mesa, enables the company to identify profitable acreage opportunities in the Anadarko Basin. BRK's development partners for different properties are large-cap players with a healthy financial position.
9) BRK has a solid leadership team, led by David Prentice, Managing Director, who has extensive experience of over 25 years in the natural resources sector.
10) We believe BRK is significantly undervalued and we value the company at A$0.03 per share base case and A$0.04 per share optimistic case using a DCF approach.

Emerging shale oil and gas player in America's Anadarko Basin

BRK commenced operations in its present form in mid-2015, following the company's recapitalisation post the collapse of global oil prices in 2014. Since 2015, BRK has been progressively acquiring minority interests in oil and gas wells in the Anadarko Basin[1]. More recently, it has started assuming operatorship of wells. BRK aims to acquire undeveloped acreage in the Anadarko Basin at low prices and sell developed acreage at high prices (Figure 2), thereby benefiting from the differential between the current undervaluation of the basin and the valuation uplift post successful development.

Figure 2: BRK focuses on a buy-low, sell-high leasing model



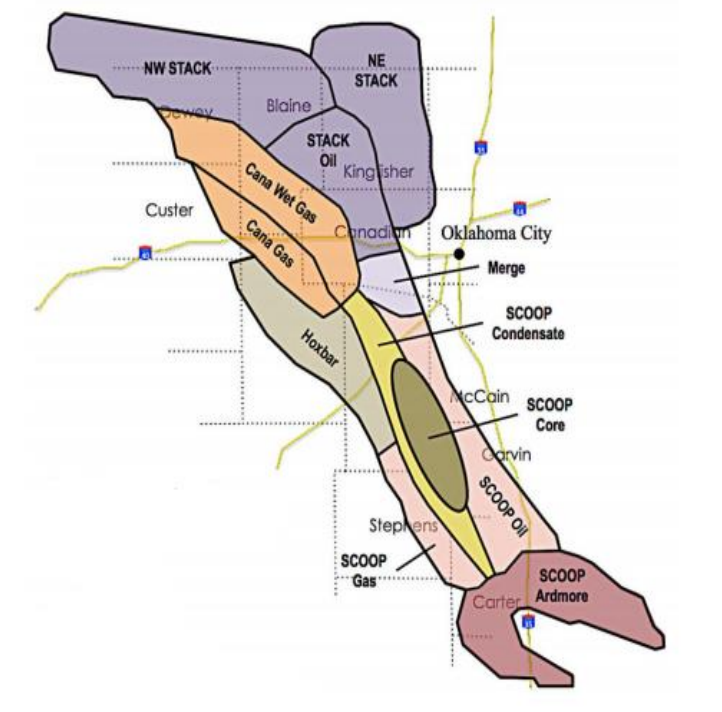
Source: Company

BRK is gradually evolving from an acreage acquirer to an operator of wells

The Anadarko Basin (Figure 3) is a geologic depositional and structural basin in the western part of Oklahoma that is rich in oil and gas. Over the past six years, the majority of the activity in the industry has been focussed primarily on the STACK and SCOOP oil and gas plays in the Anadarko Basin. These plays are being developed using modern horizontal drilling and completion techniques targeting the Mississippian-aged formations (situated above the Woodford Shale) and the Woodford Shale itself (the organic rich source rock of hydrocarbons in the basin).

[1] It extends into south-western Kansas and south-eastern Colorado. The basin is named after the town of Anadarko, Oklahoma in Caddo County, immediately west of the seven-county Greater Oklahoma City metro area.

Figure 3: Anatomy of the Anadarko Basin oil and gas plays



Basin Stratigraphy

System	Zone	Group	Formation
PENNSYLVANIAN	Missourian	Hoxbar	
	Des Moinesian		Oswego
	Atokan		
	Morrowan	Morrow	
		Springer	
MISSISSIPPIAN	Chesterian	Chester	
	Meramecian	Meramec	
	Osagean	Osage	Sycamore
	Kiderhookian		Woodford
DEVONIAN	Upper-Middle		
	Lower		Hunton
SILURIAN			

Source: Wood Mackenzie

BRK is poised to scale-up its activities and asset base significantly in the SWISH AOI

BRK operates in the Anadarko Basin through a local, privately held company called Black Mesa, in which it holds a 17.2% interest. BRK and Black Mesa are now working on acquiring new acreage for a relatively new play called SWISH which represents oil and gas accumulations in the Sycamore and Woodford formations[2] within the southern half of the SCOOP area. BRK is poised to scale up its activities and asset base significantly with its operated interests in the SWISH area of interest (AOI). Currently, the company has established ~2,500 working interest leasehold acres within the SWISH AOI and plans to target 4,000–6,000 acres by mid-2020. BRK is continuing to aggressively pursue its leasing campaign within the 35,000-acre SWISH AOI within the SCOOP play.

Of late, BRK has also started to assume operatorships of wells. In 2019, BRK secured a pooling order[3] for its first-operated drilling spacing unit (DSU) – the 880-acre Jewell unit – for the exploitation of the Sycamore, Woodford and Hunton formations. BRK expects to acquire ~90% working interest in the Jewell unit – this is the first DSU to be successfully pooled by Black Mesa on behalf of BRK, as part of the company's transition to becoming an operator.

Swiftly growing its acreage value in the Anadarko Basin

During 2015–2016, BRK and Black Mesa zeroed in on the Anadarko Basin in Oklahoma instead of the Permian Basin in Texas. Black Mesa identified an opportunity to secure a position in the STACK play in Oklahoma. Notably, the acreage in the STACK play was less mature and available at a lower price than

[2] Sycamore and Woodford are geological formations – Sycamore an Early Mississippian limestone, Woodford a Devonian black shale.
[3] Pooling is the combination of all or portions of multiple oil and gas leases to form a unit for the drilling of a single oil and/or gas well. Pooling arrangements are necessary to meet the minimum acreage requirement for a drilling permit under state regulations.

acreage in the Permian Basin. BRK made its first acquisition (~100 acres) in March 2016, with RA Minerals in Blaine County, Oklahoma, followed by the acquisition of several non-operated working interests in Blaine County. The company acquired 400 acres swiftly thereafter, and the value rose from US$1,000 to US$9,000–10,000 in a short duration. Drilling results were good, and the company's business model was working as expected (acreage value rose to ~US$30,000 subsequently). By replicating this strategy and experience on a larger scale, the company was able to successfully explore opportunities in the SCOOP play.

In 2017, BRK's working interest leasehold acreage reached 1,700 acres surpassing its target of 1,280 acres

During 2017, the company announced significant expansion of its leasing activity, with its working interest leasehold acreage reaching 1,700 acres, exceeding its previously announced target of 1,280 acres. BRK, which commenced its leasing campaign in the STACK and SCOOP plays in early 2016, identified the SWISH acquisition opportunity in 2017. During 2018, BRK focussed on leasing in the newly identified SWISH AOI, wherein it had relatively higher equity and operatorship across the assets (BRK and Black Mesa have identified ~8,000 acres of operated position across at least 10 drilling units). In order to stay ahead of competition, high-value target zones in the SWISH AOI were leased by BRK 6–9 months before its peers.

Acreage divestments in 2018 underpin BRK's successful land value unlocking strategy

In May 2018, BRK divested 11 acres in its first full-field development unit in the STACK play with a Tier 1 operator that earned US$28,600 per acre, a tenfold increase in the initial average per acre cost of US$2,500. In July 2018, the company made the second strategic sale of its developed land, wherein it sold the RA Minerals royalty acreage of ~100 acres. This acreage, acquired in March 2016 for US$878,000, was sold for US$1,475,000. These acreage divestments depict the successful execution of the company's business model.

