

Croatia, Pannonian Basin

Farm-in opportunity

SZH-01 onshore exploration block



July, 2022.

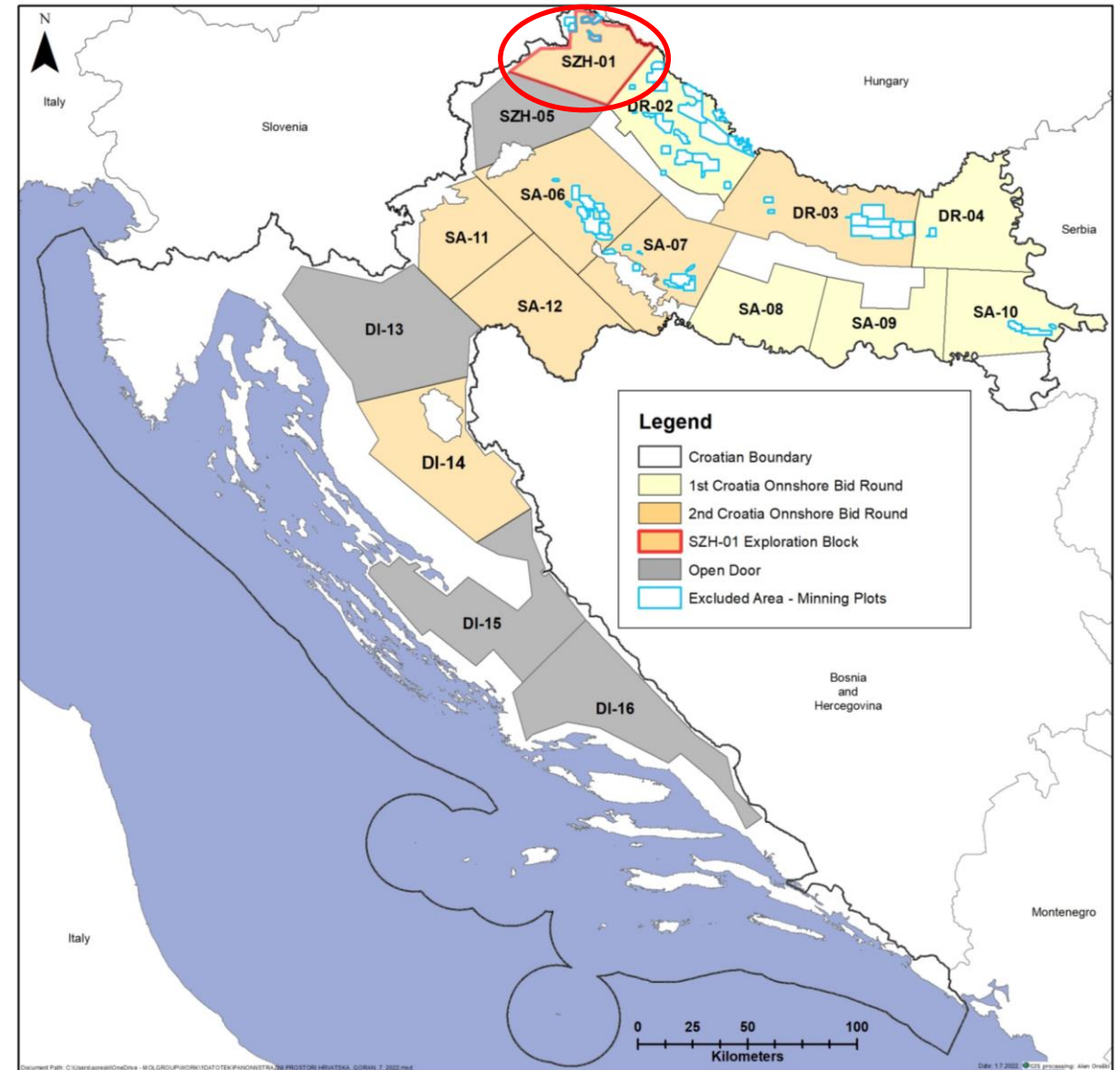
Introduction and Concession Overview

PSA TERMS

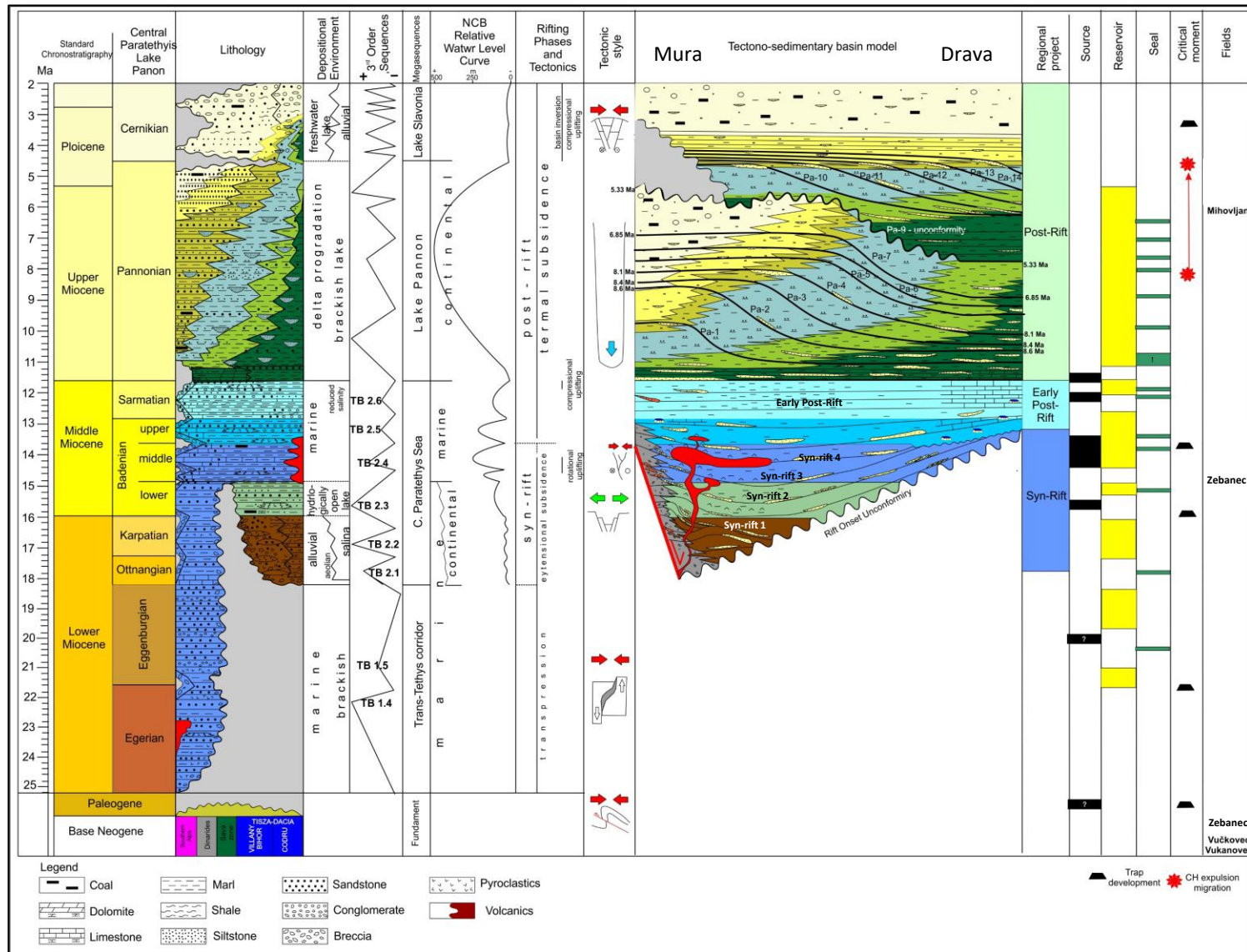
- Effective Date: 26th March 2020 (PSA Agreement signature)
- **INA 100% working interest**
- Agreement Area: 1.361 sq km
- Exploration period:
 - **1st Phase: 3 years (2020-2023) - ongoing**
 - **2nd Phase: 2 years (2023-2025) - optional**
- Exit point after completing 1st Phase work program
- Total 1 year extension of exploration period possible
- Relinquishments:
 - At the 1st phase end: at least 25% of initial area
 - At the end of 2nd phase: all remaining area, except those declared as appraisal

- 1st phase work program commitment:
 - **3D seismic acquisition (minimum 100 sq km)- COMPLETED**
 - G&G studies – COMPLETED
 - Reprocessing of vintage 3D seismic and processing (PSTM and PSDM) of newly acquired 3D seismic- IN PROGRESS
- 1st phase financial commitment **EUR 2.145 mn - FULLFILED**

