

AFRICA INDEPENDENTS FORUM

GLOBAL PETROLEUM LIMITED



**GLOBAL
PETROLEUM**
LIMITED

PVE
CONSULTING LTD LONDON
E&P UPSTREAM BUSINESS DEVELOPMENT

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AFRICA OIL WEEK



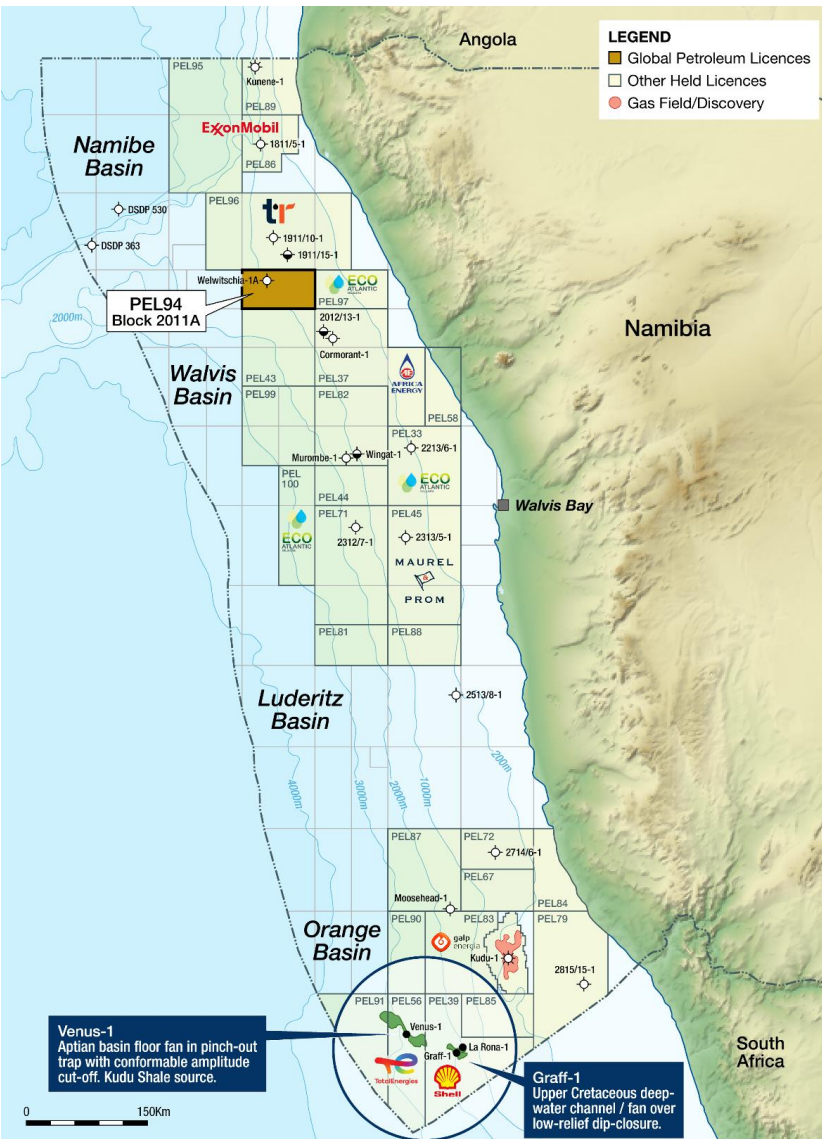
a Hyve event

Global Petroleum – a snapshot



- **Global Petroleum Limited is an Australian-registered public company quoted on the AIM market of the London Stock Exchange**
- **The management team is based in London**
- **4 successful capital raises totalling £4.2 million (c.US\$5.5 million) in last 2 years to progress the PEL94 exploration licence & for working capital**
- **Active since 2010 in Namibia**
- **Global also has exploration permit applications in the Italian Adriatic Sea**

Oil and Gas in Namibia



- **Stable jurisdiction, excellent fiscal terms**
- **Offshore there are significant players: Shell, TotalEnergies, ExxonMobil, GALP, Maurel & Prom**
- **To the north of Global's licence, ExxonMobil has a large licence position, similar in area to its Starbroek block in Guyana**
- **Discoveries of Venus & Graff have now proven a new petroleum province in Namibia underpinned by the Kudu Shale source rock, which extends to Global's PEL 94 licence**
- **Companies are now manoeuvring to access acreage where there are good prospects charged from areas where this source rock has expelled oil**

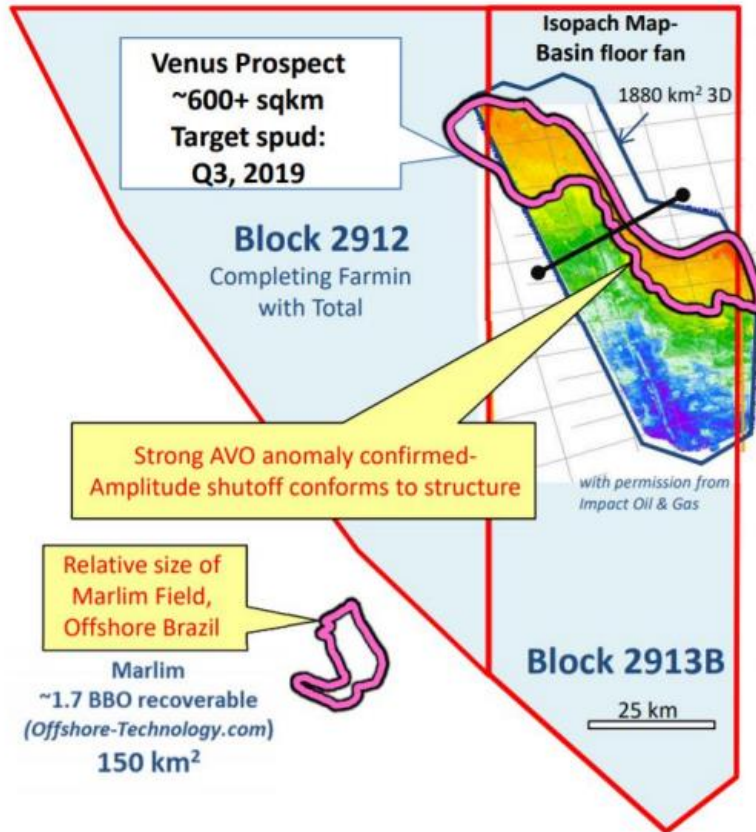
Venus Discovery



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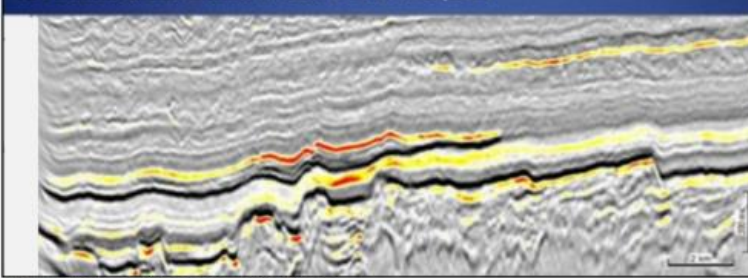
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Impact Prospect Map



