ExxonMobil

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Madagascar 2013

Ampasindava, Majunga and Cap St Andre

Data-room Opportunity Overview

July 2013

Agenda

Introduction

Overview
Location and license map, current equity
Project timelines

ExxonMobil Exploration History

Recent Exploration Success

Geoscience

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Regional Geoscience, play summary chart/ stratigraphic column, tectonic reconstructions
Structural elements
Stratigraphy & palaeogeography; reservoir presence & quality.
Source mapping: Hydrocarbon Audit map, field & well evidence for sources, DHIs
Jurassic Play - *Ampasindava Leads and Prospects*
- *Sifaka basin modelling & Timing chart*
- *Majunga Leads and Prospects*
- *Varijatsy basin modelling & Timing chart*

Cretaceous Play - *Majunga Leads and Prospects: Komba, Bandro, Lead H*

Cap St Andre Leads: CSA_1-2-3, Lead 4, Lead I
Summary

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Revenue flow diagrams & fiscal terms
LNG project assumptions, East Africa LNG market options & gas development Scale and Schedule scenarios
Oil project assumptions & oil development Scale and Schedule scenarios

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Data Room Timeline

Overview

Purpose

- ExxonMobil is seeking a Co-Venturer to participate in their Exploration program over three blocks, Ampasindava, Majunga and Cap St Andre

Background

- Three blocks total 11.8 million acres (47,745 km2) in the Majunga salt basin; multiple plays identified on c. 12,800 km 2D seismic & 3785 km2 3D
- All three licenses have been in suspension since 7 February 2009 due to political unrest
- With a democratic system being re-established and elections planned June to September, 2013, EM is recommencing exploration activities
- Extensions to the original PSCs have been negotiated and executed with OMNIS; now awaiting Presidential ratification
- OMNIS have confirmed that the end of suspension of each license will be extended to the date of gazettal of presidential ratification
- Drilling operations planned from 2015 onwards. Geoscience evaluations ongoing, options include
- Jurassic play with e.g. Sifaka well 4.5TCF (mean)/8.2TCF (p10) EUR in Ampasindava ($185M to 5800mSS, excludes well test, if required)
- Cretaceous play with e.g. Komba well 890 MMbbl (ML)/1331 MMbbl (HS) EUR in Majunga ($143.5M – excludes well test, if required)
- EM and Co-Venturers have spent $165M to date
- Venture office retained in country throughout suspension period; Venture manager in place since March 2013
- In-country capacity-building program initiated April 2013. Excellent working relationship with OMNIS & co-venturers

Incentives

- Majunga salt basin is an underexplored part of the emerging East Africa petroleum province. The majority of global salt basins are prolific with multiple working HC systems
- Multiple untested plays with significant materiality and running room
- Jurassic salt turtle clastics: most likely gas with a chance of oil
- Cretaceous DW clastics: oil or gas
- Tertiary & Cretaceous stratigraphic and thrust plays have been identified; being progressed with additional seismic
- High graded prospects success-case potential EUR 13 TCF (gas cases) / 2200MMbbl (oil case) or 24 TCF (high side gas) /4600 MMbbl (high side oil)
- ExxonMobil a proven operator of large-scale LNG projects.
- Environmental issues already being worked comprehensively through engagement with in-country stakeholders

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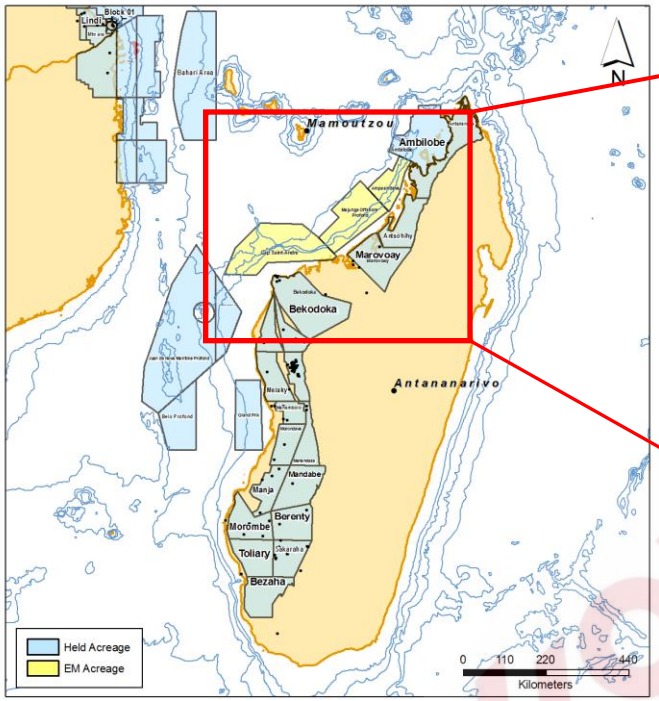
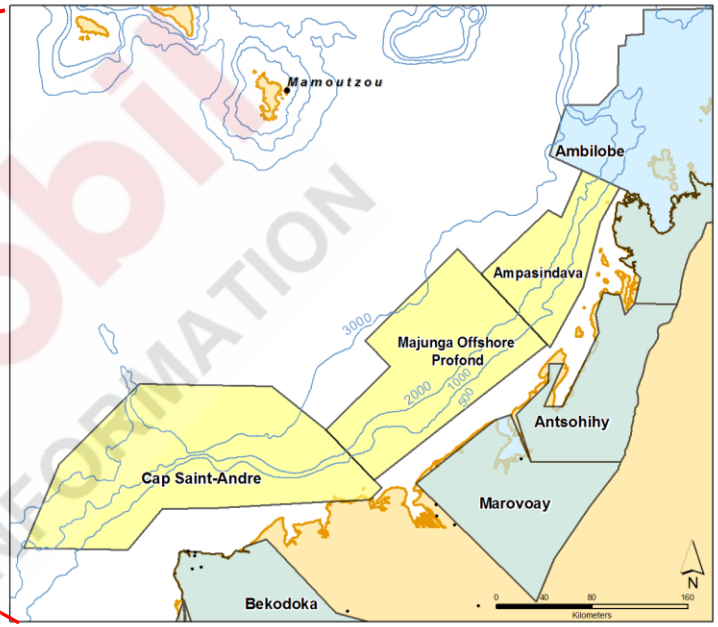
Madagascar PSC Licenses



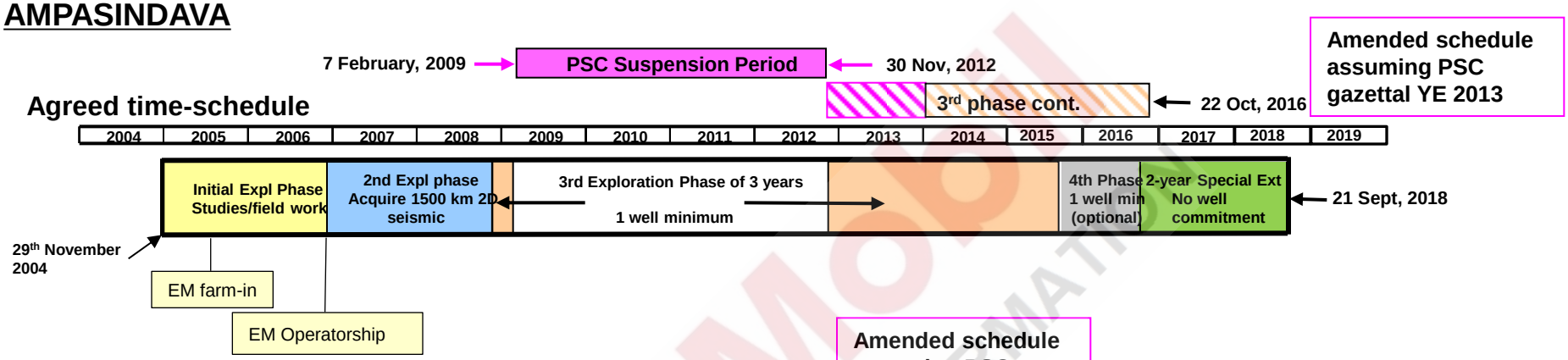


- **Ampasindava** — EM 70%, Sterling 30%
  (1.8 m acres / 7,280 km2) — PSC extension executed, awaiting ratification
  35% available — 1 well commitment
- **Majunga** — EM 50%, BG 30%, PVEP 10%, SKI 10%
  (3.9 m acres / 15,780 km2) — PSC extension executed, awaiting ratification
  15% available — 1 well commitment
- **Cap St Andre** — EM 100%
  (6.1 m acres / 24,685 km2) — PSC extension executed, awaiting ratification
  35%/negotiable available — 2000 km 2D seismic commitment

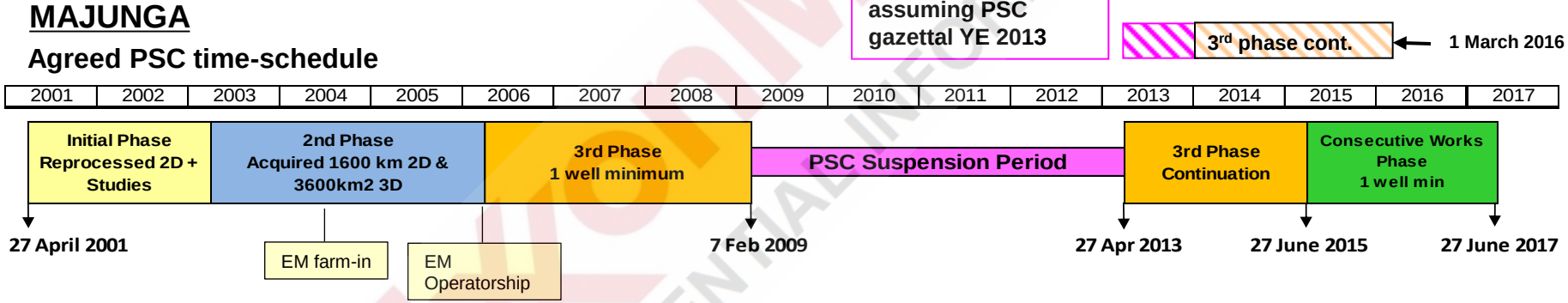
- Frontier deep-water acreage
- Unexplored deep-water salt basin with multiple plays
- Environmentally sensitive
- Remote with no petroleum infrastructure
- Recent gas discoveries in Mozambique and Tanzania – increased potential for working hydrocarbon system offshore Madagascar

Madagascar Licenses- Suspension periods

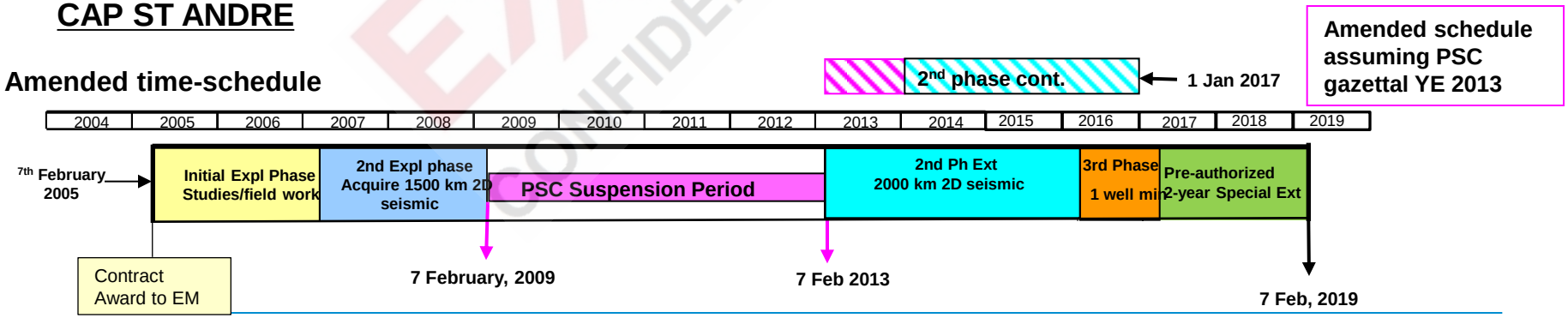
AMPASINDAVA



MAJUNGA



CAP ST ANDRE



Madagascar Project Timeline

Assumes PSC Ratification YE 2013

2012 | 2013 | 2014 | 2015 | 2016

J F M A M J J A S O N D | J F M A M J J A S O N D | J F M A M J J A S O N D | J F M A M J J A S O N D | J F M A M J J A S O N D

Wells

AMP.

MAJ.

Sifaka

Aye-Aye

Komba

Varijatsy

Seismic

AMP.

2D Directed Spec infill

Acc. Processing

2D repro

Directed spec

Ampasindava 3rd Phase expiry

2DHR

Acc. Processing

MAJ.

3D PSTM Repro

PSTM Re-processing

PSDM Re-processing

2D Directed Spec infill

Ac. Processing

Majunga 3rd Phase expiry

2D repro

Directed spec

Proprietary

CSA

2D Directed Spec infill

Ac. Processing

2D repro

Directed spec

G&G

MAJ. AMP.

Regional mapping | Prospect mapping | G/M & Basin mod | Update | Well planning | Update and continued well planning

MAJ.

Regional mapping | Prospect mapping | G/M & Basin mo | apping Update | Well planning | Update and continued well planning

CSA

Regional mapping | Prospect mapping | G/M & Basin mod | Mapping Update | Update

License

MAJ. AMP.

SC amendment approval

3rd phase amended (1 well commitment)

4th ph.

License Suspension

3rd phase amended (1 well commitment)

Cons. Works Ph. (1 well commitment)

PSC ratification / gazettal

CSA

2nd phase extended (2D commitment

Key Decision Pts

AMP.

Rig Commit. & LLIs

Shorebase

Well AFE

Well AFE

MAJ.

V.O. manager in place

Well Decision

Well AFE

Well AFE

Farm-down activities

Project ramp-up

V.O. ramp-up

Data-room preparation

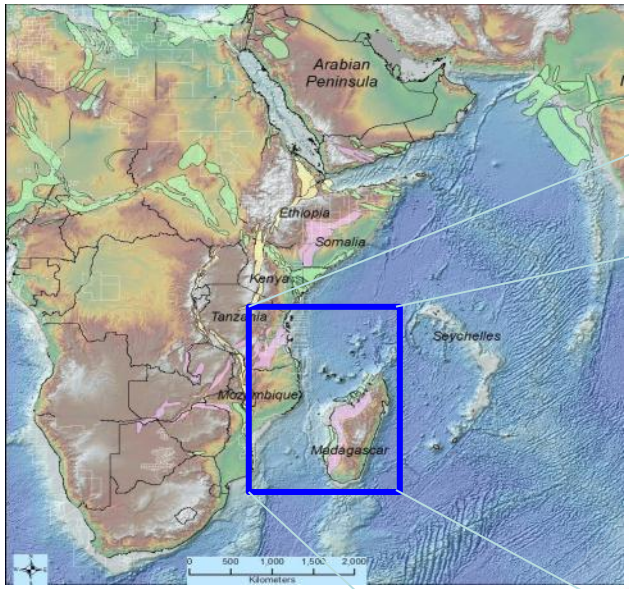
Data-room

Farm-in / JOA negotiation

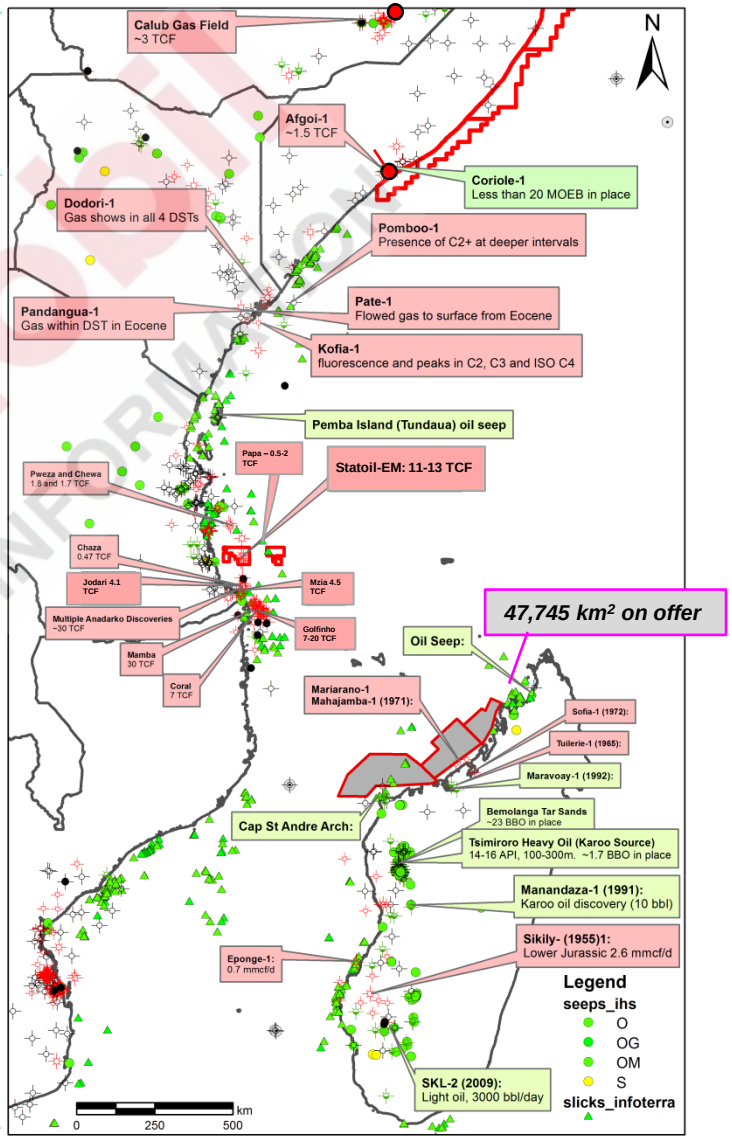
Farm-down agreement

Exploration History

East Africa Margin Drilling Activity & Discoveries

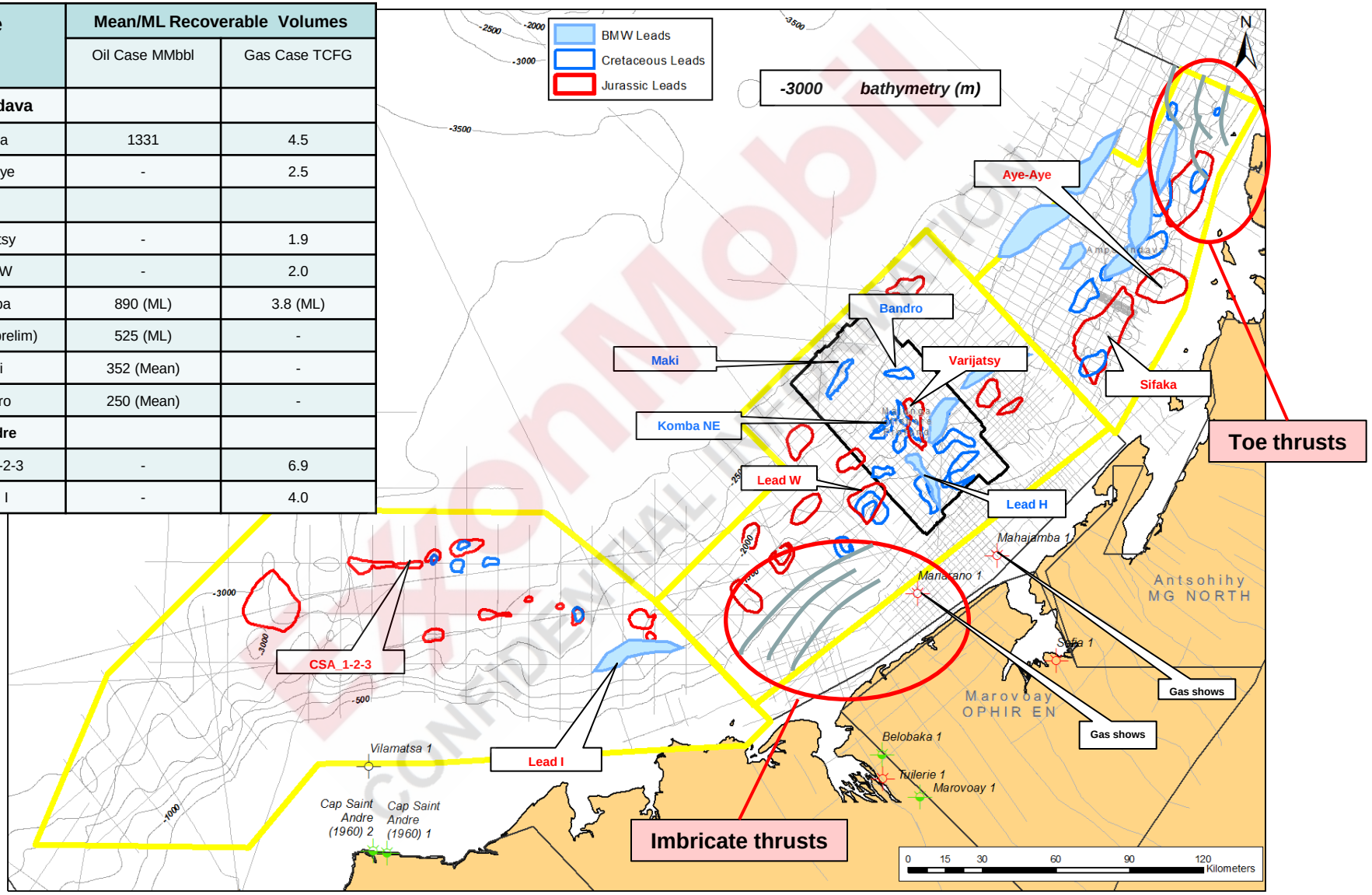


- Extensive drilling activity along East Africa (Tanzania & Mozambique) margin with 100+ TCFG discovered
- Sedimentary succession & play elements on Madagascar margin different to East Africa margin
- Renewed interest in Madagascar acreage (discoveries on conjugate margin may de-risk some play elements e.g. source)
- Potential to share rigs between East Africa and Madagascar



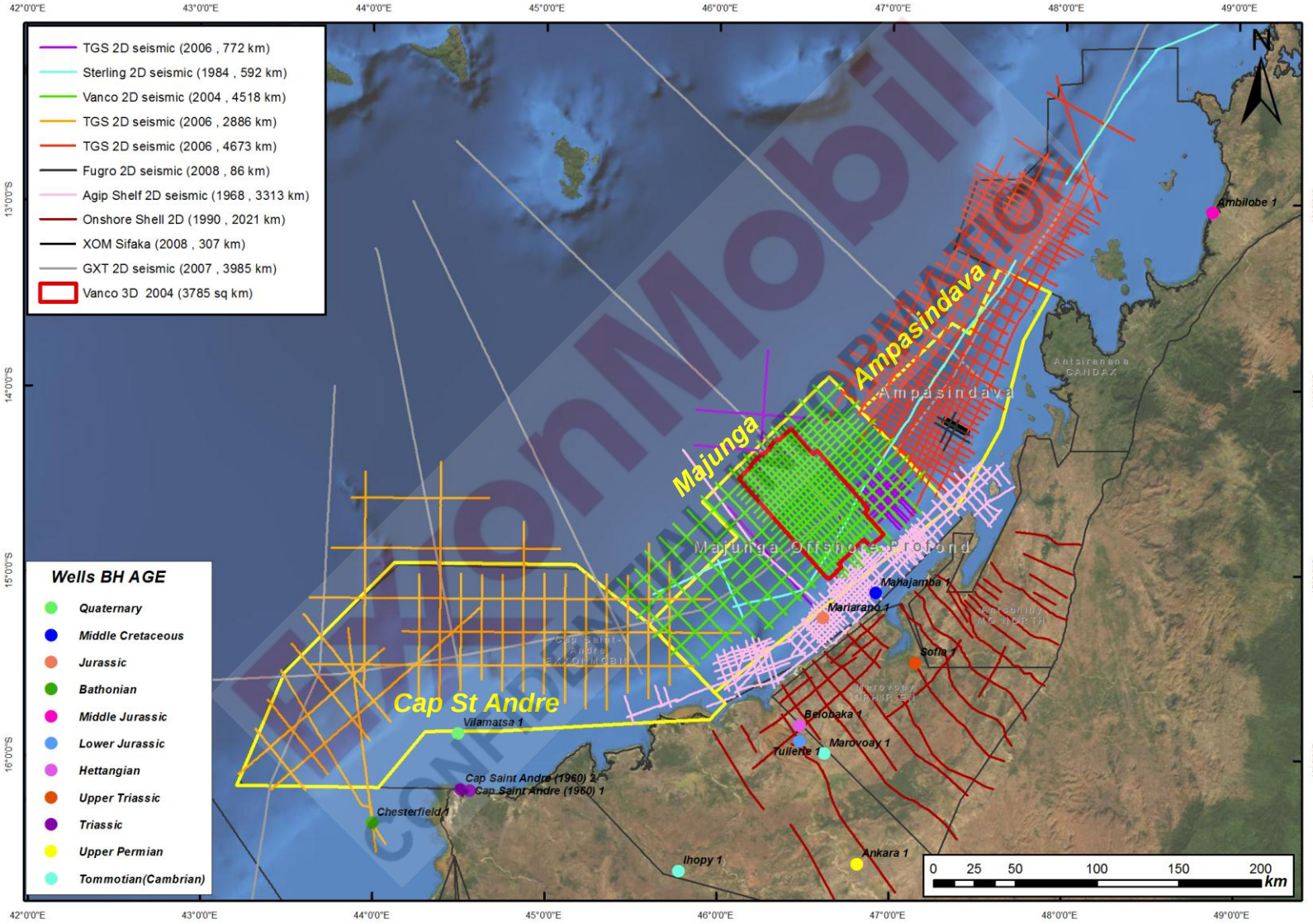
Madagascar Leads

Licence	Mean/ML Recoverable Volumes	
	Oil Case MMbbl	Gas Case TCFG
Ampasindava		
Sifaka	1331	4.5
Aye-Aye	-	2.5
Majunga		
Varijatsy	-	1.9
Lead W	-	2.0
Komba	890 (ML)	3.8 (ML)
Lead H (prelim)	525 (ML)	-
Maki	352 (Mean)	-
Bandro	250 (Mean)	-
Cap St Andre		
CSA_1-2-3	-	6.9
Lead I	-	4.0



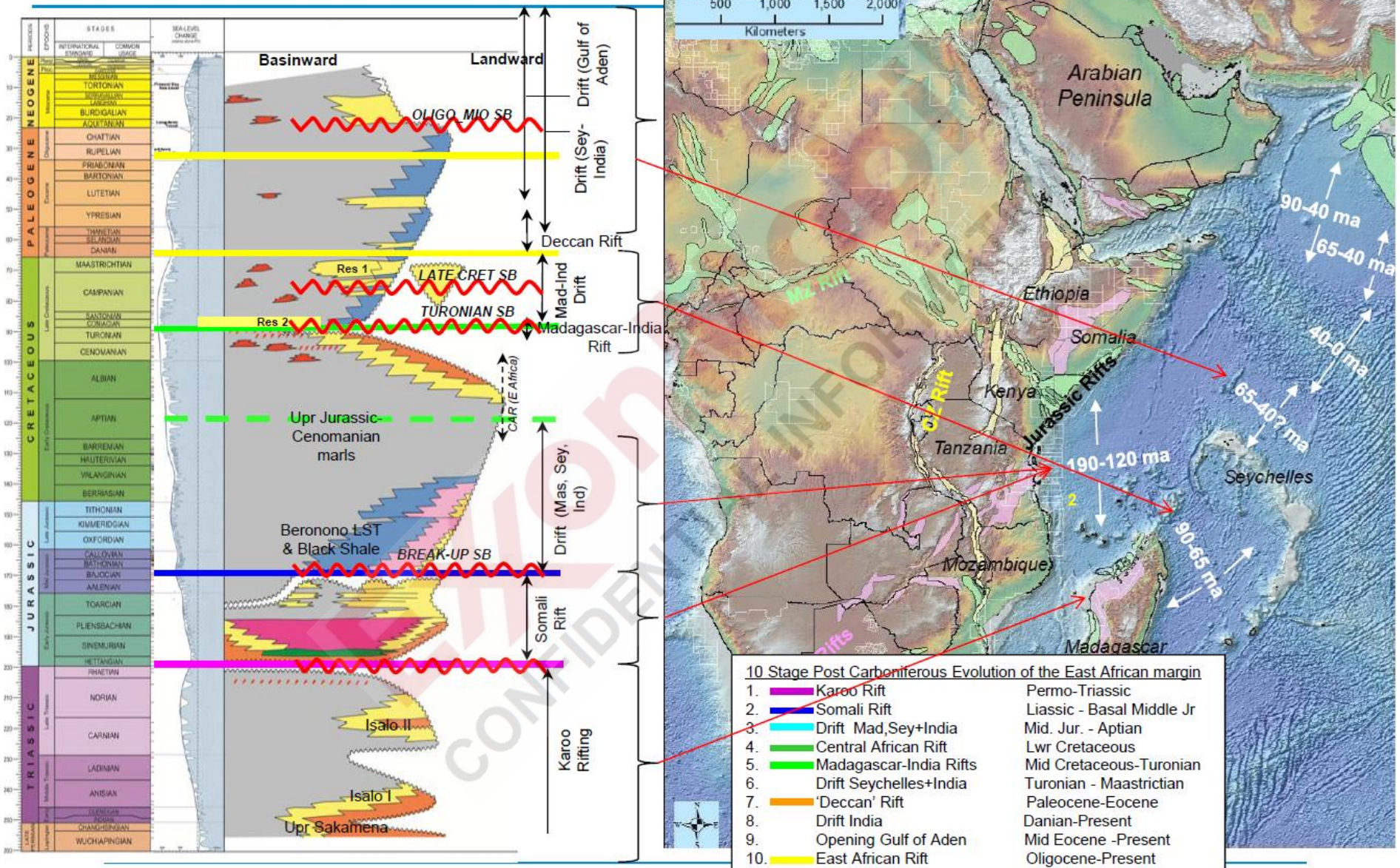
Geoscience: Database

Madagascar 2D/3D Seismic and Well Database

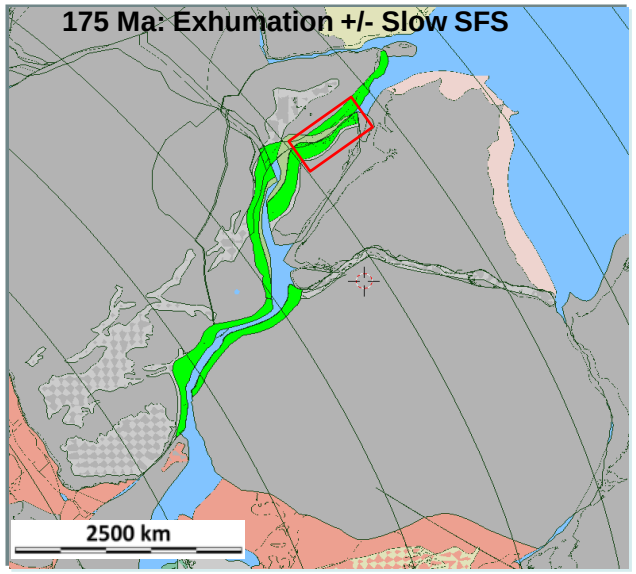


Majunga Basin
Regional Geoscience

Madagascar Tectono-Stratigraphy



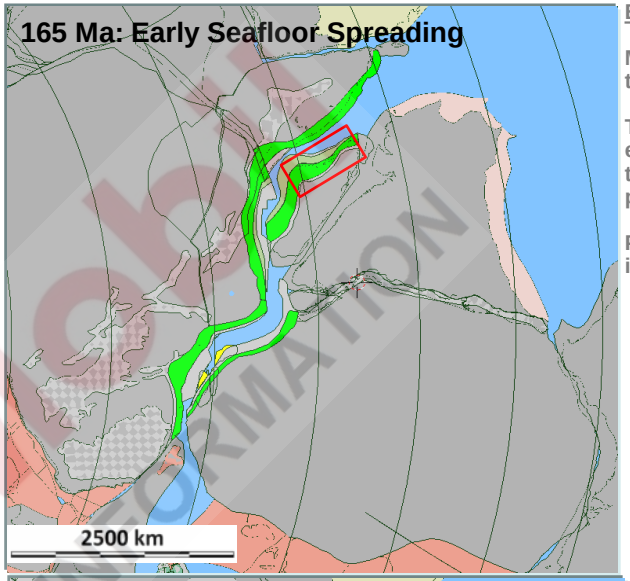
East Africa Plate Reconstruction



NW-SE Extension Continues

Prolonged exhumation period

Transition to slow seafloor spreading?

