## **Santos**

## **INVESTING IN ALASKA'S FUTURE**

Alliance Fairbanks Industry Update Forum
October 5, 2023



#### **About Santos**

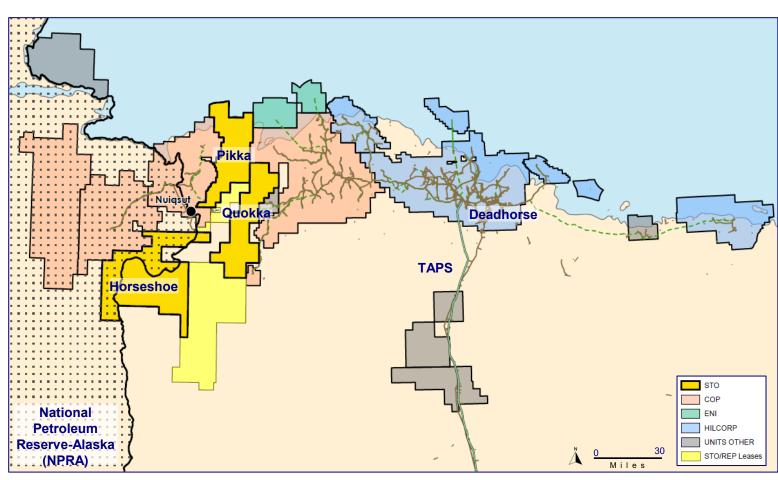
- Founded in 1954 and headquartered in Adelaide, Australia
- About 3,500 employees globally
- One of Australia's biggest domestic gas suppliers and leading LNG supplier in the Asia Pacific region
- Global footprint with assets in Australia, Papua New Guinea, Timor-Leste and the United States
- Vision 2040: "We are a global energy company committed to helping the world decarbonize to reach net-zero emissions through reliable, affordable and sustainable energy."



#### **Santos**

#### Pikka is a world class conventional asset

- Discovered in 2013; Horseshoe discovery in 2017 confirmed giant oil field across Nanushuk-3 fairway
- Nanushuk play in the Pikka Unit represents one of the largest conventional oil discoveries made in the U.S. in the last 30 years
- Pikka is the most significant development on Alaska's North Slope in more than 20 years
- Santos is Alaska's second largest oil and gas lease holder
- Final Investment Decision (FID) taken in August 2022 - \$2.6 billion (gross)
- Santos is 51% owner with Repsol partnership 49%



## **Depth of Alaska Experience**



# >3,500+ years of combined Alaska experience

>2,700+ years

L48 + global experience

- + Operator of AK assets since March 2018
- + ~82% of employees have been hired from within Alaska; ~98% live here
  - Growing Alaska workforce with project progression

#### **Local Content and Contribution**

Strong stakeholder support aligned through royalty and land use agreement, high local content

#### Long Term Land Use Agreement with Kuukpik

- Subsistence preservation and open access with close cooperation and transparency on planned activities to minimize impacts
- Provisions for employment, training and business development
- · Other long-term benefits focused on sustainable support of community
- Community projects total ~US\$59 million gross (US\$31 million net 51% working interest)

#### **Local Content & Contracting**

- Project committed to local content and sourcing where possible
- Alaska vendors (Native and Non-Native) account for ~1/3 of vendor spend to date





#### Tax & Royalty Impacts to Local Stakeholders

- North Slope Borough receives 95% of all local tax revenue from oil and gas-related property taxes
- ASRC receives royalty payments for its mineral rights ownership

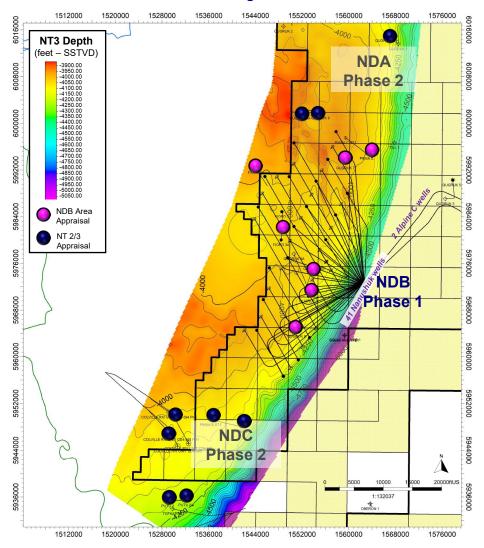


## Pikka Phase 1 Exploits High Reservoir Quality

#### Highly appraised reservoir underpins robust Phase 1 economics

- Pikka Phase 1 targets the heart of the Nanushuk 2/3 reservoirs
  - Greatest net pay with up to 140' (~43m) in the Nanushuk 2/3 reservoirs across the NDB development area
  - Excellent resource density with 397 MMbbl gross (165 MMbbl net) of 2P reserves
- Nanushuk 2/3 is fully appraised at Pikka with excellent control of reservoir properties and deliverability
  - 7 nearby appraisal wells with log data
  - 5 wells with core data around the NDB laterals
  - 4 flow tests constrain deliverability around the Phase 1 area of interest
- Strong per well recoveries expected across the Phase 1 footprint underpin a capital-efficient development plan
- Development drilling commenced June 2023