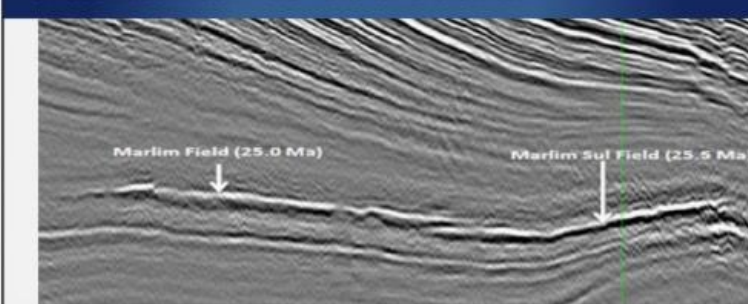
Impact Seismic

3D Seismic on Basin Floor Fan Prospect



With permission from Impact Oil & Gas

3D Seismic on Basin Floor Fans- Offshore Brazil



Bruhn 2001



- Multi-billion barrel discovery, being appraised in Q4 2022
- Sourced from the Aptian-Barremian Kudu Shale
- Amplitude and AVO conformance to structure
- Has dip closure to south-east towards sand entry point
- In Global's licence, the Marula prospect similarly has dip closure towards sand input direction, unlike many previous deep water wells in Namibia which relied on stratigraphic trapping in this direction

Graff Discovery



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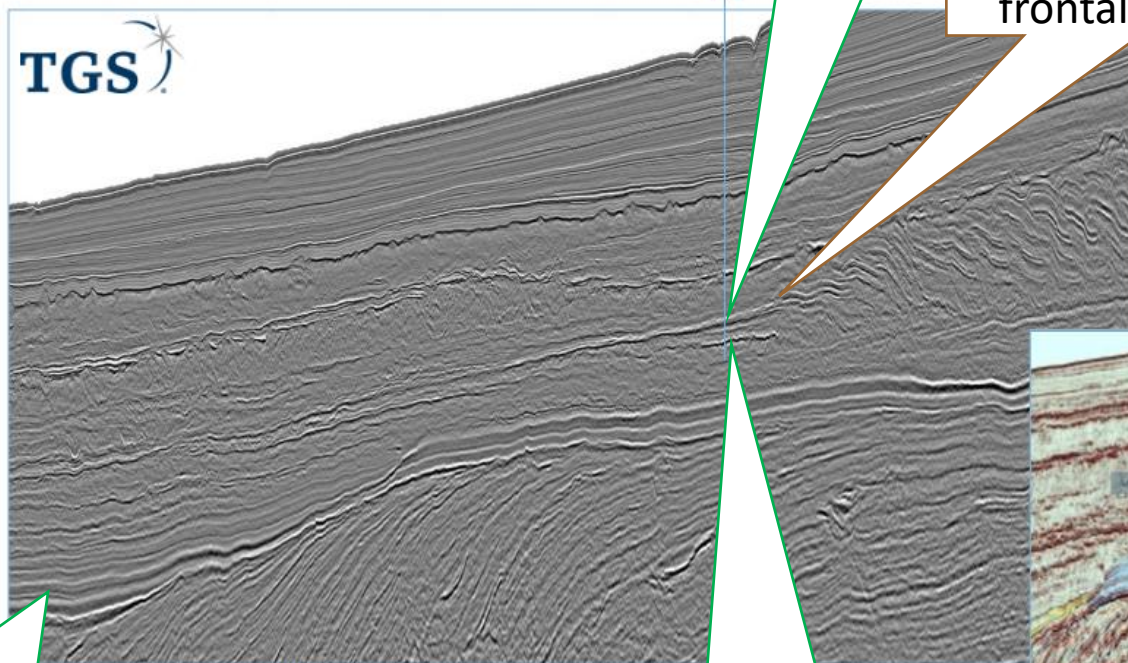
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Well Report – Graff-1

NVENTURES
NV

Seismic Images

TGS

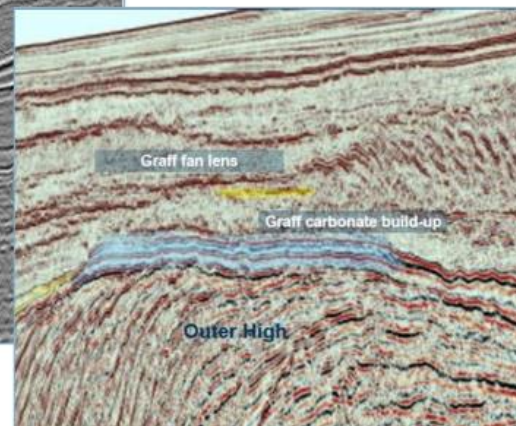


dip line across the Graff prospect, data courtesy TGS.
Green dot illustrates approximate location of Graff 1

Santonian secondary
target discovery?

Up-dip seal against
frontal toe-thrust?

Cenomanian primary
target discovery?

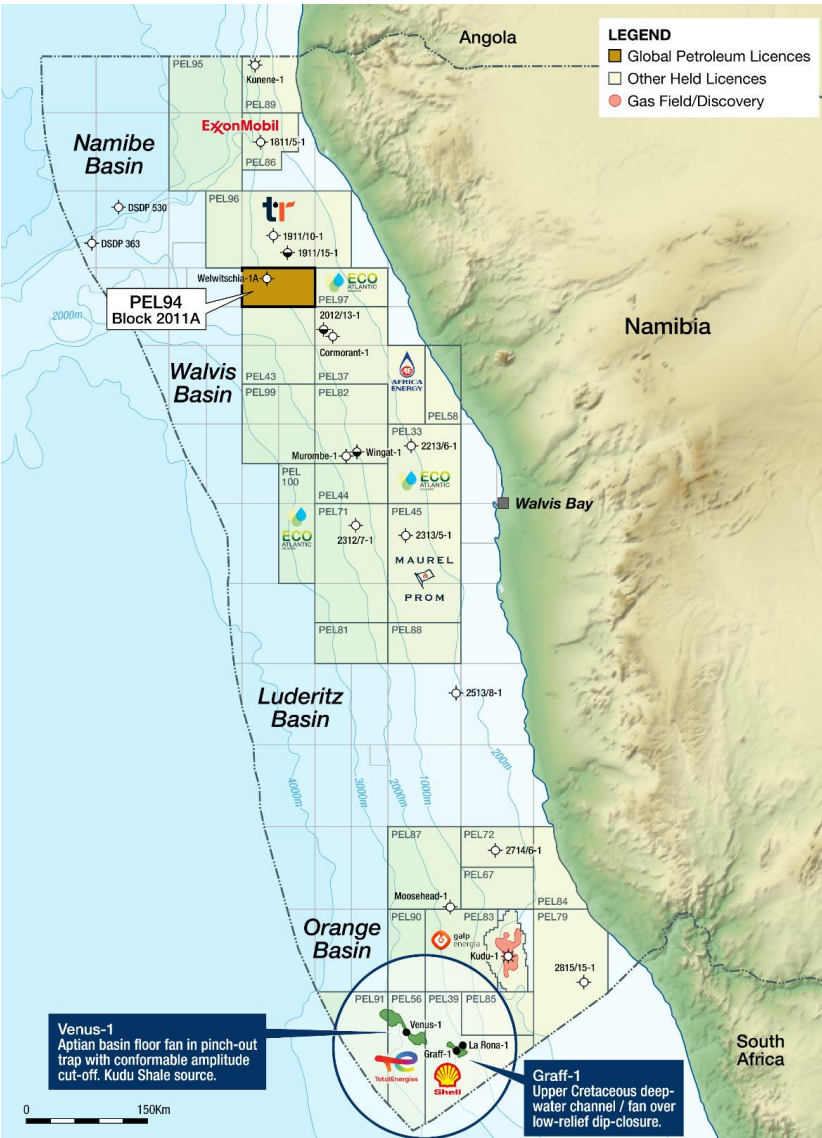


Summary interpretation of Graff well targets

- **Graff (+ La Rona): c.1 billion BBOE light oil in two Upper Cretaceous deep water sandstones**
- **3 more wells late 2022**
- **Truncated to SE against frontal thrust and stratigraphically trapped to north**
- **Regional migration focus from the Kudu Shale source rock – same source as all the prospects and leads in Global's licence**