In December 2018, BRK achieved a significant milestone when it announced details of its maiden estimate of oil and gas reserves attributable to STACK play holdings. It announced maiden reserves of 3.45 MMboe, attributable to ~20% of BRK's total holdings in the Anadarko Basin. The combined net present value (NPV_{10})[4] of this reserve is US$12.5m, with forecast future net revenue of US$37.8m.

[4] NPV_{10} refers to the net present value of future net revenue, before income taxes and using a discount rate of 10%.

Significant untapped opportunities in the Anadarko Basin

Current production in the Anadarko Basin estimated to be ~600,000 barrels of oil equivalent per day

The Anadarko Basin is recognised as a heavyweight among US shale regions in terms of energy production, and it has thousands of unconventional oil and gas locations left to be tapped. The basin encompasses ~50,000 square miles, primarily in Oklahoma, Kansas, Texas and a small portion of Colorado. It contains sedimentary deposits ranging in thickness from 2,000 feet on its northern and western flanks to 40,000 feet in its southern portion. The basin has a long history of oil and gas production with current production estimated at ~600,000 barrels of oil equivalent per day.

The implementation of improved drilling and development techniques has witnessed a surge in activity across the Anadarko Basin. Notably, the region's active rig count is behind only the Permian Basin in Texas. The basin is a proven Tier 1 oil and gas development province with significant existing oil and gas gathering and transportation infrastructure, and a favourable regulatory environment. As per IHS Markit estimates, ~16 billion barrels of oil and more than 200 trillion cubic feet of gas in un-risked technically recovered resources are still in the basin.

The basin has already enjoyed resurgence due to the increased interest in SCOOP and STACK plays. Current estimates signal the annual drilling and completion capital expenditure across the SCOOP and STACK plays to be in excess of US$3bn. This investment is driven largely by the productivity of the wells being drilled in these plays, with IHS estimating a break-even point of under US$30 per barrel for the top producing wells in the STACK play, which is comparable to wells drilled in the top Permian Basin plays.

The Anadarko Basin continues to attract oil and gas players, as it has 41 stacked plays, which overlap in many parts of the basin. For operators, that means multiple targets that can be accessed from a single well pad. Besides, the basin's costs to acquire acreage have yet to reach the exorbitant levels witnessed in the Permian Basin. The plays are still in the boundary limit phase of development, thus, a lot is still unknown regarding play extents.

Land and leasing activity to gain momentum with more players entering the fray in SWISH AOI

BRK commenced its leasing campaign in the STACK and SCOOP plays in early 2016, and this programme is currently ongoing with greater focus on the SWISH AOI in the SCOOP play. Besides BRK, some prominent landholders (Figure 4) in the Anadarko Basin are Devon Energy, Continental Resources, Encana Corp. (through its subsidiary Newfield Exploration), Marathon Oil, Cimarex Energy, Gulfport Energy, and Apache Corp.

Figure 4: Land and leasing activity in Oklahoma gaining momentum

Operator	Ticker	STACK	SCOOP	SWISH	MERGE
Devon Energy	DVN	✓			✓
Continental Resources	CLR	✓	✓	✓	
Encana Corp.	ECA	✓	✓	✓	
Marathon Oil	MRO	✓	✓	✓	✓
Cimarex Energy	XEC	✓			✓
Gulfport Energy	GPOR		✓		
Apache Corp.	APA		✓		
Chesapeake Energy	CHK	✓			
Citizen Energy	-		✓	✓	✓
Brookside Energy	BRK	✓	✓	✓	

Source: Company, Pitt Street Research

OCC – A state agency extensively involved in oil and gas regulation in Oklahoma

The Oklahoma Corporation Commission (OCC), established in 1907, is responsible for enforcing regulations related to drilling and production of oil and gas, pipeline safety, safeguarding mineral property rights, petroleum storage tanks and filling stations, in Oklahoma, US. Through its Oil and Gas Conservation division, OCC ensures that drilling of oil and gas is executed in a regulated manner.

Laws to govern oil and gas activities in Oklahoma

Several laws have been drafted by the Oklahoma Legislature to govern the oil and gas extraction industry in the state.

Legislature to regulate oil production and storage. The Legislature was enacted to restrict the actions of producers that did not have access to pipelines for oil transport and stored their excess production in earthen ponds. Such a storage process resulted in evaporation, fire or seepage of oil. The act made it mandatory for a producer to plug deserted wells, shut down gas wells without a market and protect water supplies by casing off water-bearing formations.

Legislature to regulate gas extraction and sale. The bill regulates the construction, maintenance, inspection and operation of natural gas pipelines, and establishes clear domain procedures. The rule states that the firm responsible for the transport of natural gas would not be granted the right to use state highways unless the gas was to be transported and used within the state (at a pipeline pressure <300 ppsi[5]). The bill was designed to limit the sale of natural gas to other states and countries, allowing the state to retain most of the production. This boosted local consumption and prompted the development of Oklahoma's industrial base. The legislature also implemented the Pipelines Act to provide support to the companies that did not own a pipeline network to transport oil – this opened up new markets and avenues for such companies.

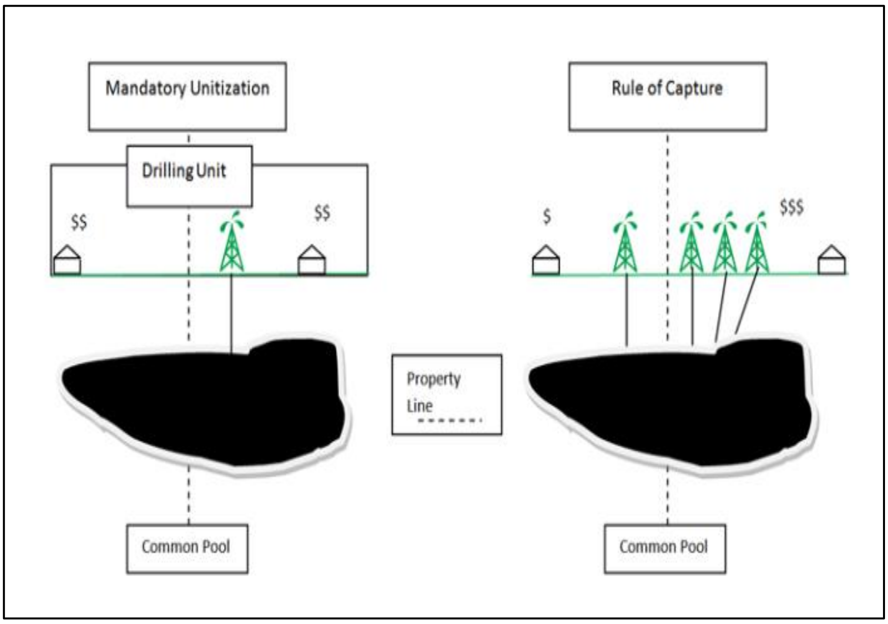
Well Spacing Act. The 1935 Act was the state's first law directly empowering OCC to create drilling and spacing units. It specified uniformity in the size and shape of the drilling unit – the land on which a well can be drilled into an underground pool or reservoir – leading to standardisation of all drilling units. The Act provided flexibility in selection of well location on the unit by making the earlier requirement of a centrally located well optional. As per the modern spacing act, any well drilled to a non-spaced common source of supply 2,500 feet or deeper should be located at least 330 feet from any property line or lease line, and at least 600 feet from any other well, when drilling to the same common source of supply.

Unitisation and compulsory pooling laws to limit the oil and gas wells that may be drilled in an area

Only one well can be located in the given formation of a drilling and spacing unit, unless an additional well is required to effectively and efficiently drain the common source of supply. The Well Spacing Act was enacted to minimise waste under the Rule of Capture (Figure 5) and it replaced the concept of drilling of several wells in a field to maximise oil production; this led to more effective recovery of hydrocarbons from a common source of supply. The first person or landowner who gains control over the resource (oil/gas) also gains the ownership of resources from a common pool of resources under the property of two or more neighbouring landowners.

