



# **Independent Technical Report (“ITR”)**

Guercif block and resource potential,  
onshore Morocco

On behalf of

**Predator Oil & Gas Holdings PLC**

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## Disclaimer

This report, including any enclosures and attachments, has been prepared for the exclusive use and benefit of the addressee(s) and solely for the purpose for which it is provided which is to provide an independent technical assessment of the prospectivity of the Guercif Licence based on relevant proprietary and published data prior to expected near-term testing which may result in material changes to prevailing interpretations. This report and all opinions expressed herein are subject to the terms of the Master Service Agreement between Predator Oil and Gas PLC and Scorpion Geoscience Limited. No part of this report should be reproduced, distributed or communicated to any third party without prior consent. No liability will be accepted for the outcomes of any investments or operational activities resulting from recommendations or opinions expressed in this report. Scorpion Geoscience Ltd does not accept any liability if this report is used for an alternative purpose from which it is intended, nor to any third party in respect of this report.

## Highlights

- PRD 75% (Operator), 25% ONHYM, awaiting extension of the Initial Period and conversion to exploitation licence dependent on outcomes of Q1 phased rigless testing programme.
- Initial Period work programme delivered by PRD has helped de-risk the Guercif petroleum system with indications of potentially gas-bearing reservoirs encountered in multiple stacked Miocene aged reservoirs in three wells drilled by PRD based on analysis by NuTech. Exploration upside noted in potentially large moderate risk Jurassic Porous Carbonate and newly identified Oxfordian sand plays
- Near-term phased well testing expected in Q1 2024 seeking to prove up gas resources in Miocene turbiditic sandstone reservoirs
- Three Initial Production scenarios encompassing 10MMScf/d, 20MMScf/d and 50MMScf/d with the Mid-case 20MMScf/d scenario subjected to economic modelling and feasibility assessments based on CNG
- Net recoverable 32.85BCF to PRD (75%) provides undiscounted cash revenues of US\$207.5m net to PRD and estimated NPV@10 US\$108m net to PRD based on an initial mid case 20MMScf/d profile and CAPEX of US\$48.77m net to PRD demonstrating potential for excellent IRR of 138% equivalent to an undiscounted US\$6.345 million per BCF of CNG production (scalable)

## Executive Summary

Scorpion Geoscience Limited acting as a Qualified Reserves Evaluator (QRE) has been contracted by Predator Oil & Gas PLC (LON: PRD) to provide an independent assessment of exploration and development potential associated with the Guercif exploration licence. Guercif is situated onshore in the Guercif Basin of eastern Morocco which hosts several recently drilled potential gas discoveries hosted in Miocene aged turbidite reservoirs. The Licence equity holders are Predator Gas Ventures Ltd., a wholly-owned subsidiary of Predator, 75% (operator) and ONHYM, the State oil company, 25%. ONHYM is carried through the Exploration Phase, but funds a pro-rata share of all costs upon a Declaration of Commerciality. The Licence term is 9 years split into an Initial Period and two Extension Periods. The Initial Period is expected to expire 5<sup>th</sup> June 2024 pending approval of the fourth in a series amendments relating to Covid-19 Force Majeure. PRD may, at their discretion, elect to enter the 36 month First Extension Period subtracting 19 months for extensions already awarded as part of the Initial Period. A Second Extension Period of 30 months is also available to PRD on fulfilment of agreed future work programmes. To date, all Initial Period commitments have been fulfilled including, *inter alia*, seismic reprocessing and the drilling of exploration wells including MOU-1 (2021), MOU-2, MOU-3 and MOU-4 (2023). Near-term rigless well testing of several prospective intervals including the TGB-2, Ma and Moulouya Fan reservoirs planned by PRD seeking to confirm currently interpreted discovery status and prove up sufficient Phase 1 and Phase 2 resources to deliver up to 20MMScf/d plateau for an initial modelled six-year initial production profile. The 20MMScf/d six year profile yields cash revenues net to PRD of US\$ 207.5m with an NPV@10% of US\$108m based on 43.8BCF Gross (32.85BCF Net to PRD). Initial Rate of Return (IRR) US\$6.345 per BCF of Compressed Natural Gas (CNG) production. Details of resource estimations are provided in Table 1.

Table 1 Summary of Gross GIIP and Gross Unrisked Recoverable Resources at prospective intervals based on recently drilled PRD wells scheduled for near-term testing in 2024. Table compiled from new Scorpion Geoscience Ltd independent estimates and TRACS 2023 CPR for the interpreted MOU-1 "TGB-2" discovery. Discovery and resource classification status of all levels subject to revision pending results of planned testing. PRD 75% net in all cases.

Planned Test Programme		Contingent Resources – Gross GIIP (Gross Unrisked Recoverable*) BCF			Economic Modelling
Phase 1 Rigless Testing		P90(1C)	P50(2C)	P10(3C)	
Early Q1 2024	MOU-1 Testing Ma sands	14.82(9.54)	33.84(21.84)	63.04(41.20)	P50 used for 10MMScf/d 8 year initial production profile P10 used for 20MMScf/d profiled project economics over 6 years
	MOU-3 Testing Ma sands				
	MOU-1 Testing TGB-2 sands	TRACS 7.32(2.93)	TRACS 29.15(17.49)	TRACS 88.96(71.18)	
Phase 2 Rigless Testing Part 1		P90(1C)	P50(2C)	P10(3C)	
Q1 2024	MOU-3 Testing Moulouya Fan	72.66(46.49)	152.39(98.09)	281.75(184.03)	Potential to upscale production to 50MMScf/d for minimum four years in P50 success case
	MOU-4 Testing Moulouya Fan				
Phase 2 Rigless Testing Part 2		Prospective Resources – Gross GIIP (Gross Unrisked Recoverable*) BCF			
		P90(1U)	P50(2U)	P10(3U)	
Q1 2024	MOU-1, MOU-3 & MOU-4 Testing TGB-6 sands	NA	NA	NA	Resources estimations will be generated subject to the results of rigless testing
	MOU-3 Testing TGB-4 Sands	NA	NA	NA	
	MOU-3 Shallow Sands	NA	NA	NA	
	MOU-4 Porous Volcanic Interval	NA	NA	NA	
	MOU-4 Jurassic Dolomitised Limestone interval	NA	NA	NA	
		Prospective Resources – Gross GIIP (Gross Unrisked Recoverable*) BCF			
Jurassic Exploration/ Appraisal		P90(1U)	P50(2U)	P10(3U)	
TBC	Drill MOU-5	169.92(93.70)	426.87(186.23)	910.58(416.22)	Extension of 20MMScf/d and 50MMScf/d plateau cases or gas to power
		Contingent Resources – Gross GIIP (Gross Unrisked Recoverable**) BCF			
A Sand (Shallow) Appraisal		P90(1C)	P50(2C)	P10(3C)	
TBC	Test Gas Sands	5.88(3.62)	13.42(8.29)	26.14(16.16)	Subject to Appraisal**

\*Multiply Gross values by 0.75 to yield net to PRD

\*\*Additional infill drilling likely to be required after initial production period, two wells allowed for in Project Economics



The Guercif asset sets PRD apart from other listed onshore operators in terms of near-term growth potential which can be realised through scalable CNG production options to meet and grow market demand with low CAPEX and minimal infrastructure required to produce first gas. Significant upside potential is noted by Scorpion Geoscience hosted in a portfolio of undrilled leads and prospects which will be targeted by future planned exploration activities.

Guercif represents an opportunity to create a high value onshore asset which can be explored and produced efficiently from an underexplored basin in eastern Morocco. Guercif has been very lightly explored with only four deep exploration wells drilled including GRF-1 (Elf 1972), TAF-1X (Phillips 1979) and MSD-1 and KDH-1 drilled by ONAREP (the forerunner of ONHYM) in 1985 and 1986 respectively (details provided in Appendix B2). TransAtlantic re-entered, logged and tested the MSD-1 well in 2008 but the logging and testing failed to establish the presence of hydrocarbons in Jurassic targets. Historical exploration efforts targeted structures visible on mostly poor quality vintage 2D seismic data. With improved understanding of the tectonostratigraphic history of the basin and new geological models based on more recently reprocessed seismic data illustrated in Figure 1, it has been possible for PRD to identify and successfully target new structural, stratigraphic and hybrid structural-stratigraphic plays. Recent drilling of the Moulouya series of wells has for the first time demonstrated the presence of potentially commercial but as yet untested gas accumulations in the basin (e.g. MOU-1, MOU-3 & MOU-4).

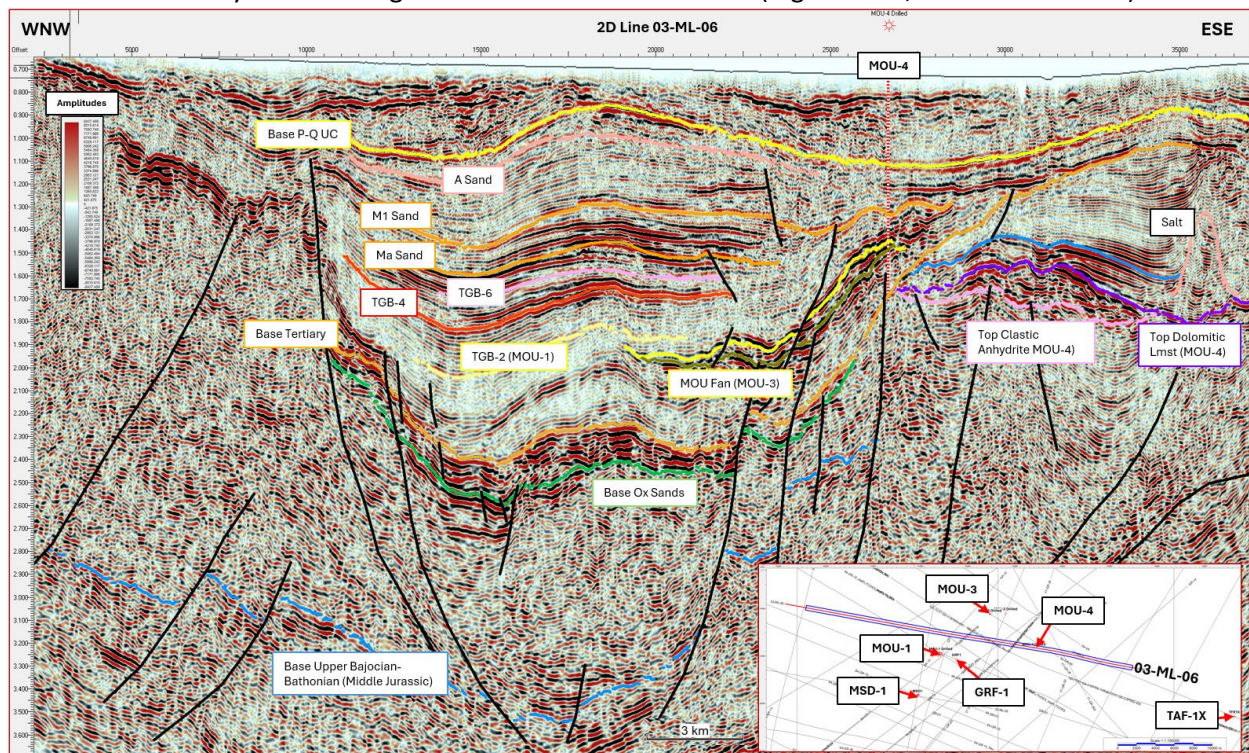


Figure 1 2D Seismic line 03-ML-06 showing the key plays being explored by PRD including Miocene (A sand, M1, Ma, TGB and Moulouya Fan) and Early to Middle Jurassic Carbonates (e.g MOU-4) and younger Clastic sand traps of mainly Upper Jurassic Oxfordian to Kimmeridgian age where good quality sands are noted in TAF-1 well also shown for reference on the inset map.

Phase 1 rigless well testing of MOU-1 is expected in Q1 2024 targeting TGB-2 sands at 1236.5m to 1241.1m RKB and shallower “Ma” sands at 844 to 848m RKB. In the same Phase 1 programme, testing will be undertaken on MOU-3 targeting Ma sands at 845m to 849m RKB. Depending on test rates and any evidence of reservoir depletion, perforating the Ma and TGB-2 Sands may help to justify an eight-year



production profile at a plateau rate of 10MMScf/d producing Gross 29.2BCF gas (21.9BCF Net to PRD) based on anticipated 2C Contingent Resource volumes assigned to these levels. Dependent on positive test results and the potential to comingle production from the two different horizons in MOU-1, a 20MMScf/d profile for up to 6 years may also be achievable based on 3C Contingent Resource estimates generated in this ITR. Readers should note additional optional but as yet unconfirmed Phase 1 rigless testing of a small interval of the >50m thick MOU-3 Moulouya Fan reservoir has only currently been programmed to evaluate reservoir quality and potential gas flow rates at this specific location. This targeted perforation may allow the Company to improve upon the design of the Phase 2 rigless testing programme using Sandjet to further evaluate the Moulouya Fan with broader perforation intervals. All resource estimates and Initial Production forecasts quoted in this ITR are subject to successful outcomes of the anticipated perforation and testing programme.

Phase 2 rigless testing operations using multi-level Sandjet perforation technologies will be split into two parts with the first part planned to commence in early February to early March 2024. Sandjet allows multiple horizons to be tested relative to conventional perforating guns based on cost considerations. Sandjet also potentially perforates deeper into the target formations than conventional perforating guns beyond zones of formation damage. The duration of operations is forecast to be for up to 21 days targeting thin sands in the Moulouya Fan in MOU-3 and MOU-4.

The second part of Phase 2 testing will perforate TGB-6 levels in MOU-1, MOU-3 AND MOU-4 and TGB-4 sands in MOU-3. Sandjet will also be used to perforate several shallow sands in MOU-3 that are interpreted by PRD and NuTech to be potentially gas bearing along with two main intervals in MOU-4 incorporating the western limit of potentially porous Jurassic dolomitic limestones at 1140m MD RKB and a younger highly porous volcanogenic interval positioned above the eastern edge of the Moulouya fan at c.800m MD RKB. Regulatory approval of the Guercif Petroleum Agreement Amendment #4, which is proposing to extend the Initial Period of the Guercif Petroleum Agreement to 5 June 2024, is a prerequisite before Phase 2 testing operations can commence. Depending on the results of the Phase 1 rigless testing, Petroleum Agreement Amendment #4 would also potentially facilitate an application by 5 March 2024 for a single Exploitation Concession over the area tested by MOU-1 and MOU-3, providing geological continuity of potential gas reservoirs can be demonstrated.

Readers should note Sandjet technology will be testing intervals in MOU-3 and MOU-4 where current conventional wireline log interpretation is adversely impacted by possible formation damage caused by the requirement to drill over-balanced with heavy drilling mud to control the wells through shallow potentially overpressured and highly mobile claystones, some of which are associated with a suspected Tortonian debris slide deposit encountered in MOU-2 which was later confirmed to be overlaying the main Moulouya fan in MOU-3. NuTech petrophysical log interpretation for the above intervals interprets the presence of gas. However, the integrity of the interpretation can only be verified after the programme of Sandjet rigless testing has been completed. Sandjet rigless testing results will determine in the shorter term any ability to upscale to a 50MMScf/d production profile facilitated under the Collaboration Agreement for a CNG Gas Sales Agreement with Afriquia Gaz.

The main Moulouya fan prospect is mapped over an area of up to 68km<sup>2</sup> and is supported by multiple seismic amplitude anomalies which indicate the potential presence of reservoir sands in an otherwise shale-dominated sequence. Scorpion Geoscience note potential for stacked pay intervals throughout a

>700m thick succession of Miocene-aged turbiditic clastic reservoirs and shales, and as yet unexplored potential in an undrilled Jurassic porous carbonate platform play. Stratigraphic traps related to pinch-outs of Jurassic (Oxfordian) and Miocene sands situated around the flanks of the Guercif basin also contribute to as yet unexplored prospectivity. The discovery of additional prospective gas resources could provide an opportunity to add significant future project value with ready markets established for CNG.

The 2023 drilling campaign has confirmed the validity of geological models developed by PRD following the drilling of MOU-1 in 2021. The interpreted presence of potentially stacked Miocene gas discoveries based on specialist NuTech log analysis has demonstrated the potential for accumulations of gas in multiple, potentially high-quality reservoirs at depths in the range 339m to 1500m MD RKB. Significantly the potential for a large accumulations exist due to the lack of compartmentalisation of the mapped seismic events. This is in contrast to the situation in the producing Rharb Basin in western Morocco where the structures are smaller but with a very high success rate for finding gas. The gas potential of the Guercif area is further enhanced by the recognition by TransAtlantic of up to 39m of untested gas pay at the base of the Miocene in GRF-1 with average porosities of 20% and average gas saturation (Sg) of 20% in a location which is considered outside of the main prospects mapped by PRD. Two micro-seepage surveys carried out for TransAtlantic by Geo-Microbial Technologies in 2006 and 2007 also identified dry gas around the GRF-1 well in soil samples. GRF-1 was drilled in 1972 before the acquisition of the 2003 ONAREP seismic, less than 1.5 kilometres to the south-east of the edge of the seismic amplitude anomaly which is now associated with TGB-2 discovery in MOU-1. GRF-1 had dry gas shows in some high quality Tortonian (Miocene) reservoir sands, observations which have now been replicated in MOU-1, MOU-3 and MOU-4. The same Miocene-aged reservoir sands are exposed at the margin of the Guercif Basin where they are interpreted as deep water turbidites and form thick, stacked multiple sand bodies.

Subject to the regulatory approval of Guercif Petroleum Agreement Amendment #4 to extend the Initial Period of the Guercif Petroleum Agreement to 5 June 2024, PRD is also seeking to drill a potentially large Jurassic-aged porous carbonate bank target, the extreme edge of which was penetrated in MOU-4 downdip from the crest of the large mapped seismic closure of up to 177km<sup>2</sup>. A high-graded area totalling some 55.1km<sup>2</sup> has been identified as potentially being leached based on seismic characteristics offering a potential higher confidence zone to target the play which is now utilised as a low-case volumetric input in revised estimations provided by Scorpion Geoscience in this ITR. MOU-4 NE is the provisional name given by PRD to a future well designed to target a preferential region of the Jurassic porous carbonate play where it is imaged on good quality reprocessed 2D seismic data. There is currently in-country rig availability within the window for which an MOU-4 NE well could be delivered, subject to regulatory approvals and the schedule for delivery of long-lead well inventory items. MOU-4 NE is forecast to take up to 12 days to drill. This is a higher risk but potentially high reward well capable of extending Initial CNG production models and is close to gas infrastructure (the Maghreb gas pipeline) should Unrisked P10 Prospective Resources of 416.22BCF be proven up. A successful well may create a new potential gas market (gas-to-power) if the scale of the opportunity for the MOU-4 NE structure is realised. Funding the discretionary well would depend on final well cost estimates; the quantum of discretionary cash on PRD's balance sheet in Q2 2024; and the ability for potential early monetisation of gas following a successful Phase 1 rigless testing programme.

Discretionary appraisal/development drilling is also provisionally scheduled for H2 2024. Subject to an application and the subsequent award of an Exploitation Concession and regulatory approval of the drilling programme, PRD may elect to drill two appraisal/development wells to potentially, if successful, add incremental gas resources to support and extend modelled CNG production profiles. The elective options are listed below:

- MOU-3NW will target the shallow sands behind casing in MOU-3 and not available for rigless testing in that well. MOU-3 NW will require a revision of the well design to facilitate rigless testing of potential shallow gas at higher than normal reservoir pressure for the shallow depth.
- MOU-3SW will target the Ma, TGB-6 and, potentially, depending on Phase 2 rigless testing results, TGB-4 sands.
- MOU-2 re-entry and deepening

Subject to an evaluation of the Phase 1 and Phase 2 rigless testing results, the Company may seek to re-enter the MOU-2 well and deepen it to explore the full extent of the Moulouya Fan target interval. Funding and timing of the discretionary drilling programme will be dictated by the availability and quantum of production revenues generated by other assets such as Cory Moruga (Trinidad) and the opportunity for partial monetisation of gas assets in Guercif, always subject to a successful rigless testing programme. The discretionary drilling programme may have to be aligned with a requirement to further develop the CNG industrial gas market above the 50MMScf/d cap set in the recent Afriquia Gaz Collaboration Agreement (RNS 30<sup>th</sup> Nov 2023 [predatoroilandgas.com](https://www.predatoroilandgas.com)).

## 1. Introduction

### 1.1 Aim of the ITR

This Independent Technical Report (ITR) seeks to provide a broad summary of the Guercif asset and geological setting in which the previously announced stacked Miocene Moulouya turbidite fan discoveries are located (e.g. Figure 2). This report is designed for technical and non-technical readers wishing to gain knowledge of the Guercif asset including potential strategies being applied by PRD to quantify Discovered and Prospective gas resources. Reviews of the available seismic and well database pertinent to this ITR are provided. Key aspects of the petroleum system are summarised and geological, geophysical and petrophysical inputs are outlined with explanations of the methods used to determine updated pre-test informal resource estimations and determine potential exploration and development activities necessary to convert discovered and undiscovered resources into formally recognised reserves.

Summaries of the resulting informal volumetric estimation outputs and geological risk analysis are provided based on industry standard probabilistic methods. Explanations and methodologies used to define volumetric input parameters are discussed in context of data sources and consideration is given to the accuracy and precision of the available database. All preliminary resource estimations quoted in this document are assigned using PRMS 2018 guidelines based on a fair and reasonable assessment of the available database provided by PRD and supplemented from published literature and online sources. All resource estimations are made in good faith in context of uncertainties and risks regarding the subsurface and prevailing market conditions which are duly acknowledged.

## 1.2 Overview of Guercif and the Moroccan Hydrocarbon Industry

Morocco has been involved in the petroleum sector for over 100 years with discoveries noted onshore and offshore including Repsol's Tanger/Larache with up to 90m gas column and ten separate discoveries in SDX Sebou permit. The Moulouya discoveries are just 9 kilometres from the Maghreb gas pipeline at its maximum distance from recent PRD wells and supplies c. 90% of Morocco's hydrocarbons from neighbouring Algeria. In the event of at least one large discovery at Guercif, significant spare capacity exists for the transport of gas either for domestic use or for export to the European Union. Small volumes of gas can be utilised in the domestic gas market but larger volumes require gas-to-power and export options. The potential to get gas to market with ease exists and the Government is supportive and aligned commercially and strategically with the other licence partners and has a desire to keep gas in-country. At present, the optimal short term commercial market for gas in the Guercif basin whilst resources and production is established is Compressed Natural Gas (CNG) to local industry. Morocco is a rapidly growing economy with the potential for significant increases in industrial capacity if clean affordable local energy can be sourced. In light of this opportunity, PRD's recently signed collaboration agreement with Afrikaia Gaz S.A. announced 30<sup>th</sup> November 2023 on *predatoroilandgas.com* provides access to a major downstream operator with the potential to result in significant future offtake via CNG with Take-or-Pay provisions (and associated make-up and carry forward provisions) and fixed term contracts with an agreed Purchase Price for up to 10 years.

Capital development costs are expected to be low for CNG and initial small-scale gas to power options given the shallow drilling depths, potential for high recoveries per well based on potentially continuous reservoir sands (thereby reducing the number of development wells required) and the anticipated quality of dry gas produced (reducing processing costs). The proximity to the Maghreb Pipeline provides options for large-scale production and export.

## 1.3 Fiscal Terms

The fiscal terms in Morocco are restricted to a 5% State royalty for gas, applicable after the first 10.6 BCF of net production to the operator, and corporation tax charged at 31%. However, there is a 10-year "holiday" before corporation tax will be charged and any unused tax losses can be offset against the tax due. There are no signature bonuses but production bonuses in the form of cash payments exist with a maximum one-off payment of US\$5,000,000 on production greater than 30,000 BOE/day. A discovery bonus of US\$1,000,000 is also payable. Gas prices in Morocco are currently higher than UK National Balancing Point (NPB) prices for domestic delivery. Any future gas exports that are not to the industrial sector will be priced at NPB prices.

The 7269 km<sup>2</sup> (7,422 acre) Guercif licence block and stacked Moulouya Fan discoveries are situated in the Guercif Basin of the northeast of Morocco approximately 250km east of the SDX Energy PLC Rharb Basin production and 180 kilometres due north-west of Tendrara where deep discovered gas in the Triassic TAGI sand is currently being appraised and potentially developed by Sound Energy Plc (Figure 2). The main Maghreb gas pipeline crosses the Guercif basin in close proximity to PRD discovery wells. The Guercif block is comprised of 4 linked exploration permits which are treated as a single combined exploration license under the unified PRD work programme. Road access is generally excellent, and a strong precedent is set for exploration and development activities including seismic acquisition and drilling.