Kudu Shale source kitchen for both Graff and Venus

Global Petroleum in Namibia

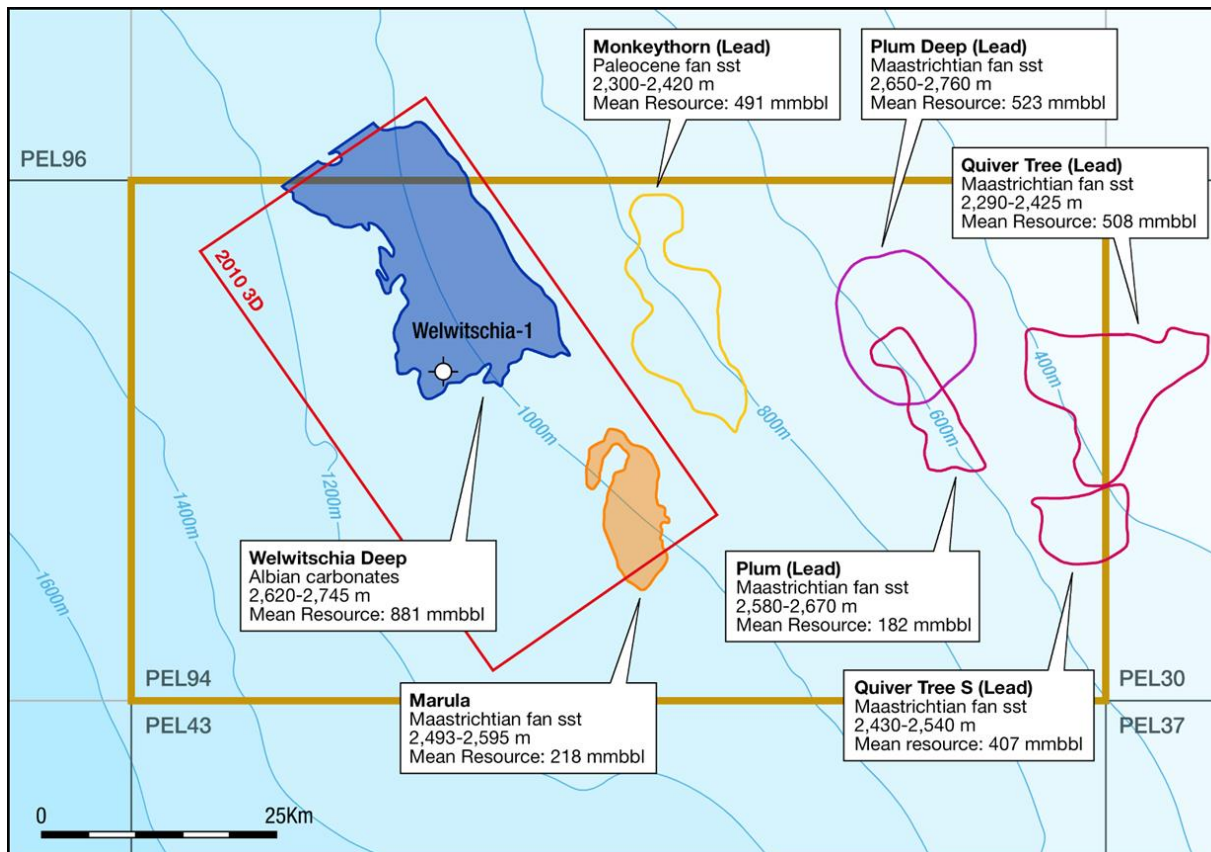


- Global's licence PEL94, 5798 sq. km, 78% and operator
- Commitment is to acquire 2,000 sq. km of 3D seismic data
- Previously held adjacent PEL29 licence for 10 years from 2010
- Main prospects are Welwitschia Deep and Marula with 881 and 218 MMbbl gross mean prospective resources respectively
- 1000m water depth
- Last 2 deep water wells in this basin cost US\$29 million and US\$16 million
- The good terms and relatively cheap deep water drilling costs read through to a significant NPV
- Plus there is further running room.....

PEL94: Prospects and Leads

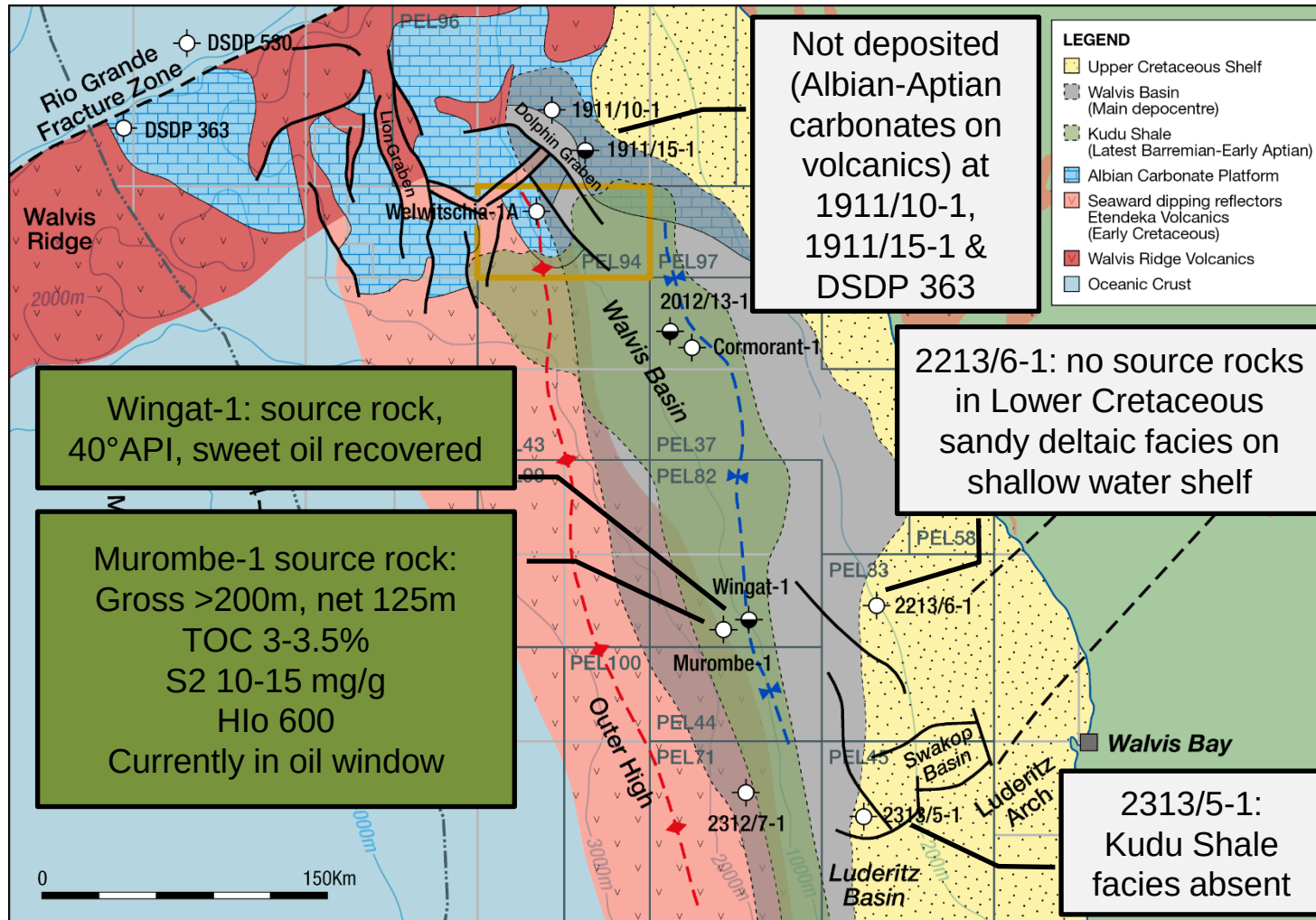


- Large portfolio: over 3 billion barrels Gross Mean Prospective Resources (within PEL94) across 9 prospects & leads



