



# Indago Energy Limited

31 January 2018

## December 2017 Quarterly Activity and Cashflow Report

### Summary

- Acquired Leases in Kentucky heavy oil province in the USA
- Conducted numerous field & lab trials of MultiFlow for oil producers
- Entered into distribution arrangements in China for large producers
- Initial sales of MultiFlow and Tank Clean achieved
- Assessment of north American heavy and paraffinic oil accumulations for potential joint venture or acquisition continued
- Cash position at 31 December of A\$2.9m

### Kentucky Heavy Oil Project

During the Quarter Indago announced that it had acquired 1,450 acres in the Illinois Basin in western Kentucky targeting the oil sands in the Upper Mississippian Big Clifty Sandstone. Since that announcement Indago has acquired a further 336 acres bringing the total leased area to 1,786 acres.

As reported in INK's original announcement, the Big Clifty Sandstone has been targeted due to its well documented substantial heavy oil resources as well as secondary objectives including five other sandstones which have proven to be hydrocarbon bearing.

Previous operators have drilled dozens of wells in the vicinity including approximately 10 wells in INK's leased acreage. The information from these wells has demonstrated an oil saturated reservoir approximately 12-20 metres thick at a depth range of between 125-215 metres.

Based on previous published results of more than 2,000 core samples from this region on the Kentucky Geological Survey website, the target zone has reported reservoir properties including average porosities of 15.5%, average permeability of 192 millidarcies, oil saturation from 32-45% and an oil gravity of 10 API.

INK has commissioned US based petroleum engineering firm, Netherland Sewell and Associates, to analyse these historical results and all available well logs and volumetric analysis to verify



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published information. Their report on the oil resources within INK's leased acreage is expected in late February.

Indago's anticipated work programme will include analysis of existing core followed by a one or two well programme that is expected to commence next quarter. The well test(s) will be designed to determine whether its key product, MultiFlow, will be able to maintain the oil in a liquid state from the reservoir to the well head and thus enable the oil to be pumped using conventional methods.

INK's total leasing costs have been approximately US\$50,000 with an average royalty rate to mineral owners of 12.5%. While the final well design and work programme have not been completed, it is anticipated a single well will cost less than US\$100,000.

The acquisition of these leases in Kentucky is part of INK's upstream strategy of identifying and acquiring interests in several upstream oil projects where its unique technology for reducing viscosity and pour point can be applied in order to develop its own reserves and cash flow. Should it be successful, this will also demonstrate to other participants in the industry the commercial benefits of MultiFlow and assist in generating additional product sales.

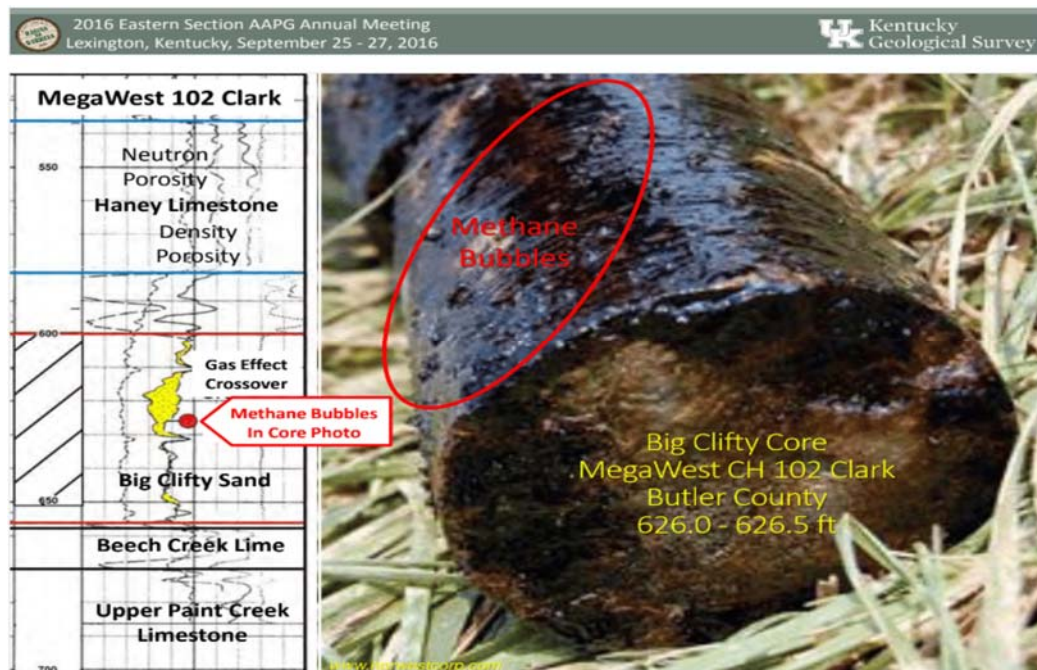


Figure 1 – Core from Big Clifty sandstone in Kentucky



## Indago Energy Limited

### **New Marketing Arrangements**

Building on the two new arrangements to market HCD products announced last quarter covering parts of the Middle East and South America, Indago entered into a distribution agreement with Chinese energy services company Qinghua Energy to market and distribute HCD products to two of China's largest oil producers. The new arrangements form part of Indago's sales strategy whereby it will concentrate its financial and human resources on opportunities in North America and seek to enter into sales, marketing and distribution arrangements with suitable partners in other parts of the world.

### **Initial Sales Recorded**

During the Quarter Indago recorded A\$27,000 in sales of HCD products (MultiFlow and Tank Clean), largely represented by sales to new HCD distributors for anticipated forthcoming trials.

