



**BLOCK
ENERGY** PLC

Developing a gas resource of
strategic importance to
Georgia's energy market

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Introduction: Developing a proven gas resource of strategic significance onshore Georgia

Presence in Georgia

- Georgia's largest independent oil and gas company with seven PSCs near Tbilisi
- Pursuing a four-project strategy to unlock full potential of resources and serve Georgia's growing demand for energy

The opportunity – Project III

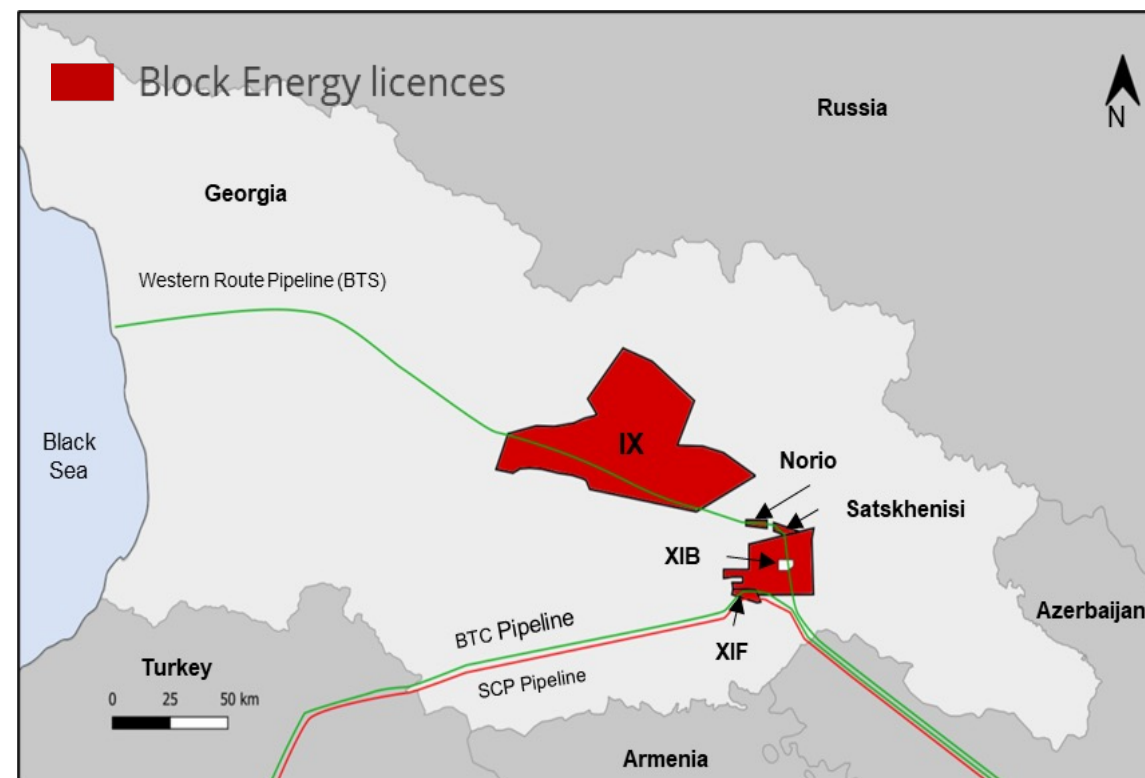
- Project III is the development of a significant proven gas resource spanning three fields
- Individual reservoirs are naturally fractured - 1,000 to 2,000 metres thick
- 30 gas well tests – many with strong initial flow rates

Current status

- Project declared strategic by Georgian government
- Appraisal campaign planned
- Conceptual field development planning completed