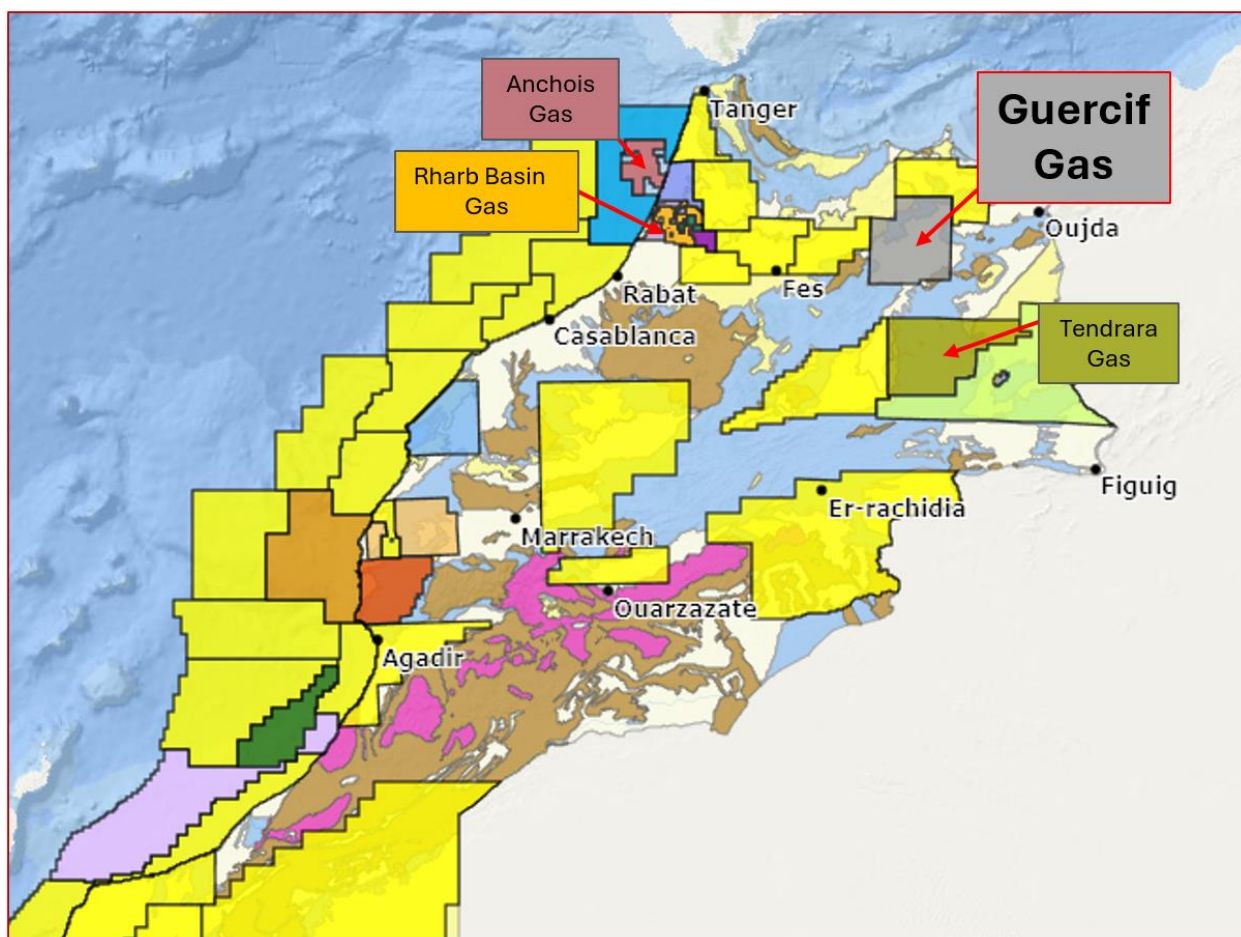


Figure 2 Map showing the Guercif Block in grey in relation to current Moroccan exploration permitting and relation to analogue basins such as the Rharb Basin, Tendirara development and Anchois which are referred to in this ITR (Source predatoroilandgas.com).

### Guercif work commitments and progress review

In the Initial Period, the work programme listed below was designed to de-risk key play types and showed a clear commitment from PRD not only to fulfil formal work commitments, but also to exceed these commitments where there was clear technical and commercial merit in doing so.

- Reprocessed 278 kms of existing 2D seismic data for prospect-specific amplitude analysis and AVO, Rock Property and Seismic Inversion Modelling suitability studies.
- NuTech Energy third party log analysis of the Tertiary for GRF-1, MOU-1, MOU-3 and MOU-4 and conventional log analysis of MSD-1 for input parameters into AVO, Rock Property and Seismic Inversion Modelling.
- Paleogeographic model for the Tertiary, including depositional facies, transport directions and sand body geometry incorporating outcrop and well data.
- Source rock evaluation of the potential for biogenic gas generation in the Tertiary and thermogenic gas from the pre-Tertiary based on burial history modelling with vitrinite reflectance calibration.
- Gas migration pathways and timing of migration.

- Prospect seismic mapping in time and depth with risk analysis of prospects and potential resources.
- Analysis of potential gas market and demand for gas and new infrastructure required to access the potential markets
- The Minimum Exploration Work Programme for the Initial Period was revised by Petroleum Agreement Amendment No. 2 to be replaced by two wells to a minimum depth of 1500 metres MD (satisfied by MOU-1 and MOU-3) and a third well to 2000 metres MD or top Middle Jurassic (satisfied by MOU-4). MOU-2 was an additional well suspended for possible re-entry at 1260m MD.

Upon approval of Amendment #4, the initial exploration period will be 49 months and a mandatory relinquishment of 40.8333% of the original exploration permit area will be made at the end of the Initial Exploration Period. The Relinquishment has been carefully planned to avoid the loss of any mapped prospectivity based on current thorough examinations of play types, play fairways and prospects allowing effort to be focused on core areas of interest.

The extension of the Initial exploration period and fulfilment of commitments means the first extension period will now last 17 months (36 months minus the 19 months already used in the extension of the Initial Exploration period to June 2024). The main focus of the first extension period is to undertake acquisition and processing of 200 km<sup>2</sup> 3D seismic over the main Tertiary targets including AVO and Rock Physics evaluations. Gravity and Magnetic modelling will be undertaken using existing data and development options will be assessed for gas discovered in the initial period (MOU-2 and MOU-3).

The first extension period can be extended into a second extension period of 30 months with an anticipated commitment to acquire 400 km<sup>2</sup> 3D covering Jurassic Prospects to include AVO analysis and the drilling of at least one well to 2750m to test the Jurassic potential. There are also commitments to undertake Geological studies to integrate and understand PRD findings in a regional context and determine whether CO<sub>2</sub> and Waterflood EOR experience can be applied to boost long term productivity of discoveries in the Guercif basin

## 2. Guercif Technical Database

PRD have made available to Scorpion Geoscience an extensive database comprising well reports, 2D seismic data and technical reports relevant to the Guercif licence (See Appendix B). Additional data have been sourced as part of the ITR compilation process including block outlines, infrastructure maps and other geographical shape files pertinent to the assessment. The seismic inventory listed in Appendix B1 includes 3,291 kilometres of 2D seismic data acquired between 1968 and 2003 (including a new 300-kilometre ONAREP 2D seismic survey acquired in 2003), which were reprocessed in 2006 by TransAtlantic when Pre-Stack Time Migration was applied for the first time to the entire seismic inventory. TransAtlantic also acquired an aeromagnetic and aerogravity survey in 2006 comprising 10,000 line kilometres.

Seismic data is the key tool used to identify traps at Guercif. Mapping has been undertaken by Scorpion Geoscience using S&P Global Kingdom<sup>®</sup> platform using the available 2D database of regional lines as displayed in Figure 1 located in the Executive Summary. The average present day elevation of the main

area of interest is c. 360m above mean sea level (amsl) and seismic reference datum of 1000m amsl has been used to ensure different vintages of data and processing can be cross-correlated in the time domain. Reprocessing was undertaken by PRD during the initial period on a subset of vintage lines focusing on defining Miocene and Jurassic prospectivity. The reprocessing exercise helped to improve clarity and resolution of the seismic data by retaining a greater range of frequencies, reducing noise and improving absolute and relative amplitude contrasts in the main Miocene turbidite sequence by utilising a carefully considered processing sequence and bespoke parameterisation.

Scorpion Geoscience note historical exploration focus in the Guercif basin was entirely on the Jurassic and was completed before the country-wide shift in focus that has resulted in shallow (Tertiary) gas production in the Rharb Basin and recently successful Triassic gas appraisal drilling at Tendrara. In this context, it is concluded Guercif has never been explored for these more recently acknowledged targets and these are now the main focus for PRD in Morocco. Only four exploration wells were drilled in the area encompassed by the Guercif Petroleum Agreement prior to PRD entering the basin. The last well was completed in 1986, thirty seven years ago long before the expansion of gas production in the Rharb Basin and the discovery of gas at Anchois in the offshore by Repsol and partners. Wells listed in Appendix B2 and shown in Figure 3 are considered relevant to prospect evaluation in this ITR.

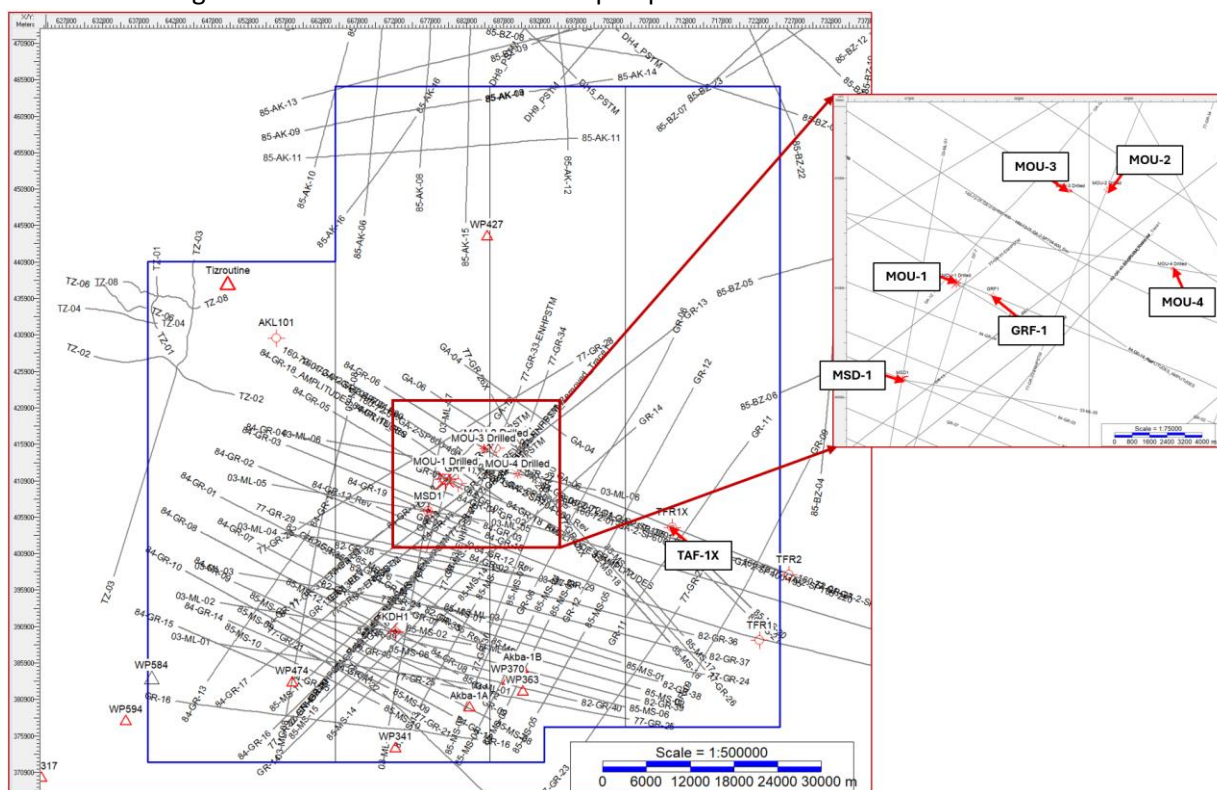


Figure 3 Map produced from S&P Global Kingdom® seismic and well interpretation suite based on key database items interpreted by Scorpion Geoscience as part of this ITR showing the Guercif license and key wells and seismic database. Inset shows the relative positions of MOU-1, MOU-3, MOU-4 and legacy GRF-1 and MSD-1 wells.

All conclusions, forward statements and opinions presented have been developed based on the available database and should be viewed as forward-looking statements for the purposes of investment decisions in line with the Disclaimer at the front of this document and those disclaimers made available on [www.predatoroilandgas.com](http://www.predatoroilandgas.com).



### 3. Tectono-stratigraphic Framework and Petroleum System

The Guercif Block and Moulouya discovery are situated in the Guercif Basin of Morocco (Figure 4). The relatively young Miocene component of the Guercif Basin is overprinted on an older and larger Mesozoic system with Triassic sands and Jurassic carbonates offering exploration targets. The Miocene play targeted by the Moulouya suite of wells drilled by PRD comprises multiple stacked clastic reservoirs which formed in response to rapid uplift and marine turbidite sedimentation during the late Miocene (Tortonian). The Guercif basin has been subject to several important tectonic events which may have contributed to the development of thermogenic and biogenic petroleum systems. Late inversion and significant uplift during the Plio-Pleistocene might have contributed to overpressure readings when gas was encountered in MOU-3.

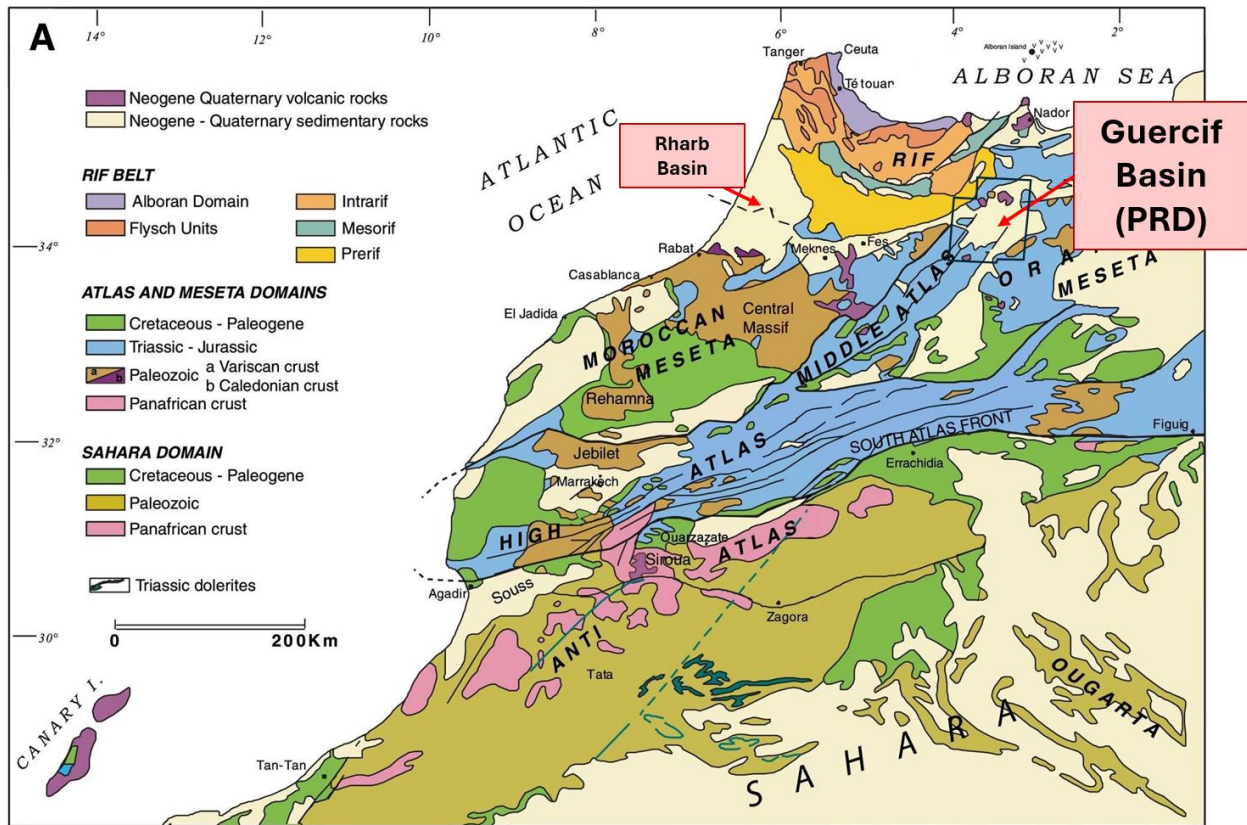


Figure 4 Geological map of Morocco showing the location of the Guercif Basin. Modified from Michard et al., 2017 after Frizon de Lamotte et al. 2004.

The stratigraphy of the Guercif basin and key events relating to the development of a hydrocarbon generation are outlined in Figure 5. Several significant events are noted including the major pulses of burial, tectonic inversion, uplift and erosion which have followed the two main basin forming rift events which were active in the early-middle Mesozoic and the Miocene. The timing and magnitude of geological events can influence many aspects of the Guercif petroleum system including reservoir provenance and quality, source rock deposition and preservation, source maturity, migration and trapping which are covered in the following sections of this ITR.

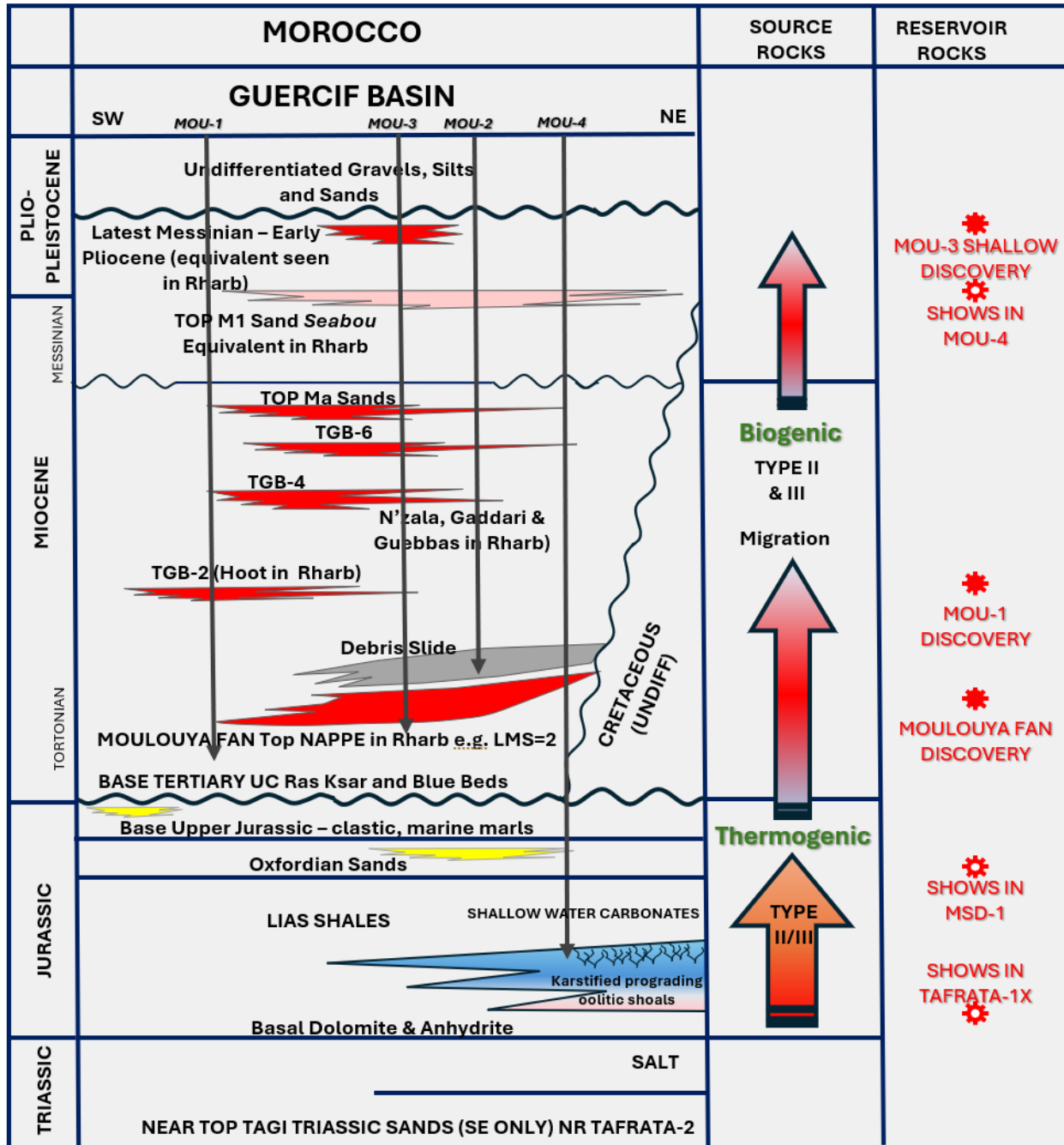


Figure 5 Stratigraphy of the Guercif Basin showing the key elements of the coupled thermogenic and biogenic petroleum systems which are thought by PRD to be actively contributing to play potential. Gelati et al 2000

### 3.1 Source Rock Presence, Maturity and Charging

Source rocks are those rocks from which hydrocarbon resources are generated and expelled prior to migrating into reservoirs which in the case of Guercif host “conventional” hydrocarbon accumulations as opposed to “unconventional” resources which are usually retained in the host source. A potential prospective accumulation is termed a lead or prospect depending on how well it is defined prior to exploration drilling. A “play” refers to a particular instance where source, reservoir and trap are linked along functioning migration pathways and is usually named after the target reservoir e.g. Moulouya Fan play or Jurassic Carbonate play.

Scorpion Geoscience can confirm PRD has completed a significant amount of work aimed at identifying potential untested plays and prospectivity therein. Technical studies undertaken by PRD and third party specialists such as NuTech Energy over the course of the Initial Period have sought to reduce uncertainties regarding the potential petroleum system in the Guercif basin and in so doing reduce the risk of exploration wells failing to discover hydrocarbon resources in a series of stacked plays. Key foundational elements of a working petroleum system are source rock presence and effectiveness, i.e. the occurrence of rocks that have the potential to generate and expel hydrocarbons in commercial quantities. Source presence and effectiveness are related to richness of the source which is a function of organic content (kerogen) which is converted to moveable hydrocarbons through heat (“thermogenic”) or biological activity (“biogenic”). A second important consideration is the ability of the source host rock to expel generated hydrocarbons if and when sufficient maturity is obtained. The recent drilling campaigns undertaken by PRD (MOU-1, MOU-3 & MOU-4) are interpreted to indicate two possible scenarios are active in the Guercif with a widespread deep thermogenic petroleum system relating to Early Jurassic shales positioned beneath a younger less established biogenic gas system developed in the Tortonian shales with both indicated in Figure 5 RHS.

Whilst further imminent well and laboratory testing is required to determine the gas composition and origins in the stacked Moulouya discoveries, based on the gas logs from MOU-1 shown in Figure 6, methane is the dominant component in the upper Miocene with readings of up to 40,000ppm. The presence of wet gas components such as propane, butane and pentane up to 80ppm noted below c.1250m in MOU-1 potentially indicates most of the input is from a deeper thermogenic source rocks and thus helps to de-risk Mesozoic plays such as the Lower Jurassic Carbonate and Oxfordian sand plays which can both benefit from Jurassic sourcing. Lower Jurassic rocks with elevated TOC and good source characteristics (Type II marine kerogen) are noted to outcrop to the south and northwest of the study area, and based on recent modelling commissioned by PRD, are expected to be in the dry gas maturation window during the main period of Miocene burial. Taking into account the presence of positive total gas readings in the wells that have been drilled, source rock presence in wells, maturity and charging potential associated with gas generation are classified as low risk petroleum system elements along the central axis of the Guercif basin and the majority of Miocene reservoir targets for the purposes of geological risk analysis presented in this ITR. Higher source presence and maturity risks have in the past been applied to flanking areas and Jurassic/Triassic plays where maturity and migration models are less well constrained e.g. TRACS in their 2023 CPR carry a combined 0.45 risk as a fraction for source and migration for the Jurassic Carbonate play.

