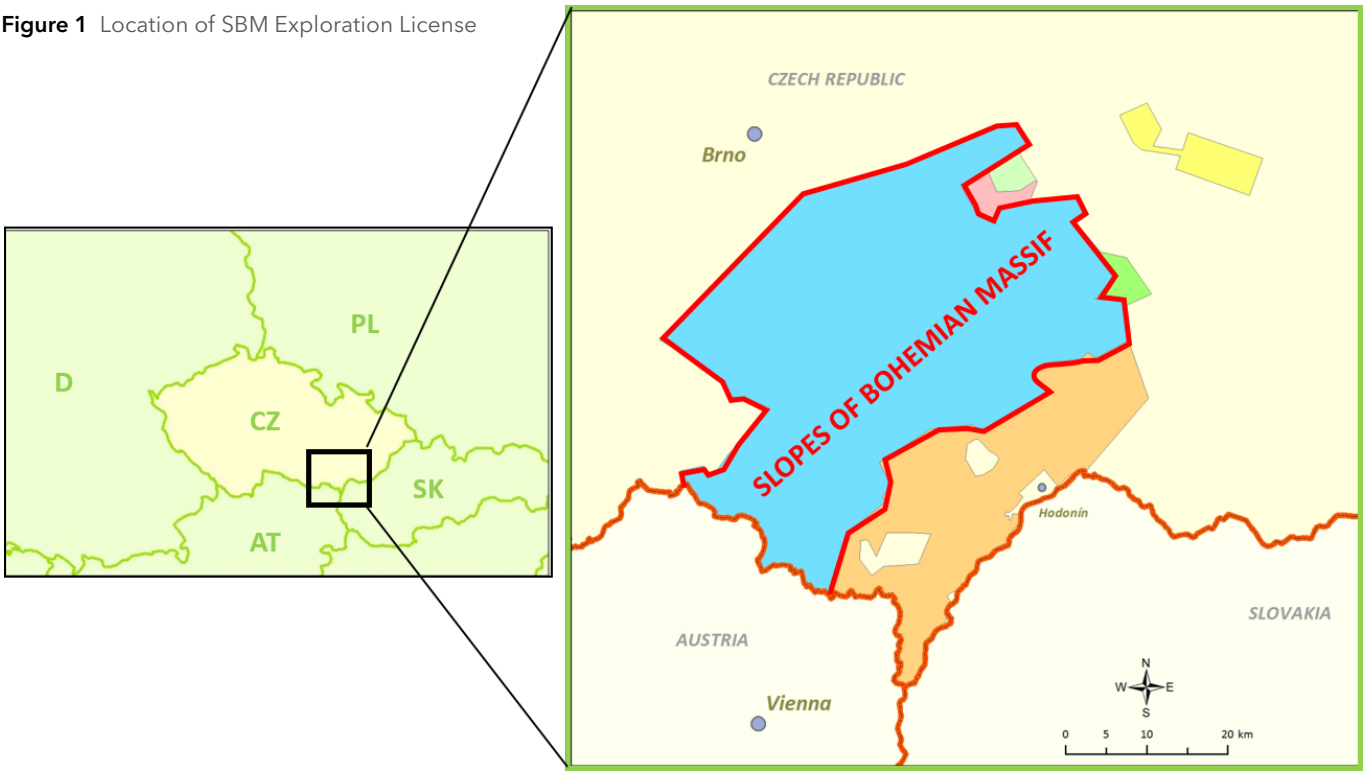
MND a.s.
Czech Republic

Slopes of Bohemian Massif Exploration and Field Development

Farm out Brochure
July 2020

MND a.s. – SLOPES OF BOHEMIAN MASSIF EXPLORATION LICENSE

Figure 1 Location of SBM Exploration License



Opportunity Summary

MND a.s. is seeking a Joint Venture partner for a farm out of the exploration activities in the Slopes of Bohemian Massif Exploration License Area and selected Mining Plots in the Czech Republic. The proven hydrocarbon system includes several reservoir levels, from fractured Crystalline Basement to Lower Miocene fill of Carpathian Foredeep. In total, 33 leads and prospects are identified and documented containing the Pmean Prospective Resources of 9,405 MCMOE (59 MMBOE).

Units and Multipliers: CM – Cubic Meter, CMOE – Cubic Meter of Oil Equivalent, M – Thousand, MM – Million

License Summary

Valid till	12/31/2028
Area	1,574 sq km (388,711 acres)
MND share	100%
3D survey	950 sq km (1992 – 2015)
No. of wells	700+

MND has held the exploration area since beginning of its exploration history. After privatization of NOC (Moravske Naftove Doly) in 1992, all assets including database of vintage data were transferred to MND. In accordance with the Terms and Conditions of the license lease, there is no obligatory work programme – the only legal requirement is an annual license fee to be covered. The fee is progressive; in 2020 about 1million € was paid and there is an annual increase of about 60 thousand €.

