

30 April 2020

March 2020 Quarterly Activities and Cashflow Report

Summary

- Utah project farm-out MOU's signed
- Successful testing on Canadian oil sands for two producers (April 2020)
- Strategic Review leads to refined business model and cost reductions
- 1 for 5 Rights Issue commenced
- Field trials postponed
- Review of product mix, branding and pricing commenced

Utah Project Farm-Out

HCD announced on 2nd March that it had signed two Memoranda of Understandings (“MOU”) with Valkor Technologies LLC (“Valkor”) whereby Valkor can earn an interest in HCD’s Utah project by funding the next two phases of exploration, appraisal and development.

In the first MOU Valkor will initially fund the drilling and production testing of three vertical wells or one vertical well and one horizontal well, utilising HCD Multi-Flow® as part of the trial. Should Valkor complete this within 12 months, they can earn up to a 65% interest by funding a continuous drilling programme of an additional 2 vertical wells or one horizontal well per quarter. The MOU relates to the deeper oil sands within HCD’s leases.

In the second MOU Valkor can earn up to an 87.5% interest in the shallow (“mineable”) oil sands in HCD’s Utah leases by initially completing a preliminary study to determine the feasibility to mine the oil sands within the leases. Valkor will also spend a minimum of US\$250,000 assessing the applicability of HCD Multi-Flow® in the mining process. To earn its interest Valkor will then need to engineer, install and operate the oil sands mining and processing facilities.

The MOU’s are not binding and both HCD and Valkor are currently working on finalising binding agreements.

Successful Testing on Canadian Oil Sands

On 22nd April HCD announced that testing on crude oil samples from two significant Canadian oil sands producers has been undertaken by the independent group AGAT Laboratories in Canada. The test results were excellent and succeeded in their primary goal of reducing viscosity, in some cases by up to 94.1%, also materially lifting API on the ultra heavy crude oils.

These results could have significant implications for reducing costs for Canadian oil sand producers by reducing diluent usage within the Canadian oil sands and heavy oil industries where large quantities of diluent (often light oil, condensate, naphtha, syncrude etc.) are used to assist in the production, handling and transport of Alberta’s viscous oils. Typically, producers of these heavy oils require a diluent to native crude ratio of 30%:70% with some requiring up to 50%.

In the recent testing, HCD Multi-Flow® was applied at various concentrations to raw crude before the addition of diluent to see if the HCD Multi-Flow® could reduce the amount of diluent required to transfer the crude oil. The testing was performed with heavy oils from two major producers in the Athabasca Oil Sands and was found to have a marked effect on viscosity reduction, density and API gravity of both sample sets from the two different companies. In one case the application of Multi-Flow® dropped the viscosity of the crude oil by 89.4% and increased API by 2.20 at 7.5C. In the second case the viscosity was reduced by 94.2% with an increase in API of 2.46 at 15C. With agitation only and no heat or other chemical additions, HCD Multi-Flow® demonstrated it has the potential to significantly reduce diluent usage in the industry.

These tests, foreshadowed in the December Quarterly Report, follow on from other successful tests on diluent reduction that indicate diluent could be reduced by 35-50% with the application of relatively small amounts HCD Multi-Flow®.

HCD will now seek to work with heavy and ultra heavy oil producers to secure field trials where HCD Multi-Flow® can be tested to accurately determine its technical and commercial efficacy on specific fields in normal operating conditions.

Strategic Review and Cost Reductions

After a detailed strategic review by the new CEO of its chemical division, and subsequent board approval, HCD has moved entirely to a sales model based on the appointment of agents and distributors rather than salaried sales staff.

The refined business model coincides with the board's decision to reduce fixed costs by approximately \$1million/year via a variety of measures including very substantial cuts to director remuneration. These measures include directors Stephen Mitchell, Ray Shorrocks and Allan Ritchie agreeing to forgo all director and consulting fees until further notice, and executive director Nick Castellano accepting a reduced salary from US\$180,000 to US\$120,000. Reflecting his more recent appointment to the board, non-executive director Andrew Seaton has agreed to forgo cash fees in favour of share based payments (subject to shareholder approval).

HCD's Board of Directors approved a new Strategic Plan for its Chemical Division. The Strategic Plan provides a framework for how Hydrocarbon Dynamics will be structured, and its method of doing business to create, deliver and capture sustainable shareholder value. It followed a thorough review of HCD's business and markets that identified key strategic imperatives needed to transform the Company, including:

- market-focused business approach to drive strategic and tactical decisions necessary to meet growth forecast
- redesigned business model that takes advantage of our market-focused approach to facilitate the strategy as it defines where and how we compete
- investment to enhance marketing efforts with a focus on delivering the tools needed to drive market penetration with consistent and clear messaging

Other cost cutting measures have been applied to accounting and corporate secretarial services, rent in Australia and at the HCD blending facility in Phoenix, and the planned replacement of north American sales staff with new distributors and agents, which is currently being actioned by Bill Tarantino.