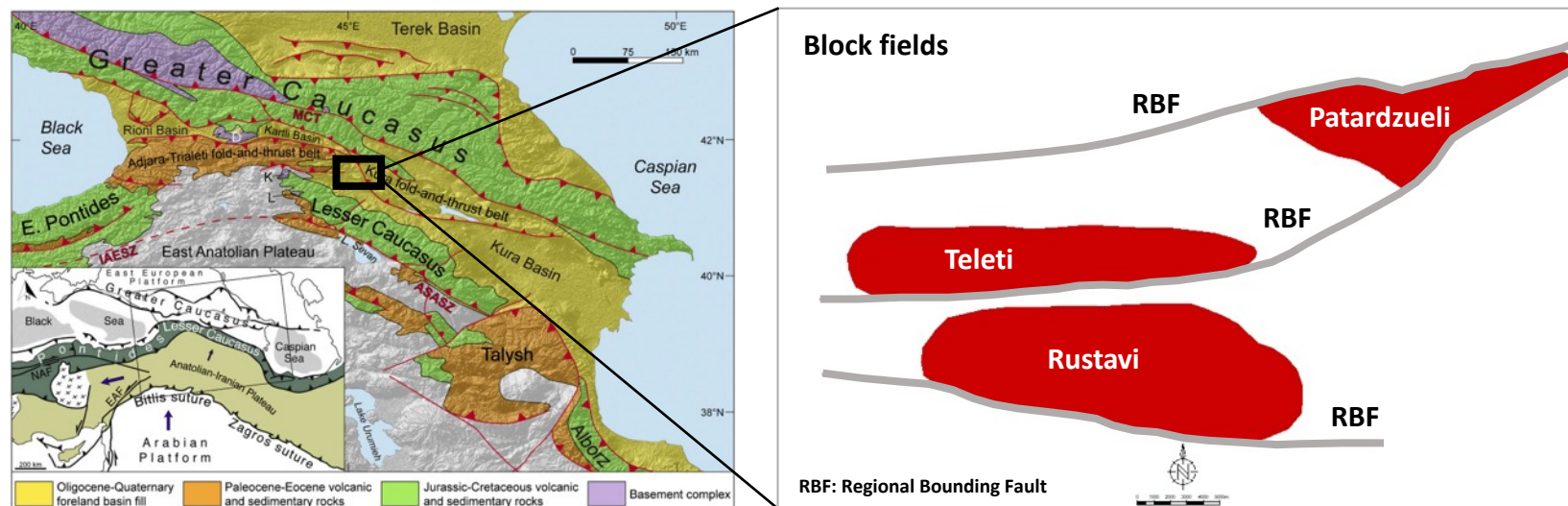
Block Energy: Georgia's leading independent oil and gas company

- Block Energy joined the UK's AIM index in 2018
- Our management team has significant experience in developing oil and gas assets in the region and beyond
- Block Operating Company, our wholly owned subsidiary is a fully-staffed Georgian company with technical, operational, HSES, financial and commercial expertise
- Interests in seven PSCs covering an area of 4,404 km² with independently verified oil and gas reserves and resources
- Developed oil and gas reservoirs through 3D seismic, new drilling, workovers and facilities development
- Near-term focus on developing proven Lower Eocene and Upper Cretaceous gas accumulations – Project III