#### Pikka is Fully Appraised with Logs, Core Data, and Strong Flow Tests



**Drilling & Completions** 

**Project Scope - Nanushuk Drill Site B** 

- 45 total wells
  - 22 producers & 21 injectors
  - 1 grind & inject disposal well
  - 1 produced water disposal well
- Shortest well: 7,600 ft
- Longest well: 30,000 ft
- Total drilled footage: 950,000 ft (180 miles)
- Total drilling days of 2,002 (5.5 yrs)
- Hydraulic stimulations for injectors and producers
- ~2.5 million pounds proppant per well
- Flowback for cleanup and well test



#### **Pikka Phase 1 Overview**

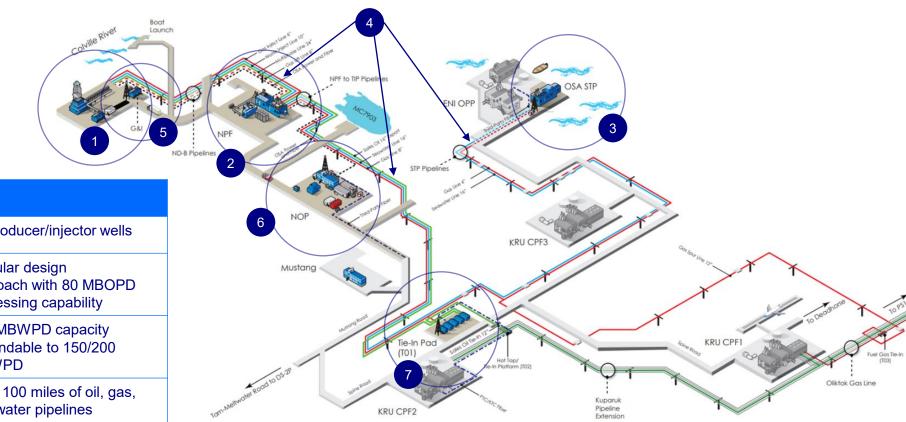
The right project at the right time in the right location

Key Metrics	
Development plan	Optimised using existing pipeline capacity, single small footprint drilling pad and electrified field operations
First oil	2026
Nameplate capacity	80,000 barrels of oil per day gross
Expected plateau duration	~5-6 years
2P Reserves	397 mmbbl gross pre-royalties 165 mmbbl Santos-share at 51% interest (net of 18.67% royalties)
Capex to nameplate capacity	US\$2.6 billion gross (2022 real) US\$1.3 billion Santos-share at 51% interest
Annual opex in production	~US\$150 million gross
Forecast IRR	~19% @ US\$60 per barrel long-term oil price (2022 real)
Lifecycle breakeven oil price	~US\$40 per barrel



## Pikka Phase 1 Development Concept

Pikka Phase 1 builds out initial processing facility, drill site, seawater treatment plant and operations pad



<sup>(1)</sup> Kuparuk River Unit (KRU), operated by ConocoPhillips, and ENI facilities shown for reference only.

	Fac	ilities
1	Nanushuk Drillsite B (NDB)	43 producer/injector wells
2	Nanushuk Processing Facility (NPF)	Modular design approach with 80 MBOPD processing capability
3	Seawater Treatment Plant (STP)	100 MBWPD capacity expandable to 150/200 MBWPD
4	Pipelines	Over 100 miles of oil, gas, and water pipelines
5	Grind and Inject (G&I)	
6	Operations Pad (NOP)	
7	Tie-In Pad (TIP)	

## **Bringing Pikka to Life**

Drilling has commenced. Project remains on schedule and budget.

