



21 July 2020

# ROMANIA WELL FLOW TEST OPERATIONS UPDATE No 4

"lecea Mica-1 well testing operations to resume next week following a delay due to new COVID-19 border restrictions."

### **Key Points:**

- Remobilisation of wireline crew and further diagnosis work including down hole pressure measurement and sampling of reservoir fluids using wireline now planned for the 27<sup>th</sup> of July 2020.
- Positive indications of gas from down hole sampling which recovered methane and drilling fluids from the reservoir.
- Pressure build up at surface indicates gradual influx of gas from the reservoir resulting in pressure at the well head increasing from 780 psi to 1650 psi.
- ▲ Acidisation equipment sourced to stimulate the well in order to create a flow path for gas beyond the mud filter cake built up around the well bore while drilling and possible invasion into the reservoir. Acidisation is a very common practice for such reservoirs in Western Romania where over 20% of the reservoir consisting of calcite and siderite cement can be dissolved by acid there by enhancing near well bore permeability. Detailed rock typing work on IMIC-1 drilling cuttings has identified calcite and siderite cement therefore acidisation is necessary to overcome damage even in an otherwise excellent reservoir with over 20% matrix porosity.
- Further results and future programs will be announced following the 27<sup>th</sup> of July including down hole pressure measurement analysis, down hole fluid sampling as well as future stimulation and testing programs.

ADX Energy Ltd (ASX Code: **ADX**) advises that there has been a delay to ongoing well flow testing programs at the lecea Mica-1 (IMIC-1) well site at the lecea Mare Production License onshore Romania due to the reinstatement of COVID-19 border restrictions in Romania.

The Hungarian wireline contractor contracted to undertake ongoing pressure measurement and sampling of reservoir fluids on the well has been delayed from returning to site due to revised COVID-19 quarantine requirements recently announced in Romania.

Positive indications of methane gas have been observed from down hole sampling which recovered methane gas and drilling fluids from the reservoir based on laboratory compositional analysis. The recovery of drilling fluids is a further indication of well bore damage.



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Ongoing pressure build up has been monitored at surface indicating a gradual influx of gas from the reservoir. The well head pressure during the past 16 days has increased from 780 psi to 1650 psi.

ADX has sourced all the necessary acidisation equipment in Romania to stimulate the well and test it. Injection of acid into the reservoir is intended to create flow paths for reservoir gas beyond the mud filter cake built up around the well bore while drilling and possible invasion damage into the reservoir. Acidisation is common practice for such reservoirs in Romania and the equipment required is readily available. Laboratory testing undertaken on behalf of ADX indicates that over 20% of the reservoir calcite and siderite cement can be dissolved by acid thereby enhancing near well bore permeability.

The wireline contractor is expected to be back on site on the 27<sup>th</sup> of July to resume pressure monitoring operations on the well. The results of down hole pressure monitoring will be required to determine future flow testing operations and programs.

Further flow testing results will be provided to shareholders over the coming weeks including the analysis of down hole pressure measurement and fluid sampling as well as the results of any future clean up stimulation or testing programs.

### **Background Regarding IMIC-1 Drilling Results and Testing Objectives**

(Refer to ADX Release dated 9/9/2019 and note that ADX is not aware of any information or data that materially affects the original estimates).

The IMIC-1 well encountered gas across three zones with a combined total arithmetic sum for the three zones of 20 BCF 2C contingent resources estimated (refer to table below). The well was suspended for future completion as a producer following testing. Testing was deferred until down hole well production equipment was manufactured and then further delayed due to border closures caused by the Covid-19 pandemic which have prevented testing operations until now.

Testing will concentrate on the PA IV sand (Pliocene age) which is a proven reservoir and has the greatest upside reserves potential of the 3 hydrocarbon bearing reservoir intervals intersected in the IMIC-1 well (refer to table below). This reservoir unit has a large stratigraphic upside potential which will be further quantified in the near future with the planned high resolution 2D seismic program scheduled for the third quarter of 2020.

The testing program has been designed to determine the production capacity of the well through multiple flow rate measurements and pressure build up response measurements. Produced gas will be sampled to determine the suitability of the IMIC-1 gas composition for commercial sales. The expectation based on mudlog data and nearby analogues is that a dry gas will be produced which will require minimal processing prior to market delivery.



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Following the completion of the production testing program, the well will be shut in awaiting commercial production at a future time.