[5] ppsi stands for pounds per square inch and is the unit of pressure.

Figure 5: Mandatory unitisation vs. the Rule of Capture



Source: National Conference of State Legislatures

Forced pooling has acted as a catalyst to develop oil and gas infrastructure and obtain mineral rights from landowners

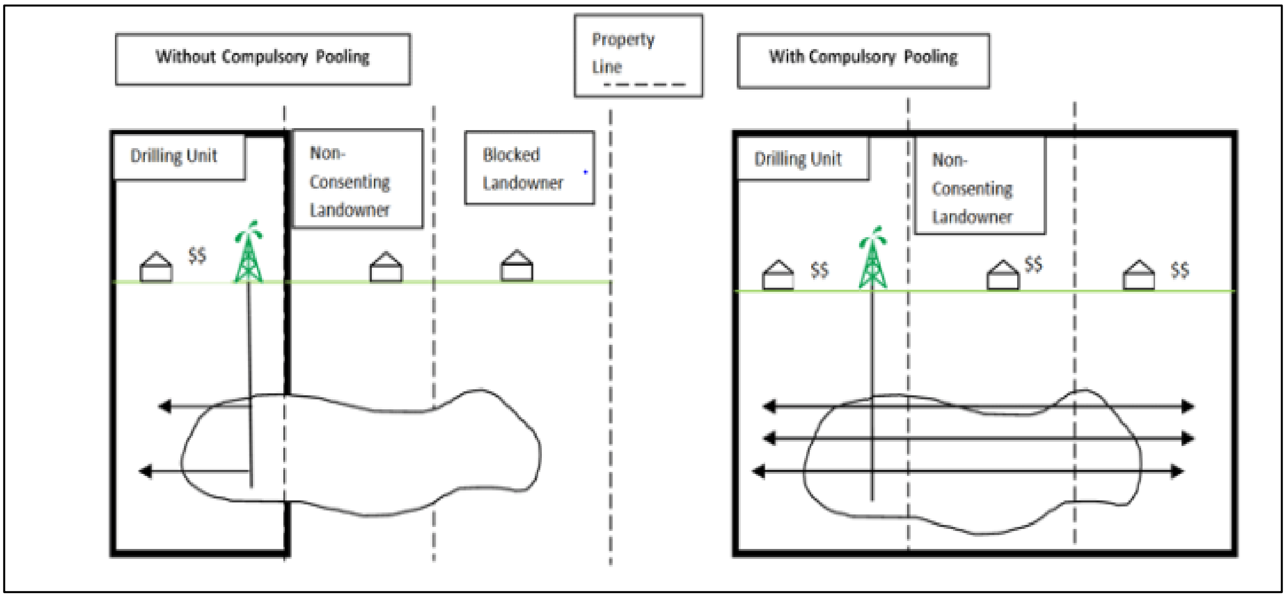
Senate Bill 160. Historically, the natural gas market in the US faced severe issues regarding an upsurge in supply, leading to lack of business for many tenants or gas well operators. During such market conditions, contracts were generally of shorter duration or were undervalued. Therefore, the Oklahoma Legislature introduced and passed the Senate Bill 160 to secure the interest of such tenants mandating the provision of similar royalties to tenants and owners. The bill also made the owners jointly (along with tenants) liable for royalties of other stakeholders.

Forced/Compulsory Pooling System. The Well Spacing Act provided the platform to develop drilling and spacing units, which pooled the interest of tenants. While this Act allowed for the development of only one well in a drilling unit, the tenants did not have any legal means to pressurise a co-tenant to share the cost of drilling, in case the parties could not come to an agreement to jointly develop the unit. The non-contributing co-tenants were still eligible to receive the market value for their share of the reserve without any risk. This resulted in significant delays in development of oil wells across the state. The Oklahoma Legislature passed the Forced Pooling Act in 1935 to overcome this bottleneck.

Forced pooling, also known as compulsory pooling (Figure 6), forces landowners that do not wish to extract the mineral resources underneath their land to become part of a drilling unit. The proposing party (operator) must file a pooling application through the OCC in order to “force” or secure commitment from all parties. The application to pool is filed with the Office of Administrative Proceedings (OAP), and the owners that have not leased are listed as respondents.

Under the law, extraction companies are not allowed to access the surface that belongs to other landowners. However, it allows drilling under their land if the landowner is compensated for it. Therefore, landowners in Oklahoma who receive a forced pooling order may choose to either receive enumerated royalty payments from the well operator (with no costs incurred) or decide to participate in the operations of the well, paying operating costs upfront and receiving a greater share of the well's profits.

Figure 6: Comparing properties with and without compulsory pooling



Source: National Conference of State Legislatures

Forced pooling regime to benefit BRK

Oklahoma's forced pooling process benefits operators, working interest partners and mineral interest owners. It stimulates a competitive market for the development of oil and gas resources, which results in revenues for investors and royalty owners. Under the pooling regime, the landowner is approached by an exploration firm, such as BRK, to lease or sell his/her mineral rights. If the landowner agrees, the exploration firm still needs to attain the mineral rights of the landowner's neighbours to establish a drilling unit (large enough to drill a wellhead). For instance, there are two neighbouring landowners, and while one of them agrees to lease his/her land, the other declines to rent his mineral rights. The land of the non-consenting owner may be forcibly included in the drilling unit by the state if this land is positioned in a manner that the firm requires access to the oil below it.

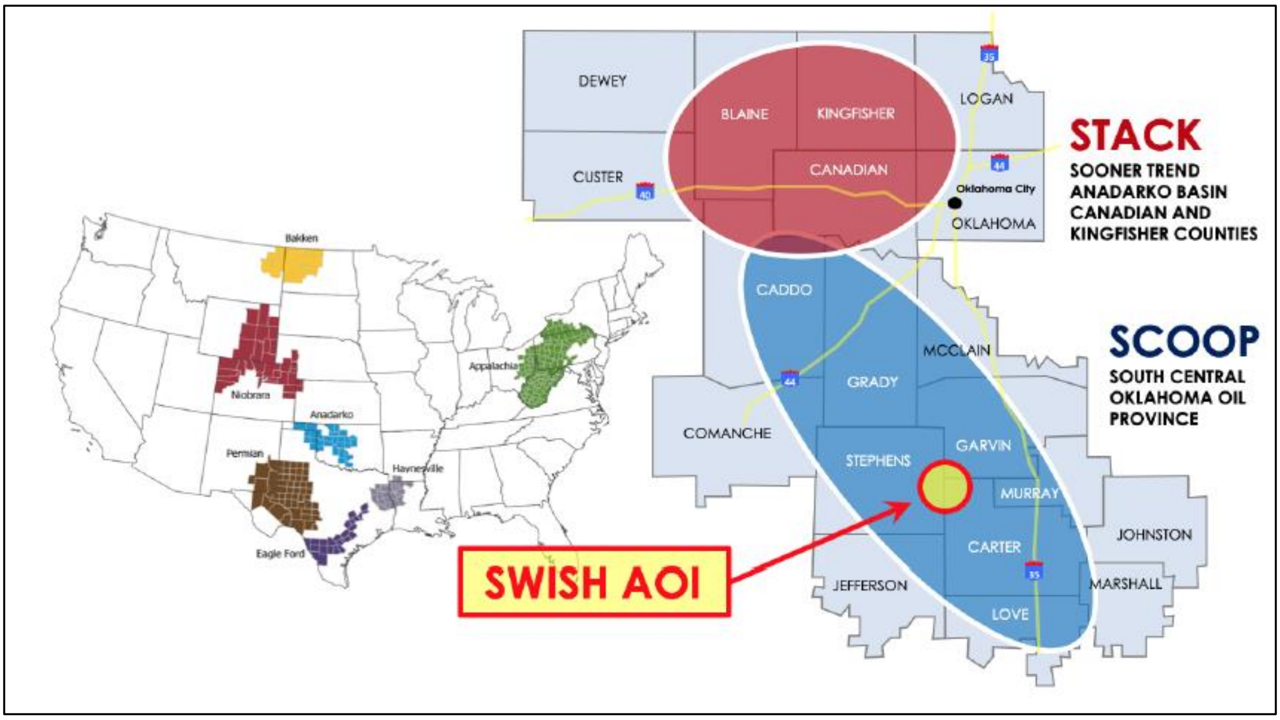
The pooling regulations provide the pathway for BRK to capture additional acreage within each development unit on favourable terms. The pooling applications have already been filed with the OCC on several of BRK's targeted high-grade development units. The working interest percentages in a well are expected to increase with the issue of final pooling orders.