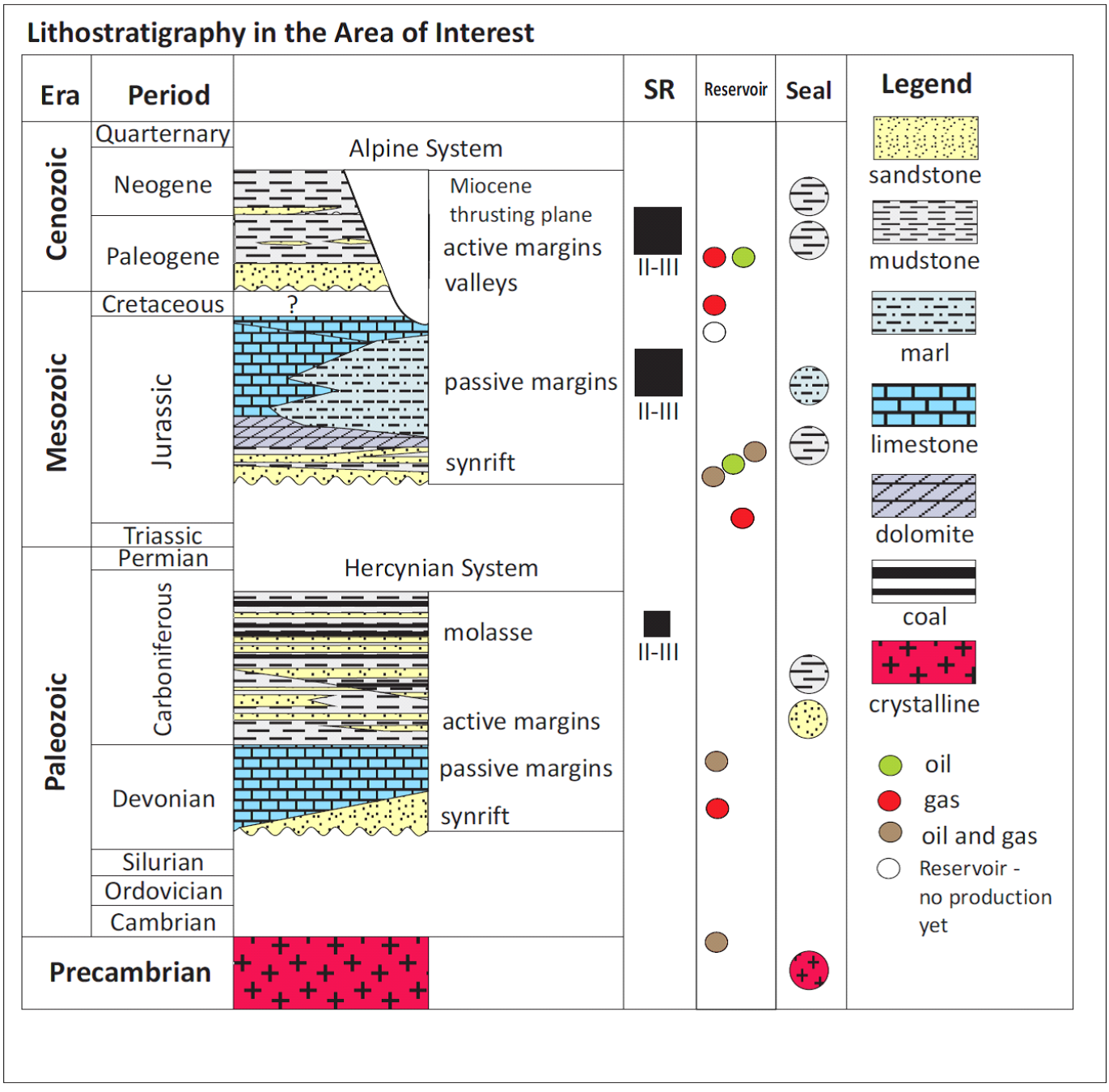
Regional Settings and Petroleum Geology Overview

The major hydrocarbon generation and migration in the area is related to Carpathian Orogeny. Organic-rich Jurassic Mikulov Marls appears below the thrusts in depths greater than 3,500 m, which is the upper limit of the oil generating window. Mikulov Marls is the major source rock for all fields in the area, a minor contribution is expected from autochthonous Paleogene sediments and Menilite formation deposits of Western Carpathians.

The reservoirs can be found in both pre-Tertiary rocks and in Paleogene to Lower Miocene sedimentary fill. Among smaller Paleozoic accumulations, the main reservoir of the pre-Tertiary group is Jurassic sediments (Gresten Sandstones and Vranovice Carbonates). Tertiary reservoirs are related to autochthonous Paleogene fill of Nesvačilka and Vranovice Paleovalleys or Lower Miocene sediments of Carpathian Foredeep.

Traps are mostly formed by several tectonic stages and/or by erosion.