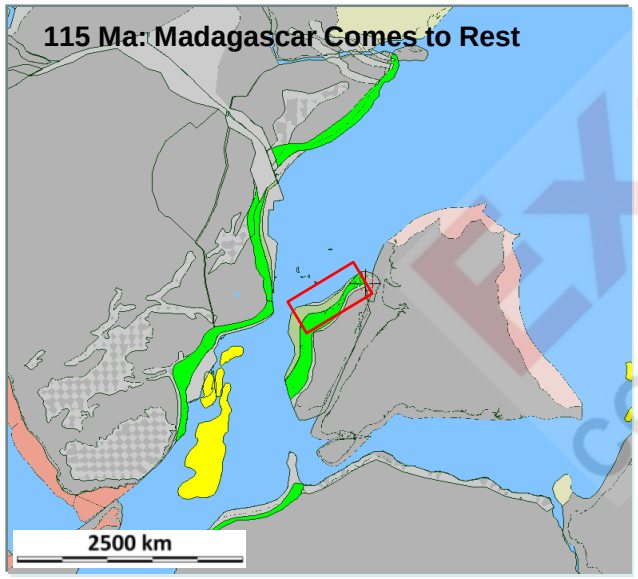


Early Seafloor Spreading

Motion now almost parallel to Davie Ridge

Thermal subsidence establishes major transgressive system on proximal margin

Prolonged condensed interval in distal margin



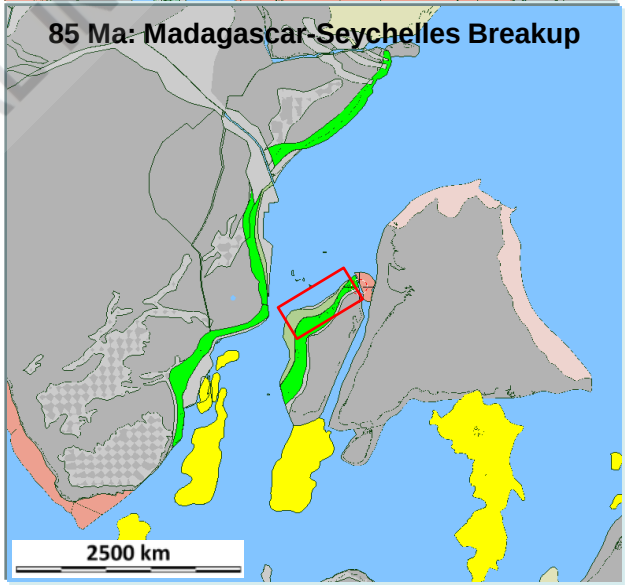
Madagascar becomes part of African plate

Major change in sed patterns and packaging

Transition to prograd stratal packaging at NW Madagascar margin

LEGEND

- Oceanic crust
- Unattenuated cont. crus/craton
- Cont crust now assoc Himalayan contractional belts
- Lwr cont crust/cont mantle lithosphere exhumation
- Attenuated cont. crus/craton
- Karoo basins (foreland and Mesozoic
- Magamatic crust related to plume enhanced thickening of oceanic crust

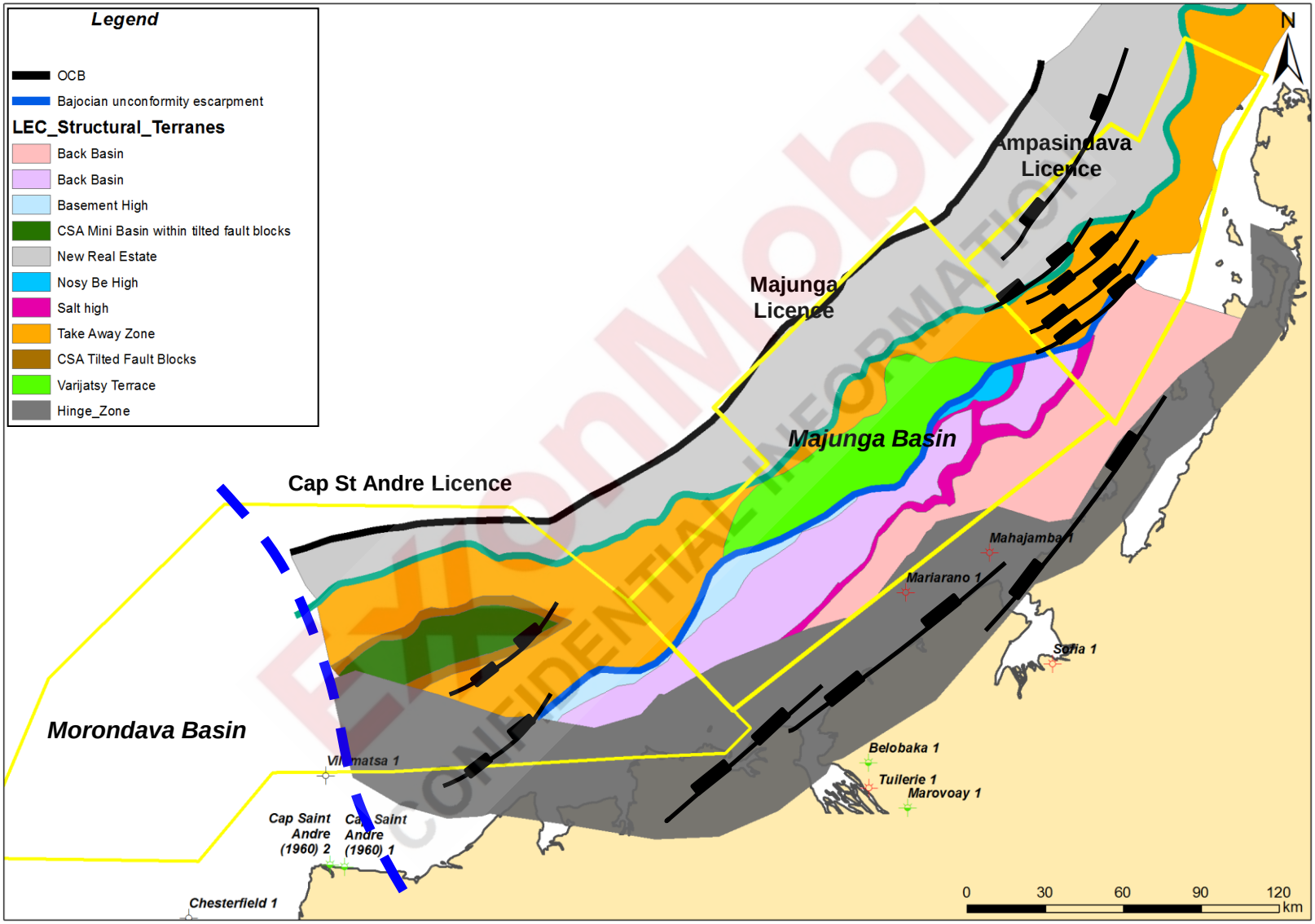


Madagascar-Seychelles Breakup

Final Mesozoic uplift event

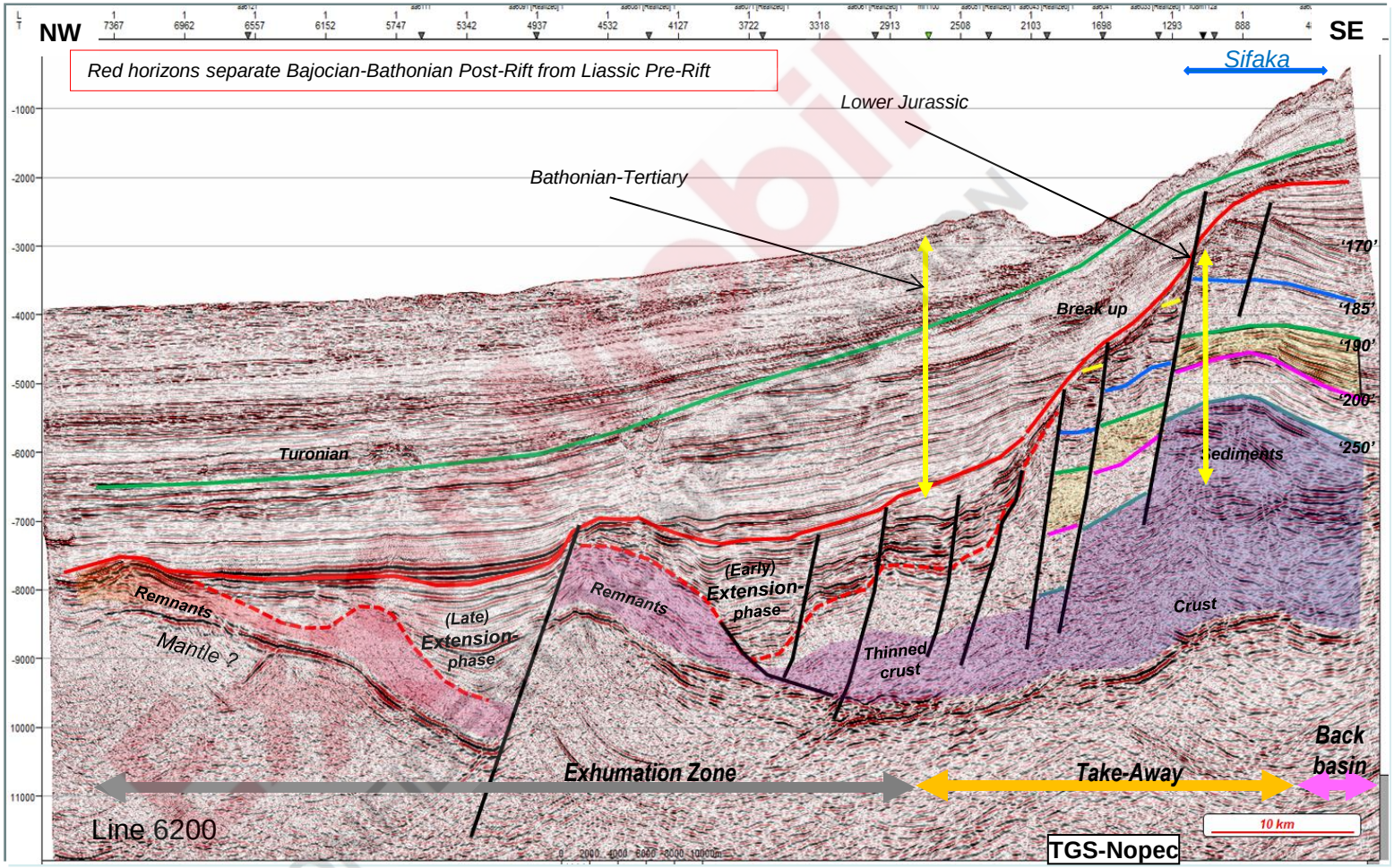
Major denudation at northern end of Madagascar

Structural Elements Map



Ampasindava Seismic Cross-Section

- Basin formation 190-180 Ma: minor salt deposition
- Significant poly-phase rifting & break-up followed by passive onlap



Reservoir:

Quartz-rich fluvial & shallow-marine sands with good RQ in onshore wells & outcrop

Offshore sand deposition offshore (updip age-equivalent clastics)

Source/Seal:

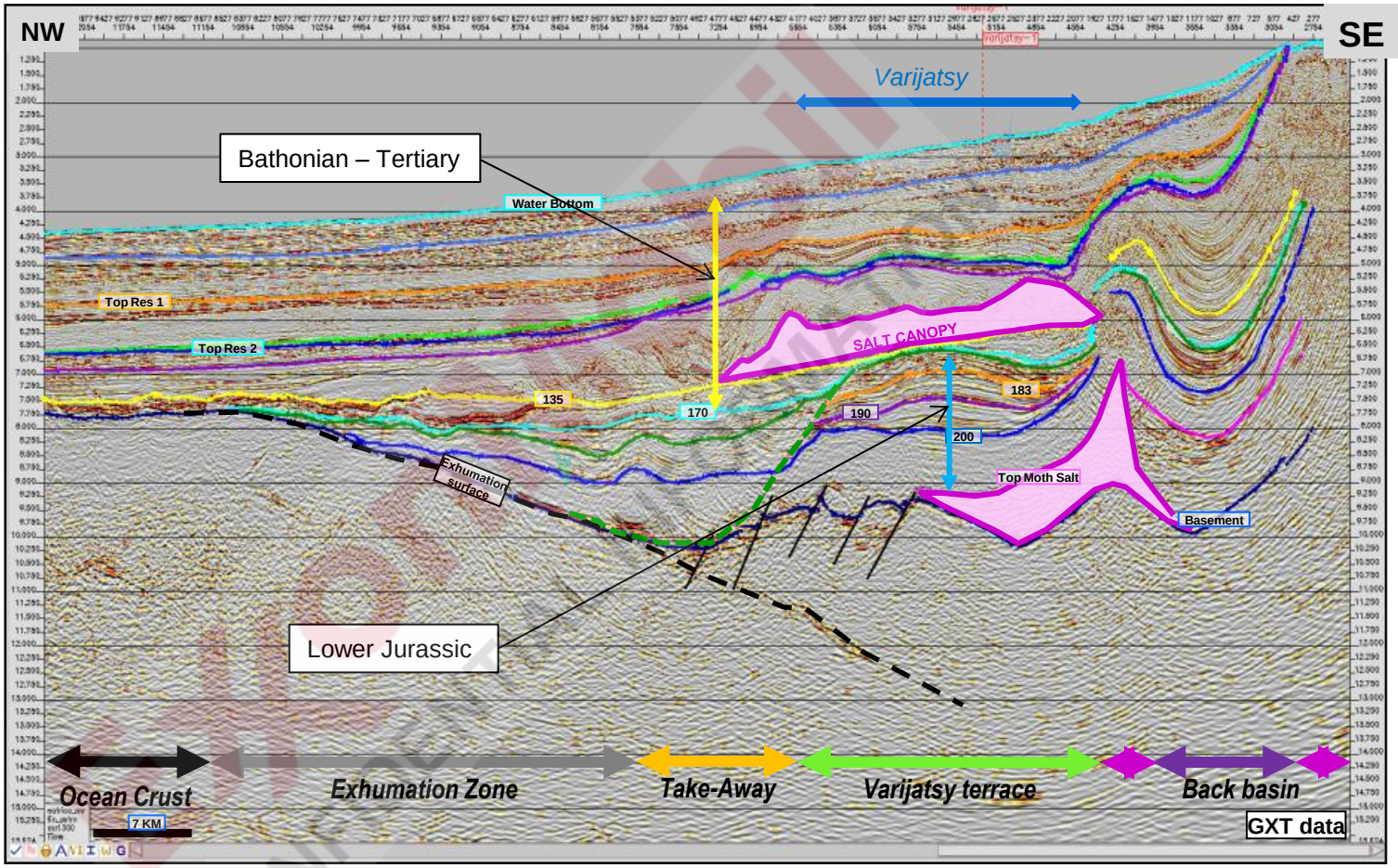
Jurassic source rocks interpreted in outcrop & wells; envisaged to extend offshore

Oil & gas shows reported from updip wells + oil stained sands at outcrop

Shale-prone top-seal + overlying salt canopy interpreted offshore

Majunga Seismic Cross-Section

- Basin formation 190-180 Ma: early basin restricted salt deposition
- Mini-basin formation following salt remobilisation & evacuation
- Seafloor spreading by 170 Ma



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Cap St Andre Seismic Cross-Section

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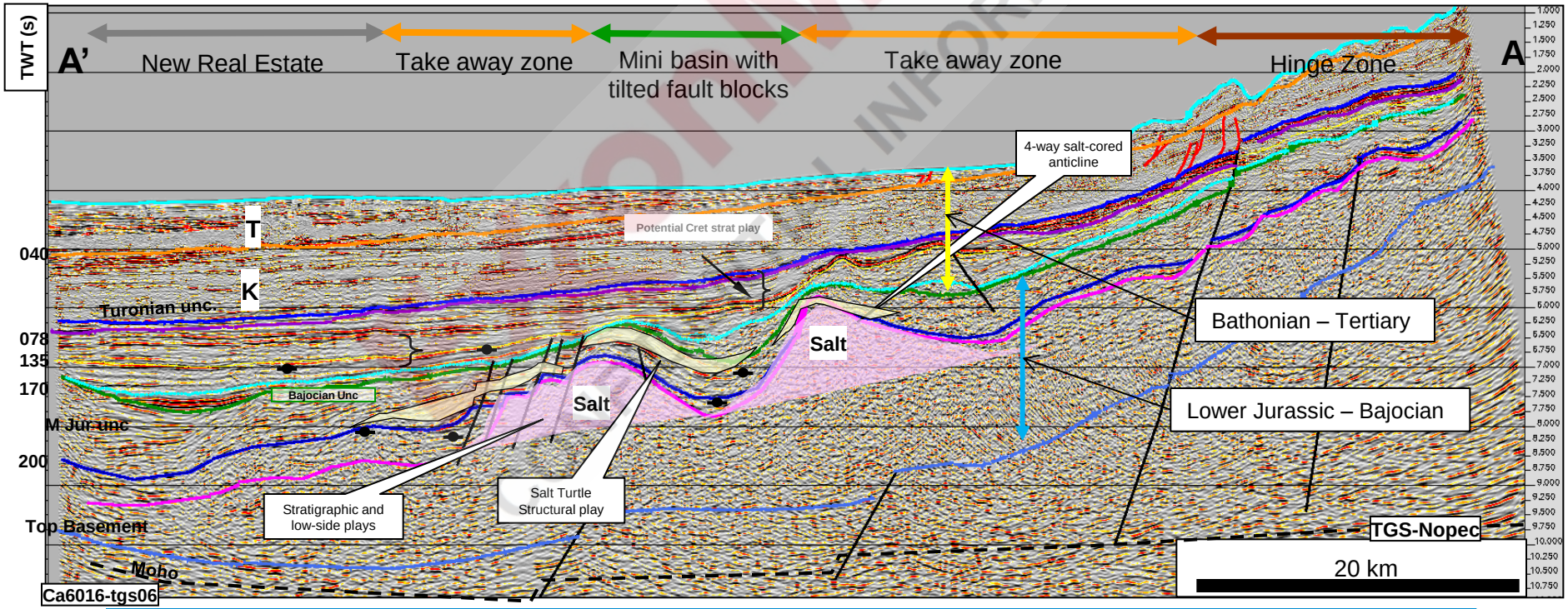
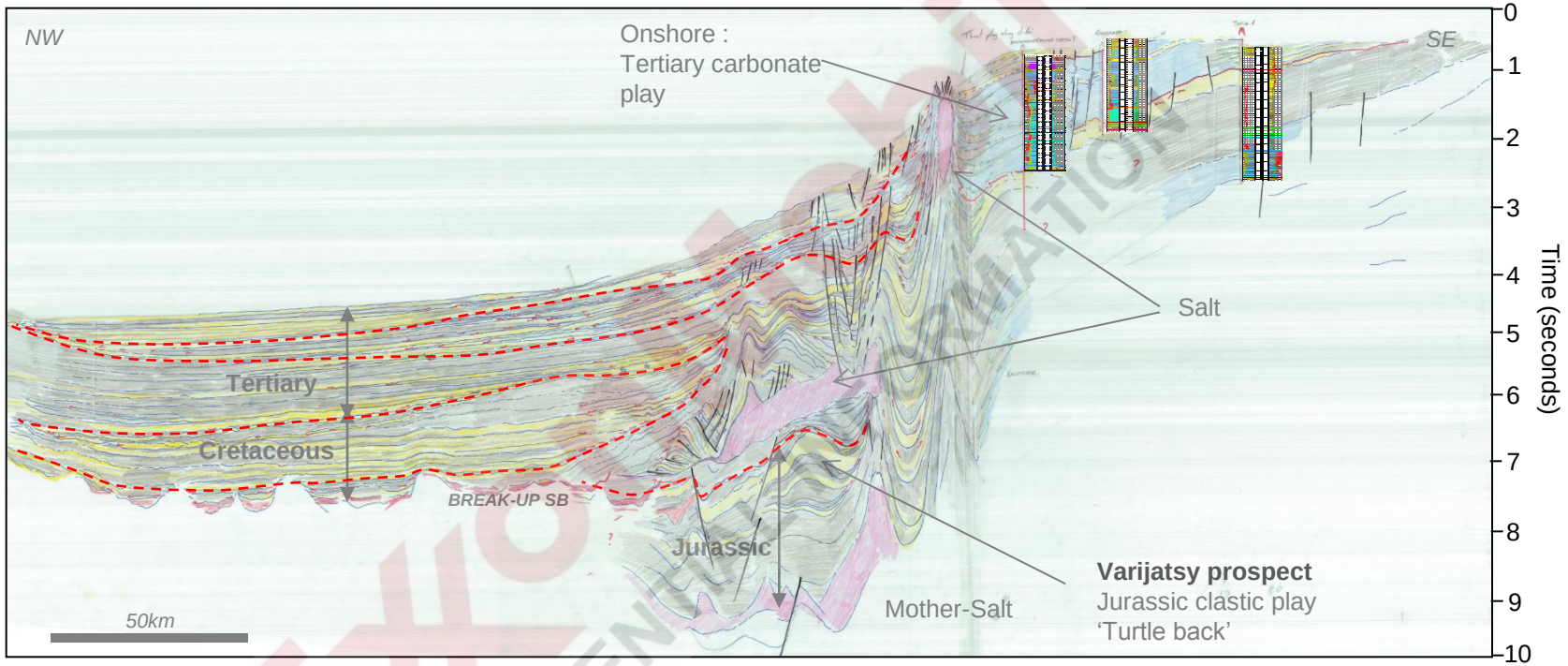
Offshore sand deposition offshore (age-equivalent clastics updip)

Seal:
Shale-prone top-seal + overlying salt canopy interpreted offshore

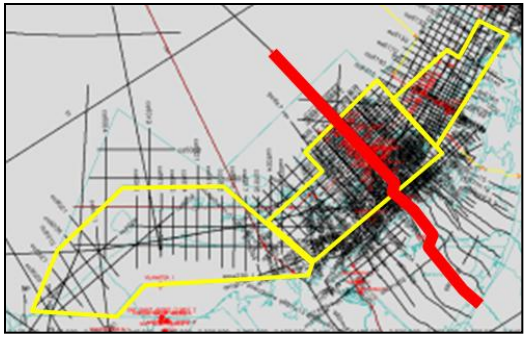


Stratigraphy & Palaeogeography

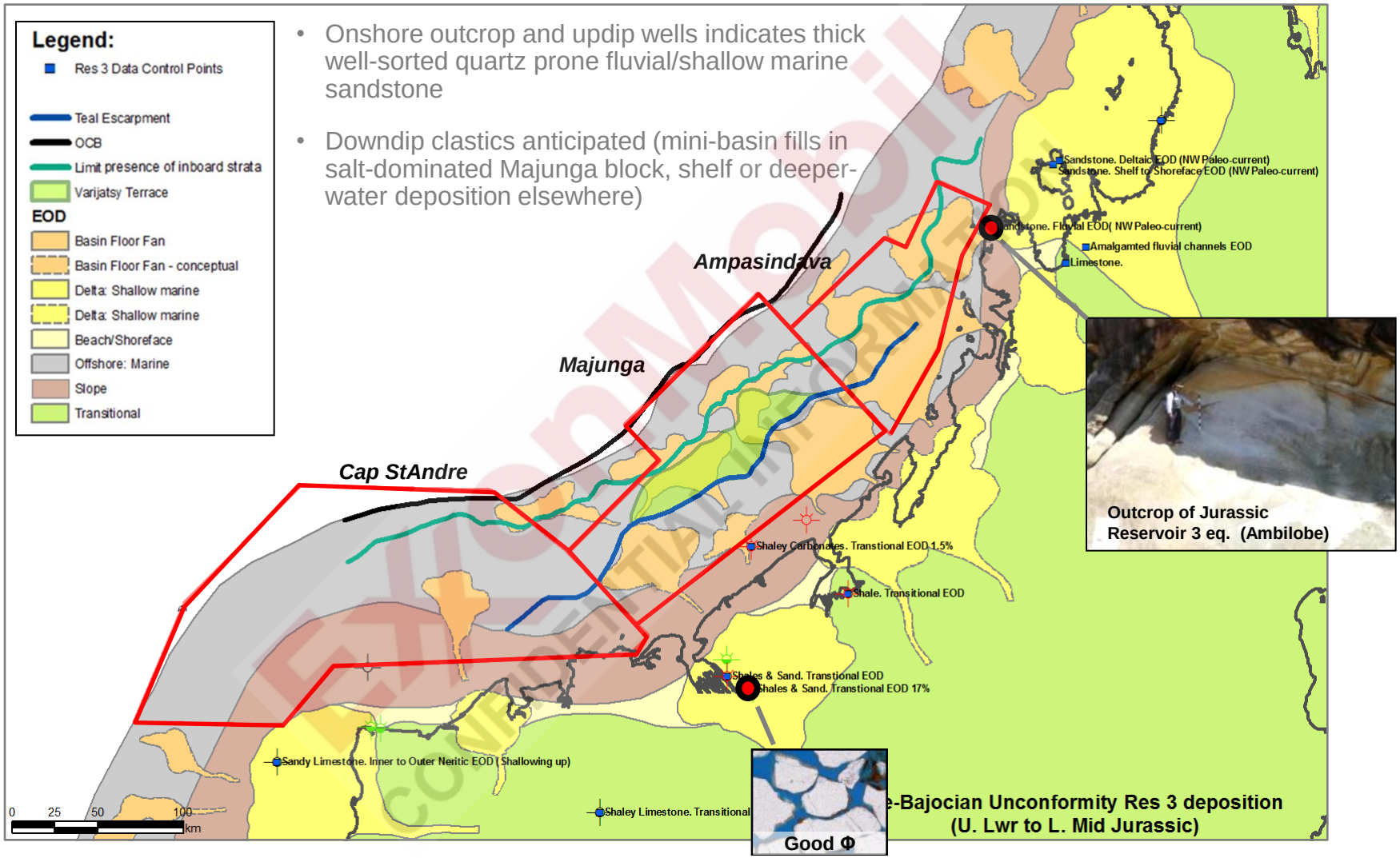
Majunga License: Regional Transect



- Limited basins updip to intercept sediment
- Strong amplitude contrasts may suggest alternate sandstone - mudstone packages
- Qtz-prone system, uncalibrated offshore
- Steep margins promoting bypass



Reservoir Facies '3' EOD (Pre Bajocian Unconformity)



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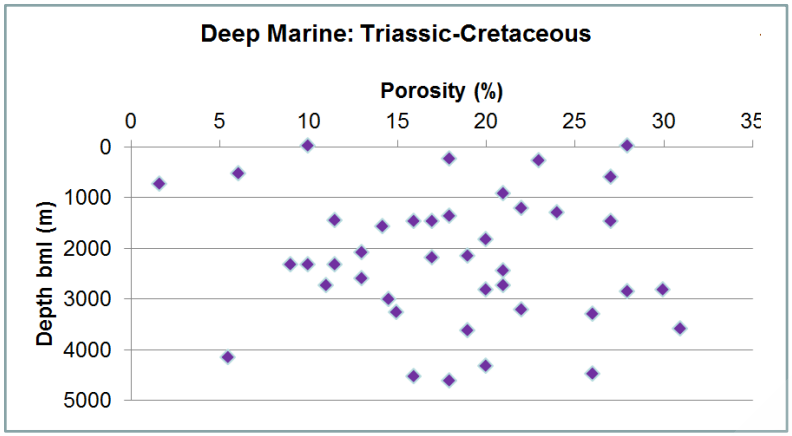
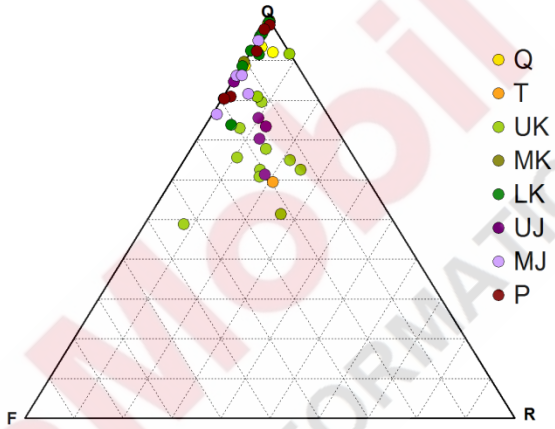
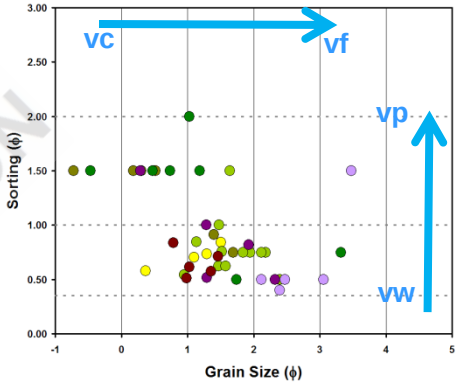
Madagascar Reservoir Quality

Fields worldwide (C&C Reservoirs)

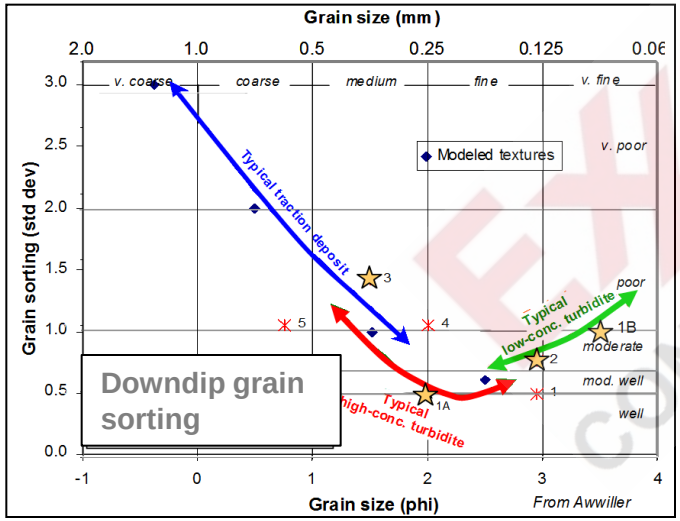


Outcrop observations for Majunga Basin sediments

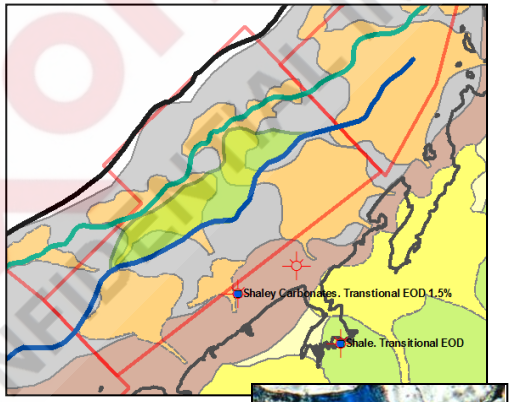


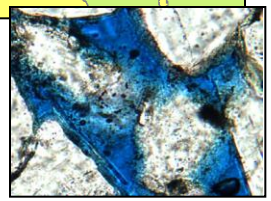


Down-dip grain sorting



Offshore Madagascar





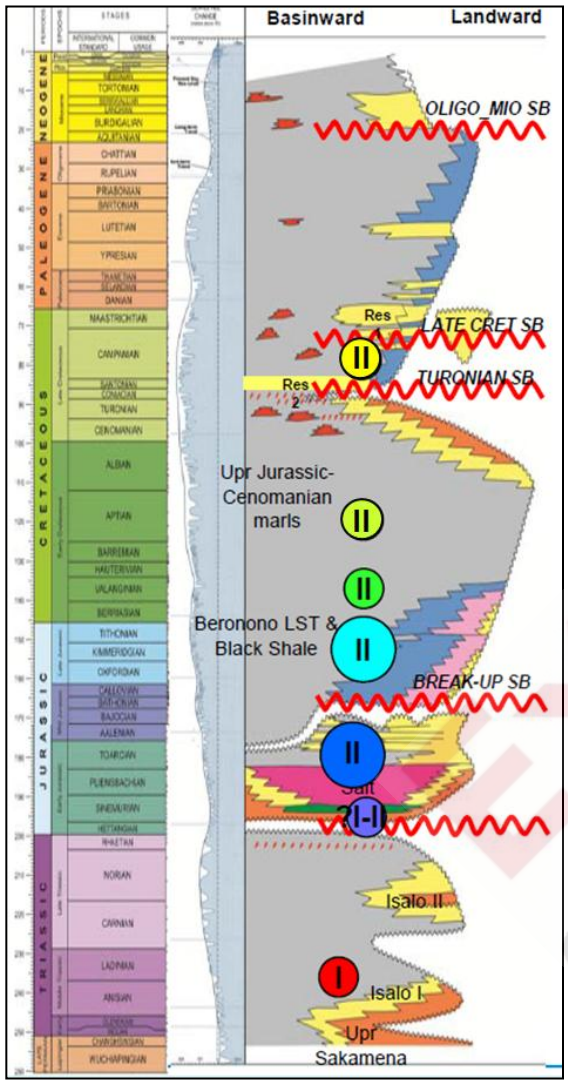
Coating (clay, chlorite)