The OCC is highly involved in regulation of the oil and gas extraction industry. At the federal level, the Department of Interior has prioritised the improvement of the permitting process to reduce delays and backlogs. In the past five years, the time required for processing drilling permits in the US has reduced from 200 days to 108 days. Thus, the extraction plans and investments of BRK are expected to be favourably impacted by the regulatory regime in Oklahoma and the fast-track approach adopted by the federal government.

BRK focussing on the STACK and SCOOP plays

The majority of oil and gas activity within the Anadarko Basin, a proven Tier 1 oil and gas development province, is focussed on the STACK, SCOOP and SWISH plays (Figure 7) and BRK owns acreage in all these three plays.

Figure 7: Key oil and gas plays in the Anadarko Basin



Source: Company

STACK play is rich in oil and gas resources. Oswego, Meramec, Osage and Woodford are key targets in the play

STACK is derived from Sooner Trend, Anadarko Basin, Canadian and Kingfisher counties. It is part of the Anadarko Basin area of Oklahoma and is a geographic referenced area, instead of a geological formation like most oil plays in the US – such as the Eagle Ford, Bakken and Granite Wash. Major area of the play is spread across Canadian, Kingfisher and Blaine – core counties – while the rest of it is in Major and Garfield – non-core counties. Notably, the Sooner Trend is a major oil field in the neighbourhood.

The STACK play was first drilled in 2011 by Texas-based oil and gas exploration firm, Newfield Exploration, which was later acquired by Encana Corporation. Its core area covers ~1,000 square miles out of the total 50,000 square miles of the Anadarko Basin in Oklahoma. BRK made its first acquisition (~100 acres) in this play in March 2016, with RA Minerals in Blaine County, followed by the acquisition of several non-operated working interests in Blaine County. In July 2016, BRK formed a joint venture with Merchant Funds Management Pty Ltd to secure funding for the initial drilling and completion capital for the development of its STACK acreage (STACK-A JV).

The STACK play is rich in oil and gas formations that are stacked atop one another. Key targets in the STACK play are Oswego, Meramec, Osage and Woodford, with the two main producing reservoirs – Meramec and Osage – having a robust inventory that will continue to provide oil and gas in the medium term. Meramec wells in Kingfisher County have a depth of 7,000–8,500 feet, whereas, to the west of the County, wells have a depth of ~10,000 feet – this leads to a fall in the liquid content. Thus, the west area wells produce more of dry or wet gas. Importantly, Meramec units are the highest oil producers so far and the most drilled targets.

Maiden oil and gas reserve estimate valued just the STACK play holdings at US$12.5m

During 2018, BRK announced its maiden estimate of oil and gas reserves attributable to STACK play holdings in the Anadarko Basin. It announced reserves of 3.45 MMboe, attributable to ~20% of BRK's total holdings in the Anadarko Basin. The combined NPV_{10} of this reserve is US$12.5m (Figure 8) with forecast future net revenue of US$37.75m. The company also completed the sale of its first non-operated working interest leasehold in the STACK play in 2018 for USS$28,600 per acre.

Figure 8: Maiden estimate of oil and gas reserves attributable to STACK play holdings

Net Reserves				Future Net Revenue		
Category	Status	Oil (Barrels)	Gas (Mcf)	boe	Total (US$)	NPV_{10} (US$)
1P	Proved, Developed, Producing (PDP)	43,158	1,460,232	286,530	4,220,666	2,956,483
	Proved Undeveloped (PUD)	559,424	11,918,153	2,545,783	28,875,322	8,755,363
	Probable	97,896	3,114,494	616,978	4,644,826	783,891
2P	**Proved plus Probable**	**700,478**	**16,492,879**	**3,449,291**	**37,740,814**	**12,495,737**

Source: Company

SCOOP is a geographic referenced area situated to the south of STACK

SCOOP stands for South Central Oklahoma Oil Province Play is part of a prolific trend of production that stretches 150 miles across five counties. The primary target reservoirs in this trend are the Sycamore lime and Woodford shale. The Woodford shale is the organic rich source rock for the entire Anadarko basin and in many places the Sycamore lime was deposited directly on top of Woodford.

BRK's interest in STACK and SCOOP plays

As of 31 October 2019, the company had an interest in 43 horizontal wells in STACK and SCOOP plays, with 22 (Figure 9) of the wells in production stage. The remaining 21 horizontal wells in the area are at different stages of development, i.e., completing, permitted and permitting. During Q3 2019, BRK's non-operated working interest wells in these plays continued to deliver sustained production rates.

Figure 9: Wells producing oil and gas in the STACK and SCOOP plays

Well Name	Operator	Working Interest
Bullard #1-17/7H	Rimrock Resource	20.81%
Herring #1-33 1513MH	Triumph Energy	18.18%
Henry Federal #1-8-5XH	Continental Resources	7.27%
Roser #1611-3-34	Marathon Oil	3.89%
Dr. No. #1-17-20XH	Triumph Energy	3.70%
Mote #1-26-23H	Rimrock Resource	3.20%
Sphinx 26-16N-11W#1H	Devon Energy	3.13%
Landreth BIA #1-14H	Marathon Oil	2.55%
Boardwalk 1-5MH	Casillas Operating	2.42%
Ladybug 27_22-15N-13W #1HX	Devon Energy	2.20%
Kevin FIU #1-20-17XH	Continental Resources	2.11%
Davis #1-8-1611MH	Triumph Energy	1.17%
Strack #1-2-11XH	Marathon Oil	1.02%
Nelson Com #1H-0607X	Marathon Oil	0.38%
Randolph #34-2	Continental Resources	0.26%
Big Earl #6-15N-10W	Devon Energy	0.03%
Centaur 7_6-15N-10W #2HX	Devon Energy	0.03%
Centaur 7_6-15N-10W #3HX	Devon Energy	0.03%
Centaur 7_6-15N-10W #4HX	Devon Energy	0.03%
Centaur 7_6-15N-10W #5HX	Devon Energy	0.03%
Zenyatta 28-33-1-4-1WXH	Roan Resources	0.02%
Ringer Ranch #1-20-17XHM	Continental Resources	0.02%

Source: Company

Scaling up in SWISH AOI

SWISH AOI is located in the southern part of the SCOOP play, with Sycamore and Woodford being the key targets