Prospect	Gross Prospective Resources			
	1U P90, MMBO	2U P50, MMBO	3U P10, MMBO	Mean, MMBO
Prospect				
Welwitschia Deep	162	671	1,863	881
Marula	109	210	337	218
Leads				
Ana	42	91	175	102
Quiver Tree	275	476	786	508
Quiver Tree South	262	396	566	407
Plum	79	164	311	182
Plum South	4	13	36	17
Plum Deep	226	466	894	523
Monkeythorn	220	442	831	491
Total	1,379	2,929	5,799	3,329

Kudu Shale Source Rock



- **World-class source rock that has charged multi-billion barrel traps at Venus and Graff in the Orange Basin**
- **Source rock present, excellent quality and generating oil in southern Walvis Basin (Murombe-1 & Wingat-1)**
- **Not present on sandy shelf**
- **Not deposited on or towards the Walvis Ridge (1911/10-1, 1911/15-1 and Tapir South-1 wells)**
- **Not reached by Welwitschia-1A, 2012/13-1, Cormorant-1 & 2312/7-1 (prospect S)**
- **So how far north does it reach?**

Kudu Shale Source Rock



1911/10-1 & 1911/15-1: no source rocks in Lower Cretaceous (Albian carbonates on Barremian volcanics)

Dolphin Basin

PEL94

- Moderate chance of effective Kudu Shale source rock presence
- Good chance of effective Kudu Shale source rock presence
- Very good chance of effective Kudu Shale source rock presence
- Excellent chance of effective Kudu Shale source rock presence

Elastic impedance lines used for seismic-source-reservoir study

Murombe-1 source rock:
Gross >200m, net 125m
TOC 3-3.5%
S2 10-15 mg/g
Hlo 600
Currently in oil window

Walvis Basin

2213/6-1: no source rocks in Lower Cretaceous – sandy deltaic facies on shallow water shelf

- Gas in seabed cores
- Seismic amplitudes in shallow section and fault zone that connects to source rock

Wingat-1: source rock, 40°API, sweet oil recovered

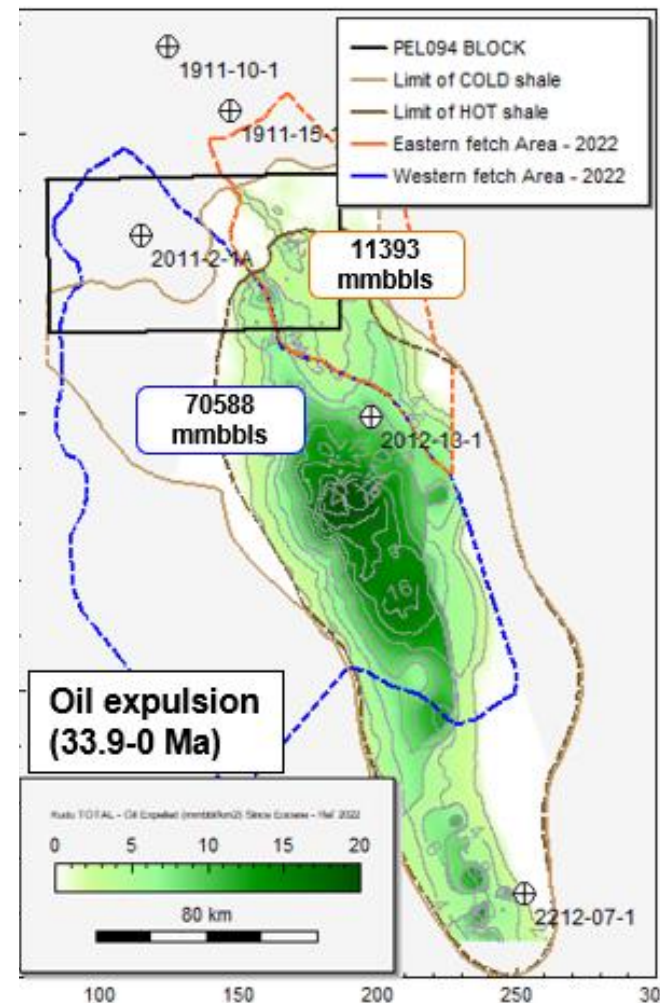
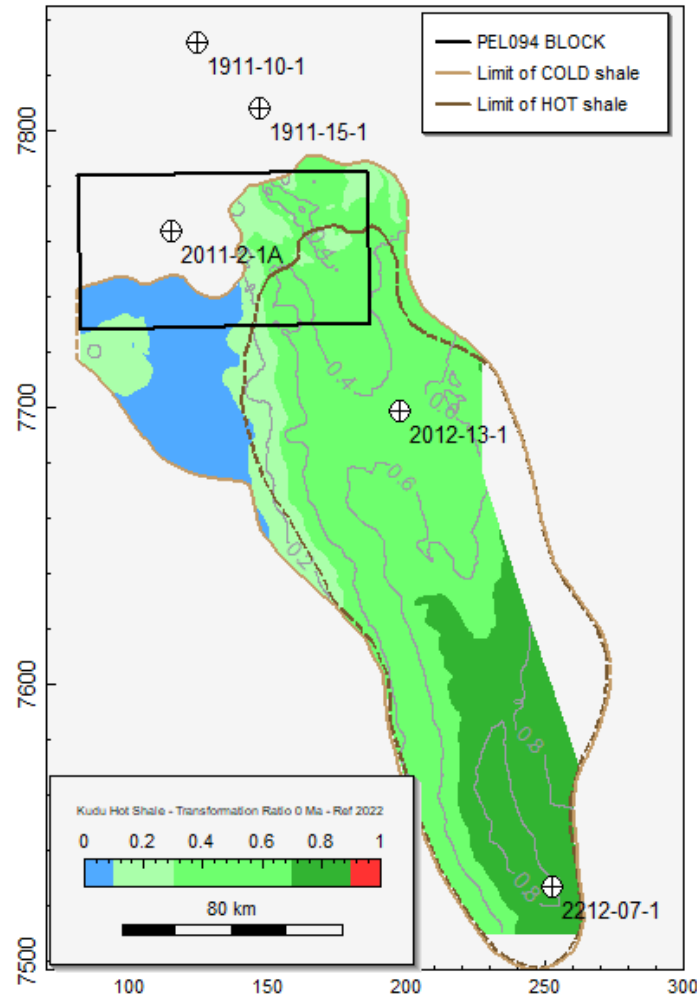
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- **Inverted, de-tuned and blocked amplitudes (using zero crossings) on 2D seismic lines**
- **Characteristic response for “hot” shale in the lower part of the Kudu Shale source rock**
- **Can map from Wingat-1 and Murombe-1 well penetrations to the eastern part of PEL94**

Maturity and Expulsion



Transformation Ratio Present Day (0 Ma)