Figure 2 Lithostratigraphical chart of the SBM EL area



Regional Settings and Petroleum Geology Overview

Figure 3 Map of the area

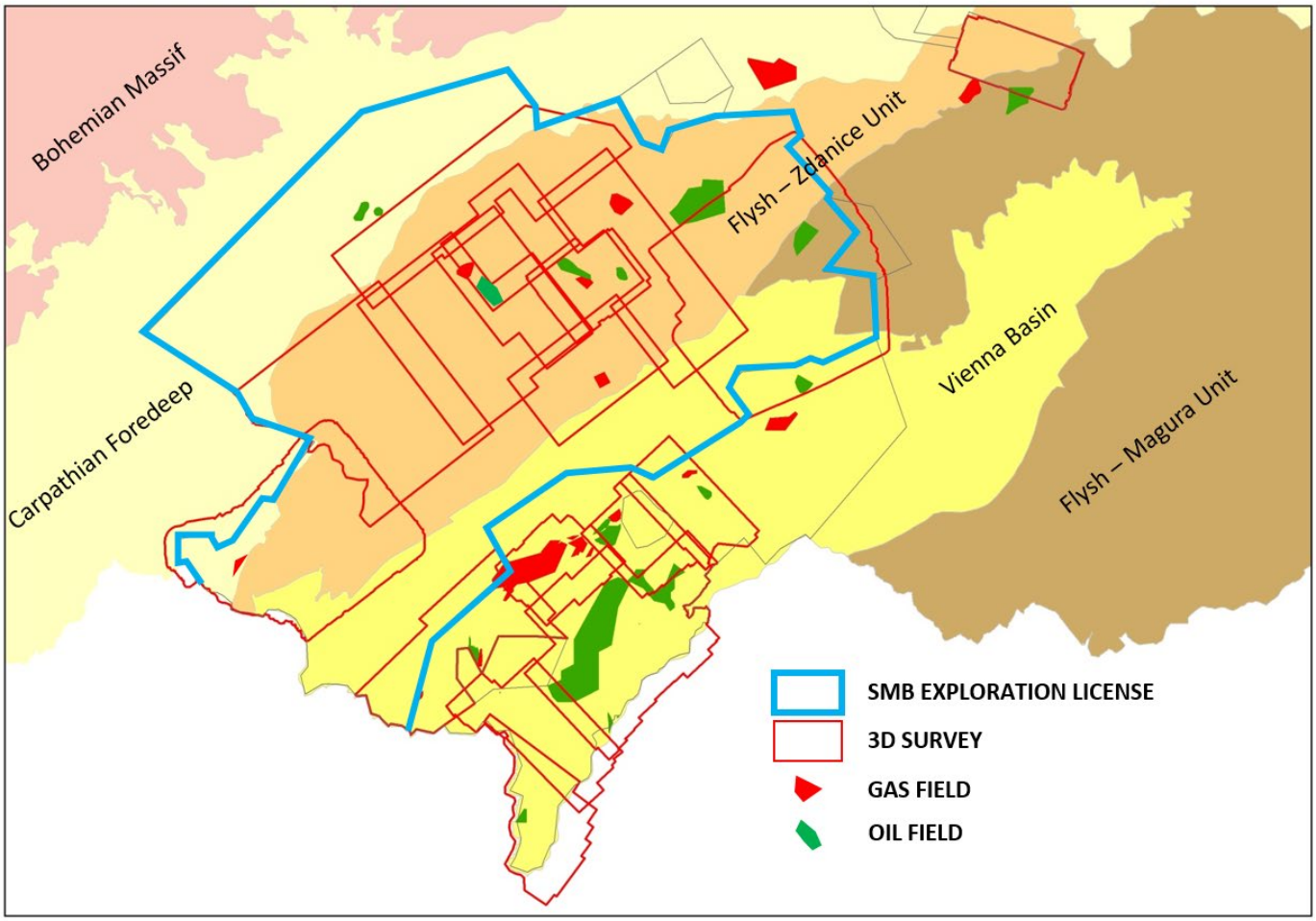
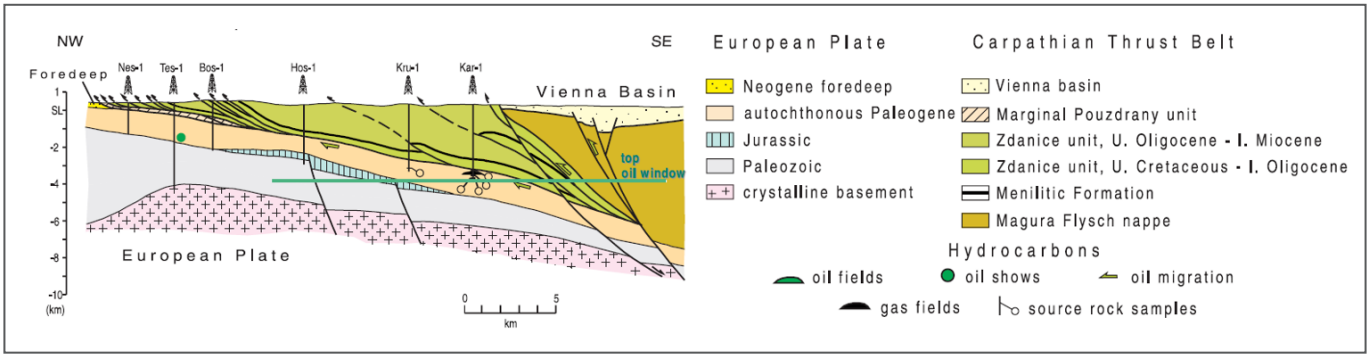


Figure 4 Schematic cross-section of axis of Nesvačilka Paleovalley (after Picha et all)



