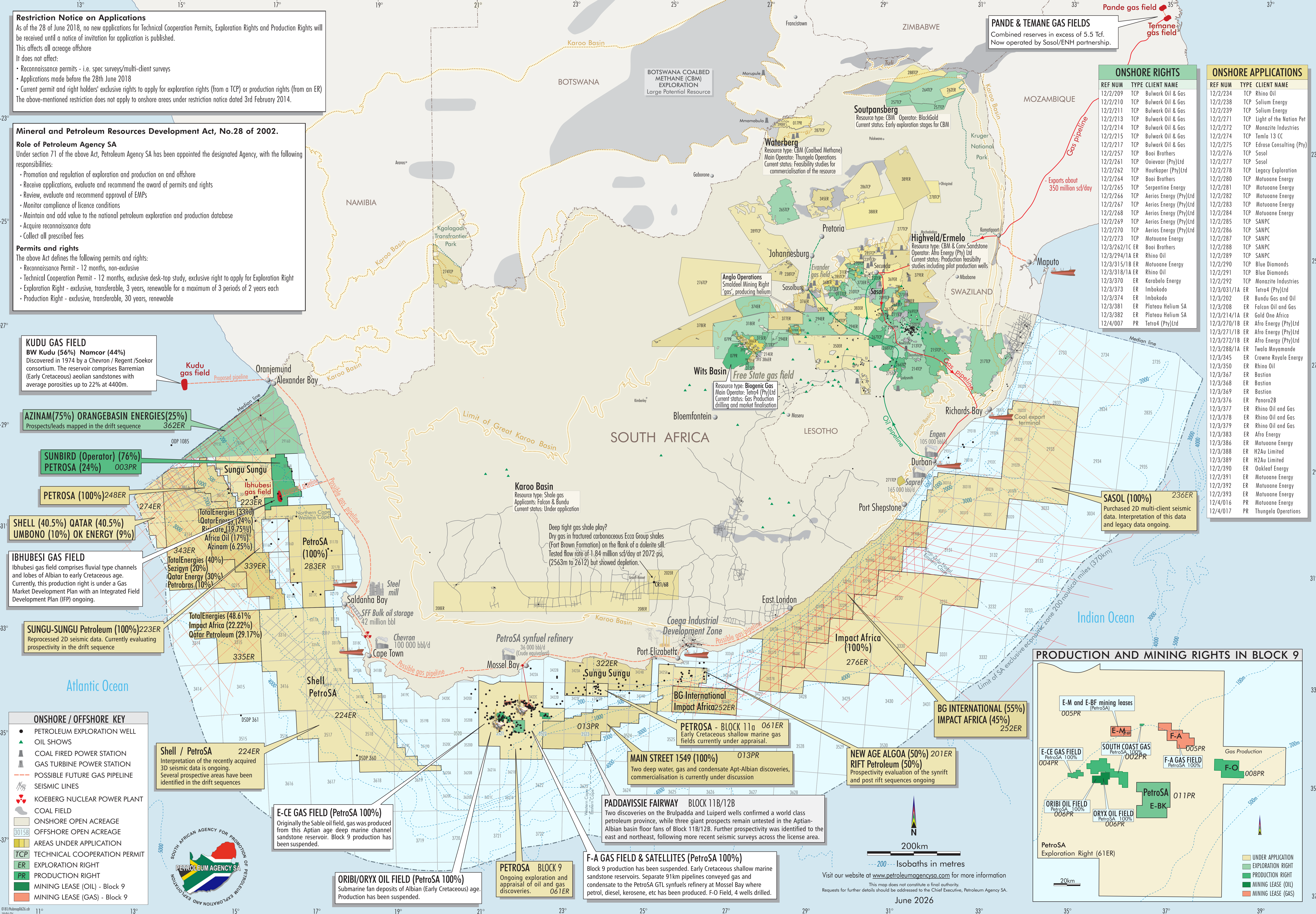


PETROLEUM EXPLORATION AND PRODUCTION ACTIVITIES IN SOUTH AFRICA



Restriction Notice on Applications
 As of the 28 of June 2018, no new applications for Technical Cooperation Permits, Exploration Rights and Production Rights will be received until a notice of invitation for application is published.
 This affects all acreage offshore
 It does not affect:
 • Reconnaissance permits - i.e. spec surveys/multi-client surveys
 • Applications made before the 28th June 2018
 • Current permit and right holders' exclusive rights to apply for exploration rights (from a TCP) or production rights (from an ER)
 The above-mentioned restriction does not apply to onshore areas under restriction notice dated 3rd February 2014.

