

16 August 2023

# Drilling Permit Secured for Giant Welchau Gas Prospect in Upper Austria

***Welchau has exceptional gas resource potential, located in the heart of Europe at relatively shallow drill depth and proximal to gas pipelines. Drilling planned in the fourth quarter of 2023***

## Key points:

- The drilling permit for the Welchau-1 well has been issued by the Mining Authority on behalf of the ministry of finance of the Republic of Austria (Bundesministerium für Finanzen) (BMF). The drilling permit followed the submission of drilling program documentation, expert opinions and a public hearing at the Welchau drill site where there were no major objections.
- The permit allows drilling and testing of the Welchau-1 well, as well as a longer-term production test if required.
- Drilling and testing must be conducted during the winter period (between 1 October 2023 and 31 March 2024) utilising two pre agreed drilling and workover rigs which satisfy the required safety, noise and environmental emission standards.
- Drilling operations are expected to commence during the fourth quarter of 2023 after receipt of an environmental clearance.
- The Welchau gas prospect has **best technical Prospective Resources of 807 BCFE (134 MMBOE)**<sup>1</sup>. Welchau is targeting the same reservoirs as the nearby Molln-1 well which tested pipeline quality gas in 1989.

**Prospective Resources** are those estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) related to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further explorations appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

**ADX Executive Chairman, Mr Ian Tchacos, said,** *“The Board of ADX is very impressed and encouraged by the transparent and efficient permitting process conducted by the Austrian Mining Authority for evaluating extensive technical, legal and environmental documentation, as well as openly addressing relevant stakeholder and community interests. The Welchau exploration project is an exceptional domestic energy supply and economic opportunity for the State of Austria. ADX and our partner MCF Energy Ltd are committed to responsible gas exploration. We look forward to the ongoing engagement with our stakeholders and the local community based on factual information in relation to the project’s environmental impact, the relevant safeguards deployed, as well as the potential social and economic benefits if the well is successful.”*

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<sup>1</sup> Best Technical Prospective Resources Prospective resources reporting date 22.06.2023

ADX Energy Ltd (**ASX Code: ADX**) is pleased to advise that a permit has been issued by the Mining Authority on behalf of the ministry of finance of the Republic of Austria (Bundesministerium für Finanzen) (BMF) for the drilling of the Welchau-1 well in ADX-AT-II licence in Upper Austria (Drilling Permit). The Drilling Permit follows the review of extensive technical, legal and environmental documentation together with expert opinions and a public hearing on the 28<sup>th</sup> of June 2023 at which no major objections were received.

The Drilling Permit allows ADX to drill and test the Welchau-1 well and undertake a longer-term production test production if required. The Drilling Permit is tied to two specific rig types including a drilling rig and a work over rig provided by drilling contractor RED Drilling & Services GmbH (RED) with whom ADX has a rig services contract in place. Under the terms of the Drilling Permit, the Welchau-1 well can be drilled any time during the term of the exploration license providing it is drilled during a period between 1 October to 31 March (winter period).

The final stage of the permitting process is the receipt of an environmental clearance which is based on an independent expert's environmental report (Environmental Clearance). The clearance process is based on the evaluation of a report by a government nominated expert which has been completed and submitted to the local Upper Austrian governing body. The process will include a stakeholder hearing period similar to drilling permit process.

Drilling operations are expected to commence during the fourth quarter of 2023 after receipt of the Environmental Clearance. The success case drilling program is expected to take approximately 39 days.

#### *Operational Readiness*

ADX has purchased all the necessary long lead items to drill the Welchau-1 well. The drilling of the well will be under an existing rig services contract with RED. ADX used the RED drilling rig to drill the Company's first exploration well in Austria at Anshof-3. Anshof-3 was drilled without any lost time safety incidents and within budget. The drilling services and other contracted services will be almost exclusively provided by highly trained local staff from Upper Austria as was the case for the Anshof-3 well. ADX has endeavoured to maximise local content where there is an excellent past record of safety, environmental protection and reliable project execution. ADX intends to finalise a drilling rig slot with RED following granting of the Environmental Clearance.