Exploration History

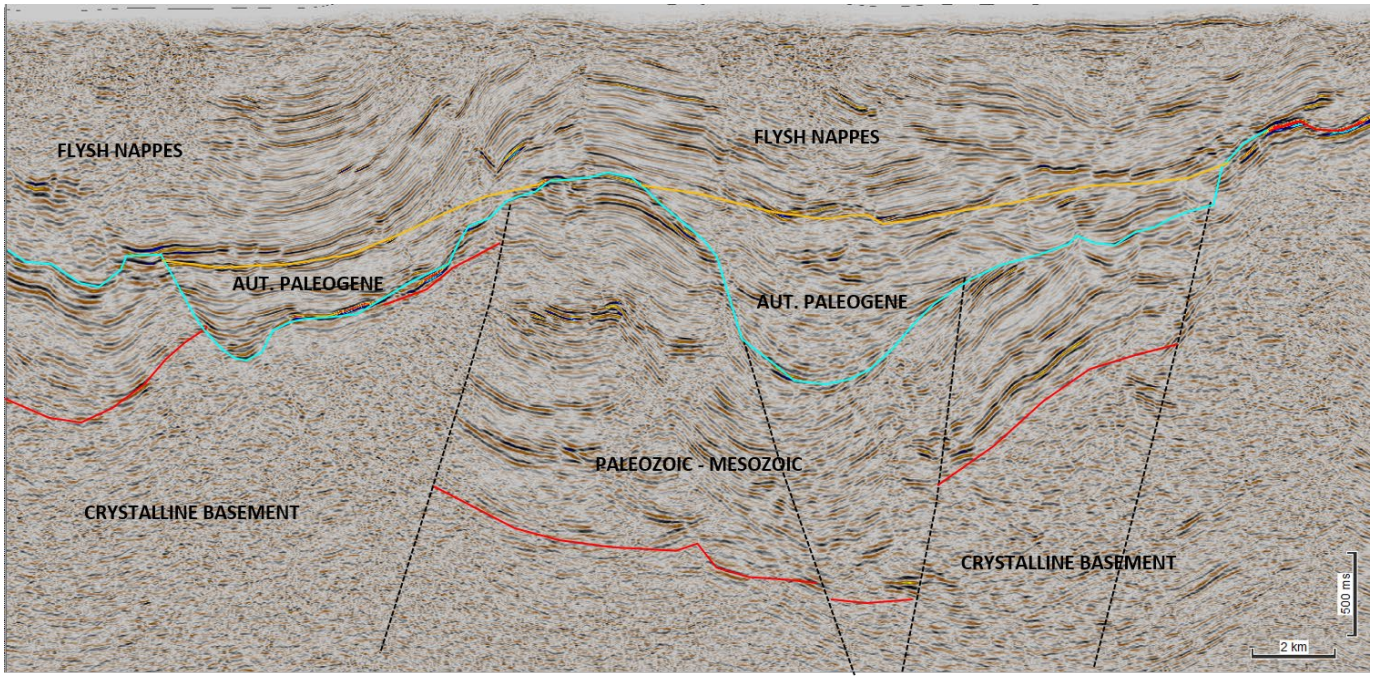
The area has been a target of hydrocarbon exploration since the early 20th Century. The first significant discovery was made in 1973 – 1977, when Ždánice – Kloboučky and Ždánice – Krystalinikum ultimate recovery reserves of 1.7 MMCMOE were found in a fractured Crystalline Basement and overlaying Lower Miocene sediments.

The most important field in the area – Dambořice – was discovered in 1986, by the Uhřice 22 well. The well penetrated 60m of oil-saturated Jurassic Gresten Sandstone. Because of excellent reservoir quality (porosity 20+%, permeability up to 2,000 mD) and production management, about 60% of oil in place was recovered (5.5 MMCM in place, 3.3 MMCM produced in 2020).

In 2001, another 2 fields were discovered in the Jurassic formation – Žarošice in Vranovice Carbonates (2P UR 625 MCMOE) and Uhřice – Jih in Gresten sandstones (2P UR 657 MCMOE).

An important impulse for drilling activities from 1990 onward was the acquisition of 3D seismic data. By 2015, 60% of the exploration license was covered by 3D surveys, including the most prolific area of Nesvačilka and Vranovice Paleovalley, Waschberg zone, and Slopes of Ždánice Elevation. All data are pre-stack time migrated and pre-stack merged. The latest processing version has 5D regularization (CGG) applied. All field data are available and ready for any further processing work. The quality of seismic varies by regional settings, from excellent (parts of Carpathian Foredeep) to poor (parts with large thickness of Flysh nappes).

Figure 5 Seismic data quality in the Exploration License Area. The Autochthonous Paleogene belongs to Vranovice and Nesvačilka Paleovalleys sedimentary fill. (Brown – base of Flysh nappes, Turquose – top of pre-Tertiary relief, Red – top of Crystalline Basement)



All three Jurassic fields are related to a major regional erosional event – Nesvačilka Paleovalley. The key discovery in Paleogene sedimentary fill of the canyon was made in 2012, by Borkovany 101, followed by Borkovany 2 in 2015. Since then, an appraisal and development drilling campaign has taken place. In 2020, 56 MCMOE was produced; the level of remaining 2P reserves is 572 MCMOE.

The latest discovery – Mikulov 5 is a smaller field in Cretaceous sediments of the Bohemian Massif. The well was the first drilling in the area covered by 2014 3D Waschberg. Follow up potential has been identified – well prospects Mikulov 3 and 6 are in ready-to-drill status. Since 2017, 2-4 appraisal/development wells have been drilled targeting the Borkovany field, and on average 1 exploration well yearly.