- 2nd phase (optional) work program commitment:
 - **Two exploration wells (minimum TD 1500m and 1800m)**
- 2nd phase financial commitment **EUR 5.220 mn**



Regional Petroleum System Elements Characterisation



Tectono-stratigraphic chart for seismo-geological interpretation (Vranjković et al. 2022)

- SHZ-01 concession area belongs to the north-western part of the Croatian part of Pannonian Basin System (CPBS) and covers Mura depression- well explored basin in NW Croatia which is continuation of Zala basin in SW Hungary
- Evolution of the basin was subdivided/interpreted into syn-rift phase which lasted from the Ottnangian until the middle Badenian, early post-rift phase which lasted from middle Badenian until the Sarmatian and late post-rift phase from the Pannonian to the Quaternary.
- Proven HC area represented by 4 oil and gas fields - INA oil and gas infrastructure available on 'at cost' basis, improving projects economics and expediting first production

Reservoir rocks:

- Post-Rift (Pannonian) – variety of reservoirs inside prograding delta system
- Early Post-Rift – Miocene Lithotamnion limestones and reef related calcarenite sedimentary fan bodies
- Syn-Rift – coarse clastic fan delta, prodelta and turbidite bodies in intercalation with alluvial fan and talus breccias
- Base Neogene – fractured Mz marine platform carbonates

Source rock:

- Early Post-Rift/Lower Pannonian source rocks - Immature to mid mature SRs in peak oil generation with mostly kerogen type III, mixed kerogen type II/III - fair to good generative potential proven with existing fields
- Syn-Rift source rocks - immature to late mature SRs, up to main gas phase, due to very various tectonic settings - fair to excellent generative potential proven with existing fields

Seal rocks:

- Regional lower Pannonian deep lake marls
- Intraformational shaly/marly intercalations