	► Completed major contracting & issued purchase orders under awarded contracts totaling over \$1 billion through June 2023
	➤ Drilling commenced in June
	▶ Pipeline orders placed, materials are being delivered and fabrication is underway
Project on schedule	► Fabrication of fluid processing, seawater treatment, drill site, camp and grind and inject modules progressing
	► Community projects in progress
	► Focus on execution readiness for winter 2023/24;
	► Currently ~200 contractors on the Slope; Ramping to > 1,000 by year-end
	► Standardized, modular facility design
Drainat attributan	► Alaska, Canada, Indonesia fabrication sites
Project attributes	► Fit for purpose electrified drilling rig
	► Installation and commissioning: tendering complete
Net Zero <sup>1</sup> development	► Low intensity project ranking in top quartile of projects globally
•	► Executed agreement with Alaska Native landowner to secure nature-based carbon offsets
	► Consortium DAC² CCS³ Hub application selected for award of federal funds



- Scope 1 and 2 emissions, equity share
- 2 Direct Air Capture
- 3 Carbon Capture and Storage

## **Community & Compliance Projects**

Two of three projects substantively complete, with the third under construction

- 1. Pikka Boat Launch Project: Provide Nuiqsut residents access to boat launch and parking on east side of Colville River
- 2. Nuiqsut Bridge Replacement Project: Replace failed bridge to restore natural stream hydrology
- 3. Nuiqsut Wastewater Treatment Plant Upgrade Project: New receiving building to reduce sewage lagoon use

Starting point







Current status





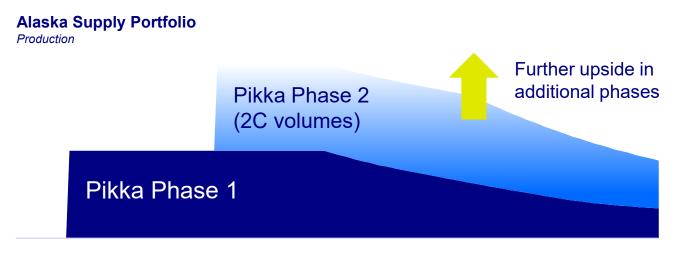


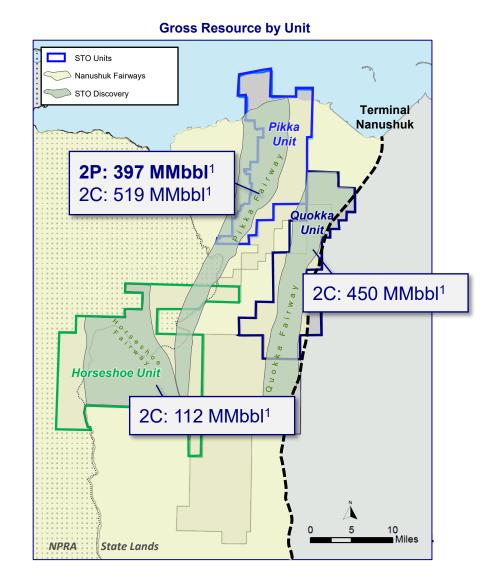


## Significant, Long-Term Development Potential

#### Flexible and self-funding development pipeline to develop three Pikka-scale units

- Material resource in stable regulatory environment, with strong stakeholder support
- Pikka Phase 1 first oil planned for 2026, 397 MMbbl gross 2P reserves (165 MMbbl net)
  - 519 MMbbl gross (215 MMbbl net) remaining 2C in the Pikka Unit
- Future phases leverage Phase 1 infrastructure to deliver compelling economic returns allowing for self-funding growth while returning cash to corporation
- Ongoing appraisal and permitting activities will feed development pipeline





## **Scalable Facility Concept**

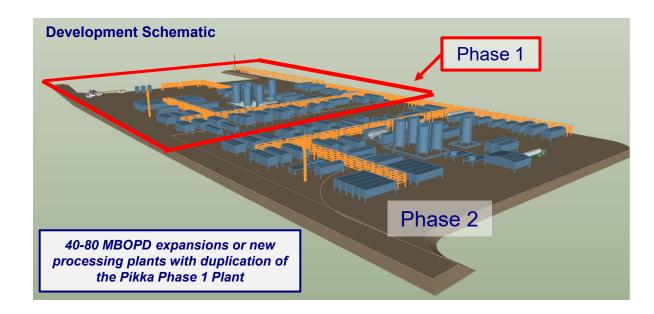
#### Reducing initial capital requirements and breakeven for subsequent phases

#### **Expansions leverage Phase 1 infrastructure**

- Roads and pipelines
- Seawater treatment plant
- Pad Space for Facility expansion (shown on right)

## Processing Facility Concept (Future Phases): Design once build multiple

- Install module designs that have already been installed on the North Slope in Pikka Phase 1
- Up to 20% cost savings
- Minimize North Slope work
- Minimal footprint increase