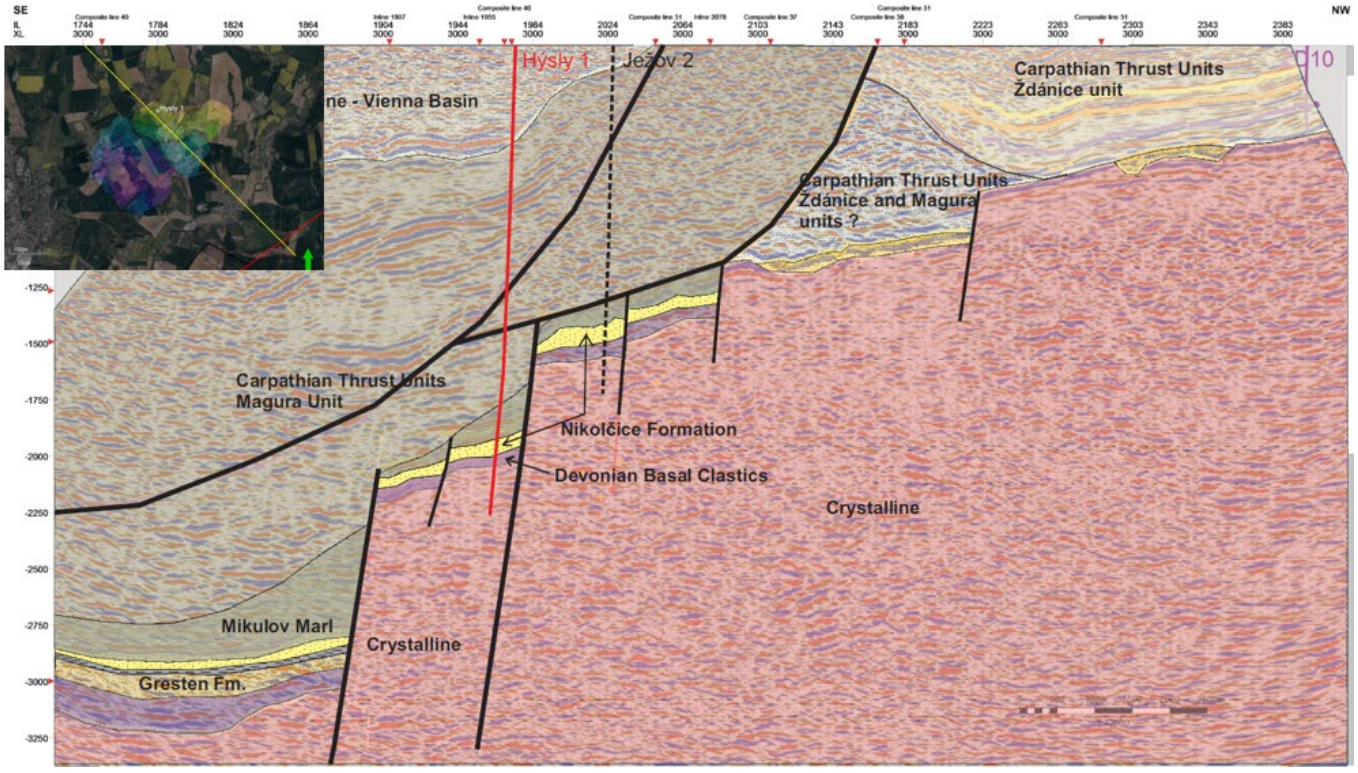
SLOPES OF BOHEMIAN MASSIF FARM OUT OPPORTUNITY

Exploration Area

Significant potential remains largely underexplored in the acreage. Creaming curve analysis of the existing discoveries and fields in the area alone suggest MND's acreage could contain a total Prospective Resource potential of around 3,100 MMCMOE. The development of drilling prospects is in progress. In 2014-2015, two new 3D blocks were acquired. Together with vintage data, the vast database and development of knowledge about the geological settings yields 8-10 ready-to-drill prospects every year. In the MND Book of Reserves and Resources 2020, there are 33 leads and prospects identified, with un-risked prospective resources 9.4 MMCMOE and the chance of success 10-40%.

Prospective resources are distributed to several plays – from pre-Tertiary basement (fractured Crystalline Basement and Jurassic sediments), autochthonous Paleogene paleovalley fill, to sediments of Lower Miocene.

Figure 6 Example of exploration project – Hysly 1. Prospect identified by interpretation of 2015 3D SZE. The main target is basal Jurassic formation of the Nikolčice formation. The structural trap is the fault block on the southern slope of Nesvacilka paleovalley. Pmean prospective resources are estimated to 565 MCMOE and PoS 17%