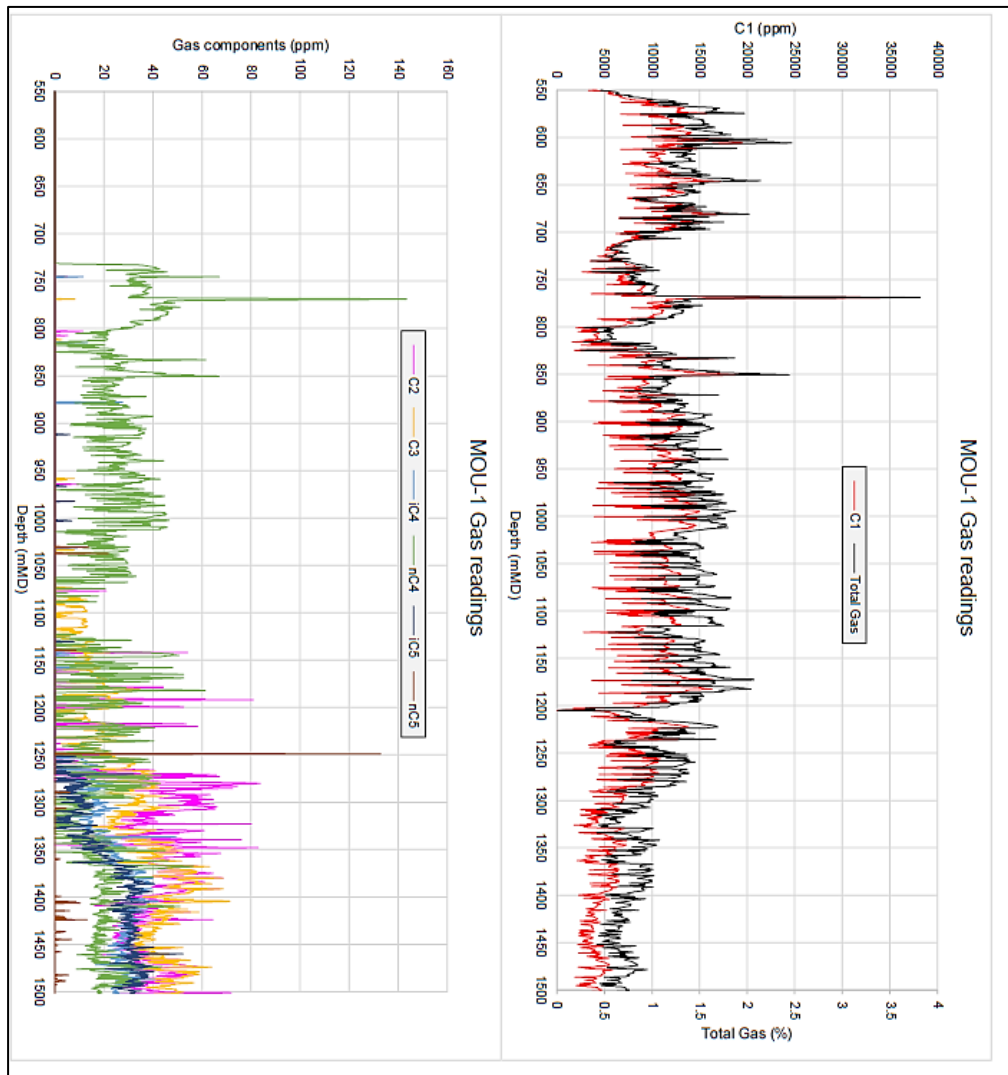


Figure 6 MOU-1 gas logs, left side wet gas components and right side C1 methane and total gas vs depth

To try and reduce uncertainty and counter perceived risks attributed to sourcing in the flanking plays, basin modelling has recently been undertaken by Integrated Geochemical Interpretation (IGI) Ltd on behalf of PRD. The results summarised in Figure 7 are based on three pseudo-wells positioned along an interpreted regional geoseismic line to reflect the key structural components present in the Guercif block. Namely the Tortonian-Messinian depocentre; the MOU-4 carbonate bearing structural high; and the Tafrata-1X half graben depocenter visible on the right hand side of the seismic section shown in Figure 8.

The burial history reconstruction was partly constrained by the MOU-1 vitrinite reflectivity gradient. The 1-D modelling used a most likely figure of 1500 metres for late Jurassic uplift and early Tertiary uplift to allow for erosion of overburden. A present day geothermal gradient of 43°km<sup>-1</sup> is used as the basis for the modelling with elevated values used during rifting episodes to reflect higher heatflows. Predicted transformation ratios for the potential Lower Jurassic source rock interval were calculated for each pseudo-well location. The source rock interval was modelled as Type II kerogen with some terrestrial input.



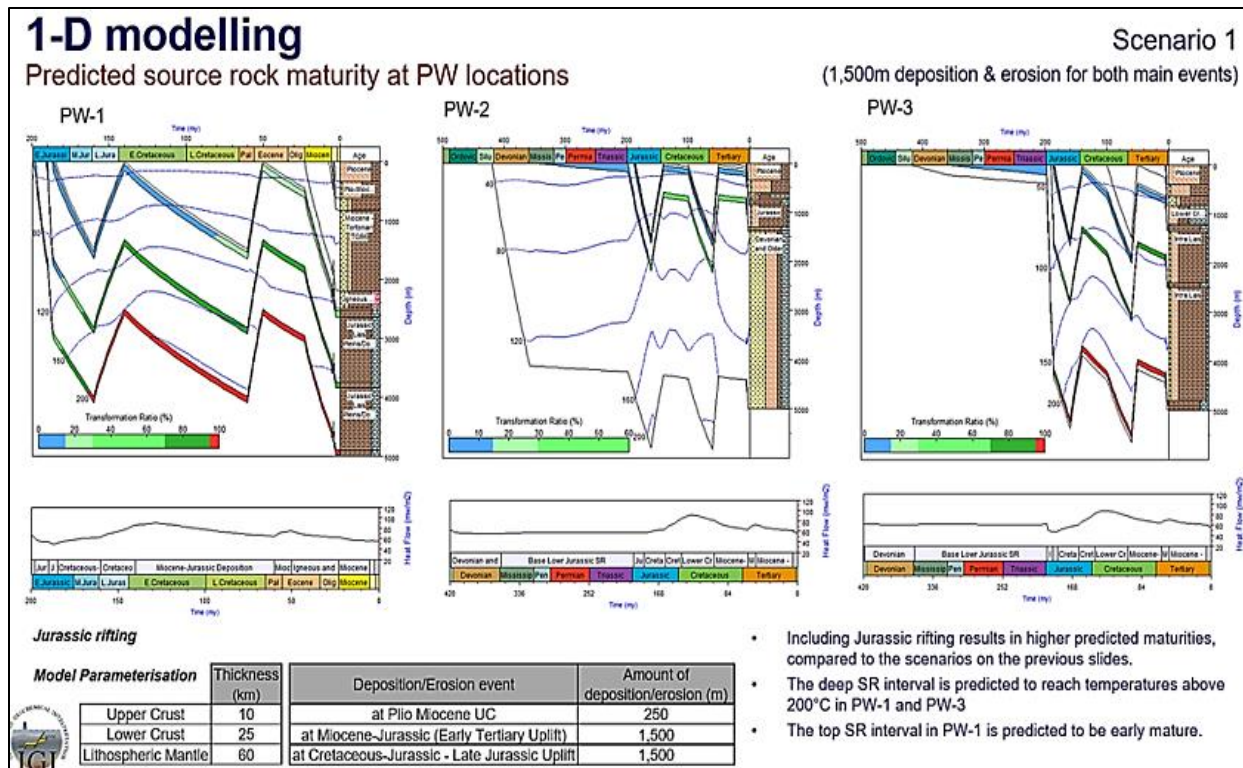


Figure 7 Results of basin modelling undertaken by IGI Ltd for three Pseudowells

The 1-D modelling showed that only the Miocene depocentre tested by MOU-1 and MOU-3 was capable of being sufficiently buried and heated during a period of rifting and subsidence to enable the Lower Jurassic source rocks to re-enter the gas window having obtained significant maturity during initial Mesozoic burial prior to significant uplift in the Late Cretaceous-Palaeogene. Charging is therefore lower risk in areas connected directly to the Miocene basin or linked to it by faulting e.g. the Jurassic Carbonate play which can benefit from lateral or vertical migration through a network of reactivated old faults thus a revised source rock maturity of 0.56 is used for the Jurassic and 0.90 for the Miocene play.

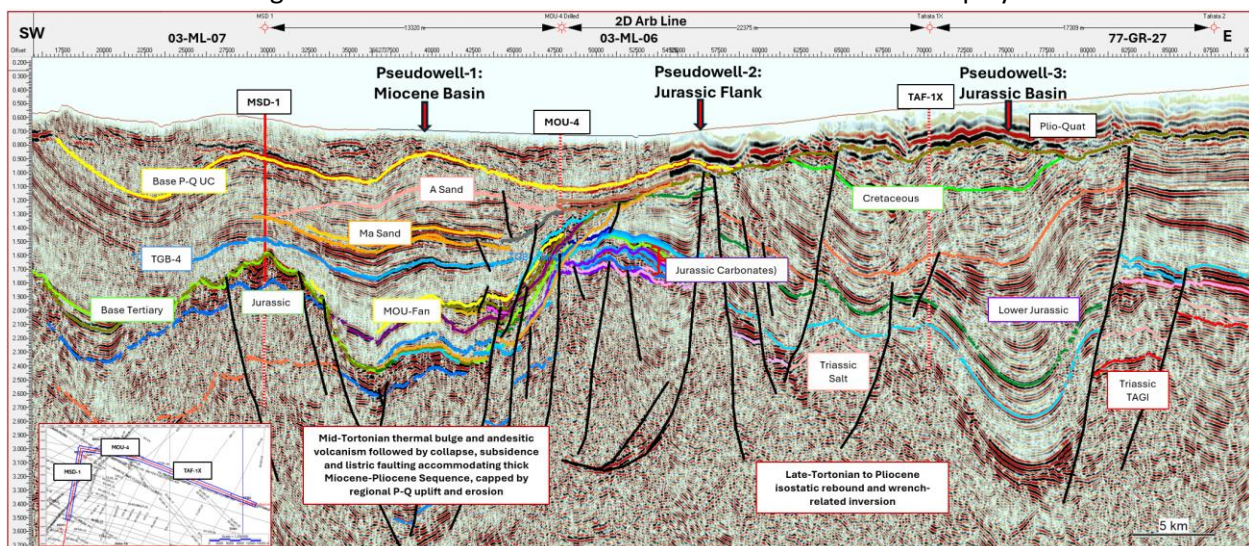


Figure 8 Section used to guide burial history modelling and investigate source rock maturity along a key arbitrary seismic line linking aspects of the proven Miocene and postulated Mesozoic petroleum systems.

Migration of primary gas from deeper to shallower levels is potentially evidenced at scale by interpreted gas clouds on 2D seismic reflection data which can be traced to faults linked to the Jurassic. In addition, Scorpion Geoscience notes the Tortonian argillaceous shales are characterised by preserved total organic content (TOC) of up to 0.93% in MOU-1 as demonstrated by the findings of analysis undertaken by Applied Petroleum Technology (APT). The analysis indicated mostly Type II gas-prone amorphous and minor Type III plant-derived Kerogen. The 2021 MOU-1 penetration and recent seismic interpretation work undertaken by Scorpion Geoscience confirms the Miocene shales are likely to be widespread and up to 1000m thick in aggregate in the central depocentre where the Moulouya fan system is developed e.g. Figure 9. Ongoing analysis of results from recent PRD wells drilled in 2023 seeks to confirm whether TOC values increase towards the centre of the basin and are sufficient to initial large scale biogenic gas generation which might be supplementing thermogenic gas, in particular, in shallow or isolated overpressured intervals such as the A Sand in MOU-3. Based on reinterpretation of the existing database and the presence of overpressure the A Sand is not obviously connected to deeper levels by faulting or in equilibrium with other potentially normally pressured intervals further down the MOU-3 borehole.

Potential analogues for a shallow biogenic source rock setting are noted in the Po Basin of Italy and prolific Carpathian foreland system in Romania which hosts a coupled biogenic and thermogenic petroleum system (Grasu *et al.* 2002). Source rocks of the Miocene are not expected to be mature for generating thermogenic oil and gas in Guercif, however biogenic systems driven by methanogenic bacterial activity can operate up to 75°C (Clayton 1992) which is almost perfectly matched with the Miocene down hole temperature profiles encountered in MOU-1 and MOU-3. Rapid burial rates in the order of many hundreds of metres per million years during the Tortonian are also seen as being advantageous to the development of biogenic sourcing, enabling sediments to attain burial beneath aerobic and sulfate reducing zones with a greater proportion of organic matter preserved and available for methanogens to use as a nutrient supply.

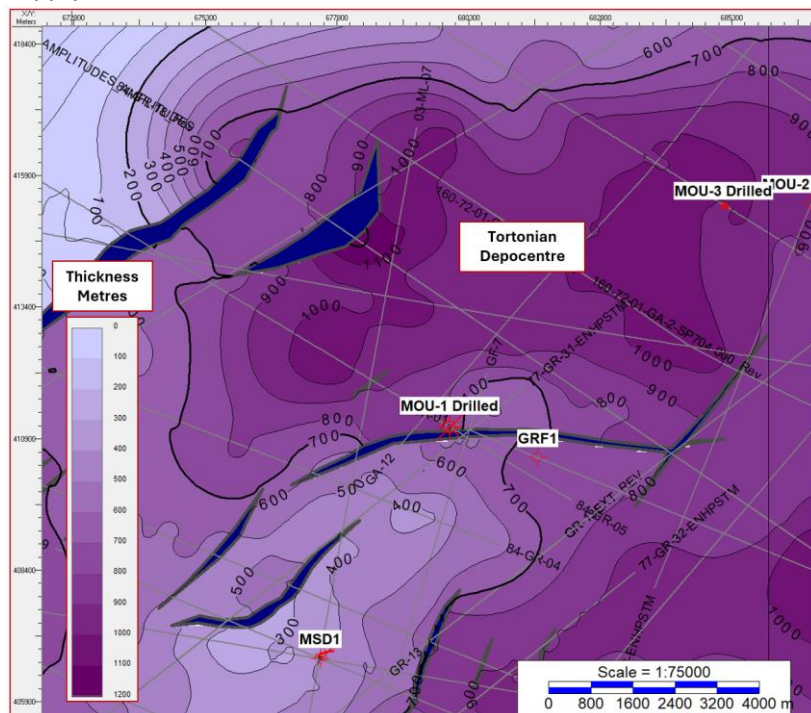


Figure 9 Isopach map for the main Tortonian shale bearing interval

### 3.2 Reservoir Presence and Producibility

This section seeks to provide descriptions of the main reservoirs which have been identified and drilled in the Guercif Basin. Reservoir rocks are those rocks which have the capacity to host hydrocarbon accumulations primarily in connected open pore spaces within clastic (sediment hosted) reservoirs. Karstic dissolution porosity and fracture porosity are also important components of carbonate reservoirs e.g. the Jurassic porous carbonate play identified by PRD (Figure 5).

The principal reservoir targets for the Guercif project are separated into two main groups being Tertiary reservoirs (mainly Miocene) and older Mesozoic reservoirs (Mainly Jurassic with some localised Triassic) which are separated by a major regional unconformity. The Guercif basin hosts the potentially prolific younger Miocene-aged turbiditic clastic reservoirs of the Moulouya fan, Hoot, Guebbas, Gaddari and N'zala Formations (GGN). These reservoirs have been the primary targets of MOU-1 and MOU-3 exploration wells. Several prospects have been identified targeting Jurassic reservoirs which can be divided into a Early-Middle Jurassic carbonate play and a slightly younger Late Jurassic Oxfordian clastic play. Future exploration potential is also noted in the Triassic *Trias Argilo-Gréseux Inférieure* "TAGI" equivalent noted in the likes of Sound Energy's Tendrara field in the Haut Plateau to the south east of Guercif shown in Figure 2.

Producibility is an indication of the capacity of reservoirs to flow hydrocarbons into a wellbore and relates, *inter alia*, to the relative permeability of the reservoirs to various fluid phases, pressure volume and temperature conditions in the reservoir (PVT), and in the case of Guercif, gas saturations (Sg) which must to be at a sufficient level to create a connected flowing gas phase.

#### Miocene Moulouya Fan Reservoir

Following the suspension of drilling at MOU-2 above the main anticipated Moulouya Fan interval due to operational challenges associated with the drilling the overlying shale section, The MOU-3 and MOU-4 wells successfully penetrated the Moulouya Fan confirming up to c.58m gross thickness of sandstone e.g. Figure 10. The MOU-3 well was drilled overbalanced with elevated mud weights to assist borehole stability in the overlying shales. Therefore indications of rising total gas readings in the interval during drilling and elevated resistivity against background values are interpreted to be a positive indicators of a potential hydrocarbon accumulation. The Moulouya Fan interval requires perforation, clean up of any formation damage caused by inflow of overbalanced drilling mud and flow testing to confirm the presence of gas and establish the potential of the reservoir regarding future commercial production. It is anticipated this work will be undertaken as a key element of the Phase 2 Part 1 rigless testing scheduled in Q1 2024 targeting the Moulouya fan in MOU-3 and MOU-4. Reservoir presence in the Moulouya fan is considered a low risk play element being present in multiple wells. Further details of the Moulouya fan sand and other reservoir unit parameters used in volumetric estimations in this ITR can be found in Appendix D.



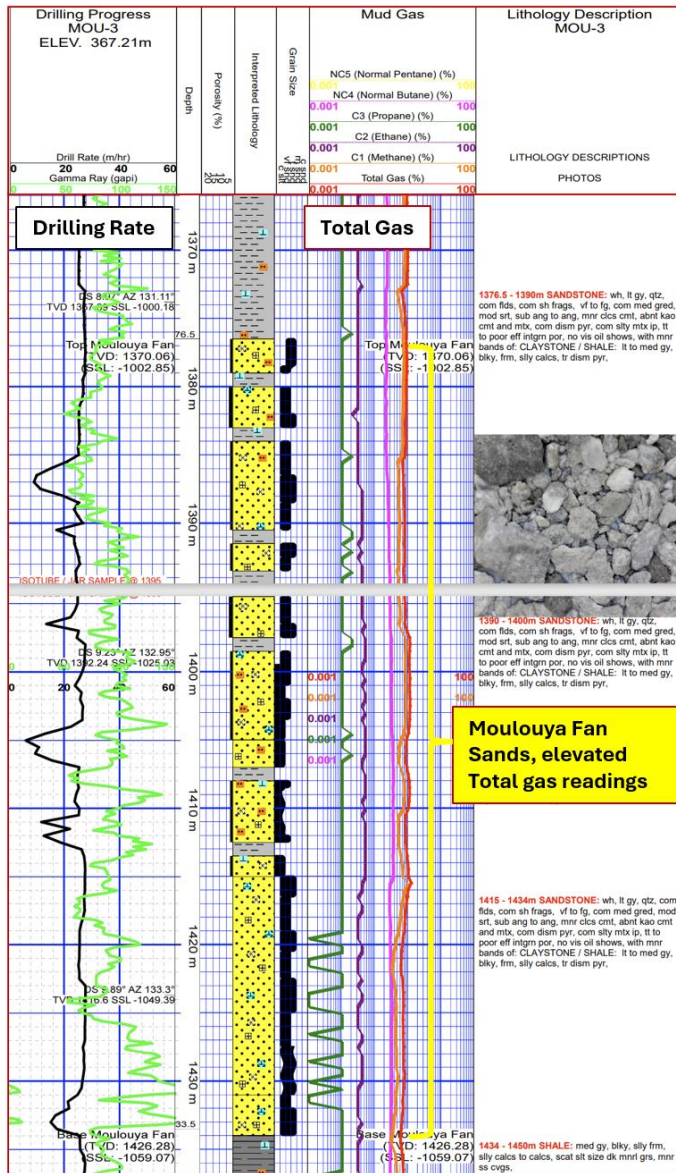


Figure 10 Preliminary Striplog section through the main Moulouya fan interval penetrated in MOU-3

### Miocene TGB-2, TGB-4 & TGB-6 Reservoirs

The Miocene Tortonian TGB reservoir succession is part of a moderate to deep marine turbidite fan complex within the mudstone dominated facies of the Hoot and Gaddari Formations. Six separate sand units are identified in the main basin area visible in Figure 1 based on the findings of recent PRD wells and those legacy wells which are drilled in the basin e.g. GRF-1. MSD-1 drilled a long-lived ridge with poorly developed turbidite sands. Numbers ascend upward from the basal TGB-1 sand encountered close to TD in MOU-1 to the uppermost TGB-6 sand which is present in several wells including MOU-3 and MOU-2 (See Figure 5). The collective stack of Tortonian aged sands and shales generate a gross >700m thick sequence of banded relatively strong and laterally continuous seismic marker events which dim towards the basin flanks in Figure 1.

The main prospective Tortonian stacked sands of interest to date are TGB-2, TGB-4 and TGB-6 each of which has observed porosity by mudloggers and indications of formation gas in one or more well penetrations. Individual sands are relatively thin in the region of 1m to 5m based on conventional wireline logging undertaken in MOU-1, however sands are anticipated to be laterally extensive. There are strong indications from mudlogging that laminated and thin bed sands are common and may not be detected as reservoir intervals based on conventional Gamma ray and Resistivity logging tool resolution which can produce unreliable aliased patterns in rapidly alternating sand-shale sequences. PRD have therefore used third parties such as *NuTech Energy* to provide specialised assessments of the TGB sand intervals taking into account the potential for laminated and thin bed gas bearing intervals. The use of analogues is also considered beneficial with two potential locations identified by Scorpion Geoscience in southeastern Spain and the Carpathian foreland basin of Romania which are illustrated in Figure 11. Both of the analogue settings contain age-equivalent turbiditic sands displaying almost identical layering characteristics to the reservoirs identified in Guercif. Cleaner sands combine with thicker units of thin-bedded sands which can become laminated in part and considered unlikely to be picked up in conventional logging suites which have a practical vertical resolution limit of c.0.5m. Potential reservoirs identified by NuTech in MOU-4 are currently being investigated to determine if they are directly linked to the main sand units mapped in the basin centre extending the potential breadth of the turbidite play.

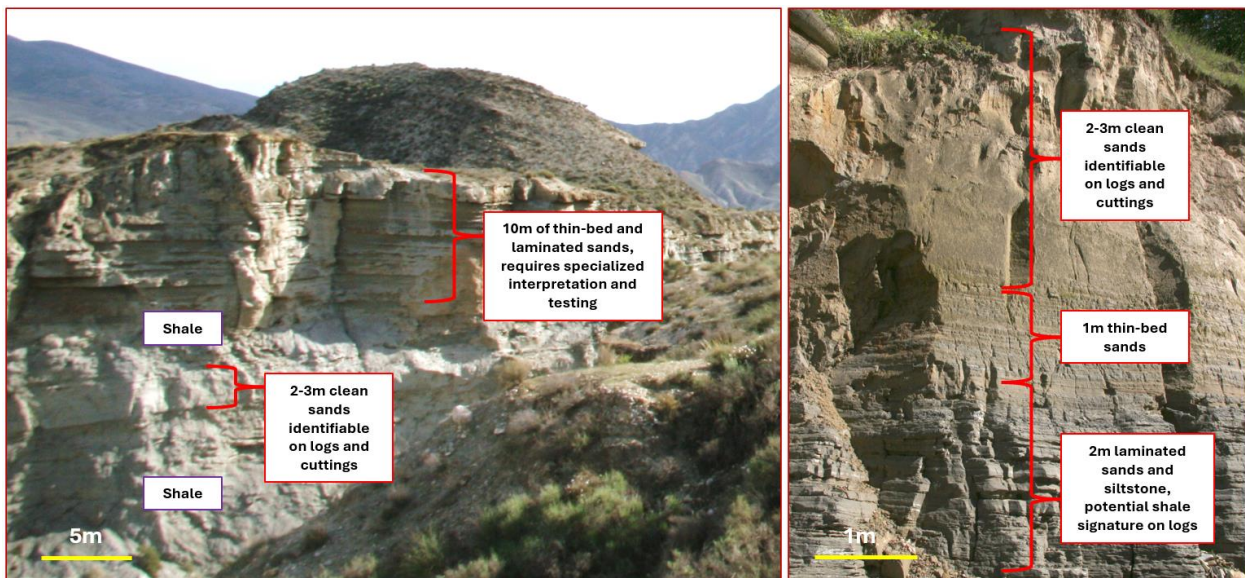


Figure 11 Potential analogues for reservoir development in Guercif have been identified in the Tabernas Basin of SE Spain (LHS) and the Romanian Foreland Basin (RHS).

It is anticipated that PRD will undertake testing of the TGB-2 sand interval in MOU-1 as part of Phase 1 conventional rigless perforation operations. TGB-4 sands in MOU-3 and TGB-6 intervals in MOU-1, MOU-3 and MOU-4 will be subjected to multilevel rigless Sandjet perforation testing as part of Phase 2 Part 2 testing currently scheduled in late Q1 2024. In light of pending testing which is anticipated to better define the reservoir characteristics of the TGB sands, no new Resource Estimates have been generated for the TGB-2, TGB-4 and TGB-6 levels in this report and readers are referred to the TRACS 2023 CPR which details aspects of the prospectivity associated with these levels.



### Miocene Ma Sands Reservoir

The Uppermost section of the Tortonian hosts the Ma sand which is similar to the TGB sands beneath, but appears to represent a shift in relative sea level, possibly a short term *low stand* related to tectonic movements in the Atlas mountain system and collision of the African and Eurasian tectonic plates. The result is a sudden and short lived increase in sand input to the basin and the development of a more mounded character in the available reprocessed 03-ML-06 seismic section in Figure 1. The main penetrations of the Ma sands are MOU-1 and MOU-3 (shown in Figure 12) which will be tested using conventional perforation guns as part of Phase 1 rigless testing scheduled to commence in Q1 2024.

