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With respect to the forward-looking information contained in this presentation, the company has made numerous assumptions including, without limitation, that the geological, engineering, financial and economic advice that the company has received is reliable, and is based upon practices and methodologies which are consistent with industry standards. While the company considers these assumptions to be reasonable, these assumptions are inherently subject to significant uncertainties and contingencies. Additionally, there are known and unknown risk factors which could cause the company’s actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information contained herein. Known risk factors include, among others: fluctuations in commodity prices and currency exchange rates; uncertainties relating to interpretation of drill results, production tests and the geology, continuity and quality of petroleum and helium bearing reservoirs; uncertainty of estimates of capital and operating costs, recovery rates, production estimates and estimated economic return; the need for co-operation of government agencies in the exploration and development of properties and the issuance of required permits; the need to obtain additional financing to develop properties and uncertainty as to the availability and terms of future financing; the possibility of delay in exploration or development programs or in construction projects and uncertainty of meeting anticipated program milestones; uncertainty as to timely availability of permits and other governmental approvals; increased costs and restrictions on operations due to compliance with environmental and other requirements; increased costs affecting the gas industry; increased competition in the gas industry for properties, qualified personnel and management; and Covid-19 related costs.

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Supplying America's High-Tech Industries with High-Grade Green Helium

Rapidly Growing Helium Market:

- Global helium market is set to expand from **\$4.45 billion in 2022 to \$13.26 billion by 2030 (12.9% CAGR)**¹

Strong Pricing Trend:

- In the last 20 years, helium pricing has increased at a CAGR of 8% reaching **\$457/mcf in January 2023**²

High Grade American Asset:

- Pinta-South Helium Project contains **ultra-high helium concentration of 5-8%** in the prolific Holbrook basin of Arizona (vs. 1-2% in Western Canada)

Low-Cost Operation:

- Shallow low-risk wells with drilling and completion cost estimated at US\$220,000 per well

Scalable Production:

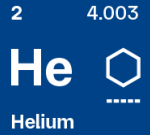
- 9 wells connected to pipeline and 10 additional wells in various stages of completion** with significant expansion potential of over 300 wells

Offtake:

- Partnership with the world's largest industrial gas and chemicals manufacturing company, including **funding for pipeline construction and offtake agreement for the first 10 wells**

Green Helium:

- Pinta-South is free of hydrocarbons, with nitrogen as the sole-by-product, easily vented into the atmosphere through processing with **no greenhouse emissions**



Helium cannot be synthesized, has no substitutes and is found in recoverable quantities in only a few locations globally



Any nation that is highly dependent on advancing technology or has an interest in joining the space race or employing nuclear energy will be major consumers of helium going forward

Phil Skolnick,
Managing Director
of Equity Research



Technology Manufacturing



- ✓ Semi-conductor manufacturing
- ✓ Micro-chip manufacturing
- ✓ LCD panels
- ✓ Fiber optic cables

Aerospace & Defense



- ✓ Space exploration
- ✓ Fuel purging systems
- ✓ Defense guidance systems
- ✓ Rocket guidance systems

Healthcare



- ✓ MRI machines
- ✓ Helium-ion microscopes
- ✓ Laser eye surgery
- ✓ Cryogenics

Industrial Uses



- ✓ Welding, shield masks
- ✓ Gas leak detection
- ✓ Nuclear reactor coolant
- ✓ Crystal growth

Demand Growth:

- **Space exploration lifeline:** Vital for space missions, helium purges fuel tanks, cools equipment, and pressurizes spacecraft, supporting successful missions
- **Scientific breakthroughs:** Helium enables vital research in nuclear magnetic resonance (NMR) spectroscopy and particle accelerators, unlocking insights into fundamental matter
- **Cryogenic essential:** Helium's ultra-low boiling point is indispensable for cryogenic applications in research, superconductors, and MRI machines
- **Semiconductor manufacturing:** Helium's inert properties ensure precision cooling and purging during semiconductor production, crucial for the booming industry

2021

2026

Helium market expected growth:

➔ **12.9% (CAGR)¹**

Semiconductors & Aerospace Applications:

➔ **20%+ (CAGR)²**

Helium Shortage 4.0:

- **2023 is shaping up to be the ninth year that has been impacted by helium shortages since 2006³**

Factors contributing to shortage:

- Ongoing supply crisis since 2019 closure of the US federal reserve
- War in Ukraine: Russian supply is under restrictions due to sanctions
- Linde withdrawal from Russia's Amur Plant removed 2Bcf (~25%) of future supply

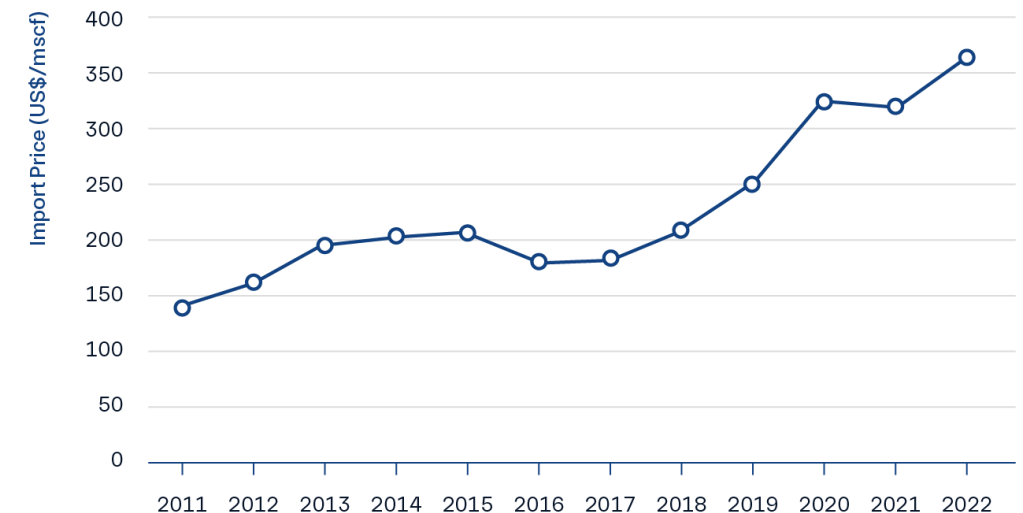
➔ **8% (CAGR)**

Over the last 20 years, helium pricing has increased at an 8% CAGR reaching ~US\$375/mcf in late 2022⁴

➔ **US\$950 /mcf spot price**

Current spot market upwards of US\$950/mcf⁵

Global Average Import Price of Helium (US\$/mscf)



AKAP Energy, 2023

1. SkyQuest "Global Helium Market Report", April 2023
2. Gasworld, "Helium in 2023", April 2023
3. Gasworld, "Helium 4.0: Expectations for a difficult summer", June 2023
4. AKAP Energy, 2023
5. Kornbluth Consulting, 2023

Capitalization Structure:

Ticker (TSXV OTC)	TOH TTLHF
Share Price (TSXV 3NOV23)	\$0.19
Outstanding Shares	102.39MM
Market Capitalization	\$19.45MM
Warrants (Strike \$0.75 - \$2.00)	39.00MM
Options (Strike \$0.50 - \$1.70)	6.86M
Fully Diluted	148.25MM
Potential Warrant Funding	\$44.88MM
Insider Holdings	14%

**Robert Johnston**, Interim-CEO, Director & Geologist

- Retired from Apache Corporation, Fortune 500 company, in 2014 as Executive Vice President.
- Presently the President of Atalaya Resources, LLC, a private oil and gas exploration company operating in Western Oklahoma and the Texas Panhandle.

**Ian Telfer**, Chairman

- Former Chairman of the Board for Goldcorp, a position held until 2019 when Goldcorp merged with Newmont Mining in a transaction valued at \$10Bn, creating the world's largest gold company.
- Prior to leading Goldcorp, Ian established and led a variety of successful mining companies, including TVX Gold, Wheaton River, Silver Wheaton, Terrane Minerals and Uranium One.
- Inducted into the Canadian Mining Hall of Fame in 2015 and served as Chairman of the World Gold Council from 2009 to 2013.

**Gordon Keep**, Director

- Distinguished corporate finance professional and entrepreneur with extensive business experience in investment banking and public natural resource companies in a career that spans over three decades.
- CEO of Fiore Management & Advisory Corp., a private financial advisory firm. He also serves as an officer and/or director for several natural resource companies.

**Diana McQueen**, Director

- Senior Policy advisor and business development manager in the fields of Energy, Environment, Regulatory, Indigenous Relations and Municipal Issues.
- Highly experienced in governmental affairs having held various Alberta provincial cabinet roles including Minister of Energy, Minister of Environment & Water, among others, and member of numerous committees such as Treasury Board, and Agenda & Priorities.