The new strategy being adopted reduces fixed costs and is expected to extend the sales reach for the Company's products.

Field Trial Update

HCD has seen a significant impact on its oil producing clients and potential customers as a result of very low oil prices and the harsh market conditions triggered by the COVID-19 pandemic. As recently announced, HCD has been informed that several forthcoming trials including those in Canada and the Gulf of Mexico have been delayed for an unspecified time period and with no certainty of when or whether those trials can proceed.

Financial

During the Quarter HCD announced a undertake a 1 for 5 non-renounceable Rights Issue at \$0.015/share to raise up to \$846,233. All HCD directors committed to participate in the issue with Messrs Mitchell and Shorrocks underwriting up to \$300,000 to support the Rights Issue.

Shareholders have applied for \$585,806 in rights and over-subscriptions which, when combined with the underwritten component of the Rights Issue means the entitlement offer was fully subscribed, raising \$846,237.

The financing is being undertaken to support the new strategic plan and is being done in conjunction with cost cutting measures as previously announced.

The Company received revenues of \$15,000 for sale of products for the Quarter. At 31st March 2020, HCD had cash resources of approximately \$833,000 excluding the proceeds from the rights issue.

Related party payments of \$232,000 as per the attached appendix 5B is made up of \$72,000 in royalty fees and \$160,000 in directors fees.

Oil and Gas Tenements as at 31 March 2020

Project	Location	Interest acquired or disposed of during the quarter net to HCD	Total acres owned net to HCD	Working Interest held as at 31 December 2019
Kentucky	Butler and Warren Counties, Kentucky	-	1,786	100%
Utah	Uintah, County	-	3,458	100%

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Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Hydrocarbon Dynamics Limited

ABN

75 117 387 354

Quarter ended ("current quarter")

31 March 2020

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	15	15
1.2 Payments for		
(a) exploration & evaluation (if expensed)	(123)	(123)
(b) development		
(c) production	(125)	(125)
(d) staff costs	(362)	(362)
(e) administration and corporate costs	(130)	(130)
1.3 Dividends received (see note 3)		
1.4 Interest received	2	2
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Government grants and tax incentives		
1.8 Other (Royalty)	(72)	(72)
1.9 Net cash from / (used in) operating activities	(795)	(795)

2. Cash flows from investing activities		
2.1 Payments to acquire:		
(a) entities		
(b) tenements		
(c) property, plant and equipment		
(d) exploration & evaluation (if capitalised)		
(e) investments		
(f) other non-current assets		

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) investments		
	(e) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other (provide details if material)		
2.6	Net cash from / (used in) investing activities	-	-
3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)		
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities		
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
3.10	Net cash from / (used in) financing activities	-	-
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,628	1,628
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(795)	(795)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	833	833

5.	Reconciliation of cash and cash equivalents 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	423	119
5.2	Call deposits	410	1,508
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	833	1,627

6. Payments to related parties of the entity and their associates

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

Current quarter \$A'000
(232)
-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

7. Financing facilities	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities		
7.2 Credit standby arrangements		
7.3 Other (please specify)		
7.4 Total financing facilities		

7.5 Unused financing facilities available at quarter end	
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.	

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (Item 1.9)	(795)
8.2 Capitalised exploration & evaluation (Item 2.1(d))	-
8.3 Total relevant outgoings (Item 8.1 + Item 8.2)	(795)
8.4 Cash and cash equivalents at quarter end (Item 4.6)	833
8.5 Unused finance facilities available at quarter end (Item 7.5)	-
8.6 Total available funding (Item 8.4 + Item 8.5)	833
8.7 Estimated quarters of funding available (Item 8.6 divided by Item 8.3)	1.05

8.8 If Item 8.7 is less than 2 quarters, please provide answers to the following questions:

1. Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: No. We estimate current operating cashflow of \$485,000 due to cost cutting measures previously announced.

2. Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: Yes. Entitlement issue was fully subscribed and \$846,233 has been raised as announced earlier today.

3. Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Yes, on the basis that costs have been cut and funds raised under the Rights Issue.

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.

Date: 30th April 2020

Authorised: By the Board

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow 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 cash flow 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.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.