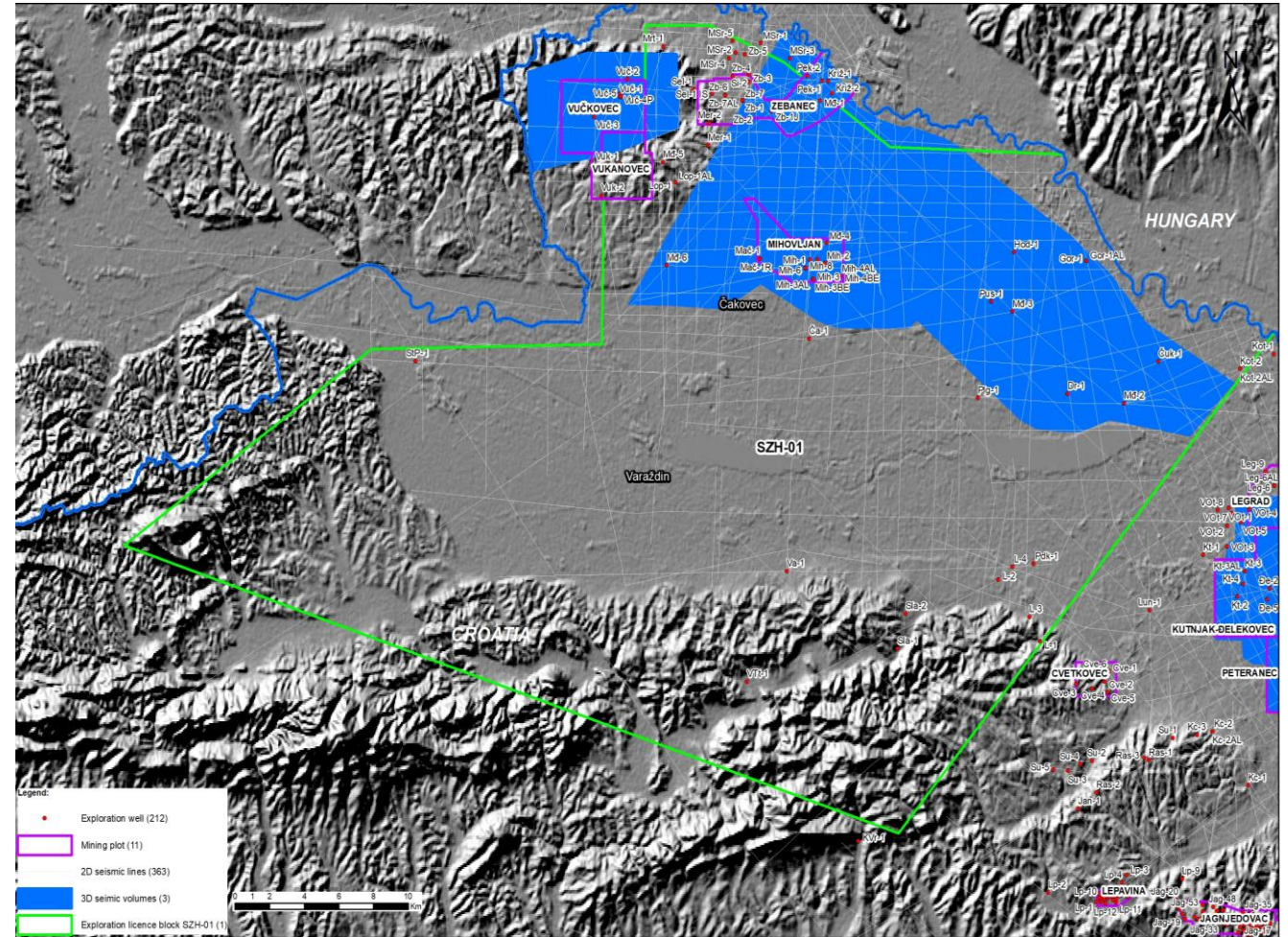
Database and Exploration Activities

Database:

- 3D Seismic - ~300 sq km of pre-stack merged exploration 3D seismic out of which 150 sq km is newly (2021) acquired seismic volume
- 2D Seismic - ~ 2000 km of different vintage data
- Gravity and Magnetometry data
- 34 Wells – core data, CPI, DST etc.
- HC field data

G&G work in 1st exploration phase:

- Gravity and Magnetometry Data Analysis Study
 - Geochemical Study (including Petroleum system modelling)
 - Regional Geology Study
 - Geochronology Study (Vulcanite Absolute Dating)
 - Seismic Attribute Analysis Study (including AVO, Inversion)
-
- Acquired new 3D seismic volume Međimurje extension pre-stack merged with existing Međimurje 3D seismic volume covered the most prolific part in central north-east border of the exploration license
 - Sound and diversified exploration portfolio of prospects was delineated according to analysis of numerous leads classified in several plays