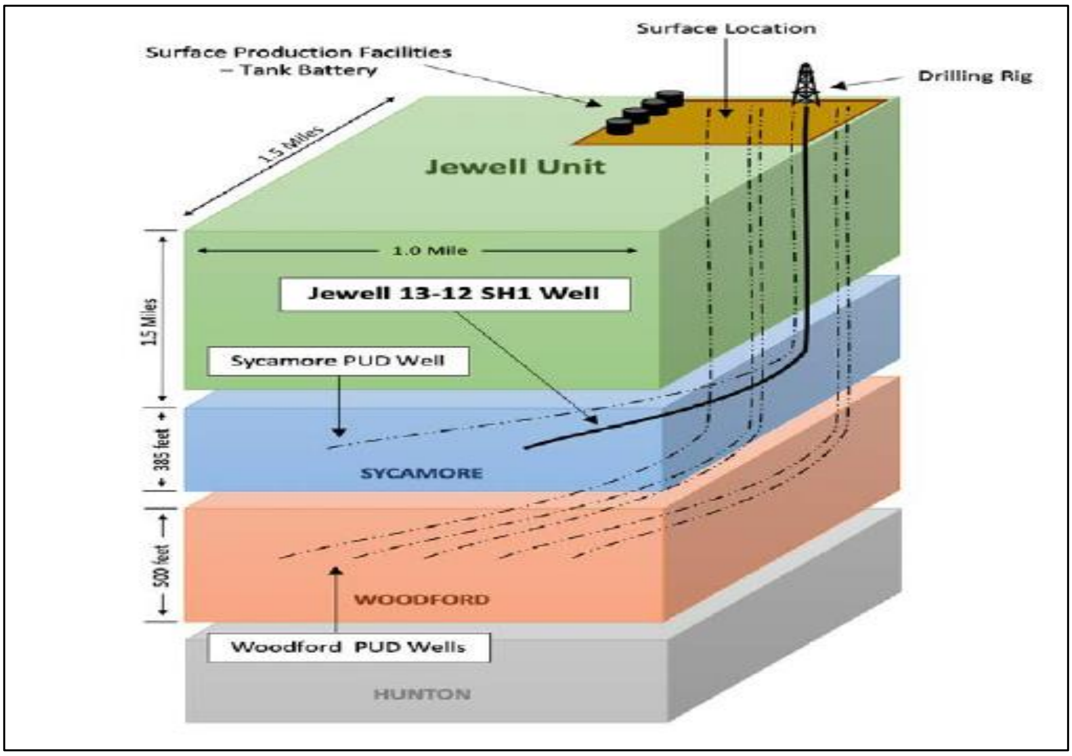
SWISH stands for Sycamore and Woodford in the South Half**.** The SWISH AOI is situated within the southern portion of the SCOOP play in south-western Oklahoma. BRK is now poised to scale up its activities and asset base significantly with its operated interests in the SWISH AOI, identified by its partner, Black Mesa. The SWISH target reservoirs have Woodford shale of 340–500 feet thickness, which is the organic rich oil and gas source rock for the basin; and the 320–380 feet thick Sycamore Limestone, which is above Woodford. Several Tier 1 operators, such as Newfield Exploration and Continental Resources, have already exploited both the reservoirs in the adjoining land. The SWISH AOI is highly competitive, with numerous independent and private-equity-backed groups vigorously leasing in the area. Third-party operators from both the Sycamore and Woodford target formations have reported outstanding initial production results. The level of activity and interest is expected to rise in the SWISH AOI in the future as more wells get drilled and completed, and more oil and gas reserves are booked. As of now, the company has ~2,500 working interest leasehold acres within the SWISH AOI and plans to target 4,000–6,000 acres by mid-2020. BRK continues to aggressively pursue its leasing campaign within the 35,000-acre SWISH AOI. Currently, there are eight horizontal wells that are at different stages of development, i.e., permitted, drilling, drilled waiting on completion, completing and producing in the SWISH AOI. The company also has a non-operated working interest in five horizontal wells in the SWISH area – three Sycamore and two Woodford Shale wells. During Q3 2019, BRK generated cash of US$720,000 through the trade of undeveloped acreage in the SWISH AOI.

Jewell unit – BRK's first operated well to be drilled in the SWISH AOI

The Jewell 1-13-12SXH well, operated by Black Mesa, is the first well drilled by BRK formation is the primary target within BRK's SWISH AOI

BRK achieved a significant milestone in 2019 as it commenced the development of its first operated DSU, Jewell unit, within the SWISH AOI. The Jewell 1-13-12SXH well (Figure 10), operated by Black Mesa, is the first well to be drilled by BRK among a number of operated DSUs that the company will control within the SWISH AOI.

Figure 10: Jewell unit is the first operated DSU in the SWISH AOI



Source: Company

The Company is currently progressing discussions with a number of parties to secure well-bore only type funding for the Jewell 1-13-12SXH well. BRK has already pooled ~90% of the 880 acreage (Figure 11) available in the Jewell unit. This unit was established for the exploitation of the Sycamore, Woodford and Hunton formations.

Figure 11: Jewell unit development potential – key technical parameters

Particulars	Jewell Unit
Location	SCOOP Play, Anadarko Basin, Oklahoma
Working Interest	~90%
Operator	Black Mesa Production, LLC
Hydrocarbon Phases	Light Oil, Condensate and Gas
Target Formations	Sycamore Limestone and Woodford Shale
Depth (feet)	7,200-8,500
Lateral Length (feet)	6,300-7,300
IP30 boe per day	~1,000-1,200
% Oil	58-70%
12-month Cum boe	290,000-305,000
12-month Cum Net Cashflow	~US$5,250,000
Full Unit Development	2 Sycamore wells and 5 Woodford Shale wells

Source: Company

Sycamore formation – primary target for wells drilled within BRK's SWISH AOI

The Sycamore formation is the primary target within BRK's SWISH AOI

The foremost target for BRK is the Sycamore formation in the SWISH AOI. The Sycamore reservoir in the area has gone through several periods of exploitation since the 1970s. BRK witnessed robust initial production results from all the three wells in the Sycamore formation, which would eventually lead to higher per-acre values. Importantly, the three Sycamore wells have delivered initial production results above 1,500 boe. Betts M1-6-31XH1 well – operated by Continental Resources, delivered initial production rates (IP24) of 1,612 boe (75% oil) and the Boardwalk 1-5MH (BRK holds 2.42% working interest) delivered IP24 of 1,617 boe. Recently, the Leon 1-23-14XHM well (BRK holds a 0.12% working interest) of Continental Resources delivered IP24 of 1,945 boe (~79% oil) from a mid-length lateral in the Sycamore formation.

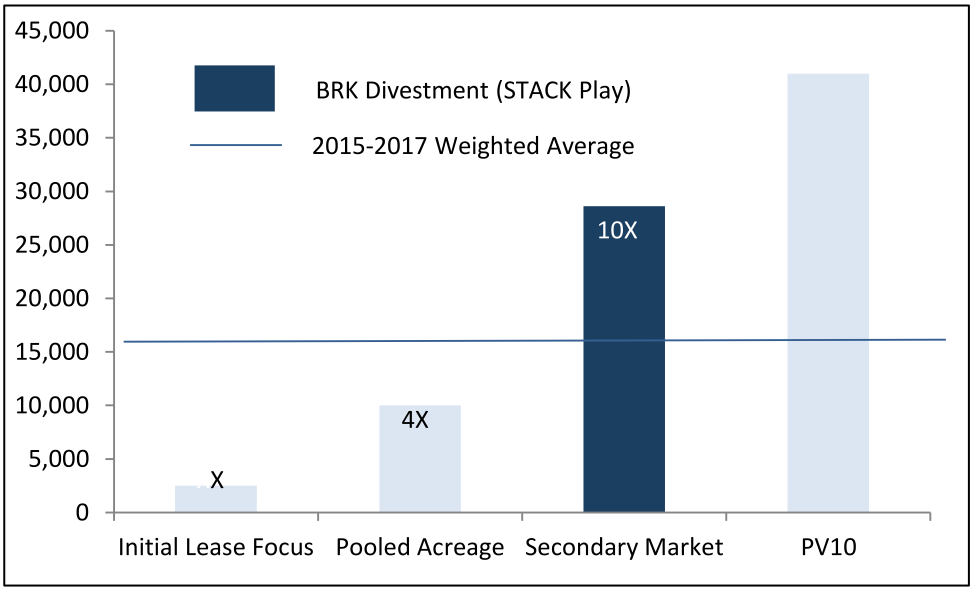
Strong support to acreage prices in the Anadarko Basin

With drilling activity gaining momentum in the Anadarko Basin, acreage prices are moving upwards. Acreage divestments by BRK in 2018 validate the successful business model of the company that supports an asset-light growth strategy.