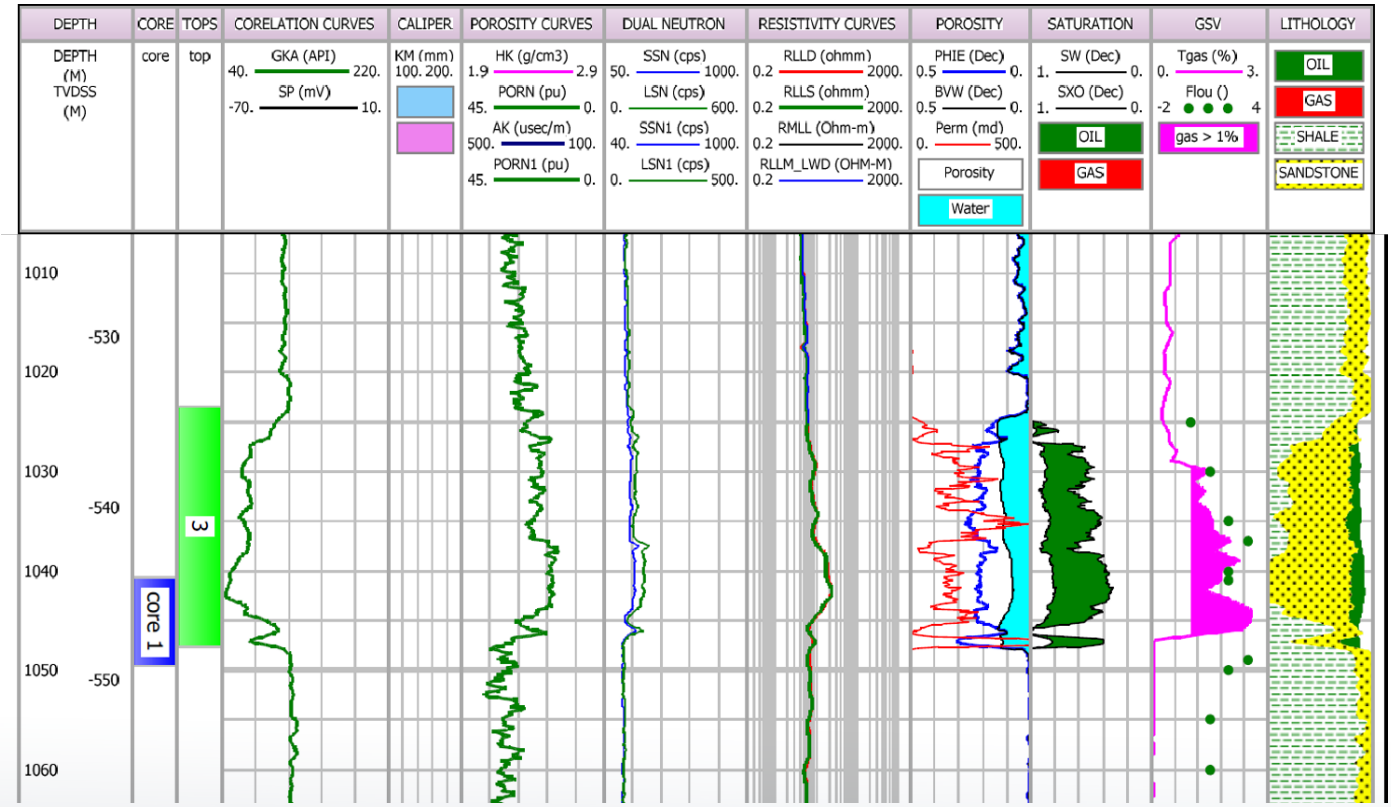
Existing Mining Plots

Three existing MND Mining Plots are included as part of the farmout/divestment of an interest and are subject to negotiation.

Těšany Mining Plot contains a discovered and undeveloped oil field that is waiting for a suitable technical solution to be applied. Part of the discovery is included in the 2C reserves category (403 MCM of oil), while a large part is still in Prospective Resources (the whole structure can hold 7.6 MMCM of oil in place).

The field was discovered in 2012 by the Bosovice 104a well and appraised in 2017 by Tesany 2/2a wells. Both wells faced a number of technical difficulties. Despite convincing results of reservoir core analysis (porosity 18%, permeability up to 150mD), only limited oil inflow was attained.

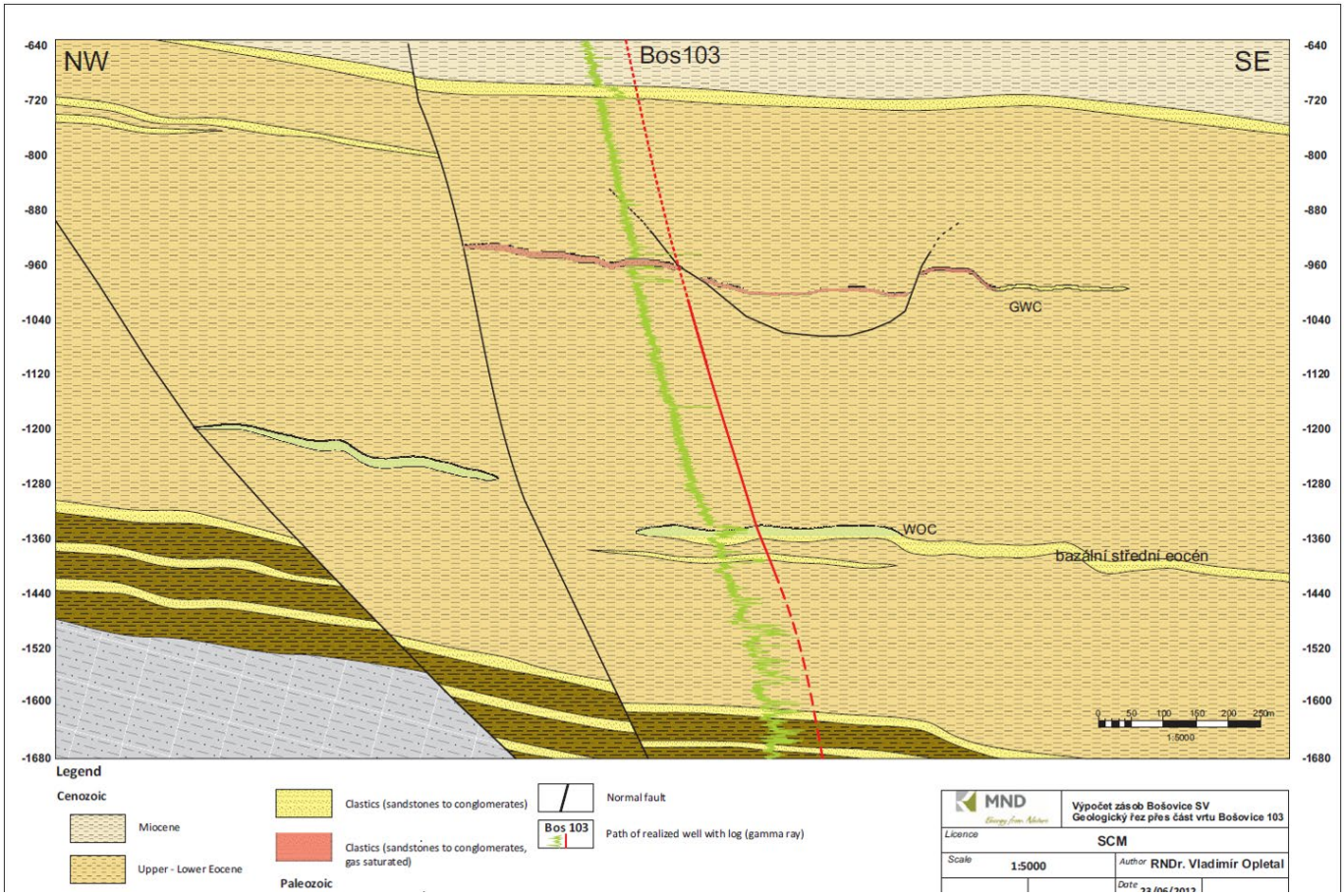
Figure 7 Petrophysical analysis of BOS104A exploration well (Těšany field) – 20m of oil saturated zone



