

26 October 2023

September 2023 Quarterly Activities Report

Summary

- South Sudan \$185,000 sale, trial to commence in December
- Cefas approval received and North Sea trial to commence
- Small orders received to enable trials with two new US Customers, including with a US supermajor integrated oil and gas company
- Strong sales and marketing progress with multiple trials underway
- Discussions with new distributors and agents continue
- Continued assessment of new energy and energy technology projects for investment

South Sudan Purchase Orders and Sales

Further to the announcement on 31 July 2023, Hydrocarbon Dynamics Limited (“HCD”) has now received the full payment of A\$185,000 for its new product, Bit-Flow D75 from a large operator in South Sudan that is majority owned by Malaysia’s state-owned energy company, Petronas. The product has been shipped from Malaysia and is expected to arrive on site in coming weeks.

The operator had previously evaluated HCD chemistry for viscosity reduction on several of their crude oils, with in-house laboratory tests demonstrating that HCD technology is very effective at reducing the viscosity on two of their crude oil grades. The reduction in viscosity of the heavy crude oil is required to meet specifications for pipeline transportation during the winter months.

If the initial field treatment proves successful, the potential revenue associated with this opportunity is estimated to be approximately A\$3,000,000 annually. In addition, it could also lead to similar opportunities with other operators in the region.

Cefas Approval Received and North Sea Trial to Commence

HCD has received the final approval required for a trial of HCD Multi-Flow in the North Sea. The long-awaited Centre for Environment Fisheries and Aquaculture Science (Cefas) approval follows from a Purchase Order from a large national European integrated energy company to apply HCD Multi-Flow on a North Sea platform suffering from severe paraffin deposition issues resulting in substantial lost production.

The previously announced Purchase Order was received after a successful head-to-head laboratory evaluation of HCD Multi-Flow against the incumbent oil field chemical supplier’s paraffin inhibitor and paraffin dissolver products.

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As previously reported, HCD has already completed the required UK Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (REACH) and, subsea certifications and after exhaustive testing, has now received 6-month approval from Cefas which is expected to become permanent approval after minor adjustments are made to the registration application.

Following some minor delays due to availability of the offshore platform, HCD now expects the trial to commence in December 2023. If this trial proves successful, a second platform with comparable issues could follow. The initial Purchase Order is for approximately A\$80,000 of HCD Multi-Flow product.

Two New Small Orders From Two New US Customers

As foreshadowed in the June 2023 Quarterly Activities Report, post quarter end HCD has received a small order (1 drum) for a paraffin control trial with a US supermajor integrated oil & gas company. The project is in the Delaware Basin in New Mexico and the initial well will focus on downhole production tubing fouling that requires secondary paraffin cleaning methods such as cutting and hot oiling/hot watering.

The second small order (2 drums) received post quarter end was received by HCD's new Oklahoma based distributor for a paraffin control trial with an independent producer in Bakersfield, California. The trial on one well is expected to commence in November 2023. Positive trial results could result in additional paraffin control treatment opportunities with this customer who operates approximately 70 waxy wells, as well as with other producers in the region.

Cooper Basin Treatment Continues

The HCD Multi-Flow paraffin control program continued to perform well through the 2023 winter season. Hydrocarbon Dynamics anticipates new opportunities in the client's other fields because of the effective treatment in their Cooper Basin production.

Alberta, Canada Ongoing Business

As reported in the June 2023 Quarterly Activities Report, HCD's Alberta, Canada distributor's paraffin control business with a mid-sized oil & gas producer is now ongoing. They continue to treat a total of 18 wells. The customer intends to evaluate all its current chemical service suppliers with the intention of reducing the number. Based on the success in the field and consequent financial results, HCD's distributor hopes to expand its paraffin control business utilising HCD Multi-flow.

Small Trial Commenced in North Dakota

On 26 April 2023 HCD announced that its new distributor, based in Minot, North Dakota informed HCD that they started injecting HCD Multi-Flow on 1 well in the Bakken formation for a midsized independent oil & gas producer. No issues have been reported after 5 months. The trial will continue until the rods, pump, and tubulars are pulled and inspected, which typically occurs two times per year.

The producer has approximately 100 similar waxy wells in the region that are candidates for HCD technology upon a successful trial.