Mineral and Petroleum Resources Development Act, No.28 of 2002.
Role of Petroleum Agency SA
 Under section 71 of the above Act, Petroleum Agency SA has been appointed the designated Agency, with the following responsibilities:
 • Promotion and regulation of exploration and production on and offshore
 • Receive applications, evaluate and recommend the award of permits and rights
 • Review, evaluate and recommend approval of EMPs
 • Monitor compliance of licence conditions
 • Maintain and add value to the national petroleum exploration and production database
 • Acquire reconnaissance data
 • Collect all prescribed fees
Permits and rights
 The above Act defines the following permits and rights:
 • Reconnaissance Permit - 12 months, non-exclusive
 • Technical Cooperation Permit - 12 months, exclusive desk-top study, exclusive right to apply for Exploration Right
 • Exploration Right - exclusive, transferable, 3 years, renewable for a maximum of 3 periods of 2 years each
 • Production Right - exclusive, transferable, 30 years, renewable

PANDE & TEMANE GAS FIELDS
 Combined reserves in excess of 5.5 Tcf.
 Now operated by Sasol/ENH partnership.

ONSHORE RIGHTS		
REF NUM	TYPE	CLIENT NAME
12/2/209	TCP	Bulwark Oil & Gas
12/2/210	TCP	Bulwark Oil & Gas
12/2/211	TCP	Bulwark Oil & Gas
12/2/213	TCP	Bulwark Oil & Gas
12/2/214	TCP	Bulwark Oil & Gas
12/2/215	TCP	Bulwark Oil & Gas
12/2/217	TCP	Bulwark Oil & Gas
12/2/257	TCP	Booi Brothers
12/2/261	TCP	Ooivoor (Pty)Ltd
12/2/262	TCP	Houtkaper (Pty)Ltd
12/2/264	TCP	Booi Brothers
12/2/265	TCP	Serpentine Energy
12/2/266	TCP	Aerios Energy (Pty)Ltd
12/2/267	TCP	Aerios Energy (Pty)Ltd
12/2/268	TCP	Aerios Energy (Pty)Ltd
12/2/269	TCP	Aerios Energy (Pty)Ltd
12/2/270	TCP	Aerios Energy (Pty)Ltd
12/2/273	TCP	Motuoone Energy
12/3/262/1C	ER	Booi Brothers
12/3/294/1A	ER	Rhino Oil
12/3/315/1B	ER	Motuoone Energy
12/3/318/1A	ER	Rhino Oil
12/3/370	ER	Karabalo Energy
12/3/373	ER	Imbokodo
12/3/374	ER	Imbokodo
12/3/381	ER	Plateau Helium SA
12/3/382	ER	Plateau Helium SA
12/4/007	PR	Tetra4 (Pty)Ltd

ONSHORE APPLICATIONS		
REF NUM	TYPE	CLIENT NAME
12/2/234	TCP	Rhino Oil
12/2/238	TCP	Solium Energy
12/2/239	TCP	Solium Energy
12/2/271	TCP	Light of the Nation Pat
12/2/272	TCP	Monazite Industries
12/2/274	TCP	Temla 13 CC
12/2/275	TCP	Edrose Consulting (Pty)
12/2/276	TCP	Sosol
12/2/277	TCP	Sosol
12/2/278	TCP	Legacy Exploration
12/2/280	TCP	Motuoone Energy
12/2/281	TCP	Motuoone Energy
12/2/282	TCP	Motuoone Energy
12/2/283	TCP	Motuoone Energy
12/2/284	TCP	Motuoone Energy
12/2/285	TCP	SANPC
12/2/286	TCP	SANPC
12/2/287	TCP	SANPC
12/2/288	TCP	SANPC
12/2/289	TCP	SANPC
12/2/290	TCP	Blue Diamonds
12/2/291	TCP	Blue Diamonds
12/2/292	TCP	Monazite Industries
12/3/031/1A	ER	Tetra4 (Pty)Ltd
12/3/202	ER	Bundu Gas and Oil
12/3/208	ER	Falcon Oil and Gas
12/3/214/1A	ER	Gold One Africa
12/3/270/1B	ER	Afro Energy (Pty)Ltd
12/3/271/1B	ER	Afro Energy (Pty)Ltd
12/3/272/1B	ER	Afro Energy (Pty)Ltd
12/3/288/1A	ER	Twala Mnyamande
12/3/345	ER	Crowne Royale Energy
12/3/350	ER	Rhino Oil
12/3/367	ER	Boston
12/3/368	ER	Boston
12/3/369	ER	Boston
12/3/376	ER	Panoro2B
12/3/377	ER	Rhino Oil and Gas
12/3/378	ER	Rhino Oil and Gas
12/3/379	ER	Rhino Oil and Gas
12/3/383	ER	Afro Energy
12/3/386	ER	Motuoone Energy
12/3/388	ER	H2Au Limited
12/3/389	ER	H2Au Limited
12/2/390	ER	Oakleaf Energy
12/2/391	ER	Motuoone Energy
12/2/392	ER	Motuoone Energy
12/2/393	ER	Motuoone Energy
12/4/016	PR	Motuoone Energy
12/4/017	PR	Thungela Operations