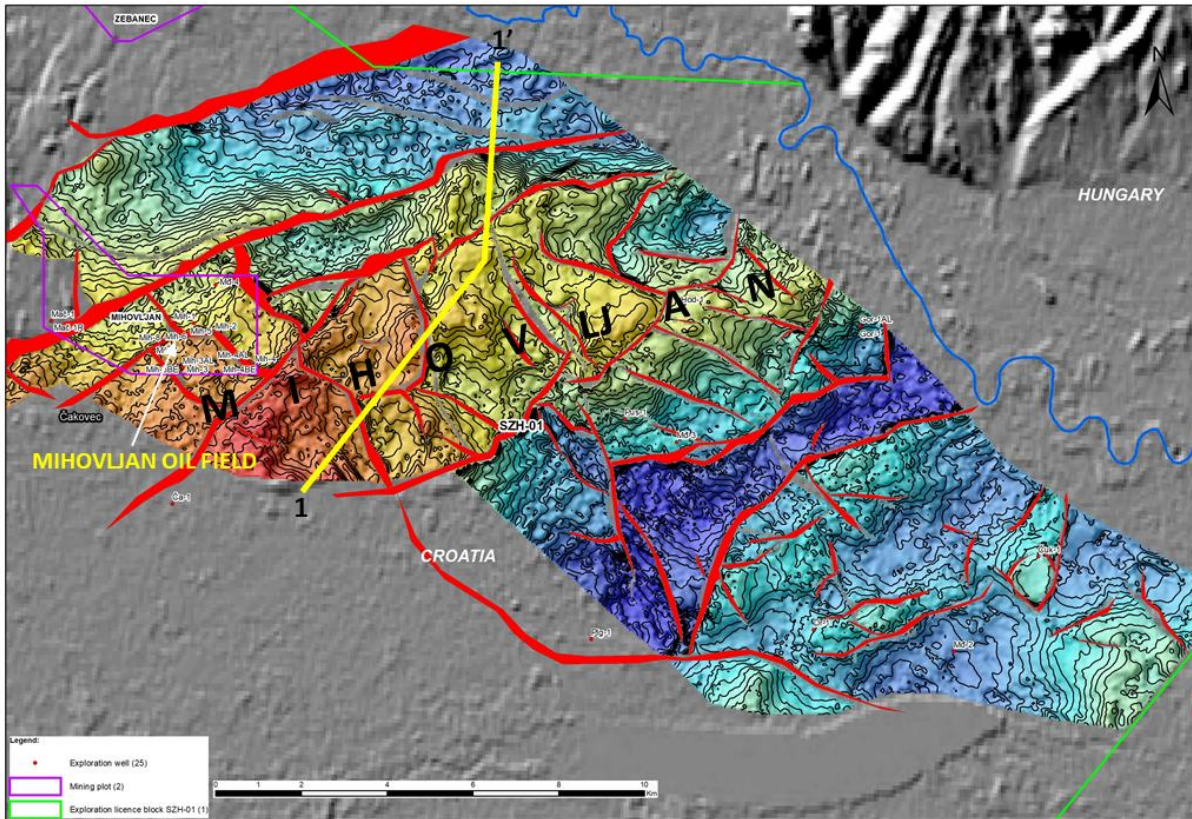
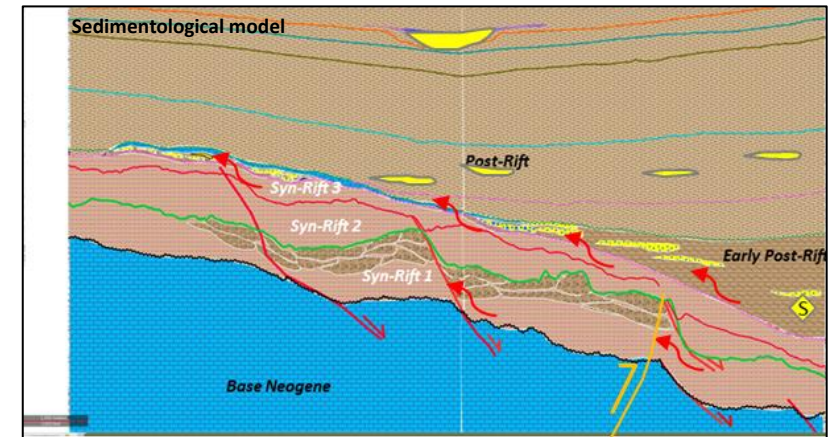
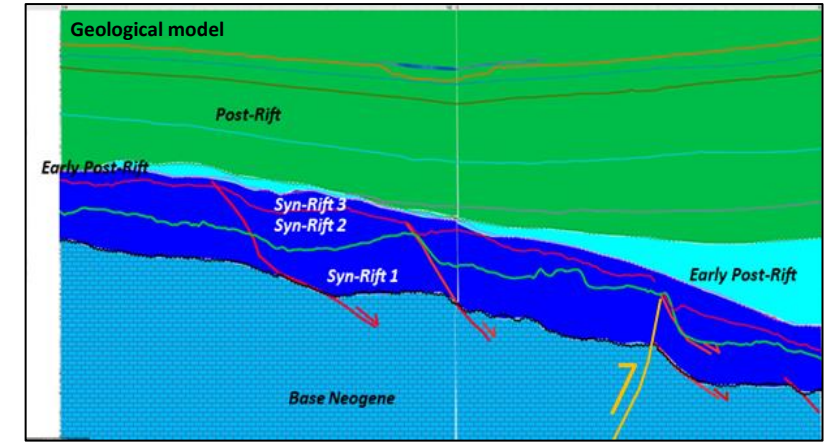
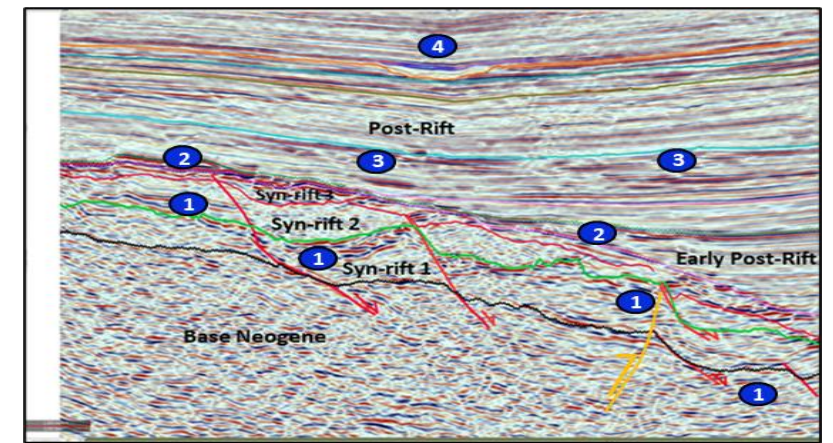