Pinta South

Helium Field



USA



Holbrook basin, AZ

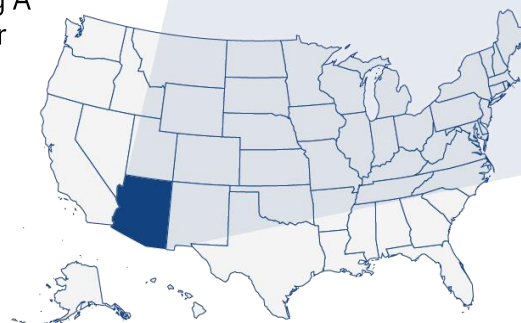


27,000 acres



World class helium concentrations of 5-8%

- **9 wells connected to pipeline with an additional 10 wells at various stages of completion awaiting tie in and 300+ well development plan**
- Sustainable production with minimal hydrocarbon concentrations – nitrogen is sole by-product, easily ventured into the atmosphere with no greenhouse emissions
- Multiple prospective reservoirs:
 - Shinarump Formation (700-1,200 ft.) with proven production
 - Coconino Sandstone, Fort Apache Dolomite, Big A Butte, Granite Wash and Basement (3,800 ft) for upside opportunity
- Shallow Shinarump Formation offers fast development opportunity at low cost
 - \$220,000 estimated per well for drilling and completion



Pinta South



9

connected wells

10

wells awaiting connection

300+

wells expansion potential

2,200
Mcf/d

Current helium processing facility capacity

Q4

2023



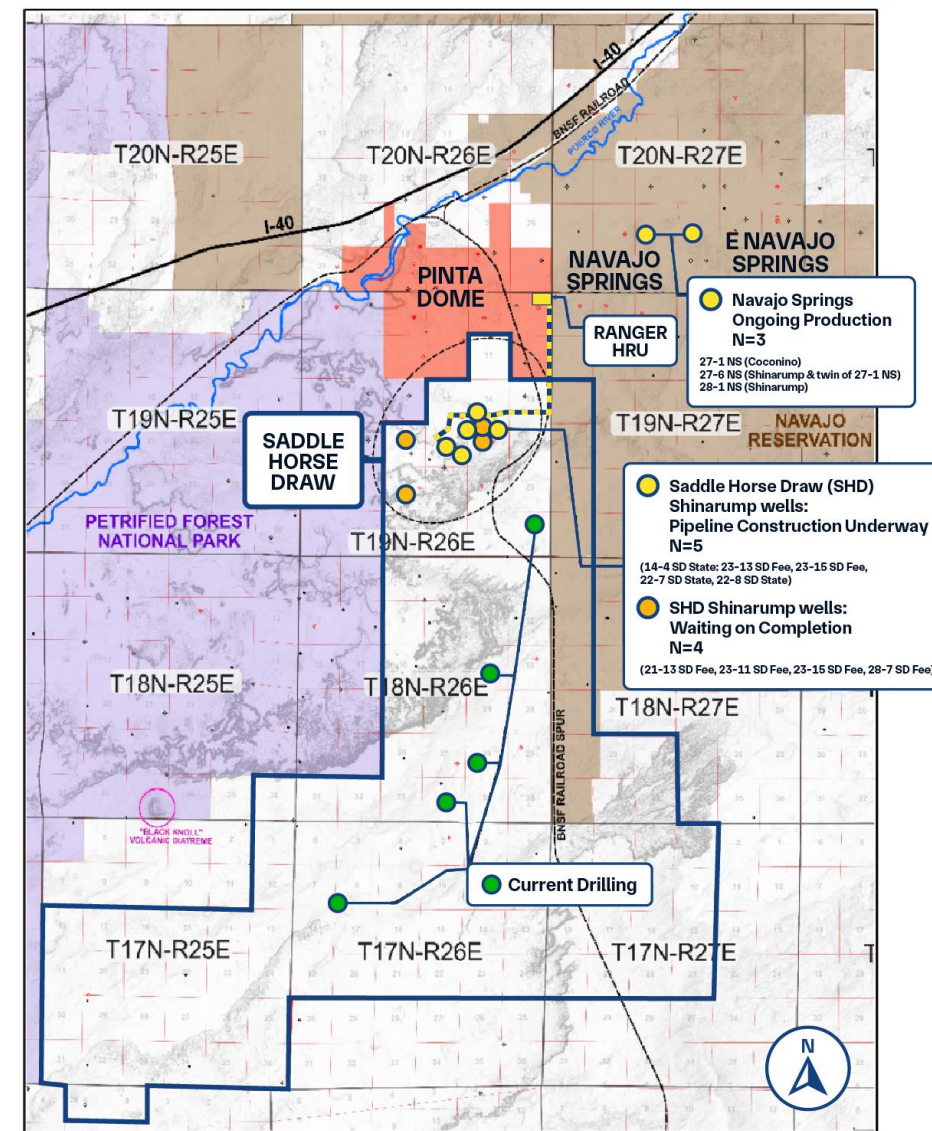
- Flow rates and production ramp up on first 9 connected wells