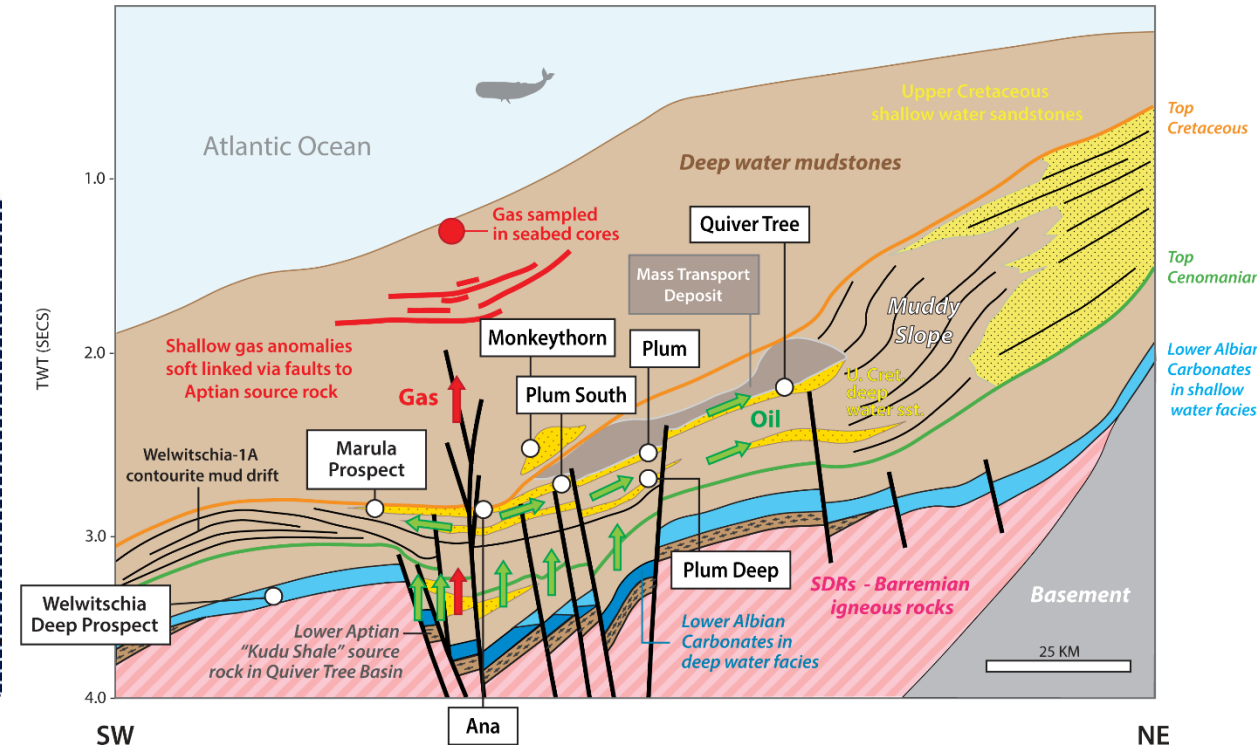
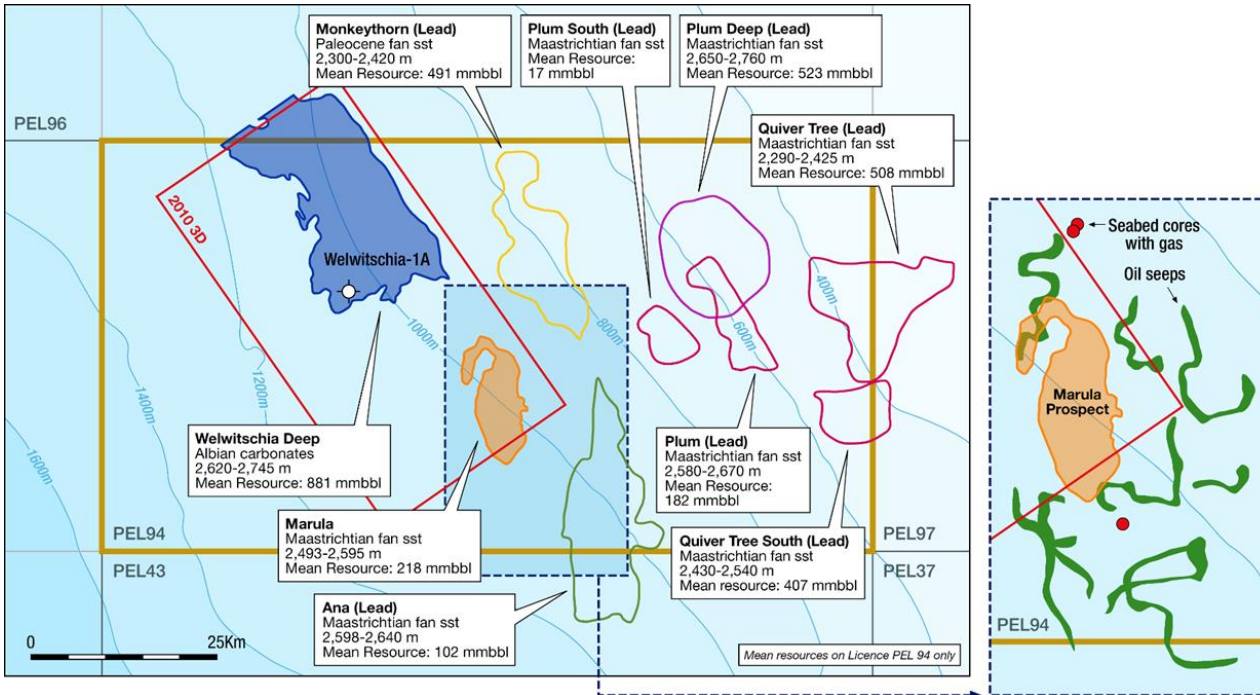
- On the left is the source rock maturity map (Transformation Ratio) for the Kudu Shale: the eastern half of PEL94 is mature
- On the right is the oil expulsion map since 33 Ma (Eocene) for the most likely of the petroleum systems models tested
- The 2 migration polygons (blue and orange) where hydrocarbons migrate into PEL94 have expelled over 70 and 11 billion barrels of oil respectively

Migration & Oil Seeps



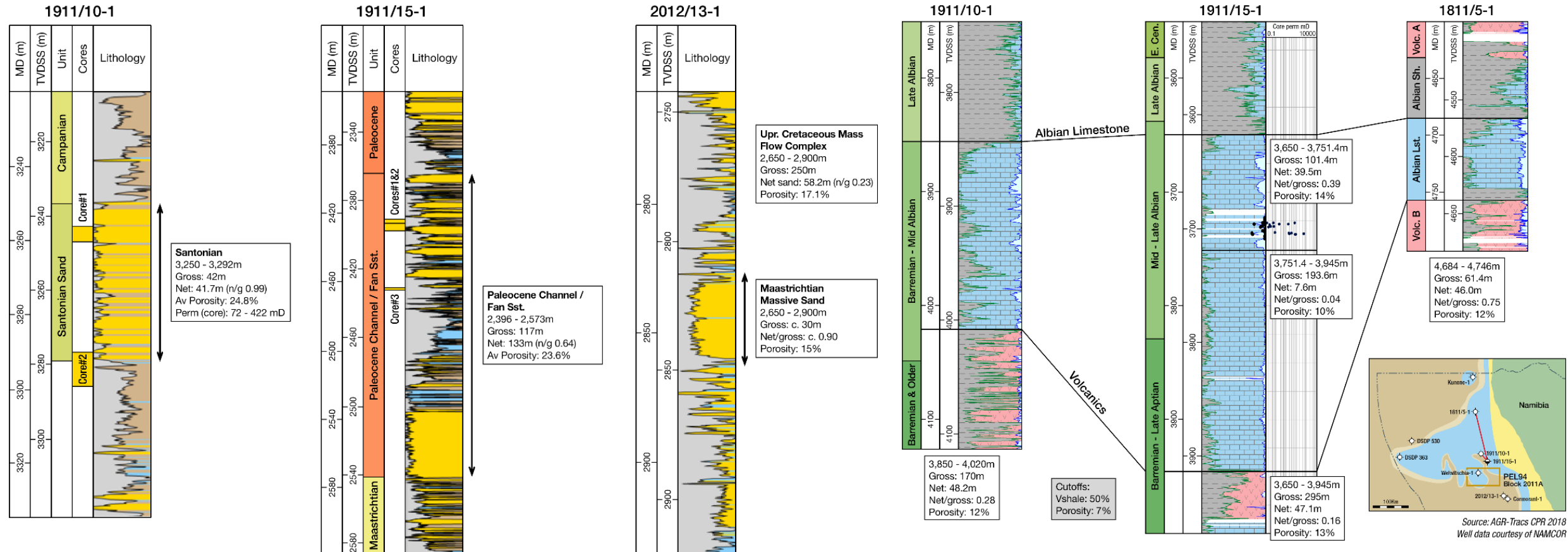
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- The inset (centre) shows interpreted oil seeps (green) around the Marula prospect (orange)
- Some seeps are spatially associated with seabed cores in which gas has been sampled and which themselves are above shallow seismic (gas) anomalies and a major fault zone that links down from near the seabed to the Kudu Shale source rock