Bošovice Oil and Gas field was discovered by the Bošovice 103 well in 2011. It consists of a Middle Eocene oil saturated reservoir and an Upper Eocene gas saturated reservoir in one structural block formed by the Nesvačilka paleovalley Paleogene depositional cycle. The Block was appraised by the wells Bošovice 104 and Bošovice 105, but those two wells confirmed only gas resources in the Upper Eocene part of Nesvačilka Paleovalley. The Middle Eocene oil reservoir is being produced only by the Bošovice 103 discovery well. The exact shape of the oil part of the field was not yet proven in its SW part, and also the presumed complex turbidite depositional system found by the adjacent Borkovany field remains underexplored in this area and several exploration wells are planed here (Bošovice 15, Těšany 4). The 2P remaining reserves of the Middle Eocene part of the field are 30 MCM of oil, 3P 107 MCM.

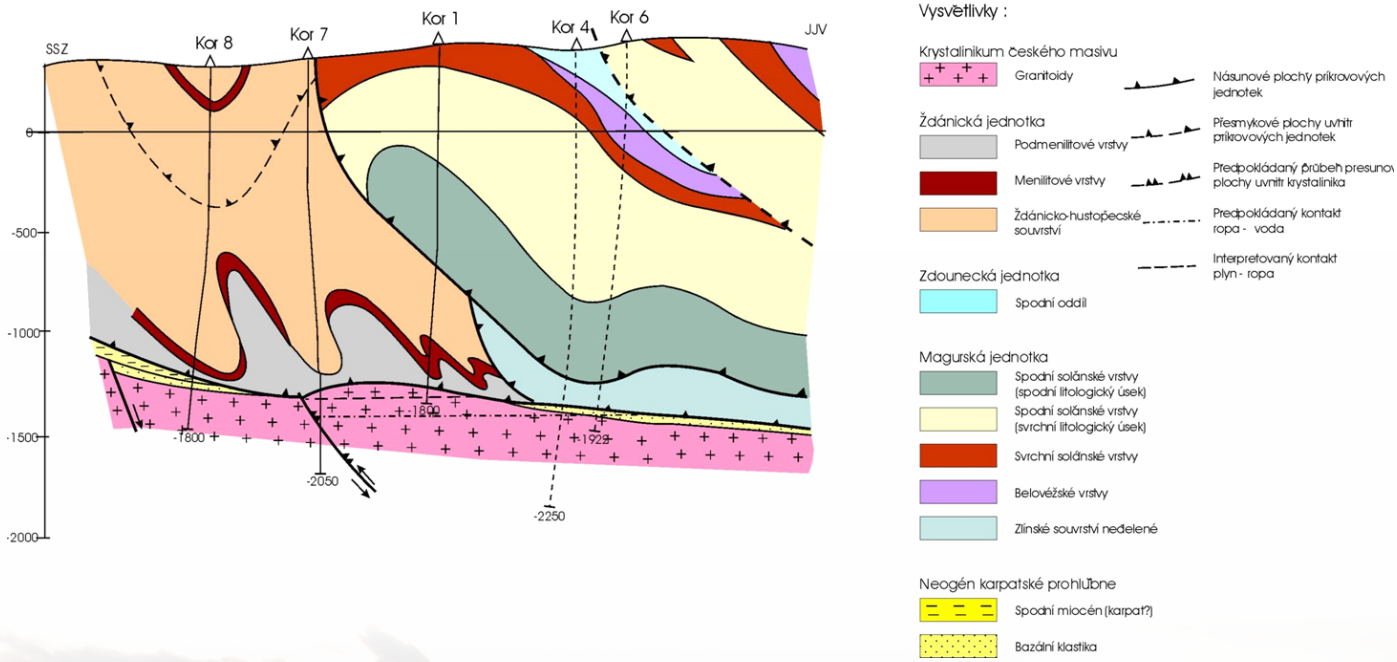
The gas part of the field was found based on an AVO anomaly that was detected by 3D seismic in the Upper Eocene part of the Nesvačilka paleovalley, but production is waiting for a gas pipeline connection. The 2P remaining reserves of gas in the Upper Eocene part of the field are 18.5 MMCM of gas, 3P 21 MMCM.

