



Corporate presentation

# Natural Gas Production & Oil Exploration Turkiye

Nov, 2024

CSE: TCF | Frankfurt: Z620 | OTC: TRLEF



Trillion Energy Akçakoca Gas Production Platform, SASB Gas Field, Black Sea, Turkiye

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## Future-Oriented Financial Information

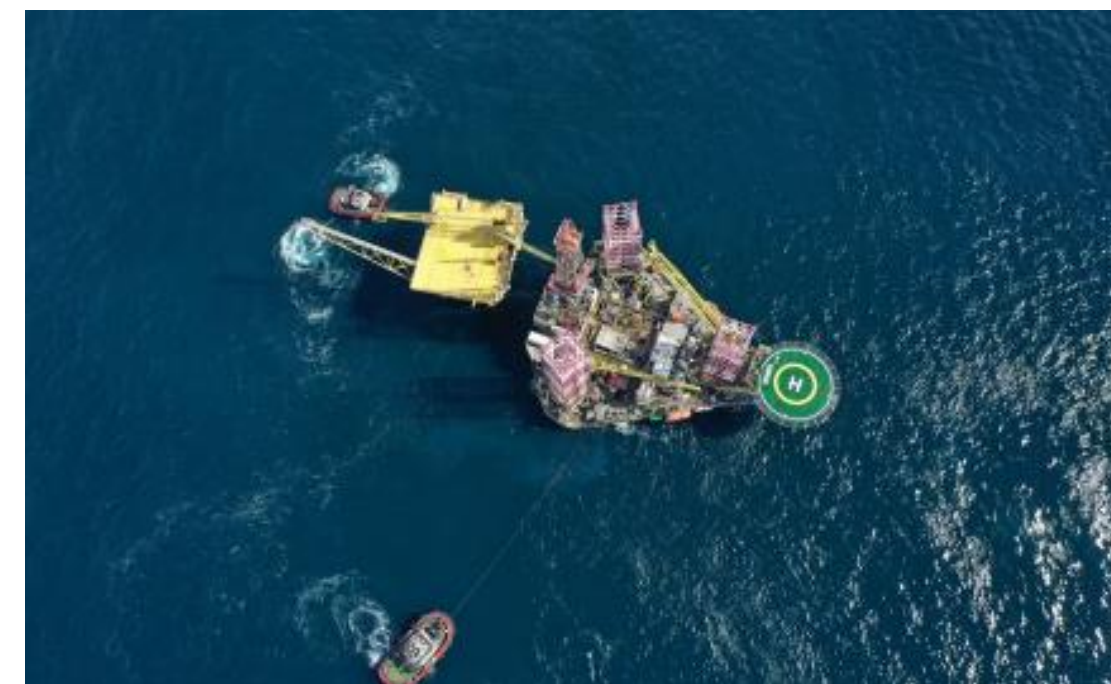
To the extent any forward-looking statement in this Presentation constitutes future-oriented financial information or financial outlook information (collectively, "FOFI") within the meaning of applicable securities laws, such information is used to provide information about management's current expectations and plans relating to the future development of Trillion's business. The reader is cautioned that this information may not be appropriate for any other purpose and the reader should not place undue reliance on such FOFI. FOFI, as with forward-looking information generally, is, without limitation, based on the assumptions and subject to the qualifications set out above under the heading "Forward-looking Information". The Company disclaims any intention or obligation to update or revise any FOFI contained in this Presentation, whether as a result of new information, future events or otherwise, unless required pursuant to applicable securities law. Readers are cautioned that the FOFI contained in this Presentation should not be used for purposes other than for which it is disclosed herein

## Market and Industry Data

Certain market, independent third party and industry data contained in this Presentation is based upon information from government or other independent industry publications and reports or based on estimates derived from such publications and reports. Government and industry publications and reports generally indicate that they have obtained their information from sources believed to be reliable, but none of the Company or any of its agents has conducted its own independent verification of such information. While the Company believes this data to be reliable, market and industry data is subject to variations and cannot be verified with complete certainty due to limits on the availability and reliability of raw data, the voluntary nature of the data gathering process and other limitations and uncertainties inherent in any statistical survey. None of the Company or any of its agents has independently verified any of the data from independent third party sources referred to in this Presentation or ascertained the underlying assumptions relied upon by such source.

## Currency

References to dollars or "\$" are to U.S. dollars unless specified otherwise.



# Company Highlights



## ▶ European Gas Production- SASB Gas Field

- 49% Interest in SASB Gas Field, Black Sea, Turkiye – **323 BCF OGIP** (100%)  
Our NPV10=**\$421m**, 2P reserves **55.8 BCF** (Dec 31 '23) up from 42 BCF (2022)
- Development Program targeting ~ 17 + production wells
  - 2023 – 5 wells drilled in 2023
  - 2024 – 4+ workovers **Cost \$2.7m**
- Targeting production increase to **8.5mmcf/d** exit rate end of '24

## ▶ Oil Exploration SE Turkey

- Oil Exploration opportunities in S.E. Turkey proximate to recent discoveries

High Natural Gas Prices	Historical CAPEX SASB Gas Field (100% interest)	Low Royalty Rate	Reserves Growth
<b>USD\$10/MCF</b> (Nov 2024)	<b>\$680m</b>	<b>12.5%</b>	<b>22.5%</b>

## Recent Achievements

- Raised \$55 million equity +\$15m subordinated debt financing
- Successfully drilled 5 long reach Natural Gas production wells in the Black Sea using novel technology
- Production increase +300% from 2022 to 2023
- Seismic completed Oil Exploration opportunity SE Turkey
- Successfully completed SASB perforation program in July 2024

## Market Capitalization:

Nov 04 '24

Market Cap:	CND\$ 14.8m
Share Price	CND\$ 0.095
Basic Shares Outstanding	157,082,516
Warrants	81,911,1427
Options	1,060,000
<b>F.D. Shares Outstanding</b>	<b>240,053,658</b>

\*\*See appendix for definitions. Management estimate for current 20+ well drilling program.

\*Operator of drilling operations and work/drilling program; TPAO is operator for daily production activities

# Turkiye Advantage

## ► Strong Prices & Demand for Natural Gas & Oil

- 98% Imported Nat Gas
- 92% Imported Oil
- ~60% of gas imports from Russia/Iran

**USD\$10/MCF**

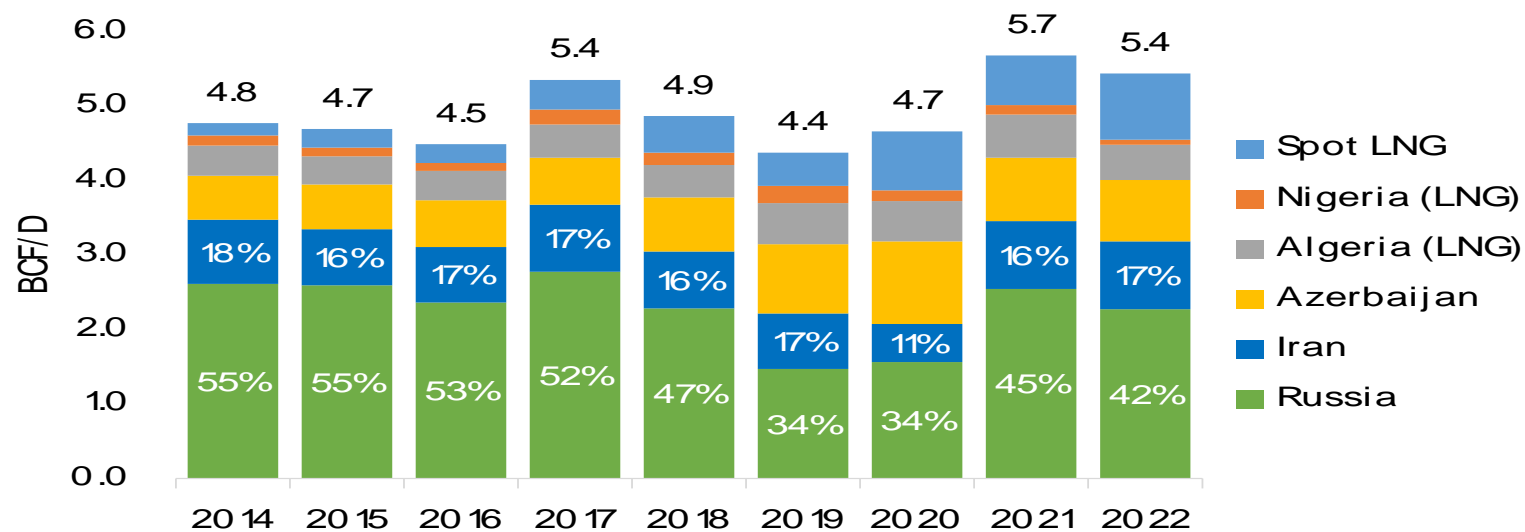
(Gas Price November 2024)