### **Field Trials**

During the Quarter, Indago entered into several field trials in Canada and the United States with several small independent operators as well as a mid-size public company. The trials included:

- 1) Multi-Flow well head injections designed to flow through the gathering system to storage tanks and reduce Basic Sediment and Water (BS&W) levels in the crude oil to improve crude quality;
- 2) Uplift by a few degrees, the API gravity of heavy crude to pipeline specification for substantial savings on transportation costs;
- 3) decrease heavy crude viscosity for savings in pumping and transportation costs; and
- 4) experimenting with Multi-Flow dosage rates in diluents and native crude of 5-6 API gravity oils in order to reduce heat costs in transportation and handling.

In most cases the objectives of the field trials were satisfied with BS&W levels reduced, API gravity's uplifted and crude oil viscosity's reduced, and in the case of the diluents Multi-Flow reduced viscosity sufficiently to justify further field experimentation to determine optimal dosage rates.

### **Laboratory Testing**

Indago has numerous crude oils at major laboratories in the USA and Canada for testing. The lab testing protocols are designed to demonstrate the efficacy of Multi-Flow at various concentrations on reducing crude oil pour point, crude oil viscosity and BS&W levels, and increasing crude oil API gravity. The laboratory testing has been in support of the field trials undertaken during this quarter, as well as data gathering for upcoming field trial designs.

ABN: 75 117 387 354

Tel: +61 3 9642 2899 | Fax: +61 3 9642 5177

Level 6, 412 Collins Street, Melbourne VIC 3000 Australia



## Indago Energy Limited

### **Newkirk Project, Kay County Oklahoma** (100% WI 81.25%NRI)

No work was conducted during the Quarter. After lease expiries and modest re-leasing, Indago's net acreage position reduced from 3,715 net acres to 3,148 net acres. The Company expects no acres will expire during the current quarter.

### **Financial**

During the Quarter Indago generated sales for its products of \$27,000. At 31 December, Indago Energy had cash resources of \$2.9 million.

### **Oil and Gas Tenements December 31<sup>st</sup> 2017**

<b>Project</b>	<b>Location</b>	<b>Interest acquired or disposed of during the quarter net to Indago</b>	<b>Total acres owned net to Indago</b>	<b>Working Interest held as at 30 June 2016</b>
<b>Newkirk</b>	Kay and Noble Counties, Oklahoma	-567	3,149	100%
<b>Kentucky</b>	Butler and Warren Counties, Kentucky	1,452	1,786	100%

For further information please contact:

**Stephen Mitchell**  
Chairman  
Indago Energy Limited

**Julie Edwards**  
Company Secretary  
Indago Energy Limited

Telephone: +61 3 9642 2899

Website: [www.indagoenergy.com](http://www.indagoenergy.com)

ASX Code: INK

## Appendix 5B

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

**Name of entity**

Indago Energy Limited

**ABN**

75 117 387 354

**Quarter ended ("current quarter")**

31 December 2017

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (12 months) \$A'000</b>
<b>1. Cash flows from operating activities</b>		
144 Receipts from customers	27	247
1.2 Payments for		
(a) exploration & evaluation	(104)	(306)
(b) development	-	-
(c) production	(29)	(29)
(d) staff costs	(330)	(1,013)
(e) administration and corporate costs	(252)	(1,010)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	4	15
1.5 Interest and other costs of finance paid	-	(2)
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	-
1.8 Other - Royalties	(63)	(166)
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(747)</b>	<b>(2,264)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	-	(5)
(b) tenements (see item 10)	(85)	(85)
(c) investments	-	(996)
(d) other non-current assets	-	-

Appendix 5B

**Mining exploration entity and oil and gas exploration entity quarterly report**

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (12 months) \$A'000</b>
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	8	(151)
2.4	Dividends received (see note 3)	-	-
2.5	Other (cash purchased on acquisition)	-	4
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(77)</b>	<b>(1,233)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of shares	-	3,051
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	-	(208)
3.5	Proceeds from borrowings	-	57
3.6	Repayment of borrowings	(17)	(57)
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>(17)</b>	<b>2,843</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	3,786	3,653
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(747)	(2,264)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(77)	(1,233)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(17)	2,843
4.5	Effect of movement in exchange rates on cash held	2	(52)
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>2,947</b>	<b>2,947</b>

5. <b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1 Bank balances	2,947	3,786
5.2 Call deposits	-	-
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
<b>5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>2,947</b>	<b>3,786</b>

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Current quarter \$A'000
(273)
8

- 6.1 - Directors fees, Consultancy and Royalties
- 6.2 - Director loan repayment (acquired with HCD purchase)

**7. Payments to related entities of the entity and their associates**

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

Current quarter \$A'000
-
-

## Mining exploration entity and oil and gas exploration entity quarterly report

<b>8. Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	-
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

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<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation	250
9.2 Development	-
9.3 Production	-
9.4 Staff costs	414
9.5 Administration and corporate costs	215
9.6 Other - Royalties	65
<b>9.7 Total estimated cash outflows</b>	<b>944</b>


<b>10. Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	<b>Tenement reference and location</b>	<b>Nature of interest</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter</b>
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced				
10.2 Interests in mining tenements and petroleum tenements acquired or increased	Kentucky	100% in acreage	Nil	1,786 Acres



**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here:

  
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Company secretary

Date: 31 January 2018

Print name: Julie Edwards

**Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.