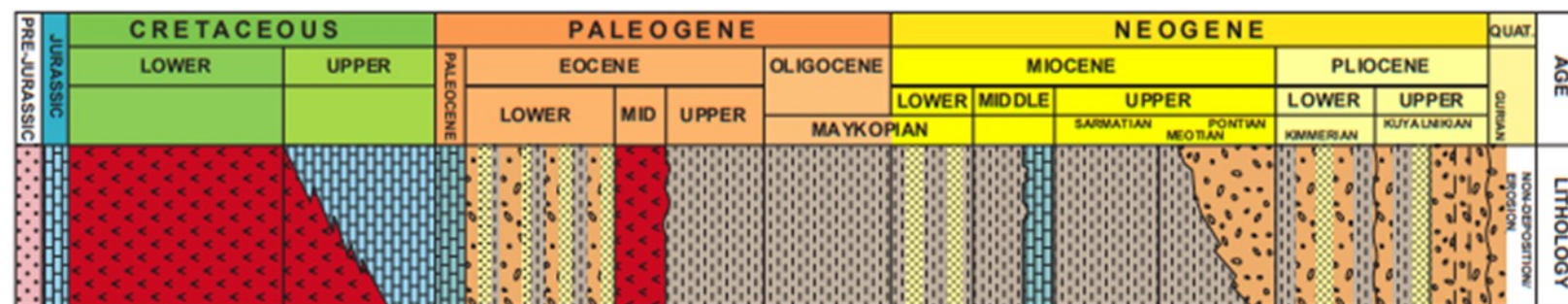


Project III: Geological context

- Spans three fields – Patardzueli, Rustavi and Teleti – all under PSC to 2048 (with extension)
- All fields productive in shallower Upper and Middle Eocene reservoirs - Patardzueli produced some 180 MMbbl during the Soviet era
- Project III gas reservoirs underly Block’s existing Middle Eocene oil production
- World class source rocks present in basin