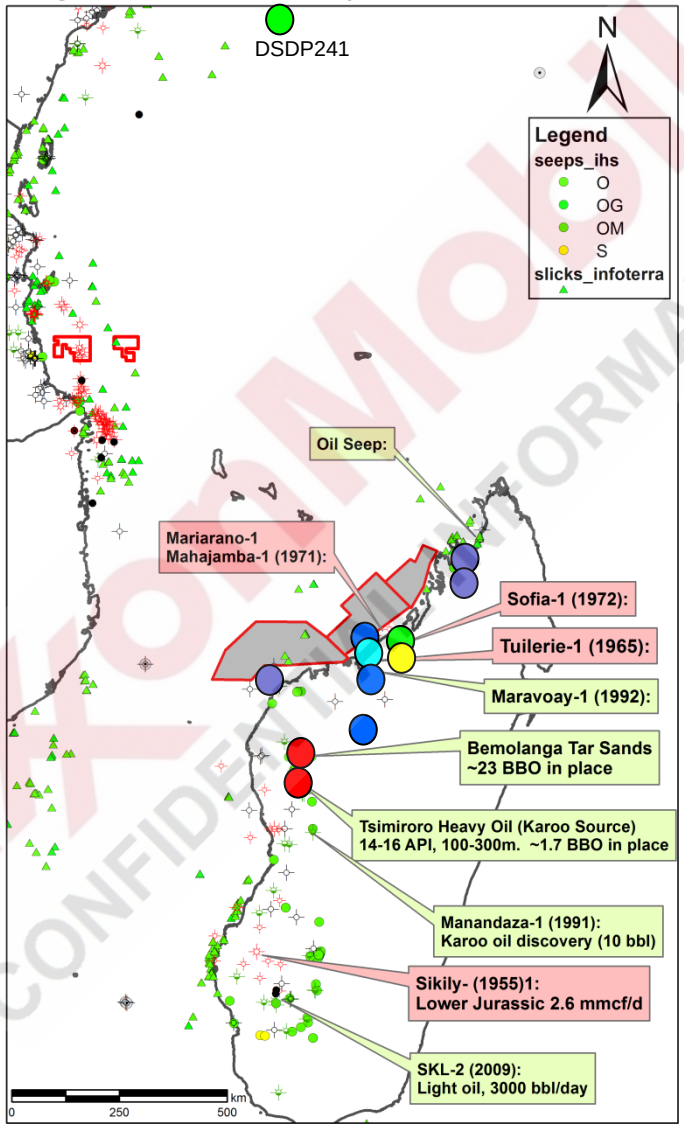
- Porosity in offshore sediments may be preserved at depth if significant chlorite grain coatings are present.
- Chlorites form where fresh Fe-rich waters mix with saline waters to form chlorite precursors OR where rock contains 10-20% VRFs.
- Chlorite precursors may be evident in some photomicrographs (unable to confirm with point count or thin sections)

Source

East Africa Hydrocarbon Audit

- Multiple source intervals confirmed from regional wells & outcrop





II **Upper Cretaceous (Cenomanian-Santonian)**

- Sampled in Sofia-1

II **Mid-Cretaceous (Albian)**

- Sampled in Sofia-1, Morondava Basin

II **Lower Cretaceous (Valanginian-Barremian)**

- Sampled in Mariarano-1 and DSDP 241

II **Upper Jurassic (Kimmeridgian)**

- Sampled in Mariarano-1

II **Middle Jurassic (Bathonian-Bajocian)**

- Known from Beronono outcrops and Mariarano-1

Typed to oils in Marovoay-1

?I-II **Lower Jurassic (Toarcian)**

- Sampled in Chesterfield-1, Ambilobe and Ampasindava Outcrops

- Presumed source in Ankaramy-1 (Ambilobe Basin)

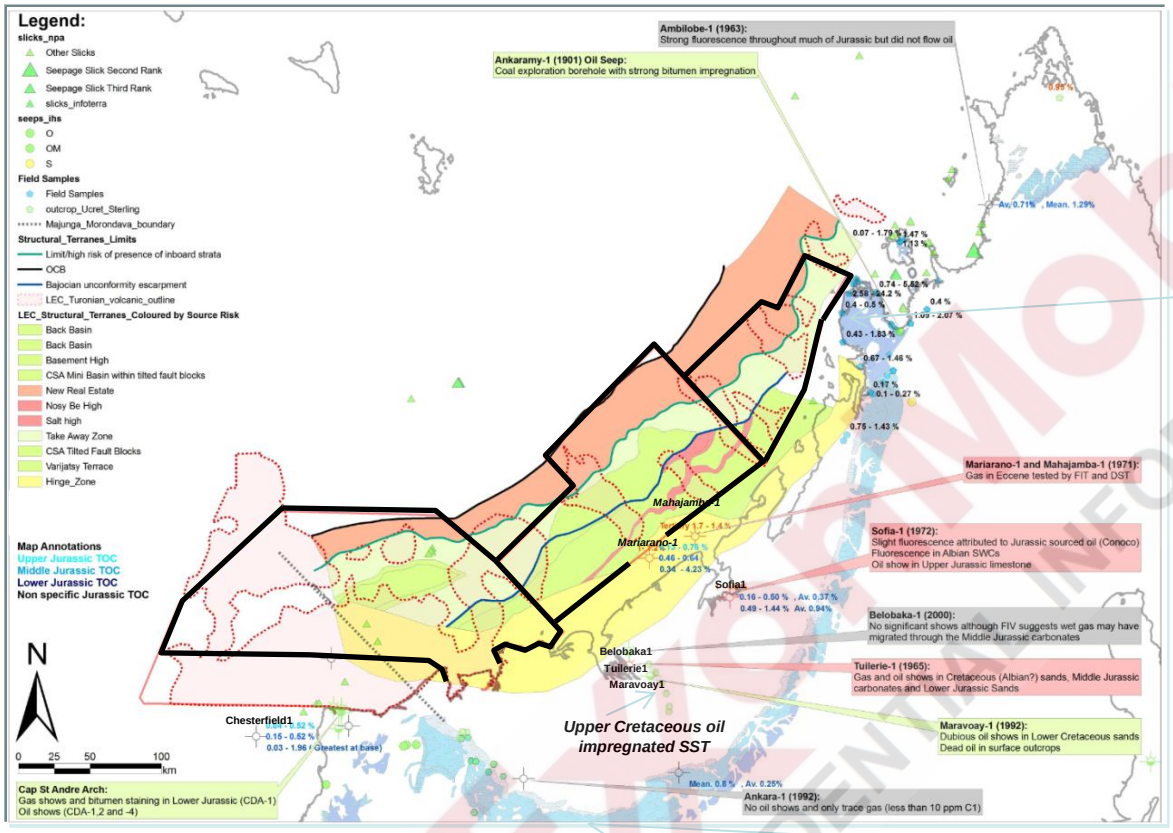
I **Permo-Triassic (Middle Sakamena)**

- Proven source of oils in Bemolanga and Tsimiroro fields, Morondava Basin (~ 30 GBO)

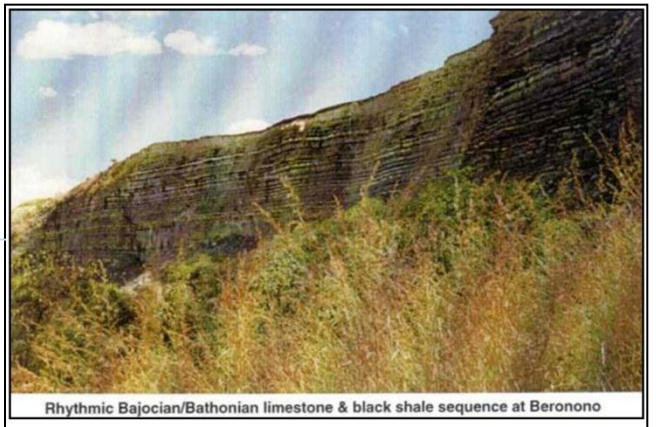
High Confidence Source

Moderate Confidence Source

Majunga Basin Hydrocarbon Audit



. Lower and Middle Jurassic source rocks
. Modest to rich delta/prodelta marine shales:
. TOC 1.5-6.37%
. Exceptionally rich algal perhydrous coals (HI 407; OI 42; TOC 74.9%)



. Mid Jurassic Beronono source (Marovoay-1)
. Good - Excellent Oil Generation Potential: up to 20% TOC, HI up to 900, high S, marine

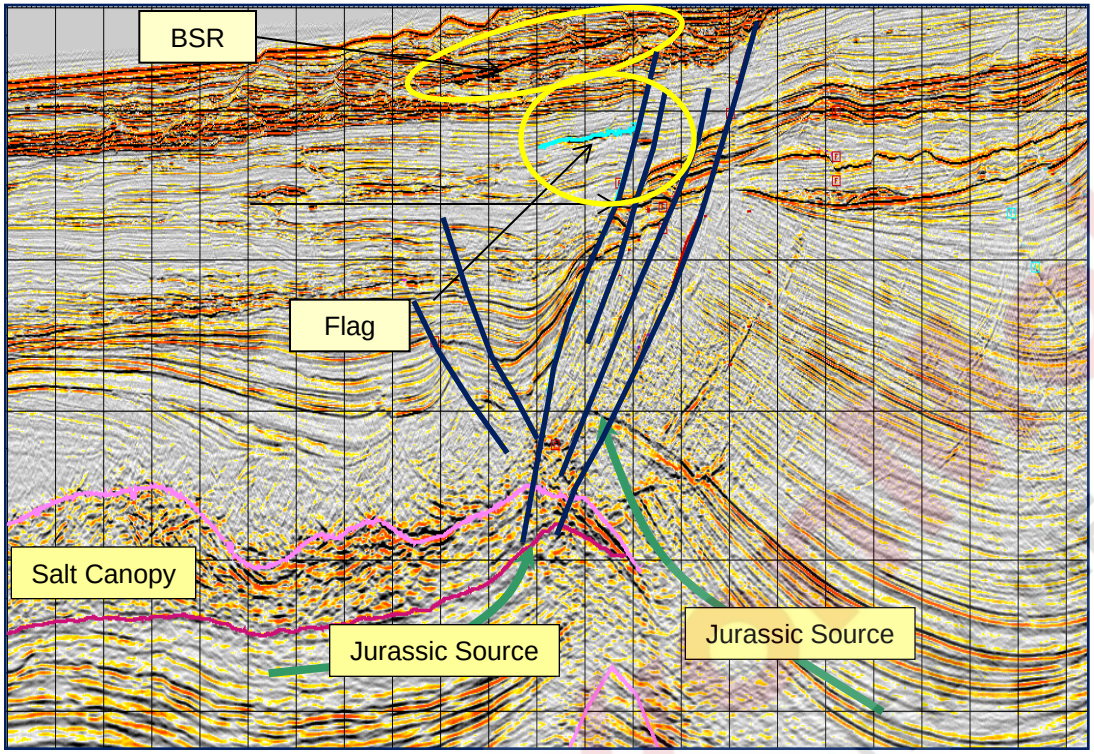
Oil and gas shows reported from most wells:
- Mariarano-1: thermogenic gas in Eocene
- Mahajamba-1: gas in Eocene

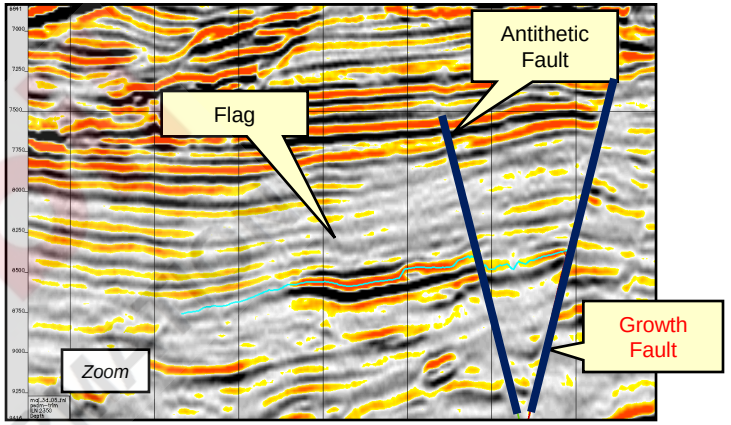
Marovoay-1 Oil: correlated to Mid Jurassic Beronono marls

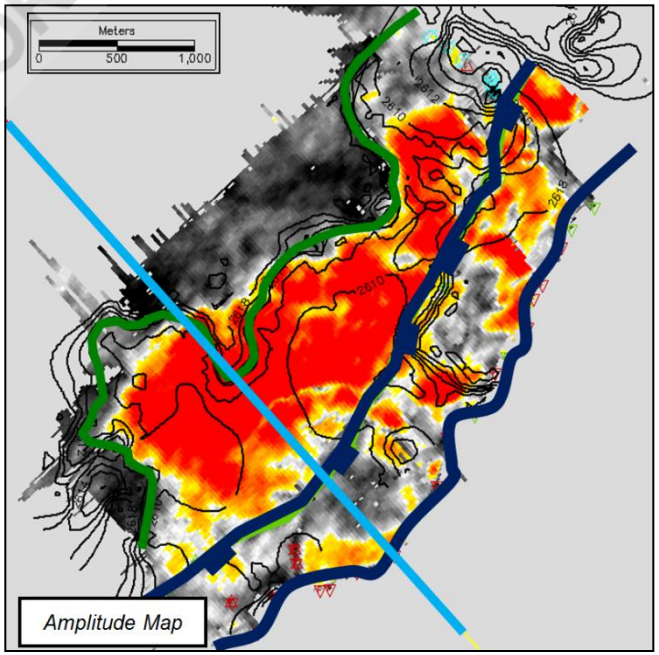
Oil stained sands in outcrop:
- Cretaceous sands in central Majunga
- Jurassic sands and shales in Ambilobe
- Triassic – Jurassic sands in Cap St. Andre

Jurassic source rocks also inferred from
- Lower & Mid.- Jurassic outcrops
- Hydrocarbon indicators
- Seismic stratigraphy
- Paleogeography & paleoclimate modeling

Majunga License : Fault-Flag and BSR



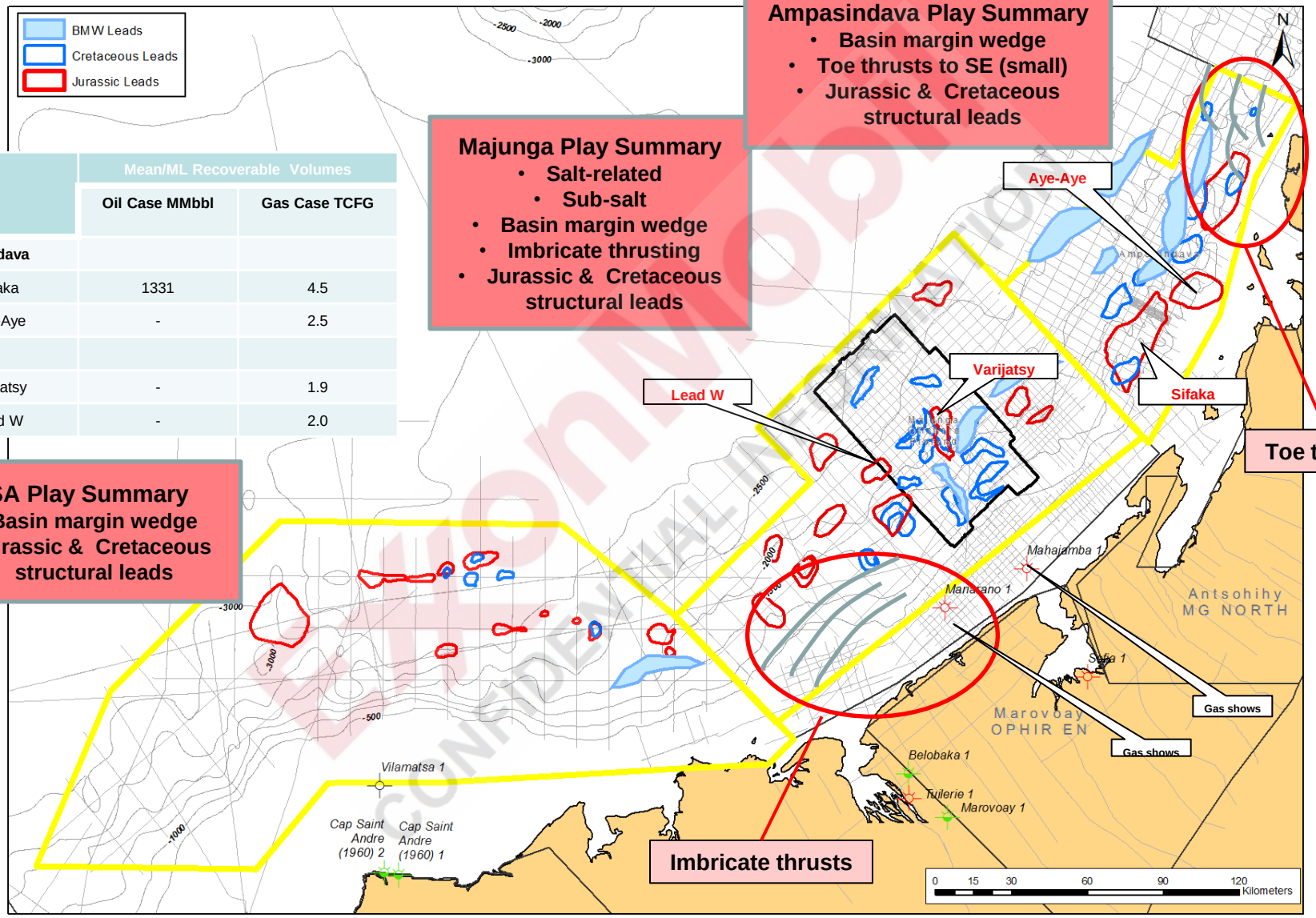




- Potential DHIs in seismic suggests active hydrocarbon system may be present
- Class 3 AVO Response. Low Impedance with amplitude brightening from nears to fars
- DHI's occur at updip salt canopy margin, along main growth fault
- Current 2D & 3D reprocessing efforts aim to better constrain AVO

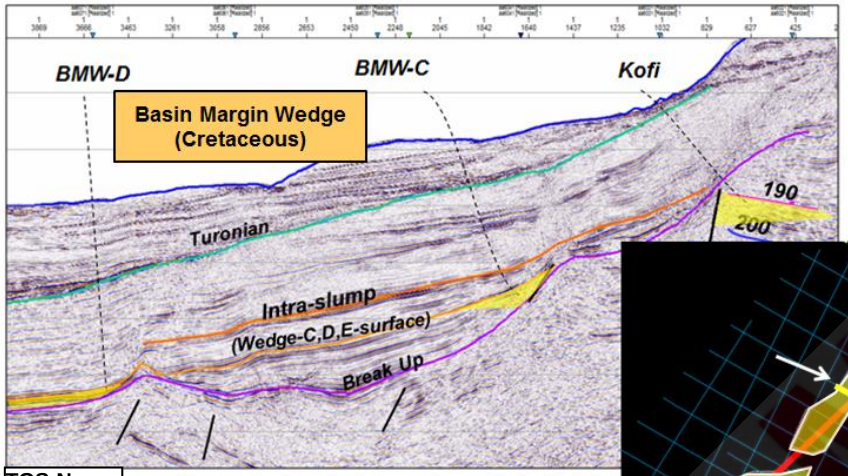
Lead Inventory: Jurassic Leads

Madagascar Jurassic Prospects

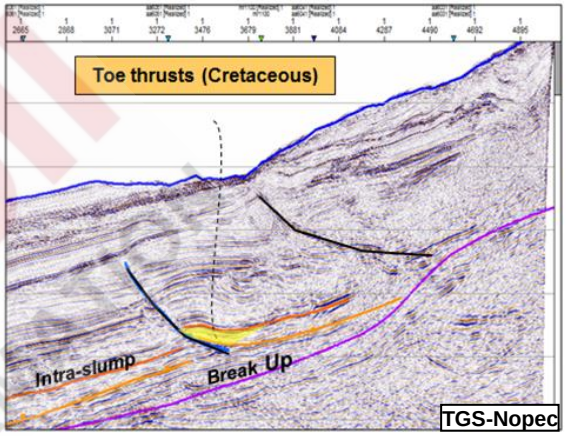


Licence	Mean/ML Recoverable Volumes	
	Oil Case MMbbl	Gas Case TCFG
Ampasindava		
Sifaka	1331	4.5
Aye-Aye	-	2.5
Majunga		
Varijatsy	-	1.9
Lead W	-	2.0

Ampasindava Play Types

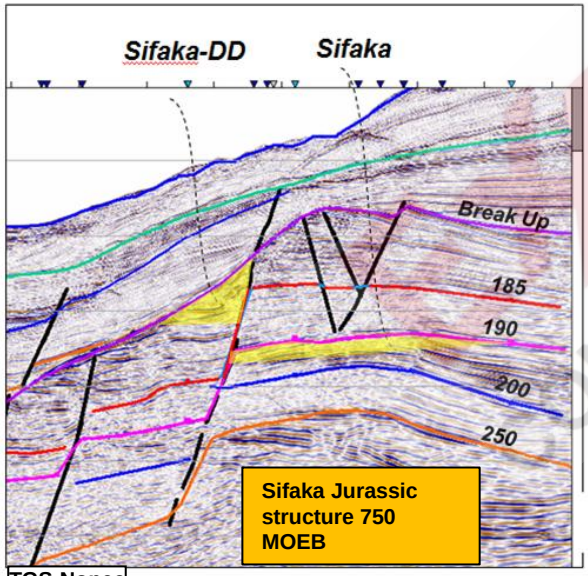


TGS-Nopec

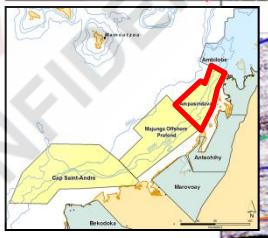


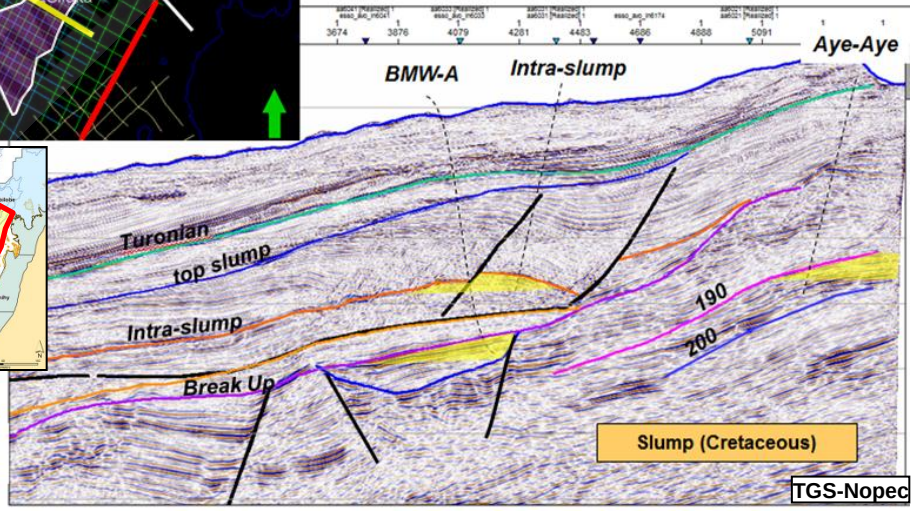
TGS-Nopec

- Cretaceous toe thrust play
  - Gravity-driven, contractional structures
- Stratigraphic Traps
  - \+ outboard of toe thrusts
- Plays overlap, or stack, in areas



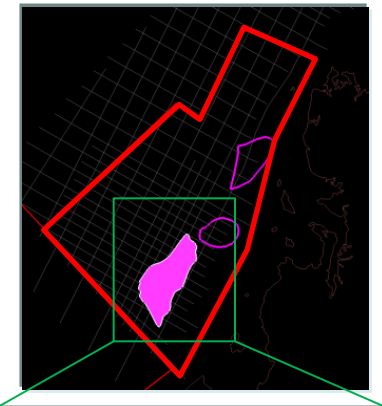
TGS-Nopec

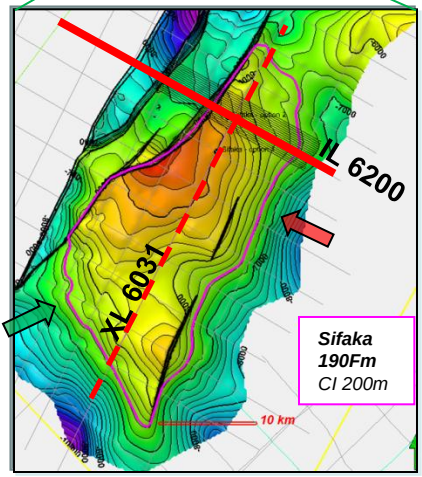


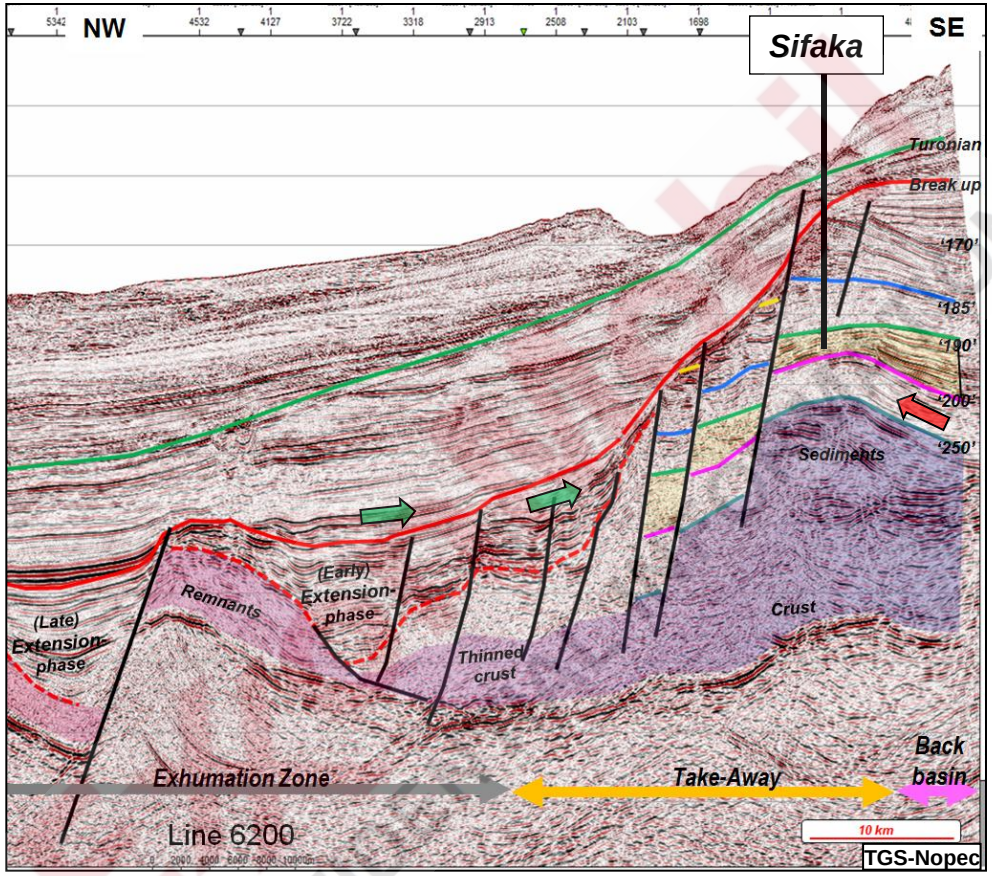


TGS-Nopec

Sifaka (Ampasindava): DipLine 6200







Stages

- Initial pre-rift Karoo deposition
- Early Jurassic syn-rift restricted environments
- Early/Mid Jurassic Somalia-Madagascar break up

Synclinal kitchen charge

- Direct migration to reservoir
- Generation completed by 90-55 Ma (depending on depth of Unconformity, and on Type II or III source)
- Early Oil displaced by Gas (gas cap over oil likely)

Onlap kitchen charge

- Source interval likely to oil-early gas window
- Requires more challenging migration pathway into Sifaka
- Active Charge today

Simple migration pathway in southern part of structure from passive onlap kitchen

- **Avoids complexities of fault relay zone**
- **Trap filled from SouthWest**

Water Depth: 1,500m

Structure: 3-way fault dependent closure (190-200)

Reservoir: Lower to Middle Jurassic Deep-water sandstones

Seal: Jurassic marine shales

Source: Lower/Middle Jurassic marine shales (& younger sources)

Fluid Type (expected): Gas

Assessment: Mean: 7.7 TCF (GIP)/4.5 TCF (EUR)