Play Analysis

- Regional cross-border exploration defined 4 plays in the exploration area:

- 1 Syn-Rift tilted footwall blocks related to master listric rift faults
- 2 Early Post-Rift carbonate geobodies – Lithotamnion reefs and fore-/back- reef calcarenite fan deltas
- 3 Post-Rift Pannonian turbidite DHI play
- 4 Post-Rift Pannonian incised valley frontier play

- Main geological feature is Mihovljan inverted structure with favorable geological setting for HC trapping in delineated plays

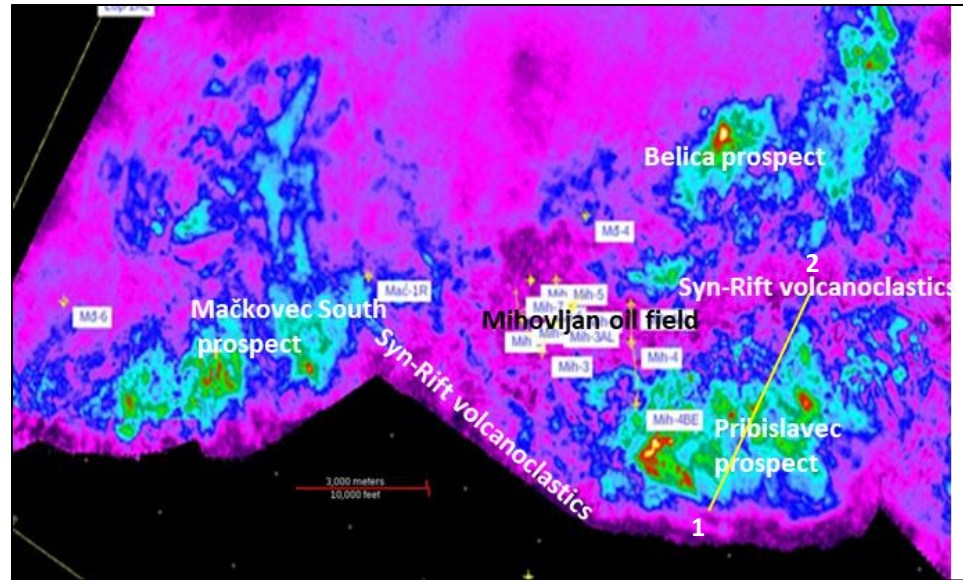


Structure depth map of Syn-Rift 1 horizon with Mihovljan inverted structure AOI

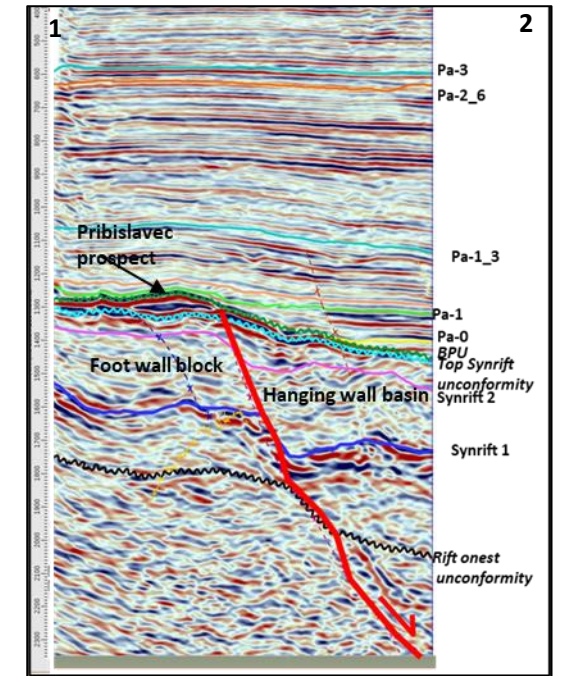
Top Ranked Prospect Hubs

Pribislavec prospect hub:

- Early Post-Rift Limestones (reef complex) and calcarenites (fan deltas) play
- Upper Badenian transgression on inverted Mihovljan structure holds favourable geological setting for stratigraphic trapping on unconformity surface – analogue with Meszocsokonya Ny field in Hungary
- Nearby Early post rift/Lower Pannonian oil prone source rock analogous to Mihovljan oil field
- New play in Croatia!
- Mean recoverable hub total of 7.8 MMBOE** represented by 3 prospects (Pribislavec, Belica and Mačkovec South)