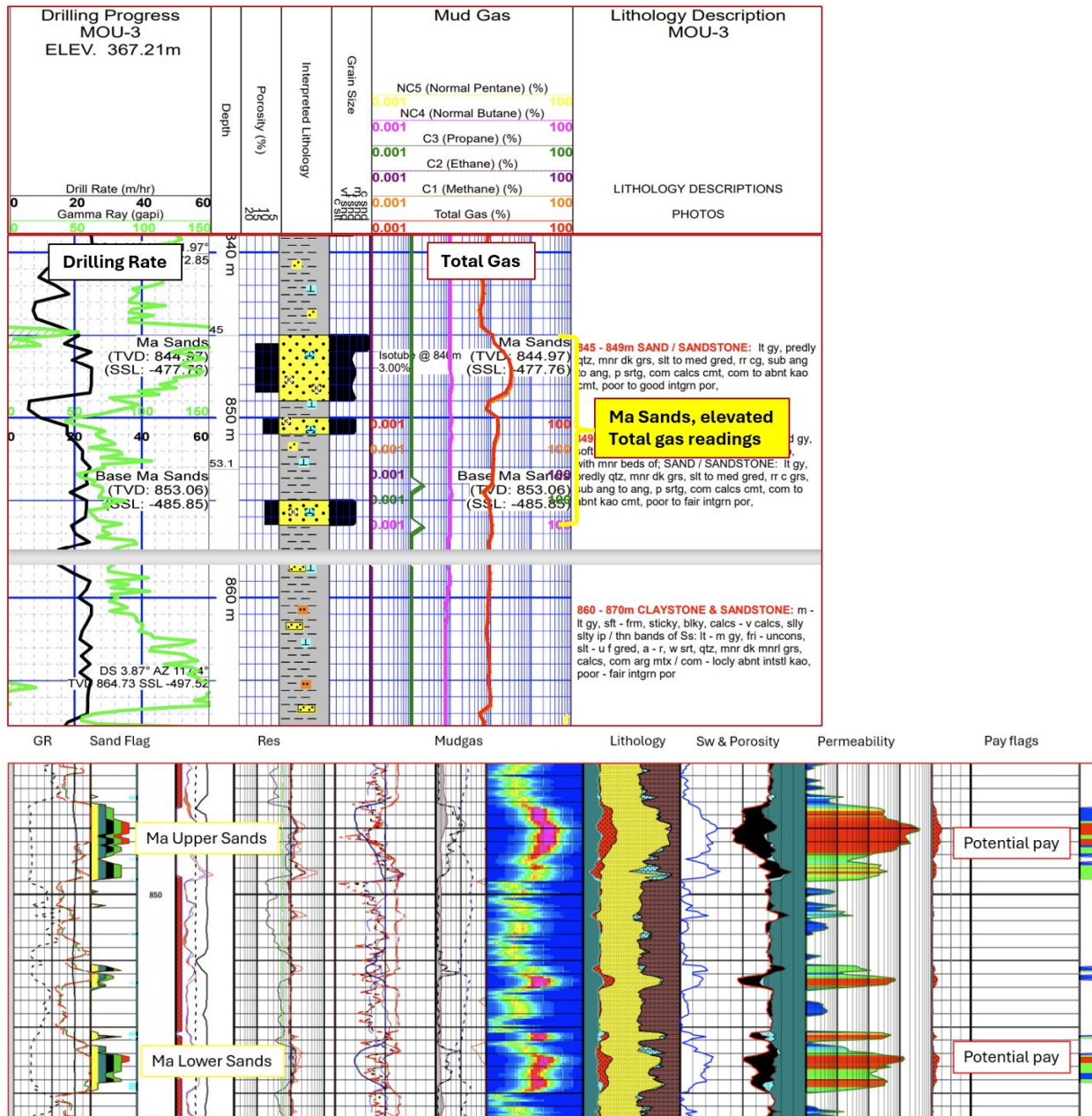


Figure 12 Top: Striplog interpretation of the Ma sand section intersected by MOU-3 showing development of sands and elevated total gas readings. Bottom NuTech logging over the same interval in MOU-1 showing the relationship between standard logging and advance NuTech thin bed pay analysis which flags several sands as being potentially gas bearing.

### Miocene A-Sand Reservoir

Above the stacked TGB-sand bearing sequence and Ma sands there are additional sands of Messinian or younger age identified in the MOU-3 well and shown in Figure 13 which are now collectively referred to as the “A Sands”. The A sand illustrated in Figure 13 displays potential reservoir characteristics with observable porosity visually estimated on the well site at 15%, but likely to be higher in the absence of drilling mud and formation damage. The seismic display in Figure 1 indicates a low amplitude basin centre anticlinal fold most clearly developed in the Tortonian section, but clearly active until at least the Plio-Quaternary Unconformity is most likely contributing to forming a low amplitude structural trap responsible for hosting a potential gas accumulation. Elevated total gas readings and 122psi overpressure during the drilling of MOU-3 were noted at depths of c. 339-350m MD RKB. The presence of overpressure will serve to increase the Gas Expansion Factor (Bg) compared to a normal hydrostatic pressure gradient of 1.422psi/m and is factored into volumetric calculations and estimations for the A Sand. PRD plan to test the A Sand interval after the main Phase 1 and Phase 2 testing is completed. The shallow position of the overpressured zone means it cannot easily be comingled with deeper production levels and therefore lends itself to a dedicated low-cost appraisal and production well and is envisaged by PRD as contributing to longer term CNG production as and when the resources are required.

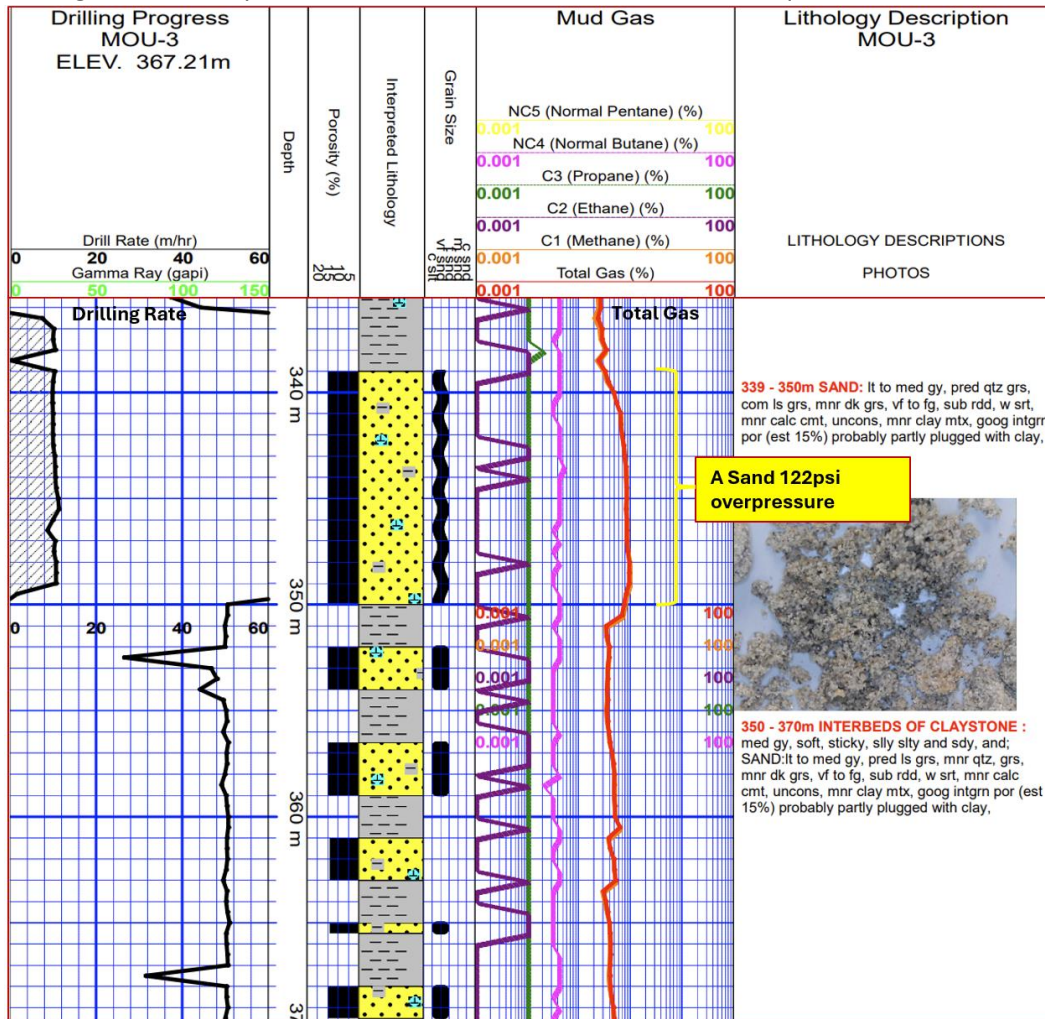


Figure 13 Section from MOU-3 preliminary striplog showing the A-Sand interval at 339-350m MD RKB

For the purpose of this ITR, Reservoir Presence in the Miocene and Plio-Pleistocene is classified as a proven hydrocarbon play element with all wells encountering good quality sands at multiple stacked levels.

#### Potential for AVO and Quantitative Imaging of Reservoirs and Hydrocarbons

Scorpion Geoscience understands additional specialist seismic reprocessing is being considered by PRD to investigate potential fluid and lithology related amplitude variation with offset “AVO” signatures as part of the ongoing active work programme contingent on improved downhole data being obtained during scheduled well testing. Shear logs obtained during the drilling of MOU-1 area key component of AVO analysis, however modelling undertaken to date by Merlin Energy Resources Ltd using the MOU-1 logs suggests existing legacy 2D seismic is not of sufficient quality or resolution to determine the true potential of AVO and related quantitative imaging (QI) methods. Identification of direct lithology or fluid signatures is a key consideration in ascertaining the potential future value of acquiring modern 3D seismic in the Guercif basin from which it might be possible to map individual reservoir units +/- hydrocarbon indicators with greater confidence than is currently possible in vintage 2D lines. Scorpion understands from communications with PRD that decisions regarding potential future investments in 3D seismic will be undertaken following completion of the current Phase 1 and Phase 2 testing.

#### Reservoir Quality and Effectiveness

Reservoir quality and effectiveness is influenced by porosity and permeability which are related to sedimentary depositional facies and burial characteristics e.g. cementation and compaction. The dominant environment of deposition of the Miocene Sands is marine turbidite with fine to coarse bedded sands. For the purposes of the evaluation presented in this ITR, a simple paleogeographic reconstruction is employed and it is assumed fairway trends will extend across the Guercif block with the main provenance of the sands being the large basin fringing fluvial systems draining the surrounding continental land mass (c.f. TRACS 2023 CPR). Individual sands are anticipated to narrow and thin towards the sediment source on the eastern flank of the basin with higher Net:Gross in the high energy centre of each fan. Seismic imaging indicates sands can be expected to be widespread based on laterally continuous seismic markers and where present, potential reservoir sands are interpreted from available third party *NuTech Energy* petrophysical and mud log data to have fair to good preserved porosity. Permeability based on NuTech assessment is expected to be in the region of 0.1mD to 100mD indicating reservoirs are most likely to be conventional in character (as opposed to tight). If reservoir properties estimations are proven to be accurate during testing, it is hoped individual intervals e.g. TGB-2 could be capable of delivering potentially commercial gas production rates e.g. 1-3MMScf/D based on available Rharb analogues.

Low-case net sand porosity cutoffs (as a fraction) for the Miocene are in the range of 0.12-0.22 representing the lower practicable limit at which gas is expected to flow freely with the highest values in the clean well sorted Ma sands (see Appendix D). Mid-case porosities ranging of 0.18-0.27 are deemed fair and reasonable on the basis virgin reservoirs will tend to exhibit higher porosity compared with mudlog samples when not negatively impacted by the drilling process and inflow of drilling muds. Upside High-case porosity values of 0.24 to 0.32 are used yielding various a log normal and triangular distributions dependent on the amount of data available. The thin stacked character of the Tortonian sands presents a related opportunity exists to perforate any sand interval showing a weak resistivity signature with modern Sandjet perforation technology to determine if additional pay has been missed using conventional electric logging which struggles to resolve sands <0.5m thick.

For the development of volumetric estimations, a “net pay thickness” methodology is employed to generate *Net Sand Volumes* or NSVs.

Minimum (Low-case) cut-offs are varied for Sg values in this ITR due to the variety of reservoirs considered with a low side range of 0.35 to 0.50. High case Sg values are similarly varied to accommodate variable reservoir characteristics ranging from 0.65 in shallow thin bedded units of the A sands up to a maximum of 0.75 in better quality clean sands of the Moulouya fan.

A range of formation volume factors (FVF) associated with conversion of reservoir gas to standard cubic feet at surface conditions (SCF) are applied dependent on formation pressure which is controlled by burial depth and the presence or absence of overpressure which is noted at certain levels in the Rharb basin (e.g. LAM-1). Controlled gas influx in MOU-3 at the A-sand level indicated overpressure in the shallow Messinian to Plio-Pleistocene section. Increased mud weights used through the remaining Tortonian section to maintain wellbore stability prevented accurate formation pressure measurements being taken during the main drilling and logging phase, but will be established during the planned re-entry and testing operations scheduled for Q1 2024.

Initial estimations of recovery rates from the stacked Miocene clastic reservoirs are based on established production and depletion trends for analogue fields in the Rharb, Po and Romanian Foreland basin settings and combine normal to moderately overpressured scenarios. As a general reference point, gas reservoirs yield significantly better recovery than comparable oil reservoirs due to the improved mobility of very low viscosity gaseous fluids through pore throats and preferential flow of the gaseous phase over any water phase that might be present. A Low-case recovery rate of 0.5 as a fraction is used to represent thin bed scenario with relatively poor lateral connectivity, some free water and natural flow. A Mid-case of 0.6-0.65 is considered fair and reasonable for a typical layered sand and shale sequence with some bound water but limited free water. Upper High-case values of 0.75-0.8 are used to represent a continuous clean sand scenario with good permeability characteristics and relatively low bound water and little or no free water.

#### Jurassic Porous Carbonate Play

The Jurassic Carbonate play which forms a key component of the upside exploration potential at Guercif carries a higher degree of uncertainty regarding reservoir presence and effectiveness compared to the younger Miocene targets, but has been partially derisked by MOU-4 which confirmed the presence of Lower Jurassic dolomite-bearing succession. Penetrations of the time equivalent rocks in TAF-1X drilled approximately 10km east of the main carbonate bank and dolomitised oolitic shoal fairway in a more mud-dominated setting inferred from available 2D seismic lines and well reports confirms the presence of lagoonal facies and is consistent with the overall paleoenvironmental invoked by PRD. A key aspect of the carbonate play is the potential for leaching and karstification on the crest of the broad structure which has not been drilled to date. For volumetric analysis purposes, a Low-case 0.08 porosity cutoff is used for gas pay which is indicative of tight but tangible reservoir quality identified in TAF-1X. A Mid-case input of 0.12% reflects improved porosity anticipated in the oolitic shoal setting based on third party *NuTech Energy* interpretations and a truncated upside High-case of 0.15% is used in anticipation of some secondary porosity associated with near-surface leaching and partial karstification of the carbonates prior to burial, a phenomenon that is reasonably common in reefal and shallow marine carbonate settings.

Locally porosity could exceed 0.25 in vuggy units but this is considered too high an average for volumetric purposes given the overall size of the Jurassic prospect. Petrophysical assessment of the TAF-1X interval undertaken by PRD indicates a range of potential pay intervals ranging 18-20m in thickness which can be used to provide an indication of pay in the main prospect and is used as a Mid-case input. A more optimistic 50m pay interval is used to generate an upside High-case taking into account the prospect has more favourable expression in seismic data and is anticipated to contain a thicker porous carbonate section. Gas saturations are modified to give a spread of 0.40 to 0.70 taking into account the likely presence of disconnected pores in the carbonates which remain water bearing. The Jurassic play is expected to be normally pressured in equilibrium with surrounding aquifers which is taken into account with a range of gas expansion factors listed in Appendix D to accommodate uncertainty in the precise depth of the target due to rapid lateral changes in velocity in the Mesozoic section which are poorly constrained by well and seismic velocity data.

Recovery factors for the normally pressured Jurassic carbonate play are expected to be a lower than the Miocene play and in the region of 0.25 to 0.65 as a result of lower reservoir energy (normally pressured) and lower porosity and resulting permeability which could potentially result in incomplete reservoir drainage.

#### Jurassic Oxfordian Sands Clastic Play

Additional play potential is noted in Late Jurassic Oxfordian sands where up to 60 metres of potential reservoirs are noted in four zones in the legacy MSD-1 well drilled 5km SW of MOU-1 (Figure 14). The Oxfordian play which has 15-24% recorded porosity at a depth of up to 1600m RKB in MSD-1 has potential to form structural traps in numerous highs and rotated fault blocks visible in the 2D seismic database. The Oxfordian is also noted to offer the potential for stratigraphic trapping where the sands are interpreted by PRD to pinch-out beneath the Base Tertiary unconformity shown in Figure 1. Top sealing for the Oxfordian sands is provided by the overlying Kimmeridgian shales penetrated in MSD-1 where they are present in combination with the Base Tertiary unconformity itself. The Oxfordian is regarded as a conceptual play with several interesting leads being worked up by PRD therefore no resource estimations have been attempted at this time



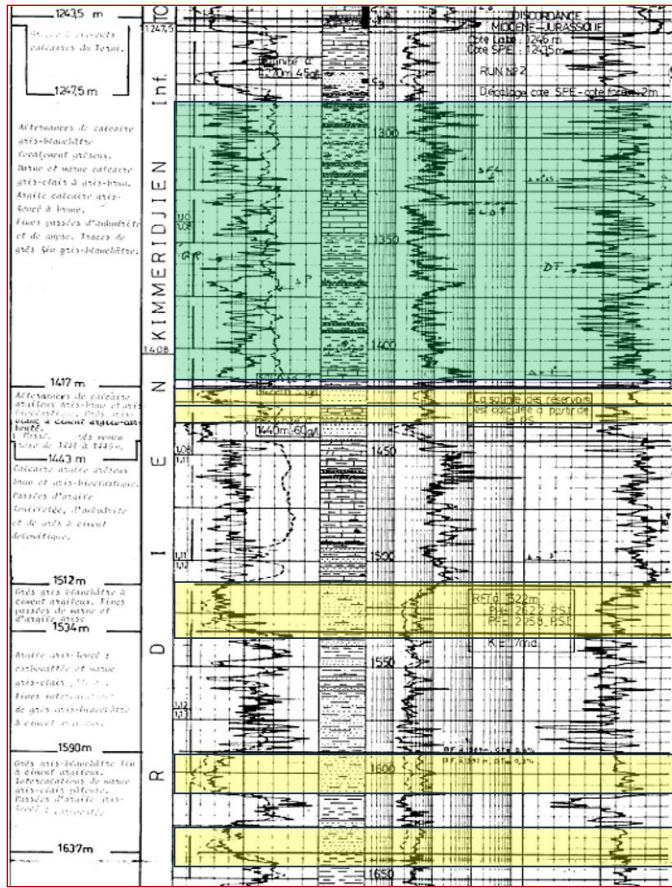


Figure 14 Section of the original MSD-1 Composite log (French language) between 1243m and 1650m MD RKB showing the occurrence of good quality sands in the Oxfordian highlighted in yellow beneath younger Kimmeridgian shales highlighted in green.

### 3.3 Traps and Sealing

The key aim of this section is to describe the trapping styles and sealing characteristics which enable the development of hydrocarbon accumulations in the Guercif basin and present evidence to support the prospectivity which has been identified to date by PRD. Traps form when permeable reservoir rocks are surrounded by less permeable rocks which allow migrating hydrocarbons to accumulate and form a hydrocarbon column. The extent to which a column can form depends on the amount of hydrocarbons available to fill the trap and the extent to which the trap can prevent buoyant hydrocarbons escaping. Gas accumulations generally require better sealing than oil reservoirs due to the relative high buoyancy of gas compared to oil and water which creates pressure against the trapping rocks. The best seals are formed from impermeable shales or salt with shale being the primary sealing rock identified in Guercif. Sealing can be separated into several components namely top, side and bottom seals. In structural traps, faults offset sealing rocks against more porous reservoirs providing side seals. Top and bottom seals are usually in the form of younger and older sediments respectively which may be conformable or unconformably in contact with the reservoirs. Stratigraphic trapping relies on lateral changes in geology within a single layer e.g. “shale-outs” whereby reservoir grades into shale and thus provides a component of sealing or pinch-outs where a reservoir sand thins against a basin edge to form a wedge of reservoir surrounded by

impermeable shale. To date, PRD have identified examples of structural and stratigraphic trapping in the Guercif basin which are described in the following sections divided into Miocene and Jurassic plays.

#### Miocene Play Sealing and Traps

Rocks of the Miocene sequence have been subjected to post depositional burial and compaction followed by a later phase of compression and wrenching associated with ongoing African and Eurasian continental collision. The cross section presented earlier in Figure 1 illustrates the resulting low-amplitude basin centre anticlinal feature which is interpreted by PRD to be a focus of gas migration. Basin margin extensional faults linked to earlier Mesozoic and Miocene rifting also exhibit evidence of late reactivation and inversion in the form of localised anticlines and monoclines which propagate around the fault tips with some faults exhibiting net reverse offsets at shallow levels indicating inversion and reversal of the original extensional movements. Folding and fault movement has helped to set up present day trapping configurations and may have assisted migration into the Miocene traps from deeply buried Jurassic source rocks. The basin centre saw greatest thickness of turbiditic sand deposition and is interpreted to be in a preferential configuration to trap thermogenic gas migrating from deeper Jurassic source rocks migrating since the late Miocene and any biogenic gas being generated to the present day in the relatively shallower and cooler Tortonian shales.

New mapping undertaken as part of this ITR which follows the successful drilling of MOU-3 and MOU-4 has resulted in production of revised reservoir maps for key prospective intervals, examples of which are illustrated in the following sections. The uppermost map produced is for the newly identified 11m thick "A Sand" interval which was intersected in MOU-3 at c.339m MD. Preliminary interpretations of the rose coloured A sand seismic marker shown in Figure 1 and the resulting depth map shown in Figure 15 indicate the presence of a 4-way dip closure, the crest of which is located at the MOU-3 well penetration and is positioned beneath the regionally important Plio-Quaternary unconformity. This new interpretation is consistent with the existing PRD understanding of deeper mapped targets at the M1 and Ma sand levels where seismic imaging is better resolved. For the purpose of volumetric assessment, a small higher confidence area roughly 500m radius and conforming to the inner region of the mapped 4-way closure at the 20m TVDSS contour is used for the Low-case GRV input. A larger 6.28km outline representing the maximum mapped closing contour of the 4-way at -7m TVDSS is used as the Mid-case. A High-case incorporates aspects of stratigraphic and structural trapping to the west at roughly the -20m TVDSS contour and is measured at 12.6km<sup>2</sup> acknowledging significant uncertainty in an area with poor or zero seismic data control to the north (approximately double the Mid-case input).

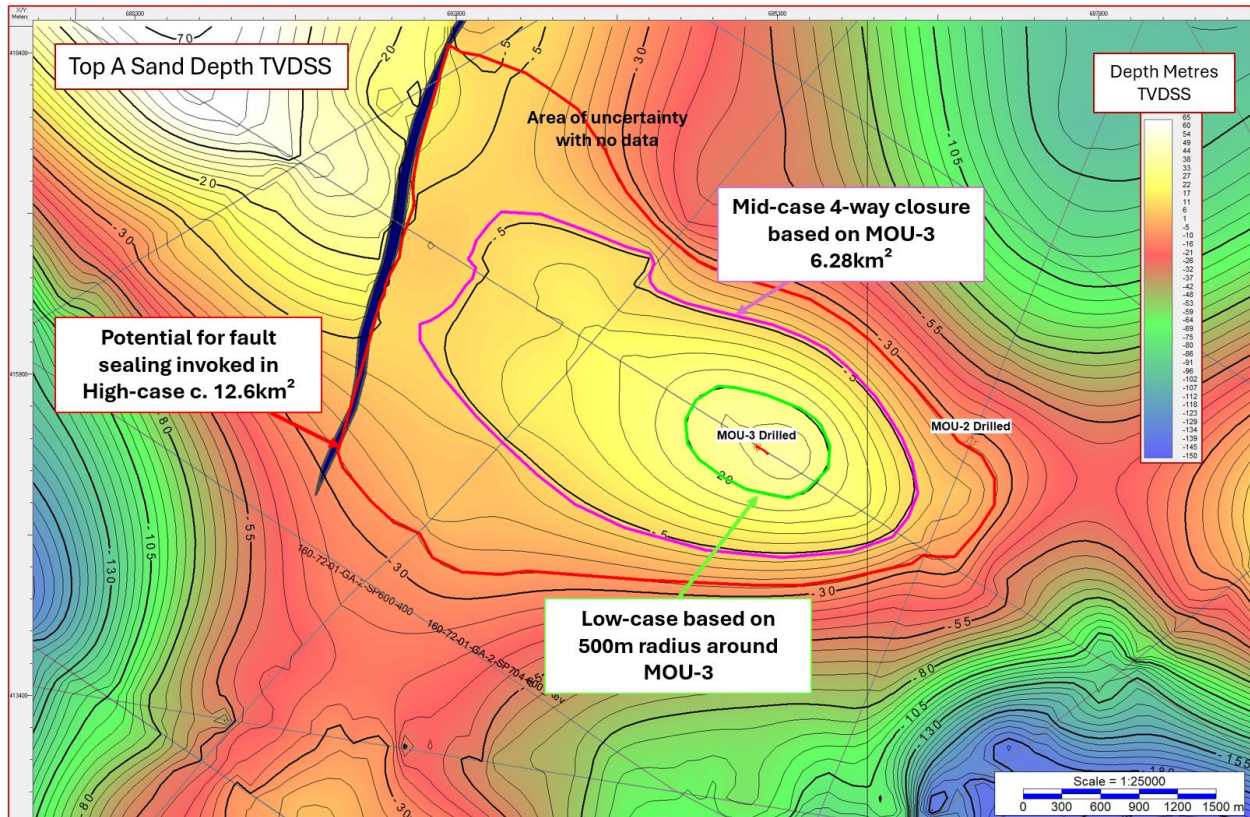


Figure 15 Top A-Sand depth map (TVDSS) showing a Low-case 500m radius ellipse used for Low-case volumetric input and a 4-way closure used in the Mid-case volumetric estimations. The red outline indicates an inferred High-case closure taking into account structural trapping against the mapped fault which appears on two 2D seismic lines.