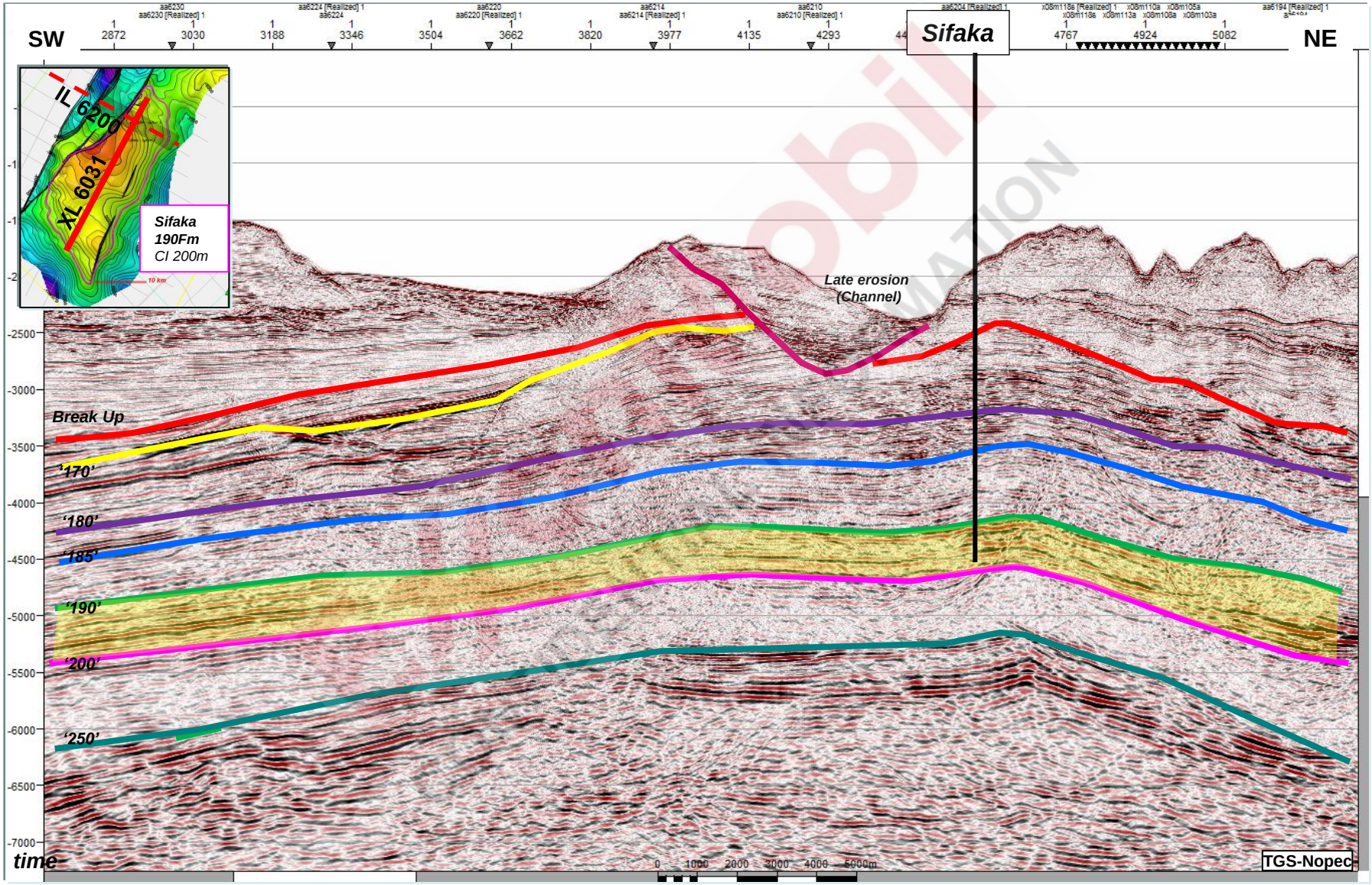
P10: 13.9 TCF (GIP)/8.2 TCF (EUR)

Structural Spill Case (6550m) = 113 TCF (GIP)/67 TCF (EUR)

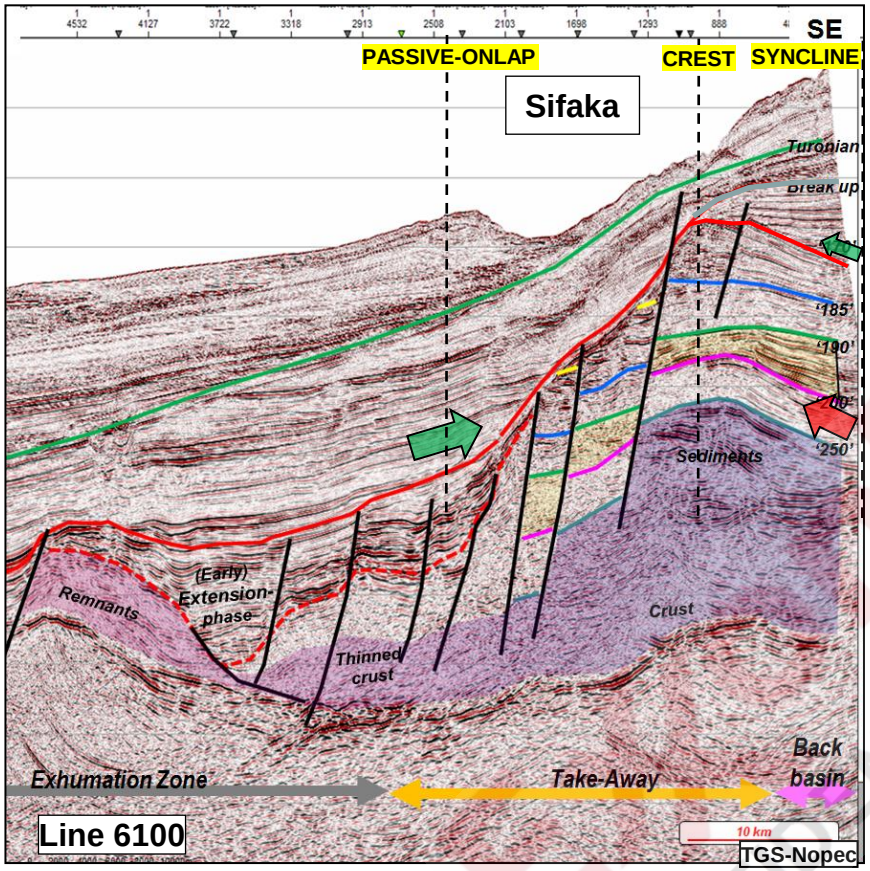
Column Heights: P10-case : 875m

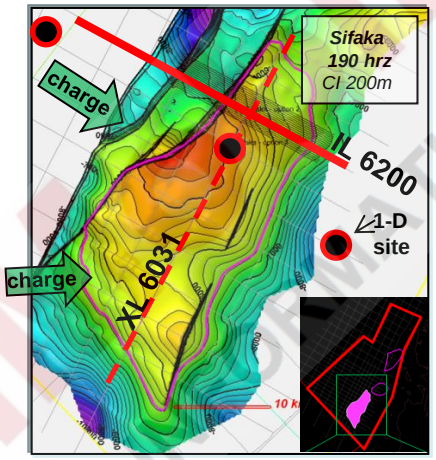
Fill to Spill: 2050m

Sifaka (Ampasindava) : StrikeLine 6031



Sifaka Hydrocarbon charge





CONCLUSION

Sifaka very large migration focus, additional active charge possible from unaccounted sources – likely to be gas-dominated. Condensate *potentiallly* greater than in recent discoveries in Tanzania-Mozambique (100-150 bbl/MCF vs ave.10-15 bbl/MCF). Active charge mitigates fault-seal risk

PASSIVE-ONLAP
UJ-LC src : Likely to be oil window
Active charge
X-fault migration easier to the SW

SYNCLINE
UJ-LC src : Oil to gas mature
UC-eTert charge, mig. difficult

E-M Jur. src : Over mature
Oil displaced by gas (oil leg?)
Dry gas likely – Direct migration

SIFAKA

Water Depth: 1,500m

Structure: 3-way fault dependent closure (190-200 hrz)

Reservoir: L-M Jur. DW sst

Seal: Jurassic shales

Source: L-M Jur. & UJ-LC marine shales (Type II and/or III)

Fluid Type (expected): Gas

Assessment:

Mean: 7.7 TCF (GIP)/4.5 TCF (EUR)

P10: 13.9 TCF (GIP)/8.2 TCF (EUR)

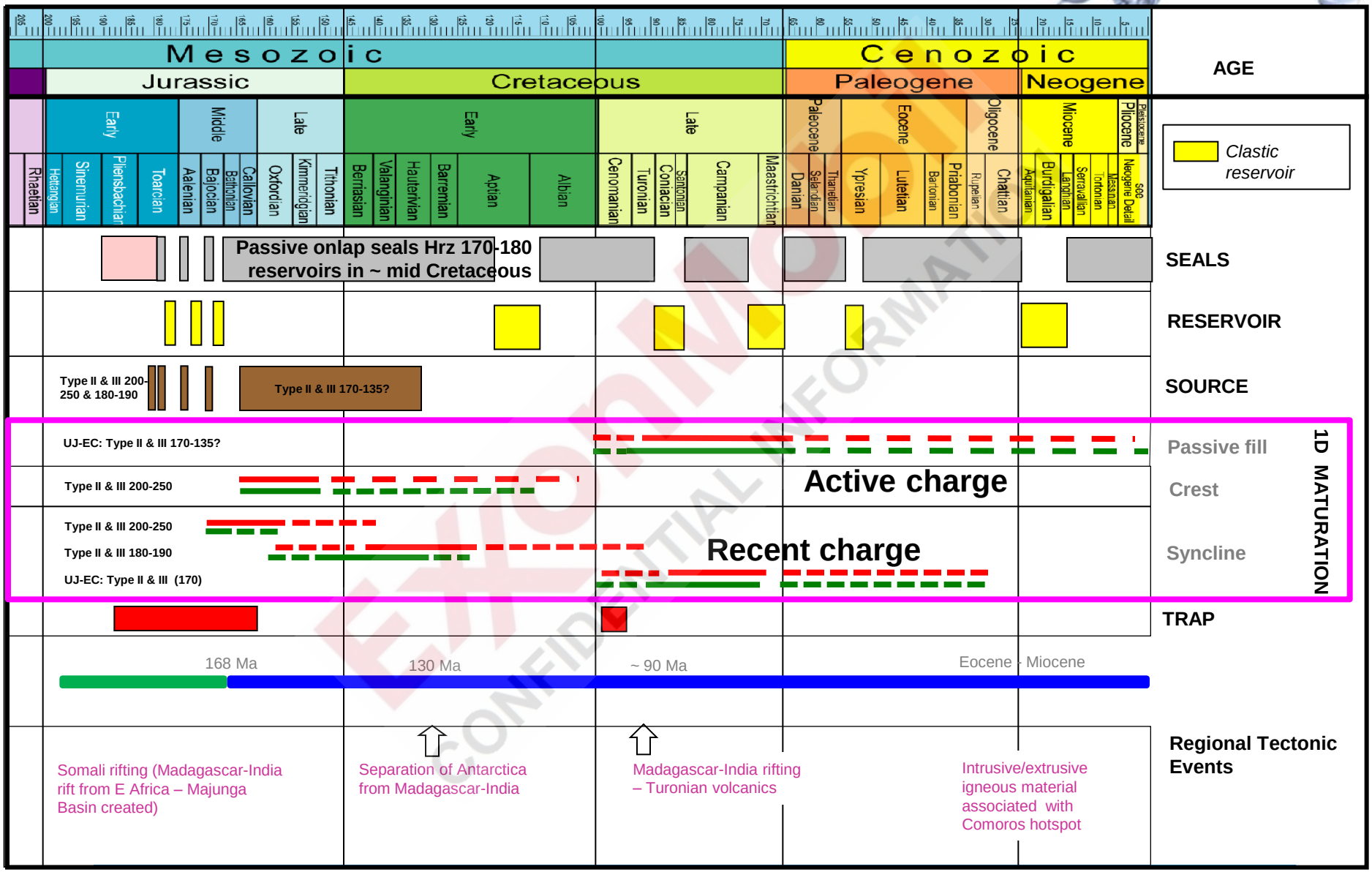
Structural Spill: (6550m), 113 TCF (GIP), 67 TCF (EUR)

Column Heights:

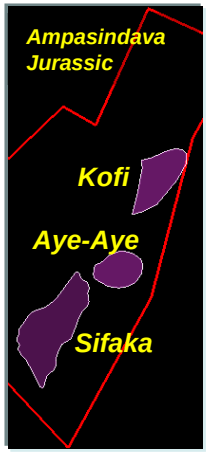
P10: 875m

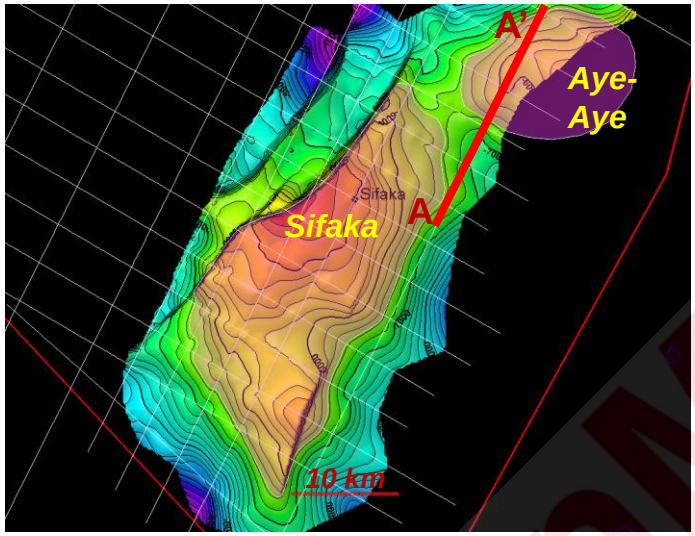
Fill to Spill: 2050m

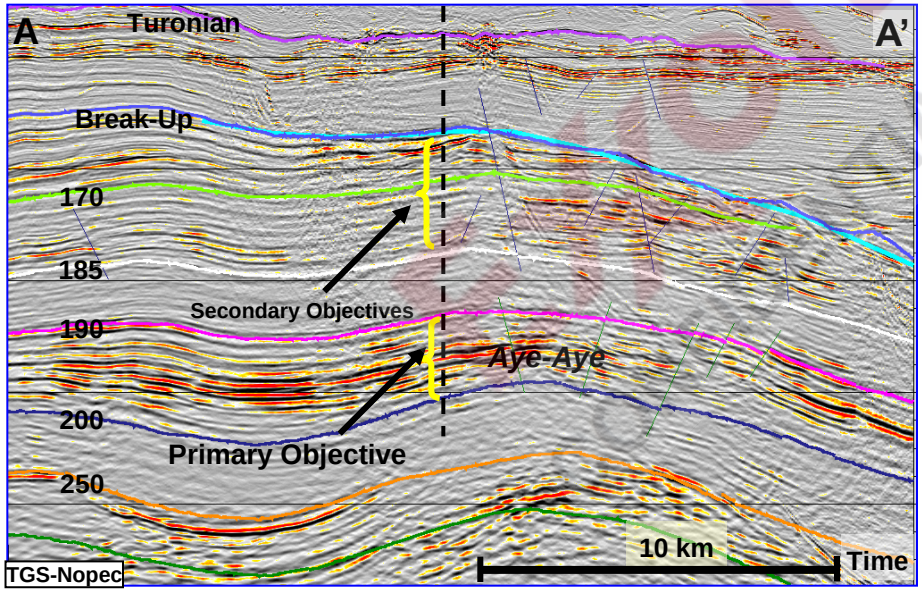
Sifaka: Play Element Summary



Ampasindava: Aye-Aye Lead







General
Water Depth = 600m

Geology
Objective:Jurassic 190-200, 170-185
Primary Trap: 4-Way dip closure - *assumed*
Reservoir: Downdip clastics
Key Risk: Top seal
Key Uncertainties: Trap closure (no data on eastern flank),
Source presence
Reservoir quality
HC type (Oil/Gas)

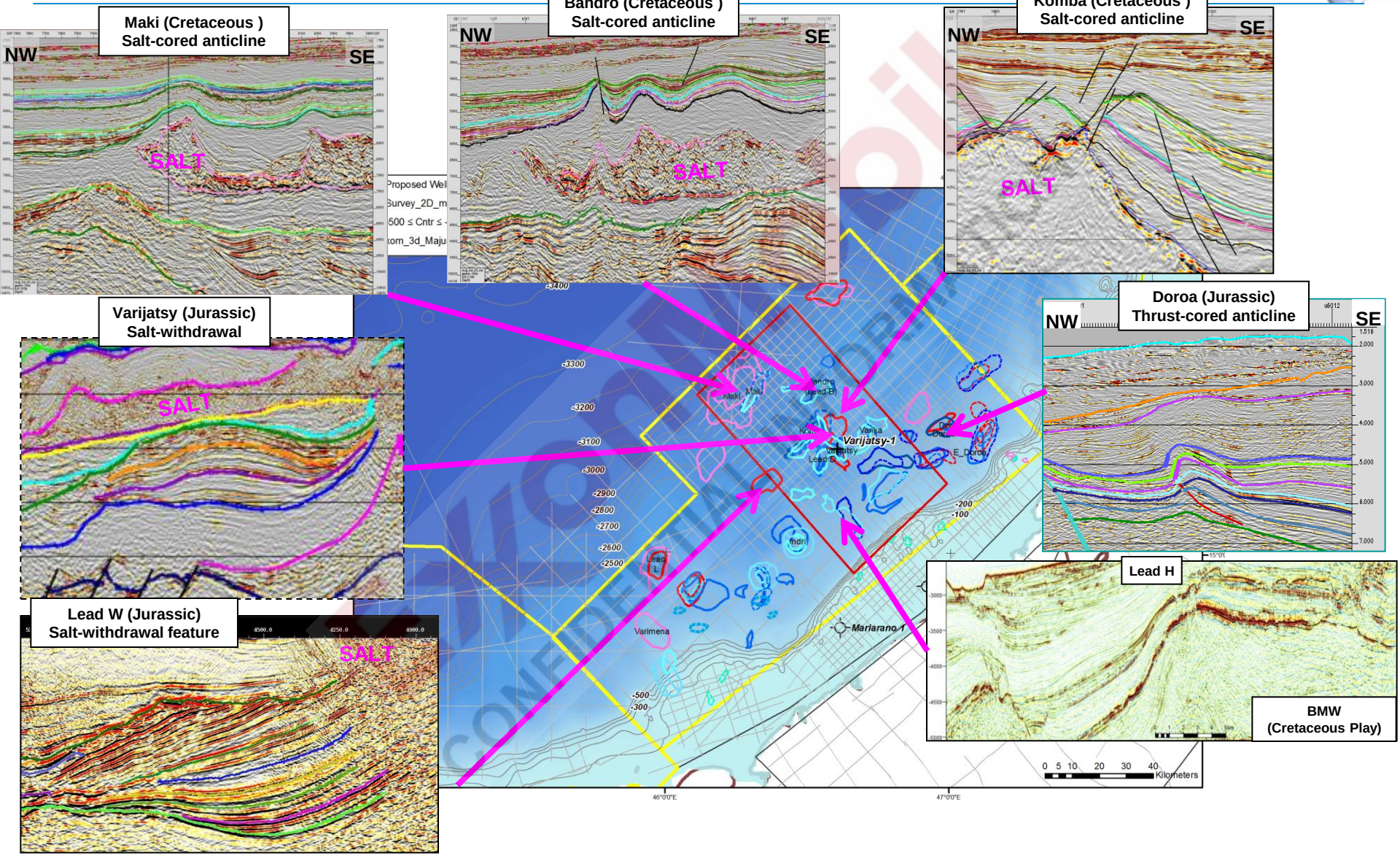
Incentives
Large structure High resource density
Close proximity to Sifaka (25 km) and Kofi (30km)

Assessment ~190Fm:
Mean: 4.3 TCF (GIP) / 2.5 TCF (EUR)
P10: 10.5 TCF (GIP) / 6.1 TCF (EUR)

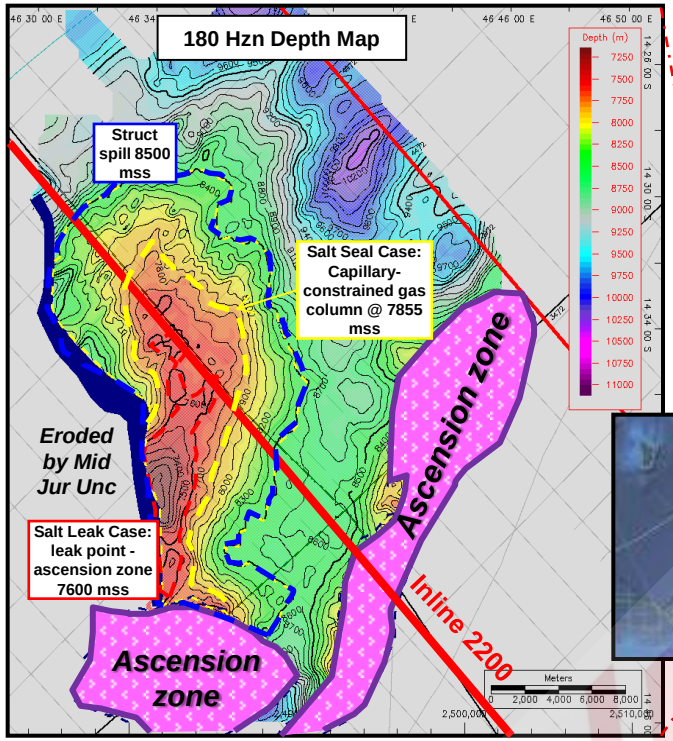
Main Characteristics
4-way dip closure for any reservoirs from 170 downward
Prospective 190-200 reservoir (1200-2200 m thick)
Shallow water

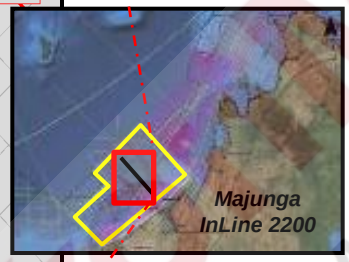
Considerations
Additional seismic acquisition to define Eastern flank challenged (coral reef inboard)

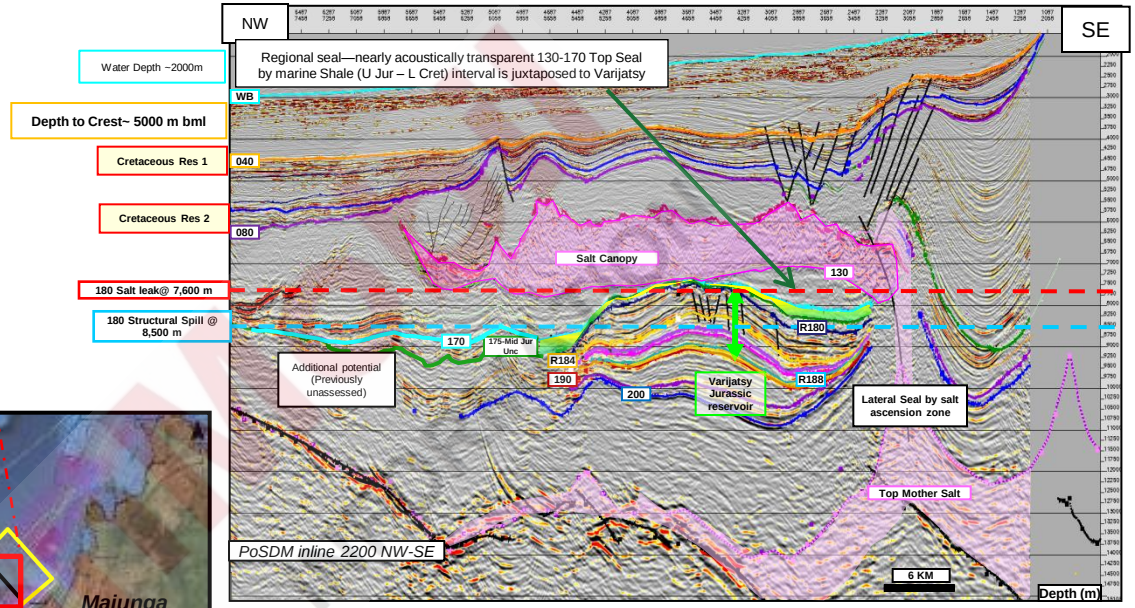
Majunga: Play Types



Majunga Block,Varijatsy Prospect Summary







Current Deterministic Assessment Cases (dry gas):

Salt Leak (BE):	2.2 TCF (GIP) / 1.9 TCF (EUR)
Salt Seal (HS):	7.9 TCF (GIP) / 4.2 TCF (EUR)
Enhanced:	20.3 TCF (GIP) / 10.8 TCF (EUR)
Structural Spill Case	49.2 TCF (GIP) / 26.1 TCF (EUR)

Water Depth ~2000m, Depth to Structure ~ 5000 m bml

Trap 4-way dip closure truncated against unconformity
Inverted mini-basin (salt turtle) bounded
by middle Jurassic unconformity to the west

Reservoir: Lwr Jurassic downdip clastics
4 mapped reservoirs 170-175, 180-184, 184-186, 188-190

Seal: Salt canopy & post-rift transgressive marine shale
Potential leak point to south (salt wall / ascension zone)

Closure: Area: 250km2 (180 Horizon), 1000m vertical closure to syncline opposite of Salt Ascension Zone

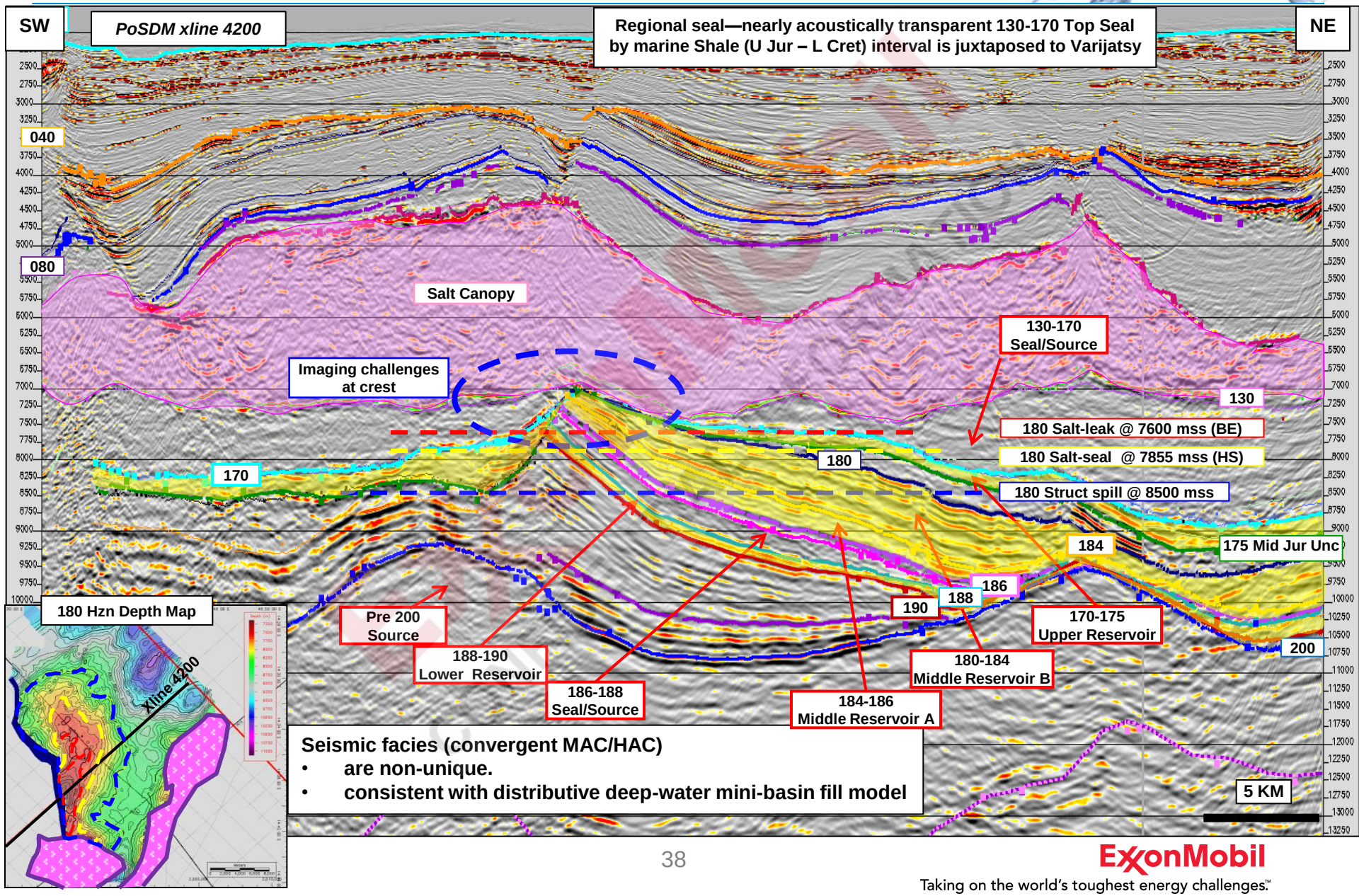
Source Rock: Post-rift transgressive shale (130-170), intraformational shales + older source?