Reservoirs



- Upper Cretaceous and Lower Paleocene deep water sandstones (Marula prospect and other leads)
- Albian shallow water, oolitic carbonates (Welwitschia Deep prospect)

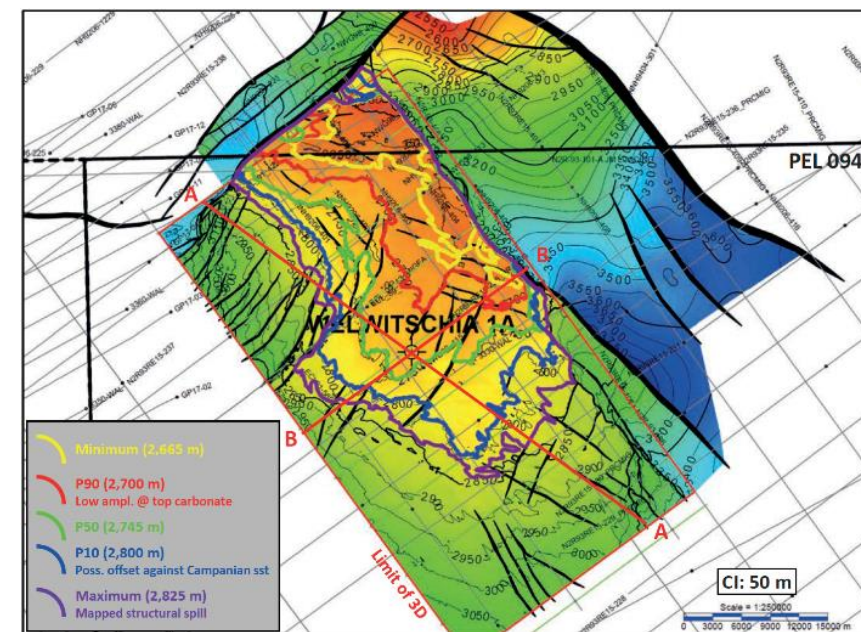
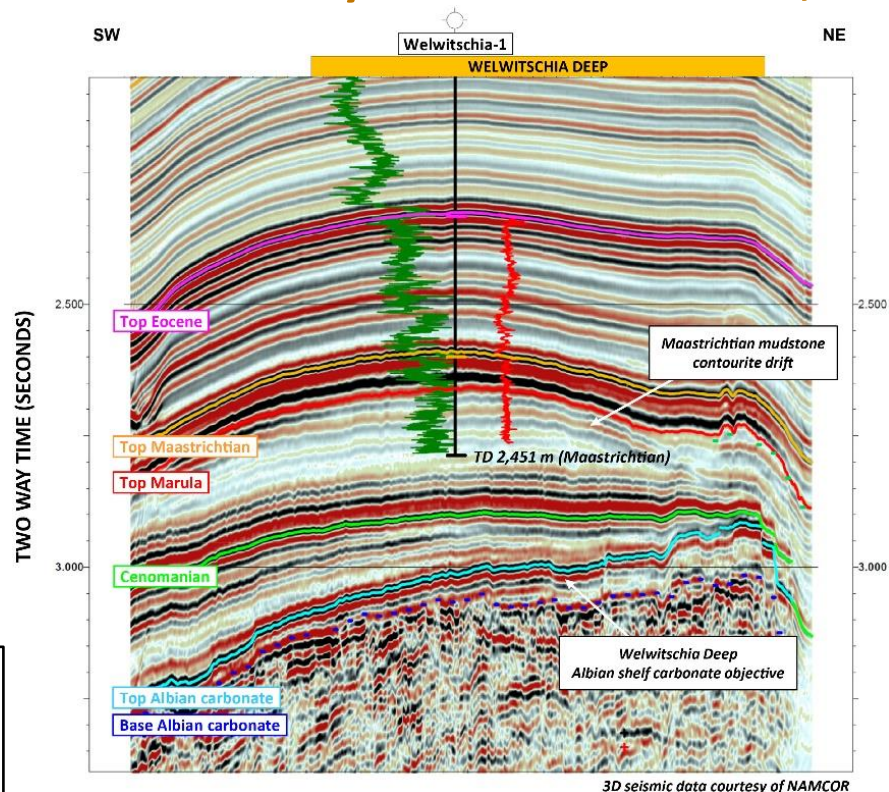
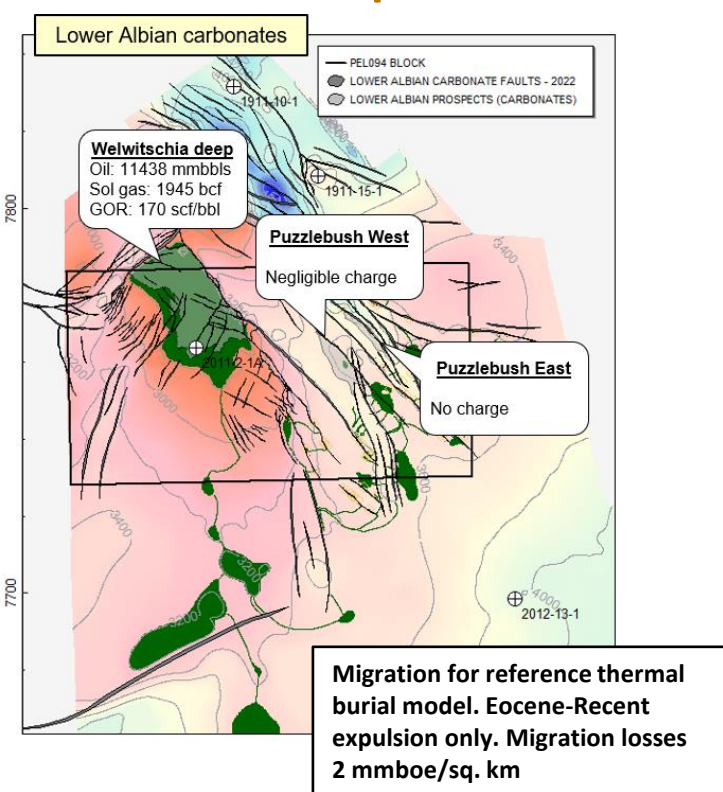
Welwitschia Deep prospect



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- **Very large tilted fault block**
- **Albian carbonate reservoir analogous to production in Angola, Congo and Brazil**
- **Regional migration focus: petroleum systems model predicts >11 billion barrels migrates to the structure**
- **Gross Prospective Resources on PEL94 only: mean 881 mmbbls, P10 1863 mmbbls**