Q1

2024



- Completion, connection, flow rates and production ramp up of 10 additional wells





- Linde is the world's largest industrial gas company by both market share and revenue
- Linde has committed to fund the pipeline expansion on the Pinta South project and to purchase all helium from the first 10 wells – all other wells have spot market pricing upside
- With Linde's funding, two-six-mile pipelines have been constructed connecting 7 additional wells to the processing facility

Strategic Partner & Offtake

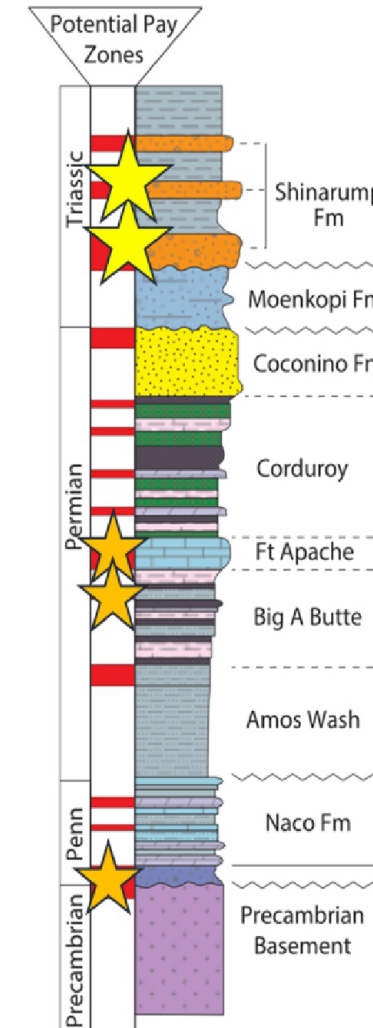


JV Operational Partner

- Lead by **Brad Butler** and his highly experienced team PSOC owns drilling rig, cementing equipment, trenching equipment, etc. which allows the partnership to control costs, schedule, and production with no dependence on third-party contractors
- The partner team has extensive geological and operational expertise in the area
- The established and experienced operating team enables Total Helium to rapidly develop the project without additional staffing costs



- **Acreage:** Ongoing negotiations to increase holdings.
- **Well Spacing:** License acquired to decrease well spacing from 160-acres to 80-acres, increasing the number of wells that can be drilled. Further potential to decrease spacing to 40-acres if deemed economical.
- **Deeper Formation:** Coconino Sandstone, Fort Apache Dolomite, Big A Butte, Granite Wash and Basement at (3,800ft) providing the Company with a deeper formation to drill into
- **High Concentration & Production Channel:** Data indicates a high helium concentration (8%+) & production (1,000+ mcf/d) channel running through the property. Management is confident they can identify and target the channel with future wells.
- **Selling Price Increase:** Opportunity to sell on open market at spot pricing US\$500 – 1,000/mcf today with supply shortages continuing.



Shinarump Development

- \$220k estimated completed well cost
- 150+ wells at 160 acre spacing with additional infill opportunity on 80 acre spacing (300 wells) or 40 acre spacing (600+ wells)
- Drill depths of 700' – 1,200'
- Proven 5-8% helium

Supai-Basement targets draped over basement structures (Deeper Potential)

- Puerco Ridge Deep Prospect – structure partly mapped on 2D potash seismic and regional well control
- Fort Apache (8.2% He), Upper Big A Butte, Granite Wash, fractured basement
- PSOC's rig is capable of drilling to depth of 5,000 ft.
- These deeper formations were not included in Sproule's competent person's report and represent potential upside



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OTC: TTLHF



TSXV: TOH