## ► Excellent fiscal regime:

- 12.5% Royalty rate
- 22% Corporate Tax Rate



## 7<sup>th</sup> Largest Nat Gas consumer in world - over 48 BCM/ year

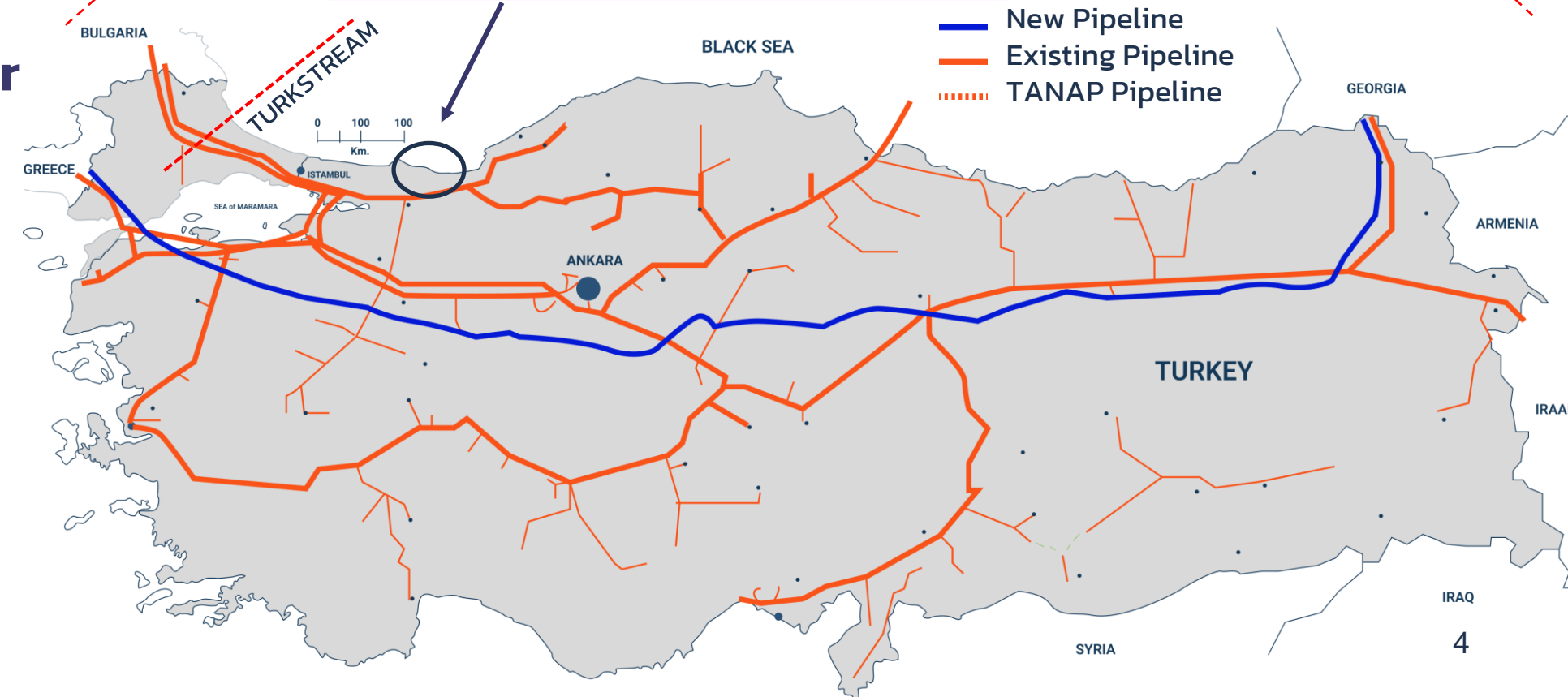


Turkiye Import Volumes of Natural gas

\*Source: S&P Capital IQ

## National Natural Gas Pipeline Grid in Turkiye

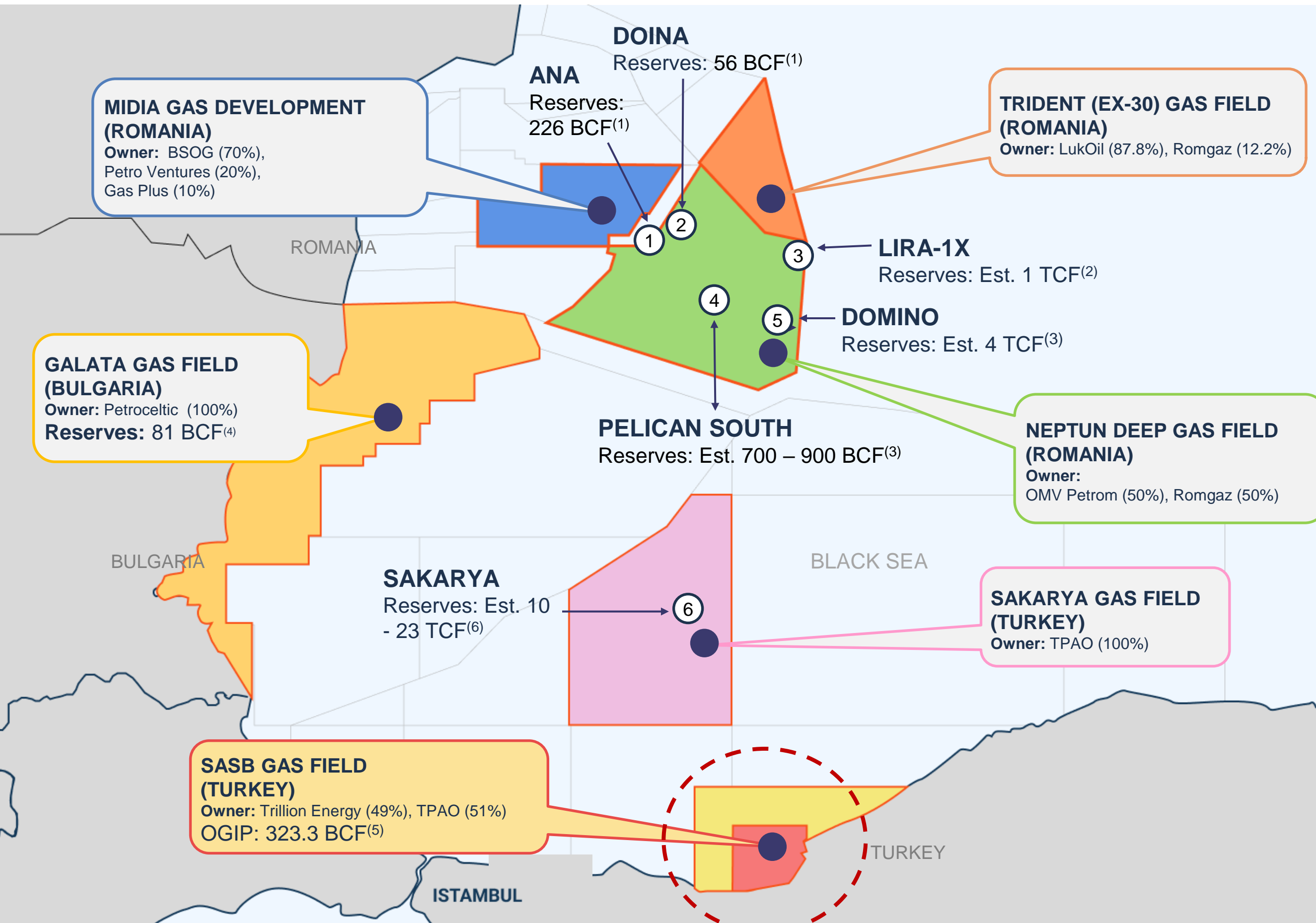
SASB tied into pipeline here



# Black Sea – the new Natural Gas frontier fueling Europe



# Black Sea Natural Gas Fields



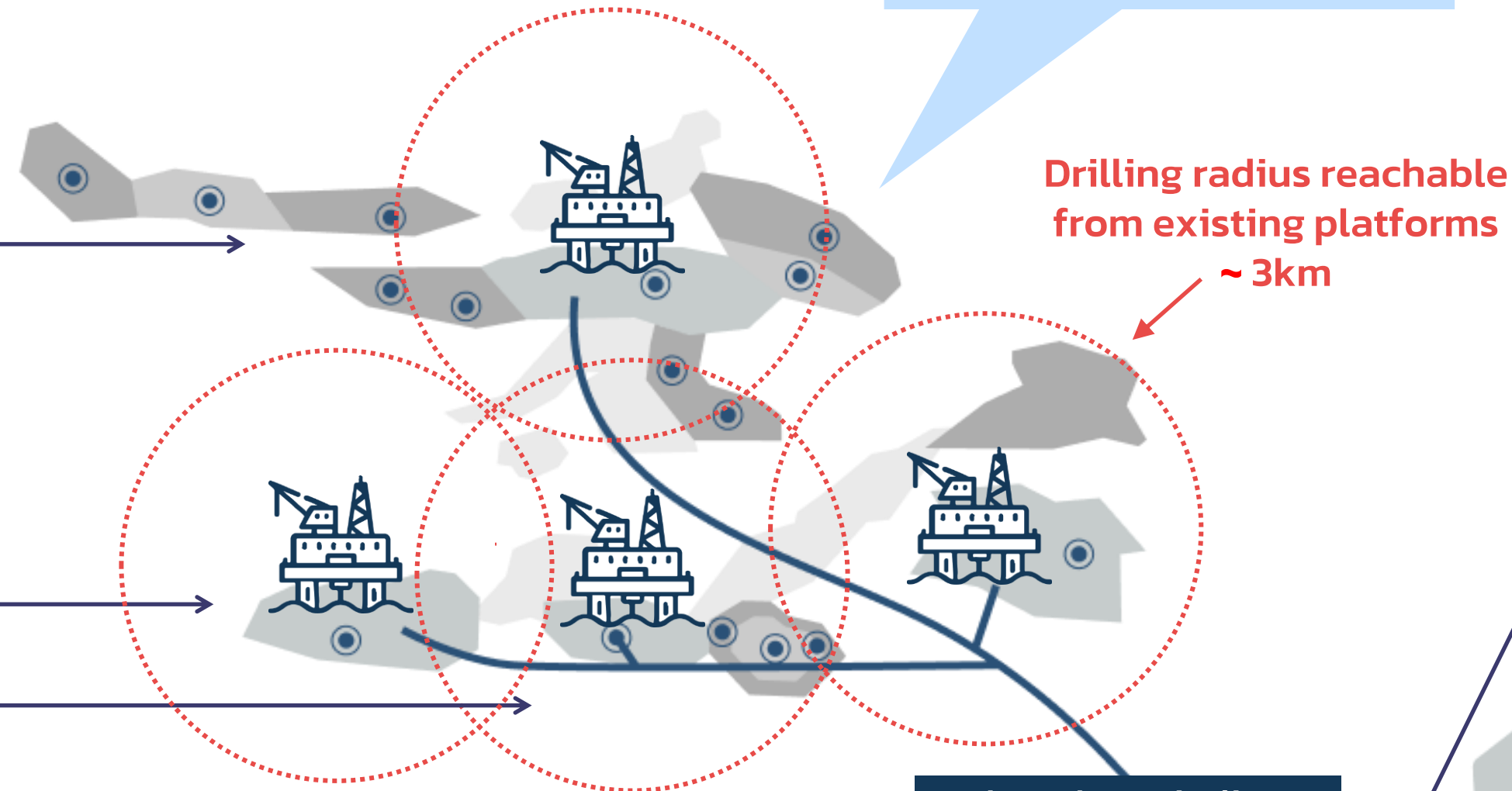
The Black Sea is a key strategic area to regional energy future

1) Source: [www.blackseaog.com](http://www.blackseaog.com)  
 2) Source: <https://www.lukoil.com/PressCenter/Pressreleases/Pressrelease?rid=50864>  
 3) Source: S&P Global: Commodity Insights - E&P activity in the Romanian and Bulgarian waters of the Black Sea, Oct. 2017.  
 4) Source: <https://www.offshore-technology.com/projects/galata-field/>  
 5) Source: Trillion Energy GLJ Report, Reserves and Prospective Resources (Risky)  
 6) Source: <https://www.reuters.com/business/energy/turkeys-natural-gas-found-black-sea-now-comes-710-bcm-erdogan-2022-12-26/>