BRK witnessed a tenfold jump in acreage prices while divesting acres in STACK play

In May 2018, BRK divested 11 acres in its first full-field development unit in the STACK play with a Tier 1 operator that earned US$28,600 per acre, a tenfold increase in the initial average per acre cost of US$2,500. The divested asset was the first non-operated development unit that had progressed to full-field development status. A multiple of ~10 on the average acquisition price paid underlined the significant interest in the secondary market (Figure 12) for the acreage in the Anadarko Basin plays. This divestment also signalled the high-quality proved undeveloped locations that are being generated from the initial wells being drilled in these plays.

Figure 12: A tenfold jump in acreage prices (US$/acre)



Source: Company

Likewise, in July 2018, the company made the second acreage sale from its STACK play holdings, wherein it sold the RA Minerals royalty acreage of ~100 acres. This acreage, acquired in March 2016 for US$878,000, was sold for US$1,475,000, which represented an acreage price of US$15,300 per acre for a mix of partially developed and undeveloped acreage.

The price per acre of the first and second transactions represented ~80% and ~72%, respectively, of the estimated "fully developed" PV_{10} value per acre. This signifies that, for divestments to be profitable, the company does not need to wait till the point where the entire NPV is reflected in the acreage sale price.

Even BRK's maiden reserve results (combined NPV_{10} of the reserve was US$12.5m as of December 2018) translate to a US$30,000 an acre valuation, proving the broad value of its acreage revaluation business model.

The outlook appears to be bright for BRK's acreage prices in the SWISH AOI, aided by the development of the Jewell unit

Going forward, the acreage price outlook for BRK looks promising, largely driven by the company's activities in the SWISH AOI. Acreage prices in SWISH AOI are expected to move higher with the development of BRK's first operated DSU (Jewell unit), coupled with robust initial production results from the wells in which it holds a non-operated working interest.

From 2018 onwards, BRK shifted its focus on ramping up activity within the SWISH AOI as top-tier operators, including Continental Resources and Encana Corp, were eyeing growth opportunities in this highly sought-after part of the Anadarko Basin. In July 2019, OCC issued a pooling order for BRK's first operated DSU within the SWISH AOI. The pooling of the Jewell unit is the first step on the path towards a successful production test of the Sycamore formation in this DSU, which is expected to be a catalyst for a material increase in the per-acre value of the company's acreage.

In addition to the operated position within the SWISH AOI, Brookside has a non-operated working interest in five horizontal wells in this area – three Sycamore wells and two Woodford Shale wells. BRK witnessed robust initial production results at all the three wells in the Sycamore formation (Betts M1-

6-31XH1, Boardwalk 1-5MH and Leon 1-23-14XHM), which would eventually lead to higher per-acre values. Importantly, the three Sycamore wells delivered initial production results above 1,500 boe. Thus, prolific data from these wells in the SWISH AOI will support higher per-acre valuations as the area is further developed.

Valuation

Our basic valuation approach for BRK is as follows:

- We have built a DCF incorporating BRK's acreage revaluation business model in addition to revenue generated from oil and gas sale. Our modelling is broadly based on BRK's guidance on the potential buy and sell of land acreage and acreage pricing as well as assumptions of BRK's maiden estimate (December 2018) of oil and gas reserves, attributable to the holdings in the Anadarko Basin.
- We have assumed forecasted revenues to be net of royalty. The number of operating wells forecasted is in line with project economics. Further, we have considered an average working interest of 2% across the wells.
- We have used a WACC of 10.0% and a terminal growth rate of 0.5%.
- Other assumptions included a 21% corporate tax rate and a long-run USD/AUD exchange rate of 1.47.

Oil and Gas Volumes. We have projected revenues based on the oil and gas production volumes and prices. We have prepared two scenarios (base and optimistic) for the oil and gas revenues. For both scenarios, the oil and gas production volumes are derived from the number of operating wells and the gross oil and gas production per well. The number of operating wells is assumed to be in sync with the project economics, coupled with an average working interest of 2% across the wells.

Oil and Gas Pricing. While for our base case scenario, we have assigned a 5% discount each to the oil and gas prices in the maiden oil and gas reserve estimates, for the optimistic scenario we have assigned a 10% premium each to the oil and gas prices assumptions used in the maiden oil and gas reserve estimates.

Acreage Pricing. In sync with BRK's business model, we have assumed that the company will re-invest the amount received from the acreage sale into the SWISH AOI. This will enable the company to increase its SWISH acreage every year. While the acquisition cost has been taken as US$4,000 per acre, an acreage selling price of US$20,000 per acre has been considered for our projections.

The resulting DCF valuations have been summarised in Figure 13, with our base and optimistic cases yielding a value of A$0.03 and A$0.04 per share, respectively.

Figure 13: DCF valuation for BRK

Valuation (AUD '000)	Base case	Bull case
Present value of FCF	18,929	24,185
Present value of Terminal FCF	12,790	20,554
Enterprise Value	**31,719**	**44,740**
Net debt (cash)	3,160	3,160
Equity value (AUD '000)	**28,559**	**41,580**
Share outstanding ('000)	999,222	999,222
Implied price (A$ cents)	**2.86**	**4.16**
Current price (A$ cents)	0.70	0.70
Upside (%)	308.3%	494.5%

Source: Pitt Street Research

DCF value in A$ cents using various WACCs

Sensitivity Analysis										
WACC		**10.00%**								
Terminal Growth Rate		**0.50%**	**Change in WACC**							
Implied Price (A$ cents)		**2.86**	*9.25%*	*9.50%*	*9.75%*	*10.00%*	*10.25%*	*10.50%*	*10.75%*	*11.00%*
Change in Terminal Growth Rate		*0.20%*	3.08	2.99	2.90	2.82	2.74	2.66	2.59	2.52
		0.30%	3.10	3.00	2.91	2.83	2.75	2.67	2.60	2.53
		0.40%	3.12	3.02	2.93	2.84	2.76	2.68	2.61	2.54
		0.50%	3.13	3.04	2.95	**2.86**	2.78	2.70	2.62	2.55
		0.60%	3.15	3.05	2.96	2.87	2.79	2.71	2.63	2.56
		0.70%	3.17	3.07	2.98	2.89	2.80	2.72	2.65	2.57
		0.80%	3.19	3.09	2.99	2.90	2.82	2.74	2.66	2.58

Source: Pitt Street Research

Re-rating BRK

BRK is currently quoting a market valuation of US$10m, 20% below the value of its STACK play reserves (valued at US$12.5m as per the company's statement released in December 2018). We believe there are two main reasons for the undervaluation of BRK – lack of awareness about the company's business model and the cautious oil price outlook, which has dampened market sentiment. However, we foresee BRK being re-rated by the market, mainly driven by three key factors: 1) higher acreage prices in the Anadarko Basin, 2) better-than-expected flow rates from existing wells in the basin and 3) an increase in the average size of its participation in new wells.

Risks

We see four main risks related to BRK's investment thesis.

