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31 March 2022

# Anshof-3 Discovery Testing Update Operational Update on Flow Testing of the Eocene Oil Zone

## **Key points:**

- Flow testing of the recently drilled Anshof-3 oil and gas discovery well located in the ADX-AT-II license in Upper Austria planned for late March has been delayed by a week due to an unexpected Covid-19 related event for one of the rig contractor's crews.
- ♦ The RED Drilling & Services GmbH (RED) W-101 workover rig is now expected to be mobilised to the Anshof-3 location around the 8<sup>th</sup> of April 2022 and commence testing operations shortly afterwards.
- First well oil inflow is expected by the end of the week commencing 18<sup>th</sup> April 2022.
- The testing program is designed to evaluate the likely long-term production and economic potential of the Eocene oil zone at the Anshof-3 well as well as to obtain further valuable data to assess the reserves potential of the discovery (refer to Appendix to this release).
- Following testing of the 6 m gross Eocene oil zone, the well is expected to be placed on long-term interim production utilising a rod pump and delivering oil for sale by truck to a nearby oil terminal prior to securing a production license for the Anshof discovery.



The RED W-101 workover rig undertaking operations in Upper Austria

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ADX Energy Ltd (**ASX Code: ADX**) advises that due to an unexpected Covid-19 related event occurring with the rig contractor personnel, the testing program for the Eocene oil zone discovery at its Anshof-3 well in the ADX-AT-II license in Upper Austria has been delayed by approximately a week.

The RED W-101 workover rig is now expected to move on the Anshof-3 oil discovery site location around the 8<sup>th</sup> of April to commence running a test string then undertaking perforation and flow testing operations shortly afterwards.

The first well oil inflow is expected to be recorded by the end of the week commencing 18<sup>th</sup> April when the Eocene oil zone will be perforated after running tubing in the well. Testing operations will be concluded by the end of April following two flow periods and a pressure build up after well shut in to measure the pressure responses within the reservoir. A summary of drilling and evaluation results is included in an Appendix attached to this release.

The testing program is designed to evaluate the long-term production and economic potential of the Eocene oil zone at the Anshof-3 well, the reserves potential of the Anshof discovery and the ongoing appraisal and development of the Eocene oil discovery. Anshof is a large structure mapped with 3D seismic which has a vertical relief of up to 440 meters and extends over a total area of 24 km². Two follow up appraisal locations have already been identified based on the ongoing geological and geophysical (G&G) work to date as outlined in the Appendix attached to this release.

Following the testing program of the 6 m gross Eocene oil zone, the well is expected to be placed on long-term interim production utilising a rod pump and delivering oil for sale by truck to a nearby oil terminal. Interim production of up to 37,000 barrels (approximately 100 barrels per day for a period of one year) is allowed under Austrian legislation prior to finalising a production license.

#### Further well testing reports

Further well testing reports will be provided upon commencement of workover rig mobilisation.

### Note:

ADX announced a farmout to ASX listed Xstate Resources Limited to fund 40% of the Anshof-3 well costs to earn a 20% participating interest in the Anshof Prospect. Refer to ASX release dated 22 November 2021.

## For further details please contact:

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**Authorised for lodgement by Ian Tchacos, Executive Chairman** 

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### Persons compiling information about Hydrocarbons:

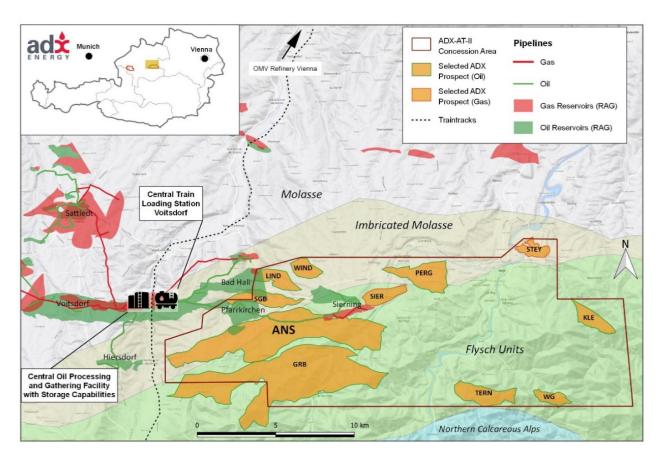
Pursuant to the requirements of the ASX Listing Rule 5.31, 5.41 and 5.42 the technical and reserves information relating to Austria contained in this release has been reviewed by Paul Fink as part of the due diligence process on behalf of ADX. Mr. Fink is Technical Director of ADX Energy Ltd is a qualified geophysicist with 25 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 release 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).