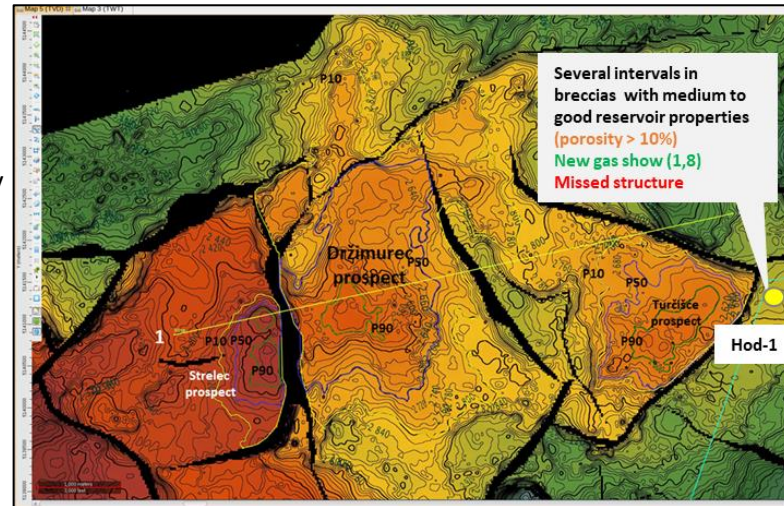


RMS amplitude map below BPU horizon – Early Post-Rift Sequence

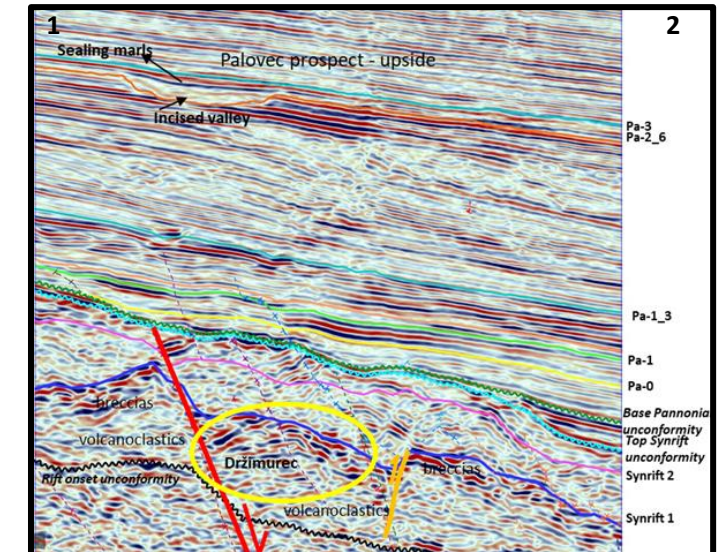


Držimurec prospect hub:

- Syn-Rift tilted footwall blocks related to master listric rift faults structural play
- Syn-Rift breccias with medium to good reservoir properties drilled by Hod-1 well NE of structure
- Nearby Syn-Rift gas prone source rocks with fair to excellent generative potential
- Analogous to Zebanec field syn-rift reservoirs - 10-30% CO₂ expected
- Mean recoverable hub total of 3 MMBOE** represented by 3 prospects (Držimurec, Strelec and Turčišće)
- Držimurec prospect holds upside potential in incised valley play prospect Palovec



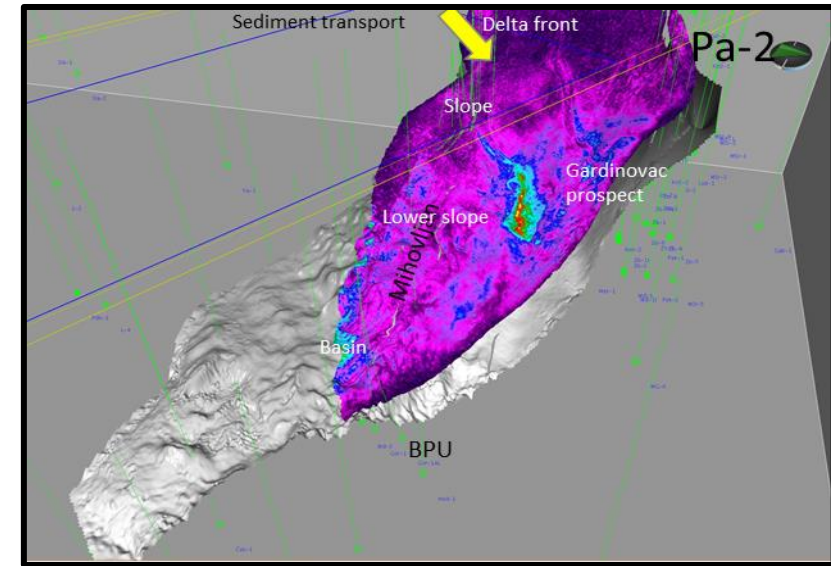
Structural depth map intra Syn-Rift 1 – inverted structure – middle Miocene