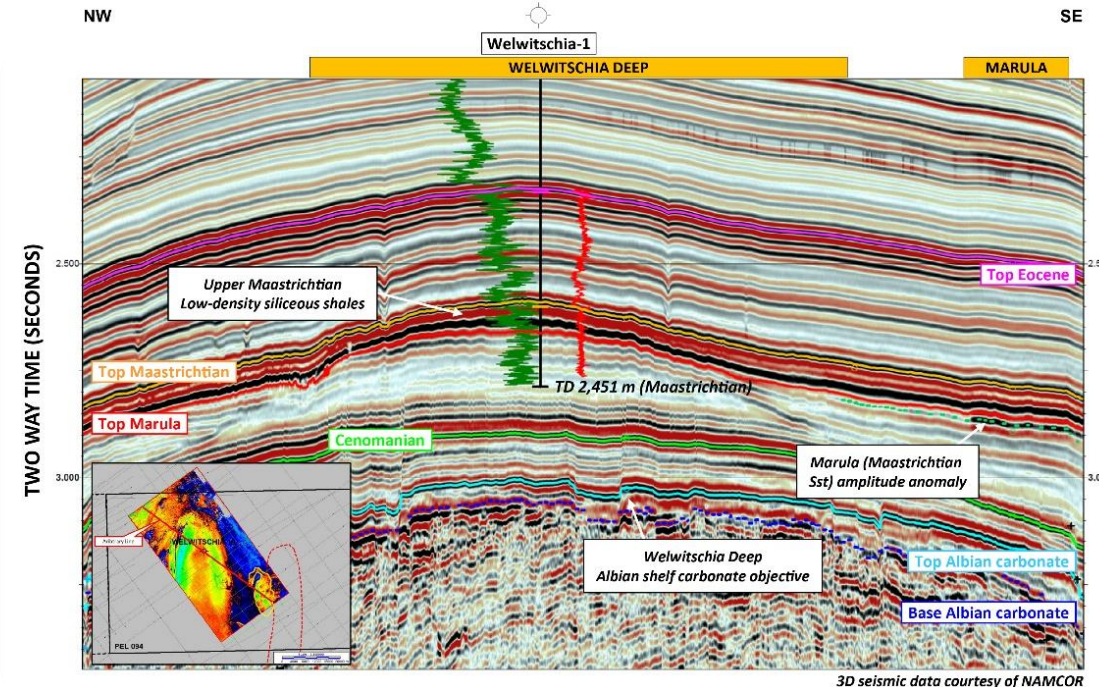
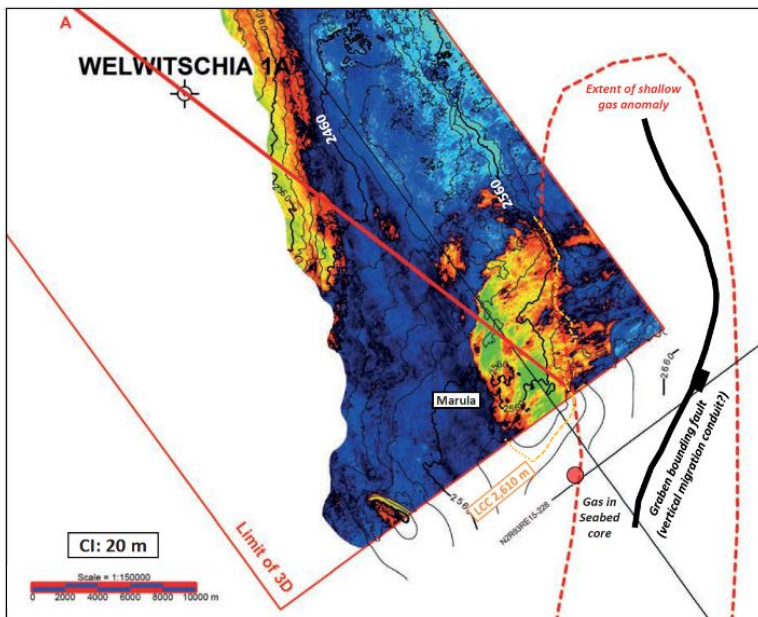
Marula prospect



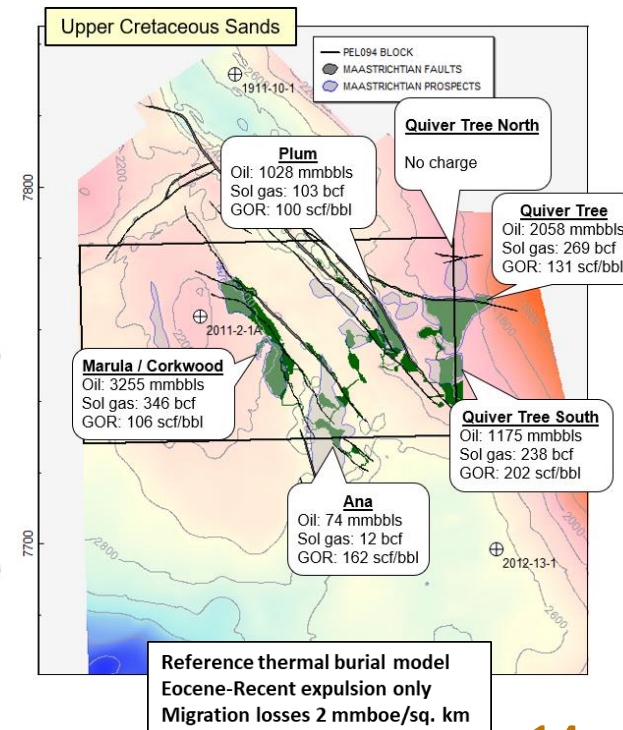
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- Upper Cretaceous deep water sandstone reservoir
- Dip-closed towards sand input direction, pinchout distally (proven by Welwitschia-1A well)
- Migration via fault to reservoir and up-dip into trap: amplitude and AVO anomalies conform to structure
- Gross Prospective Resources: Mean 218 mmbbls, P10 337 mmbbls