Modified from source, Gusmeo et al, 2021

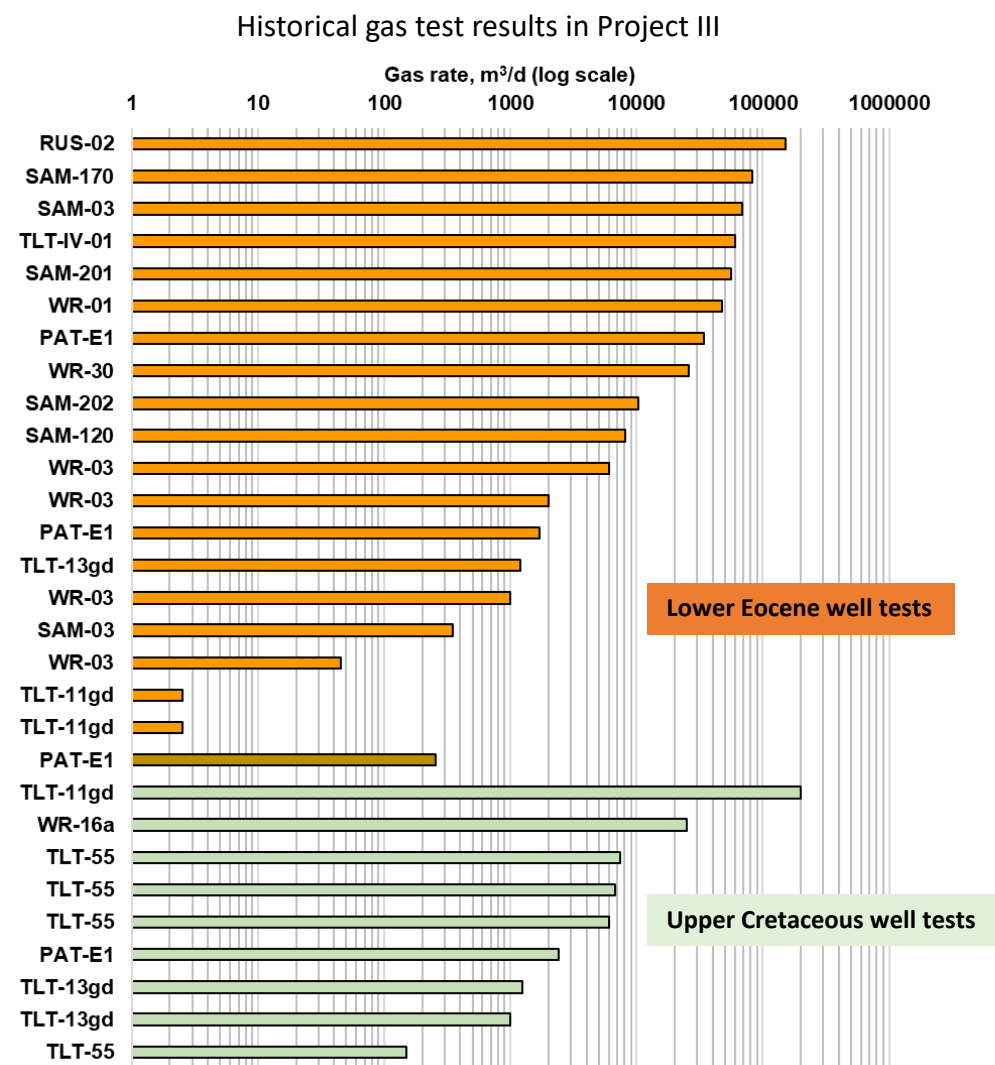


Modified from source, Patton, 1993



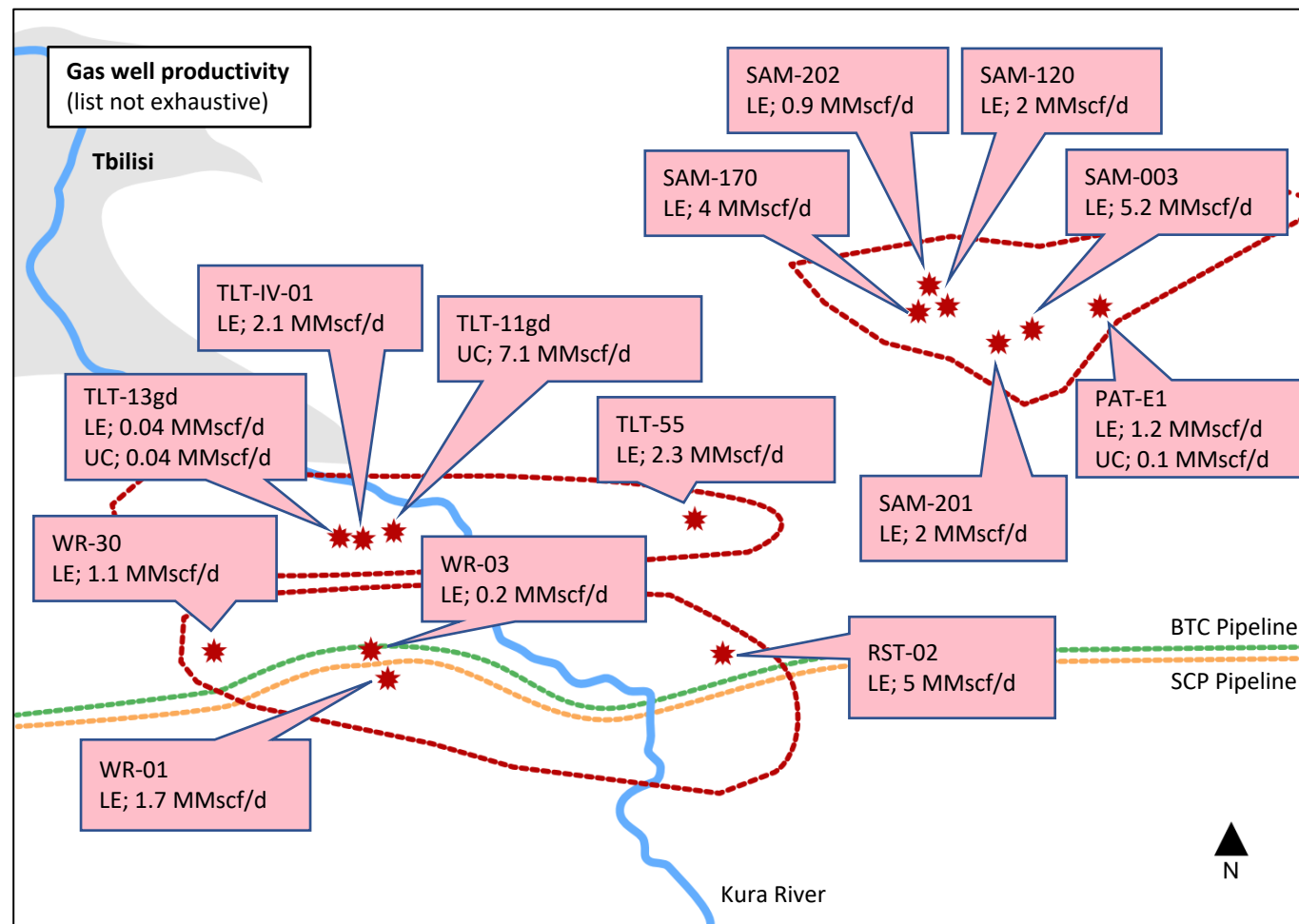
Naturally fractured Lower Eocene and Upper Cretaceous reservoirs