# SASB Infrastructure – Solid platform for future growth

## Offshore platforms

@ SASB Gas Field, Black Sea



4 offshore production platform & tripods

Drilling radius reachable from existing platforms ~ 3km

18km subsea pipeline + onshore pipeline

## Shore Base



## Onshore Gas Processing Facility



Onshore Gas Processing Facility rated 75MMcf/day, expandable to 150MMcf/day

US \$600m+ invested into historical wells & infrastructure

Processing facility tied into national Natural Gas pipeline grid

12,387 Hectare development lease valid until 2031 extendable to 2041

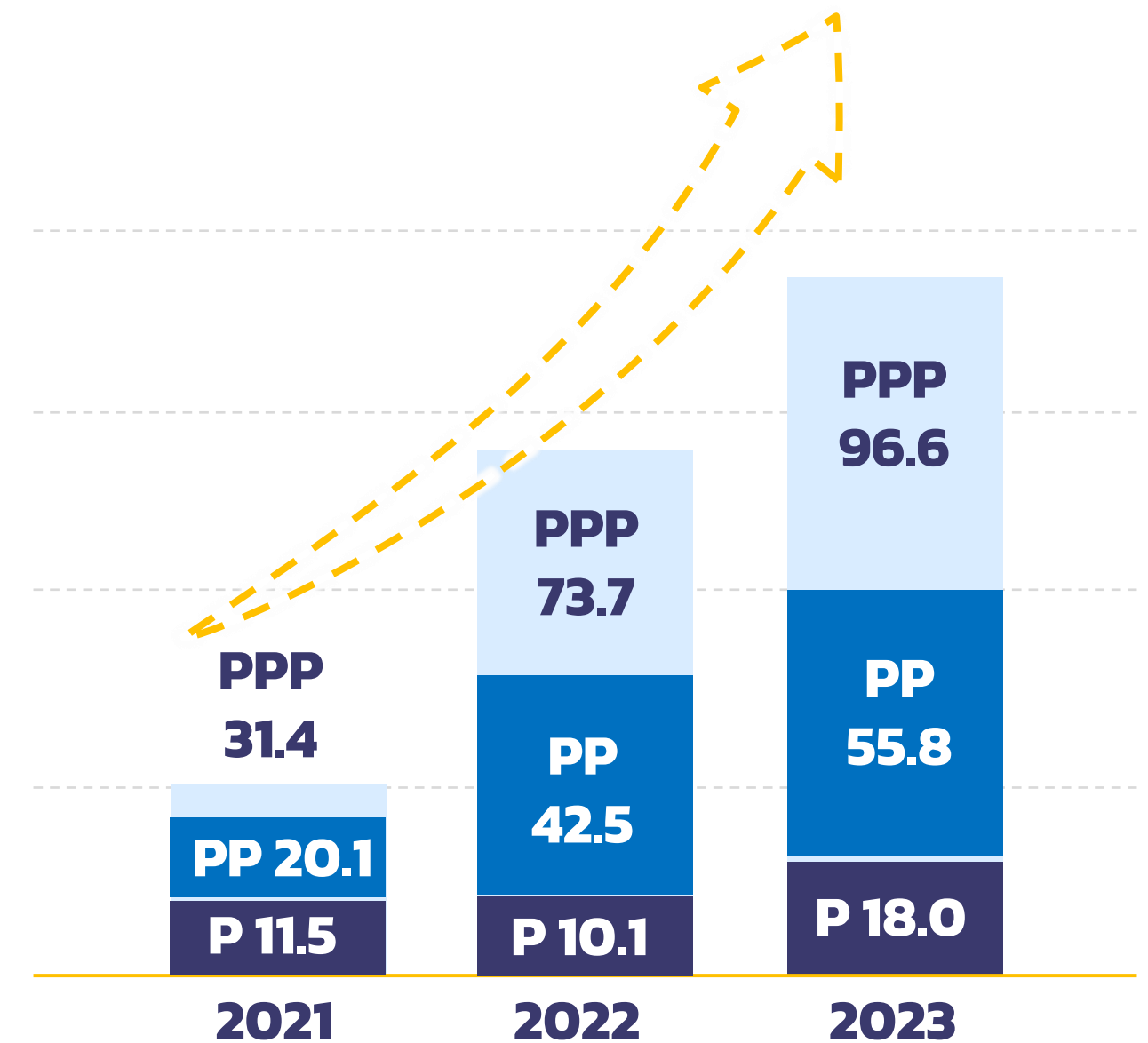
# Solid Reserves Growth



## Net Reserves Summary and Net Present Value\*

	Conventional		NPV – 10%	
	Natural gas (Bcf)		Before Income Tax (US\$M)	
	Dec 31 '23	Dec 31 '22	Dec 31 '23	Dec 31 '22
<b>Proved</b>				
Producing	1.3	2.4	\$11.5	\$42.3
Developed Non-Producing	8.4	0.0	\$81.9	\$1.1
Undeveloped	8.3	7.7	\$40.9	\$80.3
<b>Total Proved</b>	<b>18.0</b>	<b>10.1</b>	<b>\$134.3</b>	<b>\$123.8</b>
Total Probable	37.8	32.4	\$286.2	\$307.8
<b>Total Proved + Probable</b>	<b>55.8</b>	<b>42.5</b>	<b>\$420.5</b>	<b>\$431.5</b>
Total Possible	40.8	31.2	\$292.2	\$299.1
<b>Total PPP</b>	<b>96.6</b>	<b>73.7</b>	<b>\$712.7</b>	<b>\$730.6</b>