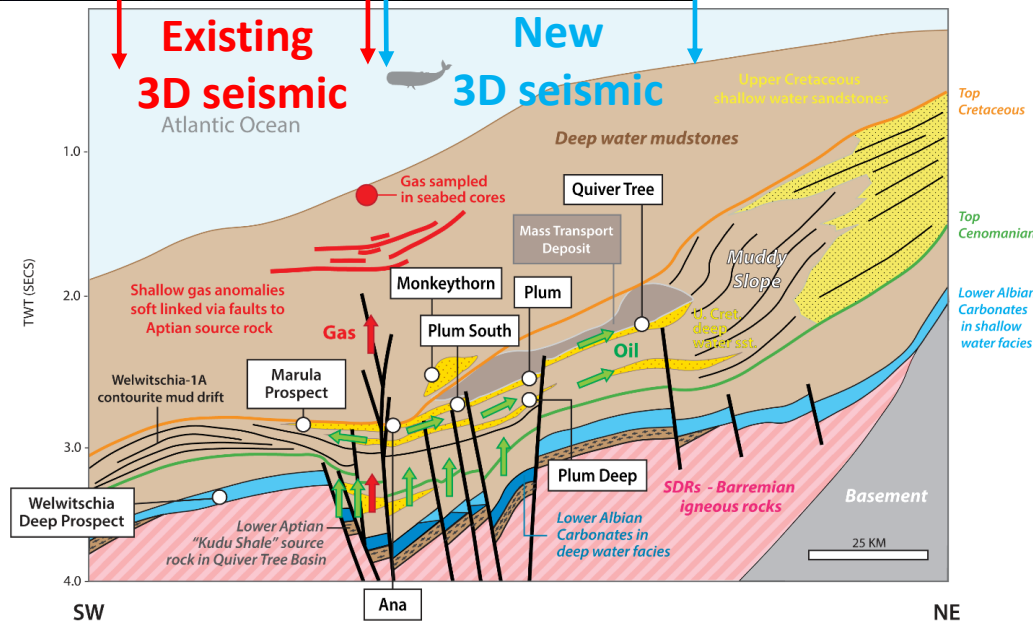
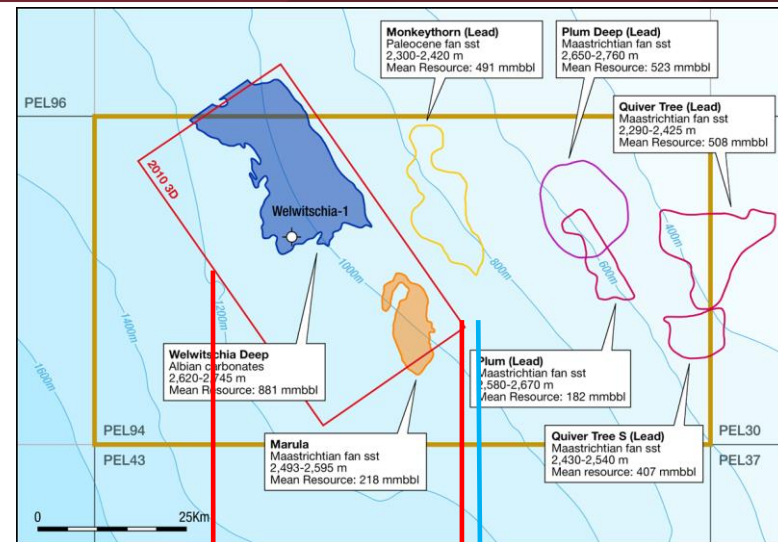
3D seismic data courtesy of NAMCOR



Eastern Leads & New 3D



- Existing 3D seismic data over Welwitschia Deep and Marula prospects
- >2 billion bbls prospective resources in the leads in the eastern PEL94
- Planning best options for new 3D seismic data coverage over these
 - Global has sponsored Searcher Seismic's 3D offshore multi client Walvis Basin EIA



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PEL94 Licence & Work Programme



- **Global Petroleum 78% and operator**
- **NAMCOR 17% (state oil company)**
- **Aloe 5% (local partner)**

Current Status of Licence (5+2+2 years)

Exploration Period	Initial Exploration Period					First Renewal Period		Second Renewal Period	
	Sub-period 1			Sub-period 2					
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
Date	Sep 2018-19	Sep 2019-20	Sep 2020-21	Sep 2021-22	Sep 2022-23	Sep 2023-24	Sep 2024-25	Sep 2025-26	Sep 2026-27
Firm Work Commitment	Licence and interpret 3D and 401 km 2D seismic data / petrophysical analysis of key offset wells / reconnaissance AVO study			2,000 km ² 3D seismic (min US\$ 4mm)		One exploration well to 3,850 m (US\$ 25mm)		One exploration well (US\$ 25mm)	

Timings With Allowed Extensions

Exploration Period	Initial Exploration Period					First Renewal Period			Second Renewal Period	
	Sub-period 1			Sub-period 2						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Date	Sep 2018-19	Sep 2019-20	Sep 2020-21	Sep 2021-22	Sep 2022-23	Sep 2023-24	Sep 2024-25	Sep 2025-26	Sep 2026-27	Sep 2027-28
Firm Work Commitment	Licence and interpret 3D and 401 km 2D seismic data / petrophysical analysis of key offset wells / reconnaissance AVO study			2,000 km ² 3D seismic (min US\$ 4mm)		One exploration well to 3,850 m (US\$ 25mm)			One exploration well (US\$ 25mm)	



- **Namibian fiscal terms are highly competitive on a global scale and the key terms are summarised below:**

Fiscal Regime	Tax / Royalty
Royalty	5%
Petroleum Income Tax	35%
Additional Profits Tax*	1st Tier – 25%; 2nd Tier – 25%; 3rd Tier – 30%
Namibian Participation	PEL94: Namcor (17%) carried to First Oil & Aloe (5%) carried through exploration

- **Carry is repayable through production**
- **Economics for both the Marula and Welwitschia Deep prospects are robust**

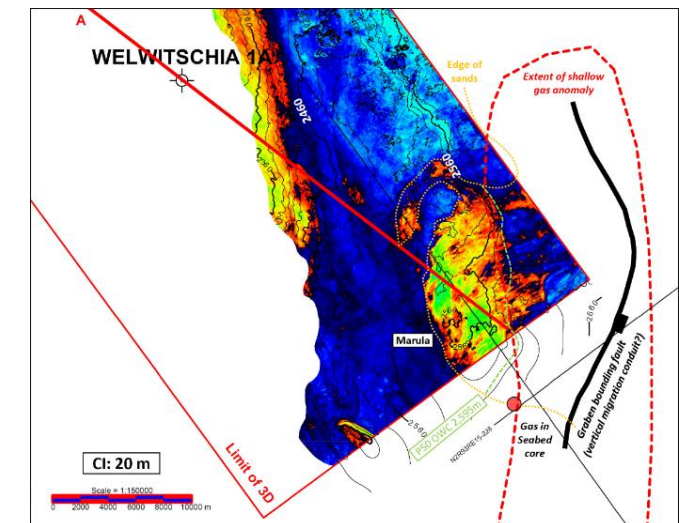
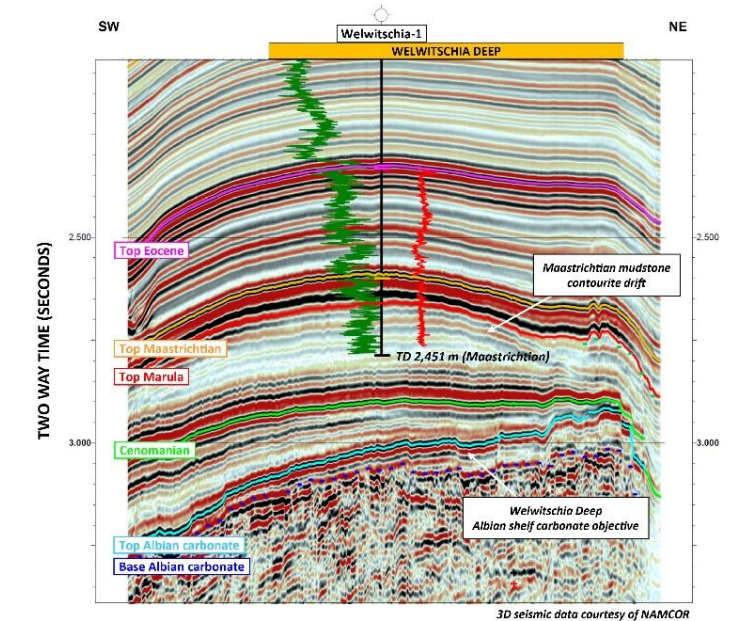
Exciting Opportunity in a New Oil Province



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- **Venus & Graff: a new Kudu Shale source rock petroleum province proven, extending to PEL 94**
- **>3 BBO Gross Mean Prospective Resources in 9 prospects & leads**
- **Drill-ready, 3D prospects: Welwitschia Deep (881 MMbbl Gross Mean); Marula (218 MMbbl Gross Mean)**
- **Cheap deep water drilling c.US\$35 million (water depth c.1,000m)**
- **Stable jurisdiction, excellent fiscal terms, robust economics**
- **Global in Namibia since 2010 and has excellent relationships with the government and Namcor**
- **Global Petroleum 78% and operator**
- **Operatorship and significant equity position available in consideration for contribution to past costs and carry on forward work programme**



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