- Gas potential of Lower Eocene and Upper Cretaceous proven through historic drilling
- Lower Eocene reservoirs are deep water clastics 1,000 to 2,000 metres thick
- Upper Cretaceous reservoirs are shallow water carbonates more than 500 metres thick
- Both are naturally fractured Type I reservoirs due to the regional tectonic history
- Typically high recovery from naturally fractured reservoirs implies significant resource potential



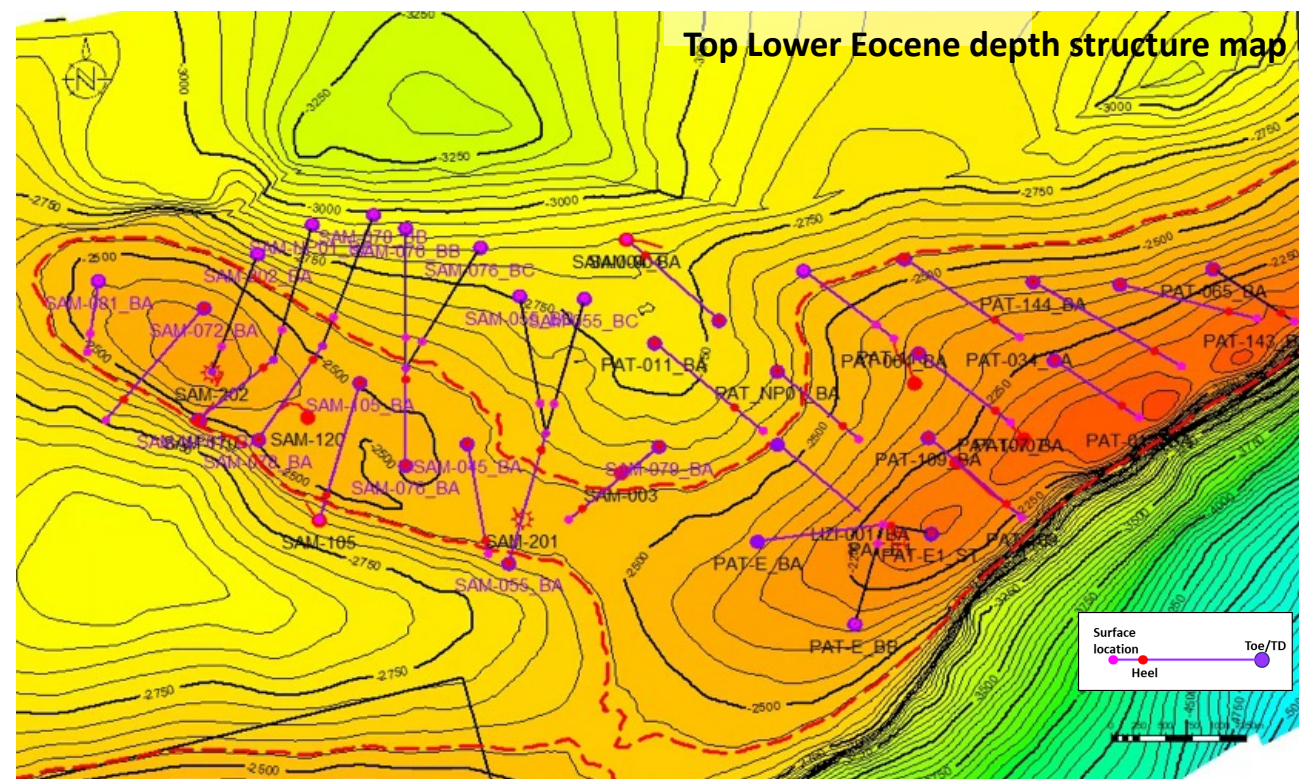
Resource evaluation completed indicates large productive structures