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## **Appendix**

## Summary of Anshof -3 well results, testing program and appraisal strategy



Map showing Anshof discovery in the ADX-AT-II license and nearby fields Voitsdorf, Bad Hall and Pfarrkirchen and Sierning as well as the nearby train transport oil loading facility

The Anshof-3 well was spudded at 00.30 hours on the 18<sup>th</sup> of December 2021. The Anshof-3 well is located in the ADX-AT-II license in Upper Austria. The Anshof well site has provision for up to 3 drilling slots (the well name Anshof-3 stems from the fact that physical surface location number 3 which was the first approved by all necessary authorities to allow spudding of the well). Well operations were concluded following the running and cementing of 7-inch casing to a total depth (TD) of 2499 m. The RED E-200 rig was released on 15 January 2022. The well has been suspended in preparation for completion with production tubing utilising a workover rig prior to testing and potential long-term production thereafter.

The Anshof discovery well intersected 3 hydrocarbon bearing zones of interest in a large, high relief structure providing very significant appraisal and development potential in an onshore setting adjacent to readily available gathering, production and export infrastructure. The Anshof-3 well is expected to yield a second production asset in Austria for ADX in the near future.

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Running casing using the RED E-200 rig at the Anshof-3 drill site

### Drilling and logging evaluation

The well was successfully open hole logged with an extensive suite of logs, including the standard "triple combo" suite of tools plus sonic and formation imaging (FMI) logs. Several logging runs were necessary due to poor hole conditions to acquire the comprehensive dataset enabling detailed quantification of reservoir parameters.

An initial petrophysical interpretation was completed shortly after the last logging runs and confirmed, and further substantiated, the preliminary results obtained from drilling data such as oil and gas shows, gas chromatography logs and Gamma Ray logs recorded while drilling.

From top to bottom of the well, the results can be summarised as follows:

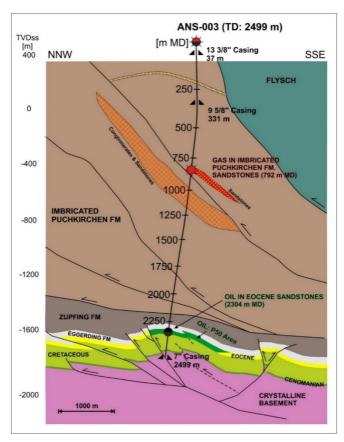
- 1. Approximately 20 m gross gas reservoir zone at around 800 m of measured depth (MD) within the overthrust Miocene aged imbricates in a finely laminated deep water turbidites clastic section which has an estimated 14 m of gas pay. The finely laminated thin bedded nature of gas sands was further evidenced by FMI logs. It is expected that these sands will contribute significantly to gas flow rates over an anticipated 20 m perforation interval. The perforation intervals are currently under review.
- 2. The Eocene reservoir section starting around 2302 m MD with oil shows across a 6 m zone of which between 2.5 to 4 m are expected to be productive net pay. This is comparable with nearby production wells.
- 3. The Cretaceous (Cenomanian) section has been interpreted to contain about 11 m of reservoir section with oil saturation in line with the oil shows seen while drilling the well. Porosity logs (density, neutron and sonic) together with FMI data and cuttings data suggest that this zone at the Anshof-3 drilling location is unlikely to achieve economic oil flow rates. However, it is encouraging that oil presence was proven. Reservoir quality is known to be variable for this section and better reservoir quality may be encountered elsewhere on the large Anshof structure.

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Anshof-3 Well Testing and appraisal strategy

Well test design and engineering work is focused on the deeper Eocene sandstone reservoir oil zone and the shallower Miocene sandstone reservoir gas zone, as shown in the figure below.



Geological cross section schematic along the Anshof-3 well path, highlighting the two hydrocarbon zones which will be tested in April 2022. The oil zone will be tested first

The Cenomanian (Cretaceous) oil zone (11 m gross pay identified on logs and preliminary petrophysical analysis) just above the basement and well TD at 2499 m MD (1730 m TVDSS) will not be tested at the current Anshof-3 bottom hole location because it is likely to exhibit better reservoir quality elsewhere within the large Anshof structure.

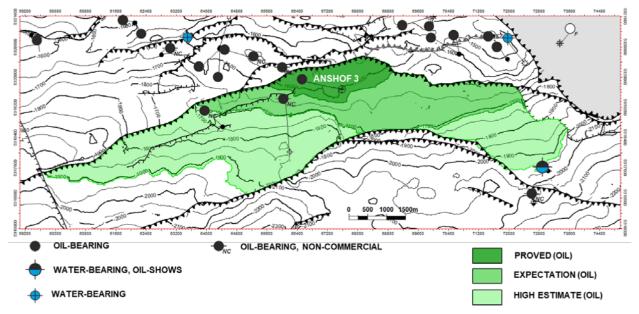
Based on well results to date, ADX believes the previously announced pre-drill most likely Eocene oil resources do not warrant revision. (The Original Resources Reporting Date: Upper Austria Exploration was on 30/11/2020, estimates were further revised on 30/3/21).