## Strong Reserves Growth



\*See Appendix for Glossary of Oil and gas terms. All figures presented in accordance with COGEH standards. Reserves and resources represent Trillion's 49% interest at SASB conventional natural gas resources. \*See Trillion's Form 51-101F1 effective December 31, 2023 for third party reserve estimates. \*\* NPV 10 values assumes pricing as at December 31, 2023,. \*\*\* Future work programs include unrisks prospective resources and which are management estimates based on preliminary seismic data which is being reprocessed this year. Recovery factor used ranges between 57-70%.

**P** – total proved reserves  
(producing, developed non-producing and undeveloped)

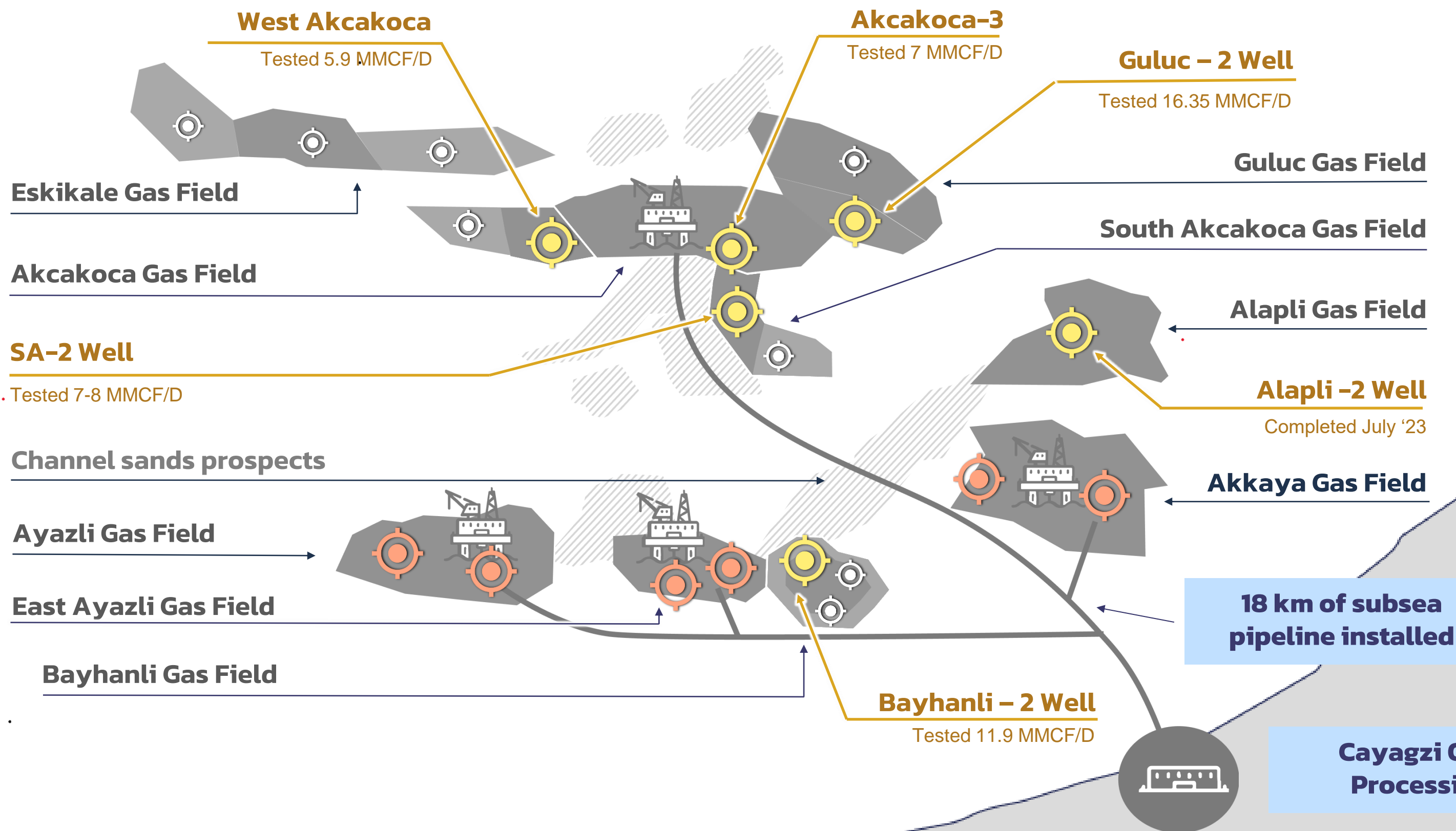
**PP** – total proved and probable reserves

**PPP** – total proved, probable and possible reserves



# SASB Production Ramp Up 17+ Wells

BLACK SEA



- Production Platform
- 2025+ Future Drilling Locations
- 2022-2023 Drilled locations
- 2024 Future Drilling Locations

5 km

TURKEY



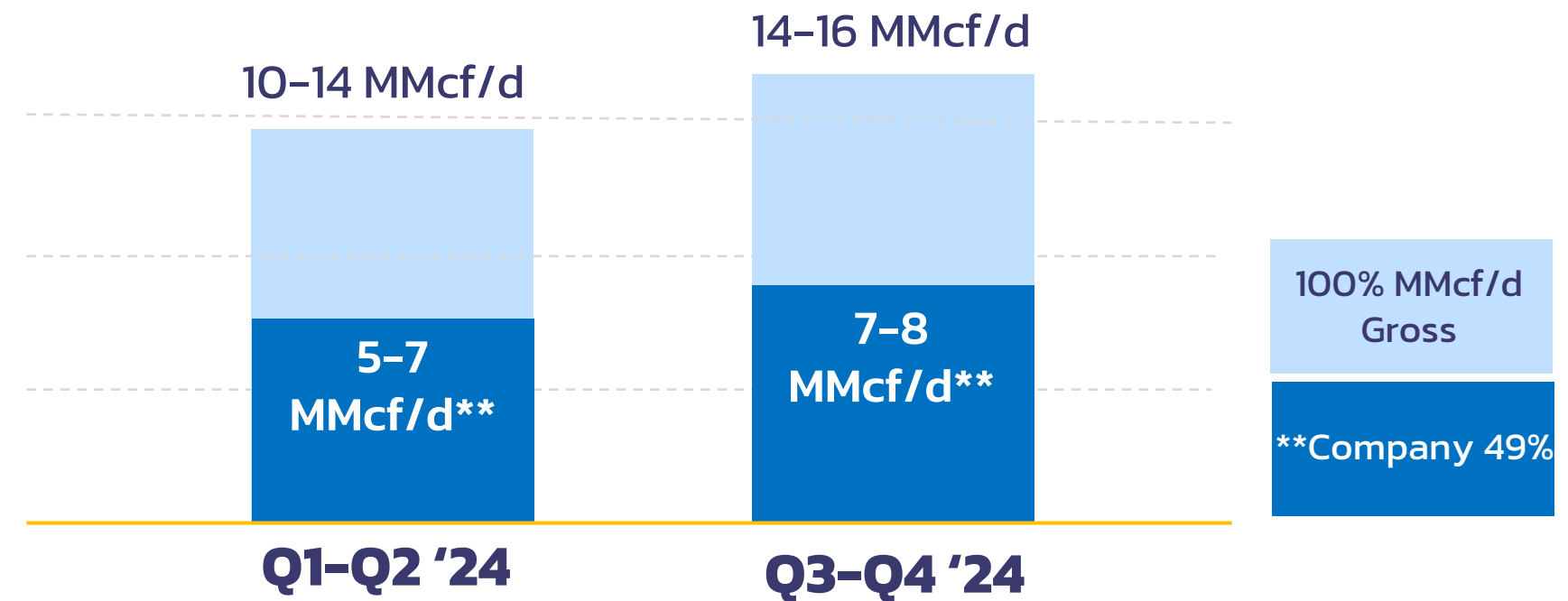
# SASB Work Program 2024



Ramping up production through ALS, new perforations and sidetrack wells

- ▶ Increase production on existing wells by installing artificial lift (water pumps) – **Cost \$2.7m**
- ▶ Add **new sidetrack wells** to SASB after Velocity String program and Artificial Lift is fully implemented  
**Cost: \$4m each** (49% interest)