Santos Director first Santos pro FID

#### **Net Zero Commitment**

Commitment for Pikka Phase 1 to be net-zero (Scope 1 and Scope 2 emissions, equity share) from first oil

Avoid Reduce Offset

#### Optimize projects for lower emissions intensity

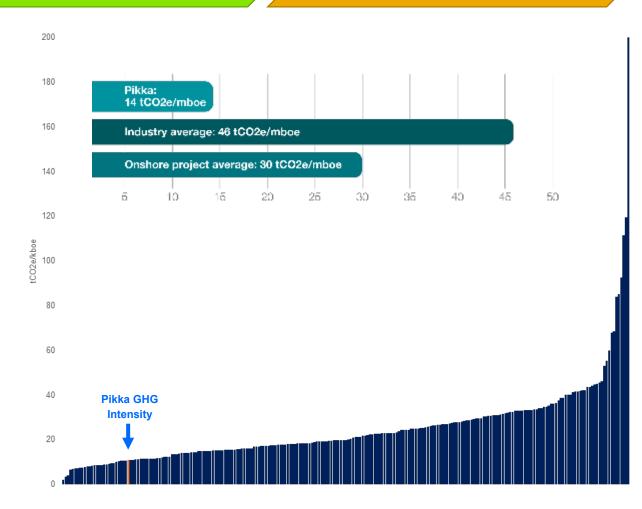
- Top quartile GHG performance at 14tCO2e/mboe is 53% lower than average conventional onshore developments
- Central power generation, waste heat recovery units for turbines to reduce heat needs, and highest EPA standards for rig emissions

#### Develop portfolio of offset opportunities to enable net zero development

- Partnering with Native Corporation on improved forestry project
- Generate high-quality carbon offsets

#### Alaska positioning to be a global decarbonisation leader

 Santos joined a consortium in 2022 to pursue CCS projects in Alaska leveraging federal funding



#### Pikka Phase 1 Project will be Net Zero

#### Carbon abatement options have been developed to offset STO Pikka Phase 1 emissions

- Agreements in place with Native Alaskan Corporations to explore the feasibility of technical and nature-based carbon projects
- Near-term nature-based Carbon Solutions
  - Letter of Intent (LOI) signed with large Alaska Native landowner to develop a forestry management project
  - Initial scope could completely offset Santos share of Pikka Phase 1 carbon emissions with high-quality credits registered for the voluntary market
- Future large-scale carbon abatement technologies
  - Strategic Alliance Memorandum of Understanding (MOU) with ASRC Energy Services to develop carbon abatement solutions for Pikka operations
  - Participating in a consortium developing a Direct Air Capture (DAC)
     and Carbon Capture and Storage (CCS) hub concept in Alaska
- Potential to accommodate offsetting future Pikka project phases and/or coverage of joint venture participant emissions



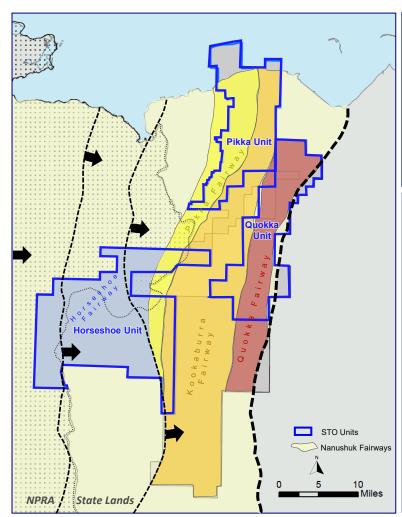




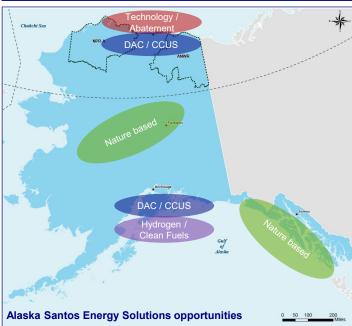
Santos Wrap Up 

## **Bringing Alaska's Future Forward**

- Priority is flawless execution of Pikka Phase
   1, on track for first oil by 2Q 2026
  - Contracting largely complete, with facility fabrication and drilling underway, major pipeline installation season planned
- Subsequent phases competing for capital corporately and funded through operations
  - Follow on core area opportunities being advanced
  - Appraisal program defined
- Santos Energy Solutions business under development
  - Secured first tranche of offsets to satisfy
     Phase 1 net-zero commitment, advancing other opportunities
  - Developing portfolio of other opportunities to underpin and grow business







## Santos