– Execution risk: BRK's transition to becoming an operator is in a nascent stage. There is a risk associated in bringing these wells online and establishing sustainable initial production rates at the operated units.
– Geological risk: Reserve figures attributable to STACK play holdings in the Anadarko Basin are estimates, and these estimates have both an associated risk of discovery and a risk of development.
– Commodity price risk: Extended periods of low commodity (oil and natural gas) prices may weigh on future drilling activity in the Anadarko Basin, negatively impacting BRK's prospects.
– Partnership risk: BRK's operational success will depend on the continuation of the strong relationship with Black Mesa and other key exploration partners. In a scenario where a partner decides to pull out of the strategic alliance on short notice, BRK's growth prospects maybe hampered.

Experienced leadership team

The current leadership team of BRK possesses extensive experience, with expertise across the energy sector and capital markets. The company's board composition is depicted below (Figure 14).

Figure 14: BRK's management and board members

Name	Designation	Appointment Year	Affiliations (Current and Past)
Michael Fry	Chairman (Non-Executive Director)	2004	Australian Stock Exchange, Technology Metals Australia and Challenger Energy
David Prentice	Managing Director (Executive Director)	2004	Comet Resources, Lustrum Minerals, Black Mesa Energy, Jameson Resources, DLA Phillips Fox and Axis Consultants Pty. Ltd.
Loren King	Company Secretary (Non-Executive Director)	2015	Cicero Corporate Services, Lustrum Minerals, Blaze International, Family Insights Group, Fiji Kava, Andes Resources, Fraser Range Metals Group, Aphex Minerals, Property Connect, Alcidion Group, Intiger Group, ZipTel and MMJ Phytotech

Source: Company

Michael Fry has vast experience in capital markets and corporate treasury management. He specialises in risk identification (commodity, currency and interest rate) and implementation of risk management strategies. He also serves as a non-executive chairman of Technology Metals Australia.

David Prentice has over 25 years of experience in the natural resources sector. In the beginning of his career, David took on commercial and business development roles in multiple mining companies specialising in nickel and gold exploration. Over the past decade, he has gained significant experience in the US onshore oil and gas exploration and production industries, with focus on the Mid-Continent Region. He is also the non-executive chairman of Lustrum Minerals and a non-executive director of Black Mesa Energy and Comet Resources.

Loren King has experience of 13 years across multiple roles in finance and administration. Loren has expertise in stockbroking and corporate advisory services. She possesses rich experience in corporate governance and compliance, and specialises in IPOs, backdoor listings, private capital raising and business development. She is also a non-executive director of Blaze International and Lustrum Minerals.

Black Mesa Energy, LLC – a first class experienced partner and operator

Black Mesa Energy, LLC is a Tulsa-based oil & gas exploration and production company focused on profitable development of petroleum properties located in the Mid-Continent oil province of the United States. Our lean and highly specialized technical and operations team is committed to providing attractive returns for our investors and shareholders by generating and drilling high quality oil and gas prospects. The founders of Black Mesa have worked together for over 30 years at companies they previously founded, including Medallion Petroleum, InterCoast Energy and Brighton Energy. Over the course of their careers, the Black Mesa team has drilled hundreds of horizontal wells and thousands of vertical wells in numerous mid-continent oil and gas basins.

BILL WARNOCK
Chairman of the Board and Chief Executive Officer

Bill is a registered professional engineer in both Civil and Petroleum engineering. During his career of over 40 years, he has founded and ultimately sold six different oil and gas E&P and marketing companies, and he also invented and patented three different processes related to oil and gas completions and production. Bill began his career with Exxon Company, USA in New Orleans in 1974 as Offshore Engineering Manager and later served as the Executive Vice President over Crystal Oil Company's Oil & Gas division in the early 1980s. Bill's most recent start-up success was Brighton Energy, a natural gas E&P company, which he formed in 1997. He was the majority owner, president and CEO of Brighton until its sale in three parts to Unit Petroleum, Chesapeake Energy, and Mineral Acquisitions Partners in the fall of 2006. He held similar positions and previously founded Medallion Petroleum (1985), MGM Gas Marketing (1987), Inter-Coast Oil and Gas (1992), KCS Medallion Resources (1996), and Arapahoe Marketing (1997). Bill currently serves on a total of eight different private company and non-profit boards. He graduated magna cum laude from Auburn University as the valedictorian of his 1974 engineering class with a degree in Civil Engineering.

CHRIS GIROUARD
President & Chief Operating Officer

Mr. Girouard has over 35 years of experience in the oil & gas industry and is an expert in all aspects of petroleum land management. For more than two decades, he was part of the executive team that started and successfully sold several oil and gas companies—including Medallion Petroleum, Medallion Production Company and Brighton Energy, LLC. Prior to founding Black Mesa, Mr. Girouard served as the President and COO of Red Fork Energy, Inc., which was focused on the acquisition and development of the Mississippi Lime play in Oklahoma. He started his energy career in January of 1980 with Texas Oil & Gas Corp in Fort Smith, Arkansas. He graduated from the University of Oklahoma in 1979 with a B.B.A. in Petroleum Land Management.

JOHN SCHUMER
Vice President Reservoir Engineering

John has 20 years of experience in oil and gas exploration and development. Prior to founding Black Mesa, he served as Team Lead – Haynesville Shale at QEP Resources, where he was responsible for all aspects of reservoir engineering including asset development strategy, acquisitions and divestitures, reserve bookings, type curve generation, and prospect generation. During his tenure at QEP John gained valuable experience as an asset engineer evaluating and developing both conventional and unconventional resources in several regions of the Mid-Continent U.S., where he was responsible for workovers, recompletions, infill development planning and prospect generation. He started his career with Schlumberger in Wireline Evaluation and had various assignments in the U.S and internationally. He received a B.S. degree in Geological Engineering and a B.S. degree in Geology both from the University of North Dakota.

LEE FRANCIS
Vice President Operations

Lee has over forty years of engineering and management experience in upstream and mid-stream operations. He served as the EVP of Operations and Marketing for Red Fork Energy, Inc. where he was responsible for all drilling, production and infrastructure projects related to the Mississippi Lime play. Prior to that Mr. Francis owned CEI Petroleum, Inc., which developed and operated a Morrow formation gas and iodine brine co-production project in northwest Oklahoma. CEI was successfully sold in January of 2013. Since 1986, Lee has owned and operated companies that provide consulting engineering and well site supervision of oil and gas development projects in Oklahoma, Texas, Kansas, Colorado, Wyoming, California, Mississippi and Louisiana (onshore and inland waters). His consulting engineering firm served as the operations department for Medallion Petroleum and Brighton Energy, and he has worked with the founding members of Black Mesa for over 20 years. Lee is a 1974 graduate of Oklahoma State University and holds a bachelor's degree in Industrial Engineering and Management. He is a registered professional engineer in the State of Oklahoma.

Comparable companies operating in the Anadarko Basin

The Anadarko Basin is dominated by large-cap energy operators such as Continental Resources, Marathon Oil and Devon Energy. In addition to Tier 1 operators, smaller players – including BRK – have limited but growing presence in the basin.

For firms directly comparable to BRK, we have considered E&P firms with a market cap below US$1,000m and operations being confined in Oklahoma, Ohio and Colorado (Figure 15). Following are the key directly comparable companies to BRK.

Gulfport Energy (NasdaqGS:GPOR): It is engaged in the acquisition, exploration, exploitation and production of natural gas, crude oil and natural gas liquids (NGLs) in North America. Principal properties are located in the Utica Shale, primarily in Eastern Ohio, and the SCOOP Woodford and SCOOP Springer plays in Oklahoma. As of 31 December 2018, the company held leasehold interests in ~66,000 gross (50,000 net) surface acres in the SCOOP and ~92,000 net reservoir acres, which included 50,000 net Woodford acres and 42,000 net Springer acres.