## Anticipated Production Exit Rates



## Program Timeline

Wells:	Q3 '24	Q4 '24	'25+
Guluc-2	Perf. & Velocity String		
South Akcakoca-2	Perf. & Velocity String		
West Akcakoca-1	Perf. & Velocity String		
Akcakoca-3	Perf. & Velocity String		
Alapli-2		Velocity String	
Bayhanli-2		Velocity String	
East Ayazli-1		Artificial Lift	
East Ayazli-2		Artificial Lift	
Akcakoca-5		Artificial Lift	
Side-Track program commencement			sidetracks

## 6-7 Sidetrack Wells planned for 2025

2022-2023	2024
6 wells drilled Production started 2024	4+ workovers for long-term production + compressor upgrades

# Top Onshore Oil Play in Mid-Europe

**Cudi-Gabar Region Oil Block,  
South-East Turkiye**

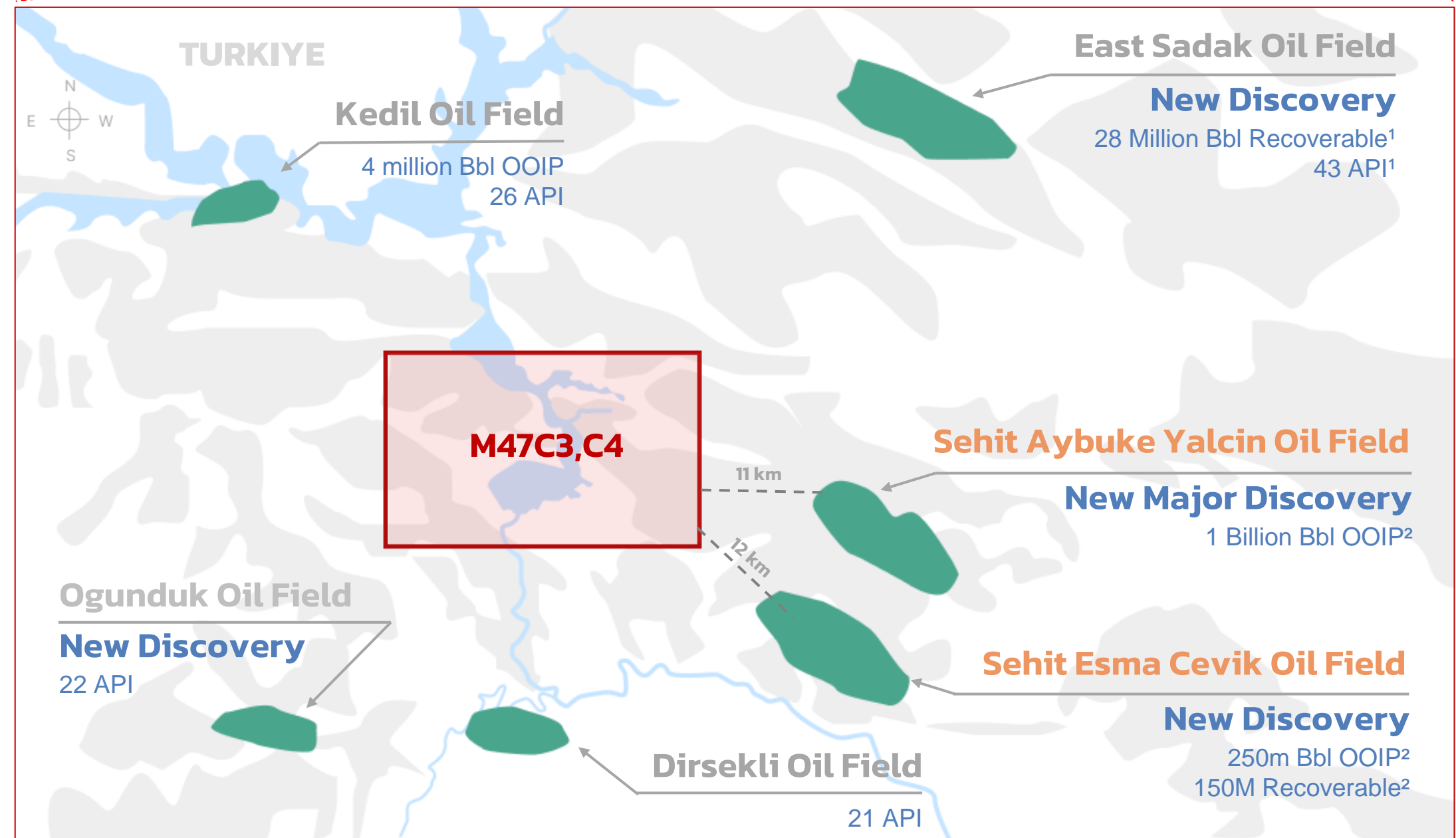


# Oil Exploration Work Program

## Cudi-Gabar Province, South-East Turkiye



- ▶ Exploration block M47c3,c4 is close to recent high impact discoveries and oil fields
- ▶ **10 wells program** targeting discovery of 10,000 – 100,000 bbl/day oil field discovery. PPE to drill 4 wells and shoot seismic
- ▶ 2D seismic collection finished for the block
- ▶ If a discovery is made, economics are pro-rata to respective interests
- ▶ Wells expected to cost USD \$3.5 million each (gross 100%)



**LEGEND:**

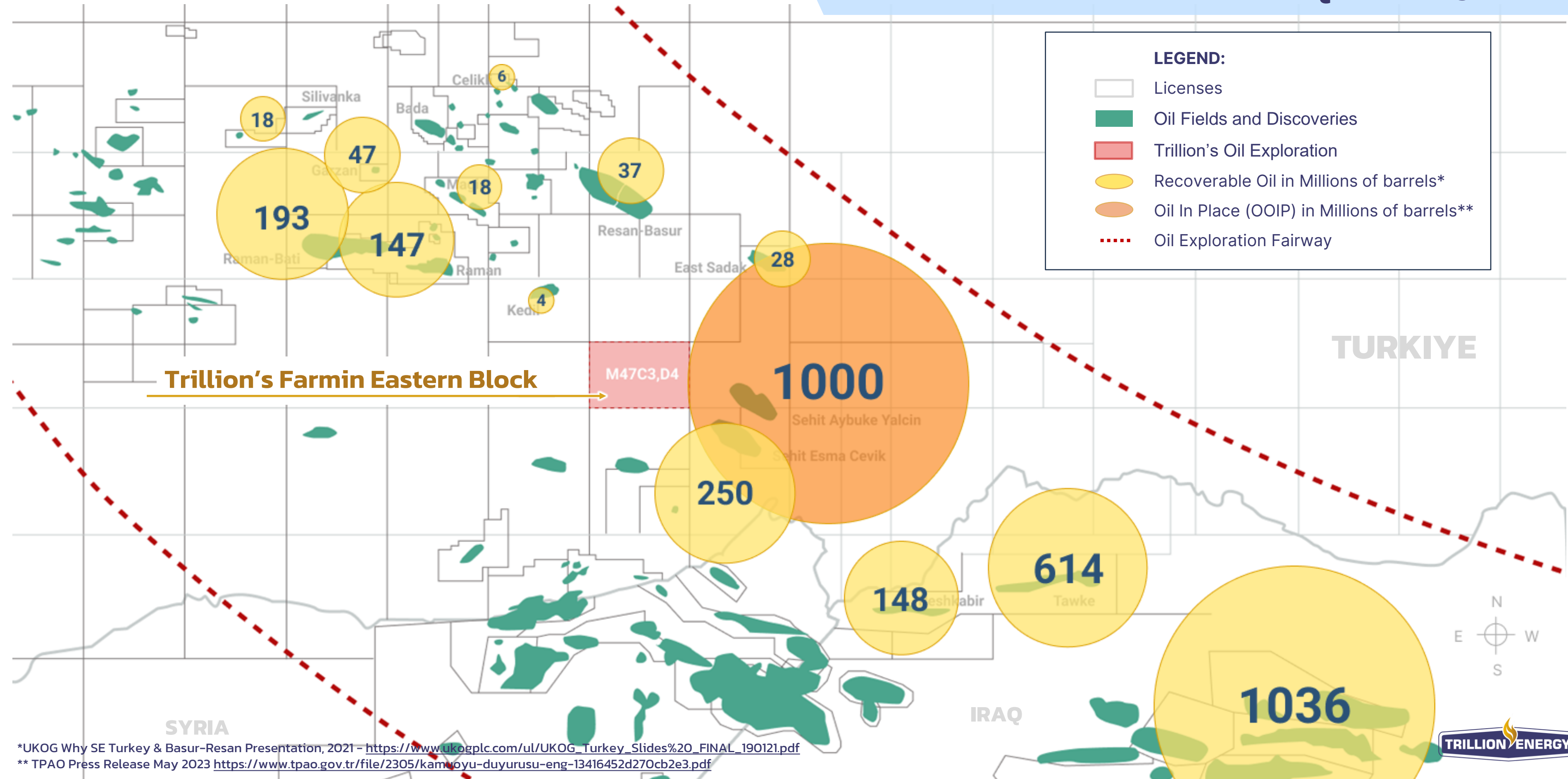
- Oil Fields and Discoveries
- Trillion's Oil Exploration