KUDU GAS FIELD
 BW Kudu (56%) Namcor (44%)
 Discovered in 1974 by a Chevron / Regent / Soekor consortium. The reservoir comprises Barremian (Early Cretaceous) aeolian sandstones with average porosities up to 22% at 4400m.

AZINAM(75%) ORANGEBASIN ENERGIES(25%)
 Prospects/leads mapped in the drift sequence
 362ER

SUNBIRD (Operator) (76%) PETROSA (24%)
 003PR

PETROSA (100%)
 248ER

SHELL (40.5%) QATAR (40.5%) UMBONO (10%) OK ENERGY (9%)

IBHUBESI GAS FIELD
 Ibhubesi gas field comprises fluvial type channels and lobes of Albian to early Cretaceous age. Currently, this production right is under a Gas Market Development Plan with an Integrated Field Development Plan (IFP) ongoing.

SUNGU-SUNGU Petroleum (100%)
 Reprocessed 2D seismic data. Currently evaluating prospectivity in the drift sequence
 223ER

ONSHORE / OFFSHORE KEY

- PETROLEUM EXPLORATION WELL
- ▲ OIL SHOWS
- COAL FIRED POWER STATION
- GAS TURBINE POWER STATION
- POSSIBLE FUTURE GAS PIPELINE
- SEISMIC LINES
- ☢ KOEBERG NUCLEAR POWER PLANT
- COAL FIELD
- ONSHORE OPEN ACREAGE
- OFFSHORE OPEN ACREAGE
- AREAS UNDER APPLICATION
- TCP TECHNICAL COOPERATION PERMIT
- ER EXPLORATION RIGHT
- PR PRODUCTION RIGHT
- MINING LEASE (OIL) - Block 9
- MINING LEASE (GAS) - Block 9

Shell / PetroSA 224ER
 Interpretation of the recently acquired 3D seismic data is ongoing. Several prospective areas have been identified in the drift sequences

E-CE GAS FIELD (PetroSA 100%)
 Originally the Sable oil field, gas was produced from this Aptian age deep marine channel sandstone reservoir. Block 9 production has been suspended.

ORIBI/ORYX OIL FIELD (PetroSA 100%)
 Submarine fan deposits of Albian (Early Cretaceous) age. Production has been suspended.

PETROSA BLOCK 9
 Ongoing exploration and appraisal of oil and gas discoveries. 061ER

F-A GAS FIELD & SATELLITES (PetroSA 100%)
 Block 9 production has been suspended. Early Cretaceous shallow marine sandstone reservoirs. Separate 91km pipelines conveyed gas and condensate to the PetroSA GTL synfuels refinery at Mossel Bay where petrol, diesel, kerosene, etc has been produced. F-O Field, 4 wells drilled.

PADDAVISSIE FAIRWAY BLOCK 11B/12B
 Two discoveries on the Brulpadda and Luiperd wells confirmed a world class petroleum province, while three giant prospects remain untested in the Aptian-Albian basin floor fans of Block 11B/12B. Further prospectivity was identified to the east and northeast, following more recent seismic surveys across the license area.

MAIN STREET 1549 (100%)
 Two deep water, gas and condensate Apt-Albian discoveries, commercialisation is currently under discussion
 013PR

PETROSA - BLOCK 11a 061ER
 Early Cretaceous shallow marine gas fields currently under appraisal.

NEW AGE ALGOA (50%) 201ER RIFT Petroleum (50%)
 Prospectivity evaluation of the synrift and post rift sequences ongoing

BG INTERNATIONAL (55%) IMPACT AFRICA (45%)
 252ER