Key Uncertainties: Leak point against ascension zone (South), capillary seal capacity of trap, RQ

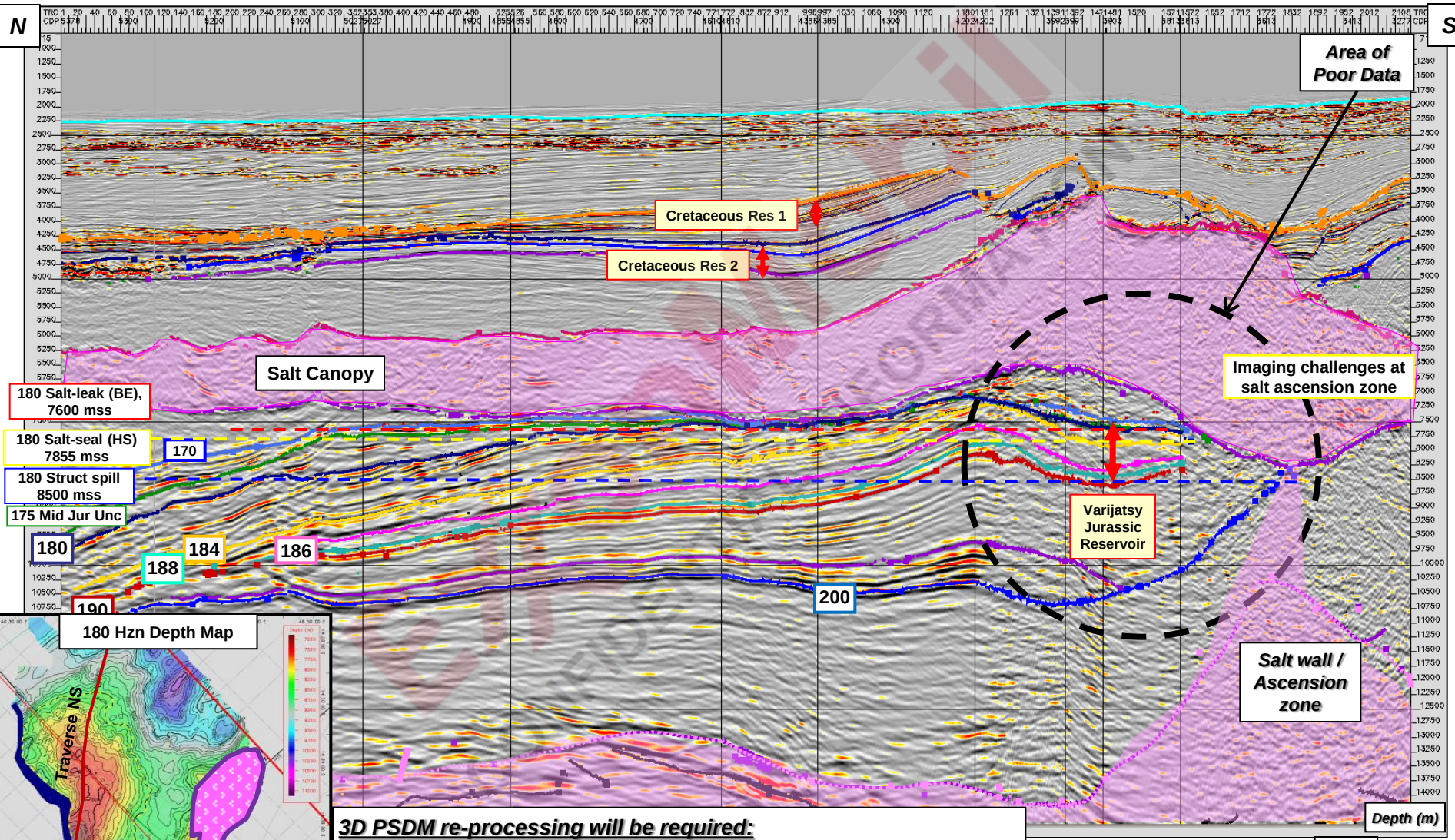
Key challenges: Sub-salt drilling to deep target through thick salt canopy, uncertain pore pressure below seal

Varijatsy Trap Configuration

Post-SDM – xline 4200



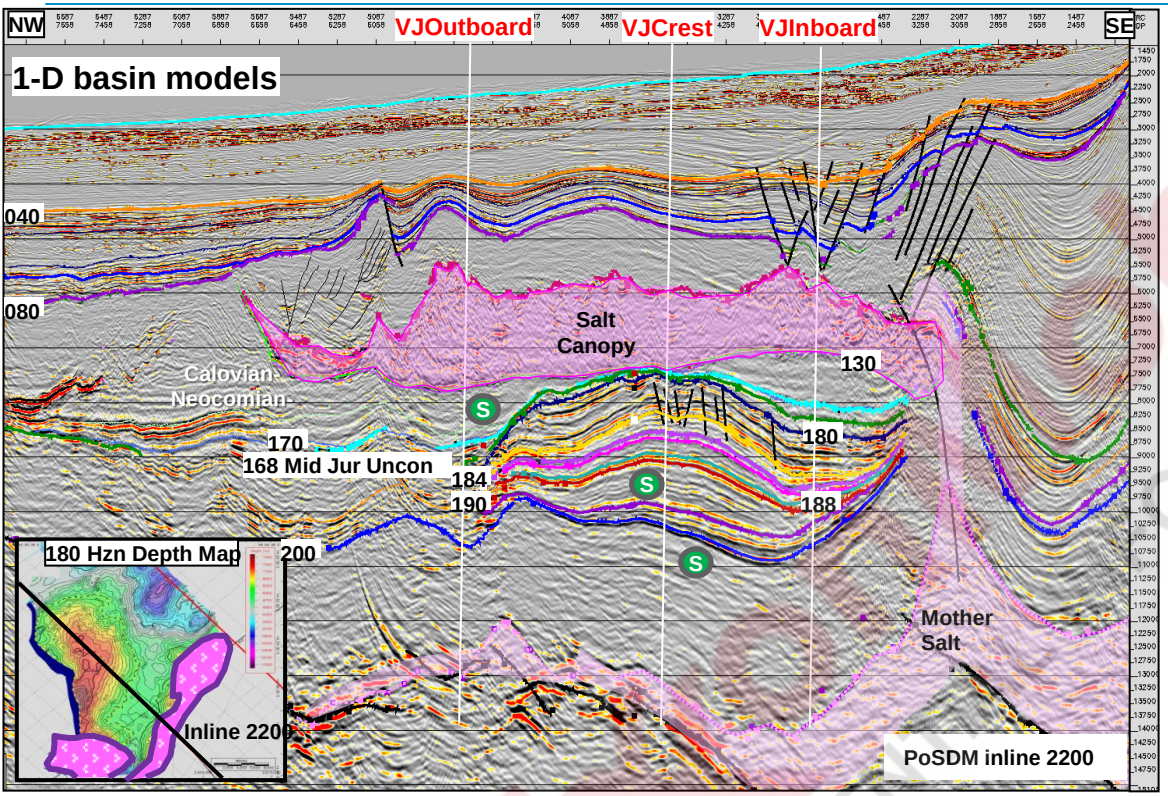
Varijatsy – Lateral seal against Ascension Zone

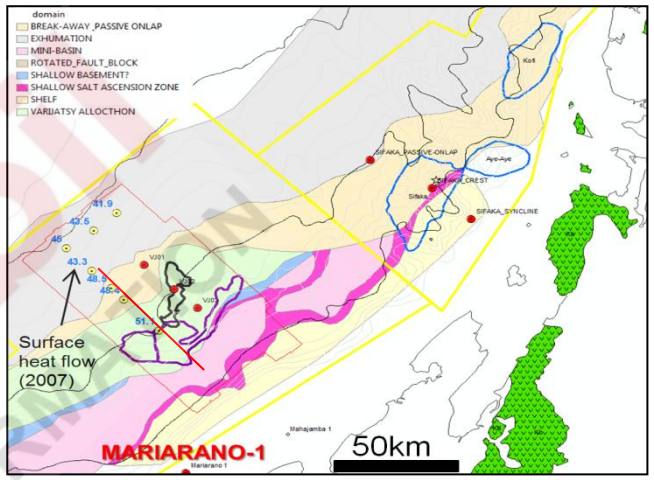


3D PSDM re-processing will be required:

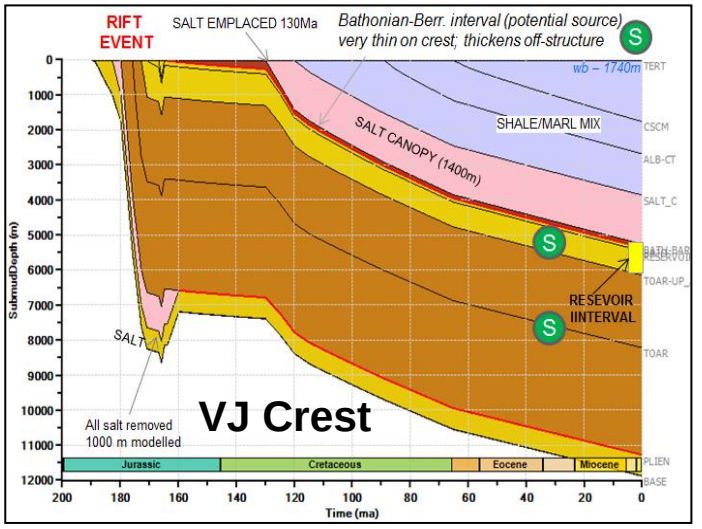
- **improve imaging sub-salt**
- **constrain trap fill and leak-point into Salt Wall/ Ascension Zone**

Varijatsy: Basin Modelling



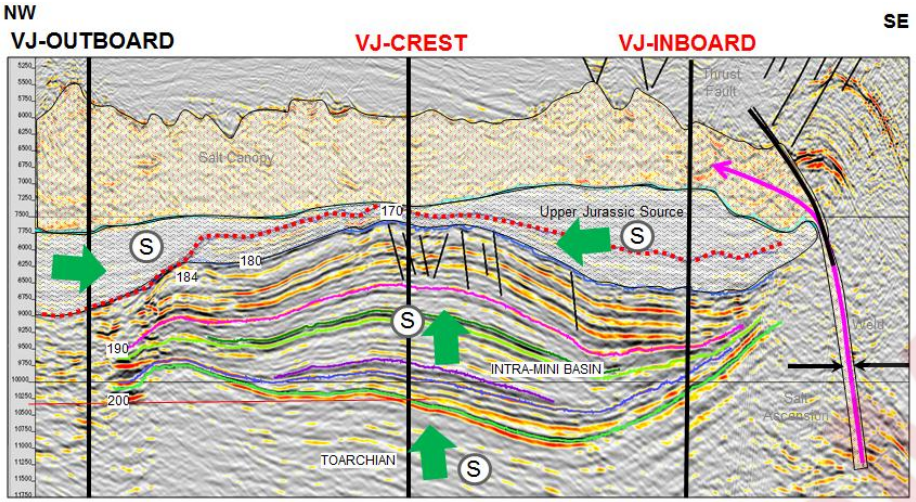


- Sparse & variable quality calibration data
- Expect complex thermal history from shelf to basin

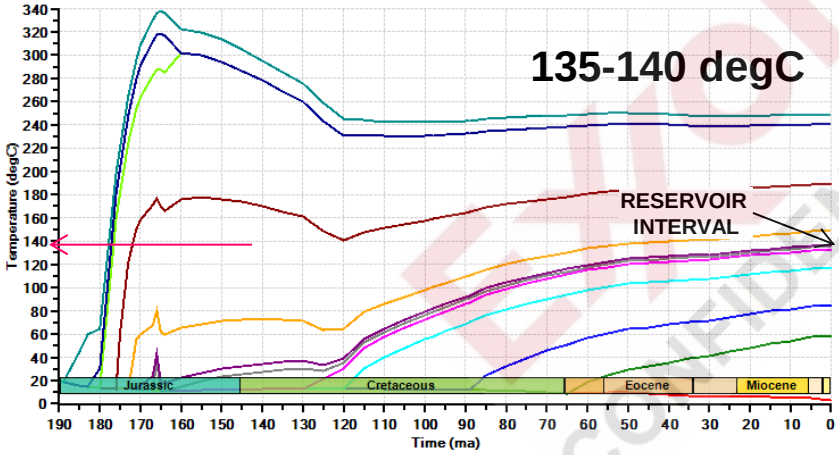


- Combination of complex poly-phase break-up history coupled with salt tectonics presents unique modelling challenges
- Source rock presence and organic matter type remains uncertain
- 1-D modelling approach simplistic
  - Thermal history assumes McKenzie uniform stretching model
  - Non-uniform or depth dependent stretching models provide alternative temperature history scenarios

Varijatsy Modelling: Key Predictions



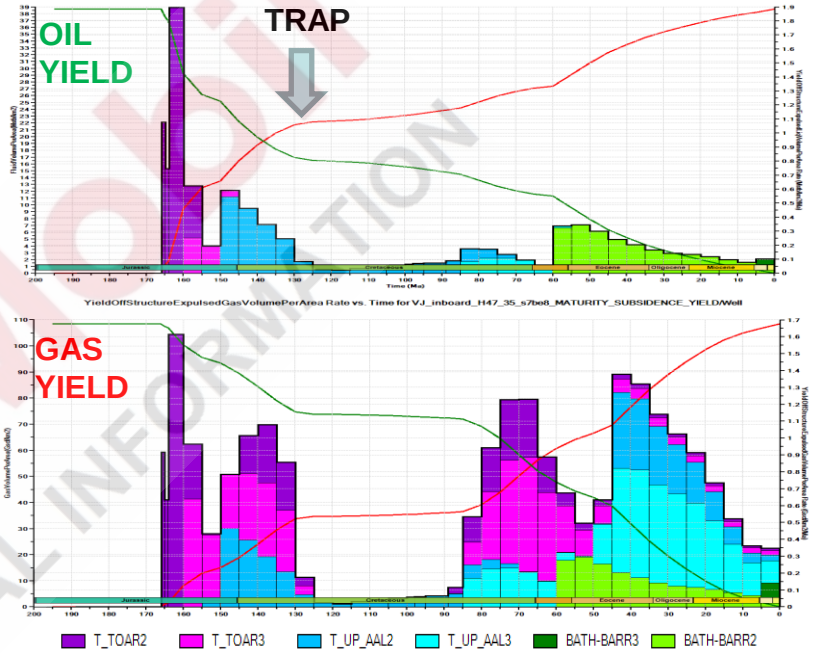
VJ Crest: Reservoir Temperature



Uncertainties in Thermal Predictions

- Impact of salt mobilization & canopy emplacement
- Temperature implications of alternative extensional models

VJ Inboard: Maturation & Timing

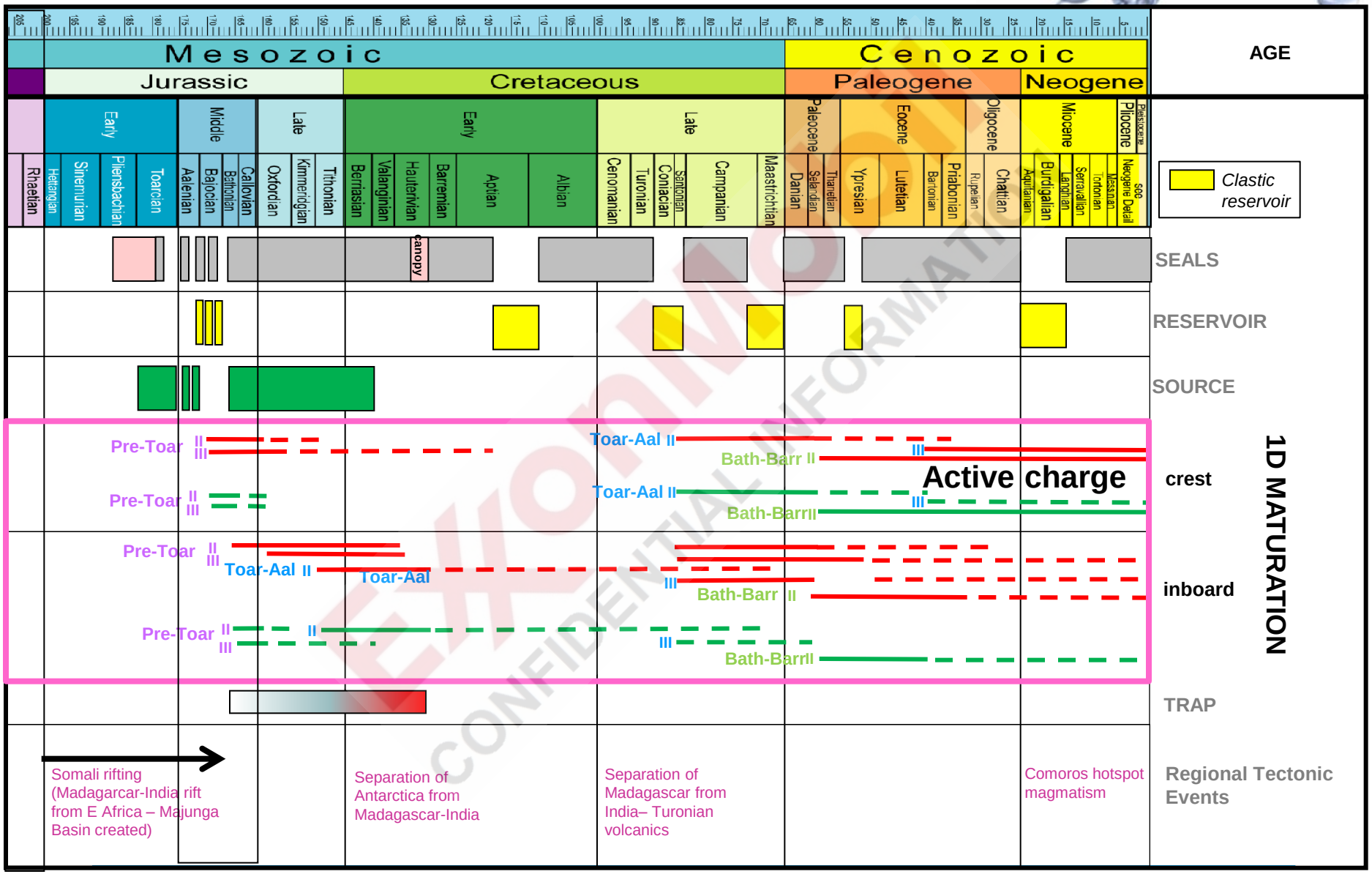


Uncertainties in Maturity Predictions

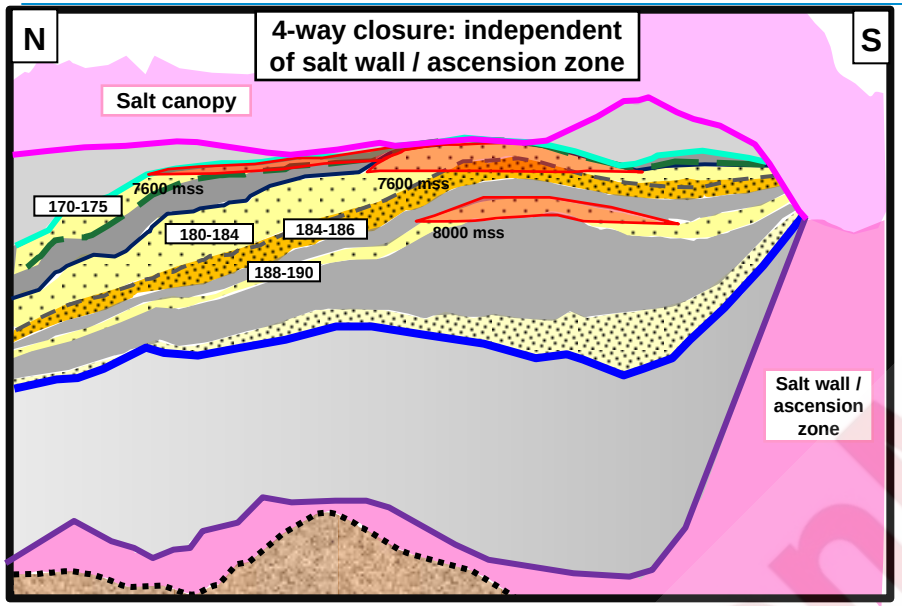
- Magnitude of thermal anomaly at rifting time
- Organic matter type (Type II vs III)
- Condensate yields:
  - Moz-Tan ave. 10-15 bbl/MCF
  - Varijatsy potentially greater 100-150 bbl/MCF

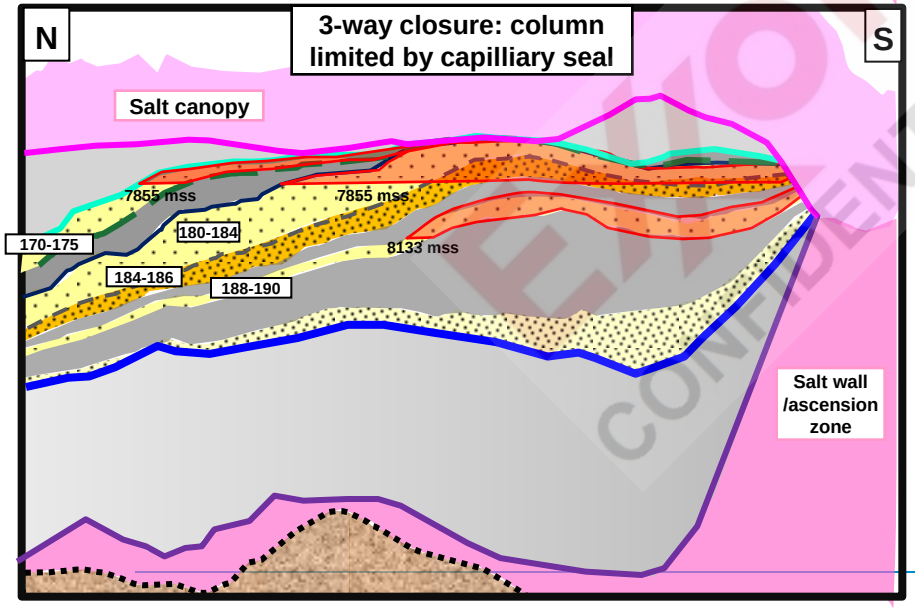
Tectonic & salt mobilzation history dramatically affect confidence of thermal predictions

Varijatsy: Play Element Summary



Varijatsy – Deterministic Assessment scenarios - Gas only case



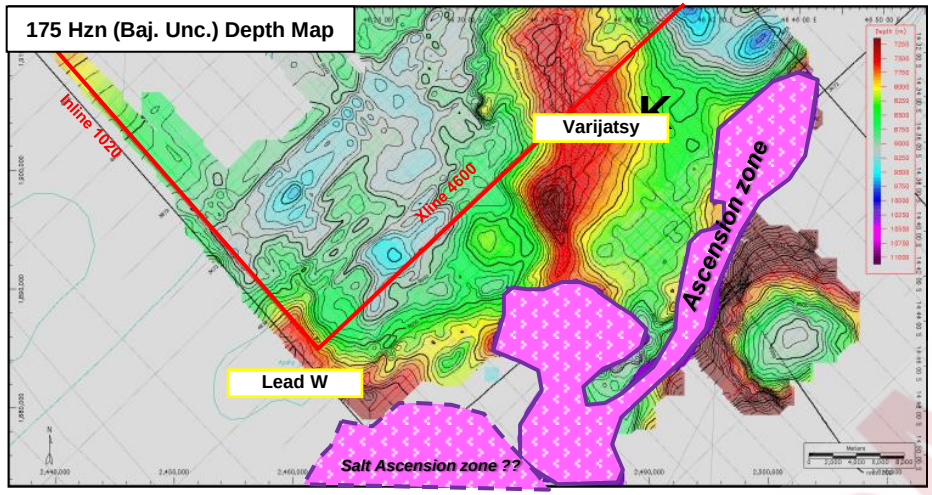


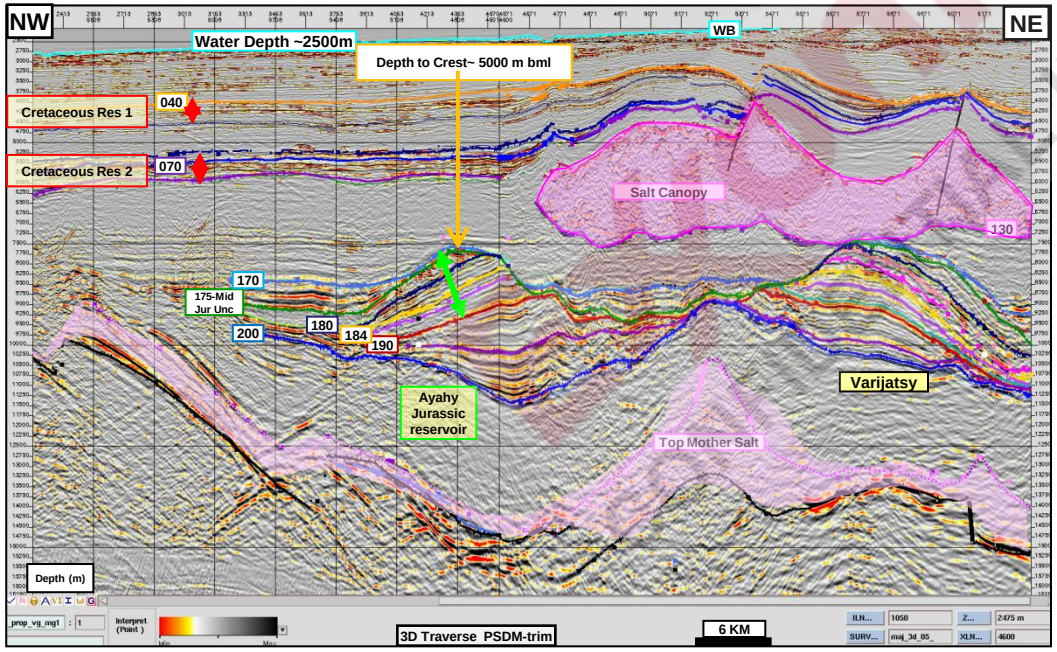
Salt leak case: 2.2 TCF (GIP) / 1.9 TCF (EUR
- 4-way structural closure
- independent of salt ascension zone
- low porosity of 8%

Salt seal case: 7.9 TCF (GIP) / 4.2 TCF (EUR)
- 3-way structural closure
- dependent of salt ascension zone
- column limited by capillary seal capacity of overlying shales
- low porosity of 8%

Enhanced case: 20.4TCF (GIP) / 10.8 TCF (EUR)
- 3-way structural closure
- dependent of salt ascension zone
- column limited by capillary seal capacity of overlying shales,
- enhanced porosity of 14%
- deeper gas water contact by 100 m

Lead W (Ayahy) Summary





General

- Water Depth ~2500m
- Deep target: depth to top structure ~ 7000 mss / 5000 m bml

Trap:

- Inverted mini-basin 3 way dip closure truncated against middle Jurassic unconformity to the east
- Potential leak point to south (salt wall / ascension zone)

Reservoir:

- Reservoir = Early - Middle Jurassic (Toarcian-Bajocian)
- Mini-basin fills ‘downdip clastics’

Seal:

- Post rift transgressive marine shale

Source Rock:

- Post-rift marine shales (130-170)
- Intra-reservoir seals
- Older Sources? (Pre 200)

Key Risks & Uncertainties:

- 3D seismic imaging / depth conversion
- Leak point against ascension zone (may limit trap fill)
- RQ & source presence

Assessment:

- GIP Mean: 3.9TCF
- HS: 16.2 TCF
- EUR: Mean: 2.0 TCF
- HS: 8.6TCF

Lead Inventory: Cretaceous Leads

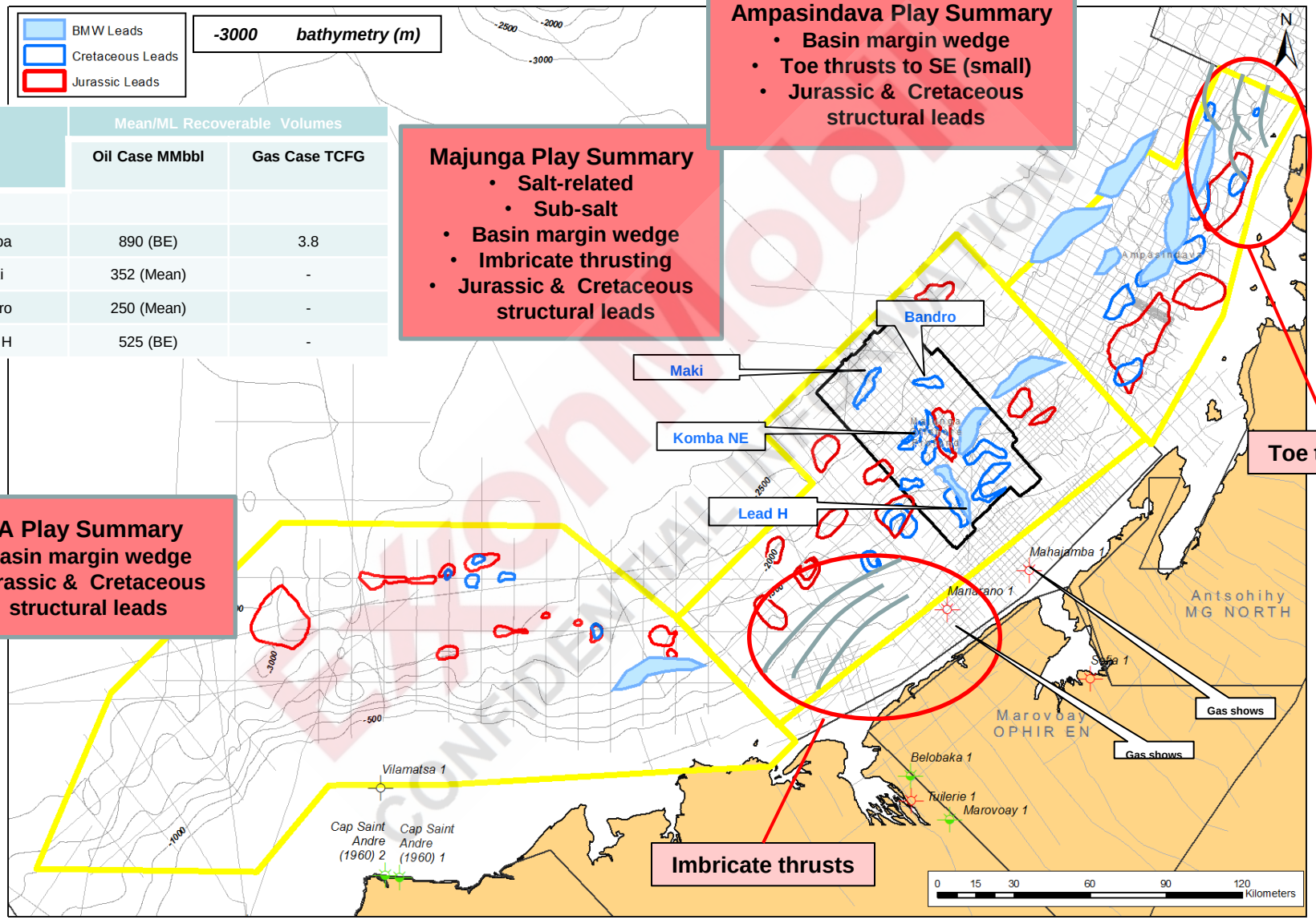
Madagascar Cretaceous Prospects

Licence	Mean/ML Recoverable Volumes	
	Oil Case MMbbl	Gas Case TCFG
Majunga		
Komba	890 (BE)	3.8
Maki	352 (Mean)	-
Bandro	250 (Mean)	-
Lead H	525 (BE)	-

Ampasindava Play Summary
- Basin margin wedge
- Toe thrusts to SE (small)
- Jurassic & Cretaceous structural leads

Majunga Play Summary
- Salt-related
- Sub-salt
- Basin margin wedge
- Imbricate thrusting
- Jurassic & Cretaceous structural leads

CSA Play Summary
- Basin margin wedge
- Jurassic & Cretaceous structural leads



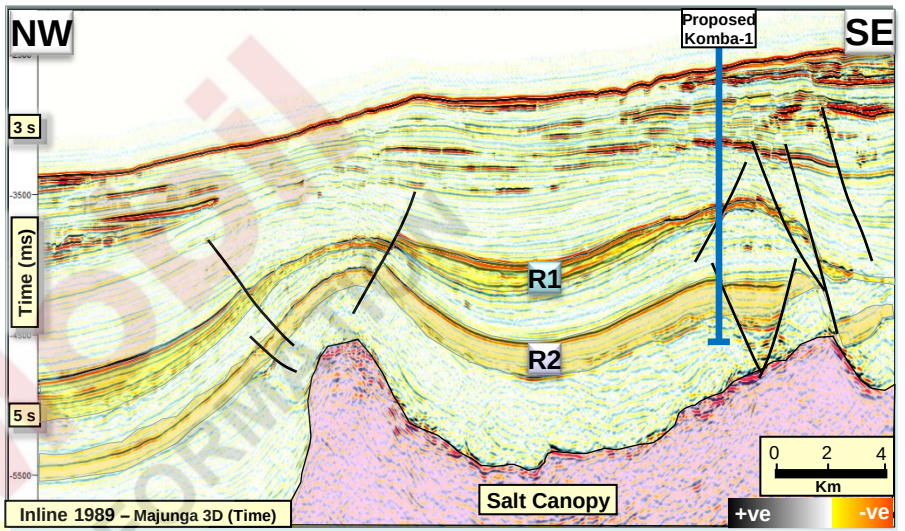
Komba Lead - Summary

Prospect Description:

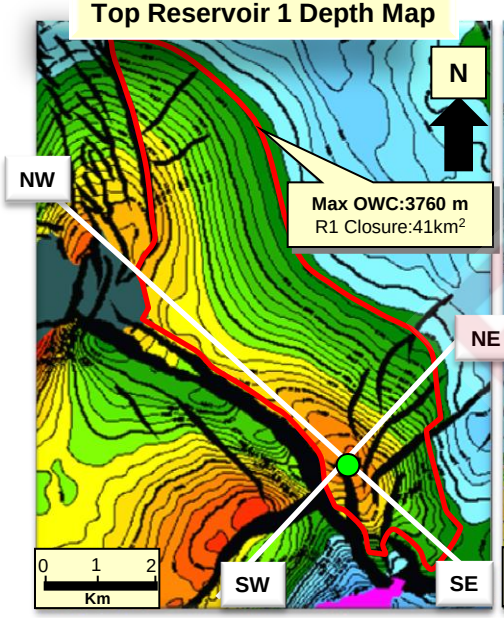
- Trap formation – Post-salt 3-way fault-dependent trap
- Primary objectives: deep-water Late Cretaceous clastics (reservoirs 1 & 2)
- Water Depth: 1940m
- Possible well location to target both Komba and Varijatsy Leads – shown as Proposed Komba-1
- TD: 4450m

Deterministic Assessment:

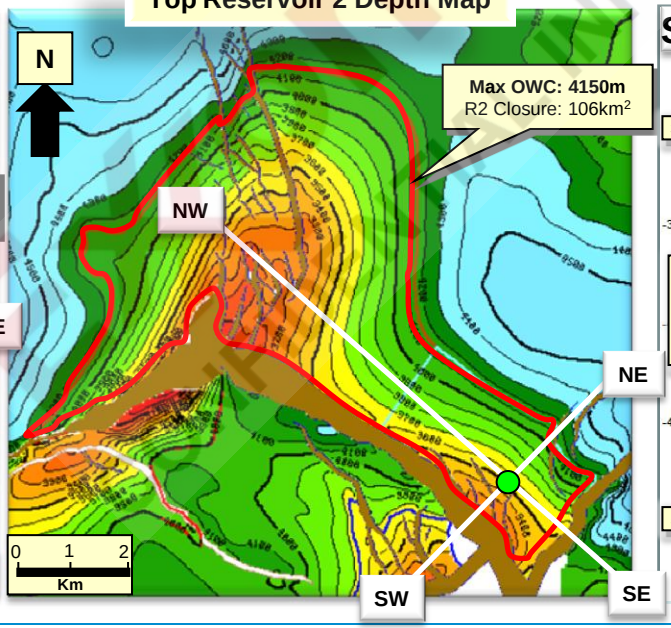
- Gas case: ML: 5.7TCF (GIP) / 3.8 TCF (EUR)
  HS: 8.4 TCF (GIP) / 5.7 TCF (EUR)
- Oil case: ML: 3558 MMbbl (OIP) / 890 MMbbl (EUR)
  HS: 5280 MMbbl (OIP) / 1331 MMbbl (EUR)