The definitions used are those contained in The Canadian Oil and Gas Evaluation Handbook maintained by the Society of Petroleum Evaluation Engineers (Calgary Chapter) ("COGEH") and National Instrument 51-101 - Standards of Disclosure for Oil and Gas Activities

1. UKOG Why SE Turkey & Basur-Resan Presentation, 2021 - [https://www.ukogplc.com/ul/UKOG\\_Turkey\\_Slides%20\\_FINAL\\_190121.pdf](https://www.ukogplc.com/ul/UKOG_Turkey_Slides%20_FINAL_190121.pdf)  
 2. <https://www.tpao.gov.tr/file/2212/en-sehit-esma-cevik-bilgi-notu-114363997195a6d60.pdf> and <https://www.tpao.gov.tr/file/2305/kamuoyu-duyurusu-eng-13416452d270cb2e3.pdf>

# Regional Oil Fields

# Oil Rich Region Extending from Iraq and Syria



\*UKOG Why SE Turkey & Basur-Resan Presentation, 2021 - [https://www.ukogplc.com/ul/UKOG\\_Turkey\\_Slides%20\\_FINAL\\_190121.pdf](https://www.ukogplc.com/ul/UKOG_Turkey_Slides%20_FINAL_190121.pdf)

\*\* TPAO Press Release May 2023 <https://www.tpa.gov.tr/file/2305/kamuyu-duyurusu-eng-13416452d270cb2e3.pdf>



# M47c3,c4 2D Seismic Acquisition Progress



## Program Information

- 50m shot point interval most of the area
- 40m shot point interval over basaltic area
- 10m receiver interval
- Line length: 150 km
- Nodal system
- Dynamite source
- 9m hole depth
- 6kg charge size

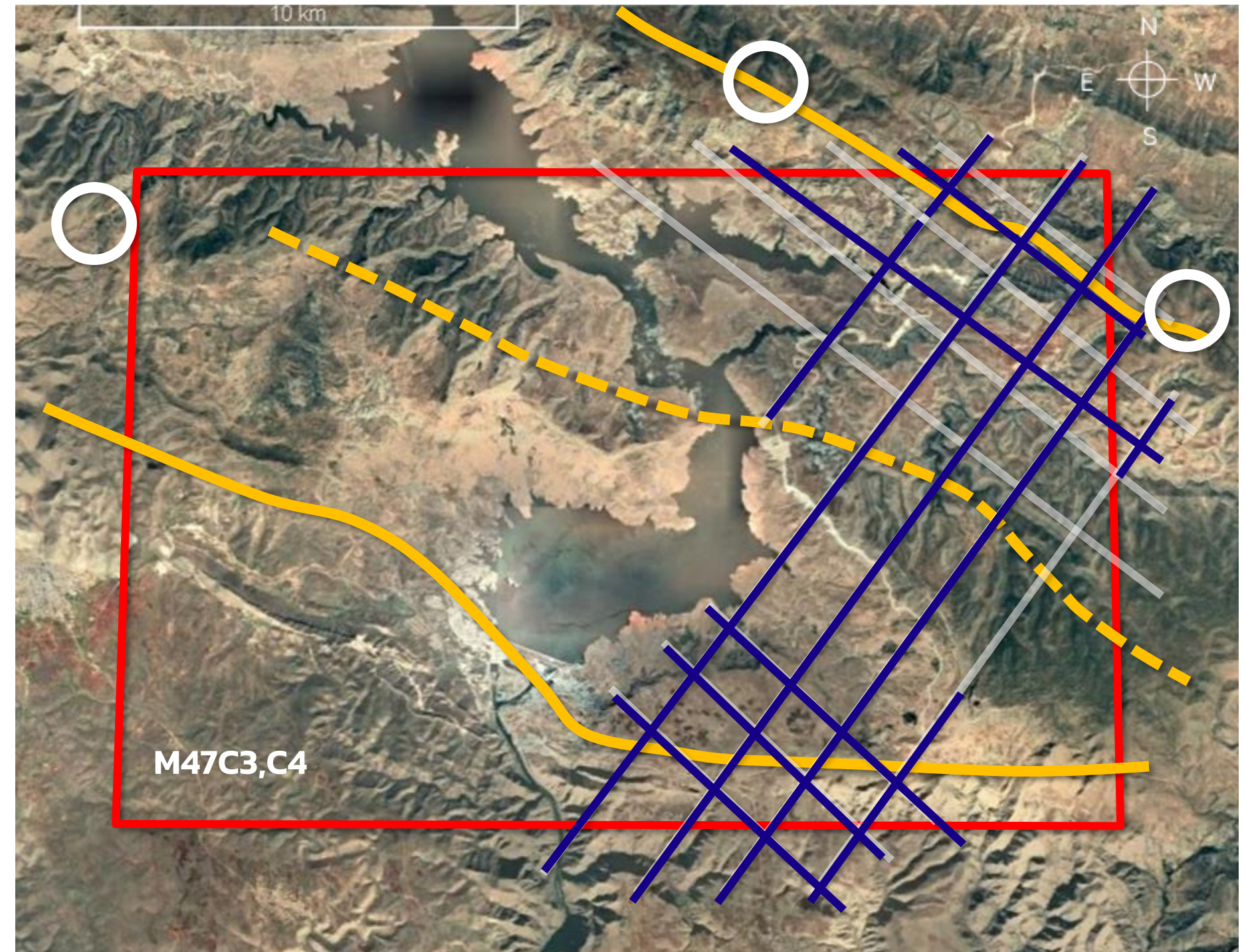
The objective of the seismic program in M47c3,c4 is to evaluate the potential oil trends as shown on the map. TPAO has discovered giant oil (43 API) fields, which are producing from Sayindere and Mardin Group Formations (2,000–2,500m total depths) such as Sehit Esma Cevik and Sehit Aybuke Yalcin (Gabar) fields.

Activity	2023												2024			
	OCT				NOV				DEC				JAN			
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
Surveying																
Drilling																
Recording																