The Ma sand level is noted as being potentially gas bearing in NuTech log analysis of MOU-1 and MOU-3 and is scheduled to be perforated during Phase 1 rigless testing. The structural map provided in Figure 16 illustrates the potential for a high confidence 4-way closure at MOU-3 used as the Low-case GRV input. The structure at Ma level is relatively low-relief and subject to uncertainty when depth converting time maps, therefore the Mid-case and High-case outlines take into account the potential connection between the MOU-1 and MOU-3 well which is not well constrained by vintage 2D seismic data. Reduction in the amplitude of the main Ma sand seismic marker to the west and south east is seen as potential evidence of shale out providing a stratigraphic component to the more obvious structural trapping configuration.



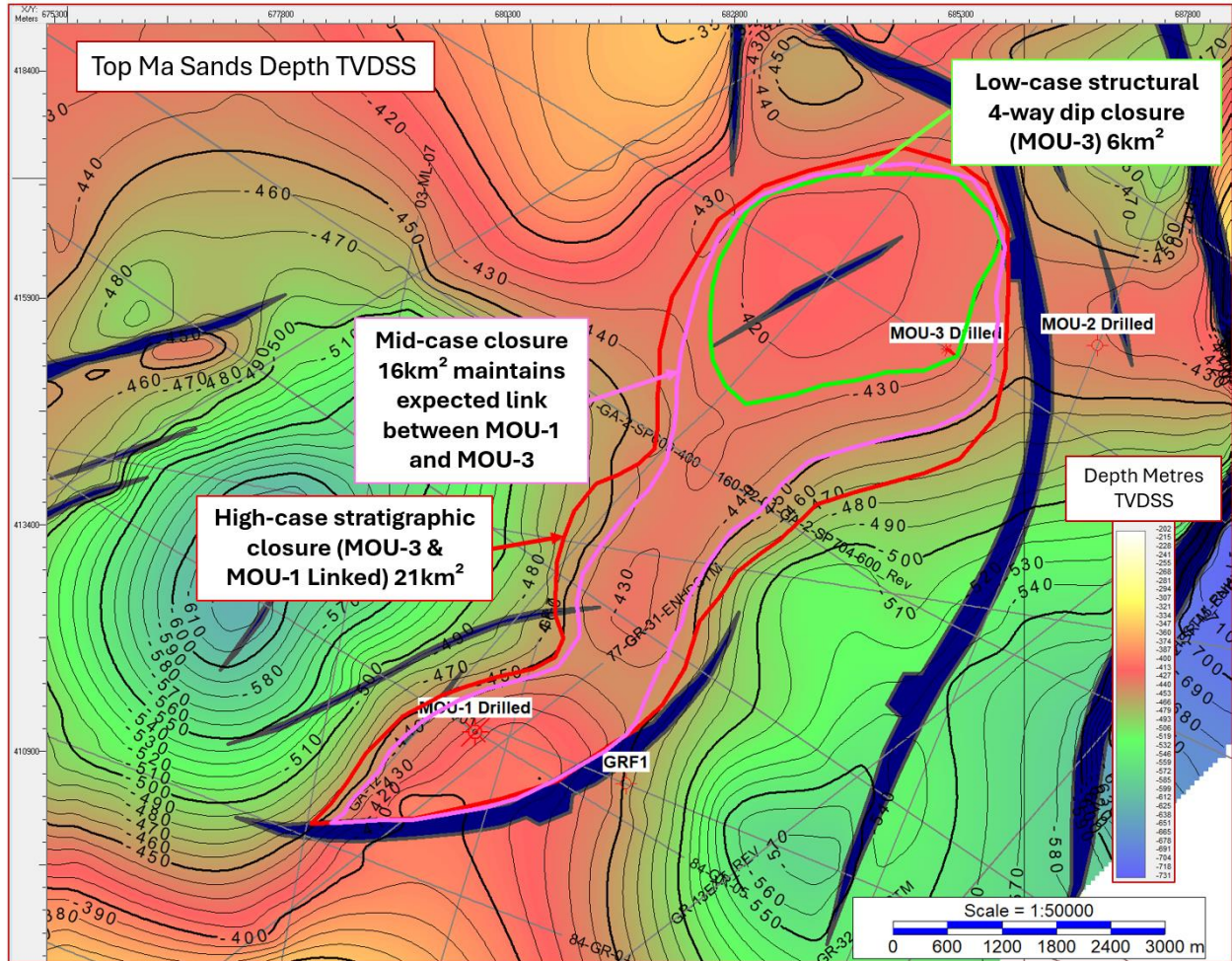


Figure 16 Top Ma sand map tied to the MOU-3 well showing outlines of the Low-case 4-way structural closure and upside stratigraphic closure used to generate High-case 3C Resource Estimates

Whilst no new volumes have been generated for the TGB-2 sands, a new map has been developed in line with PRD's revised understanding of the position of the southeasterly bounding fault shown in Figure 17. The TGB-2 level is interpreted as a gas accumulation which is potentially supported by the bright direct hydrocarbon indicator visible in Figure 17 and will be subject to conventional perforation during Phase 1 testing currently anticipated in February 2024. Volumetric estimates for the TGB-2 level are carried forward from the TRACS 2023 CPR until testing is completed.



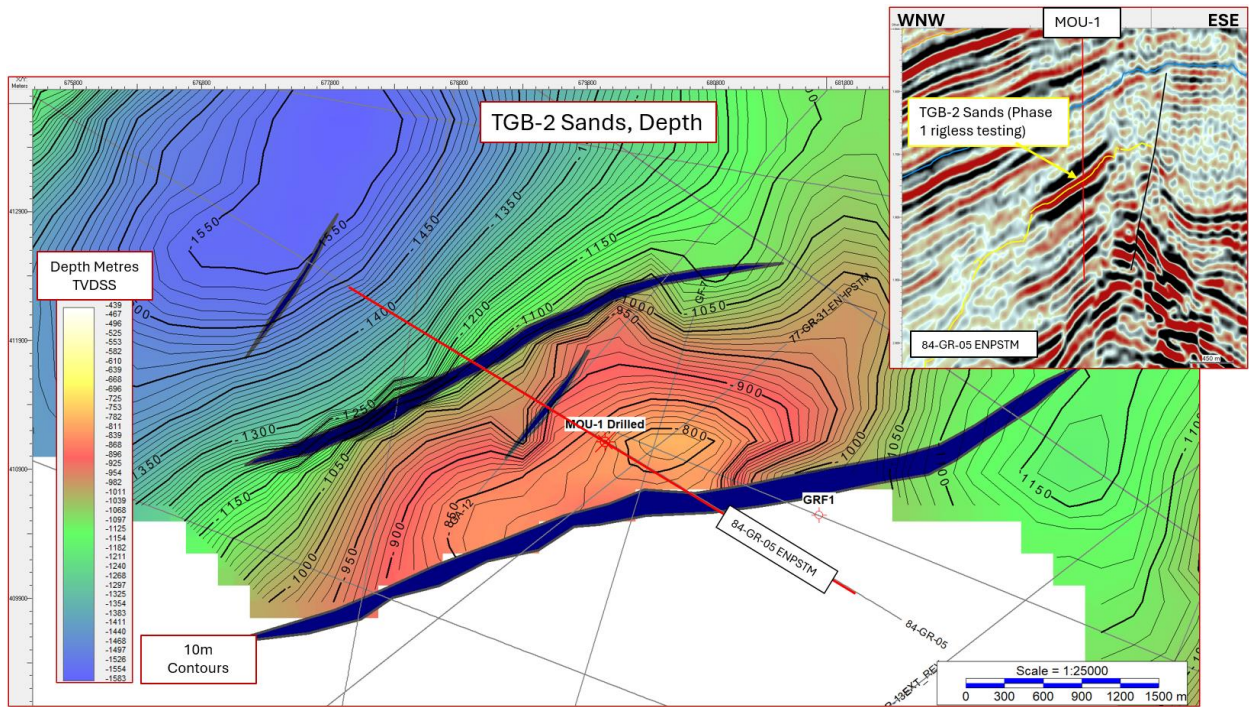


Figure 17 Top TGB-2 Reservoir Depth TVDSS map tied to MOU-1 well along reprocessed 2D Seismic line 84-GR-05 shown in the inset image

Since the publication of the 2023 TRACS CPR, wells MOU-3 and MOU-4 have been analysed and confirm the presence of a significant geological feature referred to as the Moulouya Fan which is illustrated in Figure 18 .

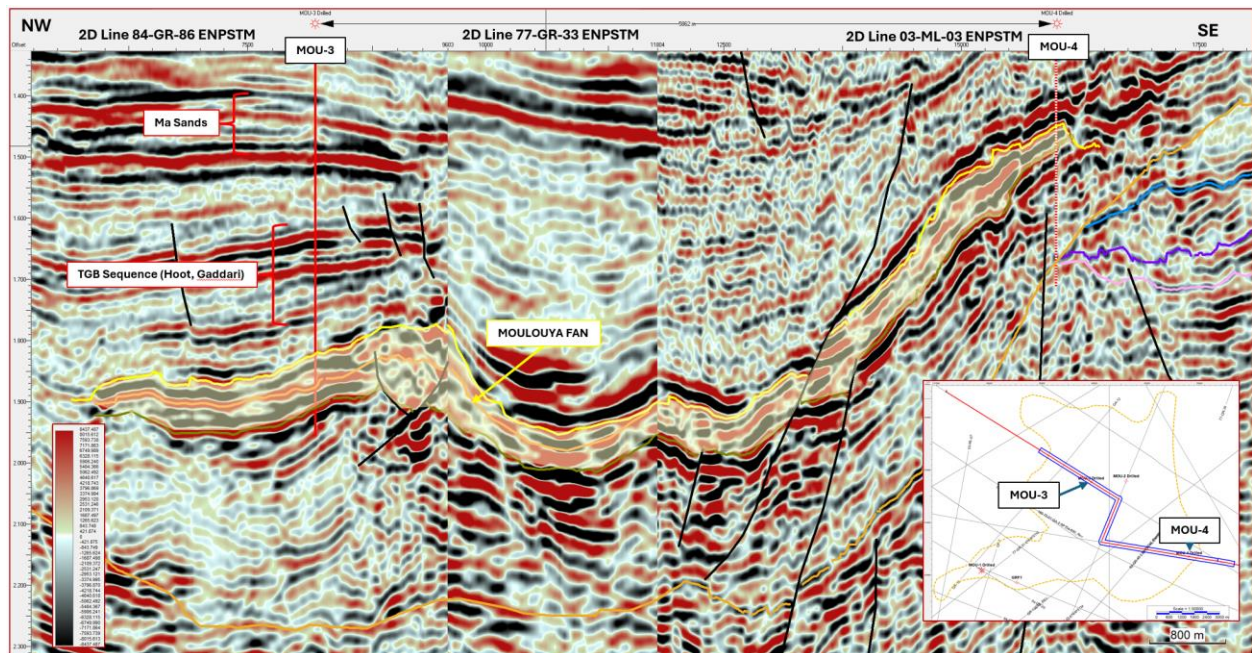


Figure 18 Arbitrary seismic line showing the main Moulouya fan deposit tied to MOU-3 and MOU-4 well penetrations.

Mapping undertaken by Scorpion Geoscience confirms the likely extent of the Moulouya Fan deposit and supports the magnitude of current resource estimations published by PRD for the main fan. Revised



volumetrics are supplied for comparison in Section 4 taking into the account the various sectors of the fan which have been penetrated or remain undrilled. Accordingly, the currently suspended MOU-2 which well failed to reach the main Moulouya Fan is being considered for re-entry and deepening subject to the findings of scheduled Phase-2 rigless Sandjet testing in MOU-3 and MOU-4 designed to provide additional information regarding reservoir character and capability as a producible interval.

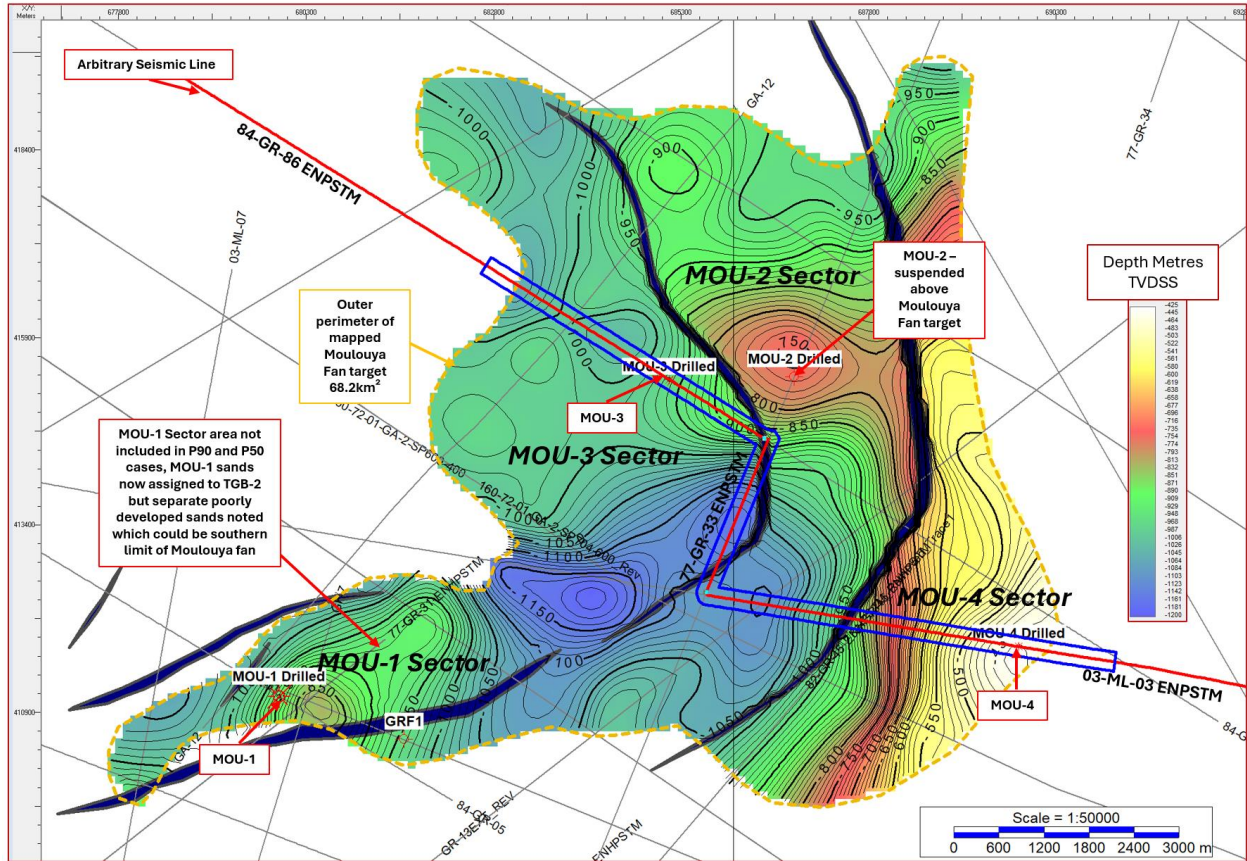


Figure 19 Top Moulouya Fan depth TVDSS map tied to MOU-1, MOU-3 and MOU-4 penetrations

The Moulouya Fan gross thickness isopach map shown in Figure 20 demonstrates the distribution of material which is interpreted to have entered the basin from the eastern flank. The MOU-3 penetration was drilled overbalanced to control shale cavings from the overlying mass flow deposit is interpreted to exhibit a high-resistivity interval which is believed by PRD to be an indication of gas bearing sands based on NuTech log analysis. The relatively thin higher resistivity sand interval from MOU-3 is used to develop a net-sand thickness slab model which has been used as the basis for updating volumetric estimations for the Moulouya Fan, the results of which are outlined in Section 4.

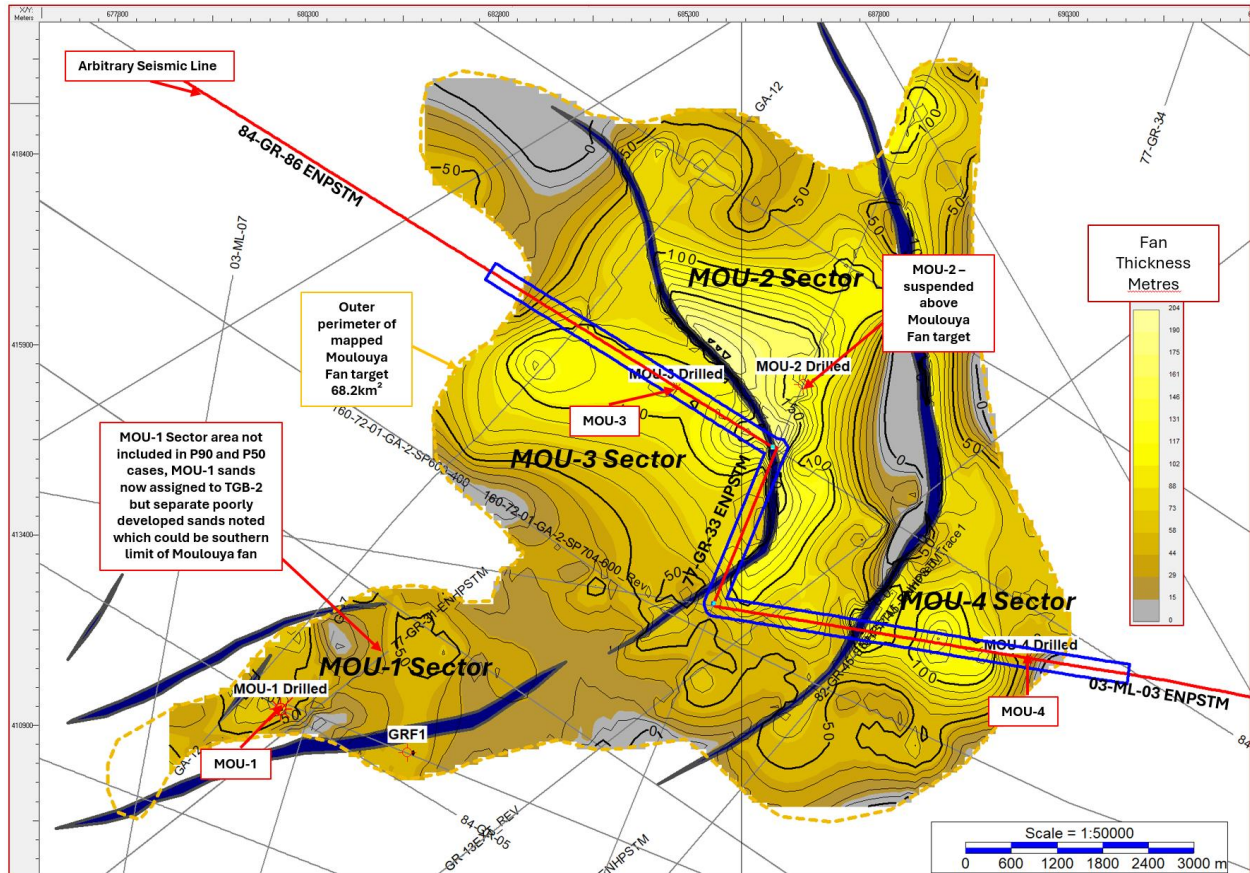


Figure 20 LHS Moulouya Fan isopach map used to derive Gross and Net sand thickness with key resource sectors identified.

It is Scorpion Geoscience’s opinion that the stacked sequence of interbedded turbidite sands in an otherwise shale dominated argillaceous succession provides ample opportunity for the development of intraformational top seals facilitating multiple stacked accumulations to form, as evidenced by the recent findings of multiple potential (untested) pay intervals in MOU-3 and MOU-4. It is also noted that whilst 4-way dip closed anticlinal traps associated with the central inverted part of the basin offer the lowest risk targets there is also considerable opportunity for the development of faulted traps where sands re offset against shales and stratigraphic traps where individual sand-prone internals pinch-out around the basin flanks and shale-out away from the main sediment entry points. Trap presence and sealing are therefore assigned low risk factors of between 0.72 and 0.95 in the Miocene despite relatively sparse 2D coverage.

### Jurassic Carbonate Play

Scorpion Geoscience has interpreted events for Top dolomitized limestones, a basal clastic and anhydritic pick and several draping events which are used to define the main top and side seals which define the boundaries of the Jurassic Carbonate play (Figure 21). The resulting interpretation produces a structural grid at Top dolomitized limestone with contours showing potential for a large trap on the eastern flank of the younger Guercif basin (Figure 22). The play could exist across a wide area where preserved on the flanks of the later Miocene Basin. Optimal targets are those structural highs along the trend which show greatest scope for preservation of primary porosity and development of secondary porosity though dissolution and leaching in subaerial conditions prior to later burial by draping seal facies (shales and marls etc.).



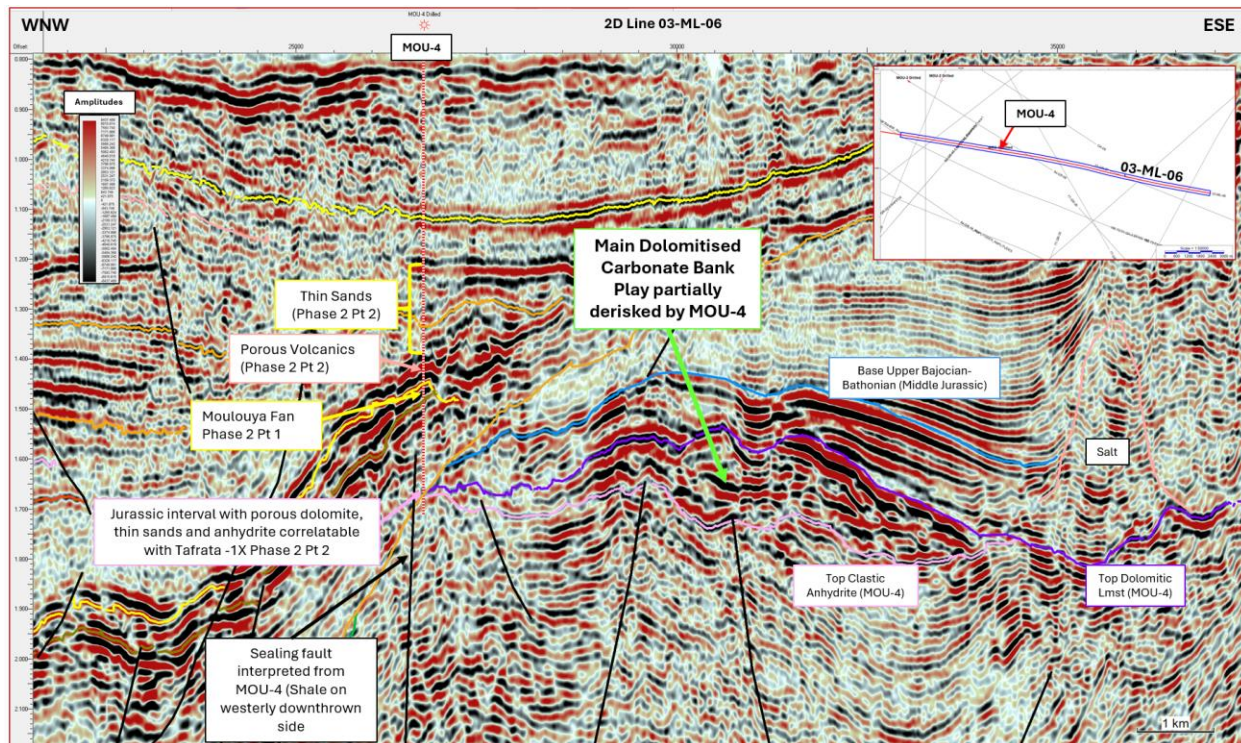


Figure 21 ENPSTM reprocessed 03-ML-06 2D seismic line (Reverse Polarity) highlighted in the preceding map figure showing a cross section through the Lower Jurassic carbonate prospect and surrounding units

The Jurassic dolomitized porous limestone play is well imaged on six 2D vintage seismic lines which extend to the NE of the main Miocene Guercif Basin. Potential carbonate facies indicators are noted on good quality data e.g. 03-ML-06 which shows what is interpreted to be a reefal or oolitic buildup buried beneath layered deep marine shale facies which can be tied into the nearby TAF-1X well. The High-case prospective area of the seismically mapped play is up to 177km<sup>2</sup>. A Mid-case estimate is taken as 94.5km<sup>2</sup> and Low-case of 55.1km<sup>2</sup> encompasses the area where the main carbonate bank fairway indicated by characteristic mounding in 2D seismic lines is situated within the mapped structural closure. Draping of parallel bedded material which ties to shales in MOU-4 is interpreted by Scorpion Geoscience to be positive for sealing.