Upside Potential in Pannonian Prograding Sequence

Post-Rift Pannonian turbidite DHI play:

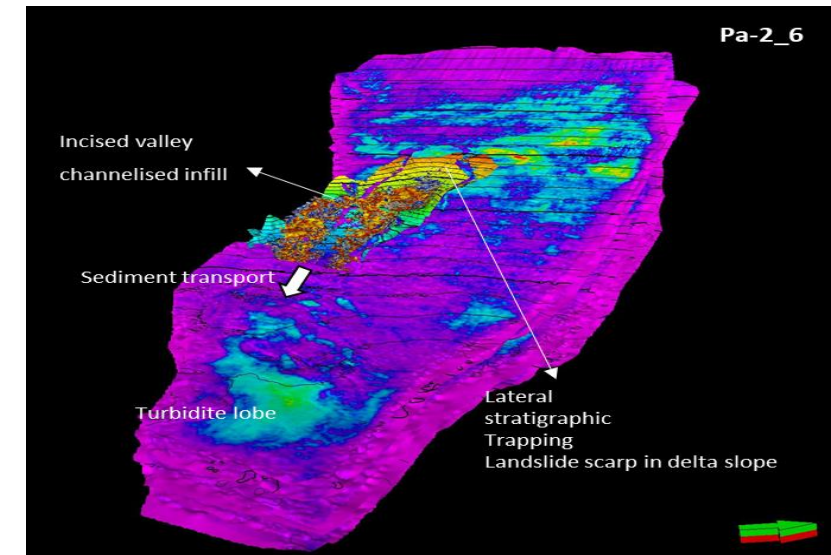
- Favourable geological settings for Pannonian turbidite play include final basin inverted flower structures in strike-slip fault zones (Vučkovec-Zebance-Budafa) and pinch out zones on Middle Miocene inverted structure Mihovljan (Mihovljan oil field analogue)
- Numerous DHI driven seismic anomalies prospects present on the merged 3D seismic representing upside potential of the block
- Play example: DHI driven prospect Gardinovac - turbidite lobe reservoir – sediment bypass or possible juxtaposition on faults over Mihovljan structure



Pa-2 RMS amplitude map -DHI driven prospect Gardinovac (toe of slope turbidite lobe)

Post-Rift Pannonian incised valley frontier play

- Interesting geological feature present in the prograding delta sequence is infilled incised lake slope landslide
- Instability and incision of the delta slope is driven by the beginning of final basin inversion tectonics
- New high-risk/high-reward frontier play in Pannonian basin



Pa-2_6 RMS amplitude map – delta slope incised valley prograding sequence

Exploration Concepts & Farm-out Process

Exploration concepts:

Scenario 1 – commitment control

- Extend 1st Phase until March 2024 (1-year contractual option)
- Drill top ranked prospect in Q1 2024
- Drilled well decreases the commitment of the 2nd (optional) Phase to 1 well
- Decision about 2nd Phase entry, having only 1 well remaining commitment

Scenario 2 – entering to 2nd Phase according to PSA commitment (2 wells)

- Entering 2nd exploration phase in March 2023
- Drilling 2 top ranked prospects in 2024/2025

Farm-out project timeline:

- Physical data room will be available from September 1st, 2022 upon signing NDA – INA HQ, Zagreb, Croatia
- Binding offer expected by October 15th, 2022
- Signature of the Farm-out agreement is expected by the end of 2022
- Transaction will be effective upon Government approval, expected in H1 2023
- Early January 2023 - Notice to the Croatian Hydrocarbon Agency about decision to enter 2nd exploration phase, or extend 1st exploration phase

Farm-out offer:

- INA is offering up to 50% non-operated WI in SZH-01 exploration block in proven Mura petroleum basin. INA operates nearby production infrastructure with available ullage, expediting first production and boosting project economics
- In return, INA expects from farminee to finance full cost of the first exploration well (negotiable)

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