Completed



Current status: **Data processing**



Seismic data collection area

Completed seismic data Mar 2024



Farm-in block boundaries



Surface anticline trend lines



TPAO proposed exploration wells

# M47c3,c4 Production Potential for 2024\*

\*Subject to discovery being made



## Early production through tank farm

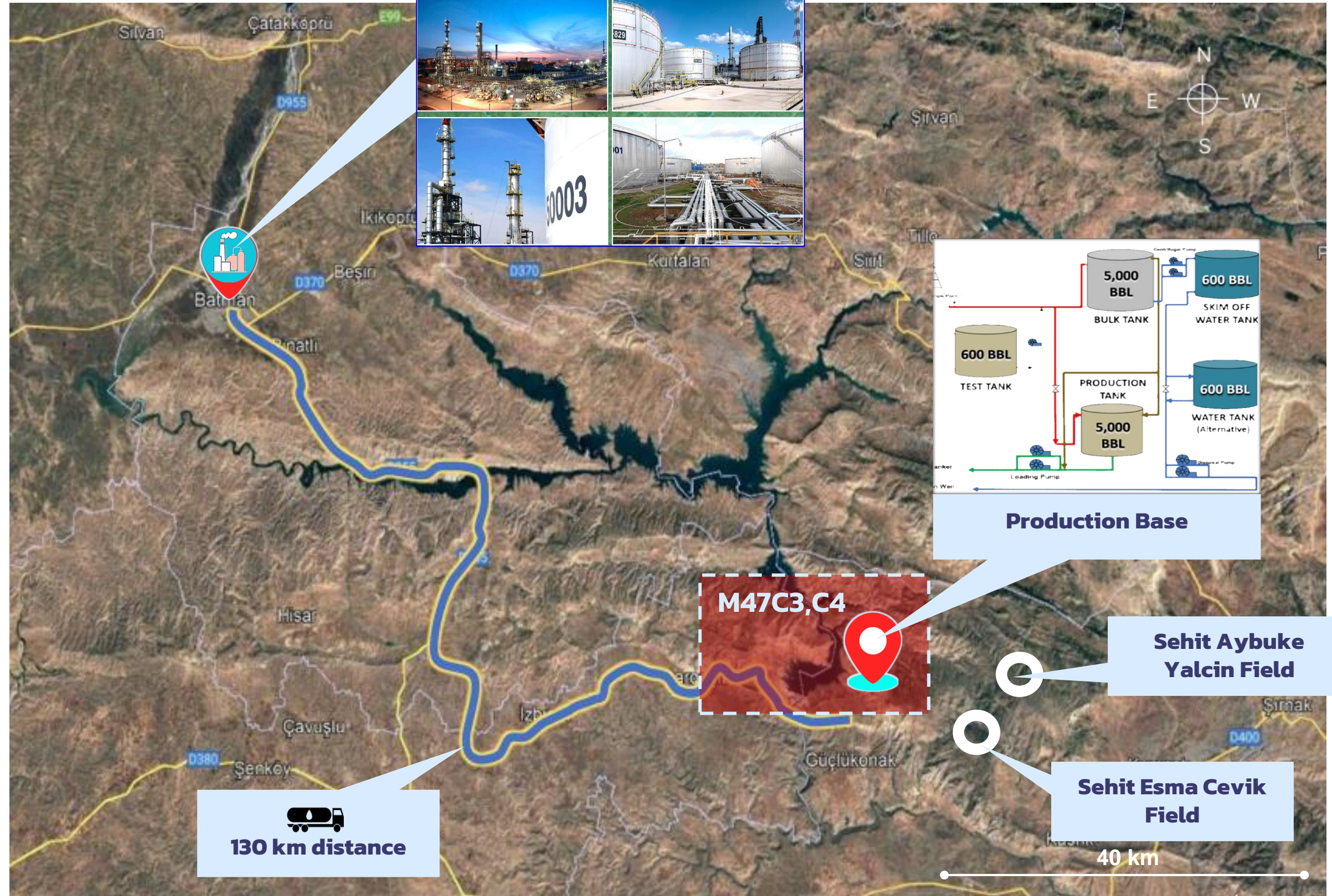
- ▶ 250 bbls tanker trucks can take oil from discovery to the **refinery 130 km away**
- ▶ Early production does **not require** water separation, but down the road it will need a **simple water separator**. Initial production is trucked for fast revenue

Estimated number of wells:	<b>10</b>
Est. per well production:	<b>1,000 bbl</b>
Est. daily field production:	<b>10,000 bbl</b>
Tank capacity:	<b>11,800 bbl</b>
Per truck capacity:	<b>250 bbl</b>
Number of trucks:	<b>20</b>
Distance to refinery:	<b>130 km</b>

## Future Pipeline access potential

- ▶ A **pipeline** will be constructed by TPAO, from **Esma and Yalkin** fields to the refinery which provides future access without trucking as pipeline develops

Tüpraş Batman Oil Refinery



130 km distance

Sehit Esma Cevik Field

40 km

Sehit Aybuke Yalcin Field

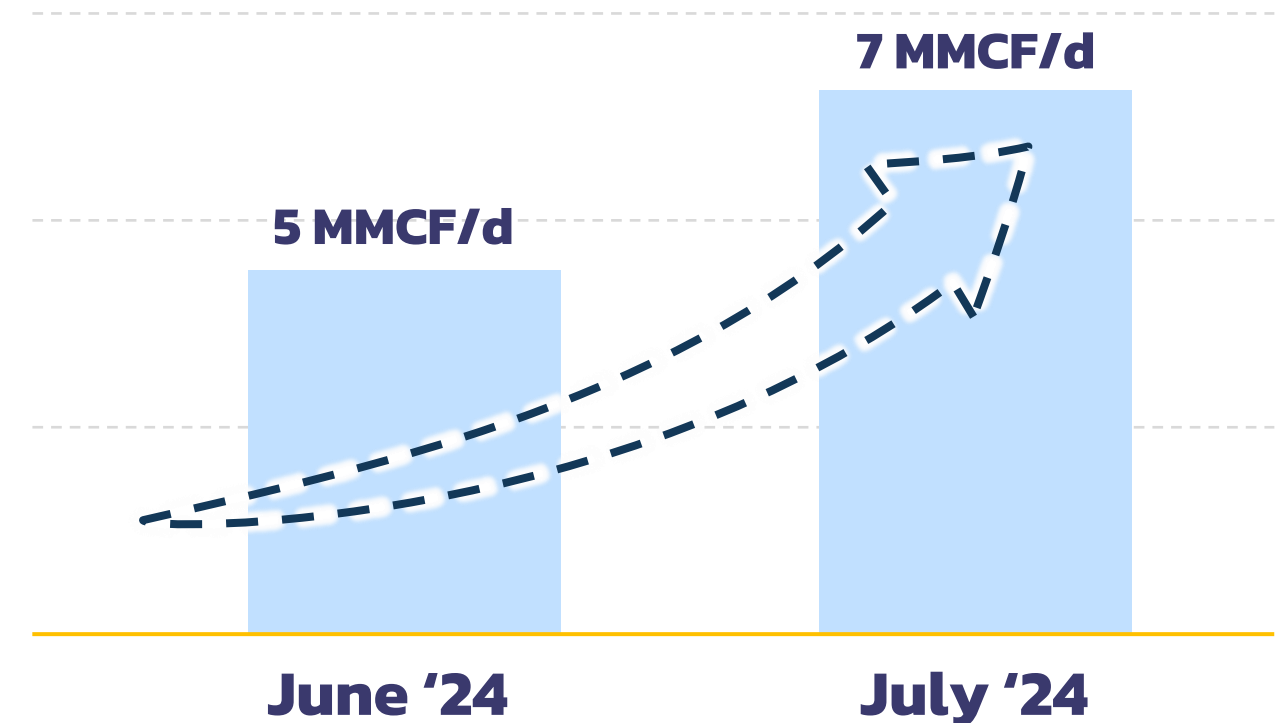
## ▶ SASB Gas Field Highlights

- Multi-well natural gas development program
- **US\$410m** NPV10 proved probable reserves
- **57 BCF** proved probable reserves
- Selling gas into worlds **6<sup>th</sup> largest market** that is **90% dependent on imports**

## ▶ High Impact Oil & Exploration project

- **Oil field exploration** in Cudi-Gabar Oil Petroleum Province S.E. Turkey
- **2D seismic** data collection is completed and is being processed
- **2 exploration wells** planned to be drilled in 2024 on M47c3,c4

## Rapid Production Ramp-up Planned



Oil block	SASB
<b>2 Exploration Wells</b> planned for <b>2024</b>	<b>New Sidetrack Wells</b> planned for <b>2025</b>



# Directors & Management Team



**Dr. Arthur Halleran** ▶ PRESIDENT, CEO & DIRECTOR

Dr. Halleran has served as a director of Trillion Energy since October 4, 2011. He has a Ph.D. in Geology from the University of Calgary and 40 years of petroleum exploration and development experience. His international experience includes countries such as Canada, Colombia, Egypt, India, Guinea, Sierra Leone, Sudan, Suriname, Chile, Brazil, Bulgaria, Turkiye, Pakistan, Peru, Tunisia, Trinidad Tobago, Argentina, Ecuador and Guyana. Dr. Halleran has worked for Petro-Canada, Chevron, Rally Energy, Canacol Energy and United Hydrocarbon International Corp. In 2007, Dr. Halleran founded Canacol Energy Ltd., a company with petroleum and natural gas exploration and development activities in Colombia, Brazil and Guyana which made a billion-dollar natural gas discovery in Colombia.