First Purchase Order from a new Texas based distributor

Pursuant to the June 2023 Quarterly Activities Report our new Texas based distributor's client started a trial of HCD Multi-Flow for wax remediation and inhibition on a well in the Uinta Basin of Utah. An update on the progress of the trial is expected soon.

Gulf of Mexico Trial Expanded to Two Offshore Platforms

Following HCD's 21 April 2023 ASX release and the June 2023 Quarterly Activities Report, HCD's trials were ended due to interference with gas-lift operations. The customer is very impressed with the chemical's ability to reduce and eliminate the formation of paraffin wax and has committed to new trial opportunities that focus on organic deposition control, including subsea pipelines.

Update on HCD Multi-Flow Tank Cleaning Trial in the UAE

In the March 2023 Quarterly Activities Report, and the June 2023 Quarterly Activities Report HCD reported that the paid tank cleaning job with a large national oil company operating in the United Arab Emirates was delayed due to organisational changes and then put back on the schedule for cleaning in October 2023. The job has been postponed for a second time. HCD's Dubai based distributor is now in discussions with company for the cleanout of a crude oil tank with a more substantial sludge problem.

Update on Purchase Orders for India

As reported previously, HCD is preparing to ship the chemical needed to meet the purchase order for Tri-Phase Squeeze on 4 wells from an independent oil and gas producer and a Letter of Award (LOA) from a second independent producer for Tri-Phase Squeeze on 1 well. Payment for these Gujarat based wells is contingent on meeting success criteria. The trials will employ HCD's Tri-Phase Squeeze technology to restore production and enhance oil recovery on declining wells.

Sales & Marketing Progress

HCD and its distributors have made good progress with sales and marketing activity during the quarter.

This includes progress with a small start-up producer in Australia to trial HCD Multi-Flow for pour point reduction of their high pour point crude. The producer has secured an offtake agreement and awaits government approvals to commence production at which time the HCD pour point reduction trial is expected to commence.

Laboratory Testing Update

Laboratory testing continues to be a strong tool to drive sales opportunities.

HCD Multi-Flow has received Cefas approval for temporary trial use in the North Sea. Achieving full North Sea Cefas registration of HCD Multi-Flow and utilising wax flow loop testing to drive sales opportunities continues to be a key focus.

Crude Oil samples were received from HCD's Australian customer (crude oil from PNG) and Canadian distributor (crude oil from the Montney Formation in Alberta) for Wax Flow Loop testing with HCD Multi-Flow by an independent laboratory in Texas, USA. Both crude oils responded positively to HCD Multi-Flow as a wax dissolver and as a wax inhibitor.

Exploration Activities

There were no exploration activities during the quarter. HCD is continuing to assess exploration opportunities.

Finance

At the end of the quarter HCD had \$1.057m in cash reserves and no debt.

Related party transactions during the quarter were for approximately \$82,000 in Director's fees and \$49,000 in royalty payments.

This release has been approved by the Board of Directors.

For further information please contact:

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ASX Code: HCD

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")

30 September 2023

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	232	462
1.2 Payments for		
(a) exploration & evaluation (reallocated to corporate costs)	13	-
(b) development	-	-
(c) production	(59)	(148)
(d) staff costs	(226)	(631)
(e) administration and corporate costs	(233)	(529)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	9	18
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (royalties)	(49)	(217)
1.9 Net cash from / (used in) operating activities	(313)	(1,045)
2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	-	-
(d) exploration & evaluation	-	-
(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 (9 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)	-	751
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	(4)	(29)
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)	722

4.	Net increase / (decrease) in cash and cash equivalents for the period	(317)	(311)
4.1	Cash and cash equivalents at beginning of period	1,374	1,381
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(313)	(1,045)
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)	(4)	722

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 (9 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	(1)
4.6	Cash and cash equivalents at end of period	1,057	1,057

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	553	570
5.2	Call deposits	504	804
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)	1,057	1,374

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	(131)
6.2	Aggregate amount of payments to related parties and their associates included in item 2	

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)	(313)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(313)
8.4 Cash and cash equivalents at quarter end (item 4.6)	1,057
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	1,057
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	3.38
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 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:	
8.8.2 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:	

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

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

Answer:

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

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: 26 October 2023

Authorised by: 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.