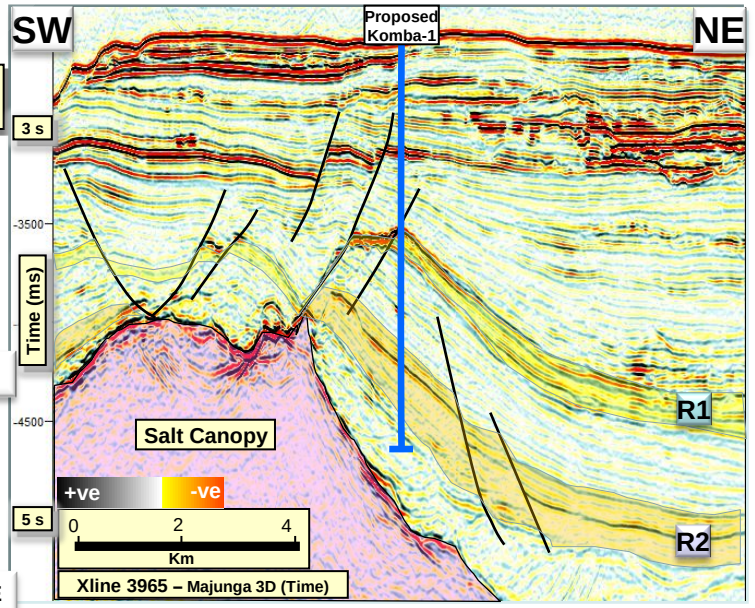


Top Reservoir 1 Depth Map



Top Reservoir 2 Depth Map





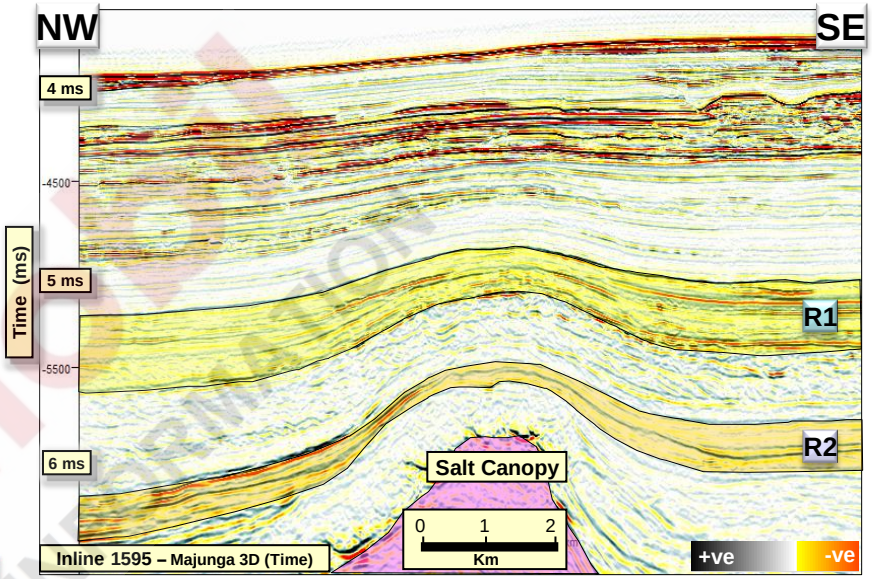
Majunga: Maki Lead - Summary

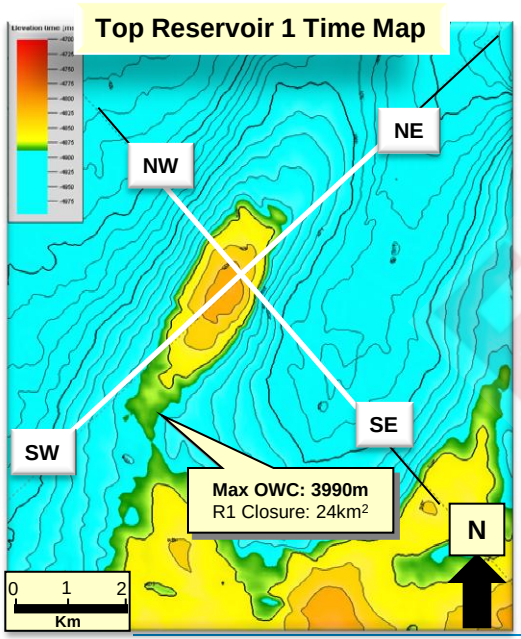
Description:

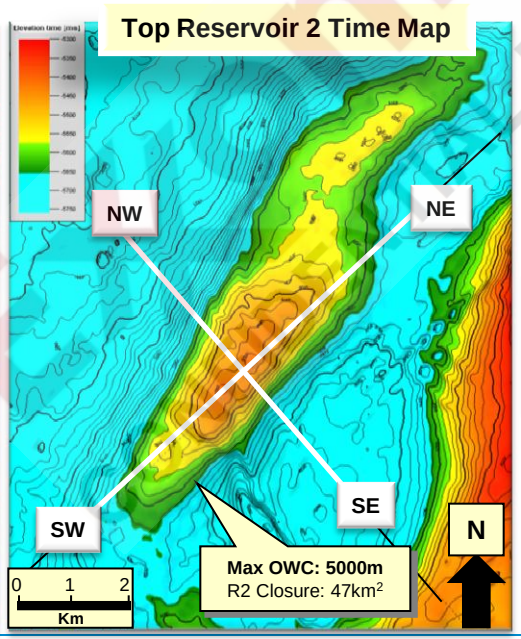
- Deep-water clastic system draping 4-way structural closure with minor crestal faults
- Primary Objective - Late Cretaceous deepwater clastics
- Source: Late Jurassic
- Water Depth ~2880m
- Depth to Late Jurassic ~8200mss (~5320mbml)

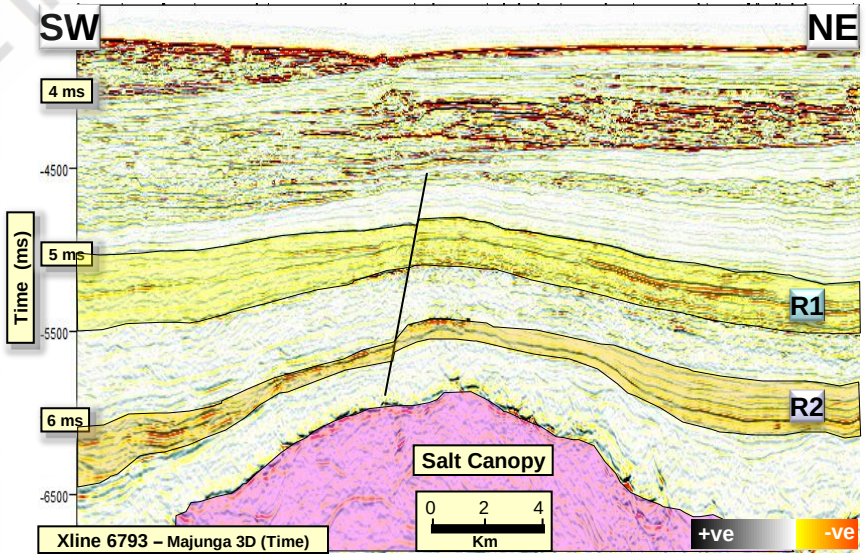
Assessment:

- Mean: 352 MMbbl (EUR) / P10: 828 MMbbl (EUR)









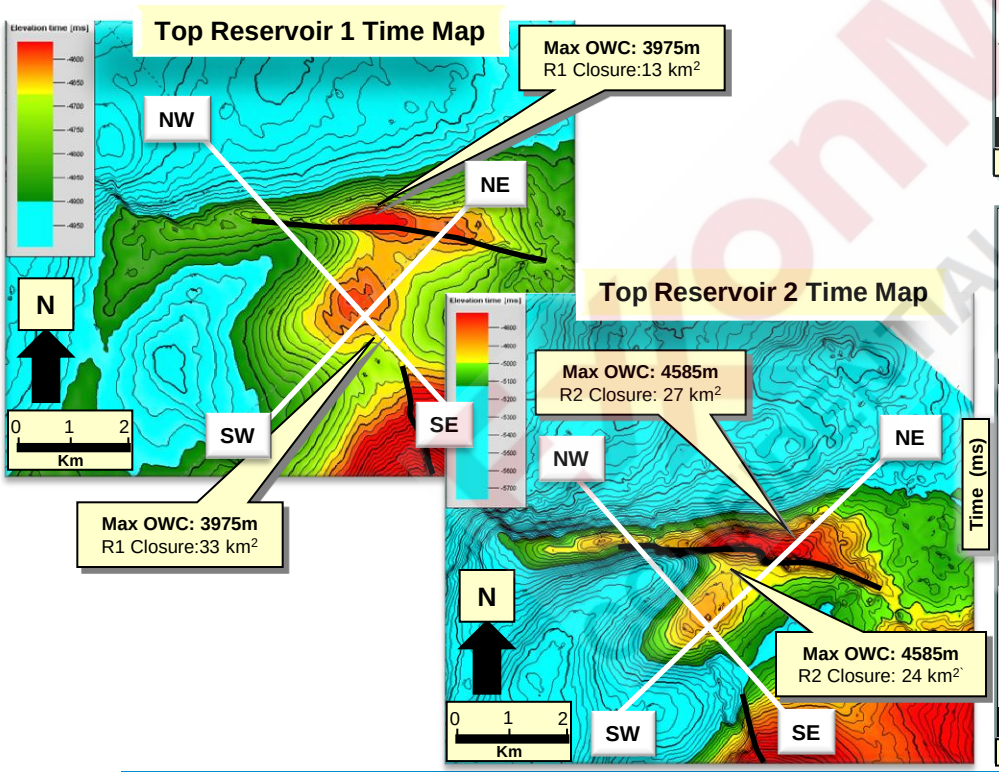
Majunga: Bandro Lead - Summary

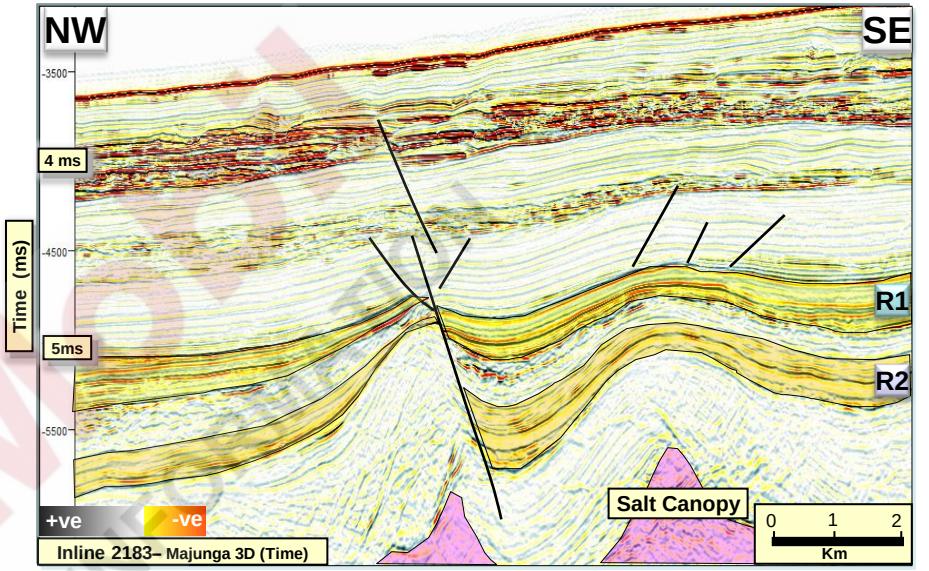
Description:

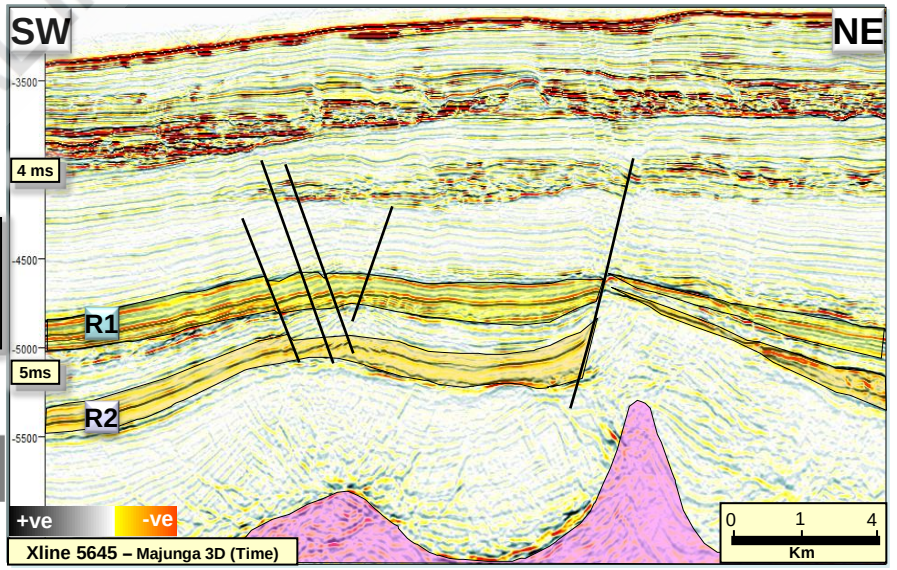
- Combination 4-way structural closure, minor crestal faults
- Primary Objectives - Late Cretaceous deepwater clastics
- Late Jurassic source
- Water Depth ~ 2425m
- TD to Late Jurassic ~8600mss (~6175mbml)

Assessment:

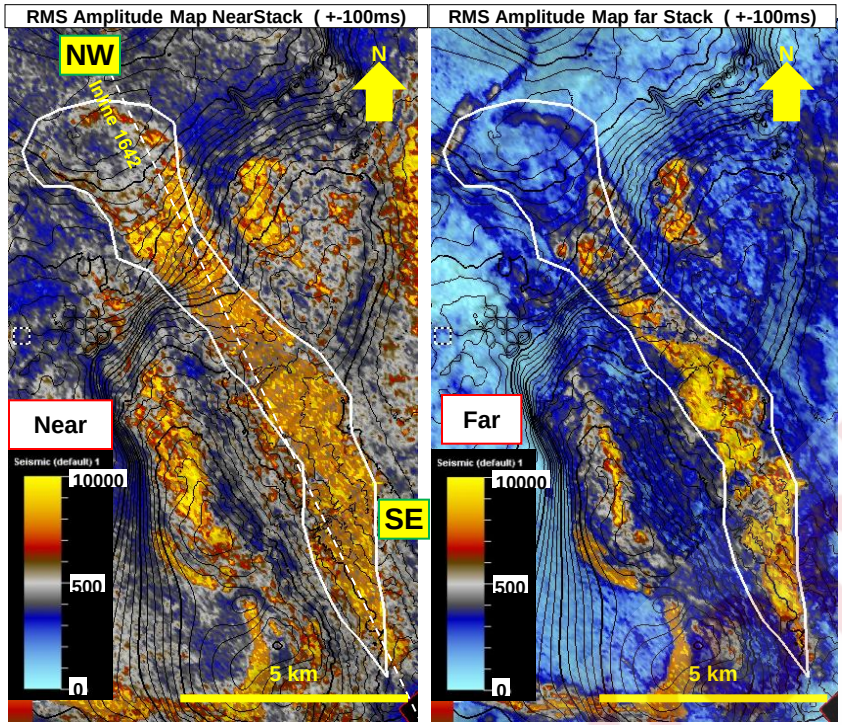
- Mean: 250 MMbbl (EUR) / P10: 500 MMbbl (EUR)

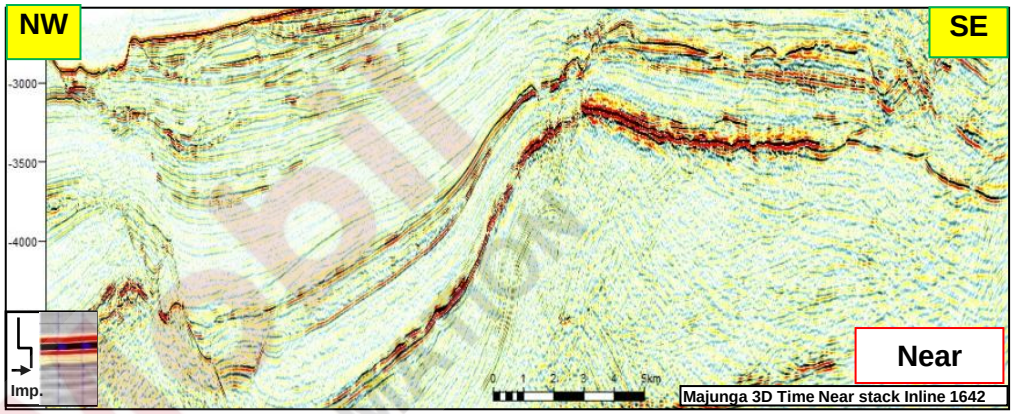


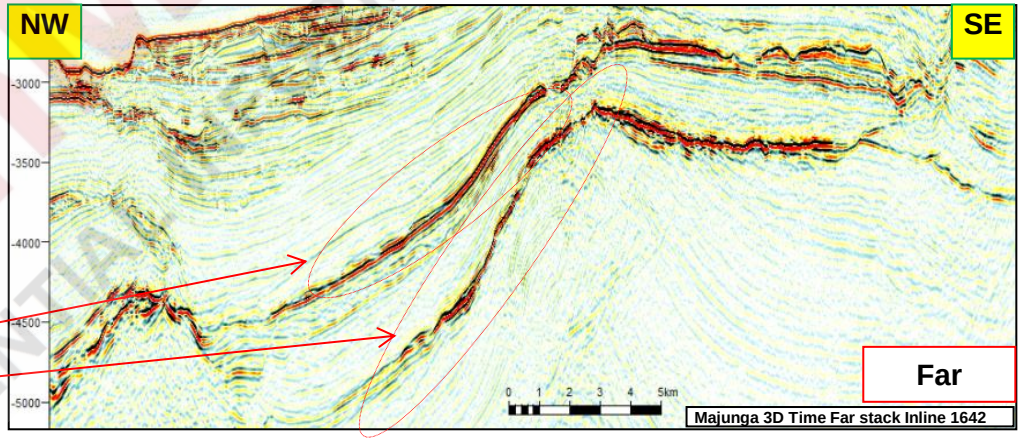


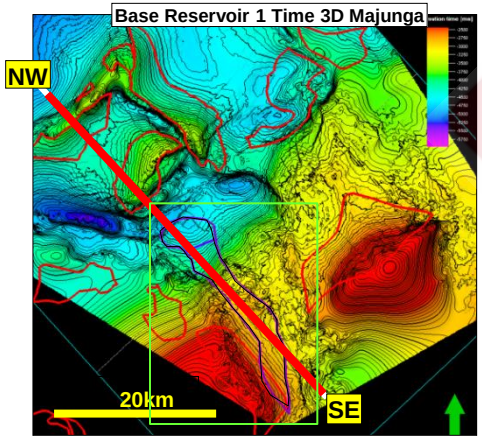


Majunga Lead H: Summary









Reservoir 1

Reservoir 2

Description: Stratigraphic trap
Primary Objectives: Late Cretaceous DW clastics (Reservoirs 1 & 2)
Comments: Amplitude brightening with offset (RMS amplitude extractions on bandwidth balanced near and fars)
Uncertainty surrounds phase of the data & angle ranges (3D reprocessing underway to rectify)
Assessment: (Quick-look only - detailed mapping underway)
Deterministic ML (OIP): 2100MMbls High Side (OIP): 5216 MMbbls
ML (EUR): 525MMbbls High Side (EUR): 1304 MMbbls

Cap St Andre Leads

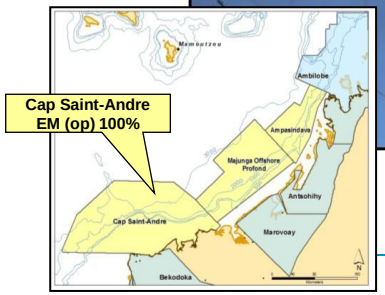
Cap St Andre: Key Jurassic Leads

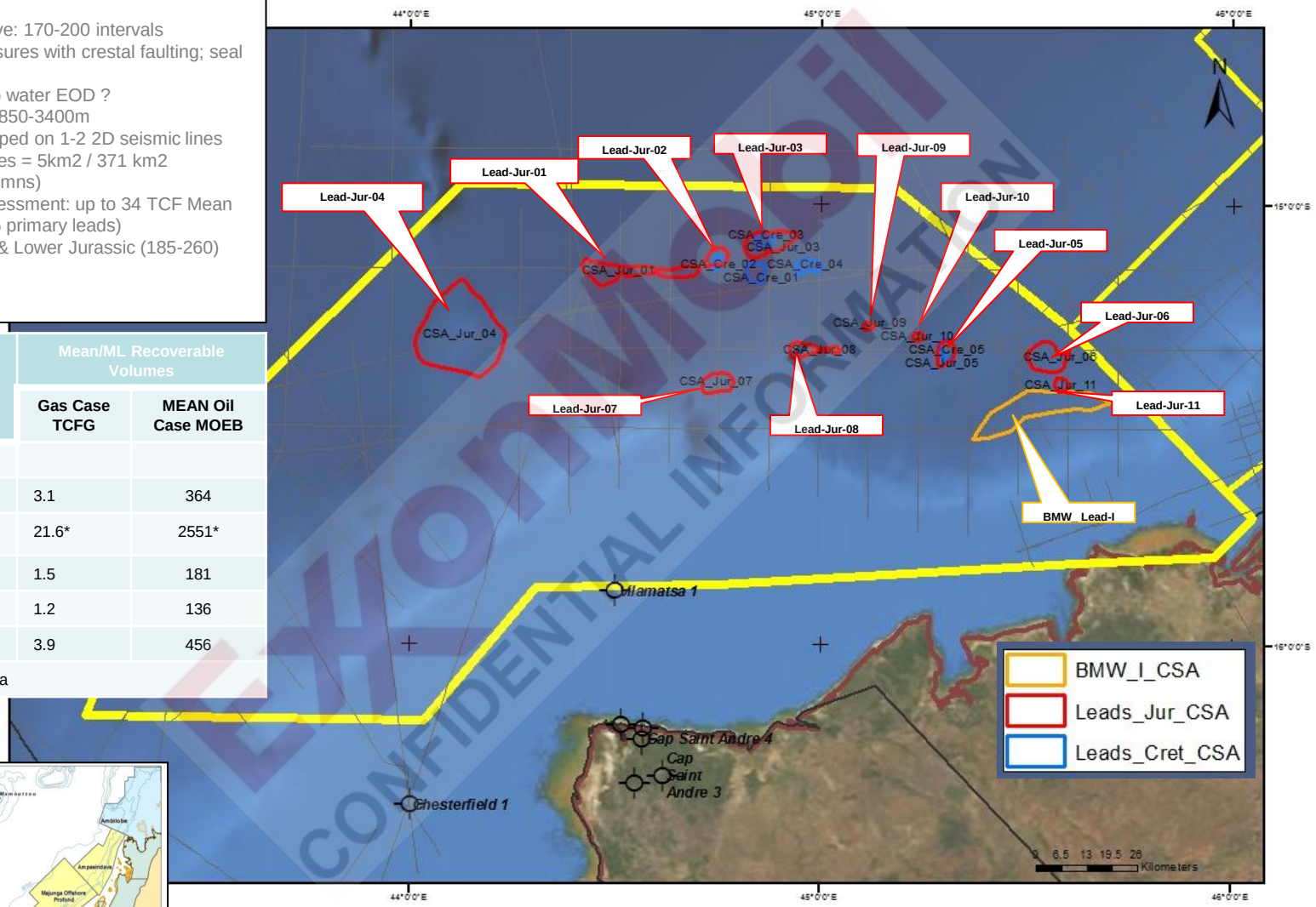
Description:

- Primary Objective: 170-200 intervals
- Trap: 4-way closures with crestal faulting; seal untested
- Reservoir: Deep water EOD ?
- Water Depth ~1850-3400m
- Most leads mapped on 1-2 2D seismic lines
- ML/MAX Closures = 5km2 / 371 km2 (30m/900m columns)
- Preliminary Assessment: up to 34 TCF Mean EUR (includes 6 primary leads)
- Source: Middle & Lower Jurassic (185-260)

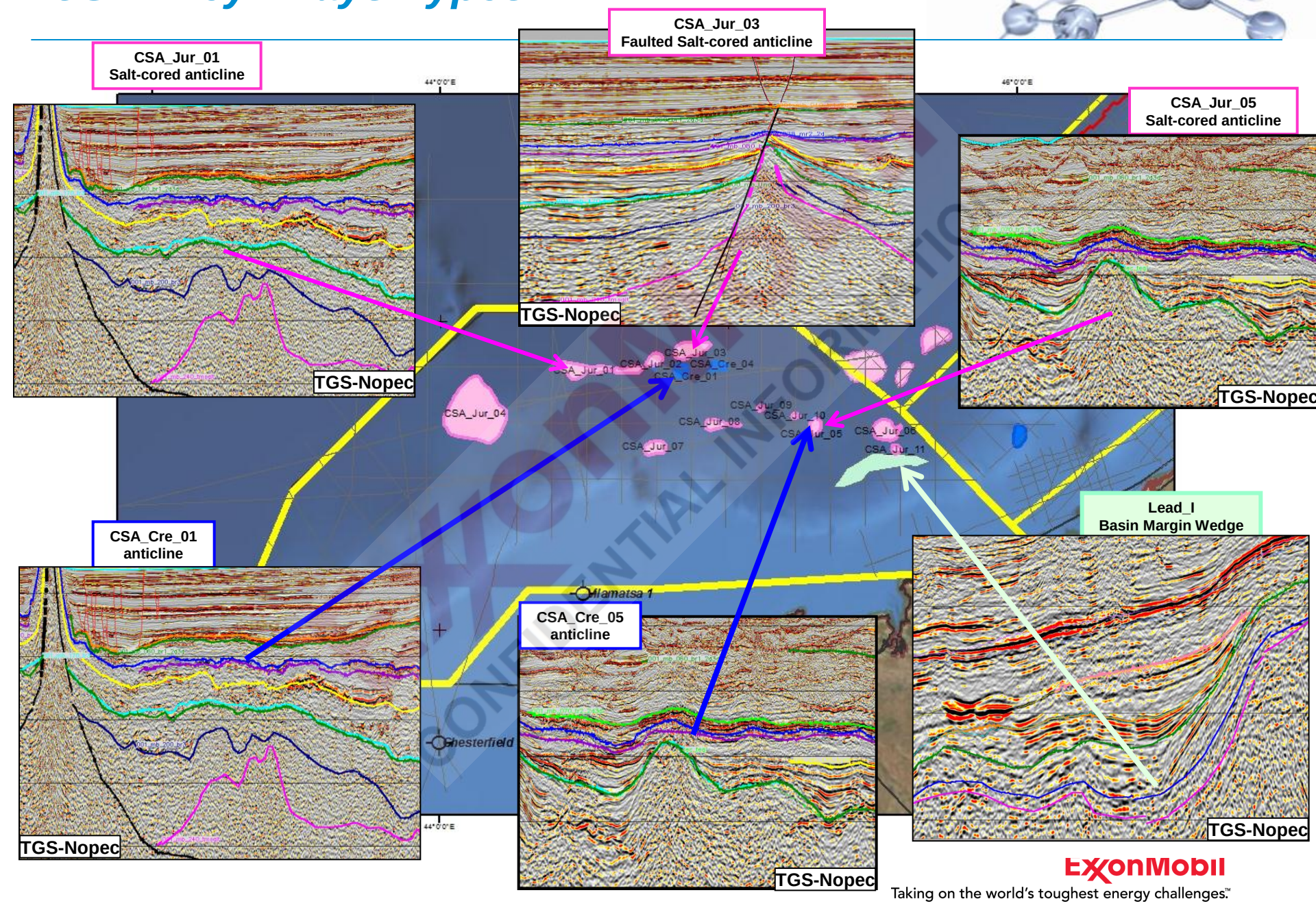
Licence	Mean/ML Recoverable Volumes	
	Gas Case TCFG	MEAN Oil Case MOEB
Cap St Andre		
Lead-Jur-01-02-03 (Det)	3.1	364
Lead-Jur-04 (Det)	21.6*	2551*
Lead-Jur-06 (Det)	1.5	181
Lead-Jur-08 (Det)	1.2	136
BMW-Lead-I (Prob Mean)	3.9	456

* Low data across wide area

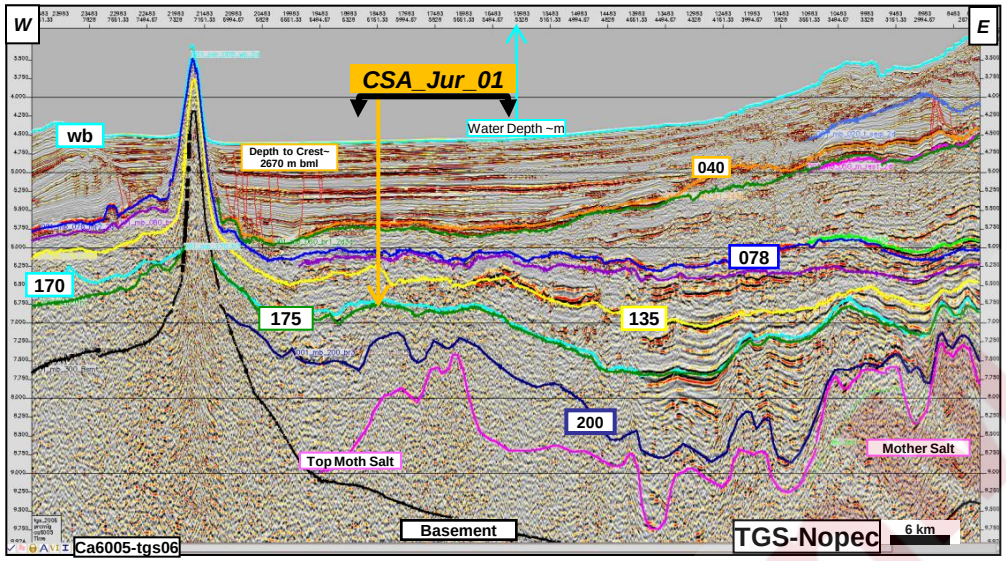


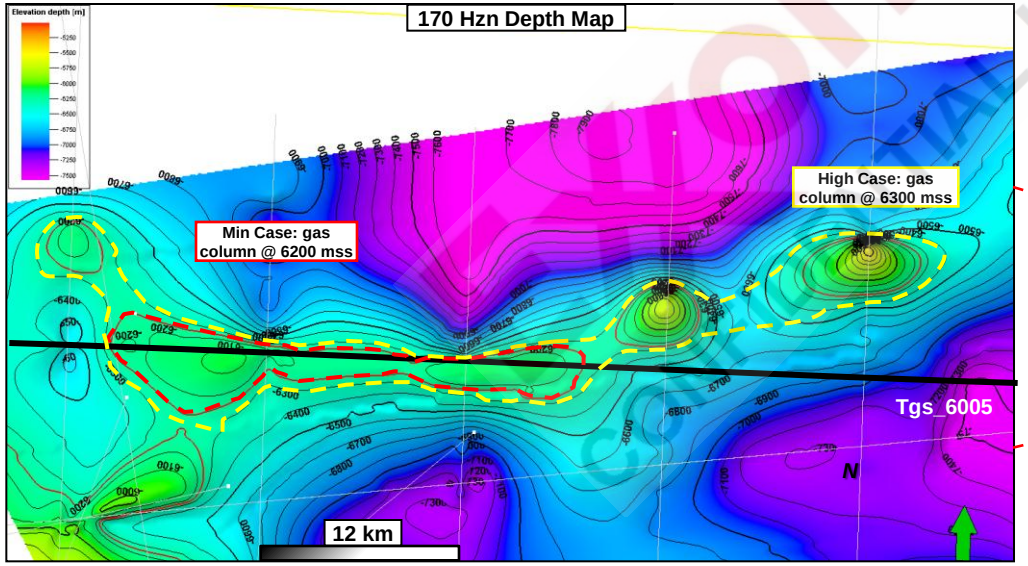


CSA: Key Plays Types



CSA: Jur-01-02-03 Lead Summary





General

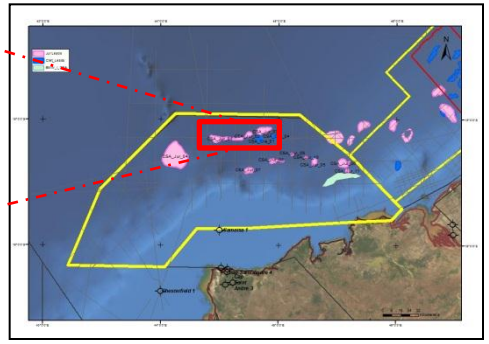
- Water Depth ~3375 m
- Depth to Structure ~ 6050 mss / 2670 m bml