SandRidge Energy (NYSE:SD): It focusses on exploration and production activities in the US Mid-Continent and North Park Basin of Colorado. As of 31 December 2018, it had an interest in 1,777 gross (1,096 net) producing wells and ~777,000 gross (571,000 net) total acres under lease. It had two rigs drilling in the Mid-Continent and one rig drilling in the North Park Basin. Total estimated proved reserves (as of 31 December 2018) stood at 160 MMboe, of which ~58% were proved developed.

Chaparral Energy (NYSE:CHAP): CHAP is involved in the acquisition, exploration, development, production and operation of onshore oil and natural gas properties primarily in Oklahoma, US. It is an E&P operator with a focus on Oklahoma's hydrocarbon rich STACK play, where it has ~131,000 net acres primarily in the Kingfisher, Canadian and Garfield counties. It has ~260,000 net surface acres in the Mid-Continent region. As of 31 December 2018, it had estimated proved reserves of 94.8 MMboe, with estimated proved reserve life of 12.7 years.

BNK Petroleum (TSX:BKX): BKX is a US-focussed energy company engaged in the acquisition, exploration and production of unconventional oil and gas resource plays. It has working interests in the Tishomingo Field, which covers an area of ~17,680 net acres located in the Armore Basin, Oklahoma. It continues to aggressively target growth in production and reserves through the application of new and proven technologies.

Figure 15: Comparable peers operating in Oklahoma, Ohio and Colorado

Company	Ticker	Market Cap (US$m)	Proved Reserves (MMboe)	EV (US$m)	EV/Proved Reserves (US$/boe)
Gulfport Energy	NasdaqGS:GPOR	455	791	2,585	3.3
SandRidge Energy	NYSE:SD	141	160	200	1.2
Chaparral Energy	NYSE:CHAP	45	95	430	4.5
BNK Petroleum	TSX:BKX	19	27	43	1.6
Brookside Energy Limited	**ASX:BRK**	**7**	**3**	**10**	**3.5**

Source: S&P Capital IQ, Pitt Street Research; Market data as of 12 December 2019

BRK is still an emerging play when compared with the top-tier oil and gas operators in the Anadarko Basin (Figure 16). These bigger players are also major acreage holders in the basin.

Figure 16: Metrics for bigger players operating in the Anadarko Basin

Company	Ticker	Market Cap (US$m)	Proved Reserves (MMboe)	EV (US$m)	EV/Proved Reserves (US$/boe)
Continental Resources	NYSE:CLR	12,623	1,522	18,531	12.2
Marathon Oil	NYSE:MRO	10,423	1,281	14,993	11.7
Devon Energy	NYSE:DVN	9,215	1,927	12,398	6.4
Apache Corp.	NYSE:APA	8,288	1,234	19,038	15.4
Encana Corp.	TSX:ECA	5,439	1,216	13,641	11.2

Source: S&P Capital IQ, Pitt Street Research; Market data as of 12 December 2019

SWOT Analysis

Strengths

– BRK follows a real estate development approach for leasing and development of oil and gas acreage, providing enormous flexibility for working capital generation.

– As the Drilling Joint Venture funds 100% of BRK’s share of drilling and completion costs, it minimises the burden of making heavy investments towards BRK’s operations.

– BRK has a proven track record of achieving multiples up to 10 times the average undeveloped acreage acquisition costs. This buy low, sell high strategy also provides boost to its per-acre values.

– Experienced management team enables the company to execute its core strategy effectively across cycles.

– Initial production results from first non-operated wells in SWISH AOI have exceeded pre-drill expectations, providing significant support to cash flows.

– BRK is in a transition phase – it has started to assume operatorships of wells with the development of the Jewell unit. Thus, it is expected that BRK will grow its operated position in SWISH AOI.

Weaknesses

- BRK has incurred net losses since incorporation and needs to demonstrate consistent profitability to build shareholder wealth.
- It is a relatively smaller E&P player in the Anadarko Basin and the limited scale might be a challenge while pursuing future growth opportunities.

Opportunities

- There are significant untapped opportunities in the Anadarko Basin as estimates suggest that ~16 billion barrels of oil and more than 200 tcf of gas in un-risked technically recovered resources are still left to be explored.
- The acreage price outlook for BRK looks promising – largely driven by the development of BRK's first operated DSU (Jewell unit), coupled with robust initial production results from the wells in which it holds a non-operated working interest.
- The supportive government policies (forced pooling regime) in Oklahoma provide the pathway for BRK to capture additional acreage within each development unit on favourable terms.

Threats

- Any change in commercial relationship with Black Mesa and other development partners might hinder BRK's operational plans, although this is somewhat mitigated by BRK's 17.2% shareholding in Black Mesa and Board representation.
- Much of the project economics depend on the price of oil and natural gas. If oil prices decline substantially, BRK may experience erosion in shareholder value and interest.

Appendix I – Glossary

Development Unit – A development or spacing unit is the geographical area in which an initial oil and/or gas well is drilled and produced from the geological formation listed in a spacing order. The spacing unit communitises all interest owners for the purpose of sharing in production from oil and/or gas wells in the unit. A spacing order establishes the size of the unit; names the formations included in the unit; divides the ownership of the unit for the formations into the 'royalty interest' and 'working interest' – only one well can be drilled and completed in each common source of supply. Additional wells may be drilled in a development unit, but only after an increased Density Order is issued by OCC.

DSU – A drilling spacing unit is the area allotted to a well where an operating oil company has acquired a majority working interest and will drill at least one well.

IP 24 – Initial production is the rate of initial flow from a well over a 24-hour initial production rate period.

MERGE – It is a relatively young oil and natural gas play that sits right between the prolific STACK and SCOOP fields, essentially tying the two together to create one contiguous formation.

NPV_{10} – The net present value of future net revenue, before income taxes and using a discount rate of 10%.

OCC – The Oklahoma Corporation Commission (OCC), established in 1907, is responsible for enforcing regulations related to drilling and production of oil and gas, pipeline safety, safeguarding mineral property rights, petroleum storage tanks and filling stations, in Oklahoma, US.

PDP – It refers to 'Proved Developed Producing Reserves'.

Pooling Agreements – The pooling agreements facilitate the development of oil and gas wells and drilling units. These binding pooling agreements are between the company and the operators.

ppsi – It refers to pounds per square inch and is a unit of pressure.

PUD – It stands for 'Proved Undeveloped Reserves' and refers to reserves that are both proved and undeveloped.

Reserve Categories – These reserve categories are totalled up by the measures 1P, 2P and 3P, which are inclusive of all reserve types.

- 1P reserves = proven reserves (both proved developed reserves + proved undeveloped reserves).
- 2P reserves = 1P (proven reserves) + probable reserves, hence 'proved and probable'.
- 3P reserves = the sum of 2P (proven reserves + probable reserves) + possible reserves, all 3Ps refer to 'proven and probable and possible'.

Working Interest – Percentage of ownership in a lease granting its owner the right to explore, drill and produce oil and gas from a tract of property. Working interest owners are obligated to pay a corresponding percentage of the cost of leasing, drilling, producing and operating a well or unit.

Appendix II – Capital Structure

		% of fully diluted	Notes
Fully paid ordinary shares, ASX Code BRK (million)	999	100%	
Options (million)	295		295.1 million exercisable at 3 cents expiring 31 December 2020
Fully diluted shares (million)	999		As the options are not in-the-money, there will be no dilution

Source: Company

Appendix III – Major Shareholders

Investor Name	Ownership (%)
The Trust Company (Australia) Limited	12.06%
Great Southern Flour Mills Pty Ltd	9.01%
BNP Paribas Nominees Pty Ltd	5.32%
Mr Mark James Casey	5.03%

Source: Company

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