- In-place gas (GIIP) volumes result from large lateral extent and thickness of reservoirs
- 30 gas tests in 15 vertical wells confirm presence of gas with rates of up to 200 MCM/d (7 MMCF/d)
- Excellent quality gas in all reservoirs, with 99% hydrocarbons and no CO₂, N₂ or H₂S
- Gas recovery modelling focuses on the natural fracture system but additional recovery from low permeability matrix offers upside
- Most recently (2018/19) well PAT-E1 tested 1 MMCF/d from a Lower Eocene reservoir where the natural fractures were imaged by logging technology calibrating reservoir simulations



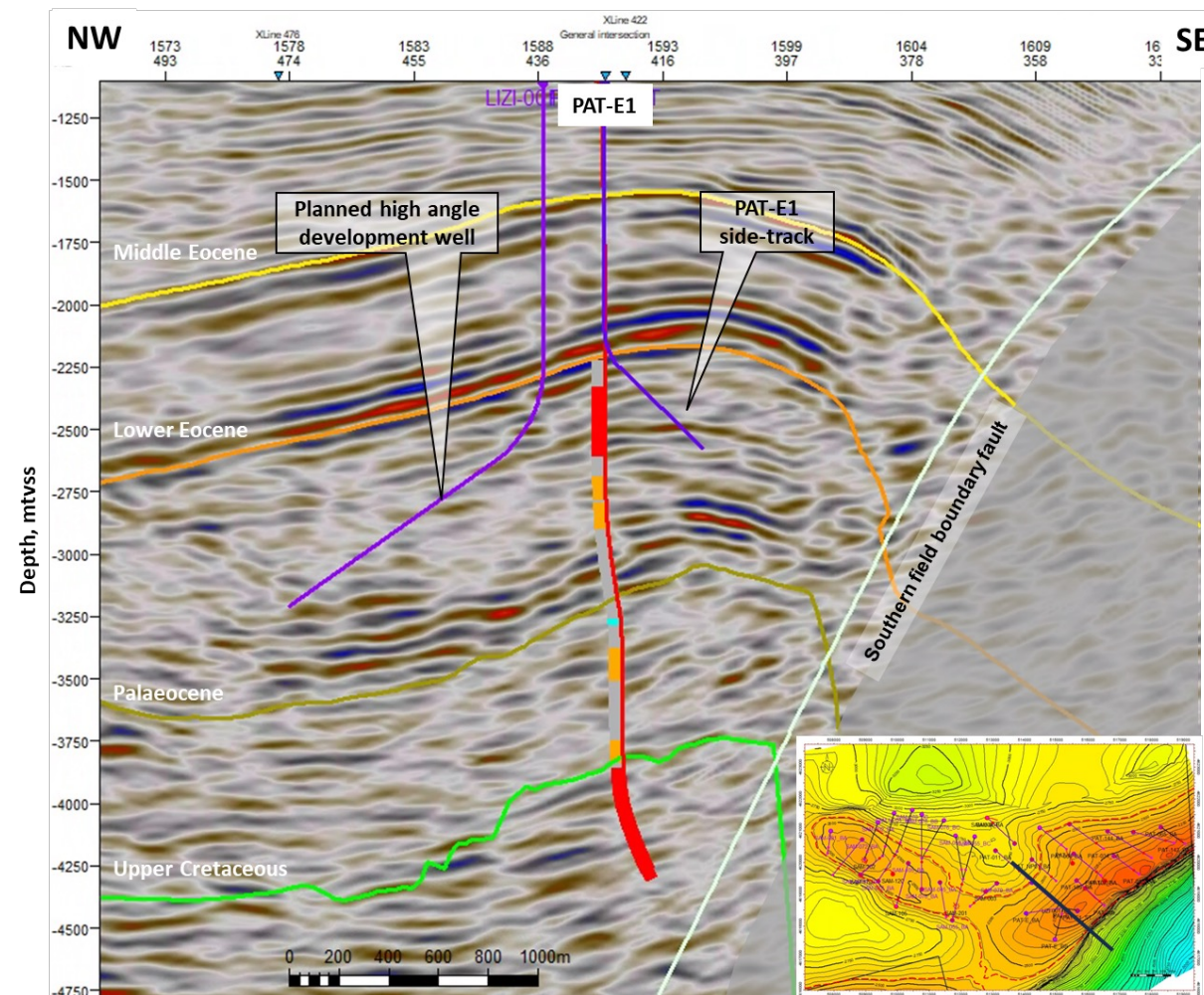
High inclination geometry wells are key to successful fractured reservoir development