#### *MCF Energy Ltd.'s Economic Participation*

Canadian TSX Venture Exchange ("TSXV") listed MCF Energy Ltd., under an energy investment agreement, has agreed to fund 50% of the cost of the Welchau-1 well to earn a 20% economic interest in the Welchau Investment Area. ADX retains an 80% economic interest in the Welchau Investment Area.

*Refer to Appendix 1 at the end of this for a technical summary of the Welchau prospect.*

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

# ASX RELEASE

## **Persons compiling information about Hydrocarbons:**

Pursuant to the requirements of the ASX Listing Rule 5.31, 5.41 and 5.42 the technical and Prospective Resources 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 30 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).

## **Previous Estimates of Reserves and Resources:**

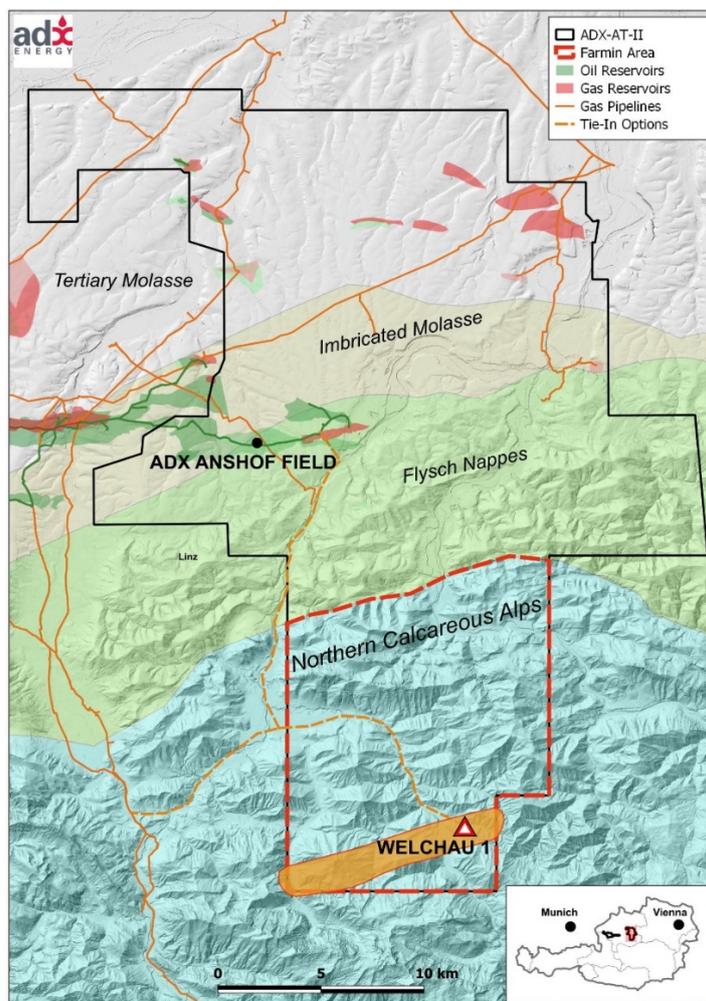
ADX confirms that it is not aware of any new information or data that may materially affect the information included in the relevant market announcements for reserves or resources and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