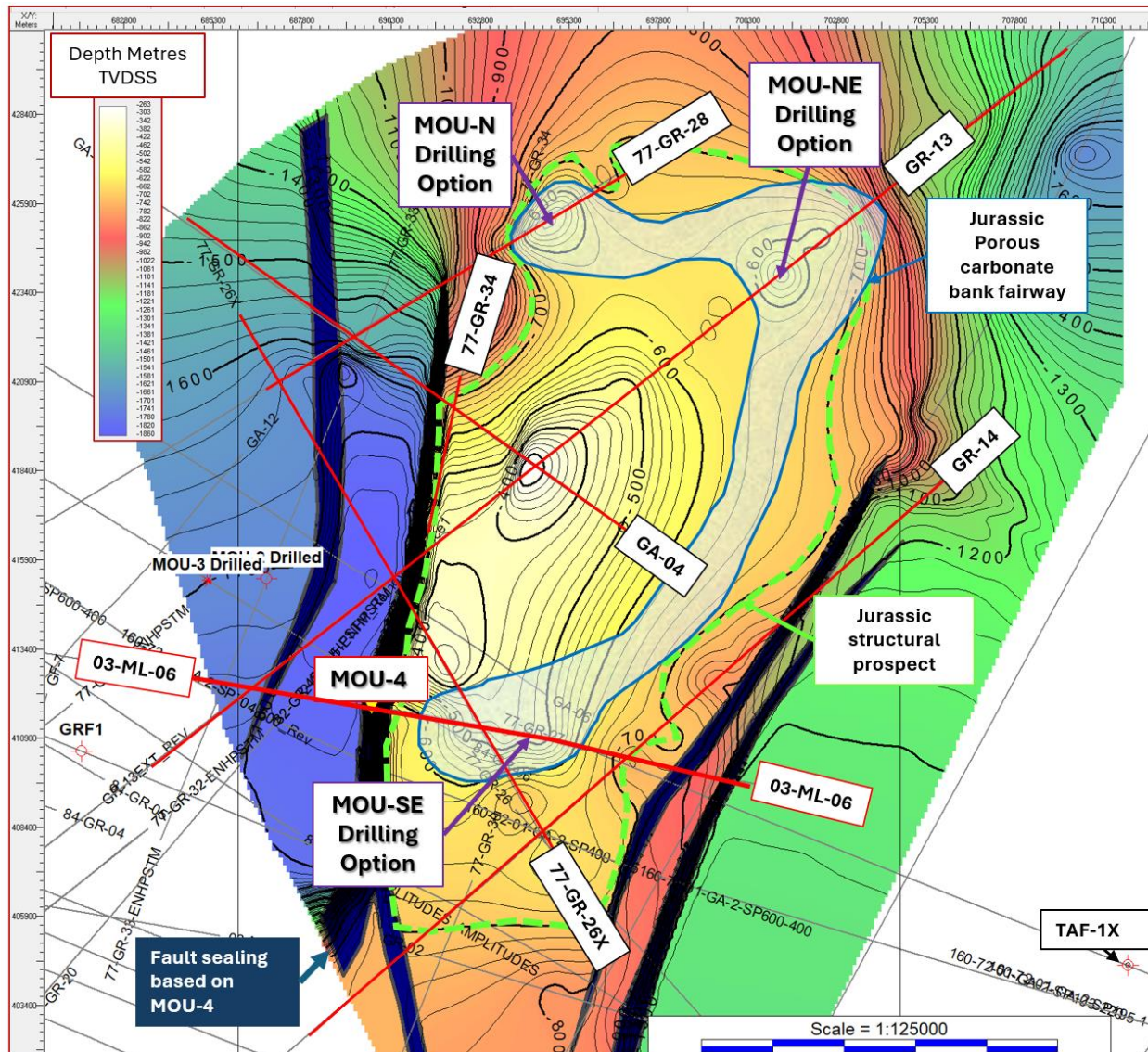


Figure 22 Depth map (TVDSS) for the top Jurassic porous carbonate bank play showing key seismic control lines in red along with potential location for future drilling which would seek to target preferential zones in the main Jurassic porous carbonate fairway (blue filled outline) which are also coincident with structural highs to provide the best chance of success when drilling the play. The outermost structural closure used for volumetric estimation is marked in green dotted line which measures 177km<sup>2</sup>.

Sealing for the Jurassic carbonate plays is provided by the overlaying shale drapes of Jurassic marine shales which also play an important role in sourcing the basin where they have obtained necessary thermal maturity as guided by PRD source modelling. Scorpion Geoscience understands PRD intend to drill a potential MOU-5 well to test the full potential of the Jurassic Carbonate play contingent on the findings of scheduled Phase 1 and Phase 2 testing in one of the preferential optional drilling locations identified in Figure 22.



## Jurassic Oxfordian Play

Additional play potential is noted in the Jurassic associated with good quality Oxfordian sands penetrated by the MSD-1 well highlighted in yellow in Figure 14. Whilst no prospects have currently been defined or volumetric estimations generated, a number of leads are recognized which can be further explored as part of PRD's ongoing exploration project. Examples of two new related conceptual plays being considered by PRD for future exploration is illustrated in Figure 23. Strong seismic markers can be tied back to the core study area some 25km to the NE indicating the potential presence of a Jurassic sedimentary wedge which could contain thickened Oxfordian sands noted in MSD-1. Slightly to the east, the raised ridge also provides a potential lead with a component of structural trapping. Whilst such leads are not considered drill ready or sufficiently well defined to warrant volumetric estimations they clearly demonstrate the breadth of unexplored prospectivity that exists in Guercif.

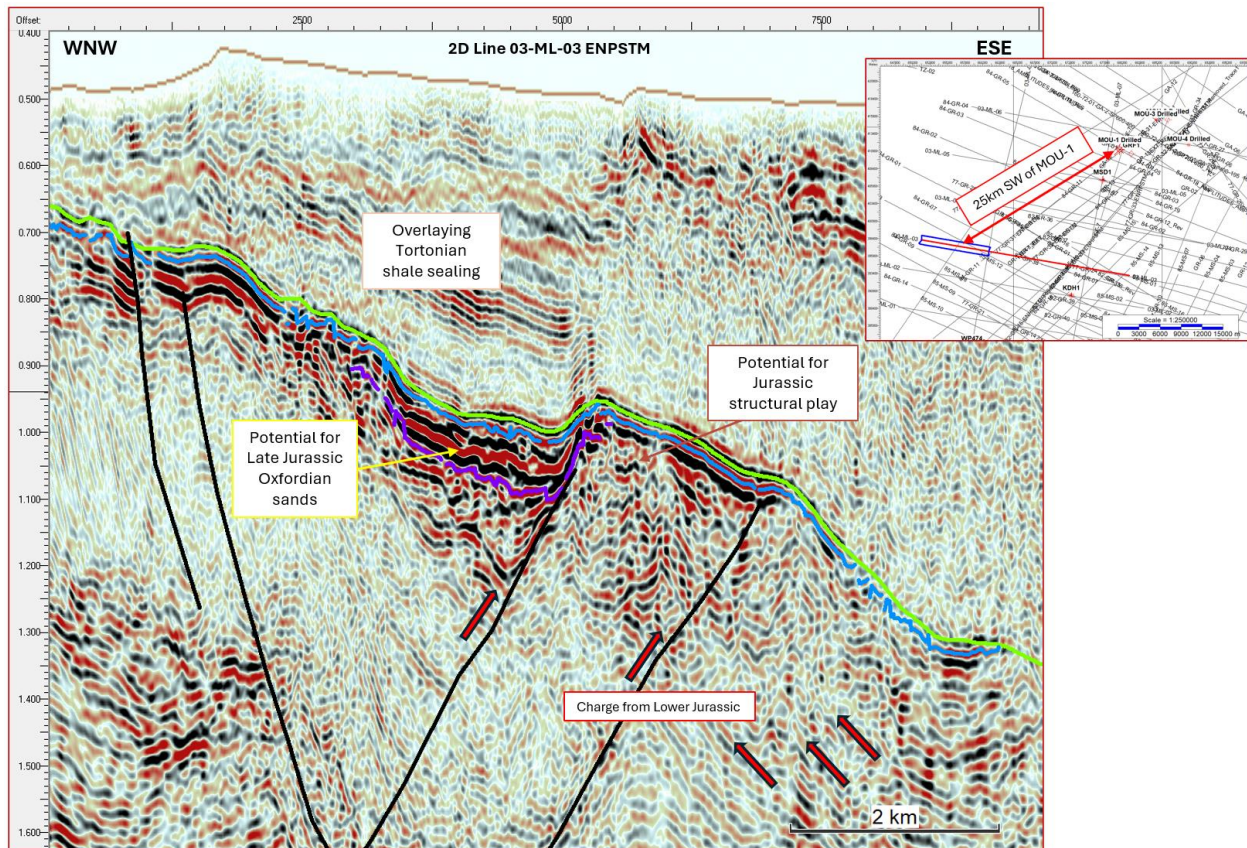


Figure 23 Example lead being considered by PRD in the western flank of the Guercif basin

A summary of all leads and prospects identified by PRD and verified by Scorpion Geoscience is presented in Figure 24. Scorpion note that potential relinquishments expected at the end of the initial period will not result in the loss of areas containing currently mapped prospectivity.

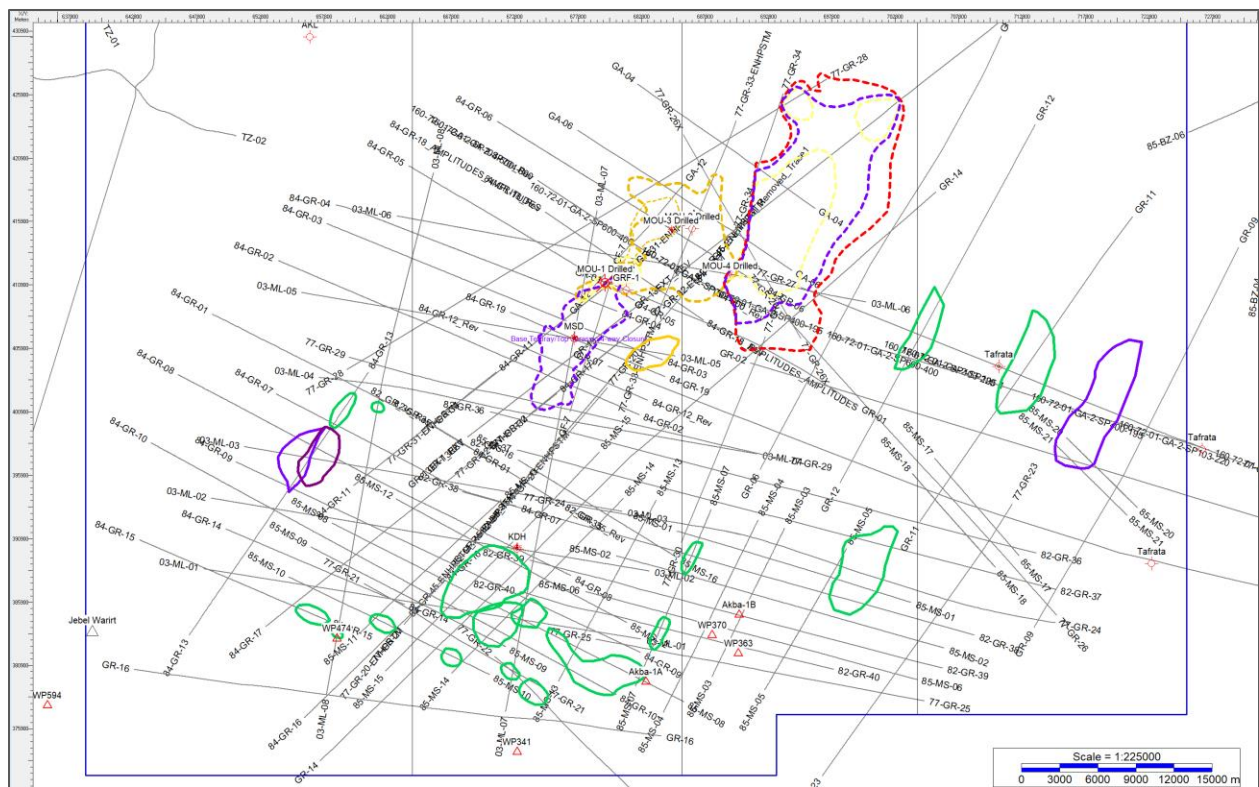


Figure 24 Summary map showing mapped prospectivity in the Guercif License. Mesozoic Leads in Green (Jurassic and Triassic), Miocene in Orange and Jurassic Carbonate play in dashed colours.

A summary of mapped areas is provided in Appendix D for those prospects for which new volumetric estimations have been generated (A-Sand, Ma Sand, Moulouya Fan and Jurassic Carbonates).

## 4. Guercif Resource Estimations

### 4.1 Unrisked Estimates of Prospective Resources

Resource Estimations collated from PRD internal estimates, the recently published 2023 CPR by TRACS and preliminary informal estimations compiled for undrilled targets provided by Scorpion Geoscience are summarised Table 2 using the PRMS 2018 framework guidelines illustrated in Figure 25. Resource Estimations for the provisional discoveries awaiting near-term Phase 1 rigless testing described in Section 5 are deemed to be Contingent Resources (PRMS “C” classification). The remaining drilled prospective intervals which will be targeted by Phase 2 testing and those targets which are currently undrilled e.g. the Jurassic Carbonate Bank Prospect are classified in this informal ITR as Prospective Resources (PRMS “U” classification). A probabilistic Monte Carlo methodology has been applied for all new resource estimates provided by Scorpion Geoscience recognizing there are inherent geological uncertainties associated with several input parameters e.g. net sand volumes, reservoir porosity, gas saturations and recovery factors. The estimations presented are designed to encompass a range of possible outcomes consistent with published PRMS 2018 guidelines on resource classification. No attempt is made to establish current commerciality and given current uncertainty regarding potential gas production rates and pending amendments to the Initial Period extension and award of an Exploitation Permit, readers should take into

account there remains a risk that the Contingent Resources quoted will not achieve commercial production and thus cannot currently be classed as Reserves at the current time using current PRMS guidelines.

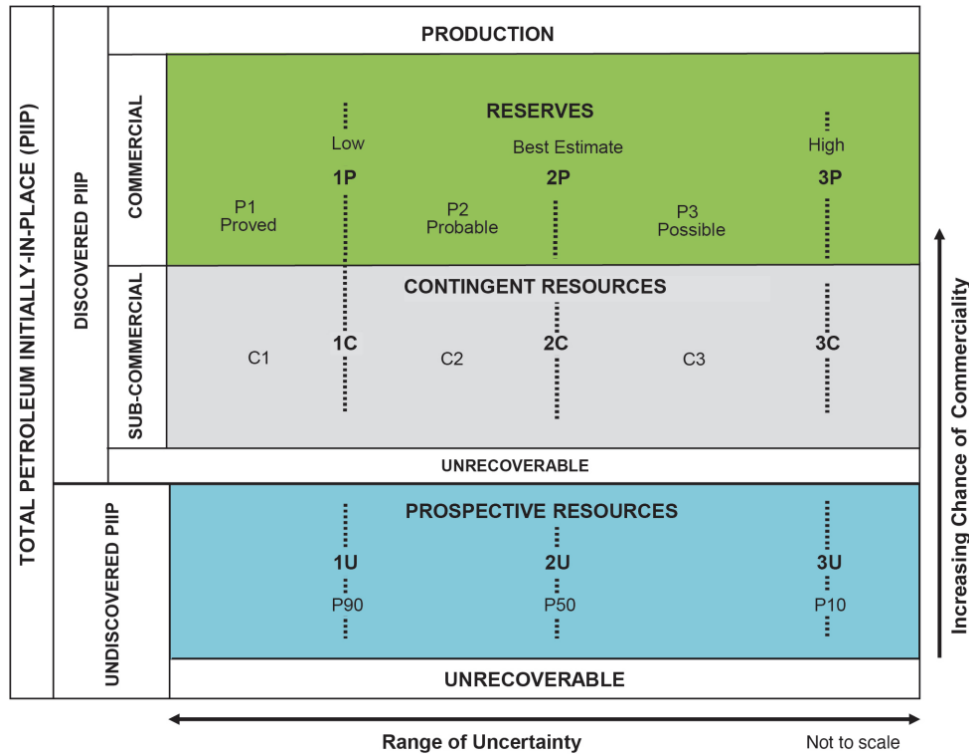


Figure 25 PRMS resource classification framework

The 1C P90 values and 1U Prospective Resource values quoted in Table 2 are based on Low parameter estimates designed to indicate at least a 90% probability that, assuming the accumulation is discovered and developed, the quantities actually recovered will equal or exceed the Low Estimate and following demonstrable commerciality will transfer from being Contingent or Prospective Resources to be deemed 1P “Proven reserves” using current PRMS nomenclature. The P50 output value is intended to represent 2C Best Estimate of Contingent Resources or 2U Prospective Resources for unconfirmed cases and is a thus a fair and reasonable indication of the future potential 2P or “Proven plus Probable” size of the various accumulations should commerciality be established. The upper P10 estimations reported are designed to be indicative of the 3C High Estimate Contingent Resource and 3U Prospective Resource cases which are relatable to the future 3P reserve case but with higher degrees of uncertainty and risk reflecting the current partially completed status of the exploration and appraisal programme. The future work programme outlines in Section 5 is specifically designed to reduce uncertainty and mature the PRD assets.



Table 2 Summary of volumetric estimations compiled from PRD internal estimates and TRACS 2023 CPR for interpreted discoveries (subject to results of imminent testing) and Scorpion Geoscience preliminary estimations for undrilled prospects identified at Guercif

Planned Test Programme		Contingent Resources – Gross GIIP (Gross Unrisked Recoverable*) BCF			Economic Modelling
Phase 1 Rigless Testing		P90(1C)	P50(2C)	P10(3C)	
Early Q1 2024	MOU-1 Testing Ma sands	14.82(9.54)	33.84(21.84)	63.04(41.20)	P50 used for 10MMScf/d 8 year initial production profile P10 used for 20MMScf/d profiled project economics over 6 years
	MOU-3 Testing Ma sands				
	MOU-1 Testing TGB-2 sands	TRACS 7.32(2.93)	TRACS 29.15(17.49)	TRACS 88.96(71.18)	
Phase 2 Rigless Testing Part 1		P90(1C)	P50(2C)	P10(3C)	
Q1 2024	MOU-3 Testing Moulouya Fan	72.66(46.49)	152.39(98.09)	281.75(184.03)	Potential to upscale production to 50MMScf/d for minimum four years in P50 success case
	MOU-4 Testing Moulouya Fan				
Phase 2 Rigless Testing Part 2		Prospective Resources – Gross GIIP (Gross Unrisked Recoverable*) BCF			
		P90(1U)	P50(2U)	P10(3U)	
Q1 2024	MOU-1, MOU-3 & MOU-4 Testing TGB-6 sands	NA	NA	NA	Resources estimations will be generated subject to the results of rigless testing
	MOU-3 Testing TGB-4 Sands	NA	NA	NA	
	MOU-3 Shallow Sands	NA	NA	NA	
	MOU-4 Porous Volcanic Interval	NA	NA	NA	
	MOU-4 Jurassic Dolomitised Limestone interval	NA	NA	NA	
		Prospective Resources – Gross GIIP (Gross Unrisked Recoverable*) BCF			
Jurassic Exploration/ Appraisal		P90(1U)	P50(2U)	P10(3U)	
TBC	Drill MOU-5	169.92(93.70)	426.87(186.23)	910.58(416.22)	Extension of 20MMScf/d and 50MMScf/d plateau cases or gas to power
		Contingent Resources – Gross GIIP (Gross Unrisked Recoverable*) BCF			
A Sand (Shallow) Appraisal		P90(1C)	P50(2C)	P10(3C)	
TBC	Test Gas Sands	5.88(3.62)	13.42(8.29)	26.14(16.16)	Subject to Appraisal**

\*Gross value can be multiplied by 0.75 to yield net to PRD

\*\*Additional infill drilling likely to be required after initial production period, two wells allowed for in Project Economics

The Guercif basin benefits from the wide range of stacked reservoir and seal pairs which comprise the Miocene play offering multiple opportunities for successful testing and sustained production if testing proves to be successful. The additional upside brought by less well explored but potentially larger prospective resource targets such as the Jurassic Porous Carbonate and Oxfordian clastic plays provide a diverse portfolio with what Scorpion Geoscience deem to be a fair and reasonable balance of risk and potential reward with relatively low capital outlays which are discussed in more detail in Section 6.

Outputs from probabilistic volumetric estimations shown in Figure 26 indicate a 2C Gross resource of 98.09 BCF for the Moulouya Fan and up to 184.03 BCF as the upside 3C case which is based on the outcomes of drilling at MOU-4 the results of which were not available to TRACS at the time of the most recent CPR. The recent drilling demonstrates the considerable near-term potential of the Guercif Basin and benefits of drilling multiple wells across the breadth of the fan system targeting different prospective levels in preferential locations. An option to test MOU-4 is noted contingent on the outcomes of testing at MOU-3. The testing campaign being planned is designed to support a 20 MMSCF/d production profile for six years modelled in Section 6.

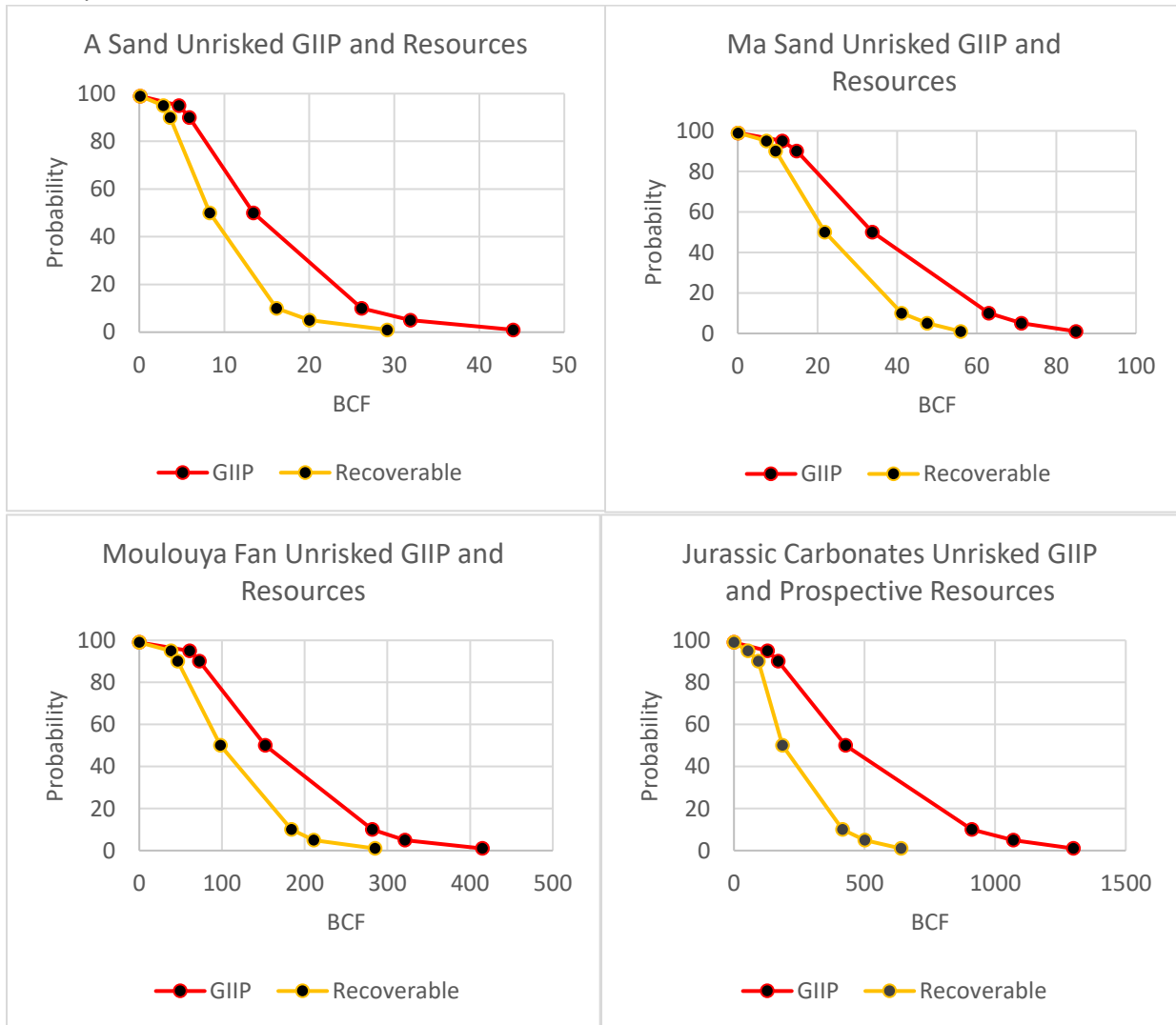


Figure 26 Volumetric estimations plots for four key levels identified as potential pay zones by PRD

## 4.2 Prospect and Play Risking

In this section an attempt is made to outline the key geological risks associated with exploration in the Guercif basin for those plays and prospects discussed in this ITR with a summary table provided in Table 3. For the purposes of this ITR which deals with partially explored but as yet untested intervals, and in order to simplify a potentially very complex set of considerations, the risks quoted in this ITR are specifically associated with either the chance of “*discovering and flowing hydrocarbons to surface*” for undrilled targets (e.g. the Oxfordian sand play) or “*the probability of flowing hydrocarbons to surface from a given reservoir in one or more existing boreholes*” for those targets which have been drilled, but have not been perforated and tested. The risking is intended to provide guidance for the reader regarding the relative confidence of the current exploration outcomes and does not seek to encompass potential commercial risks pertaining to the volume of gas producible or the potential value of gas produced which are yet to be established. Readers should take into account geological risking is inherently subjective with the estimations based on currently available data together with analogues and aggregated experience from similar global basins in which the exploration processes are more mature e.g. Rharb Basin in Morocco for the Miocene plays and the Permian Basin of Poland for the Jurassic carbonate play which are comparable in respect to reservoir character, source and migration play elements. Values in this ITR are quoted as Chance of Success (COS) quoted as a percentage with individual risk elements considered as fractions e.g. 0.8 = 80% probability of being present and or effective. Whilst a four-point risk matrix is the basis for assessing geological risks in this ITR, efforts are made to further separate the key play elements for the benefit of the reader e.g. reservoir risk takes into account a combination of reservoir presence and effectiveness, the product of which gives the combined reservoir risk component value.