The current understanding of the Eocene resources is considered to be in line with ADX reported resources and that independently assessed by RISC predrill for the following reasons:

1. The Anshof-3 exploration well intersected the Top Eocene oil zone as predicted by the 3D seismic pre-drill interpretation, i.e. only 4 m higher than prognosed (making the potential oil column slightly larger by a commensurate amount). This excellent result validates the predrill structural model and confirms the presence of a large structure. A major contribution to the oil resource calculation stems from the structural configuration of the oil pool gross rock volume (GRV), which remains largely unchanged. If anything, a slight increase can be expected due to the Anshof-3 well coming in slightly high to prognosis. The figure below shows the updated post-drill map, which compares favourably with the pre-drill interpretation (shown in the RISC Resources Review). The dark green area around Anshof-3 defines the minimum (P90) oil filled area.

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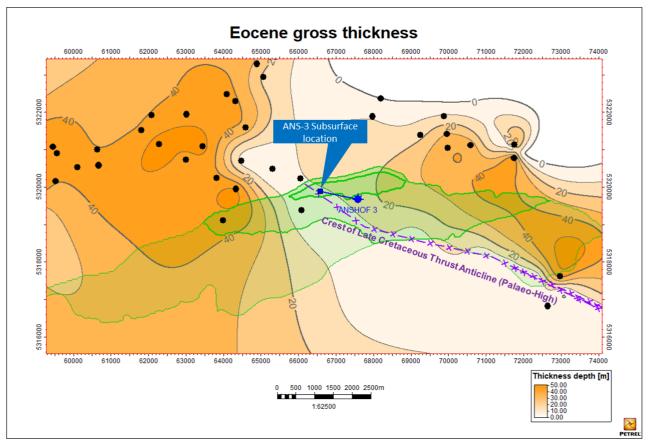


Top oil (Eocene sandstone) post drill depth map (meters TVDSS) incorporating all well results available. The dark green shaded area shows minimum case (P90), light green area showing the maximum case (P10)

2. The presence of reservoir was the main geological risk prior to drilling which has now been mitigated by the intersection of a 6 m gross oil column in the Anshof-3 well with at least 2.5 to 4 m being high quality reservoir net pay section based on the current petrophysical interpretation. No free water or an oil water contact was intersected in the well. This result is within the predrill prediction expectation supported by RISC in its independent resource assessment. Future field appraisal and development wells will focus on drilling locations with the potential for optimal reservoir thickness in contrast to the Anshof-3 well which targeted the crest of the structure to prove the presence of a valid trap and a large structure. The figure below shows the Anshof structure outline in green with an overlay of expected Eocene gross reservoir thickness based on 3D seismic, nearby well data as well as latest Anshof-3 well results. The map indicates areas to the East of the Anshof-3 well where a much thicker Eocene reservoir section can be expected. With the structural risk eliminated by the Anshof-3 well results, these areas can be specifically targeted for high productivity development wells. In addition to the optimal Eocene potential, it is likely that areas away from the Late Cretaceous paleo high as mapped on 3D seismic (see below) may also contain better quality and potentially more productive Cenomanian oil reservoir sections as it has been the case in other nearby oil fields in the area.

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#### Eocene reservoir gross thickness map with the Anshof structure outline shown in transparent green

Subject to the Eocene sandstone producing at commercial rates the Anshof-3 well will be placed on interim production utilising a rod pump and delivering oil for sale by truck to a nearby oil terminal. Interim production of up to 37,000 barrels (approximately 100 barrels per day for a year) is allowed under Austrian legislation prior to finalising a production license. The well can eventually be tied into an existing gathering pipeline approximately 70m from the well head. Pipeline tie-in has already approved by the Austrian regulators. A production license can be expected after securing all necessary regulatory approvals as well as the installation of necessary metering and the commissioning of production facilities within 6 months of successful well testing and interim production operations.

Miocene gas reservoir testing and development strategy

The approximate 20 m gross gas reservoir zone at a depth of around 800 m (MD) within the overthrust imbricates of the Miocene aged finely laminated deep water turbidites clastic section (refer to geological cross section above). There is an estimated total 14 m of gas pay zone based on the preliminary petrophysical interpretation undertaken following wireline logging of the Anshof-3 well. Several gas field analogies exist with similar reservoir sections enabling the design of an optimised testing and completion program for this zone.

Miocene gas reservoir testing is expected after completion of shallower Eocene oil zone well testing.

#### **End of this Release**