- Fractures highlighted by outcrops, core, image logs acquired in TLT (IV-01) and PAT-E1, and heterogenous well test rates indicate natural fractures present throughout Lower Eocene and Upper Cretaceous reservoirs
- Basic geomechanical model of extensional regime fracture systems is elongated parallel to anticline axis
- Azimuth of development wells should be perpendicular to anticline axis to maximise individual fractures in the well bore
- Productivity index of horizontal to vertical expected to be significantly higher
- Project conceptual well design work completed based on Block's expertise in drilling horizontal wells in the naturally fractured Middle Eocene



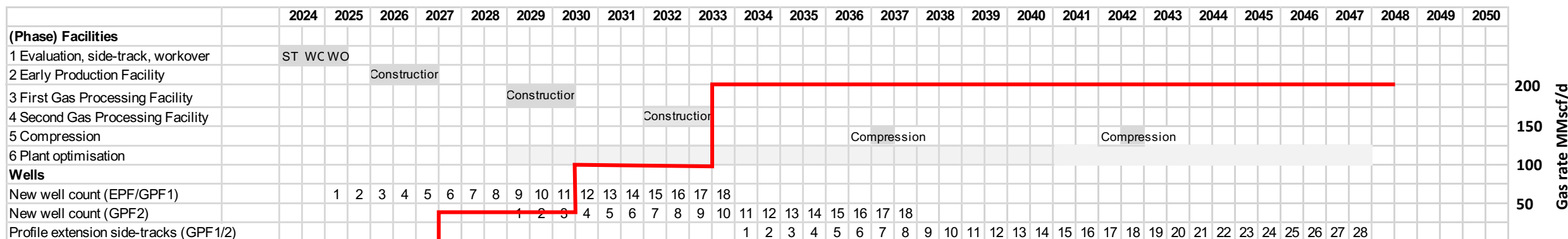
A phased strategy opening a path to commercialisation

- Initial work will focus on confirming reservoir deliverability building on work completed by SLB from 2016-2020 including drilling well PAT-E1
- Re-test legacy vertical wells SAM-201 and SAM-202 – previously used to supply gas for Middle Eocene oil gas-lift
- Use of modern 3D seismic and well data interpretive technology to predict fracture systems targeted by high-inclination side-track from PAT-E1
- A down-dip Samgori west-flank appraisal well will confirm the gas column height and volumetrics
- Acquisition of additional data, including image logs and core will lay the basis for robust reservoir simulation and production prediction