IMIC-1 Contingent Recoverable Resources Estimates (Note 1)					
Discovery Well	Hydrocarbon Reservoir	Reservoir Top Depth (meters MD)	1C (bscf)	2C (bscf)	3C (bscf)
IMIC-1	Pa III	1851	1.9	2.7	3.9
IMIC-1	Pa IV	2033	3.0	11.0	40.0
IMIC-1	Pa V	2140	2.3	6.3	10.8
TOTAL Arithmetic Sum of Recoverable Volumes (bscf)			7.2	20.0	54.7

(Refer ADX Release dated 9/9/2019 and note that ADX is not aware of any information or data that materially affects the original estimates)

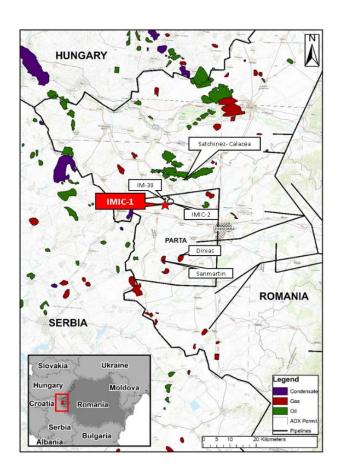
**Note 1:** Contingent Resources are those quantities of petroleum estimated, as at a given date, to be potentially recoverable from known accumulations but, for which the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies. 1C, 2C, 3C Estimates: in a probabilistic resource size distribution these are the estimates that have a respectively 90% (P90), 50% (P50) and 10% (P10) probability that the quantities actually recovered will be exceeded.

#### Gas Resource Assessment

The resource potential of the three gas reservoirs intersected at IMIC-1 will be further assessed utilising high resolution 2D seismic that will be acquired across IMIC-1 and potential IMIC-2 accumulations. The appraisal seismic is expected to better define the extent of gas zones where ADX has interpreted substantial stratigraphic resource upside (refer to ASX announcement on 9 September 2019). The appraisal seismic will be acquired in conjunction with the planned 3D seismic program during the 3<sup>rd</sup> quarter of 2020 in close proximity to the IMIC-1 and the IMIC-2 wells.







Location Map showing IMIC-1 location and the surrounding Parta exploration license

#### Asset Ownership Structure

ADX holds a 49% shareholding in Danube Petroleum Limited (Danube). The remaining shareholding in Danube is held by Reabold Resources PLC. Danube via its Romanian subsidiary, ADX Energy Panonia srl, holds:

- a 100% interest in the Parta Exploration license in Romania (including a 100% interest in the Parta Sole Risk Area). Upon completion of a farmin by Tamaska Oil & Gas Limited's subsidiary Parta Energy, Danube will hold a 50% interest in the Parta Exploration License; and
- a 100% interest in the lecea Mare Production license in Romania (which hosts the IMIC-1 well and future IMIC-2 well).

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**END OF THIS RELEASE -** Authorised for lodgement by lan Tchacos, Executive Chairman



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#### Disclaimer

This document has been prepared by ADX Energy Ltd for the purpose of providing an update in relation to interpreted data with respect to the lecea Mica-1 well. Any statements, opinions, projections, forecasts or other material contained in this document do not constitute any commitments, representations or warranties by ADX Energy Ltd or its directors, agents and employees. Except as required by law, and only to the extent so required, directors, agents and employees of ADX Energy Ltd shall in no way be liable to any person or body for any loss, claim, demand, damages, costs or expenses of whatsoever nature arising in any way out of, or in connection with, the information contained in this document. This document includes certain statements, opinions, projections, forecasts and other material, which reflect various assumptions. The assumptions may or may not prove to be correct. ADX Energy Ltd recommends that potential investors consult their professional advisor/s as an investment in the company is considered to be speculative in nature.

#### Persons compiling information about Hydrocarbons.

Pursuant to the requirements of the ASX Listing Rules 5.41 and 5.42, the technical and resource information contained in this presentation has been reviewed by Paul Fink, Technical Director of ADX Energy Limited. Mr. Fink is a qualified geophysicist with 23 years of technical, commercial and management experience in exploration for, appraisal and development of oil and gas resources. Mr. Fink has reviewed the results, procedures and data contained in this announcement and considers the resource estimates to be fairly represented. Mr. Fink has consented to the inclusion of this information in the form and context in which it appears. Mr. Fink is a member of the EAGE (European Association of Geoscientists & Engineers) and FIDIC (Federation of Consulting Engineers).