**Jay Park, KC** ▶ DIRECTOR

Mr. Park is a renowned energy lawyer with a particular focus on upstream oil and gas transactions. He has worked on energy projects in more than fifty countries, including Turkey. He has advised international energy companies, including oil and gas explorers, producers, marketers, pipeline companies, state oil companies, governments, banks and multilateral agencies such as the World Bank. Mr. Park was formerly CEO and then Chairman of ReconAfrica exploring for oil & gas in Namibia and Botswana. During this period ReconAfrica was twice named to the TSX Venture 50 and was the top performing 2021 TSX Venture 50 company from the energy sector. Mr. Park is currently Executive Chairman of MCF Energy Ltd. exploring for gas in Europe.



**Sean Stofer** ▶ DIRECTOR

Sean Stofer has over 20 years of renewable energy experience. Mr. Stofer is a graduate of the University of British Columbia in Engineering and is a registered Engineer in California. He is a founder of several successful renewable energy companies including for the arctic's largest solar array; 250 MW of solar in the USA; 200+MW of wind projects and over 300MW of hydroelectric projects. He is COO of Green Data Center Real Estate, which uses renewable energy to power data centers. Sean is leading a project of over 500 MW using wind, solar and hydropower. Sean has worked closely with Government to guide policy and has consulted to a wide range of companies. Sean was awarded the Top 40 Under 40 in Vancouver, Canada for his business achievements.



**David Thompson** ▶ DIRECTOR, AUDIT COMMITTEE CHAIR

Mr. Thompson has 30 years of financial experience in the oil and gas industry. He successfully founded an oil trading company in Bermuda, with offices in the U.S. and Europe, and was responsible for the company's Turkmenistan production operations in the Lhamov and Zhdanoy oil fields (offshore Caspian Sea — part of the Turkmenistan project), which discovered producing reserves of 365M barrels oil and 2 TCF gas and successfully raised over \$100M in equity. He is Managing Director of AMS Limited, a Bermuda based Management Company. He has served as Founder, President and CEO of Sea Dragon Energy Inc. (London exchange: SDX 21.00 GBP), Financial Director of Forum Energy Plc (AIM) and SVP at Larmag Group of Companies. Mr. Thompson is a Certified Management Accountant since 1998.

# Contact

## General Inquiries

[info@trillionenergy.com](mailto:info@trillionenergy.com)  
trillionenergy.com

## Canada (Head Office)

Suite 700  
838 West Hasting Street  
Vancouver, BC V6C 0A6

## Turkiye (Operations)

Oran Mah. Kudus Cad. 1/21 Park Oran Ofis  
Plaza, No:45, Kat:14, 06450,  
Cankaya, Ankara, Turkiye



# Presentation of Oil & Gas Information



## Presentation of Oil & Gas Information

BOEs have been converted on the basis of six thousand cubic feet ("Mcf") natural gas to 1 barrel of oil. BOEs may be misleading, particularly if used in isolation. A BOE conversion ratio of 6 Mcf: 1 bbl is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. In addition, given that the value ratio based on the current price of oil as compared with natural gas is significantly different from the energy equivalent of six to one, utilizing a BOE conversion ratio of 6 Mcf: 1 bbl would be misleading as an indication of value

## Definitions

In this presentation:

- "2P" are 1P reserves plus probable reserves.
- "3P" are 1P plus 2P plus possible reserves.
- "developed producing reserves" are those reserves that are expected to be recovered from completion intervals open at the time of the estimate. These reserves may be currently producing or, if shut-in, they must have previously been on production, and the date of resumption of production must be known with reasonable certainty.
- "GAAP" means generally accepted accounting principles in the United States of America.
- "NPV" means net present value.
- "NPV10" means NPV discounted at 10%.
- "possible reserves" are those additional reserves that are less certain to be recovered than probable reserves. There is a 10% probability that quantities actually recovered will equal or exceed sum of proved plus probable plus possible reserves. Possible reserves may be developed or undeveloped.
- "probable reserves" are those unproved reserves that are less certain to be recovered than proved reserves. It is equally likely that actual remaining quantities recovered will be greater or less than sum of estimated proved plus probable reserves. Probable reserves may be developed or undeveloped.
- "proved developed reserves" or "PDP" are those proved reserves that are expected to be recovered from existing wells and installed facilities or, if facilities have not been installed, that would involve a low expenditure (e.g., when compared to cost of drilling a well) to put reserves on production. Developed category may be subdivided into producing and non-producing.
- "proved reserves" or "1P" are those reserves that can be estimated with a high degree of certainty to be recoverable. It is likely that actual remaining quantities recovered will exceed estimated proved reserves.
- "reserves" are estimated remaining quantities of oil and natural gas and

related substances anticipated to be recoverable from known accumulations, as of a given date, based on: (a) analysis of drilling, geological, geophysical and engineering data; (b) use of established technology; and (c) specified economic conditions, which are generally accepted as being reasonable. Reserves are classified according to degree of certainty associated with estimates.

- "undeveloped reserves" are those reserves expected to be recovered from known accumulations where a significant expenditure (e.g., when compared to the cost of drilling a well) is required to render them capable of production. They must fully meet the requirements of the reserves category (proved, probable, possible) to which they are assigned.
- Certain terms used in this presentation but not defined are defined in NI 51-101, CSA Staff Notice 51-324 - Revised Glossary to NI 51-101 Standards of Disclosure for Oil and Gas Activities ("CSA Staff Notice 51-324") and/or the COGEH and, unless the context otherwise requires, shall have the same meanings herein as in NI 51-101, CSA Staff Notice 51-324 and the COGEH, as the case may be.

## Reserves Information

Unless otherwise expressly stated, all reserves values, future net revenue, ancillary information and any measure of oil and gas activities contained in this presentation is as at January 31, 2023 and has been prepared and calculated in accordance with Canadian National Instrument 51-101 - Standards of Disclosure for Oil and Gas Activities ("NI 51-101") and the Canadian Oil and Gas Evaluation Handbook ("COGEH") and derived from a report with an effective date of January 31, 2023 prepared by GLJ Ltd. ("GLJ"), Trillion's independent qualified reserves evaluator and auditor (the "GLJ Report"). Any reserves estimate or related information contained in this presentation as of a date other than January 31, 2023 has an effective date of January 31 of the applicable year and is derived from a report prepared by Trillion's independent qualified reserves evaluator and auditor as of such date, and additional information regarding such estimate or information can be found in Trillion's applicable Statement of Reserves Data and Other Oil and Gas Information on Form 51-101F1 filed on SEDAR at [www.sedar.com](http://www.sedar.com).

Estimates of reserves provided in this presentation are estimates only and there is no guarantee that estimated reserves will be recovered. Actual reserves may be greater than or less than estimates provided in this presentation and differences may be material.

## Oil & Gas Non-GAAP Terms.

**Operating netback:** Oil and gas sales less operating and transportation expenses. Operating netback per boe as presented is defined as oil and gas sales price less forecasts of transportation and quality discount, royalties, operating costs and pipeline transportation from the Brent oil price forecast.

**Funds flow from operations:** is defined as net income or loss adjusted for DD&A expenses, asset impairment, goodwill impairment, deferred tax expense or recovery, stock-based compensation expense, amortization of debt issuance costs, non-cash lease expense, lease payments, unrealized foreign exchange gains or losses, financial instruments gains or losses, other non-cash losses, cash settlement of financial instruments and other gains or losses.

**EBITDA and Adjusted EBITDA:** Net income adjusted for DD&A expenses, interest expense and income tax expense or recovery ("EBITDA") and adjusted EBITDA, as presented, is defined as EBITDA adjusted for non-cash lease expense, lease payments, unrealized foreign exchange gain or loss, stock-based compensation expense or recovery, unrealized derivative instruments gain or loss, gain on repurchase of Senior Notes, other financial instruments gain or loss and other loss.

**Free cash flow (FCF):** GAAP "net cash provided by operating activities" less projected capital spending. Management believes that free cash flow is a useful supplemental measure for management and investors to in order to evaluate the financial sustainability of the Company's business.

**Net Debt:** Comprised of cash and senior notes (gross).

**Finding and development costs (F&D Costs):** F&D costs are calculated as estimated exploration and development capital expenditures, excluding acquisitions and dispositions, divided by the applicable reserves additions both before and after changes in FDC costs. The calculation of F&D costs incorporates the change in FDC required to bring reserves into production.

These non-GAAP measures do not have a standardized meaning under GAAP. Investors are cautioned that these measures should not be construed as an alternative to net income or loss or other measures of financial performance as determined in accordance with GAAP. Gran Tierra's method of calculating these measures may differ from other companies and, accordingly, it may not be comparable to similar measures used by other companies. These non-GAAP financial measures are presented along with the corresponding GAAP measure so as to not imply that more emphasis should be placed on the non-GAAP measure.