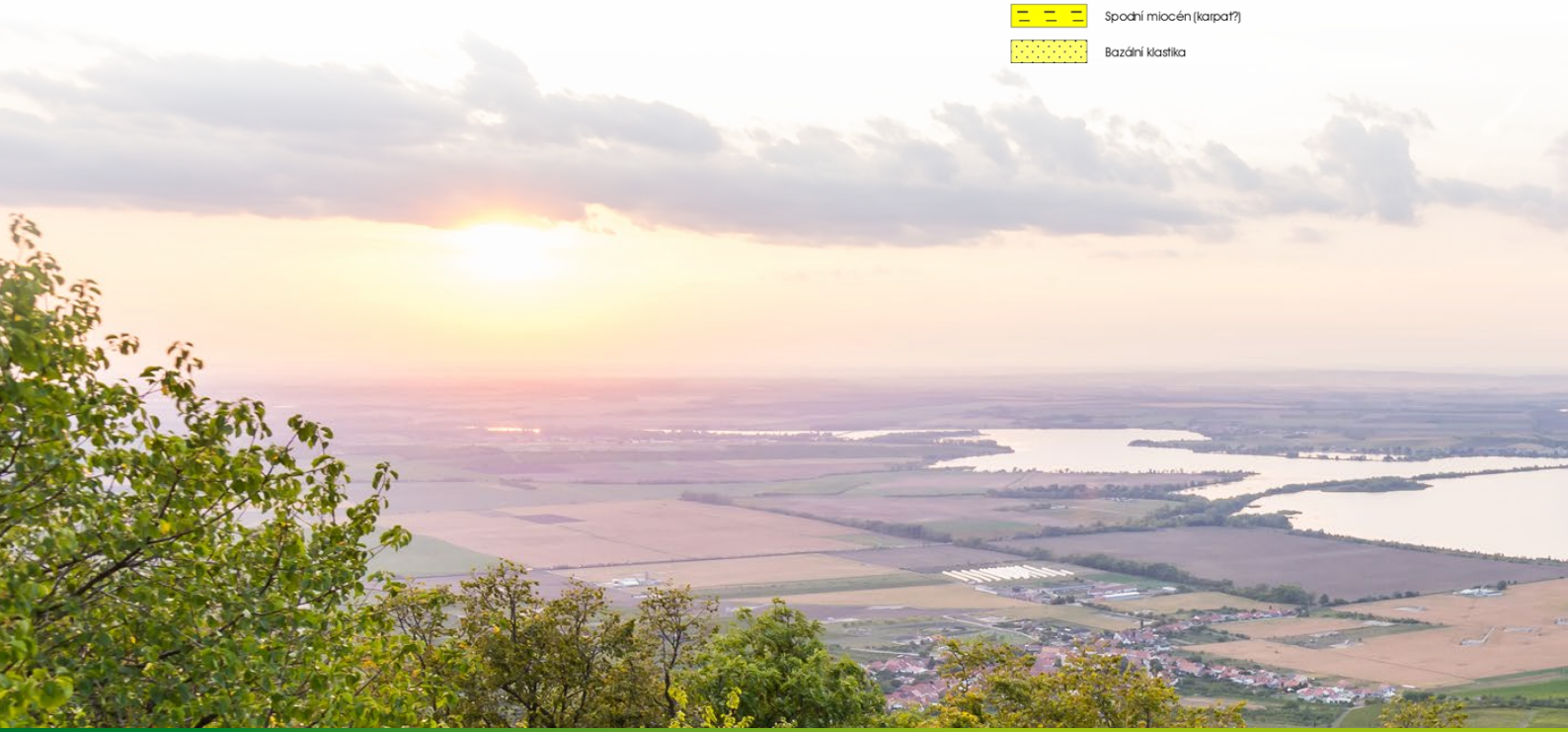
Figure 8 NW – SE geological cross-section showing the upper - Upper Eocene gas saturated and lower – Middle Eocene oil saturated parts of Bošovice field



Koryčany is an older oil and gas field being produced in the Slopes of Ždánice Elevation area and formed mainly by the Lower Miocene and Crystalline Basement reservoir. The field was discovered in 1978 by the well Koryčany 1, which penetrated the gas cap of the field in a weathered Crystalline type reservoir. The oil part of the field was discovered by the Koryčany 4 well, which has also produced 92% of reserves to date. The trap is a combination of structural and stratigraphic, as the Lower Miocene sandstones are pinching out on Crystalline Basement, which are also partly contributing, as the reservoir in its uppermost weathered part. The field was appraised by the wells Koryčany 12a and Koryčany 13; but, as they were targeting the shallower positions of the Miocene reservoir, they encountered much worse reservoir development than the Koryčany 4 well did. The appraisal well Koryčany 18 was approved and is ready to drill, targeting the western part of the field. Koryčany field 2P remaining reserves are 52 MCM of oil (83 MCM 3P) and the gas cap can hold up to 41 MMCM of gas booked as 3P reserves.

Figure 9 NNW – SSE geological cross-section through Koryčany oil field showing the Miocene and Crystalline reservoirs





Infrastructure

The Czech Republic has a well-developed gas network and a number of oil fields are producing in the area. Tie-in costs in the SBM License area are expected to be low, as infrastructure of both existing and depleted fields is close by.

Data availability

All data from the Exploration License Area are available. Most of the data is available in digital format – including well data, 2D and 3D seismic (from field data to final products), extensive archive of well files and G&G reports. All the available data for the SMB License, including the Kingdom and/or Petrel workstation, will be made available in the data room after execution of the appropriate Confidentiality Agreement.

The MND Technical team is based in Hodonin, Czech Republic – 1.5 hr-drive from Vienna Airport.

Terms

Whilst MND is a well-resourced company with considerable technical expertise, the company's new policy is to maintain a commercial level of risk and boost the exploration programme through co-operation and partnership.

The co-operation between MND and the Partner will be covered by a Joint Venture Agreement, establishing an unincorporated civil law association (JV). MND will provide its rights to the Slopes of Bohemian Massif License for the JV purpose. The overall work programme up to 2028 is expected to include fourteen exploration/appraisal wells, and a suitably qualified Partner will be required to carry the drilling costs for part of the programme (subject to negotiation). Other G&G activities, e.g., seismic data reprocessing, initiated by Partner, will be 100% financed by initiating party, if not agreed otherwise.. Cooperation on Mining Plots will be also covered by the Joint Venture Agreement. After the analysis and evaluation, the Partner is expected to propose and finance the development (redevelopment) programme. The added production (above recent 2P production profile) would be shared proportionally (subject to negotiation).

MND is also open to cooperation via an asset swap.

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