Geology

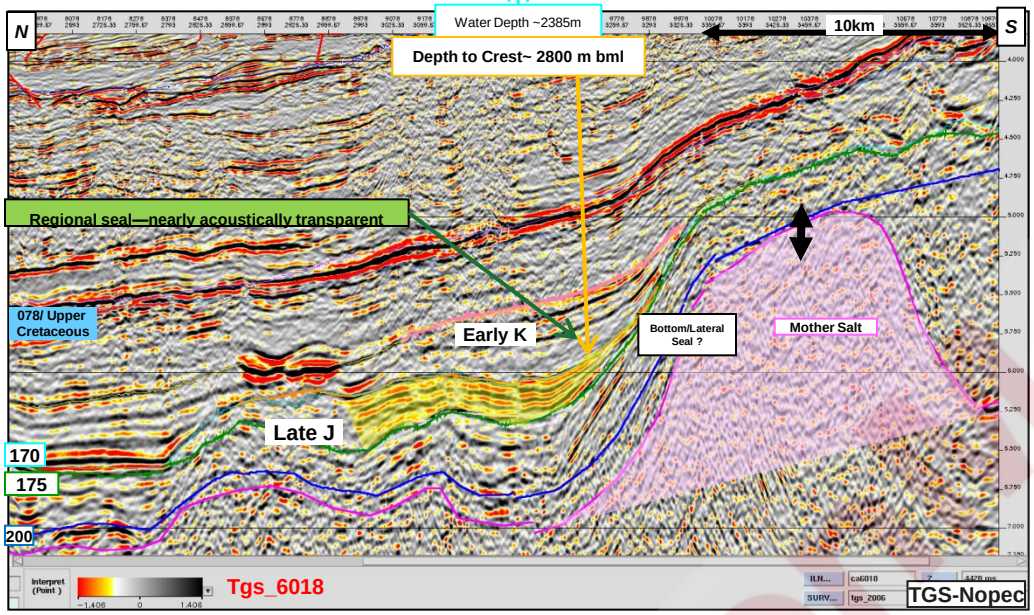
- Trap 4-Way Faulted Trap
- Reservoir: Early Jurassic – downdip clastics (170-175)
- Seal: Post-rift transgressive marine shale
- Closure: Height: ~150m
  Area: 83 km2 (170 Horizon)
- Source Rock: Post-rift shales (130-170), ?older source

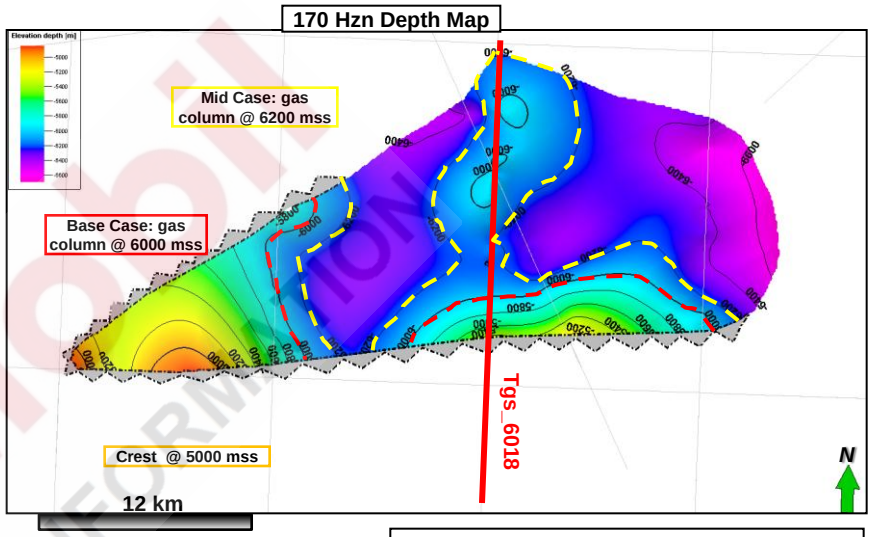
Assessment:

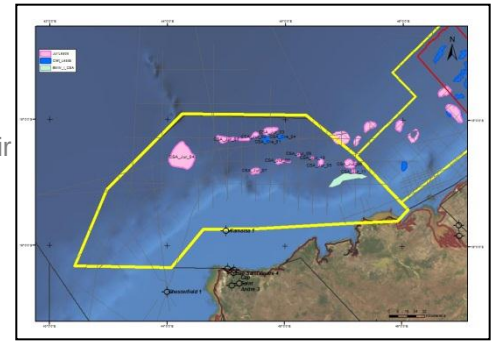
- GIP: ML Case: 3.1 TCF
  High case: 13.1 TCF
- EUR: ML Case: 2.2 TCF
  High case: 9.2 TCF

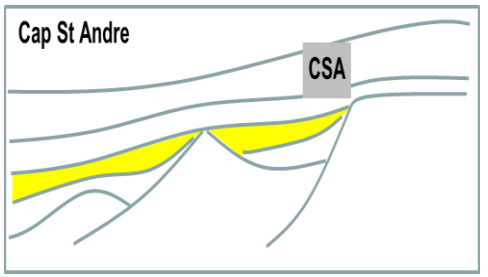


Basin Margin Wedge: Lead I









General

Water Depth ~2385m

Depth to Structure ~ 5200 mss / 2815 m bml

Geology

Trap: Basin margin wedge onlapping/ pinch-out against unconformity

Reservoir: Early Jurassic – downdip clastics (170-175)

Seal: Post-rift transgressive marine shale

Closure: Height: ~1000m
Area: 114 km2 (170 Horizon)

Source Rock: Post-rift transgressive shale (130-170), ?older source

Key Uncertainties

Leak point against wedge zone, reservoir facies

Assessment

GIP: Mean Case: 3.9 TCF
p10 Case: 5.6 TCF

EUR: Mean Case: 2.7 TCF
p10 Case: 4.0 TCF

Majunga Basin Play Element Summary

Favourable play elements:

Source

- Jurassic source rocks observed in outcrop + wells and interpreted to extend offshore
- Oil & gas shows reported from most updip wells
- Oil stained sands in outcrop
- Potential for numerous source intervals eg Syn-rift Type I-II, Mid Jurassic transgressive marine shales (II), Early Cretaceous (Somalia), Karoo

Reservoir

- Jurassic clastics interpreted as downdip equivalent of thick Lower Jurassic reservoirs observed in outcrop.
- Outcrop and wells (where data available) indicate quartz-rich fluvial to shallow-marine sands with good RQ
- Significant unconformities interpreted at outcrop and in updip wells - corresponding lowstand packages identified in 2D & 3D seismic offshore in Cretaceous & (Aptian, Turonian, Campanian-Maastrichtian) & Oligo-Miocene.

Seal

- Thick shale-prone Upper Jurassic shale interval observed in onshore wells. Thick seismically transparent intervals of likely corresponding age offshore
- Salt canopy (where interpreted on seismic)

Trap

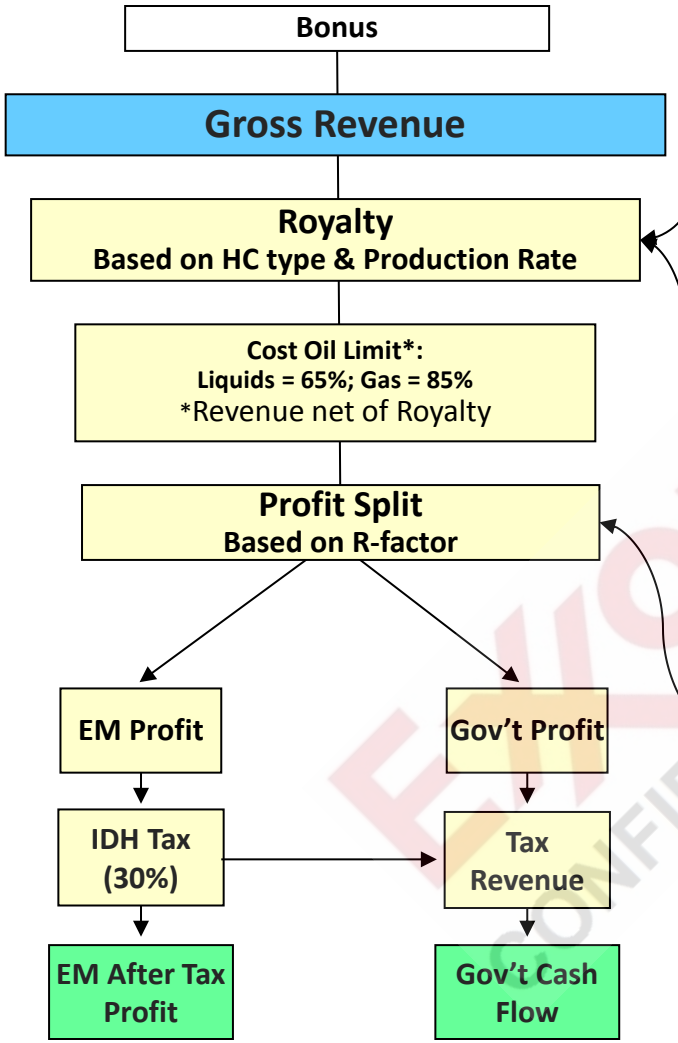
- Numerous traps identified:
    - Deeper Jurassic clastic plays deposited in salt withdrawl basins (Varijatsy), 3 way fault dependent closures (Sifaka),
    - Cretaceous 3 & 4-way dip closures related to salt
    - Basin margin wedge (stratigraphic plays).
    - Additional plays not yet quantified (toe thrusts in Ampasindava & imbricate thrusts in Majunga, traps associated with salt play).
- Significant running room at all levels in success case (Lead W, Aye-Aye, Kofi + many potential leads not currently quantifiable on coarse 2D data in SW Majunga & CSA

Timing

- Syn-rift and post-rift clastics deposited offshore and overlain/interbedded with marine shales. Key elements of structure developed either during salt movement or later faulting (and during syn-rift).
- Higher heat flows anticipated to aid source rock maturity during early phases, some of these may be in gas window, though younger source intervals could be in oil or gas window (depending on location and burial). Initial 1D basin modelling and reservoir quality evaluations suggests Jurassic-Cretaceous are most prospective. Karoo interval may be in play, but base-case assumption is that this is not prospective due to anticipated burial depths

Development Plan and Commercial Options

Ampasindava Block: Revenue Flow Diagram



LIQUIDS ROYALTY	
Production (KBD)	Royalty Rate
≤ 25	8%
25 - 50	10%
50 - 75	12%
75 - 100	14%
100 - 130	17%
> 130	20%

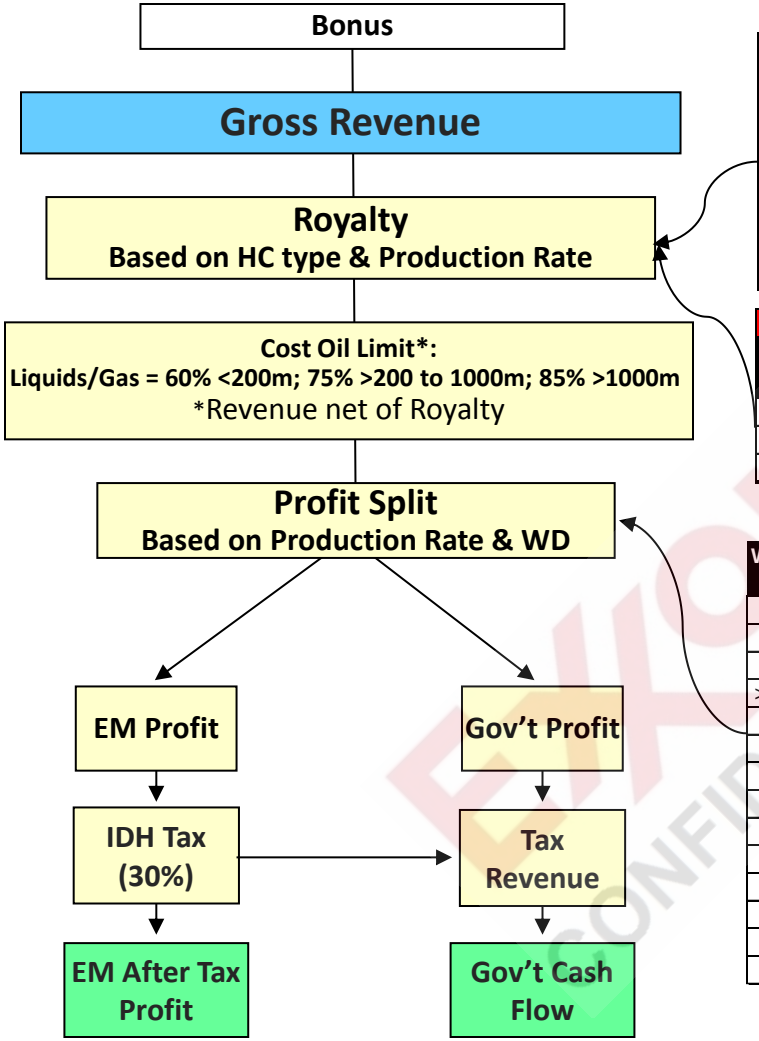
GAS ROYALTY	
Production (MCFD)	Royalty Rate
≤ 12	5%
12 - 24	7.5%
> 24	10%

R-factor (TR/TC)	Contractor Profit Share
≤ 1.00	91.5%
1.00 - 1.25	90.5%
1.25 - 1.50	89.5%
1.50 - 1.75	88.5%
1.75 - 2.00	87.5%
2.00 - 2.25	86.5%
2.25 - 2.50	81.5%
2.50 - 2.75	76.5%
2.75 - 3.00	71.5%
> 3.00	66.5%

GENERAL FISCAL TERMS:

- PSC Contract
- Royalty scaled on HC type & Daily Production
- Cost Recovery from 65% or 85% of Gross Revenue Net of Royalty
- Profit Oil Allocation based on Contractor's R-factor (TR/TC)
  - TR = Cumulative Cost Oil & Profit Oil
  - TC = Cumulative Costs + Income Taxes
- DMO exists but no cash flow effect
- Taxes:
  - Direct Tax on HC's = 30%
  - All other taxes are discharged
    - Income Tax (IBS)
    - Income from Movable Capital (IRCM)
    - Fixed taxes on Transfers (TFT)
    - Any Malagasy taxes based on income

Majunga & Cap St Andre Block: Revenue Flow Diagram



LIQUIDS ROYALTY	
Production (KBD)	Royalty Rate
≤ 25	8%
25 - 50	10%
50 - 75	12%
75 - 100	14%
100 - 130	17%
> 130	20%

GAS ROYALTY	
Production (MCFD)	Royalty Rate
≤ 12	5%
12 - 24	7.5%
> 24	10%

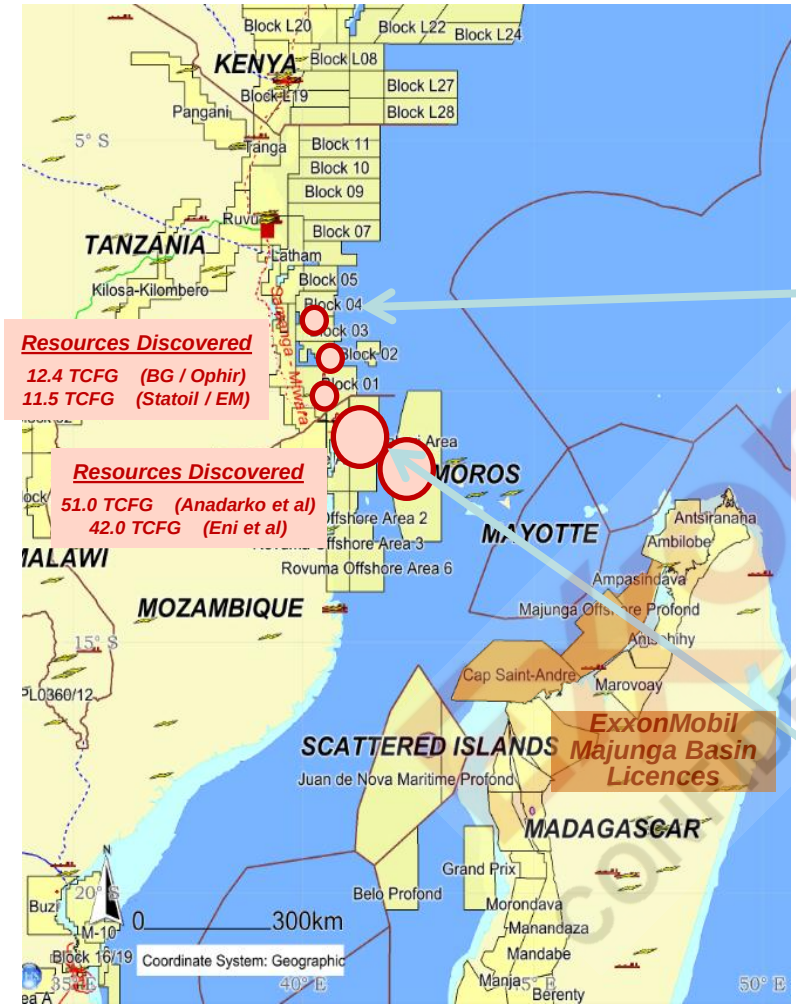
Water depth m	Contractor Profit koebd	Share
<200	50	80%
	100	78%
	>100	75%
>200 to 1000	50	93%
	100	90%
	150	85%
	200	80%
	250	75%
	>250	65%
>1000	100	92%
	200	90%
	300	85%
	350	80%
	>350	75%

GENERAL FISCAL TERMS:

- PSC Contract
- Royalty scaled on HC type & Daily Production
- Cost Recovery from 60% to 85% of Gross Revenue Net of Royalty dependent on water depth
- Profit Oil Allocation based on Production Rate and Depth of field
- DMO exists but no cash flow effect
- Taxes:
  - Direct Tax on HC's = 30%
  - All other taxes are discharged
    - Income Tax (IBS)
    - Income from Movable Capital (IRCM)
    - Fixed taxes on Transfers (TFT)
    - Any Malagasy taxes based on income

East Africa Emerging Gas Play

Hottest global exploration play past 5 years – 100+ TCFG new discoveries



Map Source: IHS *Data Source: Wood MacKenzie*

Planned LNG export – production start 2019

Tanzania Blocks 1, 3, 4 (5.2 M Acres) **BG operated**

- Blocks awarded 2005 – 2006 to Ophir, farmout 60% WI to BG in 2010
- 14+ TCF EUR Discovered (100% wildcat success rate)
- Good quality Cretaceous / Tertiary reservoirs
- LNG Final Investment Decision (FID) projected by 2016-17 for joint multi-train plant

Tanzania Block 2 (1.4 M Acres) **Statoil operated**

- Block awarded 2007 to Statoil, farmout 35% WI to ExxonMobil in 2010
- 11-13 TCF discovered in Cretaceous / Tertiary reservoirs

Mozambique Area-1 (2.6 M Acres) **Anadarko operated**

- Anadarko 36.5 %, Mitsui 20%, Videocon 10%, Bharat 10%, PTTEP 8.5%, ENH carried 15%
- 50+ TCF EUR Discovered Resource
- Production tests flowed 100 Mcfd constrained by surface facilities
- LNG FEED announced start 2013, production start 2019

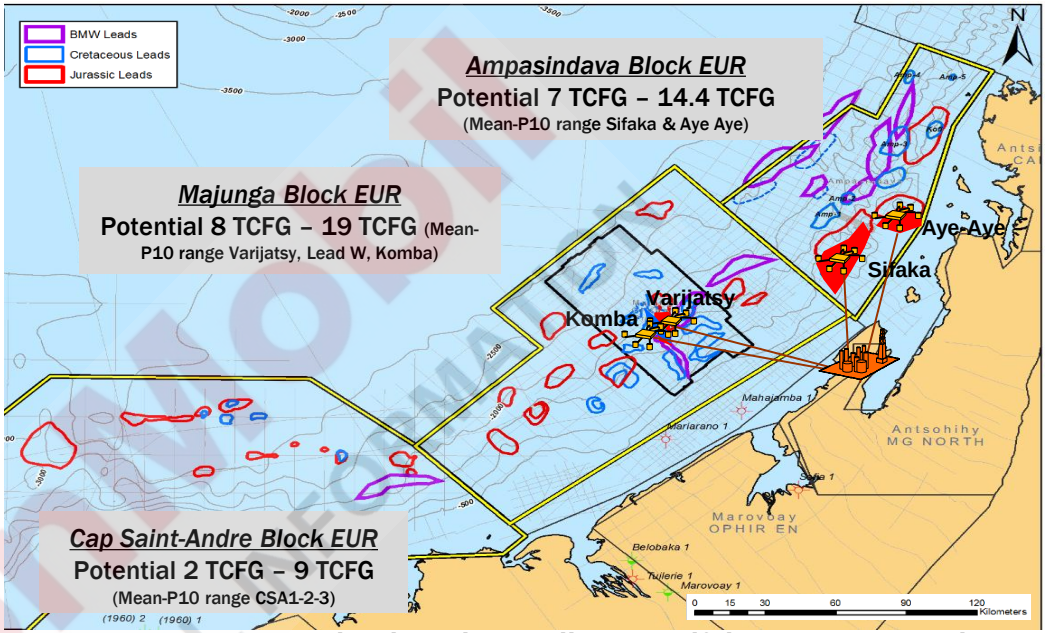
Mozambique Area-4 (3.2 M Acres) **ENI operated**

- ENI 50%, CNPC 20%, KOGAS 10%, Galp 10%, ENH carried 10%
- Announced discoveries of 60 TCF OGIP, est. 42 TCF EUR
- Production test flowed 140 Mcfd constrained by surface facilities
- HOA signed with Area-1 owners for potential joint LNG development

Potential Majunga Basin LNG Project

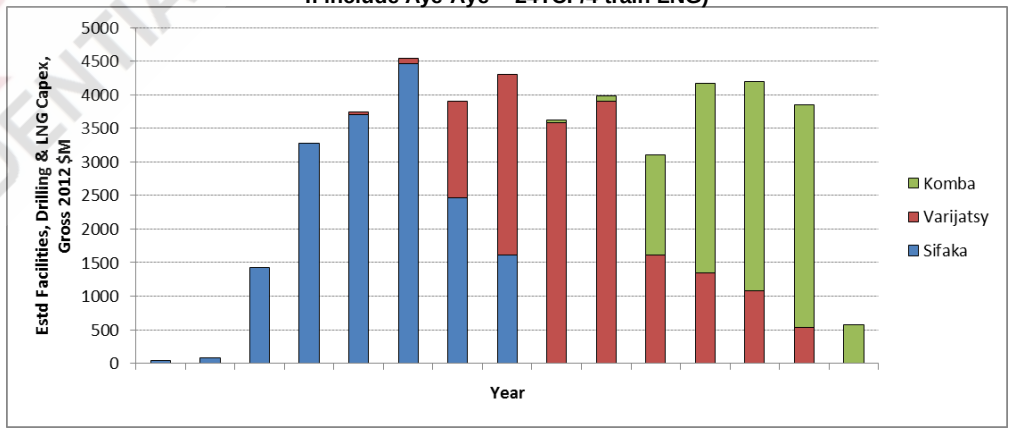
Lead (Licence)		Recoverable Volumes
		Gas Case TCFG
Sifaka (Ampasindava)	Mean	4.5
	p10	8.2
Aye-Aye (Ampasindava)	Mean	2.5
	p10	6.1
Varijatsy (Majunga)	Mean	1.9
	p10	4.2
Komba (Majunga)	BE	3.8
	HS	5.7
TOTAL	**BE**	**12.7**
	HS	**24.2**

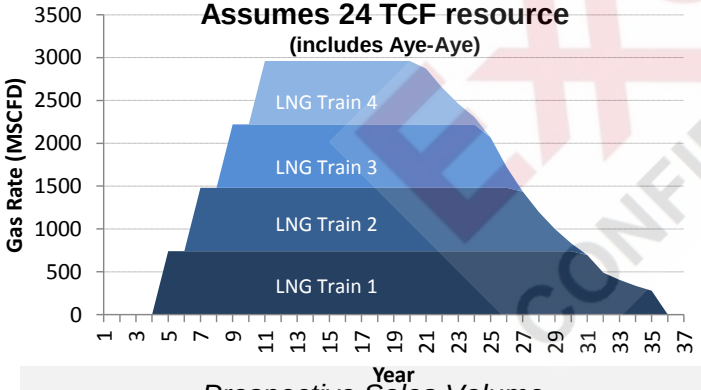
- All volumes and timing are notional
- For gas, block licenses have a 35-year production mining title (development & production); extensions available
- LNG Plant location would be subject to environmental and site surveys and Government approval



Assumes 3 LNG trains (Komba, Varijatsy & Sifaka HS – 18.1 TCF)

If include Aye-Aye = 24TCF/4 train LNG)



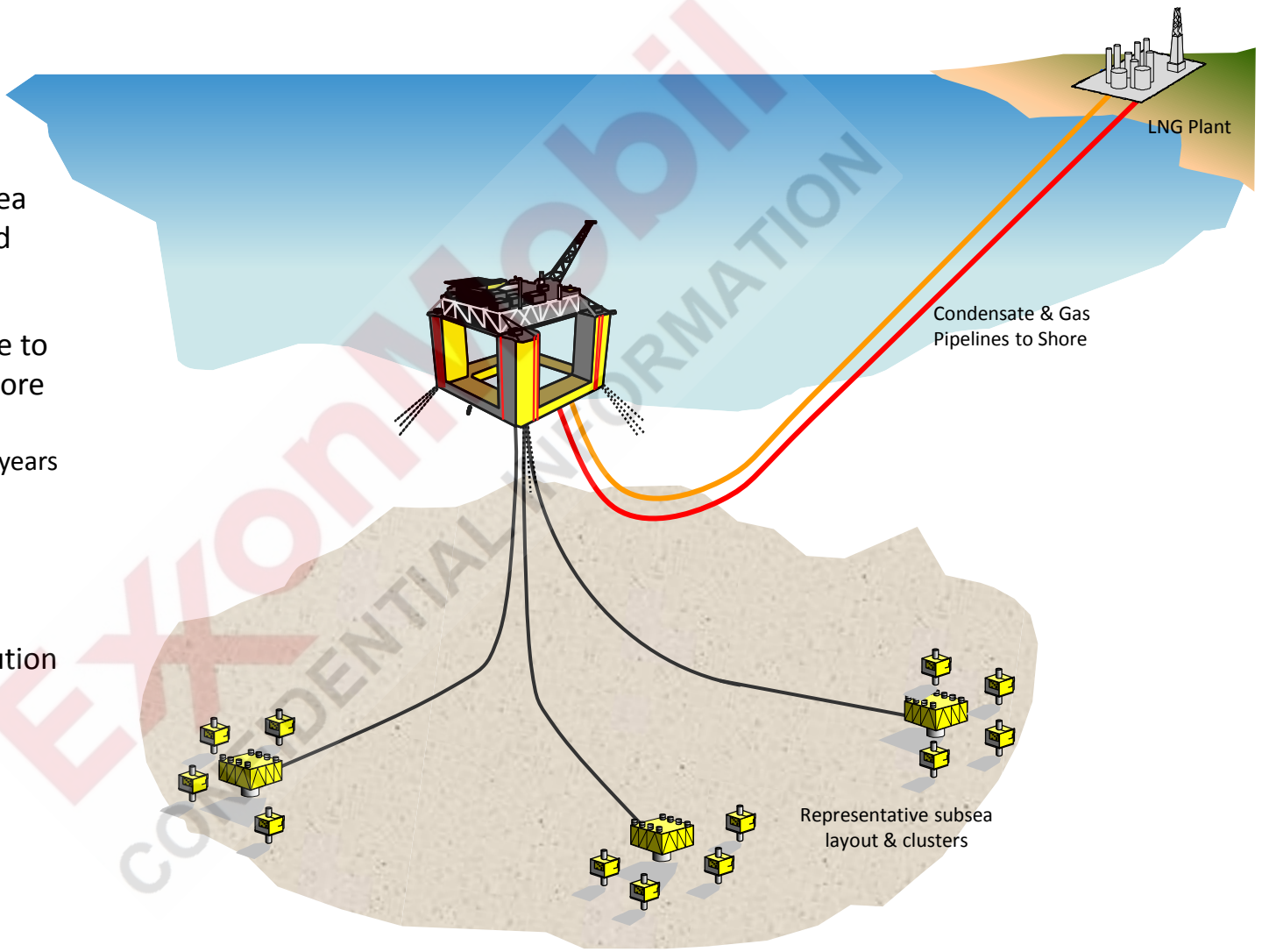


Prospective Sales Volume
4-train Majunga Basin LNG Project

Notional Majunga Basin Gas Development

Concept Description

- Semi FPS dehydration and compression platform
- 3-5 manifolds, 16-25 subsea wells tied via flowlines and steel catenary risers
- ~24“ x 100 km gas pipeline to greenfield LNG plant onshore
  - One to two 4 MTA trains
  - 2nd LNG train start-up two years after 1st train start-up
- ~4” x 100 km condensate pipeline to shore tank
- World Open Market Execution
  - Semi FPS built in Korea
  - Stick-built LNG plant



Success Factors for an LNG Project

Quality Resource
- Known high-quality supply
- Competitive return to resource owner and investor

LNG Market
- Sufficient demand
- Long term off-take surety
- Creditworthiness

Final Investment Decision (FID)

Executable Project
- Technical viability
- Durable project execution plan
- Cost / schedule predictability

Fiscal & Regulatory
- Long term stability
- "Permit-able" project
- An enabling Host Government