Table 3 Summary of geological risking applied to each of the main target levels identified by drilling or seismic interpretations

Play Element	Target Level								
	A Sands	M1 Sand	Ma Sands	TGB-6 Sands	TGB-4 Sands	TGB-2 Sands	Moulouya Fan	Jurassic Carbonates	Jurassic Oxf' Sands
<i>Reservoir Presence</i>	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.75
<i>Reservoir Effectiveness</i>	0.80	0.75	0.70	0.65	0.65	0.65	0.75	0.50	0.75
<b>Combined Reservoir Risk</b>	<b>0.80</b>	<b>0.75</b>	<b>0.70</b>	<b>0.65</b>	<b>0.65</b>	<b>0.65</b>	<b>0.75</b>	<b>0.45</b>	<b>0.56</b>
<i>Source Presence</i>	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.75	1.00
<i>Source Effectiveness</i>	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.75	0.90
<b>Combined Sourcing</b>	<b>0.90</b>	<b>0.90</b>	<b>0.90</b>	<b>0.90</b>	<b>0.90</b>	<b>0.90</b>	<b>0.90</b>	<b>0.56</b>	<b>0.90</b>
<b>Migration to Reservoir</b>	<b>1.00</b>	<b>0.85</b>	<b>0.95</b>	<b>0.95</b>	<b>0.95</b>	<b>0.95</b>	<b>0.95</b>	<b>0.65</b>	<b>0.56</b>
<i>Trap presence</i>	1.00	0.80	0.90	0.80	0.80	0.90	0.90	0.95	0.65
<i>Seal Presence and Effectiveness</i>	0.95	0.45	0.85	0.90	0.90	0.90	0.80	0.75	0.75
<b>Trap and Sealing Combined</b>	<b>0.95</b>	<b>0.36</b>	<b>0.77</b>	<b>0.72</b>	<b>0.72</b>	<b>0.81</b>	<b>0.72</b>	<b>0.71</b>	<b>0.49</b>
<b>Combined COS "flow to surface"</b>	<b>68%</b>	<b>21%</b>	<b>46%</b>	<b>40%</b>	<b>40%</b>	<b>45%</b>	<b>46%</b>	<b>12%</b>	<b>14%</b>

Certain aspects of Miocene prospectivity outlined in this ITR have been established and proven by the drilling of the recent suite of Moulouya wells by PRD e.g. reservoir presence which is confirmed in multiple wells for the Moulouya fan (MOU-3 & MOU-4), Ma sands (MOU-1 & MOU-3) and at least three of the TGB sands (MOU-1, MOU-3). Third party drilling reports and subsequent petrophysical analyses undertaken by the likes of *NuTech Energy* taken into account in the compilation of this ITR report elevated total gas readings during the drilling of certain sand-bearing potential reservoir formations and direct indications of gas influx were reported into the MOU-3 wellbore during drilling of the shallow A-Sand interval. The presence of gas confirms Source Presence as a proven play element and indicates likely source effectiveness as a low risk play component. The capacity to migrate in the subsurface is proven for the A Sand in MOU-3 and is strongly supported for reservoirs such as TGB-2 in MOU-2, and Moulouya fan in MOU-3 and MOU-4 which show strong indications of gas presence as independently verified by the recently published TRACS CPR. Less is known about migration into the Jurassic targets therefore this uncertainty is translated into an overall play risk of 12-14% for the Jurassic.

The main prospective levels will be investigated during scheduled Phase 1 and Phase 2 testing with the A-Sand tested at a later date being currently incompatible with testing deeper targets due to the presence of 122psi overpressure which will require a dedicated appraisal well. Testing, if successful in proving commercial flow rates will enable conversion of Prospective and Contingent Resources which are dependent on geological factors to more mature asset classed of Contingent Resources “Development Pending” e.g. Figure 27 which outlines the PRMS 2018 guidelines used for formal resource classification and adopted informally in this ITR.

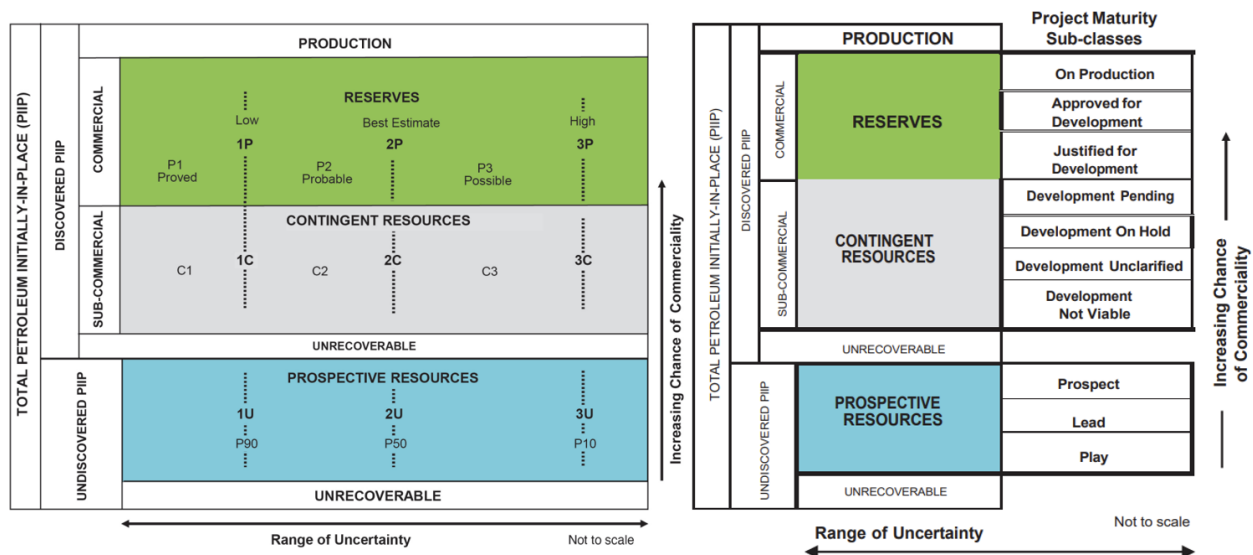


Figure 27 PRMS 2018 resource classification framework used to define resource expectations (SPE 2018)

Readers should note that until such time as the testing is undertaken and developments approved, there remains a series of related geological and commercial uncertainties which translate into a risk that Prospective Resources and those resources which have been assigned to Contingent Resource status by TRACS will not be converted to Commercial Reserves. The uncertainties and risks vary for each interval of interest and are summarised in Table 3. The key risk factor for the discovered intervals (A Sand, Ma Sand and TGB-2 sands) relate to the ability of the reservoir to flow gas at potentially commercial rates (e.g.

minimum 1MMSCF/d initial rate as a nominal reference figure). This uncertainty that will be resolved during scheduled testing is currently attributed to reservoir effectiveness as the presence of reservoirs has been proven. Reservoir effectiveness is closely related to reservoir porosity and permeability which in this ITR are largely based on third party analysis undertaken by NuTech, the outputs of which are deemed to be fair and reasonable but are also acknowledged to exhibit some residual uncertainty due to the challenging nature of the reservoirs and near wellbore environment. These uncertainties are accommodated in the ranges of volumetric outputs quoted in this ITR which are relatively broad for discovered hydrocarbons.

Testing will therefore establish whether the calculated presence of gas and related gas saturations are representative or whether interpretations require additional calibration after testing. There are also lesser uncertainties regarding the amount of gas available to fill the mapped traps which is translated into source effectiveness and migration. Finally there remains some risk attributable to the presence of the traps which will be removed if and when gas is flowed to surface confirming the presence of an accumulation and thus an effective working trap. The key risk factors for the majority of play levels in the Miocene and relates to reservoir effectiveness and trap/seal effectiveness. Sourcing, reservoir presence and charge are all interpreted to be low risk. The Influx of overpressured gas noted during drilling the A section in MOU-3 is interpreted to indicate the presence of an effective trap and reservoir therefore the presence of a gas accumulation is proven, however the volume of the connected resource is uncertain.

The Jurassic prospects noted in this report are deemed to represent Prospective Resources with greater uncertainty regarding charge and reservoir quality that will be resolved on by drilling at least one additional well ("MOU-5") in a preferentially located region of the mapped prospect where reservoir, charge and trap potential are likely to be optimal.

Provided flow testing is successful, the remaining risks associated with converting contingent resources to reserves are primarily above ground and those related to establishing access to market which has largely been derisked by PRD through the implementation of a scaled approach to offtake with initial trailer deliveries of CNG a low risk option. There are low risks expected associated with obtaining a commercial price for gas and the main contingency which needs to be overcome is formal signing of gas sales agreements and establishing production, all of which are expected to occur within five years (if not considerably sooner on receipt of successful tests) in line with PRMS definitions of contingent resource status. To date no wells in the Guercif basin have flowed on test therefore the results anticipated for forthcoming well tests on MOU-1 and MOU-3 could be potentially game changing for PRD and the perception of the Guercif basin as a future hydrocarbon production hub.

Stacked columns plots in Figure 28 show the combined outcomes of the Unrisked and Risked PMEAN volumetric estimations undertaken by Scorpion Geoscience and include carried values for TGB-2 from the TRACS 2023 CPR.



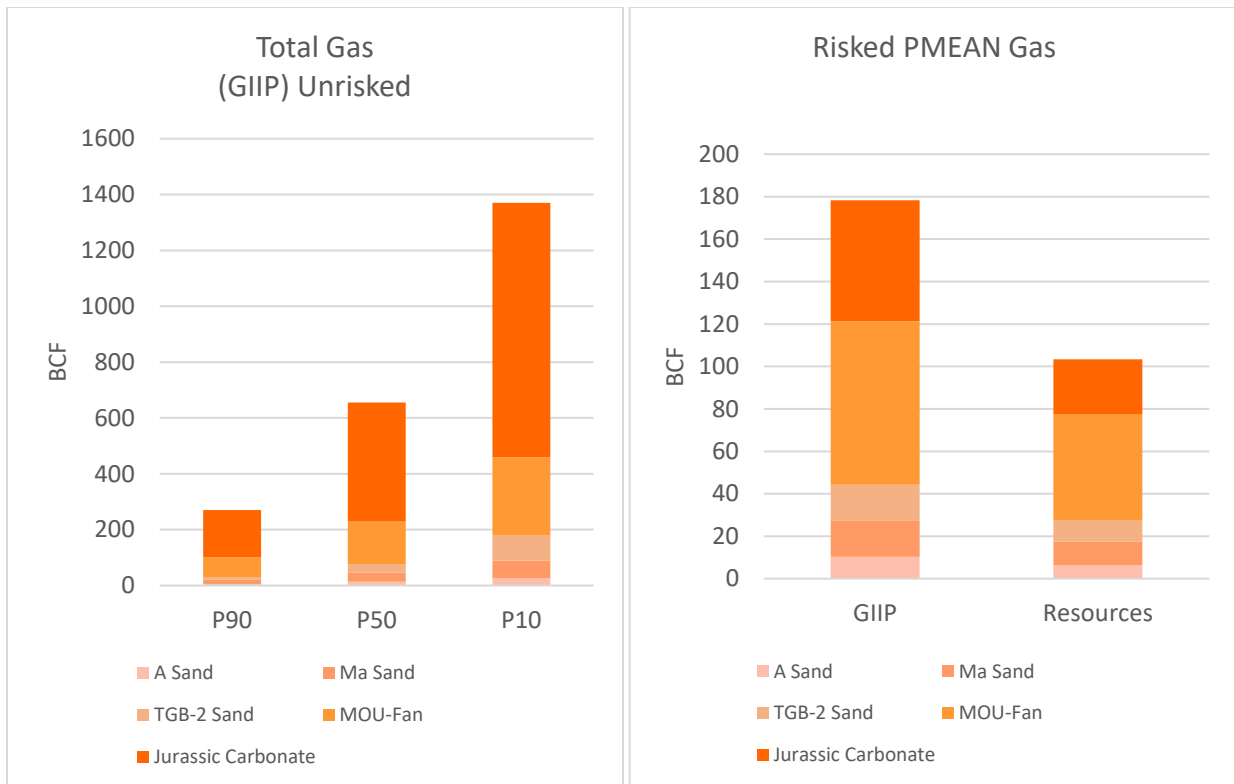


Figure 28 Stacked column charts showing Unrisked GIIP and Risked PMEAN for the four levels for which volumetric estimations have been generated in this ITR and TGB-2 estimations published by TRACS 2023

## 5. Guercif Work Programme and Development options

### 5.1 Phase 1 Testing

PRD is in the advanced planning phase for a near-term testing programme to be delivered in early Q1 2024 as outlined in a recent RNS dated 12<sup>th</sup> January 2024 and currently accessible on [www.predatoroilandgas.com](http://www.predatoroilandgas.com). Conventional perforating guns will be used as part of a rigless testing programme focussing on the potentially gas bearing Miocene Ma sand reservoirs in MOU-1 and MOU-3 and the potentially gas bearing TGB-2 sands in MOU-1. The specific intervals are outlined in Table 4. The Phase 1 rigless testing of a small interval of the MOU-3 Moulouya Fan reservoir is also considered as an option to evaluate reservoir quality and potential gas flow rates at the MOU-3 location. Undertaking this optional element of the Phase 1 work programme may allow the Company to improve upon the design of the Phase 2 rigless testing programme using Sandjet to further evaluate the fuller extent of the Moulouya Fan interval across which various mud gas excursions are noted. A summary of the internal PRD target-specific pre-test planning and risk analysis for the Ma sands in MOU-3 is included in Appendix C demonstrating the considerable amount and of preparatory work that is required to execute a successful and cost effective testing programme.

Table 4 Details of Phase 1 rigless testing

Well	Target Level	Top (mRKB)	Base (mRKB)	Interval Thickness m
MOU-1	Ma Sand	844.0	848.0	4.0
	TGB-2 Sands	1236.5	1241.1	4.6
MOU-3	Ma Sand	845.0	849.0	4.0

Successfully perforating the Ma and TGB-2 Sands, whilst depending on test rates and any evidence of reservoir depletion, may justify a 10-year production profile at a plateau rate of 10MMScf/d based on anticipated volumes within the structures tested by these wells as quoted in the recent TRACS Competent Persons Report and summarised in Table 2 of this ITR. Depending on test results and the potential to comingle production from the two different horizons in MOU-1, a 20MMScf/d profile for up to 6 years may also be achievable and is used as the basis for economic modelling. Thin sands reportedly have good well productivities in the Rharb Basin with one metre sands capable of flowing initially at 2.1MMScf/d on 18/64" choke (LAM-1 well). Wells in the Rharb are generally produced by gas drive as there is no natural pressure support from a connected active aquifer due to the sands being sealed in overpressured stratigraphic traps draped over structural "sweet spots".

Readers should take into account all production forecasts are dependent on successful outcomes of the Phase 1 perforation and testing programme.

TRACS report a 2C resource of 48.56 BCF net recoverable to PRD for the Ma sands and 179.09 BCF net recoverable as the upside 3C case. For comparison, internal PRD estimates indicate a 2C for the Ma sand of 22 BCF and 3C of 44 BCF based on current maps which take into account the results of the recent drilling campaign. Revised estimates generated for this ITR by Scorpion Geoscience indicate Gross 1C of 9.54BCF, 2C of 21.84BCF and 3C of 41.20BCF which are of the magnitude required to support an initial 10MMScf/d production profile if planned testing can establish commercial flow rates in the region of 1-3MMScf/d per interval in the current well portfolio. Whilst resource estimations naturally show variance due to the interpretive and somewhat subjective nature of certain inputs in poorly constrained frontier settings, readers should note a general convergence towards near-term potentially recoverable resources in the region of at least 43.8 BCF which are used for the purposes of preliminary economic modelling of a 20MMScf/d production profile which is dependent on current wells establishing sustained production and additional wells being added to scale up flow rates towards the 20MMScf/d target.

## 5.2 Phase 2 Testing

A second phase of rigless testing is planned later in Q1 2024 following Phase 1 and on receipt of regulatory approval of the Guercif Petroleum Agreement *Amendment #4*, which proposed extending the Initial Period of the Guercif Petroleum Agreement to 5th June 2024. Phase 2 testing will utilise Sandjet perforation technology in order to maximise the opportunity to perforate pay intervals in a wider range of reservoirs due to cost efficiency. Sandjet allows delivery of a greater number and depth of perforations well suited to thin and finely laminated turbidite reservoirs which are not well suited to conventional perforation technologies which deliver a limited number of shallow perforations which on can conceivably all line up with shales rather than sands or fail to reach undamaged target formations. A summary of reservoir intervals being targeted during Phase 2 testing is provided in Table 5.

Table 5 Summary of target intervals for Phase 2 rigless testing

Well	Target Level
MOU-3	Stacked thin sands in TGB-6
	TGB-4 Sands
MOU-4	Multiple thin shallow sands (Miocene)
	Highly porous weathered volcanic interval
	Moulouya Fan easterly basin flank extension
	Thin Jurassic Dolomite reservoirs

Sandjet perforation technology will be used to target stacked sands in the TGB-6 interval of MOU-3 where spikes were noted on mud gas records which are positioned above washed out sands of the TGB-4 interval in MOU-3 identified from cutting. MOU4 penetrated a complex sequence of sands, shales, anhydrite and carbonate which is interpreted from seismic data to represent a condensed Tortonian section resting unconformably on the Jurassic with the eastern edge of the Moulouya fan clipped by the well.

It is acknowledged that flowing water from some of the secondary target zones could compromise production from primary target intervals, therefore it is anticipated certain zones might have to be isolated or cement squeeze jobs applied over the perforated water bearing intervals. In any case, successful outcomes in the primary target zones will necessarily favour delayed testing of the secondary target levels towards the end of production from the main reservoirs as a means of supplementing produced reserves and reserve replacement. Therefore readers of this ITR should take into consideration all aspects of Phase 2 Sandjet testing on secondary targets are contingent on the outcomes of Phase 1 conventional perforation testing.

### 5.3 Exploitation Concession

Positive results of the Phase 1 rigless testing and approval of Petroleum Agreement Amendment #4 could potentially facilitate an application by 5 March 2024 for a single Exploitation Concession over the area tested by MOU-1 and MOU-3, providing geological continuity of potential gas reservoirs can be demonstrated. PRD may therefore elect to convert part of the Exploration License into an Exploitation Concession facilitating field development and production in those areas. Following award of Exploitation Concession rights, it is anticipated that PRD will drill two wells provisionally referred to as MOU-3SW and MOU-3NW.

MOU-3SW is expected to be an offtake well for the Ma sand and potentially also for the TGB-4 sands and are not expected to materially affect existing resource estimations but dependent on a positive outcome will potentially enable extension of the duration of postulated 10MMSCF/d and 20MMSCF/d initial production profiles.

MOU-3NW will target step-out appraisal of the shallow Messinian high pressure gas discovery which is currently behind casing in the MOU-3 well. As with MOU-3SW, the MOU-3NW well is designed to extend the duration of the initial 10MMSCF/d and 20MMSCF/d initial production profiles.

#### 5.4 MOU-NE Jurassic

PRD have determined through ongoing burial history modelling that the most likely hydrocarbon charge to the Jurassic carbonate bank play and MOU-NE Jurassic Prospect identified on 2D seismic is gas sourced from Lower Jurassic shales which were mature for gas prior to Miocene uplift. The MOU-NE Jurassic Prospect is judged to represent a near-term relatively low risk target (Geological COS 21%). Based on the presence of potential direct hydrocarbon indicators in the preserved syndepositional crest of the structure on Line 03-ML-06 shown in Figure 21, the working hypothesis concludes overlaying Jurassic shales which blanket the original oolitic banks have provided a robust long term top seal to the porous carbonates beneath. Similar play configurations are noted in the Permian basin of Europe e.g. the BMB (Barnowko-Mostno-Buszewo) field in western Poland where shale and Zechstein salt acts as the primary top seal to a submerged reefal reservoir. The majority of porosity is expected to be derived from secondary dissolution and recrystallization during diagenesis.

Recently published CPR resource estimations from TRACS indicate a most likely 107 BCF Prospective GIIP and high estimate Prospective GIIP of 322.6 BCF which are considered conservative in comparison with internal PRD estimates which indicate a P50 GIIP of 433.7BCF with 260.22BCF associated 2U Prospective Resources and potential upside P10 case of 1,226BCF GIIP which could yield 3U prospective resources up to 858.2 BCF using a 70% recovery factor. New estimates generated by Scorpion Geoscience using a Probabilistic Monte Carlo method and independently assessed input parameters and probability density functions indicates Unrisked P90 Gross GIIP of 169.9BCF, P50 of 426.9BCF and P10 of up to 910.6BCF yielding Gross Prospective Resources 1U 93.7BCF, 2U 186.2 BCF and 3U 416.1BCF. It is envisaged that a discovery near the 2U estimate could support up to 50MMSCF/d to industrial buyers over a duration of ten years. It should be noted that ENI's recently drilled Cinamon-1 well is interpreted to have penetrated in a distal position beyond the westerly limit of the carbonate platform and did not test the age-equivalent Carbonate bank play proposed in Guercif.

#### 5.5 Re-entry and deepening of MOU-2

The MOU-2 exploration well was suspended above the main Moulouya fan due to difficult drilling conditions in the overlaying debris slide deposit which contained a high proportion of slick clays which interfered with drilling muds and clogged the drill bits available at the time of drilling. PRD anticipates the MOU-2 can be re-entered and deepened using a modified drilling assemblage and mud system to access gas trapped towards the northern part of the Moulouya fan and therefore provide a low cost offtake well associated with aforementioned resource estimates to maintain or boost plateau production.

#### 5.6 Exploration of additional prospective gas resources

If and when commercial production is established from current PRD discovered resources, there are a number of additional play types and prospects which can be targeted by future exploration drilling with the aim of increasing or extending production. The targets listed below have not been subject to detailed volumetric assessment at this time in part due to sparse seismic coverage, however, planned acquisition and geological studies offer the possibility to advance PRD's understanding of the prospectivity and help to derisk prospects prior to selecting drill targets.

Table 6 Listing of the main exploration plays and targets which may, dependent on the outcomes of Phase 1 and Phase 2 testing be considered as part of future planned exploration activities

	Seismic coverage	Primary Target	Key Areas	Comments
<b>TGB-2 Sands</b>	2D single lines	Tortonian turbidites	South East of MOU-1 on the eastern side of the main MSD-1 ridge	DHI driven and considered similar to MOU-1 with sand input from the eastern flank of the Miocene basin
<b>Jurassic Oxfordian Stratigraphic Concept</b>	2D	Wedges, pinch-outs and truncations of the Oxfordian sands penetrated in MSD-1	Basin flanks	Range of leads visible on 2D seismic lines with up-dip pinch-outs against the basin margins and potential for structural traps forming against faulting.
<b>Jurassic Carbonate debris slide SE of TAF-1X</b>	2D	Jurassic Carbonates	Mesozoic Basinal areas east of TAF-1X	Dependent on local charging from hangingwall of a large preserved Mesozoic fault which might have been reactivated during Miocene rifting
<b>Triassic TAGI sand play in buried rotated fault blocks</b>	2D	Triassic TAGI sand (Equivalent to <i>Tendrarra</i> play)	Basin flanks where sands have potential preserved porosity (porosity lost during deep burial in the basin centre)	Dependent on lateral charge from younger Jurassic source rocks juxtaposed across large basin bounding faults which formed during rifting prior to development of the main Miocene basin

## 6. Preliminary Economics

An initial indicative cash profile has been developed from forecast near-term development based on providing compressed natural gas to market using a fleet of tube trailers. Details of the model were provided by PRD and have been independently verified as being fair and reasonable based on prevailing market conditions as part of this ITR process notwithstanding acknowledged uncertainties and risks associated with such operation activities. Options consider the purchase and or leasing of CNG trailers. It is anticipated that after all costs an undiscounted netback of US\$6m per BCF delivered to industry confirming the attractive long term potential of the Guercif asset.