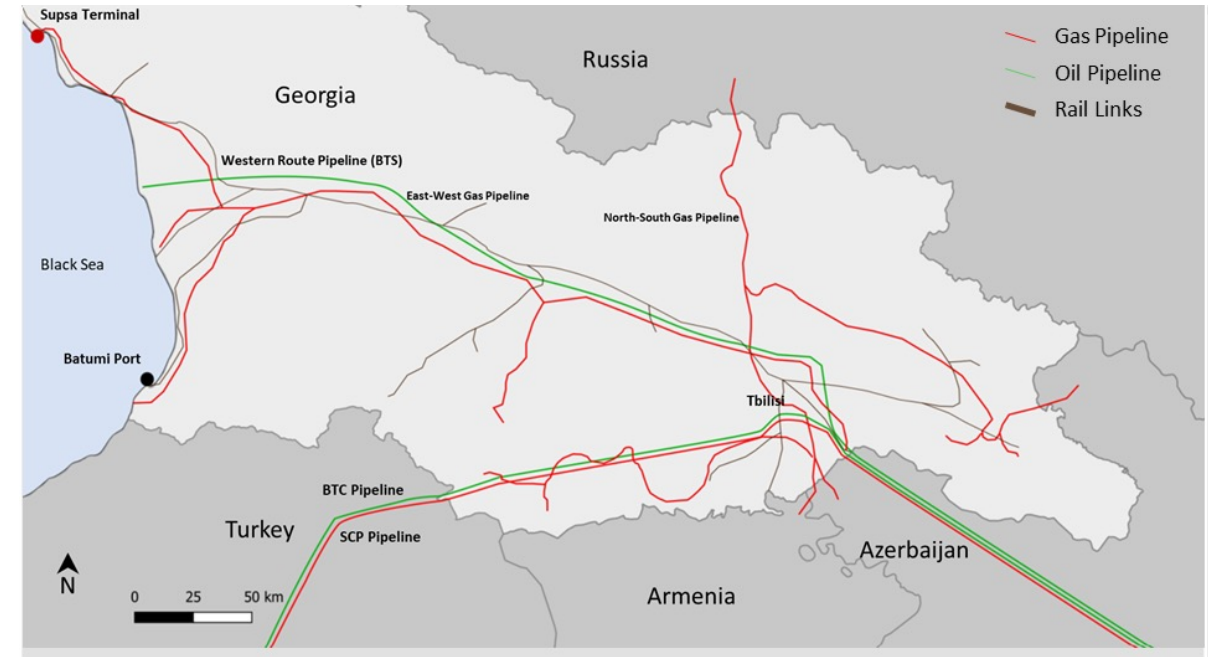
Multi-field development programme enabling rapid scale-up

- Common appraisal and development approach to all fields
- Four well pilot programme delivers 30 MMCF/d
- Scale-up according to proved reservoir deliverability to manage risk, with initial potential of 100 MMCF/d rising to 200 MMCF/d with additional drilling
- Reservoir management intervention tool-kit: multi-lateral holes, side-track holes, hydraulic fracturing, deliquifaction, extend plateau to 2048 in mid-case, recovering over 1 TCF gas
- Design concept for facilities complete based on SLB concept selection work



Access to major pipelines serving Georgia and beyond

- South Caucasus Gas Pipeline runs through Project III licence areas - connects to Turkey then Europe through TAP/TNAP pipelines
- Strong demand for gas in Georgia - MoU between Block Energy and Georgia's Ministry of Economy declaring the project strategic and supporting gas offtake discussions
- Strong gas prices based upon Azeri gas pricing from Shah Deniz, exported to Turkey and Europe
- Successful development of electricity export projects from Georgia to Turkey, and planned project to Romania
- Access to excellent infrastructure (pipelines, rail, road, ports)



Summary: A proven gas resource of strategic significance for Georgia's dynamic energy market

The opportunity – Project III

- Project III hosts a significant proven gas resource spanning three fields
- Naturally fractured reservoir sequences 1,000 to 2,000 metres thick
- 30 gas tests, many with strong initial flow rates

Progress to date

- Full subsurface evaluation completed
- Appraisal campaign planned
- Conceptual field development planning completed

Commercialisation

- Strong regional gas market – project declared strategic by Georgian government
- South Caucasus Gas Pipeline runs through licence
- Strong gas prices based upon Azeri gas pricing - exported to Turkey and Europe



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