Experienced Developer(s) Needed to achieve Commercial Alignment

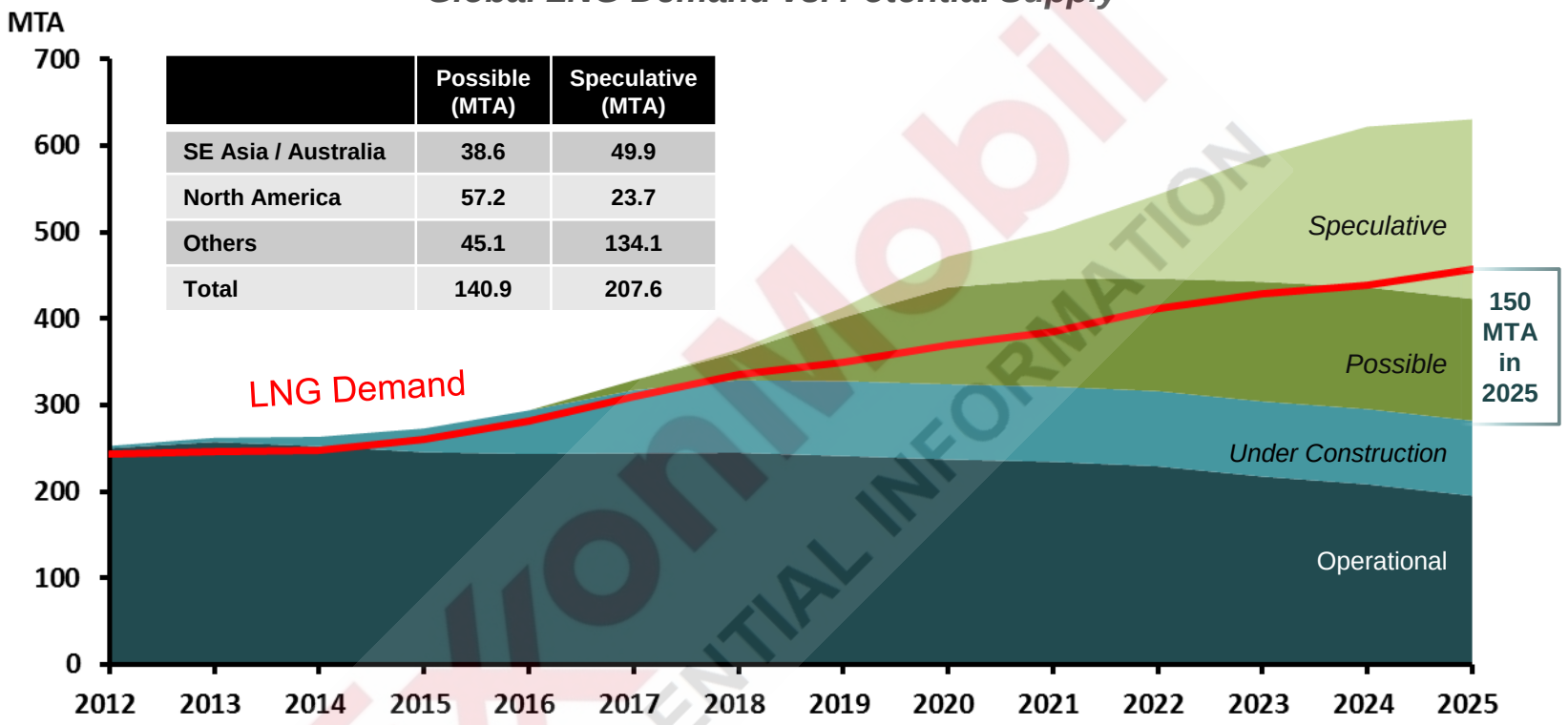
Commercial Alignment and Proper Risk-Reward Balance

Overall Project is Commercially Viable and Financeable

Competition for Uncommitted LNG Demand

Global LNG Demand vs. Potential Supply

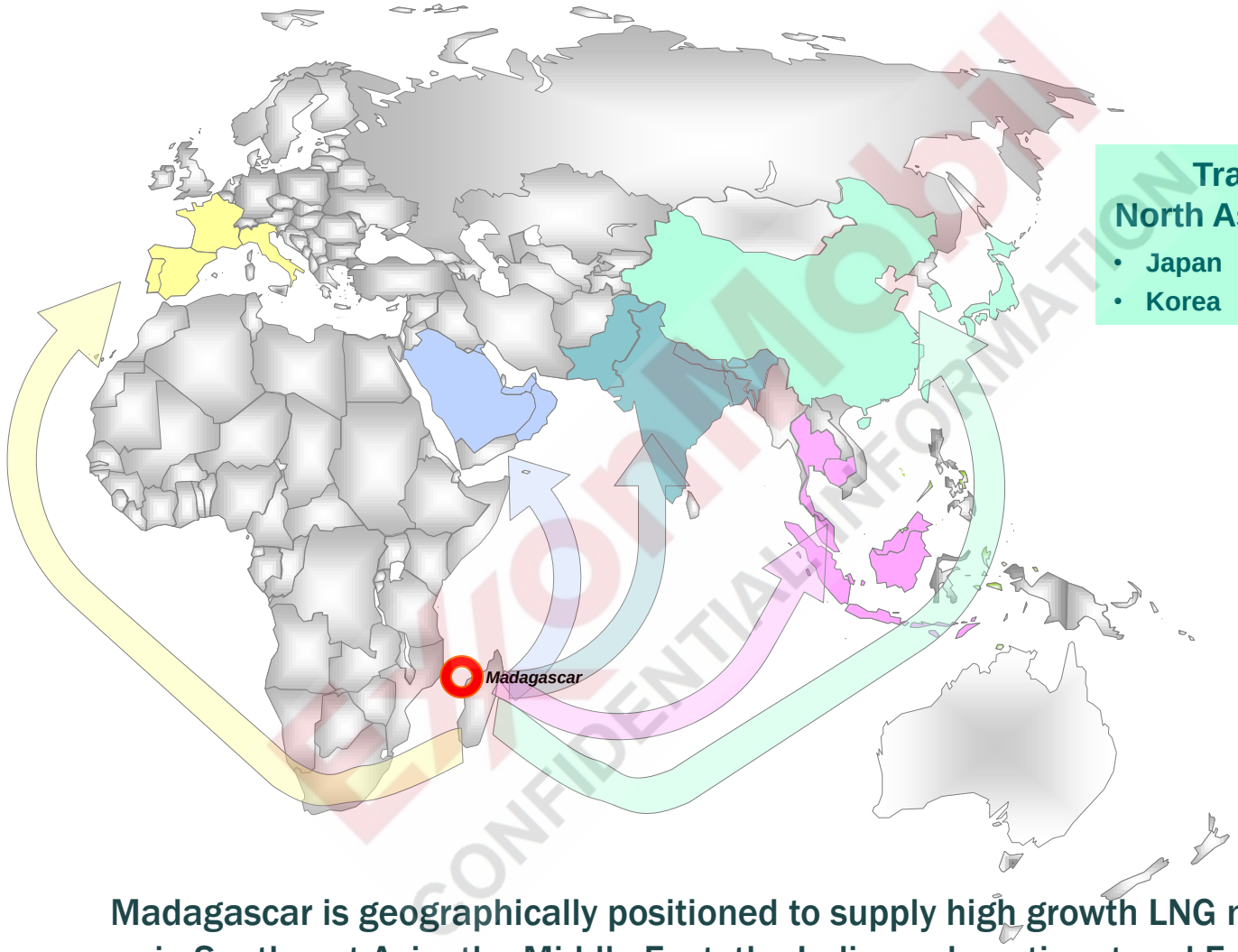
	Possible (MTA)	Speculative (MTA)
SE Asia / Australia	38.6	49.9
North America	57.2	23.7
Others	45.1	134.1
Total	140.9	207.6



Source: Wood Mackenzie

- Global LNG demand expected to grow at 5% per year through 2025
- Many new LNG projects competing for customers post 2018
- Cost competitiveness and development pace will determine which projects proceed

Potential Markets for Madagascar LNG



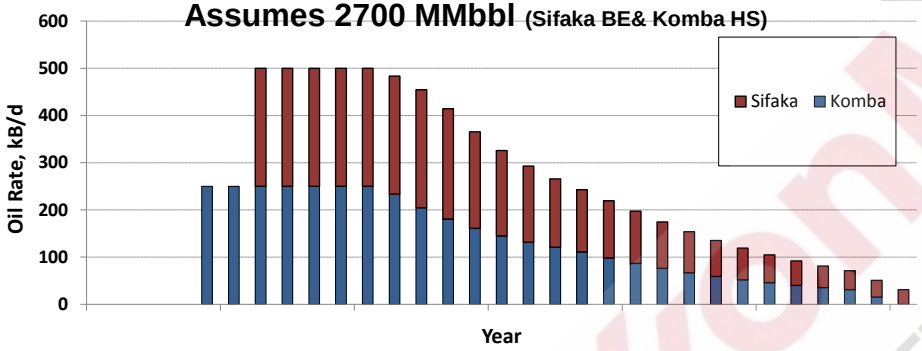
Traditional North Asian Markets

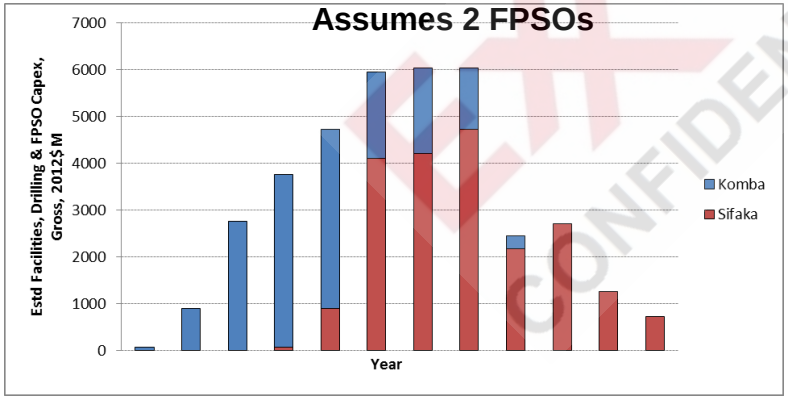
- Japan
- Korea
- Taiwan
- China

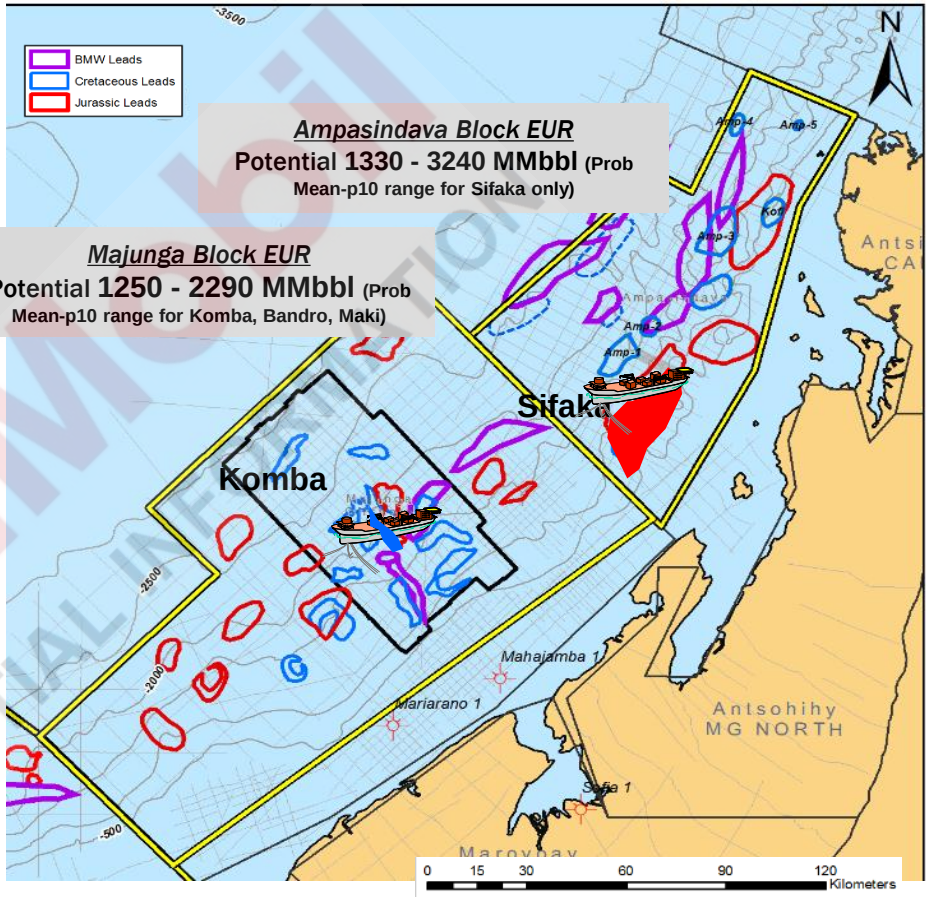
Madagascar is geographically positioned to supply high growth LNG markets in Southeast Asia, the Middle East, the Indian subcontinent and Europe

Size of the Prize: Majunga / Ampasindava Oil

Lead (Licence)		Recoverable Volumes
		Oil Case MMbbl
Sifaka (Ampasindava)	Mean	1331
	p10	3245
Komba (Majunga)	BE	890
	HS	1331
TOTAL	**BE**	**2221**
	HS	**4576**







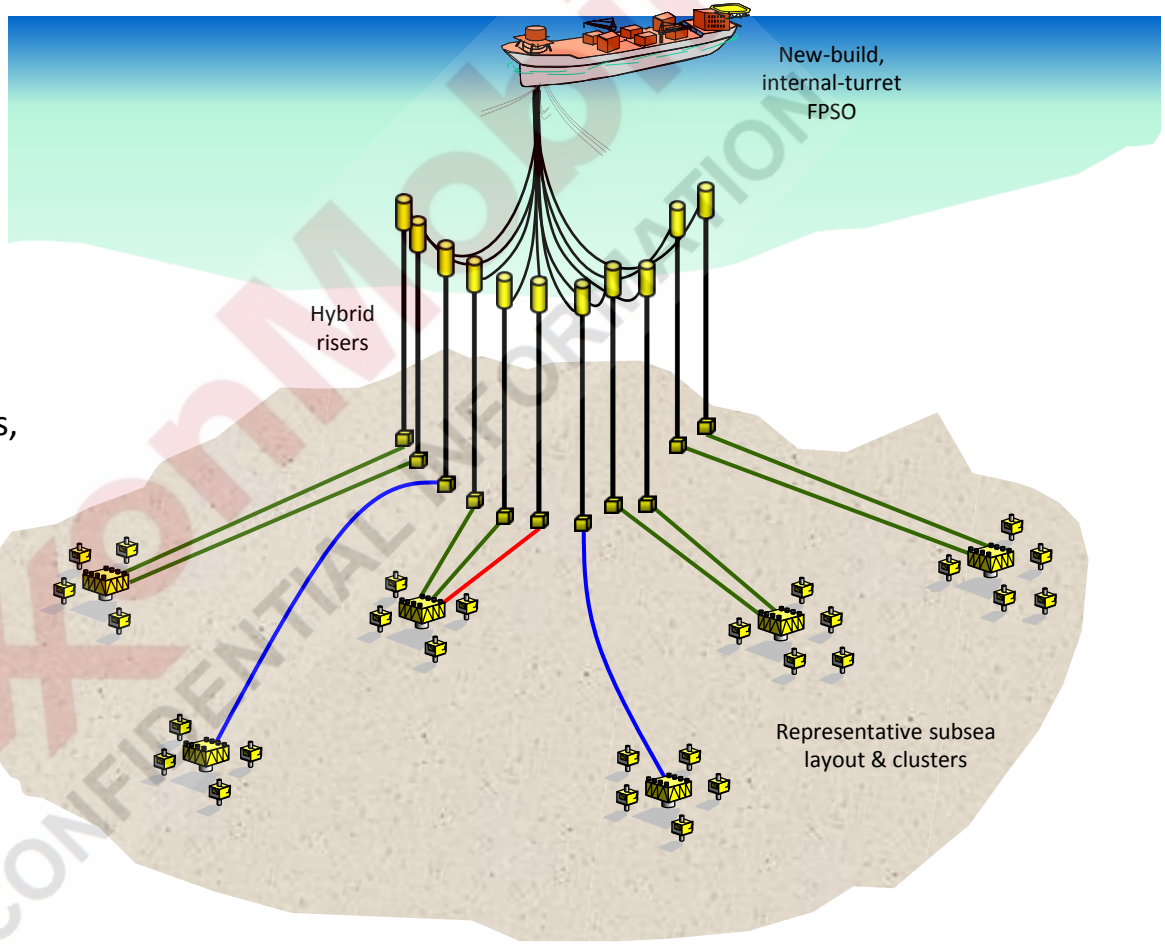
- All volumes and timing are notional
- For oil, block licenses have a 25-year production mining title (development & production); extensions available

Notional Majunga Basin Oil Development

Concept Description

- New-build, internal-turret FPSO
- Topsides capacity
  - 250 kB/d oil
  - 175-200 MSCFD gas (re-injected)
- Hybrid risers
- 14 subsea manifolds
- 36 producers, 40 injectors
- Gravel pack completions for producers, stand-alone screens for injectors
- Export to tankers of opportunity
- World Open Market Execution
  - FPSO's built in Korea
  - SURF in USA

Screening Development Scheme

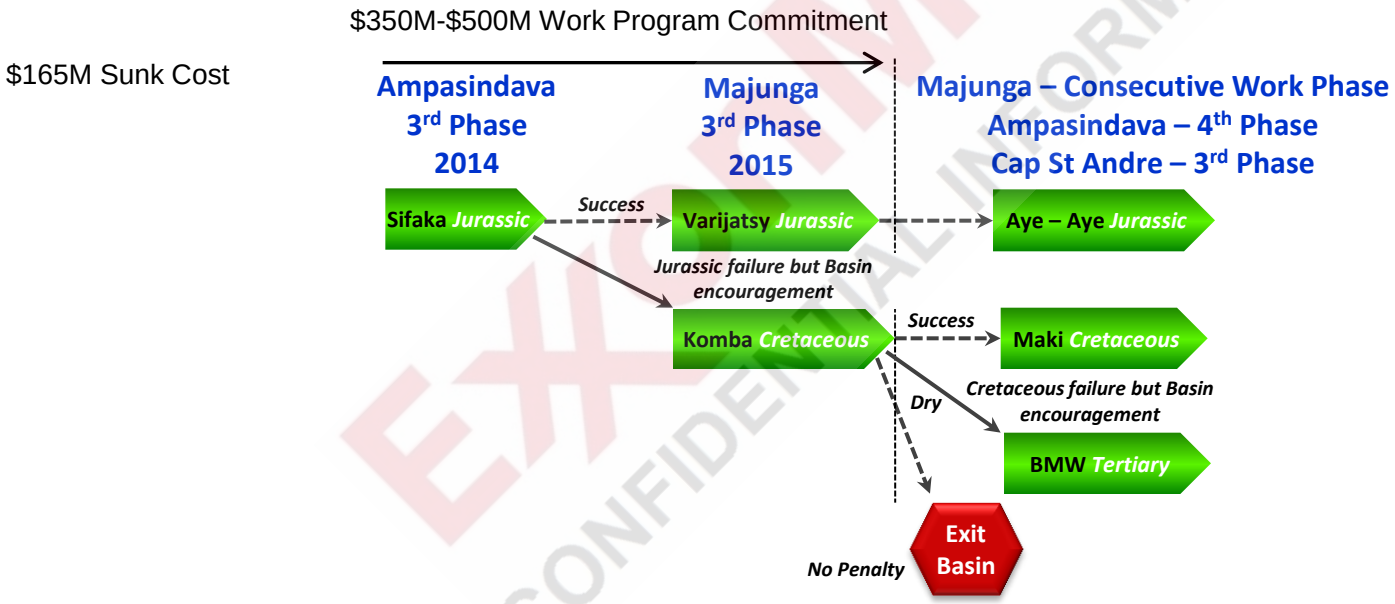


Operations Plan

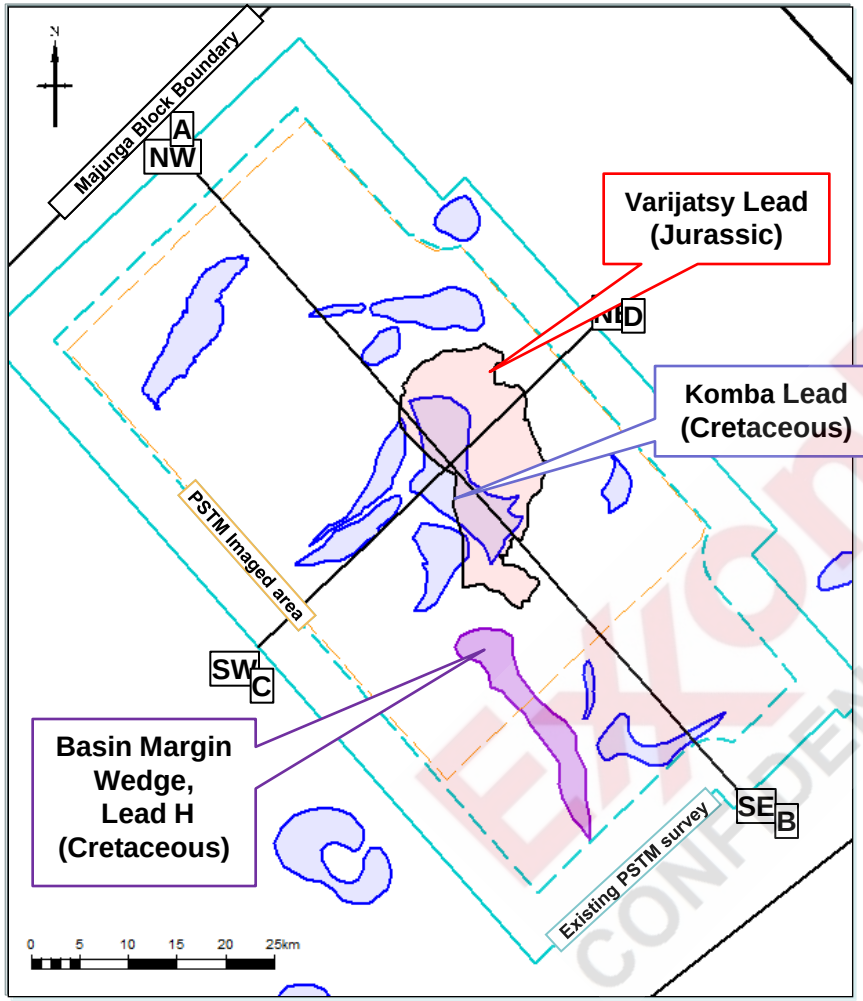
Exploration Strategy

Current Auumptions

- Jurassic play: Sifaka is the initial exploration well candidate for the basin in Ampasindava block
  - Moderate drilling complexity and cost
  - Success at Sifaka de-risks hydrocarbon system at Jurassic Varijatsy prospect in the Majunga block
- Cretaceous play: Komba is second well in the basin with an additional Jurassic target (Varijatsy) if Sifaka successful
  - Inconclusive Cretaceous DHIs seen to date: re-processed 3D seismic will allow DHI re-evaluation in 2013



Majunga Re-Processing proposal EXECUTED May 2013



- **Recommendation**
  - **Contract Award to GXT to conduct Pre-Stack Time Migration (PSTM) re-processing of 3489 sq km 3D seismic**
    - To include Post-stack Depth migration (Post-SDM)
  - **Firm program cost $2.92M**
    - •GXT PSTM $2,355k
    - •GXT additional output volumes $57k
    - •GXT Post-SDM $40k
    - •ExxonMobil QC $468k (plus $157k in contingent)
  - **Retain option for follow-on PSDM - 1050 sq km**
    - •Future license decision

Objectives

- **Improved signal–to-noise and seismic amplitudes for AVO evaluation and depth conversion of post salt leads and prospects, including Komba and Lead H (PSTM)**
- Improved imaging and prospect evaluation of pre-salt Jurassic leads, including Varijatsy (PoSDM and PSDM)
- Support future drilling decision

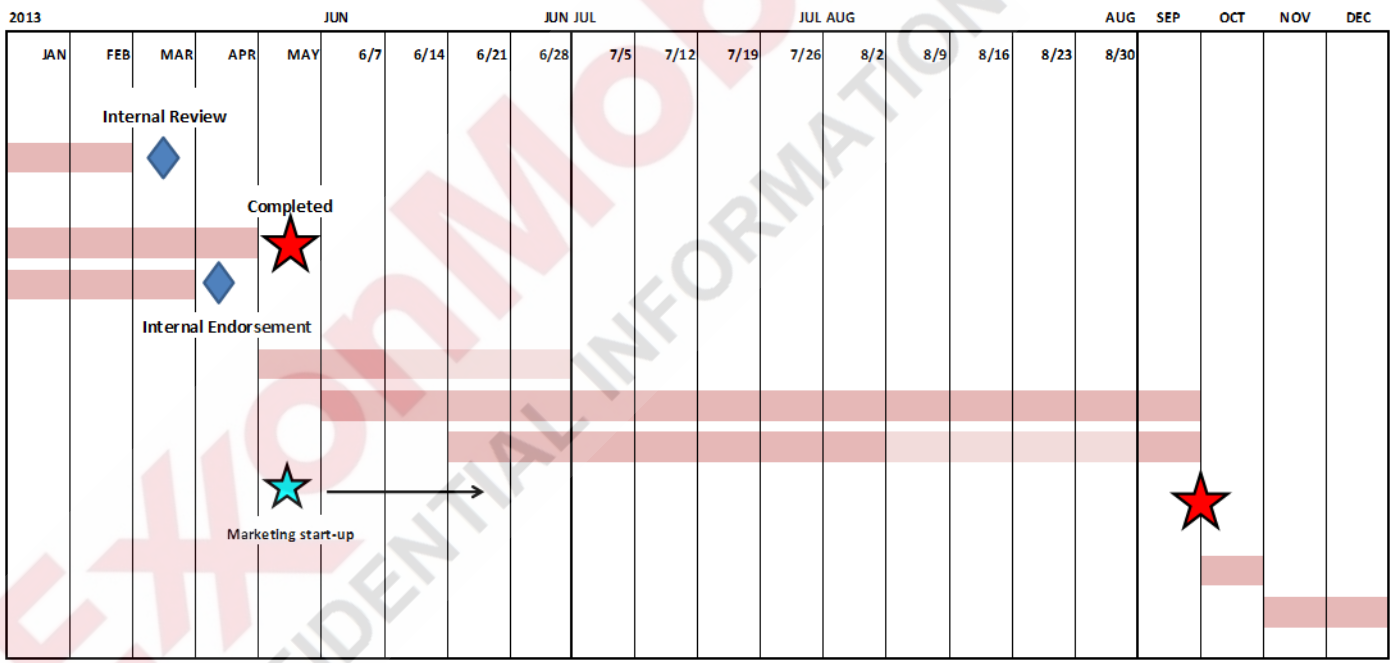
Scope and Timing

- Project start May 2013
- PSTM repro: 55 weeks
- Post-SDM: 4 weeks
- PSDM (optional): 36 weeks (mid 2013 decision)

Data-room Timeline

Data-room Timeline

Madagascar Marketing Plan



BACKUP

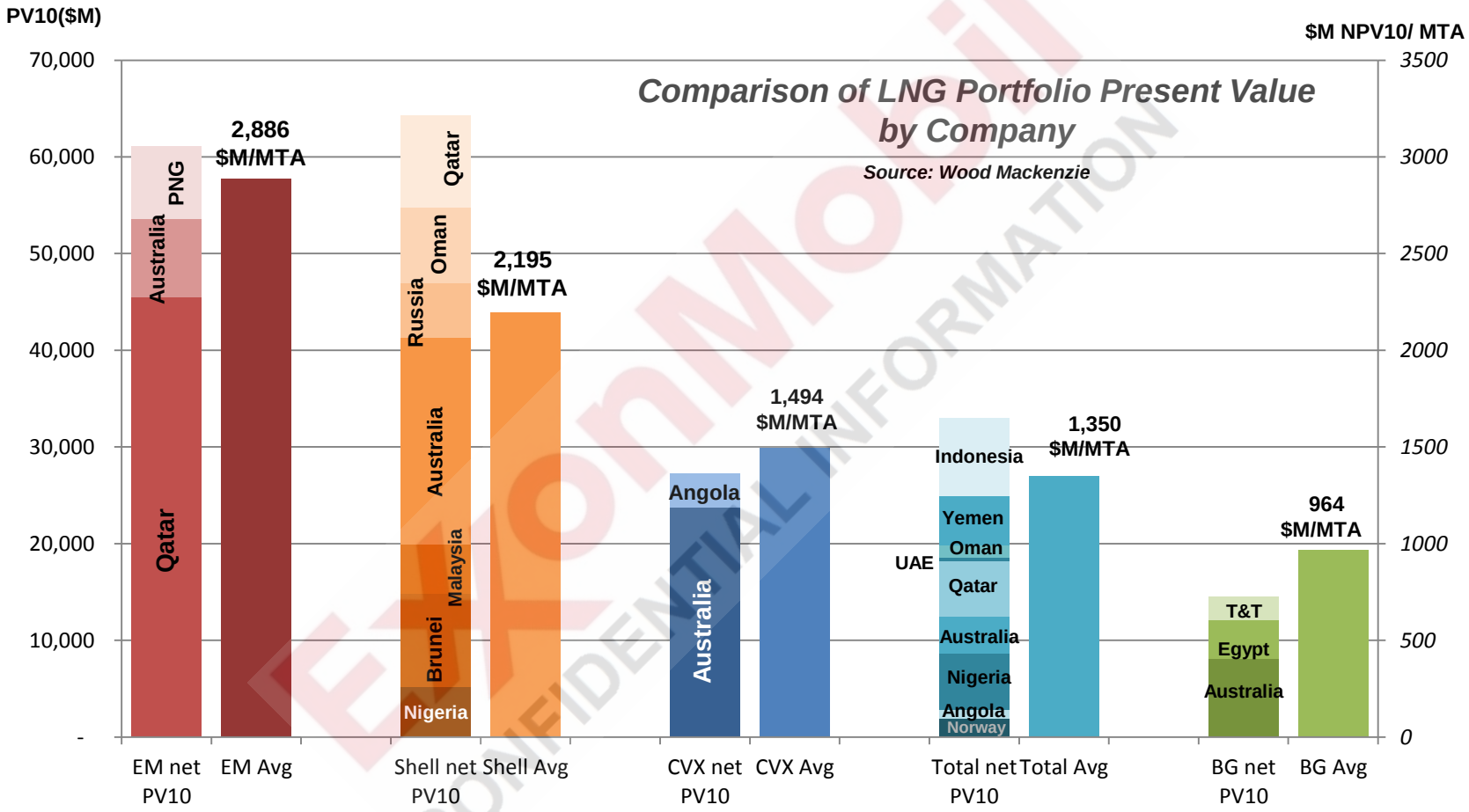
ExxonMobil Advantages for Madagascar LNG

- EM provides a highly skilled and experienced LNG project development organization
  - Since 2004 EM has secured financing and funding for +$30 Billion in new LNG projects, representing +40% of new global LNG capacity (66 MTA)
  - EM has demonstrated ability to develop innovative commercial structures that address complex issues and the needs of key government stakeholders (Arun LNG, Qatar LNG)
  - Application of EM's Global "Best Practices" has resulted in actual vs. projected development costs @ 101% at FID (industry performance 114%)
- EM provides a confident track record during LNG market capture
  - 40 years of LNG marketing experience into all markets, with credibility built from long term customer relationships
  - Currently selling into 21 long and short term markets (with first-ever LNG sales to Korea and India)
  - Local face to customers, with LNG marketing offices in 8 key markets and equity interest in LNG receiving terminals in Europe, Asia and US
- EM provides strong project finance capabilities
  - Innovative project financings have aided joint venture partners and NOCs around the globe
  - Disciplined investment approach and attention to schedule provides instant credibility with potential lenders

EM's latest LNG success story: Papua New Guinea LNG

- **High quality customers attracted to a greenfield LNG project in a highly competitive supply market**
- **Largest Project Financing in history ($14 Billion) under difficult time constraints and financial market conditions**
- **Outstanding SSHE performance in a challenging socio-environmental setting**
- **Overcoming non-routine execution challenges in a remote project location**
- **Successfully response to landowner issues, resettlement issues and community issues**
- **Worked with host government to address project needs and keep project on schedule / on budget**

ExxonMobil – LNG Project Global Performance



- Wood Mackenzie NPV10 estimates from 2011/2012
- Long-term real Brent price of US$80/bbl