A Base-case development scenario is envisaged targeting Miocene TGB-2 sands due to be perforated during Phase 1 rigless testing on MOU-1 and MOU-3 wells. A key component of the model is scalable production from 10MMScf/d to 50MMScf/d dependent on a successful outcome of imminent testing. Well costs are low typically taking 15 days to drill and complete for Miocene targets. A rig is on location for foreseeable future minimising mobilisation costs. An initial 20MMScf/d is expected to be delivered by CNG trailer to the end of the existing SDX gas pipeline in the Rharb Basin that serves the city of Kenitra. CAPEX costs for CNG are relatively low compared to installation of gas pipelines and minimal processing will be required for dry gas based on analysis undertaken on An isotube gas sample collected during the drilling of MOU-3. Given the current and foreseeable strong demand for gas in country, there is considerable potential to organically grow the business from significant near-term cash flows. The upper 50MMScf/d profile is considered to be achievable combining existing potential pay levels from the Miocene (subject to testing) supplemented with additional Prospective Resources from the Jurassic Carbonate and Oxfordian Sand plays. Excess gas may be available for wellsite power generation to power hydrogen fuel cells by electrolysis of water for "battery storage".



A summary of the model inputs based on PRD internal estimates and descriptions that has been reviewed by Scorpion Geoscience is provided in Table 7

Table 7 Summary of Base-case and scalable economic model inputs

Wells	Resources	Assumptions
MOU-1 & MOU-3	10MMScf/d Gross GIIP 3.65 BCF per annum 100%	Rigless testing planned for Q1 2024 to confirm well deliverability and establish flow rates from key target levels with the aim of delivering up to 10 MMScf/d from stacked Miocene targets each contributing 1MMScf/d to 3MMScf/d per level per well based on Rharb basin analogues
MOU-4 Proposed MOU-5	20MMScf/d Gross GIIP 7.30 BCF per annum 100%	Drilling and Rigless Sandjet testing planned for 2024 to confirm well deliverability of additional Miocene target levels and potentially the Jurassic subject to results from Phase 1 and 2 testing. Additional well(s) then drilled to target sweet spots and additional 2P reserves once production commences Contingency for field compression later in field life
Gas composition		99% methane dry gas based on MOU-1 gas chromatograph readings Requires minimal gas processing and no H <sub>2</sub> S. Processing facilities limited to gas separator and dehydration to remove water vapour Suction compressor to compress gas to 3600 psi for CNG road transport
Transportation		CNG trucks and trailers - 32 units for each 10MMScf/d production profile and scaled accordingly for 20MMScf/d

An example production profile for the TGB-2 reservoir targeted by MOU-1 Phase-1 testing is provided in Figure 29.

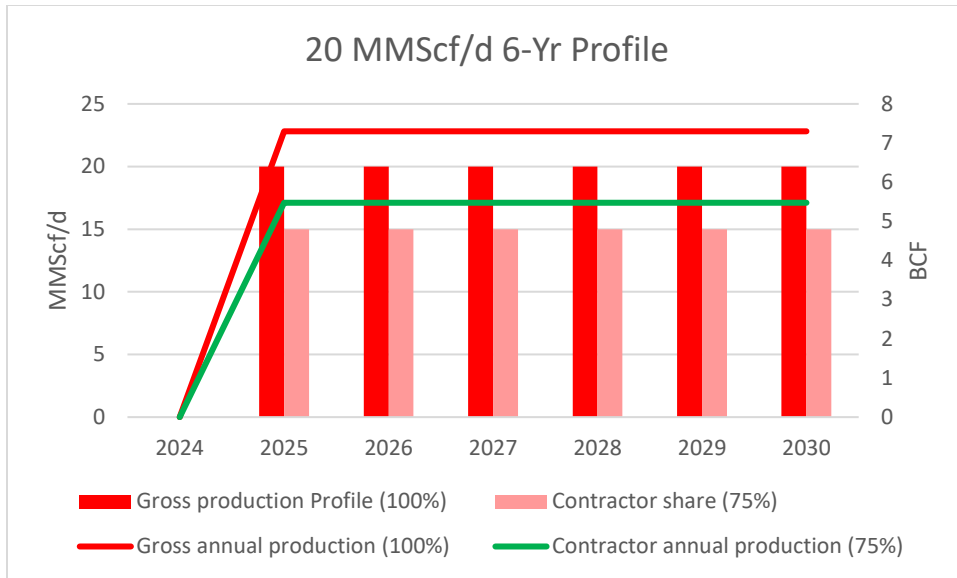


Figure 29 Example production profile modelled by PRD for MOU-1 TGB-2 sands based on 43.8 BCF gross production over a 6-year period at 20MMScf/d plateau.

Using a flat US\$12 per MCF for the 6 year duration of the model, CAPEX for a 6-year 20MMScf/d CNG case net 75% to PRD is estimated at c.US\$48.77m (Gross CAPEX US\$65m). OPEX for a 6-year 20MMScf/d CNG case net 75% to PRD is estimated at c.US\$126.8m (Gross US\$ 167.7m) which yields Gross Revenues post Tax net to PRD at 75% of US\$ 256.2m (343m Gross) taking into account a 10-yr Corporation Tax holiday which equates to Gross cash flow of US\$277m net US\$207m to PRD. The forecast model yields an NPV 10% discount of US\$128m net to PRD.

## 7. Conclusions

The key findings of this ITR are as follows:

- Extensive work programme has been delivered by PRD over the course of the Initial Exploration Period despite substantial impacts of COVID and supply chain restrictions resulting from ongoing conflicts
- Four wells delivered during the initial period, MOU-1, MOU-2, MOU-3 and MOU-4, each of which has resulted in substantial advancement of PRDs understanding of the Guercif basin and resource potential and the discovery of what are interpreted to be stacked gas charged reservoirs with commercial potential
- Near-term phased rigless testing using conventional perforation and innovative Sandjet multilevel perforation technology is expected in Q1 2024 to determine whether interpreted gas presence in wells based on NuTech petrophysical analysis can be converted to potentially producible resources
- Updated resource estimates indicate P50 and P10 Contingent recoverable gas resources of 109.28 and 234.42 BCF respectively net to PRD contingent on successful outcomes from planned rigless testing operations
- Unrisked P50 and P10 Prospective Resources of 139.67 and 312.6BCF respectively net to PRD assigned to newly identified and undrilled plays such as the Jurassic Carbonate and Oxfordian clastic plays based on reassessments of 2D seismic database
- Short term PRD is looking to CNG as the primary method of delivering gas to nearby industrial customers as a means to initial commercial activities which can be scaled up as more resources are matured towards reserve status
- Three Initial Production scenarios encompassing 10MMScf/d, 20MMScf/d and 50MMScf/d with the Mid-case 20MMScf/d subjected to economic modelling and feasibility assessments at US\$12/mcf
- Net recoverable 32.85BCF to PRD (75%) provides undiscounted cash revenues of US\$207.5m net to PRD and estimated NPV@10 US\$108m net to PRD based on an initial mid case 20MMScf/d profile and CAPEX of US\$48.77m net to PRD demonstrating potential for excellent IRR of 138% equivalent to an undiscounted US\$6.345 million per BCF of CNG production (scalable)
- Opportunities to scale up production and link to the nearby Maghreb pipeline in upside success case e.g. Jurassic Porous Carbonate and Oxfordian plays
- PRD Fully funded for all 2024 firm commitments
- Review of Resource Estimations and undrilled prospectivity will be undertaken following planned testing to optimise future exploration, appraisal and development activities

On behalf of Scorpion Geoscience Limited, I hope this report is to your satisfaction

Best regards, Dr Timothy Wright FGS, SEG & MIMMM

Signed:



24<sup>th</sup> January 2024

## 8. Selected References

Clayton, C. (1992). Source volumetrics of biogenic gas generation. Bacterial gas. Proc. conference, Milan, 1989. 191-204.

[www.info.speccommunications.org](http://www.info.speccommunications.org) (Petroleum Resources Management System “PRMS”) Petroleum Resources Management System jointly published by the Society of Petroleum Engineers, the World Petroleum Council, the American Association of Petroleum Geologists, the Society of Petroleum Evaluation Engineers, the Society of Exploration Geophysicists, the Society of Petrophysicists and Well Log Analysts and the European Association of Geoscientists and Engineers as amended June 2018 (PRMS 2018) ISBN 978-1-61399-994-3

Frizon de Lamotte, D., Crespo-Blanc, A., Saint-Bezar, B., Comas, M., Fernandez, M., Zeyen, H., Ayarza, H., Robert-Charrue, C., Chalouan, A., Zizi, M., Teixell, A., Arboleya, M. L., Alvarez-Lobato, F., Julivert, M., & Michard A. (2004). TRASNSMED-Transect I [Betics, Alboran Sea, Rif, Moroccan Meseta, High Atlas, Jbel Saghro, Tindouf Basin]. In W. Cavazza, F. M. Roure, W. Spakman, G. M. Stampfli, & P. A. Ziegler (Eds.), *The TRANSMED Atlas—The Mediterranean Region from Crust to Mantle*. Berlin: Springer

Grasu, C., Miclaus, C., Branzila, M and Bobos, I. 2002. Sarmațianul din sistemul bazinelor de foreland ale Carpaților Orientali, *Technica*, Bucuresti

[www.predatoroilandgas.com](http://www.predatoroilandgas.com)

## Appendix A Glossary of Selected Terms and Definitions\*

Accumulation	An individual body of naturally occurring petroleum in a reservoir
Appraisal	The phase that may follow successful exploratory drilling. Activities to further evaluate the discovery, such as seismic acquisition, geological studies, and drilling additional wells may be conducted to reduce technical uncertainties and commercial contingencies.
ASG	Associated Solution Gas
BCF	Billion Cubic Feet of Gas
bbl	Barrels
Best Estimate	With respect to resources categorization, the most realistic assessment of recoverable quantities if only a single result were reported. If 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.
1C	Denotes low estimate of Contingent Resources with >90% probability that recovered quantity will equal or exceed this estimate “P90”.
2C	Denotes Contingent Resources of same technical confidence as Probable, but not commercially matured to Reserves with >50% probability that recovered quantity will equal or exceed this estimate “P50”.
3C	Denotes Contingent Resources of same technical confidence as Possible, but not commercially matured to Reserves with >10% probability that recovered quantity will equal or exceed this estimate “P10”.
COS	Chance of Success
CPR	Competent Persons Review
Exploration	Prospecting for undiscovered petroleum using various techniques, such as seismic surveys, geological studies, and exploratory drilling.
FDP	Field Development Plan



Flow Test	An operation on a well designed to demonstrate the existence of recoverable petroleum in a reservoir by establishing flow to the surface and/or to provide an indication of the potential productivity of that reservoir (such as a wireline formation test). May also demonstrate the potential of certain completion techniques, particularly in unconventional reservoirs.
GIIP	Gas Initially In Place (Gas equivalent of PIIP)
High Estimate	With respect to resources categorization, this is considered to be an optimistic estimate of the quantity that will actually be recovered from an accumulation by a project. If probabilistic methods are used, there should be at least a 10% probability (P10) that the quantities actually recovered will equal or exceed the high estimate.
ITR	Independent Technical Report, informal equivalent to a formal Competent Person's Report produced by a professionally qualified person reflecting
km	kilometres
km <sup>2</sup>	Square kilometres
Known Accumulation	An accumulation that has been discovered.
Likelihood	Likelihood (the estimated probability or chance) is equal (1- risk). (See Probability and Risk.)
Low/Best/High Estimates	Reflects the range of uncertainty as a reasonable range of estimated potentially recoverable quantities.
Low Estimate	With respect to resources categorization, this is a conservative estimate of the quantity that will actually be recovered from the accumulation by a project. If 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.
Monte Carlo Simulation	A type of stochastic mathematical simulation that randomly and repeatedly samples input distributions (e.g., reservoir properties) to generate a resulting distribution (e.g., recoverable petroleum quantities).
PIIP	Petroleum Initially in Place
Prospective Resources	Those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects.
Qualified Reserves Evaluator	A reserves evaluator who (1) has a minimum of five years of practical experience in petroleum engineering or petroleum production geology, with at least three years of such experience being in the estimation and evaluation of Reserves information; and (2) either (a) has obtained from a college or university of recognized stature a bachelor's or advanced degree in petroleum engineering, geology, or other discipline of engineering or physical science or (b) has received, and is maintaining in good standing, a registered or certified professional engineer's license or a registered or certified professional geologist's license, or the equivalent, from an appropriate governmental authority or professional organization. (modified from SPE 2007 "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information")
Reserves	Those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions. Reserves must satisfy four criteria: they must be discovered, recoverable, commercial, and remaining (as of a given date) based on the development project(s) applied.
Risk	The probability of loss or failure. Risk is not synonymous with uncertainty. Risk is generally associated with the negative outcome e.g. failure to encounter reservoir, the term "chance" is preferred for general usage to describe the probability of a discrete event occurring.
STB	Stock Tank Barrels
Uncertainty	The range of possible outcomes in a series of estimates. For recoverable resources assessments, the range of uncertainty reflects a reasonable range of estimated potentially recoverable quantities for an individual accumulation or a project.
Undiscovered Petroleum Initially in-Place	That quantity of petroleum estimated, as of a given date, to be contained within accumulations yet to be discovered.
1U	Denotes the unrisks low estimate qualifying as Prospective Resources
2U	Denotes the unrisks best estimate qualifying as Prospective Resources
3U	Denotes the unrisks high estimate qualifying as Prospective Resources

**\*A full technical glossary pertaining to the reporting of hydrocarbon resource exploration, appraisal and development activities can be accessed at <https://info.speccommunications.org/>**

## Appendix B Database Reference Tables

Table B1 Seismic database provided to Scorpion Geoscience Ltd to enable the compilation of this ITR.

2D Seismic Database	Survey	Acquisition Year	Length km
<b>Legacy</b>	GF01 – GF03	1968	34
	GF04 – GF21	1969	244
	GA	1972	331
	GR	1977	1300
	PMT	1979	45
	GR	1982	228
	84GR	1984	446
	85MS	1985	363
	03-ML	2003	300
	<b>Total Legacy</b>	-	-
<b>Reprocessed by PRD</b>	Nine Lines 84-GR (1984)	2022	171.2
	Three Lines 03-ML (2003)	2022	84.6
<b>Total Reprocessed</b>			<b>255.8</b>

TABLE B2: Well penetrations relevant to the Moulouya Fan system and wider exploration potential of the Guercif Basin

Well	Drilled	TD Depth (MD KB Metres)	TD Formation / Status	Operator
GRF-1	1973	1968	P&A	Elf
TAF-1X	1979	3887	P&A	Phillips
MSD-1	1985	3608	P&A	ONAREP
KDH-1	1986	3801	P&A	ONAREP
MOU-1	2021	1503	Suspended	PRD
MOU-2	2023	1260	Suspended	PRD
MOU-3	2023	1509	Suspended	PRD
MOU-4	2023	1199.5	Suspended	PRD

TABLE B3 Reports and associated database items made available to Predator Oil and Gas and used as the basis for this ITR.

Data type	Number of items	Comments
Well reports	8	Obtained from PRD/ONHYM
LAS Digital log suites & tops	7	Loaded in Kingdom Project
Deviation surveys	5	Loaded in Kingdom Project
VSPs & Checkshots	3	Inc. GRF-1, MOU-1
Reservoir Pressure Reports	3	GRF-1, MSD-1 & TAF-1X
Fluid Database & Production Tests	5	Contained in pre-PRD well reports
Technical reports, CPR and summaries	24	Summaries and reports from PRD, NuTech, TRACS and legacy operators
Permit boundaries and shapefiles	11	Initial Period, infrastructure, geology and geophysical database

## Appendix C MOU-3 Rigless Testing Evaluation of Risks

MOU-3 RIGLESS TESTING – EVALUATION OF RISKS		
Perforating Interval	Characteristics	Comments and risks
<b>Ma Sand</b>	<ul style="list-style-type: none"> <li>• Strip Log 845 – 849 metres</li> <li>• Isotube gas sample – 3% equivalent to 30,000 ppm gas show – dominantly C1</li> <li>• Poor-good intergranular porosity</li> <li>• Calcite and kaolinite cement</li> <li>• Felspathic sandstone – reverse gamma response</li> <li>• MOU-1 Rockwash study indicates high Zr/Rb and K/Al suggesting coarser more arkosic sandstone</li> <li>• Gamma indicates laminated sand with 30 – 50cms bed thickness</li> <li>• Drilling break</li> <li>• MW Sg 1.49 gives formation pressure at 849 metres of 1704.5 psi – 282.5 psi over-balanced by comparison with LAM-1</li> <li>• Possibly over-pressured though based on shallow over-pressured gas at 339 metres</li> </ul>	<ul style="list-style-type: none"> <li>• Geological structure and mud log suggests gas should be present</li> <li>• Feldspathic sand mineralogy may impact wireline logs</li> <li>• Over-balanced – significant mud filtrate invasion and possible formation damage will impact wireline logs</li> <li>• GRF-1 gamma logs also indicate feldspathic sands with presence of glauconite and black micas</li> <li>• GRF-1 SP log reversed deflection (reading drilling fluid?) – may correlate with a higher permeability layer</li> <li>• GRF-1 has small resistivity peaks with minor C1 gas</li> <li>• NuTech MOU-3 shows good porosity 22-34% and good permeability with 55 – 60% gas saturations</li> <li>• Density log reading low 2.15 to 2.25 and is influenced by some hole enlargement % mud invasion: neutron reading too high (36 – 42% porosity)</li> <li>• As density increases (to 2.25) and porosity reduces (to 30%) in better hole conditions then there is a small density – neutron cross-over.</li> <li>• Resistivity low 1.8 ohms but influenced by mud invasion</li> <li>• LAM-1 – no density-neutron cross – over and resistivities 2 ohms BUT still flowed 2MMScf/d on test with absolute rate of 10MMScf/d</li> </ul>
<b>CONCLUSIONS</b>	<ul style="list-style-type: none"> <li>• Perforating beyond the formation damage will be the greatest challenge</li> </ul>	<ul style="list-style-type: none"> <li>• Well clean-up time may not result in clean-up</li> </ul>
	<ul style="list-style-type: none"> <li>• For an undamaged formation</li> </ul>	<ul style="list-style-type: none"> <li>• Estimated flow rate based on LAM-1 likely to be in the range 3 – 4 MMScf/d when choked back – allowing for lower reservoir pressure compared to LAM-1 (but MOU-3 has higher connected volume)</li> <li>• Up to 13 other thin sands that could flow gas if this test is successful within this interval</li> </ul>
	<ul style="list-style-type: none"> <li>• Should flow gas if formation damage is overcome</li> </ul>	

## Appendix D Summary of Volumetric Inputs

Tables list the input parameters used for generating new volumetric resource estimates provided in this ITR. TGB-2 and TGB-4 level outputs retained from TRACS 2023 CPR and are therefore not included in this compendium.

Target	Area (Km <sup>2</sup> )			Notes
	Low	Mid	High	
A Sands	3.14	6.28	12.56	Based on 0.5km minimum radius around MOU-3, Mid-case based on mapped outline of 4-way dip closure, High-case 2x Mid-case invokes westerly fault sealing
Ma Sands	6.0	16.3	20.1	Mapped closures, Mid- and High-case invoke connection between MOU-1 and MOU-3. Low-case is mapped 4-way at MOU-3
Moulouya Fan	34	51	68	Mapped outlines encompassing sectors associated with MOU-3 and MOU-4
Jurassic Carbonate Bank	55.1	94.5	177	Low-case based on main higher porosity carbonate bank and leached shoal fairway invoked from seismic. Mid-case based on modelled mid point between Low- and High-cases. High-case based on maximum mapped closure on full carbonate bank.

Target	Depth to Crest (MD mRKB)			Notes
	Low	Mid	High	
A Sands	339	339	339	Constant based on MOU-3 which is drilled in structural crest
Ma Sands	840	844	850	Based on MOU-3 penetration +/- 5m
Moulouya Fan	-420	NA	-850	-420m TVDSS from MOU-4 Sector, - 850m TVDSS from MOU-3,
Jurassic Carbonate Bank	-522	-522	-522	Mapped crest from main top carbonate depth map

Target	GRV (MMm <sup>3</sup> )			Notes
	Low	Mid	High	
A Sands	15.70	67.63	207.90	Low input based on 0.5km radius around MOU-3, Mid-case based on mapped outline of 4-way dip closure, High-case faulted closure
Ma Sands	6.00	57.00	201.00	Based on calculation of Net Pay and Area using a slab model, shape factor accommodated in N:G modifier
Moulouya Fan	102	255	680	Based on mapped areas and net sand thickness
Jurassic Carbonate Bank	275.5	1890	8850	Wide range using mapped areas and reservoir thickness, N:G used as a shape factor modified



Target	Reservoir Thickness (m)			Notes
	Low	Mid	High	
A Sands	5.5	11.0	16.5	11m based on MOU-3 Penetration, Low-case 50% of Mid-case and High-case 150% of Mid-Case
Ma Sands	1	3.5	10	Mid-case based on MOU-3 penetration with spread of values for Low- and High-case reflecting turbiditic fan setting and analogues from Tabernas Basin, SE Spain
Moulouya Fan	3	5	10	Considered conservative based on MOU-3 and MOU-4 and if testing confirms the presence of a connected hydrocarbon column
Jurassic Carbonate Bank	5	20	50	Mid-case based on 18m net potential reservoir in TAF-1X, Low-case and High-case to give at least 1:5 spread between Low- and High-case inputs and P90 and P10 outputs reflecting uncertainty

Target	Porosity (Fraction)			Notes
	Low	Mid	High	
A Sands	0.12	NA	0.28	Log Normal distribution defined by minimum and maximum inputs, 15% visible porosity observed by mudloggers likely to be an underestimate
Ma Sands	0.22	0.27	0.32	Triangular using calculated porosity Mid-case of 0.27% from NuTech. Low-case allows for elevated diagenetic cementation and low porosity around the periphery of the fan and High-case based on clean thick sands with minimum diagenetic cement and minimal burial compaction
Moulouya Fan	0.15	0.18	0.24	Triangular using calculated porosity Mid-case of 0.18% from NuTech. Low-case allows for elevated diagenetic cementation and low porosity around the periphery of the Moulouya fan and High-case based on clean thick sands with minimum diagenetic cement
Jurassic Carbonate Bank	0.08	0.12	0.15	0.08 based on TAF-1X, 0.12 and 0.15 reflecting expected improvements in the seismically imaged carbonate bank where leaching and secondary porosity can reasonably be expected

Target	N:G Modifier (Fraction)			Notes
	Low	Mid	High	
A Sands	0.75	0.85	1.00	Triangular to account for uncertainty away from MOU-3 Penetration
Ma Sands	0.60	0.80	1.00	Triangular to account for uncertainty away from MOU-3 Penetration
Moulouya Fan	0.50	0.70	0.95	Modifier applied in lieu of a shape factor
Jurassic Carbonate Bank	0.25	0.50	0.95	Modifier applied in lieu of a shape factor

<b>Hydrocarbon Saturation (Fraction)</b>				
<b>Target</b>	<b>Low</b>	<b>Mid</b>	<b>High</b>	<b>Notes</b>
A Sands	0.35	0.5	0.65	Low-case allows for elevated irreducible water in shallow reservoir and possible transitional gas water contact (GWC). Mid-case based on NuTech analysis of comparable Ma sands and High-case assumes good quality clean reservoir with higher end porosity and permeability and longer column with sharp GWC
Ma Sands	0.45	0.55	0.70	Triangular, Low-case based on NuTech which is expected to be impacted by formation damage, Mid-case deemed fair for normally pressured good quality sands, Upside takes into account clean connected sands and no gas water transition zone
Moulouya Fan	0.55	0.60	0.75	Based on clean turbiditic sands with elevated Sg compared to shallow sands due to dry gas and larger column with good standoff from postulated GWC
Jurassic Carbonate Bank	0.40	0.55	0.70	Wide range reflecting uncertainty in reservoir but anticipating moderate to fair connectivity in the Mid-case

<b>Gas Expansion Factor (Bg)</b>				
<b>Target</b>	<b>Low</b>	<b>Mid</b>	<b>High</b>	<b>Notes</b>
A Sands	50	52	55	Mid-case based on top reservoir c. 335m BGL, Hydrostatic gradient of 1.42psi/m plus 122psi overpressure (total 603.6psi).
Ma Sands (Potentially Overpressured)	85	95	110	Triangular with Mid-case normally pressured reservoir c. 1200psi and High-case allowing for 120psi overpressure in line with A sands.
Moulouya Fan	125	130	135	Mid case based on normally pressured reservoirs using average crestal value between MOU-3 and MOU-4 penetrations
Jurassic Carbonate Bank	100	105	110	Basis of normally pressured reservoir at approximately 850m below ground level at crest

<b>Recovery Factor (Fraction)</b>				
<b>Target</b>	<b>Low</b>	<b>Mid</b>	<b>High</b>	<b>Notes</b>
A Sands	0.5	0.6	0.75	Low-case normally pressured reservoir with some clay cements and internal horizontal and vertical intraformational boundaries. Mid-case 122psi overpressured reservoir with clean connected sands and fair permeability and some internal baffles. Upside thicker clean sands with no intraformational boundaries and a clear GWC
Ma Sands (Potentially Overpressured)	0.5	0.65	0.8	Low- and mid-cases take into account normal pressure and varying reservoir quality and connectivity, high case based on overpressured clean sands
Moulouya Fan	0.5	0.65	0.8	Low- and Mid-cases take into account normal pressure and varying reservoir quality and connectivity, high case based on clean connected sands
Jurassic Carbonate Bank	0.25	0.45	0.65	Assumed to be lower than clastic reservoirs due to generally lower permeability in carbonates. Can be locally elevated towards 0.65 in leached units