**Appendix 1**

**Welchau Gas Prospect Summary**

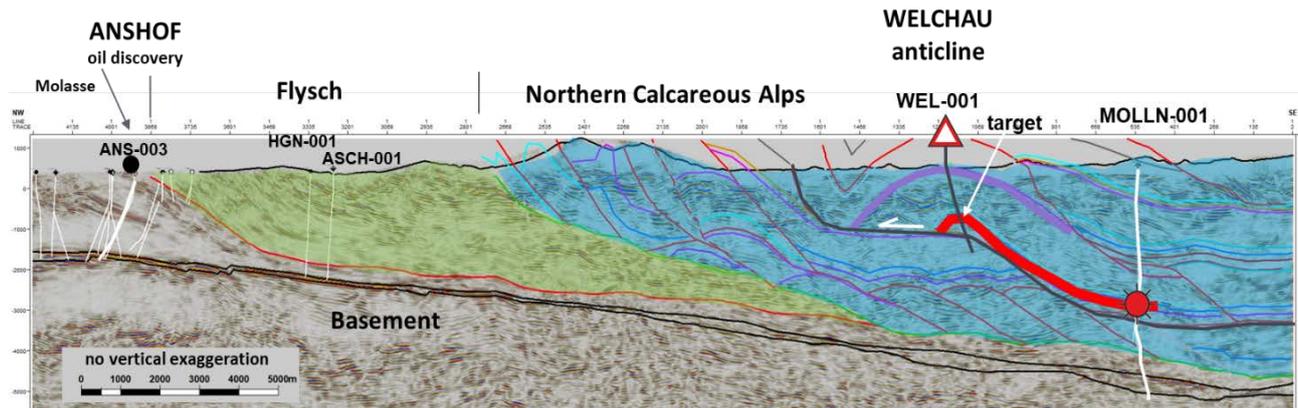
The Welchau gas prospect has best technical Prospective Resources estimated by ADX at 807 BCFE (134 MMBOE)<sup>2</sup>. It is potentially connected to a gas discovery at the Molln-1 well which was drilled and extensively tested by OMV in the late 1980's. The Molln-1 tested pipeline quality gas at a rate of up to 3.5 mmcfpd down dip from the Welchau proposed drilling location.

Refer to Cautionary Statement in relation to **Prospective Resources** on Page 1 of this Release.



**Figure 1: Map showing the ADX-AT-II license area, the Welchau Farmin Area (red dashed border), the Welchau-1 well drilling location in the Northern Calcareous Alps and the recently discovered and now producing Anshof oil field to the North**

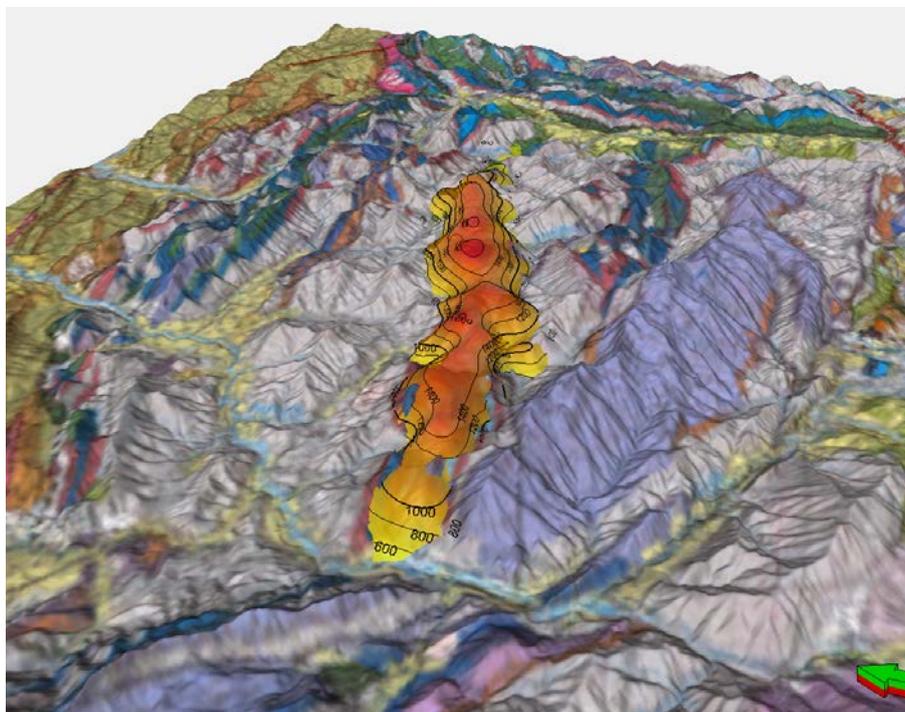
<sup>2</sup> Best Technical Prospective Resources Prospective resources reporting date 22.06.23. The prospective resource estimates in this release are classified and reported in accordance with the PRMS – SPE Guidelines for the exploration licenses ADX-AT-I and ADX-AT-II, in the Molasse Basin, Austria. Refer to the end of this release for an explanation of prospective resource classifications used and the basis on which the prospective resources were estimated. Prospective Resources are those estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) related to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further explorations appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.



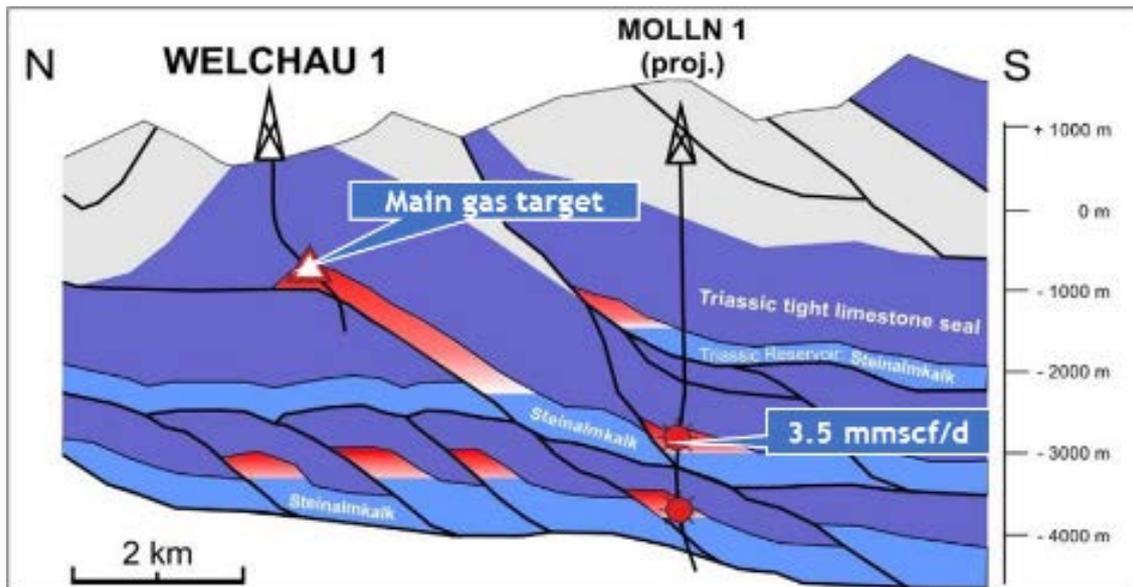
**Figure 2: Geoseismic Cross Section showing the Molln-1 well in the South, the giant Welchau thrust anticline and ADX' Anshof-3 production well in the North. Note that the Molln-1 well was targeting an Anshof play type at a depth of approx. 5700 metres but unintentionally made a significant gas discovery (red highlight) much shallower within the thrust belts of the Northern Calcareous Alps which will be targeted at Welchau**

The Welchau gas prospect is located in the foothills of the Austrian Alps and analogous to the large anticline structures discovered in Kurdistan and the Italian Apennines. Welchau is a relatively shallow prospect (approx. 1120 m TVD). There is excellent access to the planned drilling location via roads and a short tie-in distance to the national gas pipeline network (approx. 18 km).

The main target at Welchau is the Triassic Steinalm Formation, a fractured carbonate reservoir trapped in a trending ramp anticline with more than 20 km lateral extent and 100 km<sup>2</sup> maximum closure area. The structure is defined by extensive outcrop mapping and balanced 2D cross sections along a profile parallel to the shortening direction.



**Figure 3: Surface expression of the Welchau anticline with 23 km lateral extension and 100 km<sup>2</sup> area**



**Figure 4: Schematic cross section of the Welchau gas prospect and the Molln-1 gas discovery (Most likely scenario)**



**Figure 5: Molln-1 well gas test in 1989**

ADX Prospective Resource estimates for the Welchau prospect<sup>1</sup> are summarised below.

<b>Welchau Gas Prospect</b>				
<b>Prospective Recoverable Resources Estimates</b>				
		<b>Minimum</b>	<b>Best Technical</b>	<b>Maximum</b>
Gas	BCF	171	651	1315
<i>Oil equivalent</i>	<i>BOE</i>	29	108	219
Condensate	BBlS	6.8	26	52.6
<b>Total Oil Equivalent</b>	<b>BOE</b>	<b>35</b>	<b>134</b>	<b>272</b>
<b>Total Gas Equivalent</b>	<b>BCFE</b>	<b>212</b>	<b>807</b>	<b>1631</b>
<i>Mcf per BBl conversion used</i>		6		

Refer to Cautionary Statement in relation to **Prospective Resources** on Page 1 of this Release.

<sup>1</sup> Best Technical Prospective Resources Prospective resources reporting date 22.06.2023

The Molln-1 well located down dip of Welchau was drilled and tested in 1989. The results from this nearby well have significantly reduced risk in the following areas;

- Gas quality and gas charge has been demonstrated by gas flows during testing that also confirmed a high condensate yield (40 barrels per mmcf);
- Reservoir productivity of Triassic Steinalm Formation which was tested at 3.5 mmcfpd; and
- The quality of the top seal to hold a large gas column (900 metres interpreted from pressure and well test data, minimum 400 metres).

#### **Reporting Standards for Resource Estimation**

Reserves and resources are reported in accordance with the definitions of reserves, contingent resources and prospective resources and guidelines set out in the Petroleum Resources Management System (PRMS) prepared by the Oil and Gas Reserves Committee of the Society of Petroleum Engineers (SPE) and reviewed and jointly sponsored by the American Association of Petroleum Geologists (AAPG), World Petroleum Council (WPC), Society of Petroleum Evaluation Engineers (SPEE), Society of Exploration Geophysicists (SEG), Society of Petrophysicists and Well Log Analysts (SPWLA) and European Association of Geoscientists and Engineers (EAGE), revised June 2018.

#### **Prospective Resource Classifications**

**Low Estimate** scenario of Prospective Resources - denotes a conservative estimate of the quantity that will actually recovered from an accumulation by an oil and gas project. When probabilistic methods are used, there should be at least a 90% probability (P90) that the quantities actually recovered will equal or exceed the low estimate.

**Best Estimate** scenario of Prospective Resources - denotes the best estimate of the quantity that will actually be recovered from an accumulation by an oil and gas project. It is the most realistic assessment of recoverable quantities if only a single result were reported. When probabilistic methods are used, there should be at least a 50% probability (P50) that the quantities actually recovered will equal or exceed the best estimate.

**High Estimate** scenario of Prospective Resources - denotes an optimistic scenario of the quantity that will actually be recovered from an accumulation by an oil and gas project. When probabilistic methods are used, there should be at least a 10% probability that the quantities actually recovered will be equal or exceed the high estimate.

**Nomenclature and conversions used in this release**

*BBL* means US barrel

*MMBLS* means millions of US barrels

*MCF* means thousand cubic feet

*MMCF* means million cubic feet

*BCF* means billion cubic feet

*TCF* means trillion cubic feet

*BOE* means barrels of oil equivalent

*MMBOE